

Notice of Annual General Meeting & Proxy Statement

Committed to smart, sustainable success



CAUTIONARY STATEMENTS FOR FORWARD-LOOKING INFORMATION

We have made statements in this Proxy Statement that are forward-looking and therefore are subject to risks and uncertainties. All statements in this document other than statements of historical fact are, or could be, "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements may appear throughout this Proxy Statement, including the Proxy Summary, Compensation Discussion & Analysis and Governance of the Company-Sustainability. Words such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," "should," "forecast." "project" or "plan" and terms of similar meaning are also generally intended to identify forward-looking statements. However, the absence of these words does not mean that a statement is not forward-looking. We caution that these statements are subject to numerous important risks, uncertainties, assumptions and other factors, some of which are beyond our control, that could cause our actual results to differ materially from those expressed or implied by such forward-looking statements. A detailed discussion of risks related to our business is included in the section entitled "Risk Factors" in our Annual Report on Form 10-K for the 2021 fiscal year filed with the SEC on November 15, 2021, as supplemented by any subsequently filed Quarterly Report on Form 10-Q. Shareholders, potential investors and others should consider these factors in evaluating the forward-looking statements and should not place undue reliance on such statements. The forward-looking statements included in this Proxy Statement are made only as of the date of this document, unless otherwise specified, and, except as required by law, we assume no obligation, and disclaim any obligation, to update such statements to reflect events or circumstances occurring after the date of this Proxy Statement.

WEBSITE INFORMATION

This Proxy Statement includes several website addresses and references to additional materials found on those websites. These websites and materials are not incorporated by reference herein.

Delivering on Our Commitments and Accelerating Our Digital Transformation

Letter from the Chairman and CEO, George Oliver

Dear Shareholders,

Nearly two years have passed since the start of the COVID-19 pandemic. Over the course of those two years, Johnson Controls has demonstrated resiliency and agility in the face of adversity, capitalizing on the opportunity to become an even more focused, engaged, and energized organization. More focused on further developing our highperformance culture and our strategic vision to lead the evolution to more intelligent, safe and healthy buildings. More engaged in helping our customers, suppliers, and partners achieve their missions. More energized in our efforts to accelerate growth and capitalize on the exciting trends impacting our industry, delivering intelligent solutions designed to reduce carbon emissions, increase energy efficiency and improve the environmental health of buildings and critical infrastructure.

Throughout 2021 our teams remained focused on execution. We achieved all of our commitments and delivered top-tier financial results in the fiscal year. In doing so we overcame significant inflation and supply chain disruptions. We also made significant progress on several key strategic initiatives, accelerating our growth strategy, announcing a new multi-year cost productivity program, and establishing a new three-year financial framework. We delivered on our commitment to return capital to shareholders, deploying over \$2 billion in cash to dividends and share repurchases, while continuing to invest in our business, both organically and inorganically.

Delivering sustainability

At Johnson Controls, sustainability is at the heart of our business and fundamental to everything we do. We create intelligent buildings and efficient energy solutions that enable smart cities and communities by providing products and services designed to optimize building performance, improve safety and enhance comfort. The hard work and dedication of our global team of experts in more than 150 countries enable us to help our customers achieve their sustainability goals and deliver on our vision of a safe, comfortable and sustainable world. We believe our leadership in sustainability ultimately creates long-term benefits for our customers, employees, shareholders and society as a whole.



"I am confident that we will play a critical role in addressing climate change, while creating value for all of our stakeholders."

In fiscal 2021, we demonstrated our personal commitment to sustainability with a new set of ambitious sustainability goals that include science-based targets, a Scope 1 and 2 net zero carbon pledge, and further advancing our culture of diversity and inclusion. We also became the first S&P 500 industrial company to publish an integrated sustainable finance framework and issue a Sustainability-Linked Bond, reinforcing our continued leadership in sustainable financing.

Looking ahead to 2022

Although some of the challenges we experienced in fiscal 2021 are still with us, we enter 2022 encouraged and optimistic about our future. Our end markets continue to recover, as evidenced by strong underlying order activity and double-digit backlog growth. Despite significant headwinds from inflation and supply chain inefficiencies, we remain focused on driving operational excellence, executing on our cost productivity plans, delivering strong revenue growth and top-tier earnings growth. We have proven our ability to generate strong free cash flow and returning capital to shareholders remains a top priority.

As a smart buildings solutions leader, we will continue to lead with innovative solutions, supported by a highperformance culture built on the foundation of our core values. The advancement of our digital transformation strategy and the adoption of our OpenBlue platform over the past year along with our service platform, uniquely positions Johnson Controls. Our strategy is directly aligned with secular trends that we believe will provide \$250 billion in incremental market opportunity over the next decade. I am confident that we will play a critical role in addressing climate change, while creating value for all of our stakeholders.

Finally, I want to thank the Board for all their hard work throughout the past year. I also want to acknowledge Juan Pablo del Valle Perochena for his many years of service and significant contributions to Johnson Controls. Juan Pablo has been instrumental in guiding Johnson Controls through its transformation, and he has served as a trusted partner to our fellow board members, to the senior leadership team and to me. We wish he and his family all the best as he retires from our Board.

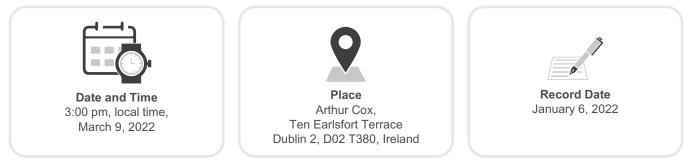
Thank you,

Henry & Denne

George R. Oliver Chairman and Chief Executive Officer



Notice of Annual General Meeting of Shareholders



NOTICE IS HEREBY GIVEN that the 2022 Annual General Meeting of Shareholders of Johnson Controls International plc will be held on March 9, 2022 at the offices of Arthur Cox, Ten Earlsfort Terrace, Dublin 2, D02 T380, Ireland at 3:00 pm, local time for the following purposes:

Ordinary Business

- 1. By separate resolutions, to elect each of the following individuals as Directors for a period of one year, expiring at the end of the Company's Annual General Meeting of Shareholders in 2023:
 - (a) Jean Blackwell

(j) R. David Yost

(d) W. Roy Dunbar

(b) Pierre Cohade(e) Gretchen R. Haggerty

- (g) George R. Oliver
- (h) Jürgen Tinggren
 - (k) J
 - (k) John D. Young

- (c) Michael E. Daniels
- (f) Simone Menne
- (i) Mark Vergnano
- 2. To ratify the appointment of PricewaterhouseCoopers LLP as the independent auditors of the Company and to authorize the Audit Committee of the Board of Directors to set the auditors' remuneration.

Special Business

- 3. To authorize the Company and/or any subsidiary of the Company to make market purchases of Company shares.
- 4. To determine the price range at which the Company can re-allot shares that it holds as treasury shares (special resolution).
- 5. To approve, in a non-binding advisory vote, the compensation of the named executive officers.
- 6. To approve the Directors' authority to allot shares up to approximately 33% of issued share capital.
- 7. To approve the waiver of statutory pre-emption rights with respect to up to 5% of issued share capital (special resolution).
- 8. To act on such other business as may properly come before the meeting or any adjournment thereof.

This notice of Annual General Meeting and Proxy Statement and the enclosed proxy card are first being sent on or about January 21, 2022 to each holder of record of the Company's ordinary shares at the close of business on January 6, 2022. The record date for the entitlement to vote at the Annual General Meeting is January 6, 2022 and only registered shareholders of record on such date are entitled to notice of, and to attend and vote at, the Annual General Meeting and any adjournment or postponement thereof. During the meeting, management will also present the Company's Irish Statutory Accounts for the fiscal year ended September 30, 2021. Whether or not you plan to attend the meeting, please complete, sign, date and return the enclosed proxy card to ensure that your shares are represented at the meeting. Shareholders of record who attend the meeting may vote their shares personally, even though they have sent in proxies. In addition to the above resolutions, the business of the Annual General Meeting shall include, prior to the proposal of the above resolutions, the company's statutory financial statements and the report of the Directors and of the statutory auditors and a review by the shareholders of the Company's affairs.

The well-being of all attendees and participants at the Annual General Meeting is a primary concern for the Company and in this context, we are closely monitoring developments in relation to the coronavirus (COVID-19) pandemic. The Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as the Board considers appropriate to address health and safety concerns. As a result, there may be restrictions on travel and/or gatherings that affect or prohibit travel to and in-person attendance at the Annual General Meeting. In addition, we may deem it advisable to have the members of our Board and senior management not be physically present at our Annual General Meeting in Ireland and instead participate remotely in order to mitigate the health risks posed by the pandemic. Furthermore, to promote the health and safety of attendees, we may impose additional procedures or limitations on meeting attendance based on applicable governmental requirements or recommendations or facility requirements. Such additional procedures or limitations may include, but are not limited to, thorough screenings of attendees, limits on the number of attendees to promote social distancing and requiring the use of face masks.

We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting. This can be done in advance of the Annual General Meeting by availing of one of the voting options detailed in the accompanying Proxy Statement. In addition, details of the business to be presented at the meeting can also be found in the accompanying Proxy Statement.

Your vote is important and we encourage you to submit your proxy as soon as possible so that your shares will be represented at the meeting. Shareholders are also encouraged to keep up-to-date with, and follow, the guidance from the Government of Ireland and the Department of Health (of Ireland) (as appropriate) as circumstances may change on short notice. Should we determine that alternative arrangements may be advisable or required due to public health recommendations regarding containment of COVID-19, such as changing the date, time, location or format of the meeting, we will announce our decision by press release and/or filing with the Securities and Exchange Commission and also post additional information on the Investor Relations section of our website (http://investors.johnsoncontrols.com).

This Proxy Statement and our Annual Report on Form 10-K for the fiscal year ended September 30, 2021 are available to shareholders at www.proxyvote.com and are also available in the Investor Relations section of our website at http:// investors.johnsoncontrols.com. The Company's Irish Statutory Accounts, with the Non-Financial Disclosure Report, will also be available at those locations at least 21 days before the date of the Annual General Meeting.

By Order of the Board of Directors,

John Dato

John Donofrio Executive Vice President and General Counsel

January 21, 2022

PLEASE PROMPTLY COMPLETE, SIGN, DATE AND RETURN THE ENCLOSED PROXY CARD. THE PROXY IS REVOCABLE AND IT WILL NOT BE USED IF YOU: GIVE WRITTEN NOTICE OF REVOCATION TO THE PROXY PRIOR TO THE VOTE TO BE TAKEN AT THE MEETING; SUBMIT A LATER-DATED PROXY; OR ATTEND AND VOTE PERSONALLY AT THE MEETING.

ANY SHAREHOLDER ENTITLED TO ATTEND AND VOTE AT THE MEETING MAY APPOINT ONE OR MORE PROXIES USING THE ENCLOSED PROXY CARD (OR THE FORM IN SECTION 184 OF THE COMPANIES ACT 2014) TO ATTEND, SPEAK AND VOTE ON THAT SHAREHOLDER'S BEHALF. THE PROXY NEED NOT BE A SHAREHOLDER. PROXIES MAY BE APPOINTED VIA THE INTERNET OR PHONE IN THE MANNER SET OUT IN THE ENCLOSED PROXY CARD. ALTERNATIVELY, THEY MAY BE APPOINTED BY DEPOSITING THE ENCLOSED PROXY CARD (OR OTHER VALID SIGNED INSTRUMENT OF PROXY) WITH JOHNSON CONTROLS INTERNATIONAL PLC, C/O BROADRIDGE, 51 MERCEDES WAY, EDGEWOOD, NY 11717 BY 5:00 P.M., EASTERN STANDARD TIME, ON MARCH 8, 2022 (WHICH WILL THEN BE FORWARDED TO JOHNSON CONTROLS INTERNATIONAL PLC'S REGISTERED ADDRESS ELECTRONICALLY) OR WITH JOHNSON CONTROLS INTERNATIONAL PLC, ONE ALBERT QUAY, CORK, IRELAND BY 5:00 P.M. LOCAL TIME ON MARCH 8, 2022. IF YOU WISH TO APPOINT A PERSON OTHER THAN THE INDIVIDUAL SPECIFIED IN THE ENCLOSED PROXY CARD, PLEASE CONTACT OUR COMPANY SECRETARY AND ALSO NOTE THAT YOUR NOMINATED PROXY MUST ATTEND THE MEETING IN PERSON IN ORDER FOR YOUR VOTES TO BE CAST.

Leading the Evolution of Smart, Healthy & Connected Buildings

BROAD OPENBLUE **SYNERGISTIC** DIGITAL PORTFOLIO PLATFORM is fundamentally spanning across OpenBlue HVAC, Controls, Fire, disrupting the built and Security environment Demonstrated Expansive GLOBAL LEADERSHIP **MARKET** with an IN ESG exciting decade of focused on opportunity ahead sustainable solutions Proven history of High quality leadership PRODUCT team fully aligned to a LEADERSHIP HIGH-PERFORMANCE and **DOMAIN** EXPERTISE CULTURE Delivering top tier **UNMATCHED FINANCIAL** DIRECT PERFORMANCE CHANNEL and creating attractive presence creates a unique competitive advantage SHAREHOLDER RETURNS

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Unless we have indicated otherwise in this Proxy Statement, references to the "Company," "Johnson Controls," "we," "us," "our" and similar terms refer to Johnson Controls International plc and its consolidated subsidiaries.

PROXY SUMMARY

This proxy summary is intended to provide a broad overview of our 2021 performance, corporate governance and compensation highlights. As this is only a summary, we encourage you to read the entire Proxy Statement for more information prior to voting.

Annual General Meeting of Shareholders



Admission. All shareholders are invited to attend. Registration will occur on day of meeting. The Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as the Board considers appropriate to address health and safety concerns. As a result, there may be restrictions or prohibitions on travel and/or gatherings that affect in-person attendance at the Annual General Meeting. We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting if attending in person is not feasible or not recommended.

Meeting Agenda and Voting Matters

Proposal		Board's Voting Recommendation	Page Reference
No. 1	Election of Directors	✓ FOR (each nominee)	р. 10
No. 2	Ratify Appointment of Independent Auditors and Authorize Audit Committee to set auditors' remuneration	✓ FOR (both 2(a) and 2(b))	р. 16
No. 3	Authorize market purchases of Company shares by the Company and/or any subsidiary	✓ FOR	р. 19
No. 4	Determine the price range to re-allot treasury shares	🗸 FOR	p. 20
No. 5	Advisory Vote to Approve Executive Compensation	🗸 FOR	p. 21
No. 6	Approve the allotment of up to 33% of issued share capital	🗸 FOR	p. 22
No. 7	Approve the waiver of statutory pre-emption rights	🗸 FOR	p. 23

Fiscal Year 2021 In Review

Full-year GAAP EPS of \$2.10. Fullyear adjusted EPS of \$2.65, up 18% vs. prior year

Full year cash provided by operating activities of \$2.6 billion. Full year free cash flow of \$2.0 billion (105% conversion) Generated full year revenue growth of 6%, and 4% in organic revenue growth, while driving margin expansion Returned over \$2 billion in capital to shareholders through share repurchases and dividends Continued ESG leadership, with the release of new ESG goals and the issuance of our first Sustainability-Linked Bond

* See Annex I to this Proxy Statement for a reconciliation of adjusted EPS from continuing operations, free cash flow, free cash flow conversion and organic revenue growth to our results for the most directly comparable financial measures as reported under generally accepted accounting principles in the United States.

Fiscal year 2021 was a pivotal year in our transformation from a traditional buildings systems integrator into a smart buildings solutions leader. We navigated a challenging environment, including unprecedented levels of inflation and supply chain disruptions, and delivered solid financial performance, meeting or exceeding the goals we set at the beginning of the year. At the same time, we made significant progress in advancing our growth strategy, scaling our OpenBlue digital platform and expanding our partner ecosystem, accelerating service growth and new product launches and capitalizing on key secular demand for healthy buildings, decarbonization and intelligent buildings.

Throughout the year we maintained our focus on the big picture, making significant progress on our other strategic initiatives. We announced ambitious new ESG goals. We launched a substantial new productivity program designed to generate substantial savings by the end of fiscal year 2023. We closed on the acquisition of Silent-Aire, an industry leader in hyperscale cooling and modular critical infrastructure solutions. We expanded our leadership position in sustainable financing. Finally, we maintained a strong balance sheet and returned over \$2 billion in capital to shareholders through share repurchases and dividends.

→ Delivering Strong Performance — Executing on our Strategy to Become a Smart Buildings Solutions Leader

- During fiscal year 2021, we focused on executing our strategy as our end markets continued to recover. Revenue increased 6% overall and 4% organically year over year, led by strong demand for HVAC equipment and elevated retrofit activity, supported by our portfolio of healthy building solutions. We generated increased revenues from both our products and services, in addition to increasing our service attachment rate to ~40%.
- Demand for our products and services was strong throughout fiscal year 2021, with orders increasing 7% year over year. Our field backlog ended fiscal year 2021 at \$10.1 billion, up 10% versus the prior year, led by growth in both install and service backlogs.
- We overcame significant headwinds from higher raw material, indirect material, labor, and freight inflation, as well as supply chain inefficiencies to achieve year over year margin expansion. Disciplined cost controls, improved volume leverage and the initial savings from our multi-year cost productivity program positively contributed to our performance.
- We continued to demonstrate our focus on strong free cash flow generation and conversion. Free cash flow totaled \$2.0 billion for fiscal year 2021, representing 105% conversion. We relied on our strong trade working capital management to more than offset a year over year headwind from higher capital expenditures.
- In an effort to further optimize our cost structure, enhance operational efficiency and deliver meaningful margin expansion, we launched a substantial new productivity program designed to generate substantial savings by the end of fiscal year 2023. As a result of those actions, we achieved our initial savings targets for fiscal year 2021.

→ Digital Transformation — Combining 135 Years of Experience with Cutting-Edge Technology Focused on the Future of Smart, Connected and Sustainable Buildings

During 2021, we continued our digital transformation as we leveraged the breadth and depth of our digitally enabled products and services with the capabilities of our OpenBlue software platform to create technologically driven, outcome-based services and solutions for our customers, including OpenBlue Buildings as a Service, OpenBlue Net Zero Buildings as a Service and OpenBlue Healthy Buildings. These 'As a Service' solutions allow us to partner with customers to provide outcomes and risk management models designed to achieve emission reduction commitments that ultimately lead to healthier buildings, people, places and the planet.

- In keeping with our broader strategy to enhance our technology portfolio and innovation capabilities through inorganic means, we completed the acquisition of Silent-Aire, an industry leader in hyperscale cooling and modular critical infrastructure solutions. The acquisition aligns with our growth initiatives by combining the strengths of our global scale in manufacturing and service, with leading-edge innovation and a broad portfolio of technologies dedicated to serving hyperscale providers.
- During 2021, we made significant progress in scaling our OpenBlue digital platform, launching 8 new major offerings and greatly expanding our partner ecosystem. These partnerships have allowed us to add capabilities to our OpenBlue platform, enhance device management, strengthen cybersecurity protections, facilitate co-development with technology leaders, speed our time to market and amplify our reach to customers.
- In May 2021, we appointed Vijay Sankaran as our first Chief Technology Officer. In connection with Mr. Sankaran's appointment, we reorganized our software development structure under his leadership to accelerate and unify our product software engineering development efforts and create a common software architecture across our entire portfolio to further drive our enterprise software technology strategy.
- In January 2021, we were awarded "IoT Partner Ecosystem of the Year" in the 2021 IoT Breakthrough Awards. The award specifically recognized our OpenBlue digital platform and our extensive work implementing a network of OpenBlue Innovation Centers around the world.

Responsible Capital Management and Deployment — Continuing to Lead the Way in Green Financing

- During fiscal year 2021, we continued to deliver on our commitment to return capital to our shareholders by repurchasing approximately 23 million shares for approximately \$1.3 billion. We also distributed over \$760 million in quarterly dividends to our shareholders, continuing our tradition of paying a consecutive dividend since 1887. In March 2021, our Board of Directors approved an increase to our regular quarterly cash dividend to \$0.27 per common share from \$0.26. In December 2021, our Board of Directors again approved an increase to our regular quarterly cash dividend to \$0.34 per common share in line with our capital deployment strategy.
- In 2021, we published our first integrated green, social and sustainability-linked finance framework. The adoption of an expanded, integrated Sustainable Finance Framework provides us with the flexibility to utilize a wider range of sustainable finance instruments than our prior Green Finance Framework, enabling us to issue green, sustainability, and sustainability-linked bonds and loans. This further demonstrates our desire to promote ESG impacts via our debt financing and further strengthens our commitment to reducing our greenhouse gas emissions.
- In September 2021, we priced our inaugural Sustainability-Linked Bond offering of \$500 million in ten-year senior notes. The interest rate on the Sustainability-Linked Bond is tied toward our achievement of interim goals linked to our commitment to cut our operational emissions by 55 percent and reduce our customers' emissions by 16 percent before 2030.
- The Sustainability-Linked Bond offering further solidifies our leadership in the use of sustainable finance instruments to support initiatives aimed at combatting climate change. In December 2019, we became one of the first industrial companies to tie our senior revolving credit facilities to individual sustainability metrics in the U.S. syndicated loan market. In September 2020, we became one of the first industrial companies to issue a green bond into the U.S. debt markets with our inaugural green bond issuance in the form of \$625 million in ten-year senior notes.

Sustainability Leadership

At Johnson Controls, sustainability is our business. We deliver innovation that improves lives and makes the world a better place. Our employees innovate to create efficient products and services that empower customers and contribute to a clean economy.

We create intelligent buildings and efficient energy solutions to enable smart cities and communities. We grow our business by providing sustainable, efficient products and services, improving productivity, empowering our people, and reducing the environmental footprint of our operations and supply chain.

We believe that through leadership in sustainability, we create long-term benefit for our customers, employees, shareholders, and society as a whole. Our employee purpose is to power our customers' success and protect the environment. In 2021, we delivered significant sustainability innovation in the governance of our company and continued to position our company for long-term resilience and global leadership in smart, sustainable buildings. Highlights include:



- We announced a new set of environmental, social and governance ("ESG") goals, including goals to achieve net zero Scope 1 and 2 carbon emissions before 2040, increase women and minority leaders and focus on underserved markets to increase Johnson Controls' spend with women and minority owned businesses.
- Our emissions reduction targets were approved by the Science Based Targets Initiative. Our targets include a goal to reduce operational emissions by 55 percent and customers' emissions by 16 percent in absolute terms before 2030, each against a 2017 baseline, along with actions supporting emissions reductions in our supply chain. Our 2030 Scope 1 and 2 emissions targets are consistent with reductions required to keep global warming to 1.5°C, the most ambitious goal of the Paris Agreement.
- We continue to affirm our sustainability leadership with George Oliver, our Chief Executive Officer, serving as the chairman of the Business Roundtable Energy and Environment Committee, in addition to joining President Joe Biden and other world leaders for the president's virtual Leaders Summit on Climate.
- We linked executive compensation to our sustainability and diversity goals to drive individual leadership accountability. Sustainability and diversity performance goals are required for the top leaders of our company, including our CEO and executive team. These goals are included as part of the individual contribution modifier applied to their annual incentive award calculation. In 2021, nearly 10,000 employees tied their annual goals to sustainability and diversity.
- We launched OpenBlue Net Zero Buildings as a Service to help customers pursue net zero carbon goals. Our OpenBlue platform was awarded IoT Partner Ecosystem of the Year in the 2021 IoT Breakthrough awards.
- We are proud and honored to continue to receive significant sustainability recognition including:
 - 100 Best Corporate Citizens by 3BL Media for the 16th year in a row
 - World's Most Ethical Companies by Ethisphere for the 14th time
 - Leadership level Climate Change rating by CDP
 - Global 100 Most Sustainable Corporations by Corporate Knights
 - Carbon Clean 200 by Corporate Knights and As You Sow
 - AAA rating by MSCI for the third year in a row
 - Gold rating by Ecovadis for the third year in a row
 - Financial Times prestigious Europe's Climate Leaders 2021
 - Gold level, the highest recognition, in the Mexican Standard on Job Equality and Non Discrimination
 - ESG Industry Top Rated by Sustainalytics
 - One of just 45 companies awarded the Terra Carta Seal, recognizing companies who are leading their peers in creating genuinely sustainable markets
- 4 Johnson Controls International plc

Zero Harm Vision

At Johnson Controls we are committed to **Zero Harm to People and the Environment**. Beginning in fiscal year 2020, we launched our updated zero harm vision, with focus on 3 pillars: "Safety", "Health & Wellness" and "Environment".

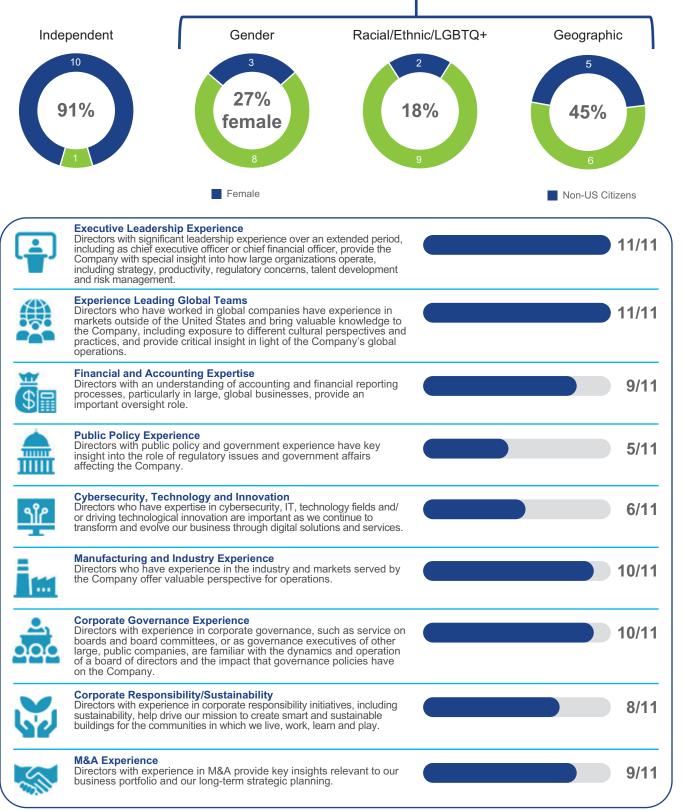
Within each Zero Harm pillar, corporate and business stakeholders collaborate to define and implement new initiatives to achieve our vision. This includes collaboration with leaders across business operations, environmental health and safety, human resources and sustainability. The Board of Directors and the Governance and Sustainability Committee provide oversight over our Zero Harm Vision, with the Governance and Sustainability Committee receiving regular updates on Zero Harm initiatives and progress and the full Board regularly reviewing enterprise-wide health and safety data.

During 2021, we took several initiatives to support the organization through the COVID-19 pandemic, while also continuing to progress other non-COVID-19 related Zero Harm initiatives:



- We launched "Zero Harm Coaching Moments" for all frontline employees, ensuring each of them has the opportunity to have individual engagement on the value and application of the Zero Harm Vision with their supervisor, while being on-the-job.
- Our global "Employee Well-being" council held quarterly communication campaigns to focus on the different aspects of employee well-being: mental, physical, social and financial to support our employees in dealing with the COVID-19 pandemic at work, and in their communities. Additionally, regional well-being councils planned local events, encouraging employees to participate and improve their well-being.
- In April, we held our global "Zero Harm Week" with daily activities for JCI teams across the globe focusing on one of the Zero Harm pillars, combined with celebrating earth month / earth day. As one particular achievement, by collecting "steps" from employees during Earth month, our APAC team managed to collect so many steps that on aggregate they circled the globe twice.
- We improved our safety performance with a reduction of the Total Recordable Incident Rate (TRIR) to 0.37, compared to 0.40 the previous year (per 200,000 workhours) and the Significant Injury Frequency (SIF) to 0.30, compared to 0.37 the previous year (per 1,000,000 workhours).

Our Director Nominees



64% of our director nominees are diverse

We are asking you to vote *FOR* all the director nominees listed below. All current directors attended at least 75% of the Board and committee meetings on which he or she sits. Detailed information regarding these individuals is set forth in this Proxy Summary and under Proposal Number One. The Governance and Sustainability Committee and the Board believe that the qualifications, skills, experience and attributes set forth in this Proxy Statement for all individuals nominated for election support the conclusion that these individuals are qualified to serve as directors and collectively possess a variety of skills, professional experience, and diversity of backgrounds that align with our needs and allows our Board to effectively oversee our business.

Summary information on our Directors is set forth below.

					Current Committee Membership				
Nominee	Age	Director Since	Principal Occupation	Independent	AC	сс	EC	GC	
Jean Blackwell	67	2018	Retired Executive Vice President & Chief Financial Officer of Cummins Inc.	•			٠	Chair	
Pierre Cohade	60	2018	Former Chief Executive Officer of Triangle Tyre Co. Ltd.	•	•				
Michael E. Daniels	67	2010	Retired Senior Vice President of Global Technology at IBM	•		Chair	٠		
W. Roy Dunbar	60	2017	Retired CEO and Chairman of Network Solutions	٠		٠			
Gretchen R. Haggerty	66	2018	Retired Executive Vice President & Chief Financial Officer of United States Steel Corporation	•	Chair		٠		
Simone Menne	61	2018	Former Chief Financial Officer, Boehringer Ingelheim	٠	٠				
George R. Oliver	61	2012	Chairman and Chief Executive Officer of Johnson Controls				٠		
Jürgen Tinggren*	63	2014	Retired Chief Executive Officer and Director of Schindler Group	٠			٠	٠	
Mark Vergnano	63	2016	Chairman of the Board, The Chemours Company	٠		٠			
R. David Yost	74	2009	Retired Chief Executive Officer of AmerisourceBergen	٠	٠				
John D. Young	57	2018	Chief Business Officer, Pfizer Inc.	٠				٠	

AC = Audit Committee

CC = Compensation and Talent Development Committee

EC = Executive Committee

GC = Governance and Sustainability Committee

* Independent Lead Director

2022 Notice and Proxy Statement 7

Corporate Governance Snapshot

We are committed to maintaining robust governance practices and a strong ethical culture that benefit the long-term interests of our shareholders. We, with the oversight of our Board, regularly review, update and enhance our corporate governance practices and compliance and training programs, as appropriate, in light of shareholder interests, changes in applicable laws, regulations and stock exchange requirements and the evolving needs of our business. Our corporate governance and compliance practices include:

Board and Committee Self Evaluations

- Annual Board and Committee self-assessments
- Lead Director and the Chair of the Governance and Sustainability Committee consult with each Director supplementing formal evaluations

Risk Oversight

- Risk oversight by the Board and its Committees
- Board and Committee oversight of sustainability and other environmental, social and governance matters

Tenure

- Balance of new and experienced Directors
- More than 50% of Director nominees have tenures of less than 6 years and average tenure is < 7 years
- Directors may not stand for reelection after age 75

Independent Oversight

- 10 of 11 Directors are independent
- 3 fully independent Board committees
- Strong, independent Lead Director with significant governance duties, including chairing regular executive sessions of independent Directors and hosting regular Board update calls
- Independent Directors regularly meet in executive session

Share Ownership Requirements

- Robust executive share ownership requirements (6x of base salary for the CEO, 3x base salary for all other NEOs)
- Robust Director stock ownership requirements (5x of annual retainer)

Best Practices

- A comprehensive anti-hedging and anti-pledging policy is in place under our Insider Trading Policy
- Absolute majority voting for Directors in uncontested elections
- Clawback policy permits the Company to recoup certain compensation payments in the event of a significant restatement of financial results for any reason or where an executive officer has engaged in misconduct that has resulted in, or has the potential to result in, material reputational or financial harm

Our Board adopted our Corporate Governance Guidelines, Code of Conduct and charters for our Governance and Sustainability Committee, Audit Committee, Compensation and Talent Development Committee and Executive Committee to assist the Board in the exercise of its responsibilities and to serve as a framework for the effective governance of the Company. You can access our current committee charters, our Corporate Governance Guidelines and our Code of Conduct in the "Corporate Governance" section of the "Investor Relations" page of our website.

Non-Binding Advisory Vote on Executive Compensation

Proposal Number Five is our annual advisory vote on the Company's executive compensation philosophy and program. Detailed information regarding these matters is included under the heading "Compensation Discussion & Analysis," and we urge you to read it in its entirety. Our compensation philosophy and structure for executive officers remains dedicated to the concept of paying for performance and continues to be heavily weighted with performance-based awards.

Pay-for-performance	√ 8	Set majority of compensation as variable and at-risk
		Tie incentives to performance against financial, operational, strategic and individual goals
		Use quantifiable and measurable performance metrics and goals that are clearly disclosed
	V F	Provide significant upside and downside potential for superior and low performance
Target pay appropriately		Benchmark compensation against practices in similarly-sized general industry companies
	✓ I	n general, target compensation at market median for comparable positions (+/- 15%)
Align interests with our	✓ [Design programs that discourage unnecessary or excessive risk-taking
stakeholders	✓ (Cap payout opportunities under the incentive plans
	 I 	Vinimum vesting periods for equity awards
		Reward long-term financial results that drive financial creation through a balanced equity mix
	✓ (Operate meaningful share ownership guidelines
	🗸 F	Provide a pay recoupment (i.e., clawback) policy, which was expanded in fiscal 2021
	🗸 F	Prohibit insider trading, hedging and pledging of Company stock
	🗸 E	Engage with shareholders on executive compensation matters
	🗸 E	Engage an independent compensation consultant to provide analysis and advice
	✓ (Conduct an annual say-on-pay vote
Avoid poor governance	×	No tax gross-ups on any change-in-control benefits
practices	×	No single-trigger accelerated vesting on a change-in-control (double-trigger provisions)
	×	No discounting, reloading or re-pricing of share options without shareholder approval
	×	No guaranteed compensation or guaranteed increases
	×	No excessive perquisites
		No employment agreements with executive officers, except where legally required, in which case they follow market norms
		No dividends paid on unvested restricted share units or performance share units until such awards vest

Agenda Items

PROPOSAL NUMBER ONE ELECTION OF DIRECTORS

Upon the recommendation of the Governance and Sustainability Committee, the Board has nominated for election at the Annual General Meeting a slate of 11 nominees, all of whom currently serve on our Board. Biographical information regarding each of the nominees is set forth below. We are not aware of any reason why any of the nominees will not be able to serve if elected. The term of office for members of the Board of Directors commences upon election and terminates upon completion of the first Annual General Meeting of Shareholders following election.



Jean Blackwell, Age 67

Director Since: June 2018 Independent: Yes Committee: Governance, Executive Other Public Directorships:

- Celanese Corporation
- Ingevity Corporation

Ms. Blackwell served as Chief Executive Officer of Cummins Foundation and Executive Vice President, Corporate Responsibility, of Cummins Inc., a global power leader that designs, manufactures, distributes and services diesel and natural gas engines and engine-related component products, from March 2008 until her retirement in March 2013. She previously served as Executive Vice President and Chief Financial Officer from 2003 to 2008, Vice President, Cummins Business Services from 2001 to 2003. Vice President, Human Resources from 1998 to 2001, and Vice President and General Counsel from 1997 to 1998 of Cummins Inc. Prior thereto, Ms. Blackwell was a partner at the Indianapolis law firm of Bose McKinney & Evans LLP from 1984 to 1991. She has also served in state government, including as Executive Director of the Indiana State Lottery Commission and State of Indiana Budget Director. Ms. Blackwell serves as a Director of Celanese Corporation, a global technology and specialty materials company, and Ingevity Corporation, a leading global manufacturer of specialty chemicals and high performance carbon materials. Ms. Blackwell previously served as a Director of Essendant Inc., a leading national wholesale distributor of business products, from 2007 to 2018 and Phoenix Companies Inc., a life insurance company, from 2004 to 2009.

Skills and Qualifications

Extensive experience as a business leader, including serving as the Chief Financial Officer of Cummins Inc. Deep financial acumen as CFO and senior finance leader in engine-related industry. Experience serving on the board of directors of multiple international companies. Significant knowledge of the global marketplace gained from her business experience and background. Extensive experience with public policy and ESG topics through service as CEO of the Cummins Foundation and Executive Vice President of Corporate Responsibility for Cummins Inc. Significant board leadership experience though her service as board chair and nominating and governance chair of other public companies. Experience leading global teams.



Pierre Cohade, Age 60

Director Since: December 2018 Independent: Yes Committee: Audit Other Public Directorships: • CEAT Ltd.

Mr. Cohade served as the Chief Executive Officer of Triangle Tyre, China's largest private tire manufacturer from 2015 to 2016. From 2013 to 2015. Mr. Cohade was a Senior Advisor at ChinaVest, Wells Fargo's investment banking affiliate in China. During 2012, he served as an independent consultant for various private equity concerns. Prior thereto he served as the President, Asia Pacific, of The Goodyear Tire & Rubber Company from 2004 to 2011. From 2003 to 2004, Mr. Cohade served as the Division Executive Vice President of the Global Water and Beverage division of Danone SA. From 1985 to 2003, Mr. Cohade served in roles of increasing responsibility at Eastman Kodak Co., ultimately serving as the Chairman of Kodak's Europe, Africa, Middle East and Russia Region. Mr. Cohade serves as a Director of CEAT Ltd., one of India's leading tire manufacturers, and Deutsche Bank China. Mr. Cohade was a director of Acorn International Inc., a leading marketing and branding company in China focused on content creation, distribution, and product sales through digital media, from 2017 to 2021. Mr. Cohade is currently the Chairman of IMA in China, a leading peer group forum for CEOs and senior executives located in China, and is an independent advisor to companies on China, strategy and operations.

Skills and Qualifications

Extensive experience as a business leader in a number of industries. Experience leading large business units at The Goodyear Tire & Rubber Company, Danone SA, and Eastman Kodak Co. Significant experience in a number of senior global positions, with extensive experience and expertise in China. Deep experience in the consumer products industry. Experience in overseeing manufacturing and operations in China at The Goodyear Tire & Rubber Company and Triangle Tyre. Experience engaging with regulators and governments on public policy issues in Asia. Experience leading corporate responsibility initiatives at Goodyear Tire & Rubber Company and Triangle Tyre. Experience leading global teams.



Michael E. Daniels, Age 67

Director Since: March 2010 Independent: Yes Committees: Compensation, Executive Other Public Directorships:

- Thomson Reuters
- SS&C Technologies, Inc.

Prior to his retirement in March 2013, Mr. Daniels was the Senior Vice President and Group Executive of IBM Services, a business and IT services company with operations in more than 160 countries around the world. In this role, Mr. Daniels had worldwide responsibility for IBM's Global Services business operations in outsourcing services, integrated technology services, maintenance, and Global Business Services, the consulting and applications management arm of Global Services. Since he joined IBM in 1976, Mr. Daniels held a number of leadership positions in sales, marketing, and services, and was general manager of several sales and services businesses, including IBM's Sales and Distribution operations in the United States, Canada and Latin America; its Global Services team in the Asia Pacific region; Product Support Services; Availability Services; and Systems Solutions. Mr. Daniels serves as a Director of Thomson Reuters, a provider of intelligent information for businesses, and SS&C Technologies, a provider of specialized software, software enabled services and software as a service solutions to the financial services industry.

Skills and Qualifications

Decades of senior leadership experience at IBM. Broad and extensive global business experience in a wide range of global roles as an executive at IBM, including decades of experience in the service space. Deep understanding of critical areas of enterprise service functions and information technology, including cybersecurity. Experience as a senior manager of a global organization as well as international experience living and working in a variety of cultures. Experience leading global teams at IBM and in service on the compensation committee of public companies.



W. Roy Dunbar, Age 60

Director Since: June 2017 Independent: Yes Committee: Compensation Other Public Directorships: • Duke Energy Corporation

SiteOne Landscape Supplies

Mr. Dunbar was Chairman of the Board of Network Solutions, a technology company and web service provider, and was the Chief Executive Officer from January 2008 until October 2009. Mr. Dunbar also served as the President of Global Technology and Operations for MasterCard Incorporated from September 2004 until January 2008. Prior to MasterCard, Mr. Dunbar worked at Eli Lilly and Company for 14 years, serving as President of Intercontinental Operations, and earlier as Chief Information Officer. He currently serves as a Director of Duke Energy Corporation, one of America's largest energy holding companies, and SiteOne Landscape Supply, Inc., a national wholesale distributor of landscape supplies, and previously served as a Director of Humana, Inc., Lexmark International and iGate.

Skills and Qualifications

Extensive experience leading across functional disciplines. Significant experience as a leader and director across US and international markets. Experience in global leadership and service as a director on the compensation committees of multiple companies. Career-spanning depth of experience across numerous disciplines including healthcare, information technology, payments, insurance and renewable energy.



Gretchen R. Haggerty, Age 66

Director Since: March 2018 Independent: Yes Committee: Audit, Executive Other Public Directorships: • Teleflex Corporation

Ms. Haggerty retired in August 2013 after a 37-year career with United States Steel Corporation, an integrated global steel producer, and its predecessor, USX Corporation, which, in addition to its steel production, also managed and supervised energy operations, principally through Marathon Oil Corporation. From March 2003 until her retirement, Ms. Haggerty served as Executive Vice President & Chief Financial Officer and also served as Chairman of the U.S. Steel & Carnegie Pension Fund and its Investment Committee. Earlier, she served in various financial executive positions at U. S. Steel and USX, beginning in November 1991 when she became Vice President & Treasurer. Ms. Haggerty is currently a Director of Teleflex Incorporated, a global provider of medical technology products, and is a former Director of USG Corporation, a leading manufacturer of building materials.

Skills and Qualifications

Decades of senior leadership experience at U. S. Steel Corporation and USX Corporation. Deep financial acumen as CFO and senior finance leader in steel and energy industries. Experience serving on the board of directors of multiple international companies. Significant knowledge of the global marketplace gained from her business experience and background. Experience leading global teams.



Simone Menne, Age 61

Director Since: March 2018 Independent: Yes Committee: Audit Other Public Directorships: • Deutsche Post DHL Group

Henkel AG & Co. KGaA

Ms. Menne served as Chief Financial Officer at Boehringer Ingelheim GmbH, Germany's second largest pharmaceutical company, from September 2016 to December 2017. She previously served as the Chief Financial Officer at Deutsche Lufthansa AG ("Lufthansa") from January 2016 to August 2016 and as a member of its Executive Board from July 2012 to August 2016. She also served as Chief Officer of Finances and Aviation Services at Lufthansa from July 2012 to January 2016. Prior thereto she served in a number of roles of increasing responsibility at Lufthansa from 1989 to 2012. She currently serves on the Supervisory Boards of Deutsche Post DHL Group and Henkel AG &Co. KGaA. She also serves on the Börsensachverständigenkommission (Exchange Experts Commission, BSK) and on the Supervisory Board of Russell Reynolds Associates, a global search and leadership advisory firm. Ms. Menne serves as President of the American Chamber of Commerce Germany.

Skills and Qualifications

Decades of senior leadership experience at Lufthansa and Boehringer Ingelheim. Experience serving on the supervisory boards of multiple international companies. Deep financial acumen as CFO and senior finance leader in transportation and pharmaceutical industries. Significant knowledge of the global marketplace gained from her business experience and background. Experience leading global teams in industries driven by technology and innovation.



George R. Oliver, Age 61

Director Since: September 2012 Independent: No Committee: Executive Other Public Directorships: • Raytheon Technologies

Mr. Oliver became our Chairman and Chief Executive Officer in September 2017. He previously served as our President and Chief Operating Officer following the completion of the merger with Tyco. Prior to that, Mr. Oliver was Tyco's Chief Executive Officer, a position he held since September 2012. He joined Tyco in July 2006, and served as President of a number of operating segments from 2007 through 2011. Before joining Tyco, he served in operational leadership roles of increasing responsibility at several General Electric divisions. Mr. Oliver also serves as a Director on the board of Raytheon Technologies, an aerospace and defense company, is a Trustee of Worcester Polytechnic Institute, his alma mater, and serves on the Pro Football Hall of Fame Board of Trustees.

Skills and Qualifications

Extensive leadership experience over several decades as an executive at Johnson Controls, Tyco and GE. Nearly a decade of experience with Tyco, first as president of several of its business units and then as CEO. Experience as a director, CEO and a senior manager of global organizations. Experience leading global teams at Johnson Controls, Tyco and GE. Experience driving Johnson Controls' sustainability initiatives. Public policy experience through participation in non-governmental organizations including the Business Roundtable and World Economic Forum, as well as engaging with state and national lawmakers on public policy issues. Mr. Oliver offers valuable insights and perspective on the day to day management of the Company's affairs.



Jürgen Tinggren, Age 63

Director Since: March 2014 Independent: Yes Committees: Governance, Executive Other Public Directorships: • N.V. Bekaert S.A.

Mr. Tinggren served as the Chief Executive Officer of the Schindler Group, a global provider of elevators, escalators and related services, through December 2013 and was a member of the Board of Directors of Schindler from March 2014 to 2016. He joined the Group Executive Committee of Schindler in April 1997, initially responsible for Europe and thereafter for the Asia/Pacific region followed by Technology and Strategic Procurement. In 2007, he was appointed Chief Executive Officer and President of the Group Executive Committee of the Schindler Group. Mr. Tinggren also serves as Chairman and head of the Nomination and Governance Committee of N.V. Bekaert S.A., a Belgian based supplier of steel cord products for tire reinforcement and other specialty steel wire products. From 2014 to 2018 he was a Director of the Sika AG Group and from 2017 to 2020 he was a director and Audit Committee member of OpenText Corporation.

Skills and Qualifications

Extensive business experience as CEO and board member of leading global companies. Experience as senior executive of European, U.S. and Asian based organizations, deep understanding of international markets. Deep understanding of building services, industrial products and installation and service businesses. Deep financial understanding as CEO of Schindler. Deep understanding of digital businesses as a Director of OpenText. Significant experience with mergers and acquisitions. Experience leading global teams as CEO of Schindler.



Mark Vergnano, Age 63

Director Since: September 2016 Independent: Yes Committee: Compensation Other Public Directorships: • The Chemours Company

Mr. Vergnano is the Chairman of the Board and a director of the Chemours Company, a titanium technologies, fluoroproducts, and chemical solutions producer. Previously, Mr. Vergnano served as the President and Chief Executive Officer of The Chemours Company from July 2015 to July 2021. He served as Executive Vice President, E. I. du Pont de Nemours and Company from 2009 to June 2015. While at DuPont, he served as Group Vice President—Safety & Protection from 2006 to 2009, Vice President and General Manager—DuPont Surfaces and Building Innovations from 2005 to 2006, and Vice President and General Manager— DuPont Nonwovens from 2003 to 2005.

Mr. Vergnano joined DuPont in 1980 as a process engineer and held a variety of manufacturing, technical and management assignments throughout multiple global locations in DuPont's organization. Mr. Vergnano is a former Chairman of the Board of Directors for both the National Safety Council, and the American Chemistry Council.

Skills and Qualifications

Extensive global business experience as an executive and CEO of Chemours and DuPont. Experience as senior executive of a multinational company. Deep understanding of the operations, global sales and marketing in both the chemical and industrial sectors. Deep financial understanding as CEO of Chemours. Experience leading global teams as CEO of Chemours and in managing a variety of functions and business units at DuPont, including developing and driving Dupont's government affairs, public policy and corporate social responsibility strategies.



R. David Yost, Age 74

Director Since: March 2009 Independent: Yes Committee: Audit Other Public Directorships: • Marsh & McLennan Companies, Inc.

Bank of America

Mr. Yost served as Director and Chief Executive Officer of AmerisourceBergen, a comprehensive pharmaceutical services provider, from August 2001 to June 2011 when he retired. He was Chairman and Chief Executive Officer of AmeriSource Health Corporation from May 1997 to August 2001, and President and Chief Executive Officer of AmeriSource from May 1997 to December 2000. Mr. Yost also held a variety of other positions with AmeriSource Health Corporation and its predecessors from 1974 to 1997. Mr. Yost also serves as a Director of Marsh & McLennan Companies, Inc. and Bank of America, and is a member of the Board of the United States Air Force Academy Foundation, and serves on its Executive Committee.

Skills and Qualifications

Extensive leadership experience gained as the CEO and a director of AmerisourceBergen. Significant corporate governance experience serving as a director of multiple public companies. Exposure to complex risk management concepts gained as a director of Marsh & McLennan and Bank of America. Experience leading global teams as CEO of AmerisourceBergen.



John D. Young, Age 57

Director Since: December 2017 Independent: Yes Committee: Governance Other Public Directorships: None

Mr. Young has served as Chief Business Officer of Pfizer Inc. since January 2019. From January 2018 to December 2018, he served as Group President of Pfizer Innovative Health, and from June 2016 to January 2018 he served as Group President, Pfizer Essential Health. He was Group President, Global Established Pharma Business for Pfizer from January 2014 until June 2016 and President and General Manager, Pfizer Primary Care from June 2012 until December 2013. He also served as Pfizer's Primary Care Business Unit's Regional President for Europe and Canada from 2009 until June 2012 and U.K. Country Manager from 2007 until 2009.

Skills and Qualifications

Extensive experience as a business leader with 30 years' experience with Pfizer. Experience leading large business units at Pfizer. Significant experience in a number of senior global positions at Pfizer. Specialized expertise in developing healthcare solutions in a variety of medical disciplines, including through technology and innovation. Experience in corporate social responsibility as a member of the Board of the Pfizer foundation and overseeing Pfizer's ESG strategy and commitments. Experience leading global teams.

Election of each Director requires the affirmative vote of a majority of the votes properly cast by the holders of ordinary shares represented at the Annual General Meeting in person or by proxy. Each Director's election is the subject of a separate resolution and shareholders are entitled to one vote per share for each separate Director election resolution.

The Board unanimously recommends that shareholders vote *FOR* the election of each nominee for Director to serve until the completion of the next Annual General Meeting.

PROPOSAL NUMBER TWO APPOINTMENT OF AUDITORS AND AUTHORITY TO SET REMUNERATION

PricewaterhouseCoopers LLP ("PwC") served as our independent auditors for the fiscal year ended September 30, 2021. The Audit Committee has selected and appointed PwC to audit our financial statements for the fiscal year ending September 30, 2022. The Board, upon the recommendation of the Audit Committee, is asking our shareholders to ratify the appointment of PwC as our independent auditors for the fiscal year ending September 30, 2022 and to authorize the Audit Committee of the Board of Directors to set the independent auditors' remuneration. Although approval is not required by our Memorandum and Articles of Association or otherwise, the Board is submitting the selection of PwC to our shareholders for ratification because we value our shareholders' views on the Company's independent auditors. If the appointment of PwC is not approved by shareholders, it will be considered as notice to the Board and the Audit Committee to consider the selection of a different firm. Even if the appointment is approved, the Audit Committee, in its discretion, may select a different independent auditor at any time during the year if it determines that such a change would be in the best interests of the Company and our shareholders.

The Audit Committee considers many factors when appointing our independent auditor, including the reasonableness of audit fees, the potential for disruption in our business due to the loss of cumulative institutional knowledge possessed by our current auditor, and the quality of the independent audit firm and overall audit process. In connection with the mandated rotation of PwC's lead engagement partner, the Audit Committee is directly involved in the selection of PwC's new lead engagement partner. The members of the Audit Committee and the Board believe that the continued retention of PwC to serve as our independent auditor is in our and our shareholders' best interests.

Representatives of PwC will attend the Annual General Meeting and will have an opportunity to make a statement if they wish. They will also be available to answer questions at the meeting.

For independent auditor fee information, information on our pre-approval policy of audit and non-audit services, and the Audit Committee Report, please see below.

The ratification of the appointment of the independent auditors and the authorization for the Audit Committee to set the remuneration for the independent auditors requires the affirmative vote of a majority of the votes properly cast by the holders of ordinary shares represented at the Annual General Meeting in person or by proxy.

The Audit Committee and the Board unanimously recommend a vote FOR these proposals.

Audit and Non-Audit Fees

Aggregate fees for professional services rendered to the Company by its independent auditors as of and for the two most recent fiscal years are set forth below. The aggregate fees include fees billed or reasonably expected to be billed for the applicable fiscal year. Fees for fiscal year 2021 include fees billed or reasonably expected to be billed by PwC. All Audit, Audit-Related, Tax and All Other services described below were pre-approved by the Audit Committee.

	Fiscal Year 2021		cal Year 2020		
	(in millions)	(ir	(in millions)		
Audit Fees	\$ 22.0	\$	21.5		
Audit-Related Fees	0.8		0.7		
Tax Fees	3.4		3.4		
All Other Fees	0.4		0.1		
Total	\$ 26.6	\$	25.7		

Audit Fees for the fiscal year ended September 30, 2021 were for professional services rendered by PwC and include fees for services performed to comply with auditing standards of the PCAOB (United States), including the annual audit of our consolidated financial statements including reviews of the interim financial statements contained in Johnson Controls' Quarterly Reports on Form 10-Q, issuance of consents and the audit of our internal control over financial reporting. This category also includes fees for audits provided in connection with statutory filings or services that generally only the principal auditor reasonably can provide to a client, such as assistance with and review of documents filed with the SEC.

Audit-Related Fees for the fiscal year ended September 30, 2021 were for services rendered by PwC and include fees associated with assurance and related services that are reasonably related to the performance of the audit or review of our financial statements. This category includes fees related to assistance in financial due diligence related to mergers, acquisitions and divestitures, carve-outs associated with divestitures and spin-off transactions, consultations concerning financial accounting and reporting standards, issuance of comfort letters associated with debt offerings, general assistance with implementation of SEC and Sarbanes-Oxley Act requirements, audits of pension and other employee benefit plans, and audit services not required by statute or regulation.

Tax Fees for the fiscal year ended September 30, 2021 were for services rendered by PwC and primarily include fees associated with tax audits, tax compliance, tax consulting, transfer pricing and tax planning. This category also includes tax planning on mergers and acquisitions and restructurings, as well as other services related to tax disclosure and filing requirements.

All Other Fees for the fiscal years ended September 30, 2021 were for services rendered by PwC and primarily include fees associated with information technology consulting, training seminars related to accounting, finance and tax matters and other advisory services.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditors

In March 2004, the Audit Committee adopted a pre-approval policy that provides guidelines for the audit, audit-related, tax and other permissible non-audit services that may be provided by the independent auditors. The policy identifies the guiding principles that must be considered by the Audit Committee in approving services to ensure that the auditors' independence is not impaired. The policy provides that the Corporate Controller will support the Audit Committee by providing a list of proposed services to the Committee, monitoring the services and fees pre-approved by the Committee, providing periodic reports to the Audit Committee with respect to pre-approved services and ensuring compliance with the policy.

Under the policy, the Audit Committee annually pre-approves the audit fee and terms of the engagement, as set forth in the engagement letter. This approval includes approval of a specified list of audit, audit-related and tax services. Any service not included in the specified list of services must be submitted to the Audit Committee for pre-approval. No service may extend for more than 12 months, unless the Audit Committee specifically provides for a different period. The independent auditor may not begin work on any engagement without confirmation of Audit Committee pre-approval from the Corporate Controller or his or her delegate.

In accordance with the policy, the chair of the Audit Committee has been delegated the authority by the Committee to pre-approve the engagement of the independent auditors for a specific service when the entire Committee is unable to do so. All such pre-approvals must be reported to the Audit Committee at the next Committee meeting.

Audit Committee Report

The Audit Committee of the Board is composed of four Directors, each of whom the Board has determined meets the independence and experience requirements of the NYSE and the SEC. The Audit Committee operates under a charter approved by the Board, which is posted on our website. As more fully described in its charter, the Audit Committee oversees Johnson Controls' financial reporting process on behalf of the Board. Management has the primary responsibility for the financial statements and the reporting process. Management assures that the Company develops and maintains adequate financial controls and procedures, and monitors compliance with these processes. Johnson Controls' independent auditors are responsible for performing an audit in accordance with auditing standards generally accepted in the United States to obtain reasonable assurance that Johnson Controls' consolidated financial statements are free from material misstatement and expressing an opinion on the conformity of the financial statements with accounting principles generally accepted in the United States. The internal auditors are responsible to the Audit Committee and the Board for testing the integrity of the financial accounting and reporting control systems and such other matters as the Audit Committee and Board determine.

In this context, the Audit Committee has reviewed the U.S. GAAP consolidated financial statements for the fiscal year ended September 30, 2021, and has met and held discussions with management, the internal auditors and the independent auditors concerning these financial statements, as well as the report of management and the report of the independent registered public accounting firm regarding the Company's internal control over financial reporting required by Section 404 of the Sarbanes-Oxley Act. Management represented to the Committee that Johnson Controls' U.S. GAAP consolidated financial statements were prepared in accordance with U.S. GAAP. In addition, the Committee has discussed with the independent auditors the auditors' independence from Johnson Controls and its management as required under Public Company

Agenda Items > Proposal Number Two

Accounting Oversight Board Rule 3526, Communication with Audit Committees Concerning Independence, and the matters required to be discussed by Public Company Accounting Oversight Board Auditing Standard AU Section 380 (Communication with Audit Committees) and Rule 2-07 of SEC Regulation S-X.

In addition, the Audit Committee has received the written disclosures and the letter from the independent auditor required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent auditor's communications with the Audit Committee concerning independence. Based upon the Committee's review and discussions referred to above, the Committee recommended that the Board include Johnson Controls' audited consolidated financial statements in Johnson Controls' Annual Report on Form 10-K for the fiscal year ended September 30, 2021 filed with the Securities and Exchange Commission and that such report be included in Johnson Controls' annual report to shareholders for the fiscal year ended September 30, 2021.

Submitted by the Audit Committee, Gretchen R. Haggerty, Chair Pierre Cohade Simone Menne R. David Yost

PROPOSAL NUMBER THREE AUTHORIZATION TO MAKE MARKET PURCHASES OF COMPANY SHARES

We have historically used open-market share purchases as a means of returning cash to shareholders and managing the size of our base of outstanding shares. These are longstanding objectives that management believes are important to continue.

Under Irish law, neither the Company nor any subsidiary of the Company may make market purchases or overseas market purchases of the Company's shares without shareholder approval. Accordingly, shareholders are being asked to authorize the Company, or any of its subsidiaries, to make market purchases and overseas market purchases of up to 10% of the Company's issued shares. This authorization expires after eighteen months unless renewed; accordingly, we expect to propose renewal of this authorization at subsequent Annual General Meetings.

Such purchases would be made only at price levels which the Directors considered to be in the best interests of the shareholders generally, after taking into account the Company's overall financial position. The Company currently expects to effect repurchases under our existing share repurchase authorization as redemptions pursuant to Article 3(d) of our Articles of Association. Whether or not this proposed resolution is passed, the Company will retain its ability to effect repurchases as redemptions pursuant to its Articles of Association, although subsidiaries of the Company will not be able to make market purchases or overseas market purchases of the Company's shares unless the resolution is adopted.

In order for the Company or any of its subsidiaries to make overseas market purchases of the Company's ordinary shares, such shares must be purchased on a market recognized for the purposes of the Companies Act 2014. The New York Stock Exchange, on which the Company's ordinary shares are listed, is specified as a recognized stock exchange for this purpose by Irish law. The general authority, if approved by our shareholders, will become effective from the date of passing of the authorizing resolution.

Ordinary Resolution

The text of the resolution in respect of Proposal 3 is as follows:

RESOLVED, that the Company and any subsidiary of the Company is hereby generally authorized to make market purchases and overseas market purchases of ordinary shares in the Company ("shares") on such terms and conditions and in such manner as the Board of Directors of the Company may determine from time to time but subject to the provisions of the Companies Act 2014 and to the following provisions:

(a) The maximum number of shares authorized to be acquired by the Company and/or any subsidiary of the Company pursuant to this resolution shall not exceed, in the aggregate, 70,262,000 ordinary shares of US \$0.01 each (which represents slightly less than 10% of the Company's issued ordinary shares).

(b) The maximum price to be paid for any ordinary share shall be an amount equal to 110% of the closing price on the New York Stock Exchange for the ordinary shares on the trading day preceding the day on which the relevant share is purchased by the Company or the relevant subsidiary of the Company, and the minimum price to be paid for any ordinary share shall be the nominal value of such share.

(c) This general authority will be effective from the date of passing of this resolution and will expire on the earlier of the date of the Annual General Meeting in 2023 or eighteen months from the date of the passing of this resolution, unless previously varied, revoked or renewed by ordinary resolution in accordance with the provisions of section 1074 of the Companies Act 2014. The Company or any such subsidiary may, before such expiry, enter into a contract for the purchase of shares which would or might be executed wholly or partly after such expiry and may complete any such contract as if the authority conferred hereby had not expired.

The authorization for the Company and/or any of its subsidiaries to make market purchases and overseas market purchases of Company shares requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

PROPOSAL NUMBER FOUR DETERMINE THE PRICE RANGE AT WHICH THE COMPANY CAN RE-ALLOT TREASURY SHARES

Our historical open-market share repurchases and other share buyback activities result in ordinary shares being acquired and held by the Company as treasury shares. We may re-allot treasury shares that we acquire through our various share buyback activities in connection with our executive compensation program and our other compensation programs.

Under Irish law, our shareholders must authorize the price range at which we may re-allot any shares held in treasury (including by way of re-allotment off-market). In this proposal, that price range is expressed as a minimum and maximum percentage of the prevailing market price (as defined below). Under Irish law, this authorization expires after eighteen months unless renewed; accordingly, we expect to propose the renewal of this authorization at subsequent Annual General Meetings.

The authority being sought from shareholders provides that the minimum and maximum prices at which an ordinary share held in treasury may be re-allotted are 95% and 120%, respectively, of the average closing price per ordinary share of the Company, as reported by the New York Stock Exchange, for the thirty (30) trading days immediately preceding the proposed date of re-allotment, save that the minimum price for a re-allotment to satisfy an obligation under an employee share plan is the par value of a share. Any re-allotment of treasury shares will be at price levels that the Board considers in the best interests of our shareholders.

Special Resolution

The text of the resolution in respect of Proposal 4 (which is proposed as a special resolution) is as follows:

RESOLVED, that the re-allotment price range at which any treasury shares held by the Company may be re-allotted shall be as follows:

(a) the maximum price at which such treasury share may be re-allotted shall be an amount equal to 120% of the "market price," and

(b) the minimum price at which a treasury share may be re-allotted shall be the nominal value of the share where such a share is required to satisfy an obligation under an employee share plan operated by the Company or, in all other cases, an amount equal to 95% of the "market price," and

(c) for the purposes of this resolution, the "market price" shall mean the average closing price per ordinary share of the Company, as reported by the New York Stock Exchange, for the thirty (30) trading days immediately preceding the proposed date of re-allotment.

FURTHER RESOLVED, that this authority to re-allot treasury shares shall expire on the earlier of the date of the Annual General Meeting of the Company held in 2023 or eighteen months after the date of the passing of this resolution unless previously varied or renewed in accordance with the provisions of section 109 and/or 1078 (as applicable) of the Companies Act 2014 (and/or any corresponding provision of any amended or replacement legislation) and is without prejudice or limitation to any other authority of the Company to re-allot treasury shares on-market.

The authorization of the price range at which the Company may re-allot any shares held in treasury requires the affirmative vote of at least 75% of the votes properly cast (in person or by proxy) at the Annual General Meeting.

PROPOSAL NUMBER FIVE ADVISORY VOTE ON EXECUTIVE COMPENSATION

The Board recognizes that providing shareholders with an advisory vote on executive compensation can produce useful information on investor sentiment with regard to the Company's executive compensation programs. As a result, this proposal provides shareholders with the opportunity to cast an advisory vote on the compensation of our executive management team, as described in the section of this Proxy Statement entitled *"Compensation Discussion & Analysis,"* and endorse or not endorse our fiscal 2021 executive compensation philosophy, programs and policies and the compensation paid to the Named Executive Officers.

The advisory vote on executive compensation is non-binding, meaning that our Board will not be obligated to take any compensation actions or to adjust our executive compensation programs or policies, as a result of the vote. Notwithstanding the advisory nature of the vote, the resolution will be considered passed with the affirmative vote of a majority of the votes properly cast by the holders of ordinary shares represented at the Annual General Meeting in person or by proxy.

Although the vote is non-binding, our Board and the Compensation and Talent Development Committee will review the voting results. To the extent there is a significant negative vote, we would communicate directly with shareholders to better understand the concerns that influenced the vote. The Board and the Compensation and Talent Development Committee would consider constructive feedback obtained through this process in making future decisions about executive compensation programs.

Advisory Non-Binding Resolution

The text of the resolution, which if thought fit, will be passed as an advisory non-binding resolution at the Annual General Meeting, is as follows:

RESOLVED, that shareholders approve, on an advisory basis, the compensation of the Company's Named Executive Officers, as disclosed in the Compensation Discussion & Analysis section of this Proxy Statement.

PROPOSAL NUMBER SIX AUTHORIZATION FOR DIRECTORS TO ALLOT COMPANY SHARES

Under Irish law, directors of an Irish public limited company must have authority from its shareholders to issue any shares, including shares which are part of the company's authorized but unissued share capital. The Company's current authorization, approved by shareholders at our 2021 Annual General Meeting, is to issue up to 33% of the authorized but unissued share capital of the Company, which authorization will expire on March 9, 2022 — the date of the 2022 Annual General Meeting. We are presenting this proposal to renew the Board's authority to issue authorized but unissued shares on the terms set forth below. If this proposal is not passed, the Company will have a limited ability to issue new ordinary shares.

It is customary practice in Ireland to seek shareholder authority to issue shares up to an aggregate nominal value of up to 33% of the aggregate nominal value of the company's issued share capital and for such authority to be renewed each year. Therefore, in accordance with customary practice in Ireland, we are seeking approval to issue up to a maximum of 33% of our issued ordinary capital for a period expiring on the earlier of the date of the Company's Annual General Meeting in 2023 or September 9, 2023, unless otherwise varied, revoked or renewed. The Directors of the Company expect to propose renewal of this authorization at subsequent Annual General Meetings.

Granting the Board this authority is a routine matter for public companies incorporated in Ireland and is consistent with Irish market practice. This authority is fundamental to our business and enables us to issue shares, including, if applicable, in connection with funding acquisitions and raising capital. We are not asking you to approve an increase in our authorized share capital or to approve a specific issuance of shares. Instead, approval of this proposal will only grant the Board the authority to issue shares that are already authorized under our Articles of Association upon the terms below. In addition, because we are a NYSE-listed company, our shareholders continue to benefit from the protections afforded to them under the rules and regulations of the NYSE and SEC, including those rules that limit our ability to issue shares in specified circumstances. This authorization is required as a matter of Irish law and is not otherwise required for other companies listed on the NYSE with whom we compete. Accordingly, approval of this resolution would merely place us on par with other NYSE-listed companies.

Ordinary Resolution

The text of the resolution in respect of Proposal 6 (which is proposed as an ordinary resolution) is as follows:

"**RESOLVED** that the directors be and are hereby generally and unconditionally authorized to exercise all powers to allot and issue relevant securities (within the meaning of section 1021 of the Companies Act 2014) up to an aggregate nominal value of US \$2,342,000 (being equivalent to approximately 33% of the aggregate nominal value of the issued share capital of the Company as at the last practicable date prior to the issue of the notice of this meeting) and the authority conferred by this resolution shall expire on the earlier of the date of the Company's Annual General Meeting in 2023 or September 9, 2023, unless previously renewed, varied or revoked; provided that the Company may make an offer or agreement before the expiry of this authority, which would or might require any such securities to be allotted after this authority has expired, and in that case, the directors may allot relevant securities in pursuance of any such offer or agreement as if the authority conferred hereby had not expired."

As required under Irish law, the resolution in respect of this proposal is an ordinary resolution that requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

PROPOSAL NUMBER SEVEN WAIVER OF STATUTORY PRE-EMPTION RIGHTS

Under Irish law, unless otherwise authorized, when an Irish public limited company issues shares for cash to new shareholders, it is required first to offer those shares on the same or more favorable terms to existing shareholders of the company on a pro-rata basis (commonly referred to as the pre-emption right). Our current authorization, approved by shareholders at our 2021 Annual General Meeting, will expire on March 9, 2022, the date of the 2022 Annual General Meeting. We are therefore proposing to renew the Board's authority to opt-out of the pre-emption right on the terms set forth below.

It is customary practice in Ireland to seek shareholder authority to opt-out of the pre-emption rights provision in the event of the issuance of shares for cash, if the issuance is limited to up to 5% of a company's issued ordinary share capital. It is also customary practice for such authority to be renewed on an annual basis.

Therefore, in accordance with customary practice in Ireland, we are seeking this authority, pursuant to a special resolution, to authorize the directors to issue shares for cash up to a maximum of approximately 5% of the Company's authorized share capital without applying statutory pre-emption rights for a period expiring on the earlier of the Annual General Meeting in 2023 or September 9, 2023, unless otherwise varied, renewed or revoked. We expect to propose renewal of this authorization at subsequent Annual General Meetings.

Granting the Board this authority is a routine matter for public companies incorporated in Ireland and is consistent with Irish customary practice. Similar to the authorization sought for Proposal 6, this authority is fundamental to our business and, if applicable, will facilitate our ability to fund acquisitions and otherwise raise capital. We are not asking you to approve an increase in our authorized share capital. Instead, approval of this proposal will only grant the Board the authority to issue shares in the manner already permitted under our Articles of Association upon the terms below. Without this authorization, in each case where we issue shares for cash, we would first have to offer those shares on the same or more favorable terms to all of our existing shareholders. This requirement could cause delays in the completion of acquisitions and capital raising for our business. This authorization is required as a matter of Irish law and is not otherwise required for other companies listed on the NYSE with whom we compete. Accordingly, approval of this resolution would merely place us on par with other NYSE-listed companies.

Special Resolution

The text of the resolution in respect of Proposal 7 (which is proposed as a special resolution) is as follows:

"RESOLVED that the directors be and are hereby empowered pursuant to section 1023 of the Companies Act 2014 to allot equity securities (as defined in section 1023 of that Act) for cash, pursuant to the authority conferred by proposal 6 of the notice of this meeting as if sub-section (1) of section 1022 of that Act did not apply to any such allotment, provided that this power shall be limited to the allotment of equity securities up to an aggregate nominal value of US \$351,000 (being equivalent to approximately 5% of the aggregate nominal value of the issued share capital of the Company as at the last practicable date prior to the issue of the notice of this meeting in 2023 or September 9, 2023, unless previously renewed, varied or revoked; provided that the Company may make an offer or agreement before the expiry of this authority, which would or might require any such securities to be allotted after this authority has expired, and in that case, the directors may allot equity securities in pursuance of any such offer or agreement as if the authority conferred hereby had not expired."

As required under Irish law, the resolution in respect of Proposal 7 is a special resolution that requires the affirmative vote of at least 75% of the votes cast. In addition, under Irish law, the Board may only be authorized to opt-out of pre-emption rights if it is authorized to issue shares, which authority is being sought in Proposal 6.

GOVERNANCE OF THE COMPANY

Vision and Values of Our Board

Our vision is a safe, comfortable and sustainable world. In addition to achieving financial performance objectives, our Board and management believe that we must assume a leadership position in the area of corporate governance to fulfill our vision. Our Board believes that good governance requires not only an effective set of specific practices but also a culture of responsibility throughout the company, and governance at Johnson Controls is intended to optimize both. Johnson Controls also believes that good governance ultimately depends on the quality of its leadership, and it is committed to recruiting and retaining Directors and officers of proven leadership ability and personal integrity. Our Board has adopted *Corporate Governance Guidelines* which provide a framework for the effective governance of Johnson Controls.

Johnson Controls' Values: How We Seek to Conduct Ourselves

Integrity First

We promise honesty and transparency. We uphold the highest standards of integrity and honor the commitments we make.

We believe in doing well by doing good and hold ourselves accountable to make the world a better place through the solutions we provide, our engagement in society, the way we do business, and our commitment to protect people and the environment.

Purpose Led

Customer Driven

We win when our customers win. Our long-term strategic relationships provide unique insights and the ability to deliver exceptional customer experiences and solutions.

Future Focused

Our culture of innovation and continuous improvement drives us to solve today's challenges while constantly asking 'what's next.'

One Team

We are one team, dedicated to working collaboratively together to create the purposeful solutions that propel the world forward.

Purpose Led Board Engagement

The Board recognizes the importance that sustainability, diversity and human capital management play in in the Company's vision, values and strategy.

During fiscal year 2021, the Governance and Sustainability Committee provided oversight and guidance to management in connection with the development and release of the Company's ESG goals, as well as the planning and execution of the Company's sustainability strategy. The Board engaged in further oversight regarding the intersection of sustainability and the Company's business strategy, reviewing and engaging with management on the Company's strategy to be a leader in building decarbonization.

During fiscal year 2021, both the Board and the Compensation and Talent Development Committee engaged with management on the development and transformation of the Company's workforce, including strategies and initiatives to develop a diverse workforce that is digital capable, solutions oriented and focused on continuous learning and growth.

Future Focused Board Engagement

The Board continues to regularly engage with management on the Company's digital transformation. At every regularly scheduled Board meeting, the Board received updates from management on how the Company was developing and executing its strategy to build and expand its digital capabilities to deliver new and differentiated services grounded in deep understandings of how the Company's customers operate, including outcome-based solutions that address customers' needs to improve energy efficiency and reduce greenhouse gas emissions. The Board also met for a deep-dive review of the Company's OpenBlue software platform and key product lines that are being enhanced with digital technology to drive the Company's strategy. The Board applied the knowledge gained from these sessions to provide advice and oversight to management as it worked to refine and execute its strategy during fiscal year 2021.

Board Mission/Responsibilities

The mission of the Board is to promote the long-term value and health of Johnson Controls in the interests of shareholders and set an ethical "tone at the top." All corporate authority is exercised by the Board except for those matters reserved to the shareholders. The Board has retained oversight authority — defining and overseeing the implementation of and compliance with standards of accountability and monitoring the effectiveness of management policies and decisions in an effort to ensure that the Company is managed in such a way to achieve its objectives. The Board delegates its authority to management for managing the everyday affairs of the Company. The Board requires that senior management review major actions and initiatives with the Board prior to implementation. Management, not the Board, is responsible for managing the Company.

WORKING DYNAMICS

- Candid discussions
- Open access to management and information
- Focus on reputation and performance
- Regular engagement between formal meetings

BOARD COMPOSITION

- Broad range of skills and experiences
- Independence
- Diversity

BOARD EFFECTIVENESS

BOARD STRUCTURE

- Strong Lead Director role
- Three standing committees
- All independent directors on each standing committee

GOVERNANCE PRACTICES

- Candid self-evaluation
- Oversight of CEO/management performance
- Board/management succession planning

Areas of Focus for the Board

Strategy and Operations

Ensuring that processes are in place designed to maintain the integrity and ethical conduct of the Company; reviewing and approving strategic plans and profit plans; reviewing corporate performance and staying apprised of relations with shareholders

Talent and Succession Planning

Overseeing and evaluating management's systems and senior management performance and compensation; and providing advice and counsel to senior management

Governance and Risk Management

Overseeing and evaluating management's systems and processes for the identification, assessment, management, mitigation, and reporting of major risks; establishing corporate governance standards

Board Composition and Effectiveness

Recommending candidates to the shareholders for election to the Board; setting standards for Director qualification, orientation and continuing education; reviewing and assessing the Board's leadership structure; and undertaking an annual performance evaluation regarding the effectiveness of the Board

Board Composition, Tenure and Expertise

The Johnson Controls Board as a whole is strong in its diversity, vision, strategy and business judgment. It possesses a robust collective knowledge of management and leadership, business operations, crisis management, risk assessment, industry knowledge, accounting and finance, corporate governance and global markets:

S	kills and Expe	ertise	•								
	Blackwell	Cohade	Daniels	Dunbar	Haggerty	Menne	Oliver	Tinggren	Vergnano	Yost	Young
Executive Leadership Experience											
Experience Leading Global Teams											
Financial and Accounting Expertise											
Public Policy Experience											
Cybersecurity, Technology and Innovation											
Manufacturing and Industry Experience											
Corporate Governance Experience											
Corporate Responsibility/Sustainability	- C.										
M&A Experience											
	Backgroun	d									
Years on the Board	3	3	12	4	4	4	9	8	10	13	4
Age	67	60	67	60	66	61	61	63	63	74	57
Gender	F	М	М	Μ	F	F	М	М	М	М	М
Diversity*											

* Diversity includes Female / Racial / Ethnic / LGBTQ+ and Geographically Diverse (Non-US Citizenship)



Board Leadership

The Board's leadership structure generally includes a combined Chairman and CEO role with a strong, independent non-executive lead director. The Board believes our overall corporate governance measures help ensure that strong, independent directors continue to effectively oversee our management and key issues related to strategy, risk and integrity; executive compensation; CEO evaluation; and succession planning. In choosing generally to combine the roles of Chairman and CEO, the Board takes into consideration the importance of in-depth, industry-specific knowledge and a thorough understanding of our business environment and risk management practices in setting agendas and leading the Board's discussions. Combining the roles also provides a clear leadership structure for the management team and serves as a vital link between management and the Board. This allows the Board to perform its oversight role with the benefit of management's perspective on our business strategy and all other aspects of the business. Our Board periodically reviews its determination to have a single individual act both as Chairman and CEO.

Governance of the Company > Board Composition, Tenure and Expertise

Currently, the Board operates with a designated Lead Director with a well-defined role. The Lead Director, currently Mr. Jürgen Tinggren, acts as an intermediary between the Board and senior management. Among other things, the Lead Director's duties include:

Working with Mr. Oliver to develop and approve Board agendas and meeting schedules Developing agendas for and chairing executive sessions of independent Directors Serving as principal liaison between the independent Directors and Mr. Oliver on sensitive issues Advising Mr. Oliver on the content of the information sent to the Board

Being reasonably available for direct communication with the Company's major stockholders

Mr. Tinggren is highly engaged and is routinely in direct contact with members of senior management, including the Chief Financial Officer, the General Counsel, the Corporate Controller and the Corporate Secretary, among others. He also has routine discussions with the Company's independent auditors. Mr. Tinggren's level of engagement allows him to have a continuous impact on the Company's strategic and operational initiatives.

Along with the CEO, the Lead Director also hosts Board update calls on a monthly basis in the periods between Board meetings to keep the Directors current on important developments in the business as well as the status of key strategic and operational initiatives. These update calls provide Directors with the opportunity to stay current on matters impacting the Company, which facilitates more efficient and robust discussions at the regularly scheduled Board meetings.

Board Oversight of Strategy

One of the Board's primary responsibilities is overseeing management's establishment and execution of the Company's strategy and the associated risks. The full Board oversees strategy and strategic risk through robust and constructive engagement with management, taking into consideration our key priorities, global trends impacting our business, regulatory developments, and disruptors in our businesses. The Board's oversight of our strategy primarily occurs through deep-dive annual reviews of the Company's long-term strategic plans. During these reviews, management provides the Board with its view of the key commercial and strategic risks faced by the Company, and the Board provides management with feedback on whether management has identified the key risks and is taking appropriate actions to mitigate risk. In addition to the annual deep-dive strategic review, because the Company's strategic initiatives are subject to rapidly evolving business dynamics, the Board regularly receives updates on key strategic initiatives throughout the year to ensure progress is being made against goals, understand where adjustments or refinements to strategy may be appropriate and stay current on issues impacting the business.

The Board's oversight of strategy was prominent throughout the year as the Company continued its journey to become a smart building solutions leader. At every regularly scheduled Board meeting, the Board received updates from management on how the Company was developing and executing its strategy to build and expand its digital capabilities to deliver new and differentiated services grounded in deep understandings of how the Company's customers operate, including outcome-based solutions that address customers' needs to improve energy efficiency and reduce greenhouse gas emissions. The Board also met for a deep-dive technology review of the Company's OpenBlue software platform and key product lines that are being enhanced with digital technology to drive the Company's strategy. This included a comprehensive review of the OpenBlue software architecture, how it is being incorporated into the Company's products and services to provide differentiated and customized solutions, how the Company plans to further augment its digital capabilities and how the Company is managing cybersecurity risk across the lifecycle of its digital products and solutions. The Board applied the knowledge gained from these sessions to provide advice and oversight to management as the Company worked to refine and execute its strategy in fiscal year 2021. The oversight provided by the Board was carried over into its committees, with the Compensation and Talent Development Committee monitoring the Company's efforts to build a diverse workforce that is digital capable, solutions oriented and focused on continuous learning and growth, and the Governance and Sustainability Committee monitoring the cybersecurity risks associated with the Company's digital strategy.

Governance of the Company > Board Oversight of Strategy

Johnson Controls has a clear vision and growth agenda. The visions and values described above are designed to achieve our mission of *helping our customers win everywhere, every day* through a relentless focus on customer needs, developing and deploying leading products and technology, distributing our products and services through accessible channels, and attracting and retaining top talent. Johnson Controls plans to achieve these objectives through:

- Creating Growth Platforms by developing sales excellence through building intimate customer relationships to
 understand customer needs and how to solve them; driving innovation to translate customer problems into business
 opportunities; developing advantaged solutions and enhanced business models; making it easy for customers to do
 business with Johnson Controls; and building an acquisition pipeline.
- Driving Operational Improvements by standardizing processes and improving cost and service; being best-in-class in G&A effectiveness and efficiency; leveraging IT to increase efficiency and effectiveness; enhancing manufacturing efficiency at all levels; and improving service and installation productivity and optimizing field infrastructure.
- Building a Performance Culture by establishing a transparent, data-driven performance culture; aligning strategy, structure, people and processes to create One Team; investing in all talent, focusing on skill building and professional development, and diversity and inclusion; and driving a global commitment to wellness and sustainability.

Through these efforts we plan to achieve top quartile organizational health while creating greater shareholder value and generating long-term free cash flow conversion. For additional information on our strategy, see "Business Strategy" in Item 1 of our Annual Report on Form 10-K filed with the SEC on November 15, 2021.

Board Oversight of Talent and Succession Planning

Our Board oversees management succession planning and talent development. The Compensation and Talent Development Committee (formerly known as the Compensation Committee) regularly reviews the CEO succession plan and the succession plans for key positions at the senior executive level across the Company. The CEO and CHRO regularly review with the Compensation and Talent Development Committee the assessment and the development of a diverse pipeline of senior leaders who are potential successors for these roles. In addition, the full Board discusses succession and/or talent management at each of its regularly scheduled meetings. These discussions are led by the CEO and Chief Human Resources Officer, with periodic assistance from other senior leaders within the Company and firms with talent assessment expertise. These discussions include critical leadership competencies, talent assessment, short and long-term development and readiness of executives, the pool of external talent, and diversity. The Board also evaluates succession and development plans in the context of our overall business strategy and culture. Potential leaders are visible to Board members through formal presentations and informal events to allow Directors to personally engage with current and future leaders. In 2021, Board members were involved in the search and appointment of a new Chief Human Resources Officer to succeed Lynn Minella in anticipation of her retirement. Board members were involved in reviewing the talent pipeline of candidates and interviewing the finalist candidate prior to approving management's recommendation to appoint Marlon Sullivan as our Chief Human Resources Officer.

In late 2020, the Compensation Committee amended its charter to change its name to the Compensation and Talent Development Committee, enhancing its oversight over our talent development and human capital management efforts. Under its revised charter, the Compensation and Talent Development Committee is charged with reviewing: the talent development and succession plans for the CEO and other senior leadership positions, our human capital management practices, policies, strategies and goals, our senior leadership pipeline development, including the recruitment, development and retention of senior leadership talent, and our diversity and inclusion initiatives and progress. In carrying out these responsibilities, the Compensation and Talent Development Committee annually reviews with our Chief Human Resources Officer: our diversity and inclusion plans and goals, reports on our organizational health, our succession planning and talent development strategy and progress, and the Company's human capital policies and practices.

We have implemented several measures that focus on ensuring accountabilities exist for attracting and developing diverse talent in our workforce. For fiscal years 2021 and 2022, our CEO and other senior leaders have diversity and inclusion objectives embedded in their annual performance goals. We have also committed to having a diverse talent pipeline by partnering with our business units in their workforce planning forecasts to develop initiatives and goals to recruit diverse talent across all leadership and skill areas. We actively develop diversity sourcing strategies and partner with external organizations that develop and supply diverse talent.

Our Board also establishes steps to address emergency CEO succession planning in extraordinary circumstances. Our emergency CEO succession planning is intended to enable our Company to respond to unexpected emergencies and minimize potential disruption or loss of continuity to our Company's business and operations.

Board Oversight of Risk

Board of Directors

- The Board exercises its oversight responsibility for risk both directly and through its standing committees.
- Throughout the year, the Board and each committee spend a portion of their time reviewing and discussing specific risk topics. Key risk topics discussed by the Board during 2021 included cybersecurity, supply chain and labor force.
- On an annual basis, the Chief Compliance Officer and other members of senior management report on our top enterprise risks, and the steps management has taken or will take to mitigate these risks.
- Our Chief Information Officer, Chief Cybersecurity Officer and Chief Technology Officer review information technology and cybersecurity with the Board.
- The General Counsel and Chief Sustainability and External Relations Officer update the Board regularly on material legal and regulatory matters.
- Board meetings regularly include strategic overviews by the CEO that describe the most significant issues, including risks, affecting the Company.
- The Chief Human Resources Officer regularly updates the board on significant human capital matters, including succession planning, performance, diversity and inclusion, talent development and organizational health.
- The Board is regularly provided with business updates from the leaders of Johnson Controls' business units.

Audit Committee

Oversees risks related to:

- financial statements and financial reporting
- accounting and internal controls
- tax
- regulatory compliance
- internal ethics and compliance programs

Compensation and Talent Development Committee

Oversees risks related to:

- compensation policies and practices
- talent development and retention
- management succession planning
- human capital management
- diversity and inclusion
- organizational health

Governance and Sustainability Committee

Oversees risks related to:

- Company's corporate governance policies and EHS programs
- the Company's ERM process
- information technology and
- cybersecurity public policy, government
- relations and corporate responsibility and sustainability /climate change

Senior Management

Johnson Control's senior management is responsible for assessing and managing the Company's various exposures to risk on a day-to-day basis, including the identification and management of risks through Johnson Controls' robust enterprise risk management ("ERM") process. The Company's ERM process provides the enterprise with a common framework and terminology to ensure consistency in identification, reporting and management of key risks. It also informs the strategic planning process and includes a formal process to identify and document the key risks to Johnson Controls perceived by a variety of stakeholders in the enterprise.

Board Oversight of Cybersecurity

We understand that cybersecurity is an essential component of the Board's oversight responsibility. The Board receives cybersecurity updates from senior management, including the Chief Information Officer, Chief Information Security Officer and Chief Technology Officer. These updates cover the cybersecurity risks facing our enterprise information technology structure, as well as our digital products and services. The Governance and Sustainability Committee provides a deeper level of oversight through quarterly engagements with senior management, including the Chief Information Officer, Chief Information Security Officer and Chief Product Security Officer, to review the Company's cybersecurity program, including the highest risk areas and key mitigation strategies. Topics covered in fiscal year 2021 included: supplier risk management, the cybersecurity threat landscape, manufacturing security and cloud security. The Company has experienced, and expects to continue to experience, cyber threats and incidents, and the Governance and Sustainability Committee receives quarterly reports on any notable incidents that may have occurred during the quarter, as well as updates on cybersecurity events impacting the marketplace (whether or not the Company is impacted). To date, no such incidents have been material to the Company.

Our policies, standards, and procedures apply to all users to ensure the workforce is aware of threats and the importance of information security and cybersecurity. The cybersecurity policies and standards were created following ISO 27001 for the overall enterprise and ISA/IEC 62443 for automation and control system products. We leverage multiple channels to promote cybersecurity topics, deliver targeted initial and refresher training for all users, and conduct an annual mandatory global information security training campaign with certification, which is translated into 20 languages. These elements are designed to maintain a risk aware culture. Our vulnerability management program assures that vulnerability assessments are continually conducted with specific frequencies for specific asset types to validate system health against known threats. We leverage multiple tools, which are routinely updated with new signatures, to continually respond to evolving threats identified as part of our threat detection capability. Events with cyber security impacts are routed to the IT and Product Security Incident Response function for triage, investigation, and if necessary, mitigation. We also maintain a cybersecurity insurance policy.

Oversight of Political Spending

We participate in the public policy process in various ways including corporate government affairs activities designed to educate policymakers on key issues related to our business, political giving through the Johnson Controls Political Action Committee ("PAC"), and limited direct corporate political contributions. To promote transparency, we make this information publicly available on our website and through various government filings, as required by law.

Our PAC is governed by a steering committee, which is chaired by the Company's Executive Vice President & General Counsel and made up of business and functional leaders across the Company. The committee provides operational oversight and direction of PAC activities. The committee also reviews candidate recommendations and uses the PAC's selection criteria to determine who will receive financial support.

Our lobbying and political activities are overseen by our Chief Sustainability & External Relations Officer, who works closely with our legal department to ensure compliance with our political engagement policy. Our Executive Vice President & General Counsel, Chief Sustainability & External Relations Officer, and Chief Ethics and Compliance Officer meet regularly with the Chief Executive Officer and the senior leadership team to review legislative, regulatory and political developments.

The Governance and Sustainability Committee provides primary board-level oversight in reviewing our corporate political activity and public policy efforts. Our Chief Sustainability & External Relations Officer reports to the Governance and Sustainability Committee on our governmental outreach, PAC and other political activities on a quarterly basis and the full Board is briefed on government relations matters at least annually.

Director Orientation

All new Directors participate in our director orientation program during the first few months on our Board. New Directors receive an extensive suite of onboarding materials covering director responsibilities, corporate governance practices and policies, business strategies, leadership structure, and long-term plans. They then participate in a series of meetings with management representatives from our business and functional areas to review and discuss information about the Company's strategic plans, financial statements, and key issues, policies, and practices. Based on feedback from our Directors, we believe this onboarding approach provides new directors with a strong foundation for understanding our businesses, connects Directors with members of management with whom they will interact, and accelerates their effectiveness to engage fully in Board deliberations.

Director Education

Our Board believes that director education is key to the ability of directors to fulfill their roles and supports Board members in their continuous learning. Directors may enroll in continuing education programs at our expense on corporate governance and critical issues associated with a Director's service. Our Board also hears regularly from management on numerous subjects, including investor relations, human capital management, sustainability, technology, regulatory developments, data privacy, and cybersecurity. In addition, the Board periodically participates in site visits to our facilities. For example, in 2021, our Board participated in a Global Products "virtual visit" where the Board engaged in a deep dive review of Company's OpenBlue software platform and key product lines that are being enhanced with digital technology to drive the Company's strategy.

Shareholder Engagement

In 2021, we continued our focus on regularly engaging with our shareholders. The Company reached out to holders of over 60% of our shares outstanding. Meetings were requested by two shareholders, representing 16% of the Company's outstanding shares. During these meetings, we discussed many topics including our executive compensation program, our sustainability governance and risk management structure, diversity and inclusion and OpenBlue. Investors were generally supportive of the Company's governance and compensation practices and were pleased with the Company's corporate responsibility and sustainability efforts. In addition, several shareholders declined requests for meetings noting that engagement was unnecessary due to no significant concerns with our governance and compensation practices. This outreach and discussions provide our Board with valuable insights into our shareholders' views. We plan to continue to actively engage with our shareholders on a regular basis to better understand and consider their views.

Board Committees

To conduct its business the Board maintains three standing committees: Audit, Compensation and Talent Development and Governance and Sustainability, and each of these NYSE-required committees are entirely composed of independent Directors. The Board also maintains an Executive Committee comprised of the Chairman, Lead Director and each committee chair that meets to review matters as delegated to it by the Board. All committees report on their activities to the Board.

The Lead Director may also convene "special committees" to review discrete matters that require the consideration of a Board committee, but do not fit within the mandate of any of the standing committees. Special committees report their activities to the Board.

To ensure effective discussion and decision making while at the same time having a sufficient number of independent Directors for its three standing committees, the Board is normally constituted of between ten and thirteen Directors. The minimum and maximum number of Directors is set forth in Johnson Controls' Articles of Association.

The Governance and Sustainability Committee reviews the Board's governance guidelines annually and recommends appropriate changes to the Board.

Board Meetings

The Board meets at least four times annually and additional meetings may be called in accordance with our Articles of Association. Frequent board meetings are critical not only for timely decisions, but also for Directors to be well informed about Johnson Controls' operations and issues. One of these meetings will be scheduled in conjunction with the Annual General Meeting of Shareholders and Board members are required to be in attendance at such meeting either in person or by telephone. The Lead Director and the Chair of the Board are responsible for setting meeting agendas with input from the other Directors.

Committee meetings are normally held in conjunction with Board meetings. Major committee decisions are reviewed and approved by the Board. The Board Chair and committee chairs are responsible for conducting meetings and informal consultations in a fashion that encourages informed, meaningful and probing deliberations. Presentations at Board meetings are concise and focused, and they include adequate time for discussion and decision-making. An executive session of independent Directors, chaired by the Lead Director, is held at least annually, and in practice occurs at least once during most Board meetings. Mr. Tinggren ensures that the executive sessions are highly interactive and include robust discussions on the Company's strategic and operational initiatives and related risks. They also include in-depth discussions on matters such as executive performance and succession planning. These discussions are key to informing the Board's oversight role and appropriately challenging management.

Governance of the Company > Board Meetings

Directors receive the agenda and materials for regularly scheduled meetings in advance. Best efforts are made to make materials available as soon as one week in advance, but no later than three days in advance. When practical, the same applies to special meetings of the Board. Directors may ask for additional information from, or meetings with, senior managers at any time.

Strategic planning and succession planning sessions are held at least annually at a regular Board meeting, but such sessions often occur more frequently. Succession planning meetings focus on the development and succession of not only the CEO but also the Company's other senior executives.

The Board's intent is for Directors to attend all regularly scheduled Board and committee meetings. Directors are expected to use their best efforts to attend regularly scheduled Board and committee meetings in person. All independent Board members are welcome to attend any committee meeting.

The Board also participates in monthly update calls in the periods between Board meetings to keep the Directors current on important developments impacting the Company as well as the status of key strategic and operational initiatives.

The Board also makes periodic visits to our facilities to learn more about our products and customers. For example, in 2021 our Board participated in a Global Products "virtual visit" where the Board engaged in a deep dive review of Company's OpenBlue software platform and key product lines that are being enhanced with digital technology to drive the Company's strategy.

Board and Committee Calendars

A calendar of agenda items for the regularly scheduled Board meetings and all regularly scheduled committee meetings is prepared annually by the Chair of the Board in consultation with the Lead Director, committee chairs, and other Directors.

Board Communication

Management speaks on behalf of Johnson Controls, and the Board normally communicates through management with outside parties including shareholders, business journalists, analysts, rating agencies and government regulators. In certain circumstances Directors may also meet with shareholders to discuss specific governance topics. The Board has established a process for interested parties to communicate with members of the Board, including the Lead Director. If you have any concern, question or complaint regarding our compliance with any policy or law, or would otherwise like to contact the Board, you can reach the Johnson Controls Board of Directors via email at *jciboard@jci.com*. Depending upon the nature of the communication and to whom it is directed, the Corporate Secretary will: (a) forward the communication to the appropriate director or directors; (b) forward the communication to the relevant department within the Company; or (c) attempt to handle the matter directly (for example, a communication dealing with a share ownership matter). Shareholders, customers, vendors, suppliers and employees can also raise concerns at *www.johnsoncontrolsintegrityhelpline.com*. Inquiries can be submitted anonymously and confidentially.

All inquiries are received and reviewed by the Integrity Helpline manager, who is part of the Compliance function. A report summarizing all items received resulting in cases is prepared for the Audit Committee of the Board. The Integrity Helpline manager directs cases to the applicable department (such as customer service, human resources, or in the case of accounting or control issues, forensic audit) and follows up with the assigned case owner to ensure that the cases are responded to in a timely manner. The Board also reviews non-trivial shareholder communications received by management through the Corporate Secretary's Office or Investor Relations.

Board and Committee Evaluation Process

QUESTIONNAIRES (Sept – Oct)

Each Director completes a Board self-evaluation questionnaire and a separate questionnaire for each committee on which the director serves. The Board-specific questionnaire requests ratings and solicits detailed suggestions for improving Board and committee governance processes and effectiveness. The committee-specific questionnaires are tailored to the respective committees' roles and responsibilities. Topics include:

Board and Committee meetings, Board and Committee roles and responsibilities, Board and Committee composition, culture and relationship with management.

2 DIRECTOR REVIEW (Oct – Nov)

Self-evaluation questionnaire results are compiled and summarized by the Office of the Corporate Secretary. The summaries include all specific Director comments, without attribution. Each Director receives the Board self-evaluation summary and the self-evaluation summary for each committee on which the Director serves.

The results of the committee evaluations are also shared with the Lead Director and the Chair of the Governance and Sustainability Committee.

3 INDIVIDUAL DIRECTOR INTERVIEWS (Oct – Nov)

The Lead Director and the Chair of the Governance and Sustainability Committee meet with each Director regarding the self-evaluation results.

This enables Directors to have frank conversations and address Board, Committee and individual director performance and effectiveness directly.

4 BOARD SUMMARY & FEEDBACK (Dec)

Committee self-evaluation results are discussed by each committee, and Board self-evaluation results are discussed by the full Board. Each committee and the Board identify areas for further consideration and opportunities for improvement and implement plans to address those matters. The qualifications and performance of all Board members are reviewed in connection with their renomination to the Board.

5 ONGOING FEEDBACK

Throughout the year, directors may discuss concerns, including those related to individual performance separately with the Lead Director.

Board Feedback & Recent Improvement Actions

Based on responses from recent Board and committee evaluations, the Board requested that senior management take the following actions:

- Consider the time allocated to presentations vs. Q&A at Board meetings to better facilitate in-depth discussions;
- Consider facilitating additional opportunities for interpersonal interaction among directors and between directors and management to compensate for COVID-related meeting restrictions; and
- Consider reviewing committee rotation and Chair assignments, including whether at least one committee chair should be female.

In response to feedback provided by the Board, management worked to streamline its presentations to the Board and facilitate additional interaction between directors and management and returned to in-person meetings in late 2021. The Board also evaluated the composition of its committee chairs, appointing Gretchen Haggerty as the chair of the Audit Committee and Jean Blackwell as chair of the Governance and Sustainability Committee. Governance of the Company > Board and Committee Evaluation Process

The Board views self-evaluation of Board and committee performance as an integral part of its commitment to continuous improvement. The Governance and Sustainability Committee annually reviews the evaluation process and considers ways to augment it.

Board Advisors

The Board and its committees (consistent with the provisions of their respective charters) may retain their own advisors, at the expense of Johnson Controls, as they deem necessary in order to carry out their responsibilities.

Board Compensation and Share Ownership

The Governance and Sustainability Committee periodically reviews the Directors' compensation and recommends changes in the level and mix of compensation to the full Board. See the Compensation Discussion and Analysis for a detailed discussion of the Compensation and Talent Development Committee's role in determining executive compensation.

To help align Board and shareholder interests, Directors are encouraged to own Johnson Controls ordinary shares or their equivalent, with the guideline set at five times the annual cash retainer. Directors are expected to attain this minimum stock ownership guideline within five years of joining the Board. Once a Director satisfies the minimum stock ownership recommendation, the Director will remain qualified, regardless of market fluctuations, under the guideline as long as the Director does not sell any stock. Mr. Oliver receives no additional compensation for service as a Director.

Director Independence

To maintain its objective oversight of management, the Board consists of a substantial majority of independent Directors. Our Board annually determines the independence of each Director and nominee for election as a Director based on a review of the information provided by the Directors and the executive officers and a survey by our legal and finance departments. The Board makes these determinations under the *NYSE Listed Company Manual's* independence standards and our *Corporate Governance Guidelines*, which are more restrictive than the NYSE independence standards. Independent Directors:

- are not former officers or employees of Johnson Controls or its subsidiaries or affiliates, nor have they served in that capacity within the last five years;
- have no current or prior material relationships with Johnson Controls aside from their directorship that could affect their judgment;
- have not worked for, nor have any immediate family members that have worked for, been retained by, or received anything of substantial value from Johnson Controls aside from his or her compensation as a Director;
- have no immediate family member who is an officer of Johnson Controls or its subsidiaries or has any current or past material relationship with Johnson Controls;
- do not work for, nor does any immediate family member work for, consult with, or otherwise provide services to, another publicly traded company on whose board of directors Johnson Controls' CEO or other senior executive serves;
- do not serve as, nor does any immediate family member serve as, an executive officer of any entity with respect to which Johnson Controls' annual sales to, or purchases from, exceed the greater of two percent of either entity's annual revenues for the prior fiscal year or \$1,000,000;
- do not serve, nor does any immediate family member serve, on either the board of directors or the compensation committee of any corporation that employs either a nominee for director or a member of the immediate family of any nominee for director; and
- do not serve, nor does any immediate family member serve, as a director, trustee, executive officer or similar position of a charitable or non-profit organization with respect to which the company or its subsidiaries made charitable contributions or payments in excess of the greater of \$1,000,000 or two percent of such organization's charitable receipts in the last fiscal year.

Directors meet stringent definitions of independence and for those Directors that meet this definition, the Board will make an affirmative determination that a Director is independent. The Board has determined that all of the Director nominees, with the exception of Mr. Oliver, meet these standards and are therefore independent of the Company.

Director Service

Directors are elected by an affirmative vote of a majority of the votes cast (in person or by proxy) by shareholders at the Annual General Meeting. They are elected to serve for one-year terms (except in instances where a director is elected during a special meeting), ending after completion of the next succeeding Annual General Meeting. If a Director resigns or otherwise terminates his or her directorship prior to the next Annual General Meeting, the Board may appoint an interim Director until the next Annual General Meeting. Any nominee for Director who does not receive an affirmative vote of a majority of votes cast (in person or by proxy) by shareholders at the Annual General Meeting is not elected to the Board.

Each Director is required to tender their resignation from the Board at the Annual General Meeting following his or her 75th birthday. The Board may, in its discretion, waive this limit in special circumstances. The rotation of committee chairs and members is considered on an annual basis to ensure diversity of Board member experience and variety of perspectives across the committees, but there is no strict committee chair rotation policy. Any changes in committee chair or member assignments are made based on committee needs, Director interests, experience and availability, and applicable regulatory and legal considerations. Moreover, the value of rotation is weighed carefully against the benefit of committee continuity and experience.

Directors are also expected to inform the Governance and Sustainability Committee of any significant change in their employment or professional responsibilities and are required to offer their resignation to the Board in the event of such a change. This allows for discussion with the Governance and Sustainability Committee to determine if it is in the mutual interest of both parties for the Director to continue on the Board.

The Governance and Sustainability Committee is responsible for the review of all Directors, and where necessary will take action to recommend to shareholders the removal of a Director for performance, which requires the affirmative vote of a majority of the votes represented (in person or by proxy) at a duly called shareholder meeting.

Nomination of Directors and Board Diversity

The Governance and Sustainability Committee, in accordance with the Board's governance principles, seeks to create a Board that, as a whole, is strong in its collective knowledge and has a diversity of skills and experience with respect to vision and strategy, management and leadership, business operations, business judgment, crisis management, risk assessment, industry knowledge, accounting and finance, corporate governance and global markets. Although the Johnson Controls Board does not have a specific policy regarding diversity, the Board takes into account the current composition and diversity of the Board (including diversity with respect to race, gender, national origin and ethnicity) and the extent to which a candidate's particular expertise and experience will complement the expertise and experience of other Directors. The Governance and Sustainability Committee also considers the Board's overall composition and diversity when considering a potential new candidate, including whether the Board has an appropriate combination of professional experience, skills, exposure to international markets, knowledge and variety of viewpoints and backgrounds in light of Johnson Controls' current and expected future needs. In addition, the Governance and Sustainability Committee believes that it is desirable for new candidates to contribute to a variety of viewpoints on the Board, which may be enhanced by a mix of different professional and personal backgrounds and experiences. The Governance and Sustainability Committee periodically reviews these criteria and qualifications to determine any need to revise such criteria and qualifications based upon corporate governance best practices and Johnson Controls' needs at the time of the review. The current composition of our Board reflects these ongoing efforts and the continued importance of a diversity of skills, characteristics and experience to the Board.

General criteria for the nomination of Director candidates include:	 The highest ethical standards and integrity A willingness to act on and be accountable for Board decisions An ability to provide wise, informed and thoughtful counsel to top management on a range of issues Diversity of expertise and experience as well as diversity with respect to race, gender and ethnicity A history of achievement that reflects superior standards for themselves and others Loyalty and commitment to driving the success of the Company An ability to take tough positions while at the same time working as a team player Individual backgrounds that provide a portfolio of experience and knowledge commensurate with the Company's needs

The Company also strives to have all non-employee Directors be independent. In addition to having such Directors meet the NYSE definition of independence, the Board has set its own more rigorous standard of independence. The Governance and

Governance of the Company > Nomination of Directors and Board Diversity

Sustainability Committee must also ensure that the members of the Board as a group maintain the requisite qualifications under NYSE listing standards for populating the Audit, Compensation and Talent Development and Governance and Sustainability Committees. In addition, the Governance and Sustainability Committee ensures that each member of the Compensation and Talent Development Committee is a "Non-Employee" Director as defined in the Securities Exchange Act of 1934 and is an "outside director" as defined in section 162(m) of the U.S. Code.

As provided in its charter, the Governance and Sustainability Committee will consider Director candidates recommended by shareholders. To recommend a Director candidate, a shareholder should write to Johnson Controls' Secretary at Johnson Controls' current registered address: One Albert Quay, Cork, Ireland. Such recommendation must include:

Shareholderrecommended Director candidate nominations must include:

- The name and address of the candidate
- A brief biographical description, including his or her occupation for at least the last five years, and a statement of the qualifications of the candidate, taking into account the qualification requirements set forth above
- The candidate's signed consent to serve as a Director if elected and to be named in the proxy statement
- Evidence of share ownership of the person making the recommendation
- All information required by Article 62 of our Memorandum and Articles of Association to be included in notices for any nomination by a shareholder of an individual for election to the Board

The recommendation must also follow the procedures set forth in Articles 54 — 68 of our Memorandum and Articles of Association to be considered timely and complete in order to be considered for nomination to the Board.

To be considered by the Governance and Sustainability Committee for nomination and inclusion in the Company's Proxy Statement for the 2023 Annual General Meeting, shareholder recommendations for Director must be received by Johnson Controls' Corporate Secretary no later than September 23, 2022. Once the Company receives the recommendation, the Company may deliver a questionnaire to the candidate that requests additional information about the candidate's independence, qualifications and other information that would assist the Governance and Sustainability Committee in evaluating the candidate, as well as certain information that must be disclosed about the candidate in the Company's proxy statement, if nominated. Candidates must complete and return the questionnaire within the time frame provided to be considered for nomination by the Governance and Sustainability Committee. No candidates were recommended by shareholders in connection with the 2022 Annual General Meeting.

The Governance and Sustainability Committee employs an unrelated search firm to assist the Committee in identifying candidates for Director when a vacancy occurs. The Governance and Sustainability Committee also receives suggestions for Director candidates from Board members. All of our nominees for Director are current members of the Board. In evaluating candidates for Director, the Governance and Sustainability Committee uses the qualifications described above, and evaluates shareholder candidates in the same manner as candidates from all other sources. Based on the Governance and Sustainability Committee's evaluation of the current Directors, each nominee was recommended for election.

Other Directorships, Conflicts and Related Party Transactions

We recognize the importance of having Directors with significant experience in other businesses and activities; however, Directors are expected to ensure that other commitments, including outside board memberships, do not interfere with their duties and responsibilities as members of the Johnson Controls' Board. In order to provide sufficient time for informed participation in their Board responsibilities, non-executive Directors are required to limit their external directorships of other public companies to three and Audit Committee members are required to limit their audit committee membership in other public companies to two. The Board may, in its discretion, waive these limits in special circumstances. When a Director or the CEO intends to serve on another board, the Governance and Sustainability Committee is required to be notified. The Governance and Sustainability of conflicts of interest or time constraints and must approve the officer's or Director's appointment to the outside board. Each Director is required to notify the Corporate Secretary of any potential conflicts. The CEO may serve on no more than one other public company board. The CEO shall resign or retire from the Board upon resigning or retiring from his role as CEO, following a transition period mutually agreed upon between the CEO and the Compensation and Talent Development Committee.

The Company has a formal, written procedure intended to ensure compliance with the related party provisions in our Code of Ethics and with our corporate governance guidelines. For the purpose of the policy, a "related party transaction" is a

transaction in which we participate and in which any related party has a direct or indirect material interest, other than ordinary course, arms-length transactions of less than 1% of the revenue of the counterparty. Transactions exceeding the 1% threshold, and any transaction involving consulting, financial advisory, legal or accounting services that could impair a Director's independence, must be approved in advance by our Governance and Sustainability Committee. Any related party transaction in which an executive officer or a Director has a personal interest, or which could present a possible conflict under the Code of Ethics, must be approved in advance by a majority of disinterested Directors, following appropriate disclosure of all material aspects of the transaction.

Under the rules of the Securities and Exchange Commission, public issuers such as Johnson Controls must disclose certain "related person transactions." These are transactions in which Johnson Controls is a participant where the amount involved exceeds \$120,000, and a Director, executive officer or holder of more than 5% of our ordinary shares has a direct or indirect material interest. Although Johnson Controls engaged in commercial transactions in the normal course of business with companies where Johnson Controls' Directors were employed and served as officers, none of these transactions exceeded 1% of Johnson Controls' gross revenues and these transactions are not considered to be related party transactions.

Code of Ethics

We have adopted the Code of Ethics, which applies to all employees, officers, and Directors of Johnson Controls. The Code of Ethics meets the requirements of a "code of ethics" as defined by Item 406 of Regulation S-K and applies to our CEO, Chief Financial Officer and Chief Accounting Officer, as well as all other employees. The Code of Ethics also meets the requirements of a code of business conduct and ethics under the listing standards of the NYSE. The Code of Ethics is posted on our website at *www.johnsoncontrols.com* under the heading "Our Company — Ethics and Compliance." We will also provide a copy of the Code of Ethics to shareholders upon request. We disclose any amendments to the Code of Ethics, as well as any waivers for executive officers or Directors on our website at *www.johnsoncontrols.com* under the Board of Directors annually certifies their compliance with the Code of Ethics. The Company — Ethics and Compliance." The Board of Directors annually certifies their compliance with the Code of Ethics. The Company maintains established procedures by which employees may anonymously report a possible violation of the Code of Ethics. The Company regarding accounting, internal accounting controls, or auditing matters. The Audit Committee also maintains procedures for the receipt, retention, and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters. The Audit Committee also maintains procedures for employees to report concerns regarding questionable accounting or auditing policies or practices on a confidential, anonymous basis.

Sustainability

At Johnson Controls, sustainability is at the heart of our business and fundamental to everything we do. As the global leader in smart, healthy and sustainable buildings, our 100,000 employees across more than 150 countries reimagine the performance of buildings and provide innovative products and services that make spaces healthier for those that occupy them and empower customers and communities to consume less energy and conserve resources.

We believe our leadership in sustainability ultimately creates long-term benefits for our customers, employees, shareholders, and society. This is a critical time for climate action. As a smart, building solutions leader, we have committed to achieving net zero Scope 1 and 2 carbon emissions before 2040, and announced science-based targets for 2030. We believe that solutions such as our OpenBlue digital platform can help our customers and suppliers meet and exceed their own sustainability goals.

We create intelligent buildings and efficient energy solutions to enable smart cities and communities. Our employee purpose is to power our customers' success and protect the environment. We grow our business by providing sustainable products and services, improving operational effectiveness, empowering our people, and reducing the environmental footprint of our operations and supply chain.

Sustainability Governance

Board of Directors and Board Committees

The Board of Directors approves and oversees the implementation of the Company's mission, vision and values. The Governance and Sustainability Committee provides oversight of our ESG programs and goals, sustainability management, sustainability risks, sustainability trends and environmental health and safety, receiving quarterly briefings on our sustainability progress. In addition, the Compensation and Talent Development Committee provides oversight of certain social matters impacting our workforce, including human capital management, diversity and inclusion and organizational health.

Chairman and CEO, Chief Sustainability and External Relations Officer, Chief Human Resources Officer and Executive Committee

The authority for management of economic, environmental and social topics is delegated to the Executive Committee, which comprises the senior executives responsible for all our major corporate functions, including our Vice President and Chief Sustainability and External Relations Officer and our Chief Human Resources Officer. The Executive Committee reviews, approves and monitors our sustainability goals and commitments. Our CEO and Executive Committee members have sustainability and diversity goals embedded into their performance goals.

Sustainability Leadership Committee

The Sustainability Leadership Committee ("SLC") is chaired by our Vice President and Chief Sustainability and External Relations Officer and reports to the Executive Committee and our Board of Directors. Its members consist of senior leaders across our businesses, functions and regions. The SLC is charged with ensuring we are leaders across all measures of sustainability, embedding sustainability into our culture and operations across the enterprise, building sustainability metrics into employee performance goals and launching working groups under the Global Sustainability Council.

Global Sustainability Council and Working Groups

The Global Sustainability Council ("GSC") and Global Sustainability Team play the role of connector and coordinator, ensuring streamlined engagement across diverse business functions to deliver on the enterprise sustainability strategy. The GSC was established in 2009 to provide a structure for enterprise-wide sustainability management. The Working Groups are composed of small teams and are designed to address specific sustainability-related topics.

Progress toward our 2025 Sustainability Strategy and ESG Commitments



New Ambitious ESG Goals

In January 2021, we announced a new set of environmental, social and governance goals, including science-based targets, Scope 1 and 2 net zero carbon emissions pledge, reducing operational emissions by 55 percent and customers' emissions by 16 percent before 2030, doubling annual avoided emissions by 2030 through customer use of our OpenBlue digitally-enabled products and services, increasing women and minority leaders and focusing on underserved markets to increase Johnson Controls' spend with women and minority owned businesses. We have already made significant progress toward many of these goals and our 2025 Sustainability Strategy:

Products, Services and Solutions

Provide increasingly sustainable products and services

In 2021, our Science Based Targets ("SBTs") were approved by the Science Based Targets Initiative. Our Scope 1 and 2 targets align with the more ambitious, updated Paris Agreement aim to limit global temperature increase to below 1.5 degrees Celsius. Our SBTs establish commitments to reduce our Scope 1 and 2 emissions 55% by 2030, against a 2017 baseline, and reduce our customers' emissions 16% over the same time period. This includes further reducing our internal carbon emissions and providing increasingly sustainable product and service offerings.

Since January 2000, performance contracting projects have helped our customers save more than 32.4 million metric tons CO2e and \$7.1 billion USD through energy and operational savings.



In July 2021, we launched OpenBlue Net Zero Buildings as a Service, a turnkey solution to deliver decarbonization outcomes for our customers' building asset portfolios. OpenBlue Net Zero Buildings as a Service leverages our suite of building technology applications with sustainability innovations to track and analyze greenhouse gas emissions, enabling us to assist our customers on their journey to net zero by delivering outcome and risk-management solutions to achieve decarbonization goals.



We are committed to the worldwide transition to low-global warming potential ("GWP") refrigerants and we offer alternative refrigerants across all chiller platforms, with GWP reductions ranging from 56 to more than 99 percent compared to conventional refrigerants. In 2021, we announced that our ducted systems product portfolio will use a new refrigerant with a 78 percent reduction in GWP by 2025.

We believe we offer the most comprehensive range of heat pumps and refrigeration equipment across residential, commercial and industrial buildings, enabling solutions with the lowest total lifecycle greenhouse gas emissions for any application.

People



At Johnson Controls, every employee is empowered to engage in our culture of inclusion. We are creating an environment where the voices of our colleagues are heard, contributions to our business success are recognized and rewarded, and differences are valued. Our nine Business Resource Groups ("BRGs") provide employees the opportunities to engage, advocate and develop, both personally and professionally. In 2020, our company re-launched the Business Resource Group structure with active support and ongoing engagement from our executive team. We are pleased to report over 350% growth in fiscal 2021 in our BRG.

Foster a culture of sustainability that engages and attracts people who want to make a difference

engagement from our executive team. We are pleased to report over 350% growth in fiscal 2021 in our BRG membership across 39 chapters around the globe. We continued our work to elevate hiring practices, to hold regular inclusion discussions at all levels through our global Perspective Listening Series, and to provide local workshops to empower managers to drive an inclusive culture with their teams. We are expansive in our approach, thoughtful in our engagement and intentional with our purpose.

Since 2003, our employees have volunteered over 1.8 million hours in local communities. In FY2021, our corporate philanthropy efforts resulted in contributions of more than \$12 million. In addition, our employees gave in excess of \$2.6 million.

At Johnson Controls, we lead with a strategic approach to philanthropy and volunteerism, building communities that are safe, smart, and sustainable. In 2021, we launched the Community College Partnership Program, investing in the technicians of tomorrow. We are investing \$15 million over five years help expand community college associate degree and certificate programs in heating, ventilation and air conditioning, fire and security and digital building automation systems across the United States.

Johnson Controls Mexico achieved gold level, the highest level, in the Mexican Standard on Job Equality and Non-Discrimination. Johnson Controls is one of only two multi-national corporations to be awarded the gold level in multiple sites. This certification was issued by Factual Services with the endorsement of the Mexican Federal Secretary of Labor.

Partnerships Lead in global partnerships that significantly increase our sustainability impact



We joined The Climate Pledge, a commitment co-founded by Amazon and Global Optimism. Signatories of the Climate Pledge commit to reaching net-zero carbon emissions by 2040, ten years ahead of the goal set out in the United Nations Paris Climate Agreement.

We align with the United Nations Sustainable Development Goal 7, Affordable and Clean Energy. We became a United Nations UN Energy 24/7 Carbon Free Energy Compact signatory and published an UN Energy Compact, joining other companies, governments and solutions providers in working together to develop and scale technologies, energy policies, procurement practices and solutions to transform the broader energy system and enable rapid and cost-effective carbon-free energy.

Throughout the next three years, we intend to invest \$2 million in various Urban League programs. As part of the Johnson Controls Foundation's strategic plan to foster impactful relationships and support social equity, our partnership with this century-old organization reinforces our commitment to economic empowerment, equality and social justice.







Performance Improve our sustainability performance and track progress



In fiscal 2021, we became the first S&P 500 industrial company to publish both an integrated Sustainable Finance Framework and a Sustainability-Linked Bond. The interest rate on our Sustainability-Linked Bond is tied to reducing both our operational emissions and our customers' emissions.

We are on track to meet our Zero Landfill goals and achieved 25 Zero Landfill certified facilities.

Our global renewable energy amounted to 209,000 MWh through purchase of Renewable Energy Certificates. Through this initiative we offset more than 100% of our greenhouse gas emissions from our manufacturing plants in the United States.

We exceeded our fiscal 2021 goal for greenhouse gas intensity with a 20% reduction from fiscal 2020 levels. In addition, we reduced our energy intensity by 27% from fiscal 2020 levels.



Governance Demonstrate our Commitment to sustainability from the top

We linked executive compensation to our sustainability and diversity goals to drive individual leadership accountability. Sustainability and diversity performance goals are required for the top leaders of our company, including our CEO and executive team. These goals are included as part of the individual contribution modifier applied to their annual incentive award calculation. In 2021, nearly 10,000 employees tied their annual goals to sustainability and diversity.

George Oliver, our Chief Executive Officer, serves as the chairman of the Business Roundtable Energy and Environment Committee. The Committee dedicates itself to policies that encourage innovation and support an environmentally and economically sustainable future. The Business Roundtable believes that to avoid the worst impacts of climate change, the world must work together to limit the global temperature rise consistent with the Paris Agreement. In addition, our leaders proudly serve on social, environmental and governance leadership board positions around the world, furthering sustainability leadership globally.

We are honored to be listed on more than 40 leading sustainability indices and to be named one of the World's Most Ethical Companies and one of the Global 100 Most Sustainable Corporations



Johnson Controls has been publicly reporting its sustainability results since 2002 and is proud of its history of transparency. We report at the GRI Standards-Comprehensive level, United Nations Global Compact Advanced level and respond to the CDP and fulfill additional requests by investors, customers and others for our sustainability data. We are a Sustainability Accounting Standards Board (SASB) Reporter, and align our reports to the UN Sustainable Development Goals and the recommendations of the Task Force on Climate-Related Financial Disclosures. Our public sustainability reports, policies and commitments can be found at: https://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies. The information contained on this website does not constitute a part of this Proxy Statement and is not incorporated by reference herein.

For More Information

We believe that it is important that Johnson Controls' stakeholders and others are able to review its corporate governance practices and procedures. Our corporate governance guidelines are embodied in a formal document that has been approved by Johnson Controls' Board of Directors. It is available on our website at *www.johnsoncontrols.com* under the heading "Investors-Corporate Governance." We will also provide a copy of the corporate governance principles to shareholders upon request. Our corporate governance guidelines and general approach to corporate governance as reflected in our Memorandum and Articles of Association and our internal policies and procedures are guided by U.S. practice and applicable federal securities laws and regulations and NYSE requirements. Although we are an Irish public limited company, we are not subject to, nor have we adopted, the U.K. Corporate Governance Code or any other non-statutory Irish or U.K. governance standards or guidelines. While there are many similarities and overlaps between the U.S. corporate governance standards applied by us and the U.K. Corporate Governance Code and other Irish/U.K. governance standards or guidelines, there are differences, in particular relating to the extent of the authorization to issue share capital and effect share repurchases that may be granted to the Board and the criteria for determining the independence of Directors.

COMPENSATION OF NON-EMPLOYEE DIRECTORS

Non-employee director compensation for fiscal 2021 consisted of an annual cash retainer of \$140,000 and restricted stock units ("RSUs") with a grant date value of approximately \$175,000 and a one-year vesting term. The Lead Director received an additional \$30,000 and the chairs of each standing committee received an additional fee of \$25,000. A Director who is also an employee receives no additional remuneration for services as a Director. In fiscal year 2021, the Governance and Sustainability Committee recommended no changes to non-employee director compensation in connection with its annual review of Director compensation, which included a review of industry and peer Director compensation practices. The Board believes that the compensation of its non-employee directors is reasonable, appropriate and consistent with market practice.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$) ⁽¹⁾	Total (\$)
Current Directors			
Ms. Jean Blackwell (GC) (2)	\$140,000	\$175,000	\$315,000
Mr. Pierre Cohade	\$140,000	\$175,000	\$315,000
Mr. Michael E. Daniels (CC)	\$165,000	\$175,000	\$340,000
Mr. Juan Pablo del Vale Perochena ⁽²⁾	\$165,000	\$175,000	\$340,000
Mr. W. Roy Dunbar	\$140,000	\$175,000	\$315,000
Ms. Gretchen R. Haggerty (AC) ⁽³⁾	\$160,261	\$175,000	\$335,261
Ms. Simone Menne	\$140,000	\$175,000	\$315,000
Mr. Jürgen Tinggren (L) ⁽³⁾	\$174,739	\$175,000	\$349,739
Mr. Mark Vergnano	\$140,000	\$175,000	\$315,000
Mr. R. David Yost	\$140,000	\$175,000	\$315,000
Mr. John D. Young	\$140,000	\$175,000	\$315,000

- (L)= Lead Director
- (AC)= Audit Committee Chair
- (CC)= Compensation and Talent Development Committee Chair
- (GC)= Governance and Sustainability Committee Chair
- (1) This column reflects the fair value of the entire amount of awards granted to Directors calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification (ASC) Topic 718, excluding estimated forfeitures. The fair value of RSUs is computed by multiplying the total number of shares subject to the award by the closing market price of the Company's ordinary shares on the date of grant. RSUs granted to Board members generally vest and the underlying units are converted to shares and delivered to Board members on the anniversary of the grant date.
- (2) In December 2021, Ms. Blackwell became the Chair of the Governance and Sustainability Committee, with Mr. del Vale Perochena remaining a member of the Governance and Sustainability Committee in anticipation of his retirement from the Board. Mr. del Vale Perochena served as chair of the Governance and Sustainability Committee for the entirety of fiscal year 2021.

⁽³⁾ In December 2020, Ms. Haggerty became the Chair of the Audit Committee and Mr. Tinggren became a member of the Governance and Sustainability Committee.

Charitable Contributions

The Board understands that its members, or their immediate family members, serve as directors, trustees, executives, advisors and in other capacities with a host of other organizations. If Johnson Controls directs a charitable donation to an organization in which a Johnson Controls Director, or their immediate family member, serves as a director, trustee, executive, advisor, or in other capacities with the organization, the Board must approve the donation. Any such donation approved by the Board will be limited to an amount that is less than 2% of that organization's annual charitable receipts, and less than 2% of Johnson Controls' total annual charitable contributions. In line with its matching gift policy for employees, going forward Johnson Controls will make an annual matching gift of up to \$3,000 for each Director to qualifying charities.

COMMITTEES OF THE BOARD

The table below sets forth committee membership as of the end of fiscal year 2021 and meeting information for each of the Board Committees.

Name	Audit	Governance and Sustainability	Compensation and Talent Development	Executive	Date Elected/ Appointed to Board
Ms. Jean Blackwell			Х		06/13/2018
Mr. Pierre Cohade	Х				12/05/2018
Mr. Michael E. Daniels			X(C)	Х	03/10/2010
Mr. Juan Pablo del Valle Perochena		X(C)		Х	09/02/2016
Mr. W. Roy Dunbar			Х		06/14/2017
Ms. Gretchen R. Haggerty	X(C)			Х	03/07/2018
Ms. Simone Menne	Х				03/07/2018
Mr. George R. Oliver				X(C)	09/28/2012
Mr. Jürgen Tinggren (L)		Х		Х	03/05/2014
Mr. Mark Vergnano			Х		09/02/2016
Mr. R. David Yost	Х				03/12/2009
Mr. John D. Young		Х			12/07/2017
Number of Meetings During Fiscal Year 2021	9	4	6	0	

(L) = Lead Director

(C) = Committee Chair

During fiscal 2021, the full Board met 6 times. All Directors attended at least 75% of the Board and committee meetings on which they sit. The Board's governance principles provide that Board members are expected to attend each Annual General Meeting in person or by phone. At the 2021 Annual General Meeting, all of our current Board members who were Board members at such time were in attendance.

Audit Committee. The Audit Committee monitors the integrity of Johnson Controls' financial statements, the independence and qualifications of the independent auditors, the performance of Johnson Controls' internal auditors and independent auditors, Johnson Controls' compliance with legal and regulatory requirements and the effectiveness of Johnson Controls' internal controls. The Audit Committee is also responsible for retaining, subject to shareholder approval, evaluating, setting the remuneration of, and, if appropriate, recommending the termination of Johnson Controls' auditors. The Audit Committee discusses with the independent auditor any critical audit matters. The Audit Committee holds meetings regularly with our independent and internal auditors, the Board, and management to review and monitor the adequacy and effectiveness of reporting, internal controls, and compliance with our Code of Ethics and other policies. The Audit Committee has been

Governance of the Company > Committees of the Board

established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended. The Audit Committee operates under a charter approved by the Board. The charter is posted on Johnson Controls' website at *www.johnsoncontrols.com* and we will provide a copy of the charter to shareholders upon request. The current members of the Audit Committee are Messrs. Cohade and Yost and Mses. Haggerty and Menne, each of whom is independent under NYSE listing standards and SEC rules for audit committee members. Ms. Haggerty is the chair of the Audit Committee. Mr. Tinggren served as Chair of the Audit Committee until December 2020, at which time he became a member of the Governance and Sustainability Committee and Ms. Haggerty assumed the role of Audit Committee Chair. Mr. Yost joined the Audit Committee in December 2020. The Board has determined that each of Mr. Yost and Mses. Haggerty and Menne are audit committee financial experts. Mr. Tinggren was independent under NYSE listing standards and SEC rules for audit committee financial experts during his time as a member of the Audit Committee members and determined to be an audit committee financial expert during his time as a member of the Audit Committee.

Governance and Sustainability Committee. The Governance and Sustainability Committee identifies individuals qualified to become Board members, recommending to the Board the Director nominees for the Annual General Meeting, develops and recommends to the Board a set of corporate governance principles, and plays a general leadership role in Johnson Controls' corporate governance and the oversight of environmental, social, governance, political, legislative, and public policy trends that could impact the Company. In addition, the Governance and Sustainability Committee oversees our environmental, health and safety management system and enterprise risk assessment activities, including the oversight of cybersecurity risk. The Governance and Sustainability Committee receives guarterly updates from management on cybersecurity, health and safety and sustainability matters. The Governance and Sustainability Committee reviews the Company's' overall sustainability strategy, metrics, targets, goals and progress, as well as the development of new sustainability-based targets. The Governance and Sustainability Committee also oversees and makes recommendations to the Board regarding the compensation of our independent Directors. The Governance and Sustainability Committee operates under a charter approved by the Board. The charter is posted on Johnson Controls' website at www.johnsoncontrols.com and we will provide a copy of the charter to shareholders upon request. The current members of the Governance and Sustainability Committee are Ms. Blackwell and Messrs. del Valle Perochena, Tinggren and Young, each of whom is independent under NYSE listing standards. Mr. del Valle Perochena served as Chair of the Governance and Sustainability Committee until December 2021, at which time Ms. Blackwell assumed the role of Governance and Sustainability Committee Chair in anticipation of Mr. del Valle Perochena's retirement. Mr. Yost served as a member of the Governance and Sustainability Committee until December 2020, at which time he became a member of the Audit Committee. Mr. Tinggren joined the Governance and Sustainability Committee in December 2020.

Compensation and Talent Development Committee. The Compensation and Talent Development Committee reviews and approves compensation and benefits policies and objectives, determines whether Johnson Controls' officers, Directors and employees are compensated according to these objectives, and assists the Board in carrying out certain of its responsibilities relating to the compensation of Johnson Controls' executives. The Compensation and Talent Development Committee also reviews: the talent development and succession plans for the CEO and other senior leadership positions, our human capital management practices, policies, strategies and goals, our senior leadership pipeline development, including the recruitment, development and retention of senior leadership talent, and our diversity and inclusion initiatives and progress. The Compensation and Talent Development Committee operates under a charter approved by the Board. The charter is posted on Johnson Controls' website at www.johnsoncontrols.com and we will provide a copy of the charter to shareholders upon request. The current members of the Compensation and Talent Development Committee are Messrs. Daniels, Dunbar and Vergnano. Mr. Daniels is the Chair of the Compensation and Talent Development Committee. Ms. Blackwell served as a member of the Compensation and Talent Development Committee until December 2021, at which time she assumed the role of Governance and Sustainability Committee Chair. The Board of Directors has determined that each of the current and former members of the Compensation and Talent Development Committee is independent under NYSE listing standards. In addition, each member is a "Non-Employee" Director as defined in the Securities Exchange Act of 1934 and is an "outside director" as defined in section 162(m) of the U.S. Code. For more information regarding the Compensation and Talent Development Committee's roles and responsibilities, see the Compensation Discussion and Analysis.

Executive Committee. The Executive Committee assists the Board in fulfilling its oversight responsibility with its review and monitoring of major corporate actions including external corporate development activities, business portfolio optimization, capital appropriations and capital expenditures. The Executive Committee was established in September of 2016 and operates under a charter approved by the Board. The charter is posted on Johnson Controls' website at *www.johnsoncontrols.com* and we will provide a copy of the charter to shareholders upon request. The current members of the Executive Committee are Mses. Blackwell and Haggerty and Messrs. Daniels, Oliver and Tinggren. Mr. Oliver is the chair of the Executive Committee.

Compensation Committee Interlocks and Insider Participation

During fiscal 2021, Ms. Blackwell and Messrs. Daniels, Dunbar and Vergnano served on the Compensation and Talent Development Committee. None of the members of the Compensation and Talent Development Committee during fiscal 2021, or as of the date of this Proxy Statement, is or has been an officer or employee of the Company and no executive officer of the Company served on the compensation committee or board of any company that employed any member of the Company's Compensation and Talent Development Committee or Board of Directors.

COMPENSATION DISCUSSION & ANALYSIS

At Johnson Controls our promise is to advance the safety, comfort and intelligence of spaces and places to power our customers' mission. This requires us to work with integrity and purpose, focus on our customers and the future, together as one team. To ensure we are successful, our compensation programs are designed to reward our employees, including our executive officers, accordingly.

This Compensation Discussion & Analysis (the "CD&A") section of our Proxy Statement sets out the mechanics of our executive compensation program, in particular its application and outcomes in respect of fiscal 2021, ending September 30, 2021.

2021 NAMED EXECUTIVE OFFICERS ("NEOs")

Named Executive Officer	Title				
George R. Oliver	Chairman & Chief Executive Officer				
Olivier Leonetti	Executive Vice President & Chief Financial Officer				
Jeffrey M. Williams	Vice President & President — Global Products, Building Technologies and Solutions				
Ganesh Ramaswamy	Vice President & President — Global Services				
John Donofrio	Executive Vice President, General Counsel				
Brian J. Stief	Former Vice Chairman & Chief Financial Officer ¹				

^{1.} Following the end of fiscal 2020, Mr. Leonetti succeeded Mr. Stief as our Chief Financial Officer. Mr. Stief subsequently retired from the Company on December 31, 2020.

EXECUTIVE SUMMARY FISCAL 2021 PRIORITIES AND PERFORMANCE

At Johnson Controls we transform the environments where people live, work, learn and play. As a global leader in technology that powers smart, healthy and connected buildings, our mission is to reimagine the performance of buildings to serve people, places and the planet, with sustainability at the heart of our business and fundamental to everything we do. Our values of integrity first, purpose led, customer driven, future focused and one team guide our actions and are the foundation of driving a high-performance culture that allows us to deliver strong financial results to our shareholders.

Our strategic focus has been to transform our business from a traditional buildings systems integrator into a smart buildings solutions leader. We believe this transformation positions us to lead the revolution of smart buildings, delivering both short term results and long-term value to our shareholders. Over the past several years, we have streamlined and invested in our business to develop the focus and capabilities to capitalize on key growth vectors, including decarbonization, smart buildings and healthy buildings, which we believe represents a \$250 billion opportunity over the next decade. Throughout this transformation, we have set aggressive and ambitious goals to motivate management to execute on our strategy and generate value for our shareholders. This motivation was evident during the depths of the fiscal 2020 economic downturn caused by the COVID-19 pandemic, where we did not back down from our strategy, but instead continued to position for the future, taking decisive actions to protect the health and wellbeing of our employees and their families, maintain the continuous functionality of critical infrastructure and essential facilities around the world and preserve our long-term viability and performance, all while taking critical steps forward in the execution of our core strategy, including investing in our digital products and launching our OpenBlue platform. This disciplined management of our business and strong execution helped advance our goals and established a strong foundation, upon which we continued to execute and build as we entered fiscal 2021.

Against a continuing backdrop of an ongoing pandemic and overall economic uncertainty caused by supply chain disruptions, labor shortages, inflation, and limited visibility, we entered fiscal 2021 with an ambition to overcome these uncertainties and capitalize on our strategic priorities as the global economy began to recover from the impacts of the pandemic. Amid these uncertainties, we were able to successfully navigate a challenging environment, simultaneously delivering strong financial performance, while advancing our strategic goals. We intensified our focus on accelerating our growth capabilities, leveraging innovative technologies, driving higher attachment of recurring services and capitalizing on our vectors of growth. We made significant progress in scaling our OpenBlue digital platform, expanding our partner ecosystem, and accelerating service growth and new product launches. We unveiled ambitious new ESG goals and Science-Based Targets. We executed on all of

our strategic initiatives with an emphasis on creating shareholder value through disciplined execution, productivity enhancements and sustainable cost management. Notably we:

- Delivered GAAP EPS of \$2.10 and full-year adjusted EPS of \$2.65, up 18% versus prior year;*
- Generated full year cash provided by operating activities of \$2.6 billion and full year free cash flow of \$2.0 billion, generating 105% conversion on an unadjusted basis;
- Generated substantial long-term value for shareholders, with our stock price at the end of fiscal 2021 near an all-time high and our three-year total shareholder return relative to the S&P 500 industrials above the 89th percentile;
- Overcame significant headwinds from higher raw material, indirect material, labor, and freight cost inflation, as well as supply chain inefficiencies to achieve year over year margin expansion;
- Returned over \$2 billion in capital to shareholders through ~\$1.3 billion in share buybacks and ~\$760 million in dividends; and
- Ended fiscal year 2021 with a strong balance sheet and liquidity profile.

Based on the strong performance and disciplined execution by management, we were able to successfully manage the uncertainties of the current economic environment and deliver significant value to our shareholders. As a result, the Compensation and Talent Development Committee determined that no COVID-19 related adjustments were necessary to our fiscal year 2021 Annual Incentive Performance program or our fiscal 2019-2021 performance share unit awards, which resulted in a 178.9% and 145.2% payout of target, respectively.

Looking ahead to fiscal year 2022, our focus turns to demonstrating and accelerating our growth capabilities. We believe our proven product technology leadership and focus on sustainability, combined now with our OpenBlue software platform, truly differentiates the solutions we can deliver to customers. We believe we are best positioned to lead the revolution of smart buildings, and we are fully committed to being a leader in creating healthier, safer and more sustainable buildings. To this end, we are leveraging the breadth and depth of our digitally enabled products and services with the capabilities of our OpenBlue software platform to create technologically driven, outcome-based services and solutions for our customers, while building a diverse workforce that is digital capable, solutions oriented and focused on continuous learning and growth. At the same time, we are fully committed to delivering on our cost reduction and productivity goals for the year and believe we are well on track to achieve significant margin expansion by fiscal year 2024. We believe that our balance sheet and cash flows are strong, our operating fundamentals are improved, and we are well positioned as a market leader to partner strategically with our customers to achieve their decarbonization goals and usher in the era of smart, healthy and sustainable buildings.

Other notable achievements in fiscal 2021 included the following:

- Secured \$400 million in Healthy Buildings orders
- Digital products & service revenue increased low double digits year over year
- Launched over 150 new products
- Launched 8 major offerings under our OpenBlue platform
- Achieved 40% service attachment rate
- Unveiled ambitious new ESG goals, including the goal of reaching net zero Scope 1 and 2 carbon emissions by 2040; received approval of our Science-Based Targets
- Recognized for ESG leadership, including being named to Global 100's Most Sustainable Corporations in the World list, one of Ethisphere's World's Most Ethical Companies, and maintained our AAA-Rating from MSCI

Reported revenue increased 6% versus the prior year, or 4% on an organic basis, with service growth exceeding prepandemic levels, as a result of our increased focus on services. Our products business also demonstrated strong organic growth, led by accelerated new product launches and share gains across the portfolio.

In keeping with our broader strategy to enhance our technology portfolio and innovation capabilities through inorganic means, we completed the acquisition of Silent-Aire, a leader in the high-growth hyperscale data center cooling and modular critical infrastructure market.

Field backlog ended fiscal 2021 at \$10.1 billion, up 10%, reflecting strong order growth.

In an effort to further optimize our cost structure, enhance operational efficiency and deliver meaningful margin expansion, We launched a substantial new productivity program designed to generate substantial savings by the end of fiscal year 2023. As part of those actions, we achieved our savings targets for fiscal 2021.

Compensation Discussion & Analysis > Fiscal 2021 Priorities

* See Annex I to this Proxy Statement for a reconciliation of adjusted EPS from continuing operations, free cash flow, free cash flow conversion and organic revenue growth to our results for the most directly comparable financial measures as reported under generally accepted accounting principles in the United States.

FISCAL 2021 COMPENSATION

Our compensation program is designed to effectively and transparently align compensation with performance. Accordingly, the achievements described on the previous pages are reflected in the outcomes under our compensation program, with annual incentives and fiscal 2019-2021 Performance Share Unit ("PSU") awards being earned above target based on our strong operating performance and the disciplined execution of our strategic plan to become a smart buildings solutions leader. As a result of our strong performance, disciplined execution and overall ability to manage through the impacts of the COVID-19 pandemic, no adjustments were made to our Annual Incentive Performance Program ("AIPP") or our PSUs in fiscal 2021.

In fiscal 2021, we updated our Annual Incentive Performance Program ("AIPP") to align executive compensation with our ambitious Environmental, Social and Governance ("ESG") goals. As we continue to elevate sustainability, with oversight by our Board of Directors, we linked executive compensation to our sustainability and diversity goals to drive individual leadership accountability. Each NEO had an individual contribution modifier applied to their annual incentive award calculation, considering actions and behaviors related to business financial performance, operational improvements, and maintaining a high-performance culture including ESG, Diversity Equity and Inclusion ("DEI"), and organizational health ("OHI").

Fiscal 2021 annual incentive awards paid out at 178.9% of target for the NEOs See **page 59** for details 2019-2021 PSU awards subject to a three-year performance period concluding September 30, 2021, paid out at 145.2% of target See **page 63** for details

To assess the alignment between performance and compensation, the Compensation and Talent Development Committee (the "Committee") relies on advice from its independent compensation consultant, Farient Advisors LLC. Farient evaluates the relationship between performance and compensation, and the Committee then considers this relationship in making pay decisions pertaining to the CEO. On the Committee's behalf, Farient used a number of methods in assessing our pay for performance alignment, including:

- Farient's proprietary alignment methodology, which assesses the extent to which 3-year Total Shareholder Return ("TSR") and 3-year average Performance-Adjusted Compensation (which includes actual salary, actual annual incentives paid, and the value of equity at the end of the 3-year period using actual PSU awards, if known, and target PSU awards for incomplete performance cycles, and the Black-Scholes value of options granted during the 3-year period, all valued at the stock price at the end of the 3-year period) are aligned;
- A review of pay-for-performance tests used by proxy advisory firms; and
- An analysis of realizable pay relative to target pay compared to peers.

Given the results of these assessments, the Committee concluded that Johnson Controls' executive compensation, including that for the CEO, is aligned with our performance.

FISCAL 2021 KEY COMMITTEE ACTIVITIES

During fiscal 2021, the Committee addressed several items in addition to the standing annual agenda items which are highlighted below.

Shareholder Engagement The Company continued its yearly shareholder outreach efforts, offering meetings to our top 25 shareholders, representing approximately 60% of the Company's outstanding shares. Meetings were requested by two shareholders, representing 16% of the company's outstanding shares, during fiscal 2021 and provided the Company with valuable feedback. In addition, several shareholders declined requests for meetings, noting that engagement was unnecessary due to no significant concerns with our compensation or governance practices.

Feedback indicated that investors continue to be comfortable with the general structure and operation of our executive compensation program. Discussions focused on topics related to ESG governance, diversity and inclusion and our OpenBlue platform. Our investors indicated that they were pleased with our corporate responsibility and sustainability efforts. These topics are discussed in detail on page 38 of our Proxy Statement.

FY21 Compensation Committee Actions The Committee has made the following changes for fiscal 2021:

- Revised the Compensation Committee Charter and renamed the Committee the Compensation and Talent Development Committee, enhancing the Committee's oversight of talent development and human capital management.
- The Committee continued to monitor trends and developments with respect to incentive compensation recoupment policies. As part of this monitoring, in December 2020 the Committee expanded our recoupment policy to allow us to recoup incentive based and equity compensation for misconduct that has the potential to cause material reputational harm.
- The Committee monitored the impact of the COVID-19 pandemic on our AIPP and outstanding PSU awards. As a result of our strong performance, disciplined execution and overall ability to successfully manage through the impacts of the COVID-19 pandemic, no adjustments were made to our executive compensation programs in fiscal 2021.
- Updated the AIPP with an intentional focus on rewarding our ability to drive greater accountability in achieving our strategic goals, including driving incremental services growth, and rewarding both business unit and individual performance through the use of performance modifiers. The business unit performance modifier takes into consideration financial, diversity and sustainability results achieved by each business unit in order to distribute the overall AIPP appropriately based on performance.

Beginning in fiscal 2020, our NEOs and other executives had an individual contribution modifier added to their AIPP. For fiscal 2021, the individual modifier was applied, driving accountability for leadership actions and behaviors related to business financial performance, operational improvements, and maintaining a high-performance culture including ESG, DEI, and OHI.

The Committee has made the following changes to our PSU metrics for fiscal 2022-2024:

The Committee reviewed our PSU award design and metrics and remains committed to using three-year cumulative metrics. The Committee will maintain its balanced emphasis on pre-tax earnings and TSR. The Committee determined to change one metric for fiscal 2022, removing after-tax return on invested capital ("ROIC") and adding recurring revenue, which is in-line with our strategy to drive growth through digitally-enabled products, services and solutions. The Committee believes that recurring revenue provides a stronger correlation to executing our strategy, increasing our valuation and the potential to generate higher future returns when compared to ROIC.

Recurring revenue generation directly correlates with our strategy to leverage our product and technology portfolio to create differentiated services and solutions. Our high value and advanced services and solutions, such as OpenBlue Enterprise Manager, OpenBlue Buildings as a Service, OpenBlue Net Zero Buildings as a Service and OpenBlue Healthy Buildings, not only support sustainability through energy efficiency and energy usage reduction for our customers, but are also designed to drive higher and less volatile recurring revenues, lower attrition risk, lower cost of sale, and higher profitability over time. We believe recurring revenue will be a growth driver as we pursue more long-term service contracts as well as subscription and "as a Service" revenue. The incorporation of recurring revenue into our fiscal 2022-2024 PSU metrics will align the performance of our executives with our strategy to drive growth through digitally-enabled products, services and solutions and lead the transformation to smart and sustainable buildings.

FY22 Compensation Committee Actions

NAVIGATING THE CD&A

In the balance of this CD&A we provide additional details on the items described on the previous pages, along with information on our executive compensation design, management and outcomes.

Executive Compensation Framework	Executive Compensation Philosophy and Principles Elements of Executive Compensation				
Executive Compensation Management	Roles in Determining Executive Compensation Use of an Independent Compensation Consultant Annual Say-on-Pay Vote Shareholder Engagement Use of Market Data Metric Selection and Goal Setting	53			
Fiscal 2021 Compensation Decisions and Outcomes	Base Salary Annual Incentive Performance Program Long-Term Equity Incentive Awards	58			
Additional Information	Other Executive Compensation Policies Executive Benefits and Perquisites Executive Severance and Change-in-Control Policy Global Executive Assignment Agreement Tax and Accounting Considerations	64			

EXECUTIVE COMPENSATION FRAMEWORK

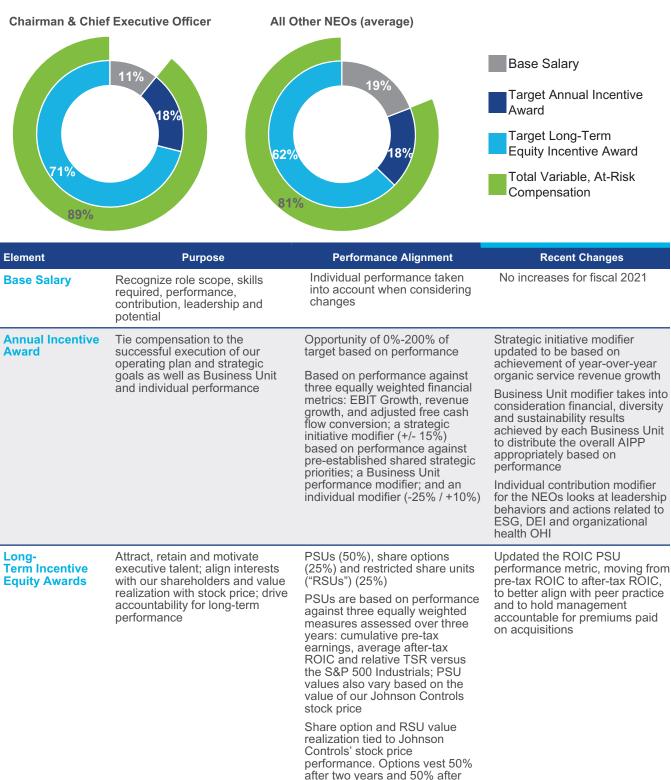
EXECUTIVE COMPENSATION PHILOSOPHY AND PRINCIPLES

Our executive compensation program is designed to attract and retain highly-qualified executives, motivate our executives to achieve our overall business objectives, and align our executives' interests with those of our shareholders. We achieve this through a set of underlying principles that inform the design and operation of our executive compensation program. We believe that our fiscal 2021 compensation practices demonstrated our commitment to these principles in the face of a challenging environment.

Pay-for-performance	1	Set majority of compensation as variable and at-risk
	1	Tie incentives to performance against financial, operational, strategic and individual goals
	1	Use quantifiable and measurable performance metrics and goals that are clearly disclosed
	1	Provide significant upside and downside potential for superior and low performance
Target pay appropriately	1	Benchmark compensation against practices in similarly-sized general industry companies
	1	In general, target compensation at market median for comparable positions
Align interests with our	1	Design programs that discourage unnecessary or excessive risk-taking
stakeholders	1	Cap payout opportunities under the incentive plans
	1	Minimum vesting periods for equity awards
	1	Reward long-term financial results that drive financial creation through a balanced equity mix
	1	Operate meaningful share ownership guidelines
	1	Provide a pay recoupment (i.e., clawback) policy, which was expanded in fiscal 2021
	1	Prohibit insider trading, hedging and pledging of Company stock
	1	Engage with shareholders on executive compensation matters
	1	Engage an independent compensation consultant to provide analysis and advice
	1	Conduct an annual say-on-pay vote
Avoid poor governance	×	No tax gross-ups on any change-in-control benefits
practices	×	No single-trigger accelerated vesting on a change-in-control (double-trigger provisions)
	×	No discounting, reloading or re-pricing of share options without shareholder approval
	×	No guaranteed compensation or guaranteed increases
	×	No excessive perquisites
	×	No employment agreements with executive officers, except where legally required, in which case they follow market norms
	×	No dividends paid on unvested restricted share units or performance share units until such awards vest

ELEMENTS OF EXECUTIVE COMPENSATION

Consistent with our compensation philosophy, the majority of our NEOs' target total direct compensation in fiscal 2021 was variable and at-risk.



three years; RSUs vest equally

over three years

EXECUTIVE COMPENSATION MANAGEMENT

The Committee comprises independent directors who develop, amend and approve our executive compensation program. To ensure the executive compensation program is effective and reasonable, the Committee uses a variety of inputs including the results of our annual say-on-pay vote, feedback from shareholders, the advice of the Committee's independent compensation consultant informed by market practices, and input from the Chairman & Chief Executive Officer.

ROLES IN DETERMINING EXECUTIVE COMPENSATION

Compensation Committee

- Develop, amend and approve executive compensation programs to remain consistent with our values and philosophy, support the recruitment and retention of executive talent, and help achieve business objectives
- Determine and approve the appropriate level of compensation for all executive officers, other than the CEO
- Determine and approve short- and long-term incentive plan targets for all executive officers, other than the CEO
- Evaluate CEO individual performance and recommend CEO compensation to the independent Board of Directors
- Review talent development and succession plans for the CEO and other executive officer roles, and make recommendations to the independent Board of Directors regarding the appointment of the executive officers
- Approve the independent compensation consultant's fees and terms of the engagement

Independent Directors of the Board

- Review and approve CEO compensation, and annual and long-term corporate goals relevant to CEO compensation
- Review and approve talent development and succession planning recommendations for all executive officer roles

CEO

 Evaluate performance for the executive officers, other than himself, and make compensation recommendations to the Committee

Independent Compensation Consultant

- Inform the Committee of market trends, developments in executive compensation, and provide recommendations for appropriate adjustments to the Company's compensation program, policies, and practices in-line with our business and talent strategies, and investor expectations
- Analyze the prevailing executive compensation structure and plan designs, and assess the competitiveness of our compensation program in the context of aligning executive officer interests with those of our shareholders
- Test the incentive plan performance goals to ensure appropriate rigor and alignment with shareholder interests

USE OF AN INDEPENDENT COMPENSATION CONSULTANT

The Committee has the sole authority to engage the services of outside advisors, experts, and others to assist in performing its duties. Since December 2017, the Committee has engaged Farient Advisors. Other than the services it provided to the Committee, Farient Advisors did not provide any services to the Company. The Committee has considered and assessed all relevant factors that could give rise to a potential conflict of interest with respect to the work performed. Based on this review, the Committee has determined that Farient Advisers is independent of the Company and its management, and did not identify any conflict of interest.

ANNUAL SAY-ON-PAY VOTE

In designing our executive compensation program, the Committee annually presents a 'say-on-pay' vote to our shareholders. In March 2021, we received 92.53% support, indicating the majority of our shareholders supported our executive compensation program.

SHAREHOLDER ENGAGEMENT

Johnson Controls is committed to maintaining ongoing dialogue with our shareholders to enable us to solicit and respond to feedback about our executive compensation programs in a timely manner. The feedback that we receive through our bi-annual engagement efforts is an important input into discussions and decisions regarding executive compensation, in addition to market practices, the advice of our independent compensation consultant and business strategy.

During fiscal 2021, we reached out to our top 25 shareholders, representing approximately 60% of our outstanding shares. Two investors, representing approximately 16% of our outstanding shares, requested meetings. In addition, several shareholders declined requests for meetings noting that engagement was unnecessary due to no significant concerns with our governance and compensation practices. Consistent with prior years, we heard that our shareholders are pleased with our approach to executive compensation, following changes made over the past few years. We believe, based on our analysis, the input of our independent compensation consultant and external feedback received, both from our directed outreach and our regular year-round engagements between management and our shareholders, that our executive compensation program is well aligned with shareholders' interests.

What We Heard	Our Response
A general interest in ESG and the incorporation of ESG metrics into executive compensation	For fiscal 2021, we updated the individual modifier of our annual incentive plan to enable the assessment of an individual's contribution to business financial performance, operational improvements, and our high-performance culture, including ESG, DEI, and OHI.
	Our investors were supportive of how we use ESG in our current overall compensation structure.

Investors also raised topics related to diversity and inclusion and the Company's sustainability governance and risk management structure. These topics are discussed in detail on pages 28, 29 and 38 of our Proxy Statement.

JCI is committed to ongoing engagement as it provides helpful insight into the real-time perspectives of our shareholders.

USE OF MARKET DATA

The Committee engages the independent compensation consultant to undertake an annual review of the compensation peers that are used to provide insight into market competitive pay levels and practices. In partnership with our independent compensation consultant, a robust process has been established to appropriately assess the relevance of different companies in the context of making compensation comparisons. As with prior years, an established process was used to assess the peer group composition and to establish the fiscal 2021 peers.



In June 2020, the Committee approved several modifications to the compensation peer group. These changes were made to ensure continued business relevance following transaction activity within the industry. This compensation peer group was used to inform pay decisions in respect of fiscal 2021.

Fiscal 2021 Compensation Peers		Changes
 3M Company Carrier Global Corporation* Caterpillar Inc. Cummins Inc. Deere & Company Eaton Corporation* Emerson Electric Co.* 	 General Dynamics Corporation Honeywell International, Inc.* Otis Worldwide Corporation Parker Hannifin Corporation Stanley Black & Decker Inc. Trane Technologies* 	Removed: Fluor Inc., Ingersoll-Rand plc, Raytheon Company Added: Carrier Global Corporation, Trane Technologies, Otis Worldwide Corporation

(*) The Committee also referenced a subset of the compensation peers (the "select peer group") marked above with the addition of Lennox International, to provide additional context when setting performance goals under Johnson Controls' performance-based incentive plans for fiscal 2021. Lennox International is not included as a compensation peer because it is significantly smaller than Johnson Controls and falls outside of the revenue size criteria. Additional information on the goal setting process is summarized in the following section.

In using the market data, the Committee generally sets an initial guideline of positioning target total direct compensation (base salary, annual incentive target, and long-term incentive target) for each of our executive officers within a range (+/-15%) of the 50th percentile of the compensation peer group. At the time of approval of the fiscal 2020 compensation peers, Johnson Controls ranked at approximately the 50th percentile with respect to revenue. Following the removal of some larger companies,

Compensation Discussion & Analysis > Use of Market Data

and addition of some smaller companies, Johnson Controls ranked at approximately the 50th percentile with respect to revenue relative to the fiscal 2021 compensation peers. The Committee remains comfortable that the combination of this market positioning and compensation peer group is appropriate.

Given reliable proxy data is only consistently available for the CEO and CFO, general industry survey data is referenced using the same approach for these as well as all other roles. The variation of actual pay relative to the market data is dependent on the executive officer's performance, experience, knowledge, skills, level of responsibility, potential to impact our performance and future success, and the need to retain and motivate strategic talent.

METRIC SELECTION AND GOAL SETTING

Central to our pay-for-performance philosophy is maintaining a rigorous goal setting process that is used to determine both our annual and long-term incentive plan performance targets. Each year, management, the Committee, and our independent consultant spend meaningful time determining metrics, goal ranges, and testing the appropriateness of our incentive plan thresholds, targets, and maximums.

For fiscal 2021, the Committee reaffirmed its support of fundamental aspects of plan design, approving some updates informed by shareholder feedback for fiscal 2021.

For AIPP:

- Updated the AIPP strategic initiative modifier to achievement of year-over-year organic service revenue growth. Improving this measure has a significant impact on shareholder value and on meeting shareholder expectations relative to the execution of our strategy to drive service growth.
- Added a Business Unit performance modifier to the AIPP, taking into consideration financial, diversity and sustainability results achieved by each Business Unit to distribute the overall AIPP appropriately based on performance in all areas.
- Updated the individual modifier to enable the assessment of an individual's contribution to business financial performance, operational improvements, and maintain our high-performance culture including ESG, DEI, and OHI.

For PSUs:

Updated the PSU performance metric from pre-tax ROIC to after-tax ROIC to better align with the peer practice and to hold management accountable for premiums paid on acquisitions.

Both management and the Committee believe these changes further align our compensation strategy with our business strategy and will focus our executives on delivering long-term, sustainable value creation for our stakeholders.

Following the agreement of metrics, we establish the performance goals and ranges associated with each of them. The objective is to set ranges that contain adequate stretch, but also fit within our risk framework so as not to encourage excessive risk taking. In setting goals, we take account of the Company's historical and projected performance, historical and expected performance of the S&P 500 Industrials, and historical and projected performance of our select peer group in conjunction with our annual plan and external macro-economic factors impacting our business.

Based on the data, management proposes goal ranges for each performance metric to the Committee, which are also assessed by the independent compensation consultant. In its analysis, our independent consultant assesses the probability of achievement of our threshold, target, and maximum goals given historical performance realized among peers and the S&P 500 Industrials and provides the Committee with an independent perspective on the robustness of our goals. The Committee tests the stretch and potential payouts to ensure they are challenging and the level of performance will be reflected appropriately in the payout levels.

Propose	Evaluate	Approve
Management	Independent Consultant	Compensation Committee
Proposes goal ranges based on analysis of:	Evaluate management-proposed ranges by:	Approves the proposed ranges following a review of materials
 Johnson Controls' financial forecasts 	 Assessing likelihood of achievement based on 	prepared by management and the independent compensation consultant, and the resolution of any
 Historical S&P 500 Industrials performance 	historical performanceValidating against analyst	questions raised which may result in revisions to the proposed ranges
 Projected S&P 500 Industrials performance 	expectations of performanceReviewing absolute value and	
 Projected compensation and select peers' performance 	spread of threshold, target and maximum goals	
 Analyst expectations 		
Shareholder feedback		
 Macro-economic trends 		

Our metric selection and goal setting processes allow for the continual assessment of how our incentives support our strategy and drive shareholder returns.

The Committee receives interim performance updates at subsequent meetings to understand how the Company is progressing in the context of the performance goals set at the outset of the year.

Compensation Discussion & Analysis > Fiscal 2021 Compensation Decisions and Outcomes

FISCAL 2021 COMPENSATION DECISIONS AND OUTCOMES

BASE SALARY

Following a review of compensation in September 2020, the base salaries of Messrs. Oliver, Williams, Ramaswamy Donofrio and Stief were left unchanged for fiscal 2021, effective October 1, 2020.

NEO	Fiscal 2020 Target Base Salary	Target Percent Change	Fiscal 2021 Target Base Salary
George R. Oliver	\$1,500,000	0%	\$1,500,000
Olivier Leonetti	\$ 740,012	0%	\$ 740,012
Jeffrey M. Williams	\$ 800,000	0%	\$ 800,000
Ganesh Ramaswamy	\$ 725,000	0%	\$ 725,000
John Donofrio	\$ 700,000	0%	\$ 700,000
Brian J. Stief	\$ 742,000	0%	\$ 742,000

ANNUAL INCENTIVE PERFORMANCE PROGRAM

Our AIPP rewards executives for their execution of our operating plan and other strategic initiatives, as well as for financial performance that drives long-term shareholder value creation. Award opportunities are generally targeted at market 50th percentile. This plan places a significant portion of total cash compensation at risk, thereby aligning executive rewards with financial results. It also offers an opportunity for meaningful pay differentiation tied to the performance of the enterprise, Business Unit, and individual contributions. Payment is capped at 200% regardless of the achievement of the strategic and individual modifiers and Business Unit performance.



In December 2020, the Committee approved the fiscal 2021 AIPP performance measures and their associated goals. Financial measures remained unchanged, consisting of earnings before interest and taxes ("EBIT") growth, revenue growth, and enterprise free cash flow conversion. New for fiscal 2021, we made a change to further align with our business strategy, rewarding our ability to drive services growth with the introduction of a service strategic modifier. These measures, defined below, were selected as they focus our executive officers on the Company's performance, profitability, operating strength and efficiency.

Once the fiscal 2021 AIPP funding is established, the CEO assesses each business unit's financial, ESG, DEI and OHI results to determine specific business unit AIPP pools (total combined pool not to exceed the overall pool created by the financial and strategic results). Participants within our various functions will align to the business they support. Modifying the pool based on business unit results allows us to incorporate important ESG metrics into our business-level performance assessments.

Finally, an individual contribution modifier is applied. The CEO assesses individual performance for the NEOs other than himself; the Committee assesses the CEO's performance.

Metric and Definition	Weight	Why It Matters
EBIT growth Net income adjusted for income tax expense, financing costs, non-controlling interests, foreign exchange and certain significant special items, such as transaction/integration/ separation costs, impairment charges, acquisitions/divestitures, restructuring costs and mark-to-market adjustments related to restricted asbestos investments and pension and post- retirement plans and the adoption of new accounting pronouncements, all as reflected in our audited financial statements that appear in our Annual Report on Form 10-K.	1/3	Aligns annual organic EBIT growth resulting from effective and efficient execution of our operating plan to broadly comparable companies subject to similar external market and economic factors.
Revenue growth Revenue adjusted for the impact of foreign exchange and acquisitions/divestitures.	1/3	Aligns annual organic revenue growth resulting from strong sales execution, product and innovation investments, and market share gains to broadly comparable companies subject to similar external market and economic factors.
Free cash flow conversion Free cash flow divided by net income attributable to JCI, is with net income adjusted for certain significant special items such as transaction/integration/ separation costs, impairment charges, acquisitions/divestitures, restructuring costs, one-time tax items and the adoption of new accounting pronouncements, all as reflected in our audited financial statements that appear in our Annual Report on Form 10-K. Free cash flow is defined as cash provided by operating activities less capital expenditures.	1/3	Establishes annual free cash flow conversion improvement targets resulting from trade working capital and other operating cash flow initiatives accompanied with disciplined capital expenditure management. Our ability to generate cash is critical to our growth and funding of operating activities.
 Corporate strategic initiative modifier One metric is utilized: Achievement of year-over-year organic service revenue growth 	Modifier +/- 15%	Improving this measure has a significant impact on stock price and on meeting the investment community's expectations.
Business Unit results Once the overall AIPP pool is created from the financial and strategic performance of the enterprise, the CEO assesses the results of each specific business unit for our NEO's and other participating executives. This assessment takes into consideration financial, diversity and sustainability results achieved by each business unit to distribute the overall AIPP appropriately based on performance (total combined pool not to exceed the overall pool created by the financial and strategic results).	Modifier%	Enables higher awards for business units who obtain higher level financial, ESG, DEI and OHI.
 Individual modifier Leadership actions and behaviors are assessed related to each focus area: Growth: Business financial performance Operational improvements: OPEX transformation initiatives and safety High-performance culture: ESG, Diversity, DEI and OHI 	Modifier +10% / - 25%	Enables the Committee to adjust awards informed by a judgement-based assessment of how performance was delivered versus our culture and values and any exceptional circumstances during the year.

The same metrics and overall strategic modifier apply to all NEOs. Payment is capped at 200%.

Fiscal 2021 AIPP Performance

Fiscal 2021 was a strong year for the Company, delivering on all financial and strategic commitments amid substantial uncertainty and headwinds caused by supply chain disruptions, labor shortages, inflation, and limited visibility. This was

Compensation Discussion & Analysis > Fiscal 2021 AIPP Performance

evidenced through organic sales growth of over 4%, double digit EBIT growth, strong margin execution and cash generation, with free cash flow conversion at 105%. Our service business also grew over 4% organically, exceeding pre-pandemic levels, as a result of the increased focus on this part of our business. This aggregate performance resulted in annual bonuses being earned above target, with payouts of 178.9% of target.

		Fiscal 2021 Performance Goals			Payout I	Factor	
Financial Performance Metric	Weight	Threshold	Target	Maximum	Actual	Unweighted	Weighted
EBIT Growth	1/3	2.0%	6.0%	12.0%	11.6%	193.7%	
Revenue Growth	1/3	1.5%	3.0%	4.5%	4.1%	176.3%	178.9%
Enterprise Free Cash Flow Conversion	1/3	90%	95%	110%	105%	166.7%	

Performance in respect of the strategic initiative modifier was as follows:

Strategic Initiative Modifier Metric	Performance Goal*	Modifier %	Results	
Achievement of YOY Organic Service Revenue Growth	≥7.0%	+15%	4.3%	
	.≤4.0%	-15%		
Total Strategic Initia	Total Strategic Initiative Modifier			

* This chart is not interpolated. Achievement between 4% and 7% results in no modifier.

This combination of financial and strategic performance resulted in a formulaic AIPP result and funding level of 178.9%.

Next, the CEO assessed the results of each specific Business Unit for the NEO's. This assessment takes into consideration financial, diversity and sustainability results achieved by each Business Unit in order to distribute the overall AIPP appropriately based on performance. The Business Unit modifiers applicable to the NEO's in respect of fiscal 2021 are displayed in the table below. For each of the NEOs, the application of the Business Unit modifier was based on the performance of the Company as a whole with the exception of Mr. Williams, whose Business Unit modifier was based on the performance of the Company's Global Products reporting segment.

Finally, leadership actions and behaviors were assessed related to the focus areas of growth, operational improvements and high-performance culture. Individual modifiers for the NEOs in respect of fiscal 2021 are displayed in the table below.

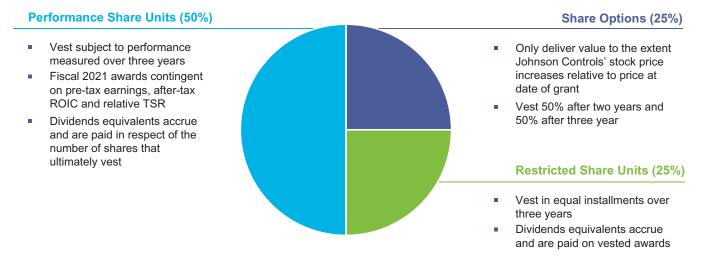
The table below summarizes the target award potential and eventual payout amounts for the NEOs in respect of fiscal 2021 performance.

NEO	Target Opportunity (% salary)	Target Opportunity	Financial and Strategic Payout Factor	Business Unit Modifier	Individual Modifier	Total Payout Factor	Fiscal 2021 Annual Incentive Award
George R. Oliver	160%	\$2,400,000	178.9%	100%	100%	178.9%	\$4,293,600
Olivier Leonetti	100%	\$ 740,012	178.9%	100%	100%	178.9%	\$1,323,881
Jeffrey M. Williams	95%	\$ 760,000	178.9%	100%	100%	178.9%	\$1,359,640
Ganesh Ramaswamy	90%	\$ 652,500	178.9%	100%	100%	178.9%	\$1,167,322
John Donofrio	90%	\$ 630,000	178.9%	100%	100%	178.9%	\$1,127,070
Brian J. Stief ¹	110%	\$ 204,050	178.9%	100%	100%	178.9%	\$ 365,045

1 Mr. Stief's target opportunity and payout was prorated 25% based on the number of days worked within the fiscal 2021.

LONG-TERM EQUITY INCENTIVE AWARDS

Another key element in the compensation of our executive team is long-term equity incentive awards, which tie a significant portion of compensation to the Company's performance over time. In fiscal 2021, three different types of long-term incentive vehicles were granted to our NEOs:



In combination, we believe these grants provide a balanced focus on sustainable long-term shareholder value creation and retention of key executives in the interests of our collective stakeholders. They are also reflective of market practice within our compensation peer group. The total target grant value is established based on generally targeting the market 50th percentile.

FIS				
	VALUE OF SHARE OPTIONS	VALUE OF RSUs	VALUE OF PSUs	TOTAL TARGET VALUE OF AWARD
George R. Oliver	\$2,375,000	\$2,375,000	\$4,750,000	\$9,500,000
Olivier Leonetti	\$ 650,000	\$ 650,000	\$1,300,000	\$2,600,000
Jeffrey M. Williams	\$ 750,000	\$ 750,000	\$1,500,000	\$3,000,000
Ganesh Ramaswamy	\$ 550,000	\$ 550,000	\$1,100,000	\$2,200,000
John Donofrio	\$ 550,000	\$ 550,000	\$1,100,000	\$2,200,000
Brian J Stief*	—		\$ 111,792	\$ 111,792

* Mr. Stief received a portion of PSUs to reflect his prorated service within the performance period.

Fiscal 2021-2023 Performance Share Units

Performance Share Units ("PSUs") help to ensure our executives' pay is directly linked to the achievement of strong, sustained long-term operating performance. The balance of metrics focuses senior leaders on making strategic investments that optimize long-term shareholder value.

For 2021-2023 awards, we moved from a pre-tax ROIC metric to an after-tax ROIC metric to better align with peer practice and to hold management accountable for premiums paid on acquisitions. The 2021-2023 awards are subject to three independently weighted measures, with performance assessed over three cumulative years.

Metric, Weight and Definition	Weight	Why It Matters
Pre-tax earnings growth Income before income taxes, adjusted for foreign exchange, M&A and for certain significant special items, such as transaction/integrations/ separation costs, gain or loss on divestitures, impairment charges, restructuring costs, mark-to-market adjustments related to restricted asbestos investments and pension and post-retirement plans, and the adoption of new accounting pronouncements – all as reflected in our audited financial statements that appear in our Annual Report on Form 10-K.	1/3	Aligns three-year organic pre-tax earnings growth resulting from the effective execution of our strategic operating plan to broadly comparable companies subject to similar external market and economic factors. Our ability to generate long-term profitability is critical to our growth and funding of operating activities.
After-tax ROIC ROIC is net income adjusted for after-tax interest expense and non-controlling interests, foreign exchange, M&A, and for certain significant special items, such as transaction/integration/separation costs, gain or loss on divestitures, impairment charges, restructuring costs, mark-to-market adjustments related to restricted asbestos investments and pension and postretirement plan, and the adoption of new accounting pronouncements – all as reflected in our audited financial statements that appear in our Annual Report on Form 10-K – divided by invested capital. Invested capital is the monthly weighted average sum of shareholders equity plus total debt less cash, adjusted for acquisitions/ divestures and other special items.	1/3	Establishes three-year after-tax return on invested capital improvement targets resulting from the effective execution of our strategic operating plan and the efficient deployment of capital to enhance long-term shareholder value. Our ability to generate adequate returns on our investments is critical to our growth and funding of operating activities.
TSR relative to S&P 500 Industrials Percentage change in Johnson Controls' share price over the performance period (with an adjustment for reinvestment of dividends), relative to S&P 500 Industrials. The starting price is based on the 30-trading-day average preceding the start of the performance cycle. The ending price is based on the 30-trading-day average preceding the end of the performance cycle.	1/3	Aligns Johnson Controls' three-year stock performance, including reinvestment of dividends, to the S&P 500 Industrials. Investors recognize TSR as an appropriate measure to motivate executives and achieve alignment with shareholder interests.

The Committee set the earnings growth and ROIC thresholds, targets and maximums for the fiscal 2021-2023 performance period based on Johnson Controls' long-term strategic plan, as well as consideration of long-term performance expectations for the S&P 500 Industrials. This approach ensures that we provide competitive incentive compensation based on market competitive performance while continuing to focus on our strategic long-term commitments. Given the commercial sensitivity of our long-term goals, the 2021 PSU performance goals will be disclosed at the conclusion of the three-year performance period.

		Fiscal 2021 Performance Goals				
Performance Metric	Weight	Threshold	Target	Maximum		
Pre-tax Earnings Growth	1/3 rd	The three-year performance goals associated with these measures will be disclosed at the conclusion				
After-tax ROIC	1/3 rd	of the performance period				
TSR Relative to S&P 500 Industrials	1/3 rd	≥25 th percentile	≥50 th percentile	≥75 th percentile		

The payout opportunity in respect of each element is calculated separately and weighted to arrive at a final payout.

	Below Threshold	Threshold	Target	Maximum
Payout (% of Target)	0%	50%	100%	200%

The payout is calculated using interpolation between threshold and target, and target and maximum.

Fiscal 2019-2021 Performance Share Units

The 2019 – 2021 PSU awards were subject to three independently weighted measures, Pre-tax earnings growth, Pre-tax ROIC and Relative TSR. Based on cumulative performance over three-years, awards vested at 145.2% of target.

		Fiscal 2019 - 2021 Performance Goals		Actual		Weighted		
Performance Metric	Weight	Threshold	Target	Maximum	Performance	Results	Performance	
Pre-tax Earnings Growth	1/3 rd	\$375	\$585	\$785	\$548	91.3%	30.4%	
After-tax ROIC	1/3 rd	100 bps	190 bps	280 bps	230 bps	144.4%	48.1%	
TSR Relative to S&P 500 Industrials	1/3 rd	≥25 th percentile	≥50 th percentile	≥75 th percentile	89.5 th percentile	200.0%	66.7%	
2019 – 2021 PSU Final Payout Percentage 14								

Fiscal 2021 Share Options and Restricted Share Units

By awarding share options and RSUs, we link long-term incentives directly to our share price. If our share price decreases, so does the value of the executive officer's compensation. Share options and RSUs also help us maintain competitive compensation levels in the market and retain high-performing employees through multi-year vesting requirements.

We valued fiscal 2021 share options using a Black-Scholes valuation. Their strike price is equal to the closing price of our common shares on the date of the grant. Fifty percent of each share option award vests two years after the date of grant, and the other fifty percent vests three years after the date of grant. Share option vesting is subject to continued employment, with earlier vesting upon retirement, and share options have a ten-year exercise term. The Committee does not permit or engage in "backdating," repricing or cash buyout of share options.

We value RSUs based on the closing price of our shares at the date of grant. RSUs generally vest in equal installments over three years.

Updates to Fiscal 2022-2024 Performance Share Units

For fiscal 2022, the Committee has reviewed the PSU design and metrics. We remain committed to using three-year cumulative metrics and will keep the balanced emphasis on pre-tax earnings and TSR. We will change the third metric from after-tax ROIC to recurring revenue, which is in-line with our digitally-enabled products, services and solutions growth strategy. The Committee believes that recurring revenue provides a stronger correlation to increasing valuation and the potential to generate higher future returns when compared to ROIC. Our high value and advanced services and solutions, such as OpenBlue Enterprise Manager, OpenBlue Buildings as a Service, OpenBlue Net Zero Buildings as a Service and OpenBlue Healthy Buildings, not only support sustainability through energy efficiency and energy usage reduction for our customers, but also drive higher and less volatile recurring revenues, lower attrition risk, lower cost of sale, and higher profitability over time. We believe recurring revenue will be a growth driver as we pursue more long-term service contracts as well as subscription and "as a Service" revenue. The incorporation of recurring revenue into our fiscal 2022-2024 PSU metrics will align the performance of our executives with our strategy to drive growth through digitally-enabled products, services and solutions and lead the transformation to smart and sustainable buildings.

ADDITIONAL INFORMATION

OTHER EXECUTIVE COMPENSATION POLICIES

To further ensure the alignment of executive interests with those of our shareholders, the Committee has approved additional compensation-related policies that apply to our NEOs.

SHARE OWNERSHIP GUIDELINES

NEOs are required to hold specified amounts of Johnson Controls shares. If an executive does not meet the minimum guideline within five years, they cannot sell any shares until they meet the requirement. Until the guideline is met, executives are required to retain after-tax shares resulting from an exercise of share options and must retain shares resulting from the vesting of restricted share units and performance share units. All shares directly or indirectly owned by, and restricted share units granted to, NEOs count towards the requirement. Share options do not count. At the end of fiscal 2021, all NEOs were in compliance with their ownership requirements, demonstrating the strong alignment of interests between our NEOs and Johnson Controls' stakeholders.

Role	Minimum Ownership Requirement (% base salary)
Chairman & Chief Executive Officer	600%
All Other NEOs (excludes former NEOs)	300%

COMPENSATION RECOUPMENT POLICY

Our recoupment policy provides that following any accounting restatement, in addition to any other remedies available to it and subject to applicable law, if the Board or any Committee of the Board determines that any annual or other incentive payment received by an executive officer resulted from any financial result or operating metric that was impacted by the executive officer's fraudulent or illegal conduct, the Board or a Board Committee could recover from the executive officer that compensation it considered appropriate under the circumstances. The Board has the sole discretion to make any and all determinations under this policy.

The Committee continues to monitor trends and developments with respect to incentive compensation recoupment policies. As part of this monitoring, in December 2020 the Committee revised our recoupment policy to allow us to recoup incentive based and equity compensation for misconduct that has the potential to cause material reputational harm.

INSIDER TRADING, ANTI-HEDGING AND ANTI-PLEDGING POLICY

Directors, executive officers, employees and other related persons may not buy, sell or engage in other transactions in the Company's shares while aware of material non-public information; buy or sell securities of other companies while aware of material non-public information about those companies that they became aware of as a result of business dealings between the Company and those companies; disclose material non-public information to any unauthorized persons outside of the Company. The policy also restricts trading for a limited group of Company employees (including executives and directors) to defined window periods that follow our quarterly earnings releases.

In addition, the Company's directors, executive officers, employees and other related persons are prohibited from:

- Pledging any Company securities held by them or their families as security for a loan, including by holding such securities in a margin account; and
- Trading in puts, calls or any other derivative securities relating to in the Company's shares, and engaging in hedging or monetization transactions relating to in the Company's shares (including through the use of financial instruments such as prepaid variable forwards, equity swaps, collars and exchange funds) or short sales of the Company's shares.

EXECUTIVE BENEFITS AND PERQUISITES

401(k) Plan

All U.S. employees are eligible for the 401(k) plan, including our NEOs. Participants can contribute up to a specified percentage of their compensation on a pre-tax basis; however, executive officers' percentages may be lower than other participants due to IRS requirements applicable to the 401(k) plan.

Based on Company performance, we matched 100% of each dollar an employee contributes up to 4% of the employee's eligible pay, and 50% of each additional dollar up to a total of 6% of the employee's eligible pay. In addition, normally the Company makes a varied annual retirement contribution for eligible employees. This group of employees includes all NEOs. The contribution for this group of employees is usually between 1% and 5% of the participant's eligible compensation, based on the participant's age and participation or service. Both the matching contribution and the annual retirement contributions were suspended for the 2021 calendar year (January 1, 2021 to December 31, 2021) which will impact the actual company contribution that occurs in February 2022.

Prior to the Merger, legacy Johnson Controls also maintained a pension plan, which covered all U.S. salaried employees hired before January 1, 2006. This plan was frozen on December 31, 2014, and employees no longer accrue future pension benefits under this plan. Currently Mr. Williams is the only NEOs who participates in the plan.

Retirement Restoration Plan

The Internal Revenue Code limits the benefits we can provide to employees under the 401(k) plan, including the annual retirement contribution. Thus, we sponsor the Retirement Restoration Plan, which allows all employees whose annual retirement contributions are affected by these Internal Revenue Code limits to receive the full intended amount of the additional annual retirement contributions without regard to such limits. All employees whose annual retirement contributions under the 401(k) plan are limited, including NEOs, are eligible for the Retirement Restoration Plan. Prior to January 1, 2018, the Retirement Restoration Plan also provided for 401(k) spillover deferrals and employer matching contributions for eligible participants. Those benefits were eliminated as of January 1, 2018 for participants other than those participants who were officers of the Company immediately following the Merger including our NEOs, Messrs. Oliver and Williams and certain other high-level employees who participated in the Retirement Restoration Plan prior to January of 2018.

Executive Deferred Compensation Plan and Senior Executive Deferred Compensation Plan

Prior to January 1, 2018, we maintained the Executive Deferred Compensation Plan, which assisted all senior leaders, including NEOs, with personal financial planning by allowing participants to defer compensation and associated taxes until retirement or termination of employment. It also assisted senior leaders in the management of their executive share ownership requirements. Investment options in the Executive Deferred Compensation Plan mirrored investment options available in our 401(k) Plan.

As of January 1, 2018, to integrate our plans following the Merger, we froze the Executive Deferred Compensation Plan and adopted a new Senior Executive Deferred Compensation Plan. The new Senior Executive Deferred Compensation Plan allows participants, including our NEOs, to defer base salary and annual bonus compensation and the associated taxes until retirement or termination of employment to assist such participants with personal financial planning. The investment options under the new Senior Executive Deferred Compensation Plan continue to mirror investment options in our 401(k) Plan, which includes a company stock fund.

PERQUISITES

We provide a limited amount of perquisites to our executive officers which we believe are reasonable and consistent with market practice. We maintain a strict policy regarding eligibility and use of these benefits. The Committee grants each executive officer a perquisite allowance of 5% of base salary annually. Upon termination, any unused funds are forfeited. Allowable perquisites include:

- Financial and tax planning
- Personal use of corporate aircraft capped at \$10,000 per year for the NEOs, excluding the CEO, with such amounts calculated pursuant to the Standard Industry Fare level, or SIFL rate
- Executive physical

The CEO is encouraged to use the corporate aircraft for both business and personal use to enhance his productivity, maintain confidentiality, ensure personal security and protect his health and wellbeing particularly during the pandemic.

EXECUTIVE SEVERANCE AND CHANGE-IN-CONTROL POLICY

The Executive Severance and Change-in-Control Policy applies to all NEOs.

	Change-In-Control	Severance				
Triggers	 Involuntary termination other than for Cause, permanent disability or death within the period beginning 60 days prior to and ending two years following a change-in-control 	 Involuntary termination other than for Cause, permanent disability or death 				
	 Good reason resignation within the same period 					
Cash Severance	Base salary + ta	rget annual bonus				
Severance Multiple	CEO: 3X Other NEOs: 2X	CEO: 2X Other NEOs: 1.5X				
Claims Release	Req	luired				
Benefits Continuation	Aligned with se	verance multiple				
Equity Acceleration	 Pro-rated equity acceleration based on number of months worked during vesting period (pro-rated PSUs based on target performance) 	 Pro-rated equity acceleration based on number of months worked during vesting period (pro-rated PSUs based on target performance earned at vesting) 				
	However, for awards granted after March 10, 2021, if the 2021 Equity and Incentive Plan would provide more favorable result, then its treatment would govern. Under the Plan, the Committee may provide either for adjustment/ assumption of awards that includes a right to full vesting upon an involuntary termination or termination for Good Reason or full accelerated vesting (assuming higher of target or trend for PSUs) and a cash settlement upon the change-in-control					
	 Payment of a prorated portion of the target bonus amount for the year of termination 					
Excise Tax Gross-Up	Ne	one				
Restrictive Covenants	 Unlimited time for non-disparagement, trad 	le secrets and confidential information				
	Two-year post-termination non-solicitation	of employees and customers				
	 One and one-half year post-termination not 	alf year post-termination non-compete				
	 Employee must affirmatively consent to be participation 	bound by these covenants as a condition of plan				

GLOBAL EXECUTIVE ASSIGNMENT AGREEMENT

In March 2017, Mr. Williams accepted the officer position of Vice President & President, EMEA & Latin America — Building Technologies and Solutions. This new role required Mr. Williams to relocate from the United States to the United Kingdom for the duration of his three-year assignment, and in connection with this move Mr. Williams' entered into a global assignment agreement that is substantially consistent with the policy applicable to all Johnson Controls employees, which is designed to ameliorate the increased costs associated with global assignments. The agreement includes an allowance to offset the difference in costs of living, a relocation allowance, furnished housing, and reimbursement for certain dependent visitation costs, tax equalization in accordance with the Johnson Controls Tax Equalization Policy, a club membership in the

United Kingdom and reimbursement of repatriation costs such as travel, temporary housing and car rental and the shipment of goods. Mr. Williams returned in fiscal 2020 when he accepted the position of VP & President — Global Products, Building Technologies and Solutions.

TAX AND ACCOUNTING CONSIDERATIONS

When determining total direct compensation packages, the Committee considers all factors that may have an impact on our financial performance, including tax and accounting rules.

Section 162(m) of the Internal Revenue Code limits the tax deductibility of compensation that we pay to certain covered employees, generally including our NEOs, to \$1 million in any year per person.

The committee believes that the tax deduction limitation should not compromise the ability to design and maintain executive compensation arrangements necessary to attract and retain strong executive talent. Accordingly, achieving the desired flexibility in the design and delivery of compensation may not result in compensation that in certain cases is not deductible for federal income tax purposes.

EXECUTIVE COMPENSATION

The Compensation and Talent Development Committee has reviewed and discussed with management this Compensation Discussion & Analysis and, based on such review and discussion, has recommended to the Board of Directors that the Compensation Discussion & Analysis be included in the Company's 2021 Annual Report on Form 10-K and this Proxy Statement.

Submitted by the Compensation and Talent Development Committee:

Michael E. Daniels, Chair Roy Dunbar Mark Vergnano

EXECUTIVE COMPENSATION TABLES

The following table summarizes the compensation earned by our named executive officers in the fiscal years noted.

Summary Compensation Table for Fiscal Years 2021, 2020, and 2019

Name and Principal Position (a)	Year (\$) (b)	Salary (\$) ⁽¹⁾ (c)	Bonus (\$) ⁽²⁾ (d)	Stock/Unit Awards (\$) ⁽³⁾ (e)	Option Awards (\$) ⁽³⁾ (f)	Non-Equity Incentive Plan Compensation (\$) ⁽⁴⁾ (g)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings (\$) ⁽⁵⁾ (h)	All Other Compensation (\$) ⁽⁶⁾ (i)	Total (\$) (j)
George Oliver	2021	1,500,000		7,124,944	2,374,997	4,293,600	—	373,476	15,667,017
Chairman & Chief Executive Officer	2020	1,348,846	_	7,124,972	2,374,995	2,116,800	—	765,878	13,731,491
Oncer	2019	1,500,000		7,124,992	2,374,998	3,704,400	—	772,247	15,476,637
Olivier Leonetti	2021	740,012	_	1,949,958	649,996	1,323,881	—	29,651	4,693,498
Executive Vice President & Chief Financial Officer	2020	65,463	800,000	5,499,976	_	_	_	1,442	6,366,881
Jeffrey M. Williams	2021	800,000	_	2,249,913	749,998	1,359,640	_	270,650	5,430,201
VP & President — Global Products, Building	2020	753,846	_	2,249,991	749,995	670,320	230,707	2,334,073	6,988,932
Technologies and Solutions	2019	742,000	_	1,499,979	500,000	960,630	288,674	378,279	4,369,562
Ganesh Ramaswamy	2021	725,000	_	1,649,958	549,994	1,167,322	_	56,707	4,148,981
Vice President & President — Global Services	2020	580,000	775,000	4,049,924	549,994	478,015		40,742	6,473,675
John Donofrio	2021	700,000		1,649,958	549,994	1,127,070	_	85,011	4,112,033
Executive Vice President, General Counsel	2020	673,077		1,649,960	549,994	555,660	_	189,530	3,618,221
General Counsel	2019	700,000		1,499,979	500,000	972,405	_	168,081	3,840,465
Brian J. Stief (7)	2021	187,539	_	111,758	_	365,045	_	102,726	767,068
Former Vice Chairman and Chief Financial Officer	2020	713,462	_	2,012,183	670,746	719,888	_	281,702	4,397,981
	2019	742,000	_	2,012,215	670,747	1,259,805	_	224,568	4,909,335

- (1) **Deferred Amounts Included**: We have not reduced amounts shown above to reflect a named executive officer's election, if any, to defer the receipt of compensation into our qualified and nonqualified deferred compensation plans.
- (2) **Bonus**: The amount reflects the value of one-time cash sign-on bonuses provided to Messrs. Ramaswamy and Leonetti during fiscal 2020 in connection with their appointment as officers.
- (3) Stock/Unit Awards and Option Awards: The amounts reflect the fair value of equity awards granted in fiscal 2021, 2020, and 2019. The equity awards granted in fiscal 2021 to each named executive officer consisted of share options, restricted share units ("RSUs") and performance share units ("PSUs"). The amounts in columns (e) and (f) represent the fair value of the entire amount of the award calculated in accordance with Financial Accounting Standards Board ASC Topic 718, excluding the effect of estimated forfeitures. For share options, amounts are computed by multiplying the fair value of the award (as determined under the Black-Scholes option pricing model) by the total number of options granted. For RSUs, fair value is computed by multiplying the total number of shares subject to the award by the closing market price of our ordinary shares on the date of grant. For PSUs, fair value is based on a model that considers the closing market price of our ordinary shares on the date of grant, the range of shares subject to such stock award, and the estimated probabilities of vesting outcomes. The value of PSUs included in the table assumes target performance. The values of the PSUs at the grant date if the highest level of performance conditions were to be achieved would be as follows: Mr. Oliver \$9,499,956; Mr. Leonetti \$2,599,944; Mr. Williams— \$2,999,914; Mr. Ramaswamy \$2,199,974; Mr. Donofrio \$2,199,974; and Mr. Stief \$223,516. Footnote 13 to our audited financial statements for the fiscal year ended September 30, 2021, which appears in our Annual Report on Form 10-K that we filed with the Securities and Exchange Commission on November 15, 2021, includes assumptions that we used in the calculation of the equity award values.
- (4) *Non-Equity Incentive Plan Compensation*: The amounts reported in column (g) for each named executive officer reflect annual cash incentive compensation.

- (5) Change In Pension Value: The amounts reported in column (h) generally reflect the actuarial change in the present value of benefits under the qualified defined benefit pension plan established by Johnson Controls, determined as of the measurement dates used for financial statement reporting purposes for the fiscal year indicated and using interest rate and mortality rate assumptions consistent with those reflected in our audited financial statements for the fiscal year indicated. The value that an executive will actually receive under the plan will differ to the extent facts and circumstances vary from what the calculations assume. Changes in the present value of the named executive officer's benefits are the result of the assumptions applied (as discussed in the footnotes to the "Pension Benefits as of September 30, 2021" table below). No named executive officer received preferential or above market earnings on nonqualified deferred compensation.
- (6) All Other Compensation: The fiscal 2021 amounts reported in column (i) for each named executive officer consist of the following:

Named Executive	Personal Use of Company Aircraft ^(a)	Expatriate & Relocation Benefits ^(b)	Tax Equalization or Gross- Up ^(c)	Retirement Plan Contributions ^(d)	Company Vehicle ^(e)	Financial Planning ^(f)	Executive Physical ^(g)	Total All Other Compensation ^(h)
George Oliver	185,194	_	—	173,282	15,000	_	_	373,476
Olivier Leonetti	_	_	_	7,258	15,000	4,000	3,393	29,651
Jeffrey M. Williams	15,090	1.700	106,978	99,692	15,000	32,190	_	270,650
Ganesh Ramaswamy	_	_	7,926	23,503	15,000	10,278	_	56,707
John Donofrio	16,736	_	_	36,862	15,000	16,413	_	85,011
Brian J. Stief	21,126	_	_	71,668	_	9,932	_	102,726

- a) The Summary Compensation Table reflects the aggregate incremental pre-tax cost to us for personal use of aircraft for fiscal 2021, which was calculated using a method that takes into account the incremental cost of fuel, trip-related maintenance, crew travel expenses, on-board catering, landing fees, trip-related hangar/parking costs and other variable costs. Because our aircraft are used primarily for business travel, the calculation does not include the fixed costs that do not change based on usage, such as pilots' salaries, the acquisition costs of our owned or leased aircraft, and the cost of maintenance not related to trips.
- (b) The amount shown for Mr. Williams reflect relocation benefits as part of his expatriate assignment.
- (c) The amount shown for Mr. Williams represents \$106,978 in gross-up payments made to him in connection with his expatriate assignment.
- ^(d) Retirement plan contributions include matching contributions made on behalf of each executive to the Company's tax-qualified 401(k) plans and Retirement Restoration Plan.
- ^(e) Amounts reflect costs attributable to the personal use of a vehicle.
- (f) Amounts reflect payments with respect to financial planning for Messrs. Leonetti, Williams, Ramaswamy, Donofrio and Stief.
- (7) Retirement of Brian Stief: On November 17, 2020, Mr. Leonetti assumed the role of Executive Vice President and Chief Financial Officer, with Mr. Stief retaining the title of Vice Chairman. Mr. Stief retired at the end of calendar year 2020

Compensation Discussion & Analysis > Fiscal 2021 Grants of Plan-Based Awards Table

Fiscal 2021 Grants of Plan-Based Awards Table

The following table summarizes cash-based and equity-based awards for each of the named executive officers that were granted in fiscal 2021.

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards					Payouts ntive Plan		All Other Option		
Name (a)	Grant Date (b)	Threshold (\$)(c) ⁽¹⁾	Target (\$)(d) ⁽¹⁾	Maximum (\$)(e) ⁽¹⁾	Threshold (#)(f) ⁽²⁾	Target (#)(g) ⁽²⁾	Maximum (#)(h) ⁽²⁾	Shares of	Awards: Number of Securities Underlying	Exercise or Base Price of Option Awards (\$/Share) (k) ⁽⁵⁾	Date Fair Value of Stock and Option
George Oliver	N/A ⁽⁷⁾	400,000	2,400,000	4,800,000							
	12/10/2020								253,739	45.69	2,374,997
	12/10/2020							51,980			2,374,966
	12/10/2020				20,792	103,961	207,922				4,749,978
Olivier Leonetti	N/A ⁽⁷⁾	123,335	740,012	1,480,024							
	12/10/2020								69,444	45.69	649,996
	12/10/2020							14,226			649,986
	12/10/2020				5,690	28,452	56,904				1,299,972
Jeffrey M. Williams	N/A ⁽⁷⁾	126,667	760,000	1,520,000							
	12/10/2020								80,128	45.69	749,998
	12/10/2020							16,414			749,956
	12/10/2020				6,566	32,829	65,658				1,499,957
Ganesh Ramaswamy	N/A ⁽⁷⁾	,	652,500	1,305,000							
	12/10/2020								58,760	45.69	549,994
	12/10/2020							12,037			549,971
	12/10/2020				4,815	24,075	48,150				1,099,987
John Donofrio	N/A ⁽⁷⁾	,	630,000	1,260,000						45.00	F 40.00 ;
	12/10/2020							10.00-	58,760	45.69	549,994
	12/10/2020				4.045	04.0==	40.450	12,037			549,971
	12/10/2020		004.070		4,815	24,075	48,150				1,099,987
Brian J. Stief	N/A ⁽⁷⁾	. ,	204,050	411,454	105		1.065				
	12/10/2020				489	2,446	4,892				111,758

(1) Amounts reported in columns (c) through (e) represent the range of potential cash payments under the annual performance bonuses that could have been earned under the Johnson Controls Annual Incentive Performance Program for fiscal 2021, as described above under the heading "Annual Incentive Performance Program (AIPP)," in the Compensation Discussion & Analysis. Threshold amounts assume minimum performance levels are achieved with respect to each performance measure.

- (2) Amounts in columns (f) through (h) show the range of potential share payouts for the PSUs granted to our named executive officers assuming that threshold, target and maximum performance conditions are achieved as described in the section titled "Long-Term Equity Incentive Awards" in the Compensation Discussion & Analysis. The number of PSUs that are earned, if any, will be based on performance for fiscal years 2021 to 2023 and will be determined after the close of fiscal 2023.
- (3) Amounts in column (i) show the number of RSUs granted to the named executive officers in December 2020 as described in the section titled "Long-Term Equity Incentive Awards" in the Compensation Discussion & Analysis. These awards vest in equal installments over three years.
- (4) Amounts in column (j) show the number of the share options granted for fiscal 2021, as described above under the heading "Long-Term Equity Incentive Awards" in the Compensation Discussion & Analysis. The share options vest 50% on the second anniversary of the grant date and 50% on the third anniversary of the grant date, contingent on the named executive officer's continued employment, and expire, at the latest, on the tenth anniversary of the grant date.
- ⁽⁵⁾ Share options were granted with an exercise price per share equal to the closing market price of our ordinary shares on the date of grant.

- (6) Amounts in column (I) show the grant date fair value of the option awards, RSUs and PSUs granted to the named executive officers. These amounts represent the fair value of the entire amount of the award calculated in accordance with Financial Accounting Standards Board ASC Topic 718 (ASC Topic 718), excluding the effect of estimated forfeitures. For grants of share options, amounts are computed by multiplying the fair value of the award (as determined under the Black-Scholes option pricing model) by the total number of options granted. For grants of RSUs, fair value is computed by multiplying the total number of shares subject to the award by the closing market price of our ordinary shares on the date of grant. For grants of PSUs, the reported fair value assumes achievement of target performance, which is the probable outcome of performance conditions and is consistent with the estimate of aggregate compensation cost to be recognized over the service period.
- (7) The award reflected in this row is an annual incentive performance award that we granted for the performance period of fiscal 2021, the material terms of which we describe in the Compensation Discussion & Analysis section titled "Annual Incentive Performance Program (AIPP)."

Compensation Discussion & Analysis > Outstanding Equity Awards at 2021 Fiscal Year-End Table

Outstanding Equity Awards at 2021 Fiscal Year-End Table

The following table shows, for each of the named executive officers, all equity awards that were outstanding as of September 30, 2021. Dollar amounts are based on the NYSE closing price of \$68.08 per share for our ordinary shares on September 30, 2021.

		Option Awa	ards					
Name (a)	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable ⁽¹⁾ (c)	Option Exercise Price (\$) (d)	Option Expiration Date (e)	Number of Shares of Stock That Have Not Vested (#) ⁽²⁾ (f)	Market Value of Shares of Stock that Have not Vested (\$) (g)	Equity Incentive plan Awards: Number of Unearned Shares, Units or Other Rights that have Not Vested (#) ⁽³⁾ (h)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights that have Not Vested (\$) (i)
George Oliver					117,569	8,004,023	376,187	25,610,783
	309,996		35.86	11/20/2023				
	331,846		41.86	11/25/2024				
	474,268		34.82	10/12/2025				
	248,994		41.73	10/7/2026				
	336,879		37.36	12/7/2027				
	213,579	213,579	33.39	12/6/2028				
	—	325,788	41.75	12/5/2029				
		253,739	45.69	12/10/2030				
Olivier Leonetti		69,444	45.69	12/10/2030	106,182	7,228,892	28,829	1,962,672
Jeffrey M. Williams					34,459	2,345,973	102,760	6,995,893
	20,952		46.29	11/18/2024				
	6,437		42.67	1/5/2025				
	33,343		40.42	10/7/2025				
	50,281		41.73	10/7/2026				
	70,921		37.36	12/7/2027				
	44,964	44,964	33.39	12/6/2028				
	—	102,880	41.75	12/5/2029				
	—	80,128	45.69	12/10/2030				
Ganesh Ramaswamy					60,777	4,137,735	51,840	3,529,232
	—	75,445	41.75	12/5/2029				
	—	58,760	45.69	12/10/2030				
John Donofrio					26,696	1,817,526	83,910	5,712,555
	70,921	—	37.36	12/7/2027				
	44,964	44,964	33.39	12/6/2028				
		75,445	41.75	12/5/2029				
		58,760	45.69	12/10/2030				
Brian J. Stief					18,332	1,248,066	50,667	3,449,403
	92,009	—	41.75	12/5/2029				

⁽¹⁾ Vesting information for each outstanding option award for the named executive officers is described in the table below.

Vesting Date	Exercise Price	George R. Oliver	Oliver Leonetti	Jeffrey M. Williams	Ganesh Ramaswamy	John Donofrio
2021						
12/6/2021	\$33.39	213,579		44,964	_	44,964
12/5/2021	\$41.75	162,894		51,440	37,722	37,722
2022						
12/5/2022	\$41.75	162,894		51,440	37,723	37,723
12/10/2022	\$45.69	126,870	34,722	40,064	29,380	29,380
2023						
12/10/2023	\$45.69	126,869	34,722	40,064	29,380	29,380

(2) The amounts in columns (f) and (g) reflect, for each named executive officer, the number and market value of RSUs which had been granted as of September 30, 2021, but which remained subject to additional vesting requirements. Scheduled vesting of all RSUs and the number of shares underlying awards, for each of the named executive officer is as follows:

Vesting Date	George R. Oliver	Olivier Leonetti	Jeffrey M. Williams	Ganesh Ramaswamy	John Donofrio	Brian J. Stief
2021						
12/5/2021	19,754		6,239	4,575	4,575	5,580
12/6/2021	25,393		5,350	—	5,350	7,173
12/10/2021	17,556	4,805	5,544	4,066	4,066	
2022						
8/31/2022	—	45,884	_	—	_	_
12/2/2022	—	—	—	39,431		_
12/5/2022	19,754	—	6,239	4,575	4,575	5,579
12/10/2022	17,556	4,805	5,544	4,065	4,065	
2023						
8/31/2023	—	45,884	_	—	_	
12/10/2023	17,556	4,804	5,543	4,065	4,065	

(3) The amounts in columns (h) and (i) reflect, for each named executive officer, the number and market value of PSUs at target which had been granted as of September 30, 2021. The number of shares earned will depend upon actual performance relative to the applicable performance metrics at the end of the performance period. Scheduled vesting of all PSUs and the number of shares underlying awards at target for each of the named executive officers is as follows:

Vesting Date	George R. Oliver	Olivier Leonetti	Jeffrey M. Williams	Ganesh Ramaswamy	John Donofrio	Brian J. Stief
2021						
12/6/2021	152,333	_	32,070	_	32,070	33,309
2022						
12/6/2022	118,516	_	37,426	27,446	27,446	14,880
2023						
12/10/2023	105,338	28,829	33,264	24,394	24,394	2,478

Compensation Discussion & Analysis > Fiscal 2021 Option Exercises and Stock Vested Table

Fiscal 2021 Option Exercises and Stock Vested Table

The following table shows, for each of the named executive officers, the amounts realized from options that were exercised and RSUs that vested during fiscal 2021.

	Option	Awards	Stock Awards		
Name (a)	Number of Shares Acquired on Exercise (#) (b)	Value Realized on Exercise (\$) ⁽¹⁾ (c)	Number of Shares Acquired on Vesting (#) (d)	Value Realized on Vesting (\$) ⁽²⁾ (e)	
George Oliver	530,260	22,598,738	244,723	11,102,238	
Olivier Leonetti		—	45,883	3,432,042	
Jeffrey M. Williams	19,196	412,868	53,570	2,431,355	
Ganesh Ramaswamy		—	23,968	1,099,891	
John Donofrio			76,209	3,454,739	
Brian J. Stief	396,770	5,825,149	628,262	28,436,921	

⁽¹⁾ The amounts in column (c) represent the product of the number of shares acquired on exercise and the difference between the market price of the shares at the time of exercise and the exercise price of the options.

⁽²⁾ The amounts in column (e) represent the product of the number of shares a named executive officer acquired on vesting and the closing market price of the shares on the vesting date, plus the value of dividend equivalents released, if any.

Pension Benefits as of September 30, 2021

The following table sets forth certain information with respect to the potential benefits to our named executive officers under the Johnson Controls qualified pension plan as of September 30, 2021. Of our named executive officers, only Mr. Williams participates in the plan.

Name	Plan Name	Number of Years Credited Service (#)	Present Value of Accumulated Benefit (\$) ⁽¹⁾
Jeffrey M. Williams	Johnson Controls Pension Plan	30.67	1,715,246

(1) Amounts in this column reflect the following assumptions: A calculation date of September 30, 2021, a 2.53% discount rate for the Johnson Controls Pension Plan, retirement occurring at normal retirement age based on Social Security Normal Retirement Age minus three years, and applicability of the 2012 Fully Generational Mortality Table for Annuitants per Treasury Regulations Section 1.430(h)(3)-1(e), that we used for financial reporting purposes as of September 30, 2021. The valuation method used to determine the present value of the accumulated benefit is the same as the method we used for financial reporting purposes as of September 30, 2021. The valuation method used to determine the present value that an executive will actually receive under these benefits will differ to the extent facts and circumstances vary from what these calculations assume.

Johnson Controls Pension Plan. The Johnson Controls Pension Plan is a frozen defined benefit pension plan that provides benefits for most non-union U.S. employees hired before January 1, 2006, including Mr. Williams. Because Messrs. Oliver, Stief, Ramaswamy and Leonetti were employed by Johnson Controls after January 1, 2006, they are not participants in the Pension Plan. Subject to certain limitations that the Code imposes, the monthly retirement benefit payable under the Johnson Controls Pension Plan to participants, at normal retirement age in a single life annuity, is determined as follows:

- 1.15% of final average monthly compensation times years of benefit service, plus
- 0.55% of final average monthly compensation in excess of Social Security covered compensation times years of benefit service (up to 30 years)

Service after December 31, 2014 does not count as benefit service in this formula. For purposes of this formula, "final average monthly compensation" means a participant's gross compensation, excluding certain unusual or non-recurring items of compensation, such as severance or moving expenses, for the highest five consecutive years of the last ten consecutive years of employment occurring prior to January 1, 2015. "Social Security covered compensation" means the average of the Social Security wage base for the 35 years preceding a participant's normal retirement age. Normal retirement age for Johnson Controls Pension Plan participants is age 65.

Participants in the Johnson Controls Pension Plan generally become vested in their pension benefits upon completion of five years of service. The Pension Plan does not pay full pension benefits until after a participant terminates employment and reaches normal retirement age. However, a participant who terminates employment may elect to receive benefits at a reduced level at any time after age 55, as follows: If a participant terminates employment prior to age 55 and completing 10 years of service, then the reduction is 5% for each year that benefits begin before the participant's Social Security retirement age; and if a participant terminates employment go service, then the reduction is 5% for each years preceding the participant's Social Security retirement age. Mr. Williams is currently eligible for early retirement under the Pension Plan.

Non-Qualified Deferred Compensation Table at Fiscal 2021 Year-End

The following table presents information on the non-qualified deferred compensation accounts of each named executive officer at September 30, 2021.

Name (a)	Executive Contributions in Last FY (\$) ⁽¹⁾ (b)	Registrant Contributions in Last FY (\$) ⁽²⁾ (c)	Aggregate Earnings in Last FY (\$) ⁽³⁾ (d)	Aggregate Withdrawals/ Distributions (\$) ⁽⁴⁾ (e)	Aggregate Balance at Last FYE (\$) ⁽⁵⁾ (f)
George Oliver	199,608	159,032	523,409	(56,525)	3,991,656
Olivier Leonetti	—	—	—	—	_
Jeffrey M. Williams	70,819	79,742	227,954	—	1,594,542
Ganesh Ramaswamy	—	17,803	1,125	—	18,928
John Donofrio	57,940	28,312	66,290		574,402
Brian J. Stief	25,356,556	57,418	(447,575)	(4,136,034)	35,572,111

- (1) Amounts in column (b) include employee contributions under the Johnson Controls Executive Deferred Compensation Plan, Johnson Controls International plc Senior Executive Deferred Compensation Plan and the Johnson Controls International Retirement Restoration Plan. The Johnson Controls Executive Deferred Compensation Plan allowed participants to defer their annual bonuses, long-term performance share units and restricted share awards. The Johnson Controls International plc Senior Executive Deferred Compensation Plan allowed participants to defer their annual bonuses, long-term performance share units and restricted share awards. The Johnson Controls International plc Senior Executive Deferred Compensation Plan allows participants to defer up to 50% of their annual base salary and 95% of their annual bonus compensation. The Retirement Restoration Plan allows executive officers to defer up to 6% of their compensation that is not eligible to be deferred into the Johnson Control 401(k) plan because of qualified plan limits that the Code imposes. All of the amounts shown in column (b) are also included in the Summary Compensation Table.
- (2) Amounts in column (c) include employer contribution under the Retirement Restoration Plan. The Retirement Restoration Plan, also credits participants with an amount equal to the difference between the amount of retirement contributions made under the 401(k) plan and what such retirement contribution would have been without regard to the Code limits. All of the amounts shown in column (c) are also included in the Summary Compensation Table.
- (3) The Aggregate Earnings reported in column (d) are not "above-market or preferential earnings" and therefore are not required to be reported in the Summary Compensation Table. The amounts in column (d) reflect all investment earnings, net of fees, on amounts that have been deferred under the Johnson Controls Deferred Compensation Plan and the Johnson Controls Retirement Restoration Plan. Investment earnings include any amounts relating to appreciation in the price of our ordinary shares, and negative amounts relating to depreciation in the price of our ordinary shares. In addition, for Mr. Oliver the amounts in column (d) also include earnings or (losses) on his notional account in the Tyco Supplemental Savings and Retirement Plan (the "Legacy Tyco SSRP"), a deferred compensation plan that, prior to the Merger, provided executives with the opportunity to elect to defer base salary and performance-based bonuses and receive tax-deferred market-based notional investment growth. The Legacy Tyco SSRP allowed executives to defer amounts above those permitted by Legacy Tyco's tax-qualified 401(k) Retirement Savings and Investment Plan (the "Legacy Tyco RSIP") as well as receive any employer contributions that were reduced under the Legacy Tyco RSIP due to IRS compensation limits. Effective January 1, 2018, the Legacy Tyco SSRP was frozen as to new participants and additional deferrals of compensation (subject to specified deferrals relating to the 2017 plan year). Investment options under the Johnson Controls nonqualified 401(k) retirement plans.
- (4) The Aggregate Withdrawals reported in column (e) for Mr. Oliver consist of distributions under the Legacy Tyco SSRP, which allowed participants to elect in-service distributions that could commence after a minimum of five years of deferral. The Legacy Tyco SSRP permitted participants to elect to receive distributions in a single lump sum payment or in up to 15 annual installments. Distributions under the Legacy Tyco SSRP were required to commence upon retirement or other termination of employment. The Aggregate Withdrawals reported in column (e) for Mr. Stief consists of distributions from the Johnson Controls Executive Deferred Compensation Plan and Johnson Controls Retirement Restoration Plan that resulted from his retirement in December 2020.

Compensation Discussion & Analysis > Potential Payments upon Termination and Change-in-Control

Potential Payments upon Termination and Change-in-Control

The following table summarizes the severance and other enhanced benefits that would have been payable to the named executive officers upon termination of employment or upon the occurrence of a change-in-control assuming that the triggering event or events occurred on September 30, 2021. Equity award amounts are based on the closing share price of our ordinary shares of \$68.08 on the NYSE on September 30, 2021.

	Change-in-Control Other Termination					
Name/Form of Compensation (a)	Without Qualified Termination (\$) (b)	With Qualified Termination (\$) (c)	With Cause (\$) (d)	Involuntary Resignation Without Cause (\$) (e)	Voluntary Resignation/ Retirement (\$) ⁽⁶⁾ (f)	Death or Disability (\$) ⁽⁶⁾ (9)
George Oliver						
Severance ⁽¹⁾	—	14,100,003	_	7,800,002		_
Benefit Continuation ⁽²⁾	—	1,360,050	_	204,700		_
Accelerated Vesting of Equity Awards(3)(4)	—	47,812,640	_	33,955,408	33,955,408	55,283,076
Olivier Leonetti						
Severance ⁽¹⁾	—	3,700,060	_	2,220,036		_
Benefit Continuation ⁽²⁾	—	247,893	_	97,568		_
Accelerated Vesting of Equity Awards(3)	—	9,437,969	_	1,548,628		10,746,415
Jeffrey M. Williams						
Severance ⁽¹⁾	—	3,880,001	_	2,340,001		_
Benefit Continuation ⁽²⁾	—	419,981	_	91,186		_
Accelerated Vesting of Equity Awards(3)(4)	—	13,045,509	_	8,844,244	8,844,244	15,404,563
Ganesh Ramaswamy						
Severance ⁽¹⁾	—	3,407,501	_	2,066,250		_
Benefit Continuation ⁽²⁾	—	171,100	_	65,250		_
Accelerated Vesting of Equity Awards ⁽³⁾	_	9,239,102		4,743,942		10,969,070
John Donofrio						
Severance ⁽¹⁾	—	3,290,000	_	1,995,000	_	_
Benefit Continuation ⁽²⁾	—	267,148	_	88,012	_	_
Accelerated Vesting of Equity Awards(3)	—	10,662,020	—	7,487,934		12,391,985

(1) Amounts shown include amounts that would have been payable under the Johnson Controls International plc Severance and Change-in-Control Policy for Officers upon a termination by us without cause or a termination due to death or disability, or a termination by us without cause or a resignation for good reason in connection with a change-in-control, as indicated, in each case on September 30, 2021. These amounts include: (a) a lump sum severance payment equal to (1) in connection with a change-in-control, three times for Mr. Oliver and two times for Messrs. Leonetti, Williams, Ramaswamy and Donofrio the sum of annual base salary and target bonus amount or (2) if the termination is not in connection with a change-in-control, two times for Mr. Oliver and one-half times for Messrs. Leonetti, Williams, Ramaswamy and Donofrio the sum of annual base salary and target bonus amount; and (b) if the termination is in connection with a change-in-control, payment of a prorated portion of the target bonus amount for the year of termination. Termination for "cause" under the Johnson Controls International plc Severance and Change-in-Control Policy for Officers is defined generally as a termination of the executive officer's employment by us due to the executive officer's failure or refusal to perform the duties and responsibilities of his job, violation of any fiduciary duty owed to us or our affiliates, conviction of, or entry of a plea of nolo contendere with respect to, specified crimes, dishonesty, theft, violation of our rules or policy, or other egregious or morally repugnant conduct that has, or could have, a serious and detrimental impact on us, our affiliates or our employees. Resignation by an executive officer for "good reason" is defined generally as a resignation within 60 days prior to or two years following a change-in-control caused by any of several specified adverse changes to his employment circumstances, including diminution of his authority, duties or responsibilities, a change of more than 50 miles in the geographic location at which the executive officer must perform services that extends the commute of the executive officer, reduction of the executive officer's base compensation or target incentive opportunities, or our failure to secure an assumption of our obligations under the Johnson Controls International plc Severance and Change-in-Control Policy for Officers. For more information on the material terms and conditions of the Severance and Change-in-Control Policy for Officers, see "Executive Severance and Change of Control Policy" within this Compensation Discussion and Analysis.

Compensation Discussion & Analysis > Potential Payments upon Termination and Change-in-Control

- (2) Amounts shown include: (a) in the event of a termination without cause or with good reason in connection with a change-in-control (i) the value of continued health plan coverage for thirty-six (36) months for Mr. Oliver and twenty-four (24) months for Messrs. Leonetti, Williams, Ramaswamy and Donofrio (such period, the "benefits continuation period") and (ii) a cash payment equal to the amount of employer contributions would have accrued under retirement plans during the benefits continuation period; and (b) in the event of an involuntary termination without cause not in connection with a change-in-control, the value of continued health plan coverage for twenty-four (24) months for Mr. Oliver and eighteen (18) months for Messrs. Leonetti, Williams, Ramaswamy and Donofrio. "Change-in-Control" under the Johnson Controls International plc Severance and Change-in-Control Policy for Officers is defined generally as certain persons becoming the beneficial owner of our securities representing more than 30% of the combined voting power of our then-outstanding securities; a change in the composition of a majority of our board of directors (excluding directors whose election or nomination was approved by at least 50% of the incumbent directors); the consummation of certain reorganizations, mergers, consolidations, sales or other dispositions of at least 80% of our assets; or approval by our shareholders of our complete liquidation or dissolution. For purposes of this table, it is assumed that unvested equity awards were assumed or adjusted in connection with the change-in-control and then vested in full upon the named executive officers' termination of employment. For more information on the material terms and conditions of the Severance and Change-in-Control Policy for Officers, see "Executive Severance and Change of Control Policy" within this Compensation Discussion and Analysis.
- ⁽³⁾ Amounts represent the intrinsic value of unvested equity awards that would have vested upon the indicated triggering event for the named executive officers.
- ⁽⁴⁾ For Messrs. Oliver and Williams, who were retirement eligible under applicable plans as of September 30, 2021, the value of certain equity awards that would vest on an accelerated basis upon retirement is presented in the table above in column (f).
- (5) A voluntary resignation is a resignation as defined under applicable agreements and plans. As noted above, Messrs. Oliver and Williams were retirement eligible under applicable plans as of September 30, 2021. For Messrs. Oliver and Williams, upon the executive's retirement:
 - i. we are not obligated to pay severance;
 - ii. with respect to equity awards:
 - for share options and RSU awards, the applicable award would accelerate and vest pro rata based on the number of full months
 of service completed since the grant date of the award; and
 - for PSUs, the executive would earn the units that he held at retirement based on actual performance at the end of the performance period, but the amount would be pro-rated based on the number of full months' employment during the performance period.
- ⁽⁶⁾ On death or disability, share options and RSU awards would accelerate and vest in full and PSUs would continue to fully vest based on actual performance at the end of the performance period.

As previously disclosed, in fiscal 2017, in consideration for Mr. Stief's agreement to terminate his previously existing change of control agreement, and to incentivize Mr. Stief to remain Executive Vice President and Chief Financial Officer through December 2020, the Committee approved retention RSU and PSU awards to Mr. Stief that would vest in December 2020.

The retention awards approved by the Committee included two performance-linked awards:

- 299,251 RSUs representing a target value of \$12 million, that would be converted to PSUs if the performance goals for the 2018-2020 PSU award were met at or above target, which they were; and
- 99,750 PSUs representing a target value of \$4 million, subject to the same performance criteria as the 2018-2020 PSU awards.

Performance for the 2018-2020 PSU performance period resulted in a payout factor of 128% of target that was applied to both retention awards, which subsequently vested in December 2020.

Mr. Stief also received retirement treatment with respect to the following, in each case in accordance with the existing retirement provisions:

- His share option awards, under which any such awards that were granted to the executive that were outstanding for at least one full calendar year after the year of grant accelerated so that all of the options became exercisable in full upon his retirement,
- His restricted share or RSU awards, under which (a) he retained certain of his restricted shares and RSUs that had not vested at the time of retirement, which were then no longer subject to a requirement of continued employment, and (b) he fully vested in certain restricted share or RSU awards granted in 2017, and
- His PSUs, under which he remained eligible to earn a pro-rated portion of his PSUs based on actual performance at the end of the performance period.

The approximate intrinsic value of the share option awards that accelerated, based on the closing share price on September 30, 2021, was \$4,515,063. The approximate value of the RSUs that were no longer subject to a requirement of continued employment but that had not yet been settled as of September 30, 2021, was \$1,248,066. The number and approximate value of the PSUs that remained eligible to be earned as on actual performance as of September 30, 2021 is shown in the Outstanding Equity Awards at 2021 Fiscal Year-End Table above.

Compensation Discussion & Analysis > Potential Payments upon Termination and Change-in-Control

In connection with his retirement, Mr. Stief also received a pro rata portion of his bonus under the AIPP for fiscal 2021, as disclosed in the Non-Equity Incentive Compensation Plan column of the Summary Compensation Table for Fiscal Years 2021, 2020, and 2019.

In addition, Mr. Williams would be eligible to receive pension benefits upon retirement. For an estimate of the value of these pension benefits, please see the table above titled "Pension Benefits as of September 30, 2021."

CEO PAY RATIO

The ratio of our median employee's total compensation to our CEO's total compensation (the "CEO Pay Ratio") is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K. Due to the flexibility afforded by Item 402(u) in calculating the CEO Pay Ratio, the ratio may not be comparable to CEO pay ratios presented by other companies.

We identified our median paid employee using a global employee population of 94,941 as of July 1, 2021, representing employees in over 64 countries. This includes 66,254 non-U.S. employees. As part of our methodology, and in compliance with the pay ratio rule under Item 402(u), we employed the de minimis exemption for non-U.S. employees and excluded all employees in 8 countries totaling 4,960 employees (approximately 4.82% of our total workforce of 102,807). Employees in the following countries were excluded:

Poland	103	Russia	147
Indonesia	146	 Thailand 	357
 Philippines 	132	 Turkey 	581
 Egypt 	217	 Japan 	3,277

In addition, for employees with insufficient compensation data we assumed that such employee was paid the same as the lowest level employee within that employee's jurisdiction. This impacted approximately 203 of our employees.

As a result, the population used to identify our median employee included 94,941 of our 102,807 employees. For purposes of identifying our median employee, we considered the base salary and annual cash incentive. Base salary and annual cash incentive were chosen because (i) they represent the principal forms of compensation delivered to all employees and (ii) this information is readily available in each country. Pay was annualized for employees who worked a partial year between July 1, 2020, and June 30, 2021. Foreign currencies were converted into U.S. dollars as of July 1, 2021, based on the average daily spot rates during July 2021.

In accordance with the requirements of the Summary Compensation Table, we calculated the median paid employee's compensation. Based on such calculation, our median employee's total compensation was \$43,640, while our CEO's compensation was \$15,667,019. Accordingly, our CEO Pay Ratio was 359:1.

THE ANNUAL GENERAL MEETING QUESTIONS AND ANSWERS

The following questions and answers are intended to address briefly some commonly asked questions regarding the Annual General Meeting. These questions and answers may not address all questions that may be important to you. For more information, please refer to the more detailed information contained elsewhere in this proxy statement, including the documents referred to or incorporated by reference herein. For instructions on obtaining the documents incorporated by reference, see "Where You Can Find More Information."

Why did I receive this Proxy Statement?

We have sent this notice of Annual General Meeting and Proxy Statement, together with the enclosed proxy card or voting instruction card, because our Board of Directors is soliciting your proxy to vote at the Annual General Meeting on March 9, 2022. This Proxy Statement contains information about the items being voted on at the Annual General Meeting and important information about Johnson Controls. Our 2021 Annual Report on Form 10-K, which includes our consolidated financial statements for the fiscal year ended September 30, 2021 (the "Annual Report"), is enclosed with these materials.

Who is entitled to vote?

Each holder of Johnson Controls ordinary shares in our register of shareholders (such owners are often referred to as "shareholders of record," "record holders" or "registered shareholders") as of the close of business on January 6, 2022, the record date for the Annual General Meeting, is entitled to attend and vote at the Annual General Meeting. On January 6, 2022, there were 702,626,855 ordinary shares outstanding and entitled to vote at the Annual General Meeting. Any Johnson Controls shareholder of record as of the record date who does not receive notice of the Annual General Meeting and Proxy Statement, together with the enclosed proxy card or voting instruction card and the Annual Report, may obtain a copy at the Annual General Meeting or by contacting Johnson Controls at +353-21-423-5000.

We have requested that banks, brokerage firms and other nominees who hold ordinary shares on behalf of the owners of the ordinary shares (such owners are often referred to as "beneficial shareholders" or "street name holders") as of the close of business on January 6, 2022 forward these materials, together with a proxy card or voting instruction card, to such beneficial shareholders. Johnson Controls has agreed to pay the reasonable expenses of the banks, brokerage firms and other nominees for forwarding these materials.

Finally, Johnson Controls has provided for these materials to be sent to persons who have interests in its ordinary shares through participation in Johnson Controls' retirement savings plans. These individuals are not eligible to vote directly at the Annual General Meeting. They may, however, instruct the trustees of these plans how to vote the ordinary shares represented by their interests. The enclosed proxy card will also serve as voting instructions for the trustees of the plans.

How many votes do I have?

Every holder of an ordinary share on the record date will be entitled to one vote per share for each matter presented at the Annual General Meeting. Because each Director's election is the subject of a separate resolution, every holder of an ordinary share on the record date will be entitled to one vote per share for each separate Director election resolution.

What is the difference between holding shares as a shareholder of record and as a beneficial owner?

Most of our shareholders hold their shares through a stockbroker, bank or other nominee rather than directly in their own name. As summarized below, there are some differences between shares held of record and those owned beneficially.

SHAREHOLDER OF RECORD

If your shares are registered directly in your name in our share register operated by our transfer agent, EQ Shareowner Services, you are considered the shareholder of record with respect to those shares and these proxy materials are being sent to you directly by us. As the shareholder of record, you have the right to grant your voting proxy to the persons named in the proxy card (see *"How Do I Appoint and Vote via a Proxy?"* below), or to grant a written proxy to any other person, which person does not need to be a shareholder, or to attend and vote in person at the Annual General Meeting. We have enclosed a proxy card for you to use in which you can elect to appoint certain officers of the Company named therein as your proxy.

BENEFICIAL OWNER

If your shares are held in a stock brokerage account or by a bank or other nominee, you are considered the beneficial owner of shares held in "street name," and these proxy materials are being forwarded to you by your bank, broker or other nominee who is considered, with respect to those shares, the shareholder of record. As the beneficial owner, you have the right to direct your bank, broker or other nominee on how to vote your shares and are also invited to attend the Annual General Meeting. However, since you are not the shareholder of record, you may only vote these shares in person at the Annual General Meeting if you follow the instructions described below under "*Admission to the Annual General Meeting*" and "*How do I vote?*" Your bank, broker or other nominee has enclosed a voting instruction card for you to use in directing your bank, broker or other nominee has enclosed a voting instructions for voting by telephone or electronically.

How do I vote?

A proxy card is being sent to each shareholder of record as of the record date. If you hold your shares in the name of a bank, broker or other nominee, you should follow the instructions provided by your bank, broker or nominee when voting your shares. Otherwise, you can vote in the following ways:

- By Mail: If you are a holder of record, you can vote by marking, dating and signing the appropriate proxy card and
 returning it by mail in the enclosed postage-paid envelope. If you beneficially own your ordinary shares, you can vote by
 following the instructions on your voting instruction card.
- By Internet or Telephone: You can vote over the Internet at www.proxyvote.com by following the instructions on the
 proxy card or the voting instruction card or in the Notice of Internet availability of proxy materials previously sent to you. If
 you are not a holder of record, you can vote using a touchtone telephone by calling 1-800-690-6903.
- At the Annual General Meeting: If you are planning to attend the Annual General Meeting and wish to vote your ordinary shares in person, we will give you a ballot at the meeting. Shareholders who own their shares in "street name" are not able to vote at the Annual General Meeting unless they have a proxy, executed in their favor, from the holder of record of their shares. The Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as the Board considers appropriate to address health and safety concerns. As a result, there may be prohibitions or restrictions on travel and/or gatherings that affect or prohibit travel to and in-person attendance at the Annual General Meeting. We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting in person is not feasible or not recommended.

Even if you plan to be present at the Annual General Meeting, we encourage you to complete and mail the enclosed card to vote your ordinary shares by proxy. Telephone and Internet voting facilities for shareholders will be available 24 hours a day and will close at 11:59 p.m., Eastern Standard Time, on March 8, 2022.

How do I appoint and vote via a proxy?

If you properly fill in your proxy card appointing an officer of the Company as your proxy and send it to us in time to vote, your proxy, meaning one of the individuals named on your proxy card, will vote your shares as you have directed. You may also grant a written proxy to any other person by filling in the proxy card and identifying the person, which person does not need to be a shareholder, or attend and vote in person at the Annual General Meeting. If you sign the proxy card but do not make specific choices, your proxy will vote your shares as recommended by the Board of Directors "FOR" each Director and "FOR" each of the agenda items listed below.

If a new agenda item or a new motion or proposal for an existing agenda item is presented at the Annual General Meeting, the Company officer acting as your proxy will vote in accordance with the recommendation of our Board of Directors. At the time we began printing this proxy statement, we knew of no matters that needed to be acted on at the Annual General Meeting other than those discussed in this proxy statement.

Whether or not you plan to attend the Annual General Meeting, we urge you to submit your proxy. Returning the proxy card or submitting your vote electronically will not affect your right to attend the Annual General Meeting. You must return your proxy cards by the times and dates set forth below under "Returning Your Proxy Card" in order for your vote to be counted.

What if I return my proxy or voting instruction card but do not mark it to show how I am voting?

Your shares will be voted according to the specific instructions you have indicated on your proxy or voting instruction card. If you sign and return your proxy or voting instruction card but do not indicate specific instructions for voting, you instruct the proxy to vote your shares, "FOR" each Director and "FOR" all other proposals. For any other matter which may properly come before the Annual General Meeting, and any adjournment or postponement thereof, you instruct, by submitting proxies with blank voting instructions, the proxy to vote in accordance with the recommendation of the Board of Directors.

May I change or revoke my vote after I return my proxy or voting instruction card?

You may change your vote before it is exercised by:

- Submitting subsequent voting instructions through the telephone or Internet; if you previously voted by telephone or the Internet;
- · Submitting another proxy card (or voting instruction card if you beneficially own your ordinary shares) with a later date; or
- Voting in person at the Annual General Meeting if you are a holder of record or a beneficial owner with a proxy from the holder of record (however, as noted below, in light of the COVID-19 pandemic, we recommend that you vote your shares by proxy in advance of the Annual General Meeting).

Your presence without voting at the meeting will not automatically revoke your proxy, and any revocation during the meeting will not affect votes previously taken. If you hold your shares in the name of a bank, broker or other nominee, you should follow the instructions provided by your bank, broker or nominee in revoking your previously granted proxy.

What impact could the COVID-19 pandemic have on the Annual General Meeting?

The well-being of all attendees and participants at the Annual General Meeting is a primary concern for the Company and in this context we are closely monitoring developments in relation to the COVID-19 pandemic. The Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as the Board considers appropriate to address health and safety concerns. As a result, there may be restrictions on travel and/or gatherings that affect or prohibit travel to or in-person attendance at the Annual General Meeting. In addition, we may deem it advisable to have the members of our Board and senior management not be physically present at our Annual Meeting in Ireland and instead participate remotely in order to mitigate the health risks posed by the pandemic. Furthermore, to promote the health and safety of attendees, we may impose additional procedures or limitations on meeting attendance based on applicable governmental requirements or recommendations or facility requirements. Such additional procedures or limitations may include, but are not limited to, thorough screenings of attendees, limits on the number of attendees to promote social distancing and requiring the use of face masks.

We therefore encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting. This can be done in advance of the Annual General Meeting by availing of one of the voting options set forth above under "How Do I Vote?"

If it is not possible to proceed with the Annual General Meeting, the Annual General Meeting may be adjourned to a different time and/or venue and/or we may consider alternative measures for the holding of the Annual General Meeting that may be permitted under Irish law, such as changing the date, time, location or format of the meeting. If this is necessary, we will alert shareholders to any changes as soon as possible by press release and/or filing with the Securities and Exchange Commission and also post additional information on the Investor Relations section of our website (http://investors.johnsoncontrols.com). We will also make any required notifications to shareholders in accordance with Company's constitution. Shareholders are also encouraged to keep up-to-date with, and follow, the guidance from the Government of Ireland and the Department of Health (of Ireland) (as appropriate) as circumstances may change at short notice.

Delivery of Documents to Stockholders Sharing an Address

Securities and Exchange Commission rules allow us to deliver a single copy of an annual report and proxy statement to any household not participating in electronic proxy material delivery at which two or more shareholders reside, if we believe the shareholders are members of the same family (a practice called "householding"). We believe that householding benefits both you and the Company by eliminating duplicate mailings to shareholders living at the same address and by reducing our printing and mailing costs. Each shareholder will continue to receive a separate proxy card or voting instruction card.

Your household may have received a single set of proxy materials this year. If you prefer to receive your own copy now or in future years, please request a duplicate set by calling 1-800-579-1639, by going to <u>www.proxyvote.com</u>, by e-mailing <u>sendmaterial@proxyvote.com</u>, or by writing to Johnson Controls, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. Alternatively, if your household received multiple sets of proxy materials this year, and members of your household who are entitled to receive proxy materials would all prefer to receive only a single set of proxy materials, you may submit such a request as specified in the preceding sentence.

If a broker or other nominee holds your shares, you may continue to receive some duplicate mailings. Certain brokers will eliminate duplicate account mailings by allowing shareholders to consent to such elimination, or through implied consent if a shareholder does not request continuation of duplicate mailings. Since not all brokers and nominees may offer shareholders the opportunity this year to eliminate duplicate mailings, you may need to contact your broker or other nominee directly to discontinue duplicate mailings to your household.

What vote is required to approve each proposal at the Annual General Meeting?

Johnson Controls intends to present proposals numbered one through seven for shareholder consideration and voting at the Annual General Meeting. The vote required to approve each proposal is described below:

- 1. By separate resolutions, to elect the following individuals as Directors for a period of one year, expiring at the end of the Company's Annual General Meeting of Shareholders in 2023:
 - (a) Jean Blackwell(d) W. Roy Dunbar

- (b) Pierre Cohade
- (e) Gretchen R. Haggerty
- (g) George R. Oliver
- (j) R. David Yost

- (h) Jürgen Tinggren(k) John D. Young
- (c) Michael E. Daniels
- (f) Simone Menne
- (i) Mark Vergnano

The election of each Director nominee requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

- 2. To ratify the appointment of PricewaterhouseCoopers LLP as the independent auditors of the Company and to authorize the Audit Committee of the Board of Directors to set the auditors' remuneration, which in each case, requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.
- 3. To authorize the Company and/or any subsidiary of the Company to make market purchases of Company shares, which requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.
- 4. To determine the price range at which the Company can re-allot shares that it holds as treasury shares (Special Resolution), which requires the affirmative vote of at least 75% of the votes properly cast (in person or by proxy) at the Annual General Meeting.
- 5. To approve, in a non-binding advisory vote, the compensation of the named executive officers, which will be considered approved with the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting. The advisory vote on executive compensation is non-binding, meaning that our Board of Directors will not be obligated to take any compensation actions or to adjust our executive compensation programs or policies as a result of the vote.
- 6. To approve the authorization for the Board of Directors to issue shares up to 33% of its issued share capital, which requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.
- 7. To approve the authorization for the Board of Directors to issue shares for cash up to a maximum of approximately 5% of issued share capital without applying statutory preemption rights (Special Resolution), which requires the affirmative vote of at least 75% of the votes properly cast (in person or by proxy) at the Annual General Meeting.

What is the quorum requirement for the Annual General Meeting?

In order to conduct any business at the Annual General Meeting, holders of a majority of Johnson Controls' ordinary shares which are outstanding and entitled to vote on the record date must be present in person or represented by valid proxies. This is called a quorum. Your shares will be counted for purposes of determining if there is a quorum, whether representing votes for, against or abstained, or broker non-votes, if you:

- are present and vote in person at the meeting;
- have voted by telephone or the Internet; OR
- you have submitted a proxy card or voting instruction form by mail.

Questions and Answers > What is the effect of broker non-votes and abstentions?

What is the effect of broker non-votes and abstentions?

Abstentions and broker non-votes are considered present for purposes of determining the presence of a quorum. Abstentions and broker non-votes will not be considered votes properly cast at the Annual General Meeting. Because the approval of all of the proposals is based on the votes properly cast at the Annual General Meeting, abstentions and broker non-votes will not have any effect on the outcome of voting on these proposals.

A broker non-vote occurs when a broker holding shares for a beneficial owner does not vote on a particular agenda item because the broker does not have discretionary voting power for that particular item and has not received instructions from the beneficial owner. Although brokers have discretionary power to vote your shares with respect to "routine" matters, they do not have discretionary power to vote your shares on "non-routine" matters pursuant to the rules of The New York Stock Exchange (the "NYSE"). We believe the following proposals will be considered non-routine under NYSE rules and therefore your broker will not be able to vote your shares with respect to these proposals unless the broker receives appropriate instructions from you: Proposal No. 1 (Election of Directors) and Proposal No. 5 (Advisory Vote on Executive Compensation). Your broker will not be able to vote your shares with respect to these proposals unless the broker receives appropriate instructions from you.

How will voting on any other business be conducted?

Other than matters incidental to the conduct of the Annual General Meeting and those set forth in this Proxy Statement, we do not know of any business or proposals to be considered at the Annual General Meeting. If any other business is proposed and properly presented at the Annual General Meeting, the proxy holders must vote in accordance with the instructions given by the shareholder. You may specifically instruct the proxy holder how to vote in such a situation. In the absence of specific instructions, by signing the proxy, you instruct the proxy holder to vote in accordance with the recommendations of the Board of Directors.

Important notice regarding the availability of proxy materials for the Annual General Meeting:

Our Proxy Statement for the Annual General Meeting and the form of proxy card are available at www.proxyvote.com.

As permitted by SEC rules, we are making this Proxy Statement available to our shareholders electronically via the Internet. On January 21, 2022, we first mailed to our shareholders a Notice containing instructions on how to access this Proxy Statement and vote online. If you received a Notice by mail, you will not receive a printed copy of the proxy materials in the mail. Instead, the Notice instructs you on how to access and review all of the important information contained in the Proxy Statement. The Notice also instructs you on how you may submit your proxy over the Internet. If you received a Notice by mail and would like to receive a printed copy of our proxy materials, you should follow the instructions for requesting such materials contained on the Notice.

Returning Your Proxy Card

Shareholders who are voting by mail should complete and return the proxy card as soon as possible. In order to assure that your proxy is received in time to be voted at the meeting, the proxy card must be completed in accordance with the instructions and received at one of the addresses set forth below by the dates and times specified:

Ireland:

By 5:00 p.m., local time, on March 8, 2022 by hand or mail at:

Johnson Controls International plc One Albert Quay Cork, Ireland

United States:

By 5:00 p.m., Eastern Standard Time, on March 8, 2022 by mail at:

Broadridge Financial Solutions c/o Vote Processing 51 Mercedes Way Edgewood, NY 11717

If your shares are held beneficially in "street name," you should return your proxy card or voting instruction card in accordance with the instructions on that card or as provided by the bank, brokerage firm or other nominee who holds Johnson Controls shares on your behalf.

Admission to the Annual General Meeting

The well-being of all attendees and participants at the Annual General Meeting is a primary concern for the Company and in this context we are closely monitoring developments in relation to the COVID-19 pandemic. While all shareholders are invited to attend the Annual General Meeting, the Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as we consider appropriate to address health and safety concerns. As a result, there may be restrictions on travel and/or gatherings that affect or prohibit travel to or in-person attendance at the Annual General Meeting. Furthermore, we may impose additional procedures or limitations on meeting attendance based on applicable governmental requirements or recommendations or facility requirements. Such additional procedures or limitations may include, but are not limited to, thorough screenings of attendees, limits on the number of attendees to promote social distancing and requiring the use of face masks.

We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting. This can be done in advance of the Annual General Meeting by availing of one of the voting options set forth above under "How Do I Vote?"

For admission to the Annual General Meeting, shareholders of record should bring the admission ticket attached to the enclosed proxy card to the Registered Shareholders check-in area, where their ownership will be verified. Those who have beneficial ownership of shares held by a bank, brokerage firm or other nominee should come to the Beneficial Owners check-in area. Beneficial owners who wish to vote in person at the Annual General Meeting are requested to obtain a "legal proxy" executed in their favor, from their broker, bank, nominee or other custodian that authorizes you to vote the shares held by them on your behalf. In addition, you must bring to the Annual General Meeting an account statement or letter from the broker, bank or other nominee indicating that you are the owner of the shares. Registration will begin at 2:00 pm, local time, and the Annual General Meeting will begin at 3:00 pm, local time.

Johnson Controls Annual Report

The Johnson Controls International plc 2021 Annual Report on Form 10-K containing our audited consolidated financial statements with accompanying notes and schedules is available on the Company's website in the Investor Relations Section at www.johnsoncontrols.com. Copies of these documents may be obtained without charge by contacting Johnson Controls by phone at +353-21-423-5000. Copies may also be obtained without charge by contacting Investor Relations in writing or may be physically inspected at the offices of Johnson Controls International plc, One Albert Quay, Cork, Ireland.

Ordinary Share Price and Dividend Information

The shares of the Company's ordinary shares are traded on the New York Stock Exchange under the symbol "JCI."

Title of Class	Number of Record Holders as of December 31, 2021			
Ordinary Shares, \$0.01 par value			31	,274
	Dividends			
	FY 2021	FY 2020	FY 2021	FY 2020
First Quarter	\$40.15 - 47.58	\$40.24 - 44.82	\$0.26	\$0.26
Second Quarter	45.91 - 62.40	22.78 - 42.65	0.27	0.26
Third Quarter	59.53 - 68.95	24.77 - 37.07	0.27	0.26
Fourth Quarter	67.39 - 76.83	33.31 - 43.20	0.27	0.26
Year	\$40.15 - 76.83	\$22.78 - 44.82	\$1.07	\$1.04

Presentation of Irish Statutory Accounts

The Company's Irish Statutory Accounts for the fiscal year ended September 30, 2021, including the reports of the Directors and auditors thereon, will be presented at the Annual General Meeting. The Company's Irish Statutory Accounts are approved by the Board of Directors of the Company. There is no requirement under Irish law that such statements be approved by shareholders, and no such approval will be sought at the Annual General Meeting. The Company's Irish Statutory Accounts, with the Non-Financial Disclosure Report, will be available at least 21 days before the date of the Annual General Meeting, along with the proxy statement, the Company's Annual Report on Form 10-K and other proxy materials at www.proxyvote.com, and in the Investor Relations section of the Company's website at www.johnsoncontrols.com.

Costs of Solicitation

We will pay the cost of solicitation of proxies. We have engaged Mackenzie Partners as the proxy solicitor for the Annual General Meeting for an approximate fee of \$12,500, plus expenses. In addition to the use of the mail, certain of our Directors, officers or employees may solicit proxies by telephone or personal contact. Upon request, we will reimburse brokers, dealers, banks and trustees, or their nominees, for reasonable expenses incurred by them in forwarding proxy materials to beneficial owners of shares.

We are furnishing this Proxy Statement to our shareholders in connection with the solicitation of proxies by our Board of Directors for use at an Annual General Meeting of our shareholders. We are first mailing this Proxy Statement and the accompanying form of proxy to shareholders beginning on or about January 21, 2022.

Transfer Agent

Our transfer agent is EQ Shareowner Services. All communications concerning shareholders of record accounts, including address changes, name changes, common stock transfer requirements, and similar issues can be handled by contacting EQ Shareowner Services at 1-877-602-7397 (U.S.), 651-450-4064 (outside the U.S.), www.shareowneronline.com, or in writing, P.O. Box 64854, St. Paul, MN 55164-0854.

Shareholder Proposals for the 2023 Annual General Meeting

In accordance with the rules established by the SEC, as well as under the provisions of our Memorandum and Articles of Association, any shareholder proposal submitted pursuant to Rule 14a-8 under the Securities Exchange Act of 1934 (the "Exchange Act") intended for inclusion in the proxy statement for next year's Annual General Meeting must be received by Johnson Controls no later than September 23, 2022. Such proposals should be sent to our Corporate Secretary at our registered address, which is: One Albert Quay, Cork, Ireland. To be included in the Proxy Statement, the proposal must comply with the requirements as to form and substance established by the SEC and our Articles of Association, and must be a proper subject for shareholder action under applicable law. Any shareholder proposal that is not submitted for inclusion in the Proxy Statement but is instead sought to be presented directly at the 2023 Annual General Meeting must be received by the Secretary at the address listed above prior to December 7, 2022. Securities and Exchange Commission rules permit management to vote proxies in its discretion in certain cases if the shareholder does not comply with this deadline and in certain other cases notwithstanding the shareholder's compliance with this deadline.

New proposals or motions with regard to existing agenda items are not subject to such restrictions and can be made at the meeting by each shareholder attending or represented. Note that if specific voting instructions are not provided to the proxy, shareholders who submit a proxy card instruct the proxy to vote their shares in accordance with the recommendations of the Board of Directors with regard to the items appearing on the agenda.

Where You Can Find More Information

We file annual, quarterly and special reports, proxy statements and other information with the SEC. Our SEC filings are also available to the public at the SEC's website (www.sec.gov).

The SEC's website contains reports, proxy statements and other information regarding issuers, like us, that file electronically with the SEC. You may find our reports, proxy statements and other information at the SEC website. In addition, you can obtain reports and proxy statements and other information about us at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

We maintain a website on the Internet at www.johnsoncontrols.com. We make available free of charge, on or through our website, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after such material is filed with the SEC. This reference to our Internet address is for informational purposes only and shall not, under any circumstances, be deemed to incorporate the information available at such Internet address into this proxy.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth the number of registered shares beneficially owned as of January 11, 2022 by each current Director, each Named Executive Officer and the Directors and Executive Officers of Johnson Controls as a group.

Beneficial Owner	Title	Number of Ordinary Shares Beneficially Owned ⁽¹⁾⁽²⁾	Pct of Class
Jean Blackwell	Director	9,391	*
Pierre Cohade	Director	8,237	*
Michael E. Daniels	Director	73,272	*
Juan Pablo del Valle Perochena	Director	11,986	*
John Donofrio	Named Executive Officer	214,208	*
W. Roy Dunbar	Director	11,627	*
Gretchen R. Haggerty	Director	16,302	*
Olivier Leonetti	Named Executive Officer	28,246	*
Simone Menne	Director	9,958	*
George R. Oliver	Chairman and CEO	2,931,165	*
Ganesh Ramaswamy	Named Executive Officer	42,636	*
Brian Stief	Former Vice Chairman and Chief Financial Officer	124,520	*
Jürgen Tinggren	Director	29,455	*
Mark Vergnano	Director	24,216	*
Jeffrey M. Williams	Named Executive Officer	363,230	*
R. David Yost	Director	54,786	*
John D. Young	Director	10,674	*
All current Directors and Executive Officers as a group (22 persons)		4,283,375	*

Less than 1.0%

Questions and Answers > Security Ownership of Certain Beneficial Owners and Management

- (1) The number shown reflects the number of ordinary shares owned beneficially as of January 11, 2022, based on information furnished by the persons named, public filings and Johnson Controls' records. A person is deemed to be a beneficial owner of ordinary shares if he or she, either alone or with others, has the power to vote or to dispose of those ordinary shares. Except as otherwise indicated below and subject to applicable community property laws, each owner has sole voting and sole investment authority with respect to the shares listed. To the extent indicated in the notes below, ordinary shares beneficially owned by a person include ordinary shares of which the person has the right to acquire beneficial ownership within 60 days after January 11, 2022. There were 702,376,414 Johnson Controls ordinary shares outstanding on such date.
- (2) Includes the maximum number of shares for which these individuals can acquire beneficial ownership upon (i) the exercise of share options that are currently vested or will vest within 60 days of January 11, 2022 as follows: Mr. Donofrio, 198,571, Mr. Oliver, 2,292,035; Mr. Ramaswamy, 37,723, Mr. Stief, 92,009; Mr. Williams, 323,302; and all executive officers as a group 3,132,132 and (ii) the vesting of RSUs that will vest within 60 days of January 11, 2022 as follows: Messrs. Cohade, Daniels, del Valle Perochena, Dunbar, Tinggren, Vergnano, Yost and Young, and Mses. Blackwell, Haggerty and Menne 2,898 RSUs; and all Directors and Executive Officers as a group, 31,878 RSUs.

The following table sets forth the information indicated for persons or groups known to the Company to be beneficial owners of more than 5% of the outstanding ordinary shares.

Name and Address of Beneficial Owner	Number of Ordinary Shares Beneficially Owned	Percentage of Ordinary Shares Outstanding
Dodge & Cox, 555 California Street, 40th Floor, San Francisco, CA 94104	64,099,777(1)	9.12%
The Vanguard Group, 100 Vanguard Blvd., Malvern, PA 19355	58,543,472(2)	8.33%
BlackRock, Inc., 55 East 52 nd Street, New York, NY 10055	49,861,295(3)	7.10%
Wellington Management Group LLP, 280 Congress Street, Boston, MA 02210	43,156,718(4)	6.14%
Massachusetts Financial Services Company, 111 Huntington Avenue, Boston, MA 02199	35,630,172(5)	5.07%

- ⁽¹⁾ Based solely on the information reported by Dodge & Cox in a Notification of Holdings under Irish law provided to the Company on September 3, 2021 and reporting ownership as of September 3, 2021, Dodge & Cox, together with its affiliates, held an interest in 64,099,777 ordinary shares.
- ⁽²⁾ The amount shown for the number of ordinary shares over which The Vanguard Group exercised investment discretion was provided pursuant to the Schedule 13G/A filed February 10, 2021 with the SEC, indicating beneficial ownership as of December 31, 2020.
- (3) Based solely on the information reported by BlackRock, Inc. in a Standard Form TR-1 under Article 12(1) of Directive 2004/109/EC and Article 11(3) of the Commission Directive 2007/14/EC provided to the Company on October 6, 2021 and reporting ownership as of October 5, 2021, BlackRock, Inc., together with its affiliates, held an interest in 49,861,295 ordinary shares.
- (4) Based solely on the information reported by Wellington Management Group LLP in a Notification of Holdings under Irish law provided to the Company on August 6, 2021 and reporting ownership as of August 5, 2021, Wellington Management Group LLP, together with its affiliates, held an interest in 43,156,718 ordinary shares.
- (5) Based solely on the information reported by Massachusetts Financial Services Company in a Notification of Holdings under Irish law provided to the Company on December 6, 2021 and reporting ownership as of December 3, 2021, Massachusetts Financial Services Company, together with its affiliates, held an interest in 35,630,172 ordinary shares.

ANNEX A NON-GAAP RECONCILIATIONS

This Proxy Statement contains financial information regarding adjusted earnings per share, which is a non-GAAP performance measure. The adjusting items include integration costs, net mark-to-market adjustments, an acquisition related compensation charge, restructuring and impairment costs, Silent-Aire transaction costs and other nonrecurring costs, Power Solutions divestiture reserve adjustment and discrete tax items. Financial information regarding free cash flow, free cash flow conversion and organic sales are also presented, which are non-GAAP performance measures. Management believes that, when considered together with unadjusted amounts, these non-GAAP measures are useful to investors in understanding period-over-period operating results and business trends of the Company. Management may also use these metrics as guides in forecasting, budgeting and long-term planning processes and for compensation purposes. These metrics should be considered in addition to, and not as replacements for, the most comparable GAAP measure.

Diluted Earnings Per Share Reconciliation

The Company's Proxy Statement contains financial information regarding adjusted earnings per share, which is a non-GAAP performance measure. The adjusting items include integration costs, net mark-to-market adjustments, an acquisition related compensation charge, restructuring and impairment costs, Silent-Aire transaction costs and other nonrecurring costs, Power Solutions divestiture reserve adjustment and discrete tax items. The Company excludes these items because they are not considered to be directly related to the underlying operating performance of the Company. Management believes these non-GAAP measures are useful to investors in understanding the ongoing operations and business trends of the Company. A reconciliation of diluted earnings per share as reported to adjusted diluted earnings per share for the respective periods is shown below (unaudited):

	JCI plc from	Net Income Attributable to JCI plc from Continuing Operations Twelve Months Ended September 30,		
	2021	2020		
Earnings per share as reported for JCI plc	\$ 2.10	\$ 0.84		
Adjusting items:				
Integration costs		0.18		
Related tax impact	_	(0.02)		
Acquisition related compensation charge	_	0.05		
Related tax impact	_	(0.01)		
Net mark-to-market adjustments	(0.56)	0.36		
Related tax impact	0.13	(0.09)		
Restructuring and impairment costs	0.34	1.04		
Related tax impact	(0.05)	(0.06)		
NCI impact of restructuring and impairment costs	—	(0.01)		
Silent-Aire transaction costs and other nonrecurring costs	0.03	_		
Power Solutions divestiture reserve adjustment	—	—		
Discrete tax items	0.67	(0.05)		
NCI impact of discrete tax items	—	0.01		
Adjusted earnings per share for JCI plc*	\$ 2.65	\$ 2.24		

* May not sum due to rounding

Adjusted Free Cash Flow Conversion Reconciliation

The Company's Proxy Statement contains financial information regarding free cash flow and adjusted free cash flow conversion, which are non-GAAP performance measures. Free cash flow is defined as cash provided by operating activities less capital expenditures. For fiscal 2021, there were no items excluded from the calculation of adjusted free cash flow. Adjusted free cash flow conversion is defined as adjusted free cash flow divided by adjusted net income attributable to JCI. Management believes these non-GAAP measures are useful to investors in understanding the strength of the Company and its ability to generate cash. This non-GAAP measure can also be used to evaluate our ability to generate cash flow from operations and the impact that this cash flow has on our liquidity.

The following is the twelve months ended September 30, 2021 reconciliation of free cash flow, adjusted free cash flow and adjusted free cash flow conversion for continuing operations (unaudited):

(in millions)	Twelve Months Ended September 30, 2021
Cash provided by operating activities from continuing operations Capital expenditures	\$2,551 (552)
Reported free cash flow	1,999
Adjusting items: Transaction/integration costs Restructuring payments Nonrecurring tax payments (refunds)	
Total adjusting items	
Adjusted free cash flow	\$1,999
Adjusted net income from continuing operations attributable to JCI ⁽¹⁾ Adjusted free cash flow conversion	\$1,910 105%

⁽¹⁾ A reconciliation of adjusted net income from continuing operations attributable to JCI to net income from continuing operations attributable to JCI is included later within this annex

Organic Growth Reconciliation

The components of the changes in adjusted net sales for the twelve months ended September 30, 2021 versus the twelve months ended September 30, 2020, including organic growth, are shown below (unaudited):

(in millions)	Adjusted Net Sales for the Twelve Months Ended September 30, 2020	Base Year Adjustments — Divestitures and Other	Base Year - Adjustments – Foreign Currency	Adjusted Base Net Sales for the Twelve Months Ended September 30, 2020	Acquisitions	Organic Growth	Adjusted Net Sales for the Twelve Months Ended September 30, 2021
Building Solutions North America Building Solutions EMEA/LA	\$ 8,605 3.440	\$	\$49 1% 135 4%	\$ 8,654 3.575	\$4— 371%	\$ 27 — 115 39	\$ 8,685 1% % 3.727 8%
Building Solutions Asia Pacific	2,403	(9) —	<u>117</u> 5%	2,511		<u>143</u> 6%	,
Total field Global Products	14,448 7,869	(9) — (266) -3%	301 2% 146 2%	14,740 7,749	41 — 	285 2% 647 8%	,
Total adjusted net sales ⁽¹⁾	\$22,317	\$(275) -1%	\$447 2%	\$22,489	<u>\$253</u> 1%	\$932 4%	% <u>\$23,674</u> 6%

(1) A reconciliation of adjusted net sales to net sales is included later within this annex

Adjusted Net Income and Adjusted Net Sales

The Company evaluates the performance of its business units primarily on segment earnings before interest, taxes and amortization (EBITA), which represents income from continuing operations before income taxes and noncontrolling interests, excluding general corporate expenses, intangible asset amortization, net financing charges, restructuring and impairment costs, and the net mark-to-market adjustments related to restricted asbestos investments and pension and postretirement plans. The financial results shown below are for continuing operations and exclude the Power Solutions business.

	Twelve Months Ended September 30,					
	20)21	20)20		
(in millions; unaudited)	Actual	Adjusted Non-GAAP	Actual	Adjusted Non-GAAP		
Net sales ⁽¹⁾ Building Solutions North America Building Solutions EMEA/LA Building Solutions Asia Pacific Global Products	\$ 8,685 3,727 2,654 8,602	\$ 8,685 3,727 2,654 8,608	\$ 8,605 3,440 2,403 7,869	\$ 8,605 3,440 2,403 7,869		
Net sales	\$23,668	\$23,674	\$22,317	\$22,317		
Segment EBITA ⁽¹⁾ Building Solutions North America Building Solutions EMEA/LA Building Solutions Asia Pacific Global Products Segment EBITA Corporate expenses ⁽²⁾	\$ 1,204 391 349 <u>1,441</u> 3,385 (290)	\$ 1,204 391 349 1,454 3,398 (290)	\$ 1,157 338 319 <u>1,134</u> 2,948 (371)	\$ 1,168 340 326 1,186 3,020 (269)		
Amortization of intangible assets ⁽³⁾	(435)	(425)	(386)	(386)		
Net mark-to-market adjustments ⁽⁴⁾ Restructuring and impairment costs ⁽⁵⁾	402 (242)		(274) (783)			
EBIT ⁽⁶⁾ EBIT margin Net financing charges	2,820 11.9% (206)	2,683 11.3% (206)	1,134 5.1% (231)	2,365 10.6% (231)		
Income from continuing operations before income taxes Income tax provision ⁽⁷⁾	2,614 (868)	2,477 (334)	903 (108)	2,134 (288)		
Income from continuing operations Income from continuing operations attributable to	1,746	2,143	795	1,846		
noncontrolling interests	(233)	(233)	(164)	(158)		
Net income from continuing operations attributable to JCI	\$ 1,513	\$ 1,910	\$ 631	\$ 1,688		

(1) The Company's definition of adjusted net sales and adjusted segment EBITA excludes special items because these items are not considered to be directly related to the underlying operating performance of its businesses. Management believes these non-GAAP measures are useful to investors in understanding the ongoing operations and business trends of the Company. A reconciliation of segment EBITA to income from continuing operations is shown earlier within this footnote. The following is the twelve months ended September 30, 2021 and 2020 reconciliation of net sales, segment EBITA and segment EBITA margin to adjusted net sales, adjusted segment EBITA and adjusted segment EBITA margin (unaudited):

		ding tions America	Solu	ding tions A/LA	Solu	ding tions Pacific	Global F	Products		lidated plc
(in millions)	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020
Net sales as reported Adjusting items: Nonrecurring Silent-Aire purchase accounting impacts	\$8,685	\$8,605	\$3,727	\$3,440	\$2,654	\$2,403	\$8,602	\$7,869	\$23,668	\$22,317
Adjusted net sales	\$8,685	\$8,605	\$3,727	\$3,440	\$2,654	\$2,403	\$8,608	\$7,869	\$23,674	\$22,317
Segment EBITA as reported Segment EBITA margin as reported Adjusting items: Nonrecurring Silent-Aire purchase accounting impacts and transaction	\$1,204 13.9%	\$1,157 6 13.49	\$ 391 6 10.59	\$ 338 % 9.8%	\$ 349 % 13.19	\$ 319 % 13.39	\$1,441 % 16.89	\$1,134 % 14.49	\$ 3,385 % 14.39	\$ 2,948 % 13.2%
costs		—	—		—	—	13	—	13	—
Integration costs Acquisition related	_	11	_	2	_	7	—	13	_	33
compensation charge								39		39
Adjusted segment EBITA	\$1,204	\$1,168	\$ 391	\$ 340	\$ 349	\$ 326	\$1,454	\$1,186	\$ 3,398	\$ 3,020
Adjusted segment EBITA margin	13.9%	6 13.6%	6 10.5%	% 9.9%	% 13.1%	% 13.69	% 16.9%	% 15.19	% 14.4%	6 13.5%

(2) Adjusted Corporate expenses excludes special items because these costs are not considered to be directly related to the underlying operating performance of the Company's business. Adjusted Corporate expenses for the twelve months ended September 30, 2020 excludes \$102 million of integration costs.

⁽³⁾ Adjusted amortization of intangible assets for the twelve months ended September 30, 2021 excludes \$10 million of nonrecurring asset amortization related to Silent-Aire purchase accounting.

- (4) The twelve months ended September 30, 2021 exclude the net mark-to-market adjustments on restricted investments and pension and postretirement plans of \$402 million. The twelve months ended September 30, 2020 exclude the net mark-to-market adjustments on restricted investments and pension and postretirement plans of \$274 million.
- (5) Restructuring and impairment costs for the twelve months ended September 30, 2021 of \$242 million are excluded from the adjusted non-GAAP results. Restructuring and impairment costs for the twelve months ended September 30, 2020 of \$783 million are excluded from the adjusted non-GAAP results. The restructuring actions and impairment costs related primarily to workforce reductions, plant closures and asset impairments.
- (6) Management defines earnings before interest and taxes (EBIT) as income from continuing operations before net financing charges, income taxes and noncontrolling interests. EBIT is a non-GAAP performance measure. Management believes this non-GAAP measure is useful to investors in understanding the ongoing operations and business trends of the Company. A reconciliation of EBIT to income from continuing operations is shown earlier within this footnote.
- (7) Adjusted income tax provision for the twelve months ended September 30, 2021 excludes tax provisions from an intra-entity sale of certain of the Company's intellectual property of \$417 million, a Mexico valuation allowance adjustment \$105 million, and net mark-to-market adjustments of \$93 million, partially offset by tax benefits related to other valuation allowance adjustments of \$39 million, restructuring and impairment costs of \$39 million, and Silent-Aire nonrecurring purchase accounting of \$3 million. Adjusted income tax provision for the twelve months ended September 30, 2020 excludes tax benefits from net mark-to-market adjustments of \$65 million, restructuring and impairment costs of \$48 million, tax audit reserve adjustments of \$44 million, valuation allowance adjustments of \$26 million, integration costs of \$18 million and an acquisition related compensation charge of \$9 million, partially offset by tax provisions related to Switzerland tax reform of \$30 million.

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

FORM 10-K

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

For the Fiscal Year Ended September 30, 2021

OR

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

For the Transition Period From _____ To ____

Commission File Number 001-13836

JOHNSON CONTROLS INTERNATIONAL PLC

(Exact name of registrant as specified in its charter)

Ireland

(Jurisdiction of Incorporation)

One Albert Quay, Cork, Ireland, T12 X8N6

(Address of Principal Executive Offices and Postal Code)

98-0390500

(I.R.S. Employer Identification No.) (353) 21-423-5000 (Registrant's Telephone Number)

Securities Registered Pursuant to Section 12(b) of the Exchange Act:

<u>Title of Each Class</u>	Trading Symbol	Name of Each Exchange on Which Registered
Ordinary Shares, Par Value \$0.01	JCI	New York Stock Exchange
4.625% Notes due 2023	JCI23	New York Stock Exchange
1.000% Senior Notes due 2023	JCI23A	New York Stock Exchange
3.625% Senior Notes due 2024	JCI24A	New York Stock Exchange
1.375% Notes due 2025	JCI25A	New York Stock Exchange
3.900% Notes due 2026	JCI26A	New York Stock Exchange
0.375% Senior Notes due 2027	JCI27	New York Stock Exchange
1.750% Senior Notes due 2030	JCI30	New York Stock Exchange
2.000% Sustainability-Linked Senior Notes due 2031	JCI31	New York Stock Exchange
1.000% Senior Notes due 2032	JCI32	New York Stock Exchange
6.000% Notes due 2036	JCI36A	New York Stock Exchange
5.70% Senior Notes due 2041	JCI41B	New York Stock Exchange
5.250% Senior Notes due 2041	JCI41C	New York Stock Exchange
4.625% Senior Notes due 2044	JCI44A	New York Stock Exchange
5.125% Notes due 2045	JCI45B	New York Stock Exchange
6.950% Debentures due December 1, 2045	JCI45A	New York Stock Exchange
4.500% Senior Notes due 2047	JCI47	New York Stock Exchange
4.950% Senior Notes due 2064	JCI64A	New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Exchange Act: None

Indicate by check mark whether 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 Exchange 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 Exchange Act during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes 🗹 No 🗆

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

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

Large accelerated filer	\checkmark	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 \square

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

As of March 31, 2021, the aggregate market value of Johnson Controls International plc Common Stock held by non-affiliates of the registrant was approximately \$42.7 billion based on the closing sales price as reported on the New York Stock Exchange. As of October 31, 2021, 704,332,395 ordinary shares, par value \$0.01 per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement to be delivered to shareholders in connection with the annual general meeting of shareholders to be held on March 9, 2022 are incorporated by reference into Part III

JOHNSON CONTROLS INTERNATIONAL PLC

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Year Ended September 30, 2021

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CAUTIONARY STATEMENTS FOR FORWARD-LOOKING INFORMATION

Unless otherwise indicated, references to "Johnson Controls," the "Company," "we," "our" and "us" in this Annual Report on Form 10-K refer to Johnson Controls International plc and its consolidated subsidiaries.

The Company has made statements in this document that are forward-looking and therefore are subject to risks and uncertainties. All statements in this document other than statements of historical fact are, or could be, "forwardlooking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. In this document, statements regarding the Company's future financial position, sales, costs, earnings, cash flows, other measures of results of operations, synergies and integration opportunities, capital expenditures and debt levels are forward-looking statements. Words such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," "should," "forecast," "project" or "plan" and terms of similar meaning are also generally intended to identify forward-looking statements. However, the absence of these words does not mean that a statement is not forward-looking. The Company cautions that these statements are subject to numerous important risks, uncertainties, assumptions and other factors, some of which are beyond the Company's control, that could cause the Company's actual results to differ materially from those expressed or implied by such forward-looking statements, including, among others, risks related to: The Company's ability to manage general economic, business, capital market and geopolitical conditions, including global price inflation and shortages impacting the availability of raw materials and component products; the Company's ability to manage the impacts of natural disasters, climate change, pandemics and outbreaks of contagious diseases and other adverse public health developments, such as the COVID-19 pandemic; the strength of the U.S. or other economies; changes or uncertainty in laws, regulations, rates, policies or interpretations that impact the Company's business operations or tax status; the ability to develop or acquire new products and technologies that achieve market acceptance and meet applicable regulatory requirements; changes to laws or policies governing foreign trade, including increased tariffs or trade restrictions; maintaining the capacity, reliability and security of the Company's enterprise information technology infrastructure; the ability to manage the lifecycle cybersecurity risk in the development, deployment and operation of the Company's digital platforms and services; the risk of infringement or expiration of intellectual property rights; any delay or inability of the Company to realize the expected benefits and synergies of recent portfolio transactions; the outcome of litigation and governmental proceedings; the ability to hire and retain senior management and other key personnel; the tax treatment of recent portfolio transactions; significant transaction costs and/or unknown liabilities associated with such transactions; fluctuations in currency exchange rates; labor shortages, work stoppages, union negotiations, labor disputes and other matters associated with the labor force; and the cancellation of or changes to commercial arrangements. A detailed discussion of risks related to Johnson Controls' business is included in the section entitled "Risk Factors" (refer to Part I, Item 1A, of this Annual Report on Form 10-K). The forward-looking statements included in this document are made only as of the date of this document, unless otherwise specified, and, except as required by law, Johnson Controls assumes no obligation, and disclaims any obligation, to update such statements to reflect events or circumstances occurring after the date of this document.

PART I

ITEM 1 BUSINESS

General

Johnson Controls International plc, headquartered in Cork, Ireland, is a global leader in smart, healthy and sustainable buildings, serving a wide range of customers in more than 150 countries. The Company's products, services, systems and solutions advance the safety, comfort and intelligence of spaces to serve people, places and the planet. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

Johnson Controls was originally incorporated in the state of Wisconsin in 1885 as Johnson Electric Service Company to manufacture, install and service automatic temperature regulation systems for buildings and was renamed to Johnson Controls, Inc. in 1974. In 2005, Johnson Controls acquired York International, a global supplier of heating, ventilating, air-conditioning ("HVAC") and refrigeration equipment and services. In 2014, Johnson Controls acquired Air Distribution Technologies, Inc., one of the largest independent providers of air distribution and ventilation products in North America. In 2015, Johnson Controls, Inc. and Tyco completed their combination (the "Merger"), combining Johnson Controls portfolio of building efficiency solutions with Tyco's portfolio of fire and security solutions. Following the Merger, Tyco changed its name to "Johnson Controls International plc."

In 2016, the Company completed the spin-off of its automotive business into Adient plc, an independent, publicly traded company. In 2019, the Company sold its Power Solutions business to BCP Acquisitions LLC, an entity controlled by

investment funds managed by Brookfield Capital Partners LLC, completing the Company's transformation into a pure-play building technologies and solutions provider.

The Company is a global leader in engineering, manufacturing and commissioning building products and systems, including residential and commercial HVAC equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. The Company further serves customers by providing technical services, including maintenance, management, repair, retrofit and replacement of equipment (in the HVAC, industrial refrigeration, security and fire-protection space), energy-management consulting and data-driven "smart building" services and solutions powered by its OpenBlue software platform and capabilities. The Company partners with customers by leveraging its broad product portfolio and digital capabilities powered by OpenBlue, together with its direct channel service and solutions capabilities, to deliver outcome-based solutions across the lifecycle of a building that address customers' needs to improve energy efficiency and reduce greenhouse gas emissions.

Business Segments

The Company conducts its business through four business segments: Building Solutions North America, Building Solutions EMEA/LA, Building Solutions Asia Pacific and Global Products.

Building Solutions North America: Building Solutions North America designs, sells, installs and services HVAC, controls, building management, refrigeration, integrated electronic security and integrated fire-detection and suppression systems for commercial, industrial, retail, small business, institutional and governmental customers in the United States and Canada. Building Solutions North America also provides energy efficiency solutions and technical services, including inspection, scheduled maintenance, and repair and replacement of mechanical and controls systems, as well as data-driven "smart building" solutions, to non-residential building and industrial applications in the United States and Canadian marketplace.

Building Solutions EMEA/LA: Building Solutions EMEA/LA designs, sells, installs, and services HVAC, controls, building management, refrigeration, integrated electronic security, integrated fire-detection and suppression systems, and provides technical services, including data-driven "smart building" solutions, to markets in Europe, the Middle East, Africa and Latin America.

Building Solutions Asia Pacific: Building Solutions Asia Pacific designs, sells, installs, and services HVAC, controls, building management, refrigeration, integrated electronic security, integrated fire-detection and suppression systems, and provides technical services, including data-driven "smart building" solutions, to the Asia Pacific marketplace.

Global Products: Global Products designs, manufactures and sells HVAC equipment, controls software and software services for residential and commercial applications to commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. In addition, Global Products designs, manufactures and sells refrigeration equipment and controls globally. The Global Products business also designs, manufactures and sells fire protection, fire suppression and security products, including intrusion security, anti-theft devices, access control, and video surveillance and management systems, for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. Global Products the Johnson Controls-Hitachi joint venture.

For more information on the Company's segments, refer to Note 20, "Segment Information," of the notes to consolidated financial statements.

Products, Systems, Services and Solutions

The Company sells and installs its commercial HVAC equipment and systems, control systems, security systems, fire-detection and fire suppression systems, equipment and services primarily through its extensive direct channel, consisting of a global network of sales and service offices. Significant sales are also generated through global third-party channels, such as distributors of air-conditioning, controls, security and fire-detection and suppression products. The Company's large base of current customers leads to significant repeat business for the maintenance, retrofit and replacement markets. The Company is also able to leverage its installed base to generate sales for its service business. Trusted building brands, such as YORK®, Hitachi Air Conditioning, *Metasys*®, Ansul, *Ruskin*®, Titus®, Frick®, PENN®, Sabroe®, Silent-Aire®, Simplex® and Grinnell®, together with the breadth and depth of the products, systems and solutions offered by the Company, give it what it believes to be the most diverse portfolio in the building technology industry.

The Company has developed software platforms, including on-premises platforms and cloud-based software services, and integrated its products and services with digital capabilities to provide data-driven solutions to create smarter, safer and more

sustainable buildings. In fiscal 2020, the Company launched its software platform, OpenBlue, enabling enterprises to manage all aspects of their physical spaces delivering sustainability, new occupant experiences, safety and security by combining the Company's building expertise with cutting-edge technology, including AI-powered service solutions such as remote diagnostics, predictive maintenance, compliance monitoring and advanced risk assessments. The Company leverages its digital and data-driven products and services to offer integrated and customizable solutions focused on delivering outcomes to customers, including OpenBlue Buildings-as-a-Service, OpenBlue Net Zero Buildings-as-a-Service and OpenBlue Healthy Buildings. These services are generally designed to generate recurring revenue for the Company as it supports its customers in achieving their desired outcomes.

In fiscal 2021, approximately 37% of sales originated from product offerings, 36% of sales originated from installations and 27% of sales originated from service offerings.

Competition

The Company conducts its operations through thousands of individual contracts that are either negotiated or awarded on a competitive basis. Key factors in the award of contracts include system and service performance, quality, price, design, reputation, technology, application engineering capability and construction or project management expertise. Competitors for HVAC equipment, security, fire-detection, fire suppression and controls in the residential and non-residential marketplace include many local, regional, national and international providers. Larger competitors include Honeywell International, Inc.; Siemens Smart Infrastructure, an operating group of Siemens AG; Schneider Electric SA; Carrier Global Corporation; Trane Technologies plc; Daikin Industries, Ltd.; Lennox International, Inc.; GC Midea Holding Co, Ltd. and Gree Electric Appliances, Inc. In addition, the Company competes in a highly fragmented building services market. The loss of any individual contract or customer would not have a material adverse effect on the Company.

Business Strategy

The Company's business strategy is to sustain and expand its position as a leader in smart and sustainable building solutions by offering a full spectrum of products and solutions for customer buildings across the globe. The Company's core strategy remains focused on creating growth platforms, driving operational improvements and creating a high-performance culture. The Company has strong positions in attractive and growing end-markets across HVAC, controls, fire, security and services, enhanced by its comprehensive product portfolio and substantial installed base. The Company believes that it is well positioned to capitalize on the emerging and prevalent trends in the buildings industry, including decarbonization, healthy buildings/indoor environmental quality and smart buildings. To capitalize on these trends, the Company is building on its fiscal 2021 priorities of maintaining leading positions in commercial HVAC and building management systems, as well as enabling growth through digital, to develop and leverage new digital technologies and capabilities into outcomes powered by its OpenBlue software platform. In furtherance of these goals, the Company has three strategic priorities:

Capitalize on Key Growth Vectors: Decarbonization, healthy buildings/indoor environmental quality and smart buildings represent key growth opportunities for the Company. The Company seeks to leverage its existing portfolio breadth and investments in product development, combined with the expansion of its digital products and capabilities powered by OpenBlue, to offer differentiated solutions and innovative deal structures to help customers achieve their objectives. The Company intends to invest in products and expand its partnerships to power innovation that will allow it to provide differentiated services that are tailored to its customers' desired outcomes.

Accelerate in High Growth Digital Services, Regions and Verticals: The Company is focused on transforming its large service business through its OpenBlue digital technologies and enabled by the Company's installed base, domain expertise and global coverage. The Company further intends to expand its presence in high growth regions and invest in high growth verticals within the markets it serves, including healthcare, commercial offices/campus, education and data centers.

Sustain a High-Performance, Customer-Centric Culture: The Company recognizes that developing talent and creating positive customer experiences is central to accomplishing its business strategies. The Company is investing in its talent to build a diverse workforce that is digital capable, solutions oriented and focused on continuous learning and growth. The Company aims to leverage its talent capabilities and training to create a customer-focused culture to drive customer loyalty and decisions.

To realize these priorities, the Company is leveraging its technology leadership, comprehensive product portfolio, global presence, substantial installed base and strong channels to monetize the lifecycle opportunities of install, service, retrofit and replacement which are established and delivered by the Company's direct field businesses and third-party channels across the globe. The Company is augmenting its strategic priorities with disciplined execution, productivity enhancements and sustainable cost management to create a path to realize expanded margins and enhanced profitability.

Backlog

The Company's backlog is applicable to its sales of systems and services. At September 30, 2021, the backlog was \$10.5 billion, of which \$10.1 billion was attributable to the field business. The backlog amount outstanding at any given time is not necessarily indicative of the amount of revenue to be earned in the upcoming fiscal year.

At September 30, 2021, remaining performance obligations were \$16.1 billion, which is \$5.6 billion higher than the Company's backlog of \$10.5 billion. Differences between the Company's remaining performance obligations and backlog are primarily due to the following:

- Remaining performance obligations include large, multi-purpose contracts to construct hospitals, schools and other governmental buildings, which are services to be performed over the building's lifetime with average initial contract terms of 25 to 35 years for the entire term of the contract versus backlog which includes only the lifecycle period of these contracts which approximates five years;
- The Company has elected to exclude from remaining performance obligations certain contracts with customers with a term of one year or less or contracts that are cancelable without substantial penalty while these contracts are included within backlog; and
- Remaining performance obligations include the full remaining term of service contracts with substantial termination penalties versus backlog which includes one year for all outstanding service contracts.

The Company will continue to report backlog as it believes it is a useful measure of evaluating the Company's operational performance and relationship to total orders.

Raw Materials

Raw materials used by the Company's businesses in connection with their operations include steel, aluminum, brass, copper, polypropylene and certain flurochemicals used in fire suppression agents. The Company also uses semiconductors and other electronic components in the manufacture of its products. During portions of fiscal 2021, the Company experienced higher than normal commodity and component prices and, in some instances, shortages due to global inflation, supply chain disruptions, labor shortages, increased demand and other regulatory and macroeconomic factors associated with the COVID-19 pandemic. These trends had a negative impact on the Company's results of operations in fiscal 2021, although they were largely mitigated by the Company through proactive measures such as making purchases with the anticipation of higher demand, expanding and redistributing its supplier network, supplier financing, price increases and productivity improvements. The Company believes that the macroeconomic trends experienced in fiscal 2021 will continue into fiscal 2022. Therefore, the Company could experience further disruptions, shortages and price inflation in the future, the effect of which will depend on the Company's ability to successfully mitigate and offset the impact of these events. In fiscal 2022, commodity prices and availability could fluctuate throughout the year and could significantly affect the Company's results of operations.

Intellectual Property

Generally, the Company seeks statutory protection for strategic or financially important intellectual property developed in connection with its business. Certain intellectual property, where appropriate, is protected by contracts, licenses, confidentiality or other agreements. From time to time, the Company takes action to protect its businesses by asserting its intellectual property rights against third-party infringers.

The Company owns numerous U.S. and non-U.S. patents (and their respective counterparts), the more important of which cover those technologies and inventions embodied in current products or which are used in the manufacture of those products. While the Company believes patents are important to its business operations and in the aggregate constitute a valuable asset, no single patent, or group of patents, is critical to the success of the business. The Company, from time to time, grants licenses under its patents and technology and receives licenses under patents and technology of others.

The Company's trademarks, certain of which are material to its business, are registered or otherwise legally protected in the U.S. and many non-U.S. countries where products and services of the Company are sold. The Company, from time to time, becomes involved in trademark licensing transactions.

Most works of authorship produced for the Company, such as computer programs, catalogs and sales literature, carry appropriate notices indicating the Company's claim to copyright protection under U.S. law and appropriate international treaties.

Environmental, Health and Safety Matters

Laws addressing the protection of the environment and workers' safety and health govern the Company's ongoing global operations. They generally provide for civil and criminal penalties, as well as injunctive and remedial relief, for noncompliance or require remediation of sites where Company-related materials have been released into the environment.

The Company has expended substantial resources globally, both financial and managerial, to comply with environmental laws and worker safety laws and maintains procedures designed to foster and ensure compliance. Certain of the Company's businesses are, or have been, engaged in the handling or use of substances that may impact workplace health and safety or the environment. The Company is committed to protecting its workers and the environment against the risks associated with these substances.

The Company's operations and facilities have been, and in the future may become, the subject of formal or informal enforcement actions or proceedings for noncompliance with environmental laws and worker safety laws or for the remediation of Company-related substances released into the environment. Such matters typically are resolved with regulatory authorities through commitments to compliance, abatement or remediation programs and, in some cases, payment of penalties. See Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for further discussion of environmental matters.

Government Regulation and Supervision

The Company's operations are subject to numerous federal, state and local laws and regulations, both within and outside the United States, in areas such as consumer protection, government contracts, international trade, environmental protection, labor and employment, tax, licensing and others. For example, most U.S. states and non-U.S. jurisdictions in which the Company operates have licensing laws directed specifically toward the alarm and fire suppression industries. The Company's security businesses currently rely extensively upon the use of wireline and wireless telephone service to communicate signals. Wireline and wireless telephone companies in the U.S. are regulated by the federal and state governments. In addition, government regulation of fire safety codes can impact the Company's fire businesses. The Company's businesses may also be affected by changes in governmental regulation of refrigerants and energy efficiency standards, noise regulation and product safety regulations, including changes related to hydro fluorocarbons/emissions reductions efforts, energy conservation standards and the regulation of fluorinated gases. These and other laws and regulations impact the manner in which the Company conducts its business, and changes in legislation or government policies can affect the Company's worldwide operations, both favorably and unfavorably. For a more detailed description of the various laws and regulations that affect the Company's business, see Item 1A. Risk Factors.

Regulatory Capital Expenditures

The Company's efforts to comply with numerous federal, state and local laws and regulations applicable to its business and products often results in capital expenditures. The Company makes capital expenditures to design and upgrade its fire and security products to comply with or exceed standards applicable to the alarm, fire suppression and security industries. The Company also makes capital expenditures to meet or exceed energy efficiency standards, including the regulation of refrigerants, hydro fluorocarbons/emissions reductions efforts and the regulation of fluorinated gasses, particularly with respect to the Company's HVAC products and solutions. The Company's ongoing environmental compliance program also results in capital expenditures. Regulatory and environmental considerations are a part of all significant capital expenditure decisions; however, expenditures in fiscal 2021 related solely to regulatory compliance were not material. It is management's opinion that the amount of any future capital expenditures related to compliance with any individual regulation or grouping of related regulations will not have a material adverse effect on the Company's financial results or competitive position in any one year. See Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for further discussion of environmental matters.

Human Capital Management

Overview and Governance

The Company strives to continuously drive and develop its High-Performance Culture. The Company's High-Performance Culture represents the practices and behaviors, underpinned by the Company's values, that lead to sustained growth, winning results and satisfied customers.

The responsibility to develop and maintain a High-Performance Culture is owned, embedded and executed throughout the Company. The Chief Human Resources Officer ("CHRO") is responsible for establishing the Company's strategy to drive a High-Performance Culture and ensuring its execution across the Company. The Compensation and Talent Development Committee of the Board of Directors is the primary overseer of the Company's High-Performance Culture strategy and execution. The Chief Executive Officer, the CHRO, the Vice President of Diversity and Inclusion and other senior leaders within the Company are responsible for the execution of the strategy and engage with the Compensation and Talent Development Committee, the Governance and Sustainability Committee and the full Board of Directors on the critical components driving the Company's High-Performance Culture, including discussions of human capital trends, practices and operations, diversity and inclusion, health and safety, leadership development and succession planning. Key components driving the Company's High-Performance Culture include:

Health and Safety

Health and Wellness, Safety and Environment are the three pillars of the Company's Zero Harm vision. The Company's health and safety programs are designed around global standards with appropriate variations addressing multiple jurisdictions and regulations, specific hazards and unique working environments of the Company's manufacturing, service and install, and headquarter operations. In response to COVID-19, the Company created new Zero Harm standards and processes to ensure the ongoing health and safety of its workplaces, including extensive communication and education programs to encourage all employees to get vaccinated against COVID-19 when eligible and the organization of on-site vaccination clinics at the Company's facilities. Throughout fiscal year 2021, as employees in many countries were faced with continued work-fromhome instructions, the Company's focus on employee well-being continued with the utilization of global and regional well-being councils, addressing physical, mental, social and financial aspects of employee well-being during the pandemic. See "Impact of COVID-19 pandemic" included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" for more information on human capital management actions taken by the Company in response to the COVID-19 pandemic.

The Company requires each of its locations to perform regular safety audits to ensure proper safety policies, program procedures, analyses and training are in place. In addition, the Company engages an independent third-party conformity assessment and certification vendor to audit selected operations for adherence to its global health and safety standards. Safety culture and behavior-based safety initiatives have been deployed within the Company, including a multi-faceted policy focused on preventing distracted driving and the design and rollout of a new-style of platform ladder built to provide a safe working platform for employees. One safety policy that applies to all employees around the globe, regardless of rank, is every individual worker's right to apply the "Stop Work" principle when uncertain about the health and safety of a particular task.

The Company utilizes a mixture of leading and lagging indicators to assess the health and safety performance of its operations. Lagging indicators include the OSHA Total Recordable Incident Rate ("TRIR") and the Lost Time (or Lost Workday) Incident Rate ("LTIR") based upon the number of incidents per 100 employees (or per 200,000 work hours). In fiscal year 2021, the Company had a TRIR of 0.37 and a LTIR of 0.12.

Diversity and Inclusion

Diversity and inclusion are embedded throughout the Company's strategy to drive a High-Performance Culture. The Company recognizes that an inclusive culture that is diverse adds value to the Company and its customers through: the creation and delivery of innovative and outstanding products, services and outcomes; the cultivation of an engaged and empowered environment where employee productivity drives company growth; and the onboarding of high-performing talent into the organization to propel the Company's transformation and future. The Company believes that all employees and leaders are responsible for creating a diverse and inclusive workplace. Employees are empowered to take an active role in creating a culture that values uniqueness, celebrates creativity and drives innovation. The Company places a high value on inclusion, engaging employees in Business Resource Groups ("BRGs") — employee-led voluntary organizations of people with similar interests, experiences, or demographic characteristics. The Company maintains its BRG chapters worldwide across nine

categories: African American, Asia Pacific, LGBTQ+, Emerging Leaders, Hispanic, Disabilities, Veterans, Women and Sustainability. The Company uses these groups to serve as a source of inclusion and to support the acquisition and development of diverse talent internally and externally. Each BRG is open to all employees and sponsored and supported by senior leaders across the enterprise. The Company's BRG structure includes monthly learning series, an active recruitment platform, an innovation hub, and community engagement. In fiscal year 2021, the Company realized over 350% growth in BRG membership.

The Company has implemented several measures that focus on ensuring accountabilities exist for making progress in diversity:

- **Diversity Performance Goals:** The CEO and other senior leaders have diversity and inclusion objectives in their annual performance goals.
- Attracting Diverse Talent: The Company commits to having a diverse talent pipeline by partnering with its business units in their workforce planning forecasts, as well as external organizations, to develop initiatives and goals to recruit diverse talent across all leadership and skill areas. In furtherance of this commitment, the Company launched its Future Leaders Internship Program, an enterprise-wide internship program designed to build a sustainable, diverse pipeline of talent with the critical skills needed to support the Company's growth initiatives.
- Facilitating Engagement: The Company launched the Perspectives Listening Series to facilitate honest, courageous and authentic conversations between colleagues on topics that are relevant and important to employees, communities and society as a whole. Topics covered include next generation leadership, gender equality, the social justice movement and fatherhood.

Talent Development

To maintain a High-Performance Culture, the Company must ensure the continued development and advancement of its people. Strategic talent reviews and succession planning occur on a planned cadence annually – globally and across all business areas. The Company continues to provide opportunities for the Company's employees to grow their careers, with over half of open management positions filled internally during fiscal year 2021.

The Company believes that high performance is an outcome of a person's ability to change, adapt, and grow their capabilities throughout their career. The Company emphasizes real-life, real-time learning that enables a person to meet the demands of challenging and changing work and focuses on reinforcing key principles that are designed to support an individual's effectiveness in his or her current job and in their future development. The Company provides technical and leadership training to employees, customers and suppliers who work for or with the Company's products and services. In particular, the Company's focus on employee development has been structured over the last several years through programs designed to imbed essential skills and reinforce strategic goals that are aligned to the Company's culture, including:

- **Digital Transformation:** In support of Company's growth strategy, the Company is investing in developing digital leadership with personalized and targeted training programs designed to create digitally capable leaders, salespersons and technicians.
- **Diversity and Inclusion:** The Company has developed a structured diversity and inclusion training continuum across the levels and stages of individuals' careers to develop and align employees with the Company's diversity and inclusion strategy and values.
- **Organizational Health:** The Company regularly assesses its progress using an Organizational Health Index survey and develops annual health plans comprised of priority initiatives to drive key behaviors and practices that is informed by the survey's results. These plans are specifically tailored for each business unit and regularly assessed during the year, with managers accountable for introducing and teaching new skills or toolsets to their teams.

In fiscal year 2021, the Company offered a robust curriculum of over 150,000 learning activities available to employees, consisting of videos, courses, e-learning, documentation, articles and books, including over 5,000 active (in person or virtual) learning courses. In fiscal year 2021, over 1.1 million learning activities were completed by approximately 85,300 employees.

Employee Population and Demographics

As of September 30, 2021, the Company employed approximately 101,000 people worldwide, of which approximately 37,000 were employed in the United States and approximately 64,000 were outside the United States. Approximately 22,000 employees are covered by collective bargaining agreements or works councils and the Company believes that its relations with its labor unions are generally positive.

Employee Diversity as of September 30, 2021								
Employees	Male	Female	Minority (1)					
Total	77%	23%	26%					
Managers	81%	19%	18%					

⁽¹⁾ Male and female data represents all employees globally. Minority data represents U.S. employees only.

Seasonal Factors

Certain of the Company's sales are seasonal as the demand for residential air conditioning equipment and services generally increases in the summer months. This seasonality is mitigated by the other products and services provided by the Company that have no material seasonal effect.

Research and Development Expenditures

Refer to Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements for research and development expenditures. In January 2021, the Company committed to invest 75 percent of its new product research and development in climate-related innovation to develop sustainable products and services.

Available Information

The Company's filings with the U.S. Securities and Exchange Commission ("SEC"), including annual reports on Form 10-K, quarterly reports on Form 10-Q, definitive proxy statements on Schedule 14A, current reports on Form 8-K, and any amendments to those reports filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, are made available free of charge through the Investor Relations section of the Company's Internet website at http://www.johnsoncontrols.com as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC. Copies of any materials the Company files with the SEC can also be obtained free of charge through the SEC's website at http:// www.sec.gov. The Company also makes available, free of charge, its Code of Ethics, Corporate Governance Guidelines, Board of Directors committee charters and other information related to the Company on the Company's Internet website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K.

ITEM 1A RISK FACTORS

Provided below is a cautionary discussion of what we believe to be the most important risk factors applicable to the Company. Discussion of these factors is incorporated by reference into and considered an integral part of Part II, Item 7, "Management's Discussion and Analysis of Financial Conditions and Results of Operations." The disclosure of a risk should not be interpreted imply that such risk has not already materialized. Additional risks not currently known to the Company or that the Company currently believes are immaterial also may impair the Company's business, financial condition, results of operations and cash flows.

Risks Related to Economic and Political Conditions

Impacts related to the COVID-19 pandemic could have an adverse effect on our business, financial condition, results of operations and cash flows.

The global outbreak of COVID-19 has disrupted economic activity around the world. As a result, we and our affiliates, employees, suppliers, customers and others have been and may continue to be restricted or prevented from conducting normal business activities, including as a result of shutdowns, travel restrictions and other actions that may be requested or mandated by governmental authorities. While a substantial portion of our businesses and facilities have been classified as essential in

jurisdictions in which facility closures have been mandated, we can give no assurance that there will not be additional closures in the future or that our businesses and facilities will be classified as essential in each of the jurisdictions in which we operate.

The COVID-19 outbreak has impacted, and may continue to impact, our office locations, manufacturing and servicing facilities and distribution centers, as well as those of our third-party vendors, including the effects of facility closures, reductions in operating hours and other social distancing efforts. In response to the challenges presented by COVID-19, we modified our business practices, including restricting non-essential employee travel, implementing remote work protocols, and limiting physical participation in meetings, events and conferences, and we may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, customers, partners and suppliers. These modifications to our business practices, including any future actions we take, may cause us to experience increases in costs, reductions in productivity and disruptions to our business routines.

In September 2021, the Biden Administration issued an executive order requiring U.S.-based employees, contractors, and subcontractors, that work on or in support of U.S. Government contracts, to be fully vaccinated by January 4, 2022. The executive order includes on-site and remote U.S.-based employees, contractors and subcontractors and it only permits limited exceptions for medical and religious reasons. The Occupational Safety and Health Administration ("OSHA") has also issued rules requiring that all large employers in the U.S. have employee populations that are fully vaccinated against or regularly tested for COVID-19 at least once per week by January 4, 2022, however, the implementation of the OSHA rules has been blocked by a federal appeals court, subject to the resolution of ongoing litigation challenging the constitutionality of the rules. These actions are or are expected to be applicable to our U.S. operations and our federal contracting business, and we have announced an internal vaccine mandate with respect to our U.S.-based employees who fall within the scope of the federal contractor and subcontractor executive order. It is also possible that additional vaccine mandates may be announced in other jurisdictions in which our businesses operate. In addition, certain customers have issued vaccine requirements with respect to our employees who provide on-site service at customer facilities. Our efforts to comply with these mandates, including requiring that some or all of our employees be fully vaccinated against COVID-19, could result in increased labor attrition and disruption, as well as difficulty securing future labor needs, and could adversely impact our ability to deliver services to our U.S. federal government customers and potentially other customers, which could in turn adversely impact our results of operations.

We may also experience impacts from market forces and changes in consumer behavior related to pandemic fears as a result of COVID-19. Although we experienced increases in both demand and volumes during fiscal 2021 as governments distributed vaccines and lifted COVID-19-related restrictions, challenges in achieving sufficient vaccination levels and the introduction of new variants of COVID-19 have and could continue to negatively impact our results of operations due to the extension or reinstitution of lockdowns and similar restrictive measures, limited access to customer sites to perform installation and service work, the delay or abandonment of projects on which we provide products and/or services, and the general adverse impacts on demand and sales volumes from industries that are sensitive to economic downturns and volatility in commodity prices. In addition, the Company has experienced and could continue to experience labor shortages at its facilities as the Company expands its production capacity to meet increased customer demand. Further, the COVID-19 pandemic could result in permanent changes in the behaviors of our customers, including the increased prevalence of remote work and a corresponding decline in demand for the construction and maintenance of commercial buildings. Any of these impacts could cause our stock price and the operating performances of our businesses to be adversely affected, which could require us to incur material impairment, restructuring or other charges.

Our management of the impact of COVID-19 has and will continue to require significant investment of time from our management and employees, as well as resources across our global enterprise. This may cause us to divert or delay the application of our resources toward new initiatives or investments, which may adversely impact our future results of operations. In addition, issues relating to the COVID-19 pandemic may result in legal claims or litigation against us.

The extent to which the COVID-19 pandemic continues to impact our results of operations and financial condition will depend on future developments that are highly uncertain and cannot be predicted, including the resurgence of COVID-19 and its variants in regions recovering from the impacts of the pandemic, the effectiveness of COVID-19 vaccines and the speed at which populations are vaccinated around the globe, the impact of COVID-19 on economic activity and regulatory actions taken to contain the impact of COVID-19 on public health and the global economy. The impact of COVID-19 may also exacerbate other risks discussed in Item 1A of this Annual Report on Form 10-K, any of which could have a material effect on our financial condition, results of operations and cash flows.

The ability of suppliers to deliver raw materials, parts and components to our manufacturing facilities, and our ability to manufacture without disruption, could affect our results of operations.

We use a wide range of materials (primarily steel, copper and aluminum) and components (including semiconductors and other electronic components) in the global production of our products, which come from numerous suppliers around the world. Because not all of our business arrangements provide for guaranteed supply and some key parts may be available only from a single supplier or a limited group of suppliers, we are subject to supply and pricing risk. Our operations and those of our suppliers are subject to disruption for a variety of reasons, including COVID-19-related supplier plant shutdowns or slowdowns, transportation delays, work stoppages, labor relations, labor shortages, price inflation, governmental regulatory and enforcement actions, intellectual property claims against suppliers, financial issues such as supplier bankruptcy, information technology failures, and hazards such as fire, earthquakes, flooding, or other natural disasters. For example, we expect to continue to be impacted by the following supply chain issues, due to economic, political and other factors largely beyond our control: increased input material costs and component shortages; supply chain disruptions and delays and cost inflation, all of which could continue or escalate in the future. The effects of climate change, including extreme weather events, long-term changes in temperature levels, water availability, increased cost for decarbonizing process heating, supply costs impacted by increasing energy costs, or energy costs impacted by carbon prices or offsets may exacerbate these risks. Such disruptions could interrupt our ability to manufacture certain products. Any significant disruption could materially and adversely affect our business, financial condition, results of operations and cash flows.

Material supply shortages and delays in deliveries, along with other factors such as price inflation, can also result in increased pricing. While many of our customers permit quarterly or other periodic adjustments to pricing based on changes in component prices and other factors, we may bear the risk of price increases that occur between any such repricing or, if such repricing is not permitted, during the balance of the term of the particular customer contract.

Volatility in commodity prices may adversely affect our results of operations.

Increases in commodity costs can negatively impact the profitability of orders in backlog as prices on such orders are typically fixed; therefore, in the short-term, our ability to adjust for changes in certain commodity prices is limited. In these cases, if we are not able to recover commodity cost increases through price increases to our customers on new orders, then such increases will have an adverse effect on our results of operations. In cases where commodity price risk cannot be naturally offset or hedged through supply based fixed-price contracts, we use commodity hedge contracts to minimize overall price risk associated with our anticipated commodity purchases. Unfavorability in our hedging programs during a period of declining commodity prices could result in lower margins as we reduce prices to match the market on a fixed commodity cost level. Additionally, to the extent we do not or are unable to hedge certain commodities and the commodity prices substantially increase, such increases will have an adverse effect on our results of operations.

We have experienced, and expect to continue to experience, increased commodity costs as a result of global macroeconomic trends. While we have taken action to offset increasing commodity costs as described above, we have nonetheless experienced negative impacts on profitability as a result of such increased costs. Continued increased commodity costs could continue to negatively impact our results of operations to the extent we are unable to successfully mitigate and offset the impact of these costs.

Some of the industries in which we operate are cyclical and, accordingly, demand for our products and services could be adversely affected by downturns in these industries.

Much of the demand for installation of HVAC, security products, and fire detection and suppression solutions is driven by commercial and residential construction and industrial facility expansion and maintenance projects. Commercial and residential construction projects are heavily dependent on general economic conditions, localized demand for commercial and residential real estate and availability of credit. Commercial and residential real estate markets are prone to significant fluctuations in supply and demand. In addition, most commercial and residential real estate developers rely heavily on project financing in order to initiate and complete projects. Declines in real estate values could lead to significant reductions in the availability of project financing, even in markets where demand may otherwise be sufficient to support new construction. These factors could in turn temper demand for new HVAC, fire detection and suppression, and security installations.

Levels of industrial capital expenditures for facility expansions and maintenance are dependent on general economic conditions, economic conditions within specific industries we serve, expectations of future market behavior and available financing. Additionally, volatility in commodity and component prices, as well as commodity and component shortages, can negatively

affect the level of these activities and can result in postponement of capital spending decisions or the delay or cancellation of existing orders.

The businesses of many of our industrial customers are to varying degrees cyclical and have experienced periodic downturns. During such economic downturns, customers in these industries tend to delay major capital projects, including greenfield construction, maintenance projects and upgrades. Additionally, demand for our products and services may be affected by volatility in energy, component and commodity prices and fluctuating demand forecasts, as our customers may be more conservative in their capital planning, which may reduce demand for our products and services. Although our industrial customers tend to be less dependent on project financing than real estate developers, disruptions in financial markets and banking systems could make credit and capital markets difficult for our customers to access, and could significantly raise the cost of new debt for our customers. Any difficulty in accessing these markets and the increased associated costs can have a negative effect on investment in large capital projects, including necessary maintenance and upgrades, even during periods of favorable end-market conditions.

Many of our customers inside and outside of the industrial and commercial sectors, including governmental and institutional customers, have experienced budgetary constraints as sources of revenue have been negatively impacted by adverse or stagnant economic conditions. These budgetary constraints have in the past and may in the future reduce demand for our products and services among governmental and institutional customers.

Reduced demand for our products and services could result in the delay or cancellation of existing orders or lead to excess capacity, which unfavorably impacts our absorption of fixed costs. This reduced demand may also erode average selling prices in the industries we serve. Any of these results could materially and adversely affect our business, financial condition, results of operations and cash flows.

Risks associated with our non-U.S. operations could adversely affect our business, financial condition and results of operations.

We have significant operations in a number of countries outside the U.S., some of which are located in emerging markets. Long-term economic uncertainty in some of the regions of the world in which we operate, such as Asia, South America, the Middle East, Europe and emerging markets, could result in the disruption of markets and negatively affect cash flows from our operations to cover our capital needs and debt service requirements.

In addition, as a result of our global presence, a significant portion of our revenues and expenses is denominated in currencies other than the U.S. dollar. We are therefore subject to non-U.S. currency risks and non-U.S. exchange exposure. While we employ financial instruments to hedge some of our transactional foreign exchange exposure, these activities do not insulate us completely from those exposures. Exchange rates can be volatile and a substantial weakening of foreign currencies against the U.S. dollar could reduce our profit margin in various locations outside of the U.S. and adversely impact the comparability of results from period to period.

There are other risks that are inherent in our non-U.S. operations, including the potential for changes in socio-economic conditions, laws and regulations, including anti-trust, import, export, labor and environmental laws, and monetary and fiscal policies; protectionist measures that may prohibit acquisitions or joint ventures, or impact trade volumes; unsettled or unstable political conditions; government-imposed plant or other operational shutdowns; backlash from foreign labor organizations related to our restructuring actions; corruption; natural and man-made disasters, hazards and losses; violence, civil and labor unrest, and possible terrorist attacks.

These and other factors may have a material adverse effect on our business and results of operations.

Risks Related to Government Regulations

Our businesses operate in regulated industries and are subject to a variety of complex and continually changing laws and regulations.

Our operations and employees are subject to various U.S. federal, state and local licensing laws, codes and standards and similar foreign laws, codes, standards and regulations. Changes in laws or regulations could require us to change the way we operate or to utilize resources to maintain compliance, which could increase costs or otherwise disrupt operations. In addition, failure to comply with any applicable laws or regulations could result in substantial fines or revocation of our operating permits and licenses. Competition or other regulatory investigations can continue for several years, be costly to defend and can result in

substantial fines. If laws and regulations were to change or if we or our products failed to comply, our business, financial condition and results of operations could be adversely affected.

Due to the international scope of our operations, the system of laws and regulations to which we are subject is complex and includes regulations issued by the U.S. Customs and Border Protection, the U.S. Department of Commerce's Bureau of Industry and Security, the U.S. Treasury Department's Office of Foreign Assets Control and various non U.S. governmental agencies, including applicable export controls, anti-trust, customs, currency exchange control and transfer pricing regulations, laws regulating the foreign ownership of assets, and laws governing certain materials that may be in our products. No assurances can be made that we will continue to be found to be operating in compliance with, or be able to detect violations of, any such laws or regulations. For example, existing free trade laws and regulations, such as the United States-Mexico-Canada Agreement, or any successor agreement, provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where we manufacture products or from where we import products or raw materials (either directly or through our suppliers) could have an impact on our competitive position, business and financial results. For example, certain of our businesses have a significant presence in the United Kingdom (the "U.K."), where the success of the Brexit referendum in 2016 has continued to cause political and economic uncertainty. In December 2020, the U.K. and the European Union announced they had entered into a post-Brexit deal on certain aspects of trade and other strategic and political issues. Depending on the application of the terms of the trade and cooperation agreement between the U.K. and the European Union, we could face increased regulatory costs and challenges. The implications of these uncertainties could affect our business, financial position and results of operations.

We are also subject to a complex network of tax laws and tax treaties that impact our effective tax rate. For more information on risks related to tax regulation, see "Risks Related to Tax Matters" below.

We cannot predict the nature, scope or effect of future regulatory requirements to which our operations might be subject or the manner in which existing laws might be administered or interpreted.

Global climate change and related regulations could negatively affect our business.

The effects of climate change, such as extreme weather conditions and water scarcity, create financial risks to our business. For example, the demand for our products and services, such as commercial and residential air conditioning equipment, may be affected by unseasonable weather conditions. The effects of climate change could also disrupt our operations by impacting the availability and cost of materials needed for manufacturing and could increase insurance and other operating costs. These factors may impact our decisions to construct new facilities or maintain existing facilities in areas most prone to physical climate risks. We could also face indirect financial risks passed through the supply chain and disruptions that could result in increased prices for our products and the resources needed to produce them.

There is a general consensus that greenhouse gas emissions are linked to global climate change, and that these emissions must be reduced dramatically to avert the worst effects of climate change. Increased public awareness and concern regarding global climate change will result in more regulations designed to reduce greenhouse gas emissions. These regulations tend to be implemented under global, national and sub-national climate objectives or policies, and target the global warming potential ("GWP") of refrigerants, equipment energy efficiency, and the combustion of fossil fuels as a heating source. Many of our products consume energy and use refrigerants. Regulations which seek to reduce greenhouse gas emissions present a risk to our global products business, predominantly our HVAC business, if we do not adequately prepare our product portfolio. As a result, we may be required to make increased capital expenditures to improve our product portfolio to meet new regulations and standards. Further, our customers and the markets we serve may impose emissions or other environmental standards through regulation, market-based emissions policies or consumer preference that we may not be able to timely meet due to the required level of capital investment or technological advancement. While we have been committed to continuous improvements to our product portfolio to meet and exceed anticipated regulations and preferences, there can be no assurance that our commitments will be successful, that our products will be accepted by the market, that proposed regulation or deregulation will not have a negative competitive impact or that economic returns will reflect our investments in new product development.

There continues to be a lack of consistent climate legislation, which creates economic and regulatory uncertainty. Such regulatory uncertainty extends to incentives, which if discontinued, could adversely impact the demand for energy efficient buildings, and could increase costs of compliance. These factors may impact the demand for our products, obsolescence of our products and our results of operations.

As of the date of this filing, we have made several public commitments regarding our intended reduction of carbon emissions, including commitments to achieve net zero carbon emissions by 2040 and the establishment of science-based targets to reduce carbon emissions from our operations and the operations of our customers. Although we intend to meet these commitments, we

may be required to expend significant resources to do so, which could increase our operational costs. Further, there can be no assurance of the extent to which any of our commitments will be achieved, or that any future investments we make in furtherance of achieving such targets and goals will meet investor expectations or any binding or non-binding legal standards regarding sustainability performance. Moreover, we may determine that it is in the best interest of our company and our stockholders to prioritize other business, social, governance or sustainable investments over the achievement of our current commitments based on economic, regulatory and social factors, business strategy or pressure from investors, activist groups or other stakeholders. If we are unable to meet these commitments, then we could incur adverse publicity and reaction from investors, activist groups our other stakeholders, which could adversely impact the perception of us and our products and services by current and potential customers, as well as investors, which could in turn adversely impact our results of operations.

We are subject to requirements relating to environmental and safety regulations and environmental remediation matters which could adversely affect our business, results of operation and reputation.

We are subject to numerous federal, state and local environmental laws and regulations governing, among other things, solid and hazardous waste storage, treatment and disposal, and remediation of releases of hazardous materials. There are significant capital, operating and other costs associated with compliance with these environmental laws and regulations. Environmental laws and regulations may become more stringent in the future, which could increase costs of compliance or require us to manufacture with alternative technologies and materials. For example, proposed federal, state and European Union legislative action concerning the use and clean-up of fire-fighting foam products could negatively impact our fire-fighting business and our results of operations, thereby enhancing the risks to our business described under "Potential liability for environmental contamination could result in substantial costs" below.

Federal, state and local authorities also regulate a variety of matters, including, but not limited to, health, safety laws governing employee injuries, and permitting requirements in addition to the environmental matters discussed above. If we are unable to adequately comply with applicable health and safety regulations and provide our employees with a safe working environment, we may be subject to litigation and regulatory action, in addition to negatively impacting our ability to attract and retain talented employees. New legislation and regulations may require the Company to make material changes to its operations, resulting in significant increases to the cost of production.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar anti-bribery laws around the world.

The U.S. Foreign Corrupt Practices Act (the "FCPA"), the U.K. Bribery Act and similar anti-bribery 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. Recent years have seen a substantial increase in anti-bribery law enforcement activity, with more frequent and aggressive investigations and enforcement proceedings by both U.S. and non-U.S. regulators, and increases in criminal and civil proceedings brought against companies and individuals. Our policies mandate compliance with these anti-bribery laws. We operate in many parts of the world that are recognized as having governmental and commercial corruption and local customs and practices that can be inconsistent with anti-bribery laws. We cannot assure you that our internal control policies and procedures will always protect us from reckless or criminal acts committed by our employees or third-party intermediaries. In the event that we believe or have reason to believe that our employees or agents have or may have violated applicable anti-corruption laws, or if we are subject to allegations of any such violations, we may be required to investigate or have outside counsel investigate the relevant facts and circumstances, which can be expensive and require significant time and attention from senior management. Violations of these laws may result in criminal or civil sanctions, which could disrupt our business and result in a material adverse effect on our reputation, business, financial condition, results of operations and cash flows. In addition, we could be subject to commercial impacts such as lost revenue from customers who decline to do business with us as a result of such compliance matters, or we could be subject to lawsuits brought by private litigants, each of which could have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows.

We are subject to risks arising from regulations applicable to companies doing business with the U.S. government.

Our customers include many U.S. federal, state and local government authorities. Doing business with the U.S. government and state and local authorities subjects us to unusual risks, including dependence on the level of government spending and compliance with and changes in governmental procurement and security regulations. Agreements relating to the sale of products to government entities may be subject to termination, reduction or modification, either at the convenience of the government or for failure to perform under the applicable contract. We are subject to potential government investigations of business practices and compliance with government procurement and security regulations, which can be expensive and burdensome. If we were charged with wrongdoing as a result of an investigation, we could be suspended from bidding on or

receiving awards of new government contracts, which could have a material adverse effect on the Company's results of operations. In addition, various U.S. federal and state legislative proposals have been made in the past that would deny governmental contracts to U.S. companies that have moved their corporate location abroad. We are unable to predict the likelihood that, or final form in which, any such proposed legislation might become law, the nature of regulations that may be promulgated under any future legislative enactments, or the effect such enactments and increased regulatory scrutiny may have on our business.

Risks Related to Our Business Operations

Our future growth is dependent upon our ability to develop or acquire new products and technologies that achieve market acceptance with acceptable margins.

Our future success depends on our ability to develop or acquire, manufacture and bring competitive, and increasingly complex, products and services to market quickly and cost-effectively. Our ability to develop or acquire new products, services and technologies requires the investment of significant resources. These acquisitions and development efforts divert resources from other potential investments in our businesses, and they may not lead to the development of new technologies, products or services on a timely basis. Moreover, as we introduce new products, we may be unable to detect and correct defects in the design of a product or in its application to a specified use, which could result in loss of sales or delays in market acceptance. Even after introduction, new or enhanced products may not satisfy customer preferences and product failures may cause customers to reject our products. As a result, these products may not achieve market acceptance and our brand image could suffer. We must also attract, develop and retain individuals with the requisite technical expertise and understanding of customers' needs to develop new technologies and introduce new products, particularly as we increase investment in our digital services and solutions businesses and our OpenBlue platform. The laws and regulations applicable to our products, and our customers' product and service needs, change from time to time, and regulatory changes may render our products and technologies noncompliant. We must also monitor disruptive technologies and business models. In addition, the markets for our products, services and technologies may not develop or grow as we anticipate. The failure of our technology, products or services to gain market acceptance due to more attractive offerings by our competitors, the introduction of new competitors to the market with new or innovative product offerings or the failure to address any of the above factors could significantly reduce our revenues, increase our operating costs or otherwise materially and adversely affect our business, financial condition, results of operations and cash flows.

The development of technology products and services presents security and safety risks.

An increasing number of our products, services and technologies, including our OpenBlue platform, are delivered with digital capabilities and the accompanying interconnected device networks, which include sensors, data, building management systems and advanced computing capabilities. If we are unable to manage the lifecycle cybersecurity risk in development, deployment and operation of our digital platforms and services, the possible consequences include financial loss, reputational damage, adverse health, safety, and environmental consequences, exposure to legal claims or enforcement actions, theft of intellectual property, fines levied by the Federal Trade Commission or other governmental organizations, the diminution in the value of our investment in research, development and engineering, and increased cybersecurity protection and remediation costs, which in turn could adversely affect our business, financial condition, results of operations and cash flows.

Cybersecurity incidents could disrupt business operations, result in the loss of critical and confidential information, and adversely impact our reputation and results of operations.

We rely upon the capacity, reliability and security of our IT and data security infrastructure and our ability to expand and continually update this infrastructure in response to the changing needs of our business. As we implement new systems or integrate existing systems, they may not perform as expected. We also face the challenge of supporting our older systems and implementing necessary upgrades. In addition, we are relying on our IT infrastructure to support our operations as we manage the impact of COVID-19, including through initiating remote-work protocols for a substantial number of our employees in regions impacted by the spread of the virus. If we experience a problem with the functioning of an important IT system as a result of the increased burden placed on our IT infrastructure or a security breach of our IT systems, including during system upgrades and/or new system implementations, the resulting disruptions could have an adverse effect on our business.

Global cybersecurity threats and incidents can range from uncoordinated individual attempts to gain unauthorized access to IT systems to sophisticated and targeted measures known as advanced persistent threats, directed at the Company, its products, its customers and/or its third-party service providers, including cloud providers. These threats and incidents originate from many sources globally and include malwares that take the form of computer viruses, ransomware, worms, Trojan horses, spyware, adware, scareware, rogue software, and programs that act against the computer user. While we have experienced, and expect to

continue to experience, these types of threats and incidents, none of them to date has been material to the Company. Our customers, including the U.S. government, are increasingly requiring cybersecurity protections and mandating cybersecurity standards in our products, and we may incur additional costs to comply with such demands. We seek to deploy comprehensive measures to deter, prevent, detect, respond to and mitigate these threats, including identity and access controls, data protection, vulnerability assessments, product software designs which we believe are less susceptible to cyber-attacks, continuous monitoring of our IT networks and systems, maintenance of backup and protective systems and the incorporation of cybersecurity design throughout the lifecycle of our products. Despite these efforts, cybersecurity incidents, depending on their nature and scope, could potentially result in the misappropriation, destruction, corruption or unavailability of critical data and confidential or proprietary information (our own or that of third parties) and the disruption of business operations. Such incidents could remain undetected for an extended period of time, and the losses arising from such incidents could exceed our available insurance coverage for such matters. Cybersecurity incidents aimed at the software imbedded in our products could lead to third-party claims that our product failures have caused a similar range of damages to our customers, and this risk is enhanced by the increasingly connected nature of our products and the role they play in managing building systems. The potential consequences of a material cybersecurity incident include financial loss, reputational damage, adverse health, safety, and environmental consequences, exposure to legal claims or enforcement actions, theft of intellectual property, fines levied by the Federal Trade Commission or other governmental organizations, diminution in the value of our investment in research, development and engineering, and increased cybersecurity protection and remediation costs, which in turn could adversely affect our competitiveness and results of operations.

Data privacy, identity protection and information security compliance may require significant resources and presents certain risks.

We collect, store, have access to and otherwise process certain confidential or sensitive data, including proprietary business information, personal data or other information that is subject to privacy and security laws, regulations and/or customerimposed controls. Despite our efforts to protect such data, our business and our products may be vulnerable to material security breaches, theft, misplaced or lost data, programming errors, or errors that could potentially lead to compromising such data, improper use of our products, systems, software solutions or networks, unauthorized access, use, disclosure, modification or destruction of information, defective products, production downtimes and operational disruptions. A significant actual or perceived risk of theft, loss, fraudulent use or misuse of customer, employee or other data, whether by us, our suppliers, channel partners, customers or other third parties, as a result of employee error or malfeasance, or as a result of the imaging, software, security and other products we incorporate into our products, as well as non-compliance with applicable industry standards or our contractual or other legal obligations or privacy and information-security policies regarding such data, could result in costs, fines, litigation or regulatory actions, or could lead customers to select products and services of our competitors. In addition, any such event could harm our reputation, cause unfavorable publicity or otherwise adversely affect certain potential customers' perception of the security and reliability of our services as well as our credibility and reputation, which could result in lost sales. In addition, we operate in an environment in which there are different and potentially conflicting data privacy laws in effect in the various U.S. states and foreign jurisdictions in which we operate and we must understand and comply with each law and standard in each of these jurisdictions while ensuring the data is secure. For example, proposed regulations restricting the use of biometric security technology could impact the products and solutions offered by our security business. Government enforcement actions can be costly and interrupt the regular operation of our business, and violations of data privacy laws can result in fines, reputational damage and civil lawsuits, any of which may adversely affect our business, reputation and financial statements.

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 rely on a combination of trademarks, trade secrets, patents, copyrights, know-how, confidentiality provisions and licensing arrangements to establish and protect our proprietary rights. We cannot guarantee, however, that the steps we have taken to protect our intellectual property will be adequate to prevent infringement of our rights or misappropriation or theft of our technology, trade secrets or know-how. For example, effective patent, trademark, copyright and trade secret protection may be unavailable or limited in some of the countries in which we operate. In addition, while we generally enter into confidentiality agreements with our employees and third parties to protect our trade secrets, know-how, business strategy and other proprietary information, such confidentiality agreements could be breached or otherwise may not provide meaningful protection for our trade secrets and know-how related to the design, manufacture or operation of our products. We, from time to time, resort to litigation to protect our intellectual property rights. Such proceedings can be burdensome and costly, and we may not prevail. Further, adequate remedies may not be available in the event of an unauthorized use or disclosure of our trade secrets and manufacturing expertise. Finally, for those products in our portfolio that rely on patent protection, once a patent has expired, the product is generally open to competition. Products under patent protection usually generate significantly higher revenues than

those not protected by patents. If we fail to successfully enforce our intellectual property rights, our competitive position could suffer, which could harm our business, financial condition, results of operations and cash flows.

In addition, we are, from time to time, subject to claims of intellectual property infringement by third parties, including practicing entities and non-practicing entities. Regardless of the merit of such claims, responding to infringement claims can be expensive and time-consuming. The litigation process is subject to inherent uncertainties, and we may not prevail in litigation matters regardless of the merits of our position. Intellectual property lawsuits or claims may become extremely disruptive if the plaintiffs succeed in blocking the trade of our products and services and they may have a material adverse effect on our business, financial condition, results of operations and cash flows.

We rely on our global direct installation channel for a significant portion of our revenue. Failure to maintain and grow the installed base resulting from direct channel sales could adversely affect our business.

Unlike many of our competitors, we rely on a direct sales channel for a substantial portion of our revenue. The direct channel provides for the installation of fire and security solutions, and HVAC equipment manufactured by us. This represents a significant distribution channel for our products, creates a large installed base of our fire and security solutions, and HVAC equipment, and creates opportunities for longer term service and monitoring revenue. If we are unable to maintain or grow this installation business, whether due to changes in economic conditions, a failure to anticipate changing customer needs, a failure to introduce innovative or technologically advanced solutions, or for any other reason, our installation revenue could decline, which could in turn adversely impact our product pull-through and our ability to grow service and monitoring revenue.

Our business success depends on attracting and retaining qualified personnel.

Our ability to sustain and grow our business requires us to hire, retain and develop a high-performance, customer-centric and diverse management team and workforce. Continuous efficient and timely customer service, customer support and customer intimacy are essential to enabling customer loyalty and driving our financial results. Our growth strategies require that we pivot to new talent capability investments and build the workforce of the future, with an emphasis on developing skills in digital and consultative, outcome-based selling. Failure to ensure that we have the leadership and talent capacity with the necessary skillset and experience could impede our ability to deliver our growth objectives, execute our strategic plan and effectively transition our leadership. Organizational and reporting changes resulting from any future leadership transition or corporate initiatives could result in increased turnover. Additionally, any unplanned turnover or inability to attract and retain key employees could have a negative effect on our results of operations.

Our ability to convert backlog into revenue requires us to maintain a labor force that is sufficiently large enough to support our manufacturing operations to meet customer demand, as well as provide on-site services and project support for our customers. This includes recruiting, hiring and retaining skilled trade workers to support our direct channel field businesses. Recently, we have experienced the impacts of widespread shortages for both skilled and unskilled labor. While we have taken measures to mitigate the impact of these shortages and enhanced our ability to recruit and retain skilled and unskilled labor, we can provide no assurance that such efforts will be successful. If the impacts of labor shortages continue and our mitigation efforts are unsuccessful, this could limit our ability to convert backlog into revenue and negatively impact our results of operations.

A material disruption of our operations, particularly at our monitoring and/or manufacturing facilities, could adversely affect our business.

If our operations, particularly at our monitoring facilities and/or manufacturing facilities, were to be disrupted as a result of significant equipment failures, natural disasters, climate change, power outages, fires, explosions, terrorism, sabotage, adverse weather conditions, public health crises (including COVID-19 related shutdowns), labor disputes, labor shortages or other reasons, we may be unable to effectively respond to alarm signals, fill customer orders and otherwise meet obligations to or demand from our customers, which could adversely affect our financial performance. For example, during the COVID-19 pandemic, we experienced disruptions in certain of our manufacturing facilities resulting from government-mandated shutdowns during the onset of the pandemic and have more recently experienced labor shortages as we have sought to expand production capacity in response to increased demand. The continuation or recurrence of either of these trends could adversely affect our financial performance.

Interruptions in production could increase our costs and reduce our sales. Any interruption in production capability could require us to make substantial capital expenditures or purchase alternative material at higher costs to fill customer orders, which could negatively affect our profitability and financial condition. We maintain property damage insurance that we believe to be adequate to provide for reconstruction of facilities and equipment, as well as business interruption insurance to mitigate losses resulting from significant production interruption or shutdown caused by an insured loss. However, any recovery under our

insurance policies may not offset the lost sales or increased costs that may be experienced during the disruption of operations, which could adversely affect our business, financial condition, results of operations and cash flows.

Our business may be adversely affected by work stoppages, union negotiations, labor disputes and other matters associated with our labor force.

We employ approximately 101,000 people worldwide. Approximately 22% of these employees are covered by collective bargaining agreements or works councils. Although we believe that our relations with the labor unions and works councils that represent our employees are generally good and we have experienced no material strikes or work stoppages recently, no assurances can be made that we will not experience in the future these and other types of conflicts with labor unions, works councils, other groups representing employees or our employees generally, or that any future negotiations with our labor unions will not result in significant increases in our cost of labor. Additionally, a work stoppage at one of our suppliers could materially and adversely affect our operations if an alternative source of supply were not readily available. Stoppages by employees of our customers could also result in reduced demand for our products.

We are exposed to greater risks of liability for employee acts or omissions, or system failure, in our fire and security businesses than may be inherent in other businesses.

If a customer or third party believes that he or she has suffered harm to person or property due to an actual or alleged act or omission of one of our employees or a security or fire system failure, he or she may pursue legal action against us, and the cost of defending the legal action and of any judgment could be substantial. In particular, because many of our products and services are intended to protect lives and real and personal property, we may have greater exposure to litigation risks than businesses that provide other products and services. We could face liability for failure to respond adequately to alarm activations or failure of our fire protection to operate as expected. The nature of the services we provide exposes us to the risks that we may be held liable for employee acts or omissions or system failures. As a result, such employee acts or omissions or system failures could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We do not own the right to use the ADT® brand name in the U.S. and Canada.

We own the ADT® brand name in jurisdictions outside of the U.S. and Canada, and The ADT Corporation ("ADT") owns the brand name in the U.S. and Canada. Although we have entered into agreements with ADT designed to protect the value of the ADT® brand, we cannot assure you that actions taken by ADT will not negatively impact the value of the brand outside of the U.S. and Canada. These factors expose us to the risk that the ADT® brand name could suffer reputational damage or devaluation for reasons outside of our control, including ADT's business conduct in the U.S. and Canada. Any of these factors may adversely affect our business, financial condition, results of operations and cash flows.

Risks Related to Litigation

Potential liability for environmental contamination could result in substantial costs.

We have projects underway at multiple current and former manufacturing and testing facilities to investigate and remediate environmental contamination resulting from past operations by us or by other businesses that previously owned or used the properties, including our Fire Technology Center and Stanton Street manufacturing facility located in Marinette, Wisconsin. These projects relate to a variety of activities, including arsenic, solvent, oil, metal, lead, perfluorooctane sulfonate ("PFOS"), perfluorooctanoic acid ("PFOA") and/or other per- and polyfluorinated substances ("PFAS") and other hazardous substance contamination cleanup; and structure decontamination and demolition, including asbestos abatement. Because of uncertainties associated with environmental regulation and environmental remediation activities at sites where we may be liable, future expenses that we may incur to remediate identified sites and resolve outstanding litigation could be considerably higher than the current accrued liability on our consolidated statements of financial position, which could have a material adverse effect on our business, results of operations and cash flows.

In addition, we have been named, along with others, in a number of class action and other lawsuits relating to the use of firefighting foam products by the U.S. Department of Defense, the U.S. military and others for fire suppression purposes and related training exercises. It is difficult to predict the outcome or ultimate financial exposure, if any, represented by these matters, and there can be no assurance that any such exposure will not be material. Such claims may also negatively affect our reputation. See Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for additional information on these matters.

We are party to asbestos-related product litigation that could adversely affect our financial condition, results of operations and cash flows.

We and certain of our subsidiaries, along with numerous other third parties, are named as defendants in personal injury lawsuits based on alleged exposure to asbestos containing materials. These cases typically involve product liability claims based primarily on allegations of manufacture, sale or distribution of industrial products that either contained asbestos or were used with asbestos containing components. We cannot predict with certainty the extent to which we will be successful in litigating or otherwise resolving lawsuits in the future and we continue to evaluate different strategies related to asbestos claims filed against us including entity restructuring and judicial relief. Unfavorable rulings, judgments or settlement terms could have a material adverse impact on our business and financial condition, results of operations and cash flows. See Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for additional information on these matters.

Risks Relating to Strategic Transactions

We may be unable to successfully execute or effectively integrate acquisitions or joint ventures.

We expect acquisitions of businesses and assets, as well as joint ventures (or other strategic arrangements), to play a role in our future growth. We cannot be certain that we will be able to identify attractive acquisition or joint venture targets, obtain financing for acquisitions on satisfactory terms, successfully acquire identified targets or form joint ventures, or manage the timing of acquisitions with capital obligations across our businesses.

Acquisitions and investments may involve significant cash expenditures, debt incurrences, equity issuances, operating losses and expenses. Acquisitions involve numerous other risks, including: the diversion of management attention to integration matters; difficulties in integrating operations and systems; challenges in conforming standards, controls, procedures and accounting and other policies, business cultures and compensation structures; difficulties in assimilating employees and in attracting and retaining key personnel; challenges in keeping existing customers and obtaining new customers; difficulties in achieving anticipated cost savings, synergies, business opportunities and growth prospects; contingent liabilities (including contingent tax liabilities and earn-out obligations) that are larger than expected; and potential unknown liabilities, adverse consequences and unforeseen increased expenses associated with acquired companies.

The goodwill and intangible assets recorded with past acquisitions were significant and impairment of such assets could result in a material adverse impact on our financial condition and results of operations. Competition for acquisition opportunities in the various industries in which we operate may rise, thereby increasing our costs of making acquisitions or causing us to refrain from making further acquisitions.

Many of these factors are outside of our control, and any one of them could result in increased costs, decreased expected revenues and diversion of management time and energy, which could materially impact our business, financial condition and results of operations.

Risks associated with joint venture investments may adversely affect our business and financial results.

We have entered into several joint ventures and we may enter into additional joint ventures in the future. Our joint venture partners may at any time have economic, business or legal interests or goals that are inconsistent with our goals or with the goals of the joint venture. In addition, we may compete against our joint venture partners in certain of our other markets. Disagreements with our business partners may impede our ability to maximize the benefits of our partnerships. Our joint venture arrangements may require us, among other matters, to pay certain costs or to make certain capital investments or to seek our joint venture partner's consent to take certain actions. In addition, our joint venture partners may be unable or unwilling to meet their economic or other obligations under the operative documents, and we may be required to either fulfill those obligations alone to ensure the ongoing success of a joint venture or to dissolve and liquidate a joint venture. These risks could result in a material adverse effect on our business and financial results.

Divestitures of some of our businesses or product lines may materially adversely affect our financial condition, results of operations or cash flows.

We continually evaluate the performance and strategic fit of all of our businesses and may sell businesses or product lines. Divestitures involve risks, including difficulties in the separation of operations, services, products and personnel, the diversion of management's attention from other business concerns, the disruption of our business, the potential loss of key employees and the retention of uncertain environmental or other contingent liabilities related to the divested business. Some divestitures may be dilutive to earnings. In addition, divestitures may result in significant asset impairment charges, including those related to

goodwill and other intangible assets, which could have a material adverse effect on our financial condition and results of operations. We cannot assure you that we will be successful in managing these or any other significant risks that we encounter in divesting a business or product line, and any divestiture we undertake could materially and adversely affect our business, financial condition, results of operations and cash flows, and may also result in a diversion of management attention, operational difficulties and losses.

Risks Related to Tax Matters

Future potential changes to the tax laws could adversely affect us and our affiliates.

Legislative and regulatory action may be taken in the U.S. and other jurisdictions in which we operate, which, if ultimately enacted, could override tax treaties upon which we rely, or broaden the circumstances under which we would be considered a U.S. resident, each of which could materially and adversely affect our effective tax rate. We cannot predict the outcome of any specific legislative or regulatory proposals and such changes could have a prospective or retroactive application. However, if proposals were enacted that had the effect of disregarding the incorporation in Ireland or limiting Johnson Controls International plc's ability, as an Irish company, to take advantage of tax treaties with the U.S., we could be subject to increased taxation, potentially significant expense, and/or other adverse tax consequences.

Recently, the U.S. Congress has advanced a variety of tax legislation proposals that are under consideration for potential legislative action. While the final form of any legislative action is still unknown, various proposals, if enacted, could have a material impact on the Company's effective tax rate. In October 2021, 136 out of 140 countries in the Organization for Economic Co-operation and Development ("OECD") Inclusive Framework on Base Erosion and Profit Shifting ("IF"), including Ireland, politically committed to potentially fundamental changes to the international corporate tax system, including the potential implementation of a global minimum corporate tax rate. While the details of these pronouncements presently remain unclear and timing of implementation uncertain, the impact of local country IF adoption could have a material impact on our effective tax rate. It is also possible that jurisdictions in which we do business could react to such IF developments unilaterally by enacting tax legislation that could adversely affect us or our affiliates. There is also general uncertainty regarding the tax policies of the jurisdictions where we operate, and if changes are enacted, there could be a resulting increase in our effective tax rate.

The Internal Revenue Service ("IRS") may not agree that we should be treated as a non-U.S. corporation for U.S. federal tax purposes.

Under current U.S. federal tax law, a corporation is generally considered to be a tax resident in the jurisdiction of its organization or incorporation. Because Johnson Controls International plc is an Irish incorporated entity, it would generally be classified as a non-U.S. corporation (and, therefore, a non-U.S. tax resident) under these rules. However, Section 7874 of the Code ("Section 7874") provides an exception to this general rule under which a non-U.S. incorporated entity may, in certain circumstances, be treated as a U.S. corporation for U.S. federal tax purposes.

Under Section 7874, if (1) former Johnson Controls, Inc. shareholders owned (within the meaning of Section 7874) 80% or more (by vote or value) of our ordinary shares after the Merger by reason of holding Johnson Controls, Inc. common stock (such ownership percentage the "Section 7874 ownership percentage"), and (2) our "expanded affiliated group" did not have "substantial business activities" in Ireland ("the substantial business activities test"), we will be treated as a U.S. corporation for U.S. federal tax purposes. If the Section 7874 ownership percentage of the former Johnson Controls, Inc. shareholders after the Merger was less than 80% but at least 60%, and the substantial business activities test was not met, we and our U.S. affiliates (including the U.S. affiliates historically owned by Tyco) may, in some circumstances, be subject to certain adverse U.S. federal income tax rules (which, among other things, could limit their ability to utilize certain U.S. tax attributes to offset U.S. taxable income or gain resulting from certain transactions). The application of these rules could result in significant additional U.S. tax liability and limit our ability to restructure or access cash earned by certain of our non-U.S. subsidiaries, in each case, without incurring substantial U.S. tax liabilities.

Based on the terms of the Merger, the rules for determining share ownership under Section 7874 and certain factual assumptions, we believe that former Johnson Controls, Inc. shareholders owned (within the meaning of Section 7874) less than 60% (by both vote and value) of our ordinary shares after the Merger by reason of holding shares of Johnson Controls, Inc. common stock. Therefore, under current law, we believe that we should not be treated as a U.S. corporation for U.S. federal tax purposes and that Section 7874 should otherwise not apply to us or our affiliates as a result of the Merger.

However, the determination of the Section 7874 ownership percentage is complex and is subject to factual and legal uncertainties. Thus, there can be no assurance that the IRS will agree with the position that we should not be treated as a U.S. corporation for U.S. federal tax purposes or that Section 7874 does not otherwise apply as a result of the Merger.

Regardless of any application of Section 7874, we are treated as an Irish tax resident for Irish tax purposes. Consequently, if we were to be treated as a U.S. corporation for U.S. federal tax purposes under Section 7874, we could be liable for both U.S. and Irish taxes, which could have a material adverse effect on our financial condition and results of operations.

Changes to the U.S. model income tax treaty could adversely affect us.

On February 17, 2016, the U.S. Treasury released a revised U.S. model income tax convention (the "new model"), which is the baseline text used by the U.S. Treasury to negotiate tax treaties. If any or all of the modifications to the model treaty are adopted in the main jurisdictions in which we do business, they could, among other things, cause double taxation, increase audit risk and substantially increase our worldwide tax liability. We cannot predict the outcome of any specific modifications to the model treaty, and we cannot provide assurance that any such modifications will not apply to us.

Negative or unexpected tax consequences could adversely affect our results of operations.

Adverse changes in the underlying profitability and financial outlook of our operations in several jurisdictions could lead to additional changes in our valuation allowances against deferred tax assets and other tax reserves on our statement of financial position, and the future sale of certain businesses could potentially result in the reversal of outside basis differences that could adversely affect our results of operations and cash flows. Additionally, changes in tax laws in the U.S., Ireland or in other countries where we have significant operations could materially affect deferred tax assets and liabilities on our consolidated statements of financial position and our income tax provision in our consolidated statements of income.

We are also subject to tax audits by governmental authorities. Negative unexpected results from one or more such tax audits could adversely affect our results of operations.

Risks Relating to Our Jurisdiction of Incorporation

Irish law differs from the laws in effect in the U.S. and may afford less protection to holders of our securities.

It may not be possible to enforce court judgments obtained in the U.S. against us in Ireland based on the civil liability provisions of the U.S. federal or state securities laws. In addition, there is some uncertainty as to whether the courts of Ireland would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on the civil liabilities provisions of the U.S. federal or state securities laws or hear actions against us or those persons based on those laws. We have been advised that the U.S. currently does not have a treaty with Ireland providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. Therefore, a final judgment for the payment of money rendered by any U.S. federal or state court based on civil liability, whether or not based solely on U.S. federal or state securities laws, would not automatically be enforceable in Ireland.

A judgment obtained against us will be enforced by the courts of Ireland if the following general requirements are met: U.S. courts must have had jurisdiction in relation to the particular defendant according to Irish conflict of law rules (the submission to jurisdiction by the defendant would satisfy this rule); and the judgment must be final and conclusive and the decree must be final and unalterable in the court which pronounces it.

A judgment can be final and conclusive even if it is subject to appeal or even if an appeal is pending. But where the effect of lodging an appeal under the applicable law is to stay execution of the judgment, it is possible that in the meantime the judgment may not be actionable in Ireland. It remains to be determined whether final judgment given in default of appearance is final and conclusive. Irish courts may also refuse to enforce a judgment of the U.S. courts which meets the above requirements for one of the following reasons: the judgment is not for a definite sum of money; the judgment was obtained by fraud; the enforcement of the judgment in Ireland would be contrary to natural or constitutional justice; the judgment is contrary to Irish public policy or involves certain U.S. laws which will not be enforced in Ireland; or jurisdiction cannot be obtained by the Irish courts over the judgment debtors in the enforcement proceedings by personal service Ireland or outside Ireland under Order 11 of the Irish Superior Courts Rules.

As an Irish company, Johnson Controls is governed by the Irish Companies Acts, which differ in some material respects from laws generally applicable to U.S. corporations and shareholders, including, among others, differences relating to interested director and officer transactions and shareholder lawsuits. Likewise, the duties of directors and officers of an Irish company

generally are owed to the company only. Shareholders of Irish companies generally do not have a personal right of action against directors or officers of the company and may exercise such rights of action on behalf of the company only in limited circumstances. Accordingly, holders of Johnson Controls International plc securities may have more difficulty protecting their interests than would holders of securities of a corporation incorporated in a jurisdiction of the U.S.

Transfers of Johnson Controls ordinary shares may be subject to Irish stamp duty.

For the majority of transfers of Johnson Controls ordinary shares, there is no Irish stamp duty. However, Irish stamp duty is payable for certain share transfers. A transfer of Johnson Controls ordinary shares from a seller who holds shares beneficially (i.e., through the Depository Trust Company ("DTC")) to a buyer who holds the acquired shares beneficially is not subject to Irish stamp duty (unless the transfer involves a change in the nominee that is the record holder of the transferred shares). A transfer of Johnson Controls ordinary shares by a seller who holds the acquired shares directly (i.e., not through DTC) to any buyer, or by a seller who holds the shares beneficially to a buyer who holds the acquired shares directly, may be subject to Irish stamp duty (currently at the rate of 1% of the price paid or the market value of the shares acquired, if higher) payable by the buyer. A shareholder who directly holds shares may transfer those shares into his or her own broker account to be held through DTC without giving rise to Irish stamp duty provided that the shareholder has confirmed to Johnson Controls transfer agent that there is no change in the ultimate beneficial ownership of the shares as a result of the transfer and, at the time of the transfer, there is no agreement in place for a sale of the shares.

We currently intend to pay, or cause one of our affiliates to pay, stamp duty in connection with share transfers made in the ordinary course of trading by a seller who holds shares directly to a buyer who holds the acquired shares beneficially. In other cases, Johnson Controls may, in its absolute discretion, pay or cause one of its affiliates to pay any stamp duty. Johnson Controls Memorandum and Articles of Association provide that, in the event of any such payment, Johnson Controls (i) may seek reimbursement from the buyer, (ii) may have a lien against the Johnson Controls ordinary shares acquired by such buyer and any dividends paid on such shares and (iii) may set-off the amount of the stamp duty against future dividends on such shares. Parties to a share transfer may assume that any stamp duty arising in respect of a transaction in Johnson Controls ordinary shares has been paid unless one or both of such parties is otherwise notified by Johnson Controls.

Dividends paid by us may be subject to Irish dividend withholding tax.

In certain circumstances, as an Irish tax resident company, we will be required to deduct Irish dividend withholding tax (currently at the rate of 20%) from dividends paid to our shareholders. Shareholders that are residents in the U.S., European Union countries (other than Ireland) or other countries with which Ireland has signed a tax treaty (whether the treaty has been ratified or not) generally should not be subject to Irish withholding tax so long as the shareholder has provided its broker, for onward transmission to our qualifying intermediary or other designated agent (in the case of shares held beneficially), or us or our transfer agent (in the case of shares held directly), with all the necessary documentation by the appropriate due date prior to payment of the dividend. However, some shareholders may be subject to withholding tax, which could adversely affect the price of our ordinary shares.

Dividends received by you could be subject to Irish income tax.

Dividends paid in respect of Johnson Controls ordinary shares generally are not subject to Irish income tax where the beneficial owner of these dividends is exempt from dividend withholding tax, unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in Johnson Controls.

Johnson Controls shareholders who receive their dividends subject to Irish dividend withholding tax generally will have no further liability to Irish income tax on the dividend unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in Johnson Controls.

General Risk Factors

General economic, political, credit and capital market conditions could adversely affect our financial performance, our ability to grow or sustain our businesses and our ability to access the capital markets.

We compete around the world in various geographic regions and product markets. Global economic and political conditions affect each of our primary businesses and the businesses of our customers and suppliers. Any future financial distress or disruption in the industries and/or markets where we compete could negatively affect our revenues and financial performance in future periods, result in future restructuring charges, and adversely impact our ability to grow or sustain our businesses. Further,

negative economic conditions as a result of the COVID-19 pandemic in one or more countries or regions in which we operate could require changes to funding certain of our strategic growth investments.

The capital and credit markets provide us with liquidity to operate and grow our businesses beyond the liquidity that operating cash flows provide. A worldwide economic downturn and/or disruption of the credit markets could reduce our access to capital necessary for our operations and executing our strategic plan. If our access to capital were to become significantly constrained, or if costs of capital increased significantly due to lowered credit ratings, prevailing industry conditions, the volatility of the capital markets or other factors; then our financial condition, results of operations and cash flows could be adversely affected.

If we are unable to adequately react to negative economic impacts that decrease demand for our products and services and/or negative movements in capital markets our results of operations, financial condition or liquidity could be adversely affected.

The potential insolvency or financial distress of third parties could adversely impact our business and results of operations.

We are exposed to the risk that third parties to various arrangements who owe us money or goods and services, or who purchase goods and services from us, will not be able to perform their obligations or continue to place orders due to insolvency or financial distress. Notably, the global COVID-19 pandemic created heightened risk that third parties may be unable to perform their obligations or suffer financial distress due to the global economic impact of the pandemic and the regulatory measures that have been enacted by governments, however, we are unable predict the impact that COVID-19 will have on any of our customers, suppliers, vendors, and other business partners, and each of their financial conditions or their ability to perform their obligations. If third parties fail to perform their obligations under arrangements with us, we may be forced to replace the underlying commitment at current or above market prices or on other terms that are less favorable to us. In such events, we may incur losses, or our results of operations, financial condition or liquidity could otherwise be adversely affected.

Legal proceedings in which we are, or may be, a party may adversely affect us.

We are currently, and may in the future, become subject to legal proceedings and commercial or contractual disputes. These are typically claims that arise in the normal course of business including, without limitation, commercial or contractual disputes with our suppliers or customers, intellectual property matters, third party liability, including product liability claims, and employment claims.

Risks related to our defined benefit retirement plans may adversely impact our results of operations and cash flow.

Significant changes in actual investment return on defined benefit plan assets, discount rates, mortality assumptions and other factors could adversely affect our results of operations and the amounts of contributions we must make to our defined benefit plans in future periods. Because we mark-to-market our defined benefit plan assets and liabilities on an annual basis, large non-cash gains or losses could be recorded in the fourth quarter of each fiscal year or when a remeasurement event occurs. Generally accepted accounting principles in the U.S. require that we calculate income or expense for the plans using actuarial valuations. These valuations reflect assumptions about financial markets and interest rates, which may change based on economic conditions. Funding requirements for our defined benefit plans are dependent upon, among other factors, interest rates, underlying asset returns and the impact of legislative or regulatory changes related to defined benefit funding obligations. For a discussion regarding the significant assumptions used to determine net periodic benefit cost, refer to "Critical Accounting Estimates" included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

A downgrade in the ratings of our debt could restrict our ability to access the debt capital markets and increase our interest costs.

Unfavorable changes in the ratings that rating agencies assign to our debt may ultimately negatively impact our access to the debt capital markets and increase the costs we incur to borrow funds. If ratings for our debt fall below investment grade, our access to the debt capital markets would become restricted and the price we pay to issue debt could increase. Historically, we have relied on our ability to issue commercial paper rather than to draw on our credit facility to support our daily operations, which means that a downgrade in our ratings or volatility in the financial markets causing limitations to the debt capital markets could have an adverse effect on our business or our ability to meet our liquidity needs.

Additionally, several of our credit agreements generally include an increase in interest rates if the ratings for our debt are downgraded. Further, an increase in the level of our indebtedness may increase our vulnerability to adverse general economic and industry conditions and may affect our ability to obtain additional financing.

A variety of other factors could adversely affect the results of operations of our business.

Any of the following could materially and adversely impact the results of operations of our business: loss of, changes in, or failure to perform under guaranteed performance contracts with our major customers; cancellation of, or significant delays in, projects in our backlog; delays or difficulties in new product development; our ability to recognize the expected benefits of our restructuring actions, financial instability or market declines of our major component suppliers; price increases of limited-source components, products and services that we are unable to pass on to the market; unseasonable weather conditions in various parts of the world; changes in energy costs or governmental regulations that would decrease the incentive for customers to update or improve their building control systems; and natural or man-made disasters or losses that impact our ability to deliver products and services to our customers.

ITEM 1B UNRESOLVED STAFF COMMENTS

The Company has no unresolved written comments regarding its periodic or current reports from the staff of the SEC.

ITEM 2 PROPERTIES

The Company has properties in over 60 countries throughout the world, with its world headquarters located in Cork, Ireland and its North American operational headquarters located in Milwaukee, Wisconsin USA. The Company's wholly- and majority-owned facilities primarily consist of manufacturing, sales and service offices, research and development facilities, monitoring centers, and assembly and/or warehouse centers. At September 30, 2021, these properties totaled approximately 40 million square feet of floor space of which 14 million square feet are owned and 26 million square feet are leased. The Company considers its facilities to be suitable for their current uses and adequate for current needs. The majority of the facilities are operating at normal levels based on capacity. The Company does not anticipate difficulty in renewing existing leases as they expire or in finding alternative facilities.

ITEM 3 LEGAL PROCEEDINGS

Gumm v. Molinaroli, et al.

On August 16, 2016, a putative class action lawsuit, Gumm v. Molinaroli, et al., Case No. 16-cv-1093, was filed in the United States District Court for the Eastern District of Wisconsin, naming Johnson Controls, Inc., the individual members of its board of directors at the time of the merger with the Company's merger subsidiary and certain of its officers, the Company and the Company's merger subsidiary as defendants. The complaint asserted various causes of action under the federal securities laws, state law and the Taxpayer Bill of Rights, including that the individual defendants allegedly breached their fiduciary duties and unjustly enriched themselves by structuring the merger among the Company, Tyco and the merger subsidiary in a manner that would result in a United States federal income tax realization event for the putative class of certain Johnson Controls, Inc. shareholders and allegedly result in certain benefits to the defendants, as well as related claims regarding alleged misstatements in the proxy statement/prospectus distributed to the Johnson Controls, Inc. shareholders, conversion and breach of contract. The complaint also asserted that Johnson Controls, Inc., the Company and the Company's merger subsidiary aided and abetted the individual defendants in their breach of fiduciary duties and unjust enrichment. The complaint seeks, among other things, disgorgement of profits and damages. On September 30, 2016, approximately one month after the closing of the merger, plaintiffs filed a preliminary injunction motion seeking, among other items, to compel Johnson Controls, Inc. to make certain intercompany payments that plaintiffs contend will impact the United States federal income tax consequences of the merger to the putative class of certain Johnson Controls, Inc. shareholders and to enjoin Johnson Controls, Inc. from reporting to the Internal Revenue Service the capital gains taxes payable by this putative class as a result of the closing of the merger. The court held a hearing on the preliminary injunction motion on January 4, 2017, and on January 25, 2017, the judge denied the plaintiffs' motion. Plaintiffs filed an amended complaint on February 15, 2017, and the Company filed a motion to dismiss on April 3, 2017. On October 17, 2019, the court heard oral arguments on the motion to dismiss and took the matter under advisement. On November 3, 2021, the court granted the Company's motion to dismiss the amended complaint.

Refer to Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for discussion of environmental, asbestos, insurable liabilities and other litigation matters, which is incorporated by reference herein and is considered an integral part of Part I, Item 3, "Legal Proceedings."

ITEM 4 MINE SAFETY DISCLOSURES

Not applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT

Pursuant to General Instruction G(3) of Form 10-K, the following list of executive officers of the Company as of November 15, 2021 is included as an unnumbered Item in Part I of this report in lieu of being included in the Company's Proxy Statement relating to the annual general meeting of shareholders to be held on March 9, 2022.

Tomas Brannemo, 50, has served as Vice President and President, Building Solutions, Europe, Middle East, Africa and Latin America since September 2019. He previously served as Senior Vice President and President, Water Infrastructure and Europe Commercial Team of Xylem Inc., a leading global water technology company. At Xylem, he also served as Senior Vice President and President, Transport and Treatment, from 2017 to 2019 and other roles from 2010 to 2017. Between 2006 and 2010, he held various marketing, sales and engineering positions at Volvo Construction Company.

John Donofrio, 59, has served as Executive Vice President and General Counsel of the Company since November 15, 2017. He previously served as Vice President, General Counsel and Secretary of Mars, Incorporated, a global food manufacturer from October 2013 to November 2017. Before joining Mars in October 2013, Mr. Donofrio was Executive Vice President, General Counsel and Secretary for The Shaw Group Inc., a global engineering and construction company, from October 2009 until February 2013. Prior to joining Shaw, Mr. Donofrio was Senior Vice President, General Counsel and Chief Compliance Officer at Visteon Corporation, a global automotive supplier, a position he held from 2005 until October 2009. Mr. Donofrio has been a Director of FARO Technologies, Inc., a designer, developer, manufacturer and marketer of software driven, 3D measurement, imaging and realization systems, since 2008.

Michael J. Ellis, 65, has served as Executive Vice President and Chief Customer & Digital Officer since October 2019. From May 2018 to October 2019, he served as a Managing Director at Accenture, a global provider of professional services in strategy, consulting, digital, technology and operations. He previously served as Chairman and CEO of ForgeRock, a global digital security software company, from 2012 to 2018. Prior to joining ForgeRock, from 2008 to 2012, he held various senior executive roles at SAP SE, a global provider of enterprise software solutions. Previously, he also served as Chief Executive Officer of Univa, a leading innovator in enterprise-grade workload management and optimization solutions, and as Senior Vice President Business Development at i2 Technologies, a provider of supply chain solutions. Mr. Ellis also serves as a director on the board of CBRE Acquisition Holdings Inc.

Visal Leng, 51, has served as Vice President and President, Building Solutions, Asia Pacific since September 2018. He previously served as President Asia Pacific of Baker Hughes, the world's first and only full stream provider of integrated oilfield products, services and digital solutions, from July 2017 to September 2018. Prior to the merger of Baker Hughes with General Electric in 2017, he held a number of roles with increasing responsibility in General Electric from his hire in November 1996, including President of its Asia Pacific oil and gas operations from January 2014 to July 2017; and Asia Pacific Regional General Manager from October 2011 to December 2013.

Olivier Leonetti, 56, has served as Chief Financial Officer since November 2020. Prior to joining Johnson Controls, Mr. Leonetti served as the Senior Vice President and Chief Financial Officer of Zebra Technologies, a provider of enterprise-level data capture and automatic identification solutions, a position he had held since November 2016. Prior to joining Zebra, Mr. Leonetti was the Executive Vice President and Chief Financial Officer of Western Digital, a provider of data infrastructure solutions from 2014 to 2016. Prior to joining Western Digital, Mr. Leonetti served as Vice President of Finance – Global Commercial Organization at Amgen, Inc. from 2011 to 2014. From 1997 to 2011, Mr. Leonetti served in various senior finance positions with increasing responsibility at Dell Inc., including most recently as Vice President of Finance. Prior to joining Dell Inc., Mr. Leonetti served in various worldwide finance capacities with Lex Rac Service plc and the Gillette Company. Mr. Leonetti also serves as a director on the board of Eaton Corporation plc, a provider of power management technologies and services.

Nathan Manning, 45, has served as Vice President and President, Building Solutions, North America since October 2020. He previously served as Vice President and General Manager, Field Operations, from March 2020 to October 2020 and Vice President and General Manager, HVAC and Controls Building Solutions North America, from January 2019 to March 2020. Prior to joining Johnson Controls, he served in various roles at General Electric, a diversified industrial and technology company, where he held the position of General Manager, Operational Excellence for General Electric's GE Power segment from August 2017 until December 2018 and the position of General Manager, Services of GE Energy Connections, a division of GE Power, from November 2015 until August 2017. Prior to joining General Electric, Mr. Manning served as Vice President, General Manager of Eaton Aerospace, a segment of Eaton Corporation plc, a provider of power management technologies and services, from February 2014 until November 2015. Prior to joining Eaton, Mr.

Manning served in a number of roles with increasing responsibility in General Electric from his hire in January 2000, including as President and Chief Executive Officer of Aviage Systems, a joint venture between General Electric and Aviation Industry Corporation of China, from July 2012 until February 2014.

George R. Oliver, 62, has served as Chief Executive Officer and Chairman of the Board since September 2017. He previously served as our President and Chief Operating Officer following the completion of the merger of Johnson Controls and Tyco in September 2016. Prior to that, Mr. Oliver was Tyco's Chief Executive Officer, a position he held since September 2012. He joined Tyco in July 2006, and served as President of a number of operating segments from 2007 through 2011. Before joining Tyco, he served in operational leadership roles of increasing responsibility at several General Electric divisions. Mr. Oliver also serves as a Director on the board of Raytheon Technologies, an aerospace and defense company.

Ganesh Ramaswamy, 53, has served as Vice President and President, Global Services for Johnson Controls since December 2019. From 2015 to 2019, Mr. Ramaswamy served in various executive leadership roles at Danaher Corporation, a diversified manufacturer of life sciences, diagnostics, and industrial products and services, including Senior Vice President, High Growth markets—Beckman Coulter, President, Videojet Technologies, and, most recently, as Danaher Vice President & Group Executive, Marking & Coding. From 2011 to 2015, Mr. Ramaswamy served in various executive roles at Pentax Medical, a provider of endoscopic imaging devices and solutions, including as President of Pentax Medical from 2013 to 2015. Earlier in his career, Mr. Ramaswamy served in various roles of increasing responsibility with the General Electric Company across product development, service operations, and general management. Mr. Ramaswamy also serves as a director on the board of PACCAR, a global manufacturer of heavy-duty and medium-duty trucks.

Marlon Sullivan, 47, became Executive Vice President and Chief Human Resources Officer in September 2021. Prior to joining Johnson Controls, he served as the Senior Vice President of Human Resources at Delta Airlines from January 2021 to September 2021. Prior to joining Delta, Mr. Sullivan served in various human resources and talent development leadership roles at Abbott Laboratories from December 2007 through December 2020. Earlier in his career, Mr. Sullivan held a variety of human resources roles at The Home Depot.

Robert VanHimbergen, 45, has served as Vice President and Corporate Controller since December 2017. Mr. VanHimbergen joined Johnson Controls in 2007 as the Corporate Director of Global Accounting and has held various Corporate and Power Solutions positions of increasing responsibility. His most recent position was serving as the Chief Financial Officer of Yanfeng Automotive Interiors, an Adient joint venture, formed in 2015. Mr. VanHimbergen began his career at PricewaterhouseCoopers in 1998.

Jeff M. Williams, 60, has served as Vice President and President, Global Products, Building Technologies and Solutions since July 2019. He previously served as Vice President and President, Building Solutions, Europe, Middle East, Africa and Latin America from March 2017 to July 2019. Prior thereto, he served as Vice President - Enterprise Operations - Engineering and Supply Chain from January 2015 through the Merger to March 2017. With respect to roles at Johnson Controls, Inc., he served as Vice President, Program Management Office from 2015 to 2016, as Group Vice President and General Manager Global Seating & Supply Chain from 2013 to 2014, and as Group Vice President and General Manager Customer Group Americas from 2010 to 2012. Mr. Williams joined Johnson Controls, Inc. in 1984.

There are no family relationships, as defined by the instructions to this item, among the Company's executive officers.

PART II

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

The shares of the Company's ordinary shares are traded on the New York Stock Exchange under the symbol "JCI."

	Number of Record Holders
Title of Class	as of October 31, 2021
Ordinary Shares, \$0.01 par value	31,522

In March 2021, the Company's Board of Directors approved a \$4.0 billion increase to the Company's share repurchase authorization, adding to the \$2.0 billion remaining as of December 31, 2020 under the prior share repurchase authorization

approved in 2019. The share repurchase authorization does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. During fiscal year 2021, the Company repurchased approximately \$1.3 billion of its ordinary shares on an open market. As of September 30, 2021, approximately \$5.1 billion remains available under the share repurchase authorization.

The following table presents information regarding the repurchase of the Company's ordinary shares by the Company as part of the publicly announced program during the three months ended September 30, 2021.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of the Publicly Announced Program	Approximate Dollar Value of Shares that May Yet be Purchased under the Programs
7/1/21 - 7/31/21				
Purchases by Company	32,364	\$ 68.47	32,364	\$ 5,359,251,102
8/1/21 - 8/31/21				
Purchases by Company	1,228,776	73.20	1,228,776	5,269,300,749
9/1/21 - 9/30/21				
Purchases by Company	2,921,433	73.34	2,921,433	5,055,053,808

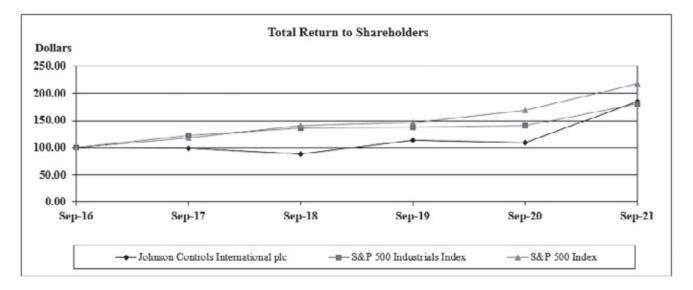
During the three months ended September 30, 2021, acquisitions of shares by the Company from certain employees in order to satisfy employee tax withholding requirements in connection with the vesting of restricted shares were not material.

Equity compensation plan information is incorporated by reference from Part III, Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters," of this document and should be considered an integral part of this Item 5.

The following information in Item 5 is not deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934 ("Exchange Act") or to the liabilities of Section 18 of the Exchange Act, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except to the extent the Company specifically incorporates it by reference into such a filing.

The line graph below compares the cumulative total shareholder return on the Company's ordinary shares with the cumulative total return of companies on the Standard & Poor's ("S&P's") 500 Stock Index and the companies on the S&P 500 Industrials Index. This graph assumes the investment of \$100 on September 30, 2016 and the reinvestment of all dividends since that date.

COMPANY/INDEX	Sep16	Sep17	Sep18	Sep19	Sep20	Sep21
Johnson Controls International plc	100.00	99.08	88.58	114.19	109.33	185.50
S&P 500 Industrials Index	100.00	122.34	135.99	137.84	139.61	180.03
S&P 500 Index	100.00	118.61	139.85	145.80	167.89	218.26



ITEM 6 [RESERVED]

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

General

Johnson Controls International plc, headquartered in Cork, Ireland, is a global leader in smart, healthy and sustainable buildings, serving a wide range of customers in more than 150 countries. The Company's products, services, systems and solutions advance the safety, comfort and intelligence of spaces to serve people, places and the planet. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

The Company is a global leader in engineering, manufacturing and commissioning building products and systems, including residential and commercial HVAC equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. The Company further serves customers by providing technical services, including maintenance, management, repair, retrofit and replacement of equipment (in the HVAC, industrial refrigeration, security and fire-protection space), energy-management consulting and data-driven "smart building" services and solutions powered by its OpenBlue software platform and capabilities. The Company partners with customers by leveraging its broad product portfolio and digital capabilities powered by OpenBlue, together with its direct channel service and solutions capabilities, to deliver outcome-based solutions across the lifecycle of a building that address customers' needs to improve energy efficiency and reduce greenhouse gas emissions.

This discussion summarizes the significant factors affecting the consolidated operating results, financial condition and liquidity of the Company for the fiscal year ended September 30, 2021. This discussion should be read in conjunction with Item 8, the consolidated financial statements and the notes to consolidated financial statements. A detailed discussion of the 2020 to 2019

year-over-year changes are not included herein and can be found in the Management's Discussion and Analysis section in the Company's 2020 Annual Report on Form 10-K filed November 16, 2020 under the heading "Fiscal year 2020 compared to fiscal year 2019," which is incorporated herein by reference.

Macroeconomic Trends

Much of the demand for installation of the Company's products and solutions is driven by commercial and residential construction and industrial facility expansion and maintenance projects. Commercial and residential construction projects are heavily dependent on general economic conditions, localized demand for commercial and residential real estate and availability of credit. Positive or negative fluctuations in commercial and residential construction, industrial facility expansion and maintenance projects and other capital investments in buildings could have a corresponding impact on the Company's financial condition, results of operations and cash flows.

As a result of the Company's global presence, a significant portion of its revenues and expenses is denominated in currencies other than the U.S. dollar. The Company is therefore subject to non-U.S. currency risks and non-U.S. exchange exposure. While the Company employs financial instruments to hedge some of its transactional foreign exchange exposure, these activities do not insulate it completely from those exposures. Exchange rates can be volatile and a substantial weakening or strengthening of foreign currencies against the U.S. dollar could increase or reduce the Company's profit margin in various locations outside of the U.S. and impact the comparability of results from period to period.

The Company continues to observe trends demonstrating increased interest and demand for safe, efficient and sustainable buildings, and seeks to capitalize on these trends to drive growth by developing and delivering technologies and solutions to create smart and healthy buildings. In 2020, the Company launched its software platform, OpenBlue, enabling enterprises to manage all aspects of their physical spaces delivering sustainability, new occupant experiences, and safety and security by combining the Company's building expertise with cutting-edge technology, including AI-powered service solutions such as remote diagnostics, predictive maintenance, compliance monitoring and advanced risk assessments. The Company continues to leverage its install base, together with data-driven products and services to offer outcome-based solutions to customers with a focus on generating accelerated growth in services and recurring revenue for the Company. In January 2021, the Company committed to invest 75 percent of its new product research and development in climate-related innovation to develop sustainable products and services.

The Company has experienced, and expects to continue to experience, increased input material cost inflation and component shortages, as well as disruptions and delays in its supply chain, as a result of global macroeconomic trends (including increased global demand), government-mandated actions in response to COVID-19 and labor shortages. Actions taken by the Company to mitigate supply chain disruptions and inflation, including expanding and redistributing its supplier network, supplier financing, price increases and productivity improvements, have generally been successful in offsetting some, but not all, of the impact of these trends. As a result, these trends have negatively impacted the Company's revenue and margins. The Company expects that these trends will continue in fiscal year 2022. Therefore, the Company could experience further disruptions, shortages and price increases in the future, the effect of which will depend on the Company's ability to successfully mitigate and offset the impact of these events.

Impact of COVID-19 pandemic

The global outbreak of COVID-19 severely restricted the level of economic activity around the world and caused a significant contraction in the global economy.

The Company's affiliates, employees, suppliers, customers and others have been and may continue to be restricted or prevented from conducting normal business activities, including as a result of shutdowns, travel restrictions and other actions that may be requested or mandated by governmental authorities. Although shutdown orders and similar restrictions have been lifted in many jurisdictions in conjunction with the global distribution of vaccines, challenges in achieving sufficient vaccination levels and the spread of new variants of COVID-19 have caused some governments to extend or reinstitute restrictions in impacted areas. During fiscal 2021, the Company's facilities generally operated at normal levels.

The Company continues to focus its efforts on preserving the health and safety of its employees and customers, as well as maintaining the continuity of its operations. The Company modified its business practices in response to the COVID-19 outbreak, including restricting non-essential employee travel, implementing remote work protocols, and limiting physical participation in meetings, events and conferences. The Company also instituted preventive measures at its facilities, including enhanced health and safety protocols, temperature screening, requiring face coverings for all unvaccinated employees and encouraging employees to follow similar protocols when away from work. The Company has adopted and implemented a

multifaceted framework to guide its decision making as it reopens its offices and facilities to employees, and will continue to monitor and audit its facilities to ensure that they are in compliance with the Company's COVID-19 safety requirements.

The Company initially experienced a decline in demand and volumes in its global businesses as a result of the impact of efforts to contain the spread of COVID-19. Specifically, during portions of fiscal 2020, the Company experienced lower demand due to restricted access to customer sites to perform service and installation work as well as reduced discretionary capital spending by the Company's customers. In fiscal 2021, the Company has experienced increases in both demand and volumes as governments have distributed vaccines and lifted COVID-19-related restrictions, leading to increases in retrofit activity and, to a lesser extent, commercial building construction. The global pandemic has also provided the Company with the opportunity to help its customers prepare to re-open by delivering solutions and support that enhance the safety and increase the efficiency of their operations. As a result of the pandemic, the Company has seen an increase in demand for its products and solutions that promote building health and optimize customers' infrastructure, including thermal cameras, indoor air quality, location-based services for contact tracing and touchless access control.

However, the Company continues to be influenced by COVID-19-related trends impacting site access and the labor force, which have and may continue to negatively impact the Company's revenues and margins. Challenges in reaching sufficient vaccination levels and the introduction of new variants of COVID-19 have caused some governments to extend or reinstitute lockdowns and similar restrictive measures, which, in some cases, have limited the Company's ability to access customer sites to install and maintain its products and deliver services. In addition, the Company has experienced and continues to experience labor shortages at certain facilities as the Company expands its production capacity to meet increased customer demand. Although the Company is mitigating these shortages through focused recruitment efforts and competitive compensation packages, the Company could continue to experience such shortages in the future. Recently, the U.S. Government has promulgated orders mandating vaccinations or regular COVID-19 testing for large employers and federal contractors. The Company's efforts to comply with these mandates, including requiring that some or all of its employees be fully vaccinated against COVID-19, could result in increased labor attrition or disruption, and could adversely impact the Company's ability to deliver services to our U.S. federal government customers and potentially other customers.

The extent to which the COVID-19 pandemic continues to impact the Company's results of operations and financial condition will depend on future developments that are highly uncertain and cannot be predicted, including the resurgence of COVID-19 and its variants in regions recovering from the impacts of the pandemic, the effectiveness of COVID-19 vaccines and the speed at which populations are vaccinated around the globe, the impact of COVID-19 on economic activity, and regulatory actions taken to contain its impact on public health and the global economy. See Part I, Item 1A, of this Annual Report on Form 10-K for an additional discussion of risks related to COVID-19.

Restructuring and Cost Optimization Initiatives

To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company has committed to various restructuring plans. In fiscal 2021, the Company announced its plans to optimize its cost structure through broad-based SG&A actions focused on simplification, standardization and centralization, with the intent to deliver annualized savings of \$300 million by fiscal 2023. Additionally, the Company announced cost of sales actions to drive \$250 million in annual run rate savings by fiscal 2023. For more information on the Company's restructuring plans, see "Liquidity and Capital Resources—Restructuring."

FISCAL YEAR 2021 COMPARED TO FISCAL YEAR 2020

Net Sales

(in millions)	2021			2020	Change
Net sales	\$	23,668	\$	22,317	6%

The increase in net sales was due to higher organic sales (\$932 million), the favorable impact of foreign currency translation (\$447 million) and incremental sales from acquisitions (\$253 million), partially offset by lower sales due to business divestitures (\$275 million) and the impact of nonrecurring purchase accounting adjustments (\$6 million). Excluding the impact of foreign currency translation, business acquisitions and divestitures and nonrecurring adjustments, consolidated net sales increased 4% as compared to the prior year, primarily attributable to the increased demand generated by the COVID-19 pandemic recovery. Refer to the "Segment Analysis" below within Item 7 for a discussion of net sales by segment.

Cost of Sales / Gross Profit

	Year Ended September 30,					
(in millions)	2021		2020	Change		
Cost of sales	\$ 15,609	\$	14,906	5%		
Gross profit	8,059		7,411	9%		
% of sales	34.1%		33.2%			

Cost of sales and gross profit both increased and gross profit as a percentage of sales increased by 90 basis points. Gross profit increased due to organic sales growth, favorable year-over-year impact of net pension mark-to-market adjustments (\$207 million) and business acquisitions, partially offset by the unfavorable impact of foreign currency translation (\$307 million) and business divestitures. Refer to the "Segment Analysis" below within Item 7 for a discussion of segment earnings before interest, taxes and amortization ("EBITA").

Selling, General and Administrative Expenses

		Year Septer			
(in millions)	2021		2020		Change
Selling, general and administrative expenses	\$	5,258	\$	5,665	-7%
% of sales		22.2%		25.4%	

Selling, general and administrative expenses ("SG&A") decreased by \$407 million, and SG&A as a percentage of sales decreased by 320 basis points. The decrease in SG&A was primarily due to favorable year-over-year impact of net mark-to-market adjustments on pension plans (\$453 million) and favorable impacts of cost mitigation actions and reductions in discretionary spend in the current year, partially offset by the unfavorable impact of foreign currency translation (\$97 million). Refer to the "Segment Analysis" below within Item 7 for a discussion of segment EBITA.

Restructuring and Impairment Costs

		,				
(in millions)	2	2021	2	2020	Change	
Restructuring and impairment costs	\$	242	\$	783	-69%	

Refer to Note 17, "Significant Restructuring and Impairment Costs," Note 18, "Impairment of Long-Lived Assets," and Note 8, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for further disclosure related to the Company's restructuring plans and impairment costs.

Net Financing Charges

(in millions)	2	2021	2	2020	Change
Net financing charges	\$	206	\$	231	-11%

Refer to Note 10, "Debt and Financing Arrangements," of the notes to consolidated financial statements for further disclosure related to the Company's net financing charges.

Equity Income

(in millions)	2021			020	Change
Equity income	\$	261	\$	171	53%

The increase in equity income was primarily due to higher income at certain partially-owned affiliates of the Johnson Controls -Hitachi joint venture. Foreign currency translation had a favorable impact on equity income of \$12 million. Refer to the "Segment Analysis" below within Item 7 for a discussion of segment EBITA.

Income Tax Provision

(in millions)			2020	Change		
Income tax provision	\$	868	\$	108		*
Effective tax rate		33%)	12%		
* Maagaan naturaanin afal						

* Measure not meaningful

The statutory tax rate in Ireland of 12.5% is being used as a comparison since the Company is domiciled in Ireland.

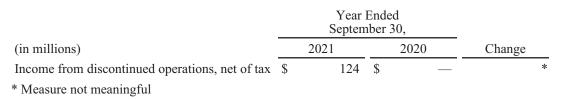
For fiscal 2021, the effective tax rate for continuing operations was 33% and was higher than the statutory tax rate primarily due to the tax impacts of an intercompany transfer of certain of the Company's intellectual property rights, valuation allowance adjustments, the income tax effects of mark-to-market adjustments and tax rate differentials, partially offset by the benefits of continuing global tax planning initiatives.

For fiscal 2020, the effective rate for continuing operations was 12% and was lower than the statutory tax rate primarily due to tax audit reserve adjustments, the income tax effects of mark-to-market adjustments, valuation allowance adjustments and the benefits of continuing global tax planning initiatives, partially offset by a discrete tax charge related to the remeasurement of deferred tax assets and liabilities as a result of Swiss tax reform, the tax impact of an impairment charge and tax rate differentials.

The fiscal 2021 effective tax rate increased as compared to fiscal 2020 primarily due to the discrete tax items. The fiscal year 2021 and 2020 global tax planning initiatives related primarily to changes in entity tax status, global financing structures and alignment of the Company's global business functions in a tax efficient manner. Refer to Note 19, "Income Taxes," of the notes to consolidated financial statements for further details.

In October 2021, 136 out of 140 countries in the Organization for Economic Co-operation and Development ("OECD") Inclusive Framework on Base Erosion and Profit Shifting ("IF"), including Ireland, politically committed to potentially fundamental changes to the international corporate tax system, including the potential implementation of a global minimum corporate tax rate. While the details of these pronouncements presently remain unclear and timing of implementation uncertain, the impact of local country IF adoption could have a material impact on our effective tax rate in future periods. It is also possible that jurisdictions in which we do business could react to such IF developments unilaterally by enacting tax legislation that could adversely affect us or our affiliates.

Income From Discontinued Operations, Net of Tax



Refer to Note 3, "Discontinued Operations," of the notes to consolidated financial statements for further information.

Income Attributable to Noncontrolling Interests

(in millions)		Year Septen			
		2021	2020		Change
Income from continuing operations attributable to noncontrolling interests	\$	233	\$	164	42%

The increase in income from continuing operations attributable to noncontrolling interests was primarily due to higher net income at certain partially-owned affiliates within the Global Products segment.

Net Income Attributable to Johnson Controls

	 Year Ended September 30,				
(in millions)	 2021		2020	Change	
Net income attributable to Johnson Controls	\$ 1,637	\$	631		*

* Measure not meaningful

The increase in net income attributable to Johnson Controls was primarily due to higher gross profit, lower restructuring and impairment costs and lower SG&A, partially offset by higher income tax provision. Fiscal 2021 diluted earnings per share attributable to Johnson Controls was \$2.27 compared to \$0.84 in fiscal 2020.

Comprehensive Income Attributable to Johnson Controls

2021		2020	Change	
\$ 1,979	\$	650		*
\$	Septen 2021	September 30		September 30,20212020Change

* Measure not meaningful

The increase in comprehensive income attributable to Johnson Controls was due to higher net income attributable to Johnson Controls (\$1,006 million) and an increase in other comprehensive income attributable to Johnson Controls (\$323 million) resulting primarily from foreign currency translation adjustments. The favorable foreign currency translation adjustments were primarily driven by the strengthening of the Brazilian real, Canadian dollar and Mexican peso against the U.S. dollar in the current year.

SEGMENT ANALYSIS

Management evaluates the performance of its business units based primarily on segment EBITA, which represents income from continuing operations before income taxes and noncontrolling interests, excluding general corporate expenses, intangible asset amortization, net financing charges, restructuring and impairment costs, and net mark-to-market adjustments related to pension and postretirement plans and restricted asbestos investments.

		Net Sales for the Year Ended September 30,				Segment EBITA for the Year Ended September 30,					
(in millions)		2021		2020	Change		2021		2020	Change	
Building Solutions North America	\$	8,685	\$	8,605	1%	\$	1,204	\$	1,157	4%	
Building Solutions EMEA/LA		3,727		3,440	8%		391		338	16%	
Building Solutions Asia Pacific		2,654		2,403	10%		349		319	9%	
Global Products		8,602		7,869	9%		1,441		1,134	27%	
	\$	23,668	\$	22,317	6%	\$	3,385	\$	2,948	15%	

Net Sales:

- The increase in Building Solutions North America was due to the favorable impact of foreign currency translation (\$49 million), higher volumes (\$27 million) and incremental sales related to business acquisitions (\$4 million). The increase in volumes was primarily attributable to a strong recovery in service sales across all domains, partially offset by a modest decline in installation sales driven by a decline in the new construction market.
- The increase in Building Solutions EMEA/LA was primarily attributable to the favorable impact of foreign currency translation (\$135 million), higher volumes (\$115 million) and incremental sales related to business acquisitions (\$37 million). The increase in volumes was primarily attributable to higher service and, to a lesser extent, installation sales. By region, growth in Europe was partially offset by a decline in the Middle East.
- The increase in Building Solutions Asia Pacific was due to favorable volumes (\$143 million) and the favorable impact of foreign currency translation (\$117 million), partially offset by business divestitures (\$9 million). The increase in volumes was primarily attributable to higher installation and service sales. Growth was led by a strong recovery in China.
- The increase in Global Products was due to favorable volumes (\$647 million), incremental sales related to business acquisitions (\$212 million) and the favorable impact of foreign currency translation (\$146 million), partially offset by business divestitures (\$266 million) and the impact of nonrecurring purchase accounting adjustments (\$6 million). The increase in volumes was primarily attributable to growth across Commercial and Residential HVAC as well as Fire & Security products. This growth was partially offset by a decline in Industrial Refrigeration.

Segment EBITA:

- The increase in Building Solutions North America was due to favorable volumes and productivity savings, net of prior year temporary cost mitigation actions (\$31 million), prior year integration costs (\$11 million) and the favorable impact of foreign currency translation (\$5 million).
- The increase in Building Solutions EMEA/LA was due to favorable volumes and productivity savings, net of prior year temporary cost mitigation actions (\$41 million), the favorable impact of foreign currency translation (\$7 million), higher income due to business acquisitions (\$5 million) and prior year integration costs (\$2 million), partially offset by lower equity income (\$2 million).
- The increase in Building Solutions Asia Pacific was due to the favorable impact of foreign currency translation (\$13 million), favorable volumes, net of prior year temporary cost mitigation actions (\$12 million) and prior year integration costs (\$7 million), partially offset by lower income due to business divestitures (\$2 million).
- The increase in Global Products was due to favorable volumes and productivity savings, net of prior year temporary cost mitigation actions (\$176 million), higher equity income (\$72 million) driven primarily by certain partially-owned affiliates of the Johnson Controls Hitachi joint venture, a prior year compensation charge related to a noncontrolling interest acquisition (\$39 million), the favorable impact of foreign currency translation (\$30 million), prior year integration costs (\$13 million) and incremental income related to business acquisitions (\$13 million), partially offset by lower income due to business divestitures (\$23 million) and Silent-Aire transaction costs and nonrecurring purchase accounting adjustments (\$13 million).

LIQUIDITY AND CAPITAL RESOURCES

Working Capital

(in millions)	ember 30, 2021	ember 30, 2020	Change
Current assets	\$ 9,998	\$ 10,053	
Current liabilities	 (9,098)	 (8,248)	
	900	1,805	-50%
Less: Cash and cash equivalents	(1,336)	(1,951)	
Add: Short-term debt	8	31	
Add: Current portion of long-term debt	 226	 262	
Working capital (as defined)	\$ (202)	\$ 147	*
Accounts receivable - net	\$ 5,613	\$ 5,294	6%
Inventories	2,057	1,773	16%
Accounts payable	3,746	3,120	20%

* Measure not meaningful

- The Company defines working capital as current assets less current liabilities, excluding cash and cash equivalents, short-term debt, the current portion of long-term debt, and the current portions of assets and liabilities held for sale. Management believes that this measure of working capital, which excludes financing-related items and businesses to be divested, provides a more useful measurement of the Company's operating performance.
- The decrease in working capital at September 30, 2021 as compared to September 30, 2020, was primarily due to an increase in accounts payable, accrued compensation and benefits liabilities, deferred revenue and lower income tax assets, partially offset by an increase in accounts receivable, an increase in inventory, and the favorable resolution of certain post-closing working capital and net debt adjustments related to the Power Solutions sale.
- The Company's days sales in accounts receivable at September 30, 2021 were 58, a decrease from 63 at September 30, 2020. There has been no significant adverse change in the level of overdue receivables or significant changes in revenue recognition methods.
- The Company's inventory turns for the year ended September 30, 2021 were lower than the comparable period ended September 30, 2020 primarily due to changes in inventory production levels.
- Days in accounts payable at September 30, 2021 were 76 days, higher from 69 days for the comparable period ended September 30, 2020, primarily due to timing.

Cash Flows From Continuing Operations

	Year Ended September 30,				
(in millions)		2020			
Cash provided by operating activities	\$	2,551 \$	2,479		
Cash used by investing activities		(1,090)	(258)		
Cash used by financing activities		(2,131)	(2,824)		

• The increase in cash provided by operating activities was primarily due to favorable changes in accounts payable and accrued liabilities and higher pre-tax income, net of non-cash adjustments, partially offset by prior year income tax refunds and increases in accounts receivable and inventory.

- The increase in cash used by investing activities was primarily due to higher cash payments made for Silent-Aire and other acquisitions.
- The decrease in cash used by financing activities was primarily due to lower levels of share repurchases in fiscal year 2021, partially offset by lower long-term debt borrowings, net of repayments.

Capitalization

(in millions)	Sep	otember 30, 2021	Sej	otember 30, 2020	Change
Short-term debt	\$	8	\$	31	
Current portion of long-term debt		226		262	
Long-term debt		7,506		7,526	
Total debt		7,740		7,819	-1%
Less: Cash and cash equivalents		1,336		1,951	
Total net debt		6,404		5,868	9%
Shareholders' equity attributable to Johnson Controls ordinary shareholders		17,562		17,447	1%
Total capitalization	\$	23,966	\$	23,315	3%
Total net debt as a % of total capitalization		26.7%		25.2%	

- Net debt and net debt as a percentage of total capitalization are non-GAAP financial measures. The Company believes the percentage of total net debt to total capitalization is useful to understanding the Company's financial condition as it provides a review of the extent to which the Company relies on external debt financing for its funding and is a measure of risk to its shareholders.
- The Company's material cash requirements primarily consist of working capital requirements, repayments of long-term debt and related interest, operating leases, dividends, capital expenditures and potential acquisitions and stock repurchases.
- Refer to Note 10, "Debt and Financing Arrangements," of the notes to consolidated financial statements for additional information on debt obligations and maturities. Interest payable on long-term debt was \$218 million due in the twelve months following September 30, 2021 and \$3,468 million due thereafter.
- Refer to Note 9, "Leases," of the notes to consolidated financial statements for additional information on lease obligations and maturities.
- As of September 30, 2021, purchase obligations were \$1,276 million payable in the next twelve months and \$168 million payable thereafter. These purchase obligations represent commitments under enforceable and legally binding agreements, and do not represent the entire anticipated purchases in the future.
- As of September 30, 2021, the Company expects to contribute \$45 million and \$495 million to the global pension and postretirement plans in the next twelve months and thereafter, respectively.
- As of September 30, 2021, approximately \$5.1 billion remains available under the Company's share repurchase authorization, which does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. The Company expects to repurchase outstanding shares from time to time depending on market conditions, alternate uses of capital, liquidity and economic environment.
- In the second quarter of fiscal 2021, the Company raised its annual dividend to \$1.08 per share. The Company intends to continue paying quarterly dividends in fiscal 2022.
- The Company believes its capital resources and liquidity position at September 30, 2021 are adequate to meet projected needs. The Company believes requirements for working capital, capital expenditures, dividends, stock repurchases, minimum pension contributions, debt maturities and any potential acquisitions in fiscal 2022 will continue to be funded

from operations, supplemented by short- and long-term borrowings, if required. The Company currently manages its short-term debt position in the U.S. and euro commercial paper markets and bank loan markets. In the event the Company is unable to issue commercial paper, it would have the ability to draw on its \$2.5 billion revolving credit facility which expires in December 2024 or its \$0.5 billion 364-day revolving credit facility which expires in December 2021. There were no draws on the revolving credit facilities as of September 30, 2021 and 2020. The Company also selectively makes use of short-term credit lines other than its revolving credit facility. The Company, as of September 30, 2020, could borrow up to \$3.0 billion based on committed credit lines. In addition, the Company held cash and cash equivalents of \$1.3 billion as of September 30, 2021. As such, the Company believes it has sufficient financial resources to fund operations and meet its obligations for the foreseeable future.

The Company's ability to access the global capital markets and the related cost of financing is dependent upon, among other factors, the Company's credit ratings. As of September 30, 2021, the Company's credit ratings and outlook were as follows:

Rating Agency	Short-Term Rating	Long-Term Rating	Outlook
S&P	A-2	BBB+	Stable
Moody's	P-2	Baa2	Stable

The security ratings set forth above are issued by unaffiliated third party rating agencies and are not a recommendation to buy, sell or hold securities. The ratings may be subject to revision or withdrawal by the assigning rating organization at any time.

- In September 2021, the Company and its wholly-owned subsidiary, Tyco Fire & Security Finance S.C.A. ("TFSCA"), issued \$500 million of sustainability-linked senior notes with an initial interest rate of 2.0%, which are due in 2031. Beginning in March 2026, the interest rate payable on the note will be increased by an additional 12.5 basis points per annum if the Scope 1 and Scope 2 emissions sustainability performance target is not met and an additional 12.5 basis points per annum if the Scope 3 emissions sustainability performance target is not met. The proceeds were used for general corporate purposes, including the repayment of near-term indebtedness. In September 2021, the Company repaid \$193 million of notes which were due in December 2021 and a \in 200 million bank term loan which was issued in March 2021 and due in March 2022. The Company repaid \$257 million in principal amount, plus accrued interest, of 4.25% fixed rate notes when they expired in March 2021. Additionally, during the fiscal year 2021 the Company repaid \notin 43 million in principal amount, plus accrued interest, of 1.0% fixed rate notes which were due in September 2023.
- Financial covenants in the Company's revolving credit facilities requires a minimum consolidated shareholders' equity attributable to Johnson Controls of at least \$3.5 billion at all times. The revolving credit facility also limits the amount of debt secured by liens that may be incurred to a maximum aggregated amount of 10% of consolidated shareholders' equity attributable to Johnson Controls for liens and pledges. For purposes of calculating these covenants, consolidated shareholders' equity attributable to Johnson Controls for liens and pledges. For purposes of calculating these covenants, consolidated shareholders' equity attributable to Johnson Controls is calculated without giving effect to (i) the application of ASC 715-60, "Defined Benefit Plans Other Postretirement," or (ii) the cumulative foreign currency translation adjustment. As of September 30, 2021, the Company was in compliance with all covenants and other requirements set forth in its credit agreements and the indentures, governing its outstanding notes, and expect to remain in compliance for the foreseeable future. None of the Company's debt agreements limit access to stated borrowing levels or require accelerated repayment in the event of a decrease in the Company's credit rating.

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The Company earns a significant amount of its income outside of the parent company. Outside basis differences in these subsidiaries are deemed to be permanently reinvested except in limited circumstances. However, in fiscal 2019, the Company provided income tax expense related to a change in the Company's assertion over the outside basis differences of the Company's investment in certain subsidiaries as a result of the planned divestiture of the Power Solutions business. Except as noted, the Company's intent is to reduce basis differences only when it would be tax efficient. The Company expects existing U.S. cash and liquidity to continue to be sufficient to fund the Company's U.S. operating activities and cash commitments for investing and financing activities for at least the next twelve months and thereafter for the foreseeable future. In the U.S., should the Company require more capital than is generated by its operations, the Company could elect to raise capital in the U.S. through debt or equity issuances. The Company has borrowed funds in the U.S. and continues to have the ability to borrow funds in the U.S. at reasonable interest rates. In addition, the Company expects existing non-U.S. cash, cash equivalents, short-term investments and cash flows from operations to continue to be sufficient to fund the Company's non-U.S. operating activities and cash commitments for investing activities, such as material capital expenditures, for at least the next twelve months and thereafter for the foreseeable future. Should the Company's non-U.S. operating activities and cash commitments for investing and the capital at the Luxembourg and Ireland holding and financing entities, other than amounts that can be provided in tax efficient methods, the Company could also elect to raise capital

through debt or equity issuances. These alternatives could result in increased interest expense or other dilution of the Company's earnings.

- The Company may from time to time purchase our outstanding debt through open market purchases, privately negotiated transactions or otherwise. Purchases or retirement of debt, if any, will depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors. The amounts involved may be material.
- Refer to Note 10, "Debt and Financing Arrangements," of the notes to consolidated financial statements for additional information on items impacting capitalization.

Restructuring

To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company has committed to various restructuring plans. Restructuring plans generally result in charges for workforce reductions, plant closures, asset impairments and other related costs which are reported as restructuring and impairment costs in the Company's consolidated statements of income. The Company expects the restructuring actions to reduce cost of sales and SG&A due to reduced employee-related costs, depreciation and amortization expense.

- In fiscal 2021, the Company announced its plans to optimize its cost structure through broad-based SG&A actions focused on simplification, standardization and centralization, with the intent to deliver annualized savings of \$300 million by fiscal 2023. Additionally, the Company announced cost of sales actions to drive \$250 million in annual run rate savings by fiscal 2023. The one-time pre-tax costs associated with these actions are estimated to be approximately \$385 million across all segments and at Corporate. During the year ended September 30, 2021, the Company recorded \$242 million of costs resulting from the 2021 restructuring plan. The restructuring action is expected to be substantially complete in fiscal 2023. The Company has outstanding restructuring reserves of \$65 million at September 30, 2021, all of which is expected to be paid in cash.
- In fiscal 2020, the Company recorded \$297 million of costs resulting from the 2020 restructuring plan. The Company currently estimates that upon completion of the restructuring action, the fiscal 2020 restructuring plans will reduce annual operating costs for continuing operations by approximately \$430 million. The annual restructuring activities are substantially completed, and final payments are expected to be made in fiscal 2022. The Company has outstanding restructuring reserves of \$37 million at September 30, 2021, all of which is expected to be paid in cash.

Co-Issued Securities: Summarized Financial Information

The following information is provided in compliance with Rule 13-01 of Regulation S-X under the Securities Exchange Act of 1934 with respect to the (i) \$625 million aggregate principal amount of 1.750% Senior Notes due 2030 (the "2030 Notes"), (ii) \in 500 million aggregate principal amount of 0.375% Senior Notes due 2027 (the "2027 Notes"), (iii) \in 500 million aggregate principal amount of 1.000% Senior Notes due 2032 (the "2032 Notes") and (iv) \$500 million aggregate principal amount of 2.000% Sustainability-Linked Senior Notes due 2031 (the "2031 Notes" and together with the 2032 Notes, the 2030 Notes and the 2027 Notes, the "Notes"), each issued by Johnson Controls International plc ("Parent Company") and TFSCA, a corporate partnership limited by shares (*société en commandite par actions*) incorporated and organized under the laws of the Grand Duchy of Luxembourg ("Luxembourg"). Refer to Note 10, "Debt and Financing Arrangements," of the notes to consolidated financial statements for additional information.

TFSCA is a wholly-owned consolidated subsidiary of the Company that is 99.996% owned directly by the Parent Company and 0.004% owned by TFSCA's sole general partner and manager, Tyco Fire & Security S.à r.l., which is itself wholly-owned by the Company. The Notes are the Parent Company's and TFSCA's unsecured, unsubordinated obligations. The Parent Company is incorporated and organized under the laws of Ireland and TFSCA is incorporated and organized under the laws of Luxembourg. The bankruptcy, insolvency, administrative, debtor relief and other laws of Luxembourg or Ireland, as applicable, may be materially different from, or in conflict with, those of the United States, including in the areas of rights of creditors, priority of governmental and other creditors, ability to obtain post-petition interest and duration of the proceeding. The application of these laws, or any conflict among them, could adversely affect noteholders' ability to enforce their rights under the Notes in those jurisdictions or limit any amounts that they may receive.

The following tables set forth summarized financial information of the Parent Company and TFSCA (collectively, the "Obligor Group") on a combined basis after intercompany transactions have been eliminated, including adjustments to remove the receivable and payable balances, investment in, and equity in earnings from, those subsidiaries of the Parent Company other than TFSCA (collectively, the "Non-Obligor Subsidiaries").

The following table presents summarized income statement information for the year ended September 30, 2021 (in millions):

	Year Ended		
	September 30, 2021		
Net sales	\$	_	
Gross profit			
Loss from continuing operations		(212)	
Net loss		(212)	
Income attributable to noncontrolling interests			
Net loss attributable to the entity		(212)	

Excluded from the table above are the intercompany transactions between the Obligor Group and Non-Obligor Subsidiaries as follows (in millions):

	Year Ended	
	Septemb	ber 30, 2021
Net sales	\$	_
Gross profit		
Income from continuing operations		223
Net income		223
Income attributable to noncontrolling interests		—
Net income attributable to the entity		223

The following table presents summarized balance sheet information as of September 30, 2021 (in millions):

	September 30, 202	
Current assets	\$	1,036
Noncurrent assets		280
Current liabilities		1,825
Noncurrent liabilities		7,260
Noncontrolling interests		

Excluded from the table above are the intercompany balances between the Obligor Group and Non-Obligor Subsidiaries as follows (in millions):

	Septeml	ber 30, 2021
Current assets	\$	465
Noncurrent assets		2,992
Current liabilities		1,660
Noncurrent liabilities		7,199
Noncontrolling interests		

The same accounting policies as described in Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements are used by the Parent Company and each of its subsidiaries in connection with the summarized financial information presented above.

CRITICAL ACCOUNTING ESTIMATES

The Company prepares its consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). This requires management to make estimates and assumptions that affect reported amounts and related disclosures. Actual results could differ from those estimates. The following estimates are considered by management to be the most critical to the understanding of the Company's consolidated financial statements as they require significant judgments that could materially impact the Company's results of operations, financial position and cash flows.

Revenue Recognition

The Company recognizes revenue from certain long-term contracts on an over time basis, with progress towards completion measured using a cost-to-cost input method based on the relationship between actual costs incurred and total estimated costs at completion. Total estimated costs at completion are based primarily on estimated purchase contract terms, historical performance trends and other economic projections. Factors that may result in a change to these estimates include unforeseen engineering problems, construction delays, the performance of subcontractors and major material suppliers, and weather conditions. As a result, changes to the original estimates may be required during the life of the contract. Such estimates are reviewed monthly and any adjustments to the measure of completion are recognized as adjustments to sales and gross profit using the cumulative catch-up method. Estimated losses are recorded when identified.

For agreements with multiple performance obligations, the Company allocates the transaction price of the contract to each performance obligation using the best estimate of the standalone selling price of each distinct good or service in the contract. In order to estimate relative selling price, market data and transfer price studies are utilized. If the standalone selling price is not directly observable, the Company estimates the standalone selling price using an adjusted market assessment approach or expected cost plus margin approach.

The Company considers the contractual consideration payable by the customer and assesses variable consideration that may affect the total transaction price, including discounts, rebates, refunds, credits or other similar sources of variable consideration, when determining the transaction price of each contract. The Company includes variable consideration in the estimated transaction price when it is probable that significant reversal of revenue recognized would not occur when the uncertainty associated with variable consideration is subsequently resolved. These estimates are based on the amount of consideration that the Company expects to be entitled to.

Goodwill and Indefinite-Lived Intangible Assets

The Company reviews goodwill for impairment during the fourth fiscal quarter or more frequently if events or changes in circumstances indicate the asset might be impaired. The Company performs impairment reviews for its reporting units, which have been determined to be the Company's reportable segments or one level below the reportable segments in certain instances, using a fair value method based on management's judgments and assumptions or third party valuations. The fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. In estimating the fair value, the Company uses the multiples of earnings approach based on the average of published multiples of earnings of comparable entities with similar operations and economic characteristics that are applied to the Company's average of historical and future financial results. In certain instances, the Company uses discounted cash flow analyses or estimated sales price to further support the fair value estimates. The assumptions included in the impairment tests were management's projections of future cash flows, weighted-average cost of capital and long-term growth rates. Although the Company's cash flow forecasts are based on assumptions that are considered reasonable by management and consistent with the plans and estimates management is using to operate the underlying businesses, there are significant judgments in determining the expected future cash flows attributable to a reporting unit.

Based on the fiscal 2021 annual impairment test, there were no goodwill impairments and no reporting unit was determined to be at risk of failing the goodwill impairment test.

Indefinite-lived intangible assets are also subject to at least annual impairment testing. Indefinite-lived intangible assets primarily consist of trademarks and trade names and are tested for impairment using a relief-from-royalty method. A considerable amount of management judgment and assumptions are required in performing the impairment tests. The key assumptions used in the impairment tests were long-term revenue growth projections, weighted-average cost of capital and general industry, market and macro-economic conditions.

There were no indefinite-lived intangible asset impairments resulting from the fiscal 2021 annual impairment test. The estimated fair values of all indefinite-lived intangibles substantially exceeded their carrying values, with the exception of the indefinite-lived trademark related to the Company's Asia Pacific subscriber businesses. The estimated fair value of the Asia Pacific indefinite-lived trademark was consistent with its carrying value of \$38 million as of September 30, 2021.

The Company continuously monitors for events and circumstances that could negatively impact the key assumptions in determining fair value. While the Company believes the judgments and assumptions used in the goodwill and indefinite-lived intangible impairment tests are reasonable, different assumptions or changes in general industry, market and macro-economic conditions, including a more prolonged and/or severe COVID-19 pandemic, could change the estimated fair values and, therefore, future impairment charges could be required, which could be material to the consolidated financial statements.

Employee Benefit Plans

The Company provides a range of benefits to its employees and retired employees, including pensions and postretirement benefits. Plan assets and obligations are measured annually, or more frequently if there is a significant remeasurement event, based on the Company's measurement date utilizing various actuarial assumptions such as discount rates, assumed rates of return, compensation increases and health care cost trend rates as of that date. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends when appropriate. The Company utilizes a mark-to-market approach for recognizing pension and postretirement benefit expenses, including measuring the market related value of plan assets at fair value and recognizing actuarial gains and losses in the fourth quarter of each fiscal year or at the date of a remeasurement event. Refer to Note 16, "Retirement Plans," of the notes to consolidated financial statements for disclosure of the Company's pension and postretirement benefit plans.

U.S. GAAP requires that companies recognize in the statement of financial position a liability for defined benefit pension and postretirement plans that are underfunded or unfunded, or an asset for defined benefit pension and postretirement plans that are over funded. U.S. GAAP also requires that companies measure the benefit obligations and fair value of plan assets that determine a benefit plan's funded status as of the date of the employer's fiscal year end.

The Company considers the expected benefit payments on a plan-by-plan basis when setting assumed discount rates. As a result, the Company uses different discount rates for each plan depending on the plan jurisdiction, the demographics of participants and the expected timing of benefit payments. For the U.S. pension and postretirement plans, the Company uses a discount rate provided by an independent third party calculated based on an appropriate mix of high quality bonds. For the non-U.S. pension and postretirement plans, the Company consistently uses the relevant country specific benchmark indices for determining the various discount rates. The Company's weighted average discount rate on U.S. pension plans was 2.50% and 2.25% at September 30, 2021 and 2020, respectively. The Company's weighted average discount rate on postretirement plans was 2.30% and 1.90% at September 30, 2021 and 2020, respectively. The Company's weighted average discount rate on non-U.S. pension plans was 1.80% and 1.35% at September 30, 2021 and 2020, respectively.

In estimating the expected return on plan assets, the Company considers the historical returns on plan assets, adjusted for forward-looking considerations, inflation assumptions and the impact of the active management of the plans' invested assets. Reflecting the relatively long-term nature of the plans' obligations, approximately 20% of the plans' assets are invested in equity securities and 68% in fixed income securities, with the remainder primarily invested in alternative investments. For the years ending September 30, 2021 and 2020, the Company's expected long-term return on U.S. pension plan assets used to determine net periodic benefit cost was 6.50% and 6.90%, respectively. The actual rate of return on U.S. pension plans was above 6.50% in fiscal year 2021 and above 6.90% in fiscal year 2020. For the years ending September 30, 2021 and 2020, the Company's weighted average expected long-term return on non-U.S. pension plan assets was 4.90% and 5.20%, respectively. The actual rate of return on non-U.S. pension plans was above 4.90% in fiscal year 2021 and 2020, the Company's weighted average expected long-term return on non-U.S. pension plan assets was 4.90% in fiscal year 2020. For the years ending September 30, 2021 and 2020, the Company's weighted average expected long-term return on non-U.S. pension plan assets was 4.90% in fiscal year 2020. For the years ending September 30, 2021 and 2020, the Company's weighted average expected long-term return on non-U.S. pension plan assets was 4.90% in fiscal year 2020. For the years ending September 30, 2021 and 2020, the Company's weighted average expected long-term return on postretirement plan assets was 5.30% and 5.70%, respectively. The actual rate of return on postretirement plan assets was above 5.30% in fiscal year 2021 and below 5.70% in fiscal year 2020.

Beginning in fiscal 2022, the Company believes the long-term rate of return will approximate 7.00%, 3.70% and 5.30% for U.S. pension, non-U.S. pension and postretirement plans, respectively. Any differences between actual investment results and the expected long-term asset returns will be reflected in net periodic benefit costs in the fourth quarter of each fiscal year or at the date of a significant remeasurement event. If the Company's actual returns on plan assets are less than the Company's expectations, additional contributions may be required.

In fiscal 2021, total employer contributions for continuing operations to the defined benefit pension plans were \$65 million, none of which were voluntary contributions made by the Company. The Company expects to contribute approximately \$42 million in cash to its defined benefit pension plans in fiscal 2022. In fiscal 2021, total employer contributions for continuing operations to the postretirement plans were \$3 million. The Company expects to contribute approximately \$3 million in cash to its postretirement plans in fiscal 2022.

Based on information provided by its independent actuaries and other relevant sources, the Company believes that the assumptions used are reasonable; however, changes in these assumptions could impact the Company's financial position, results of operations or cash flows.

The mark-to-market adjustments represent actuarial gains (losses) arising from changes in actuarial assumptions and actuarial experiences different from those assumed that are used to value the plan assets and the benefit obligations. The primary factors contributing to actuarial gains (losses) are changes in the discount rate used to value benefit obligations and the difference between expected and actual returns on plan assets. As such, the mark-to-market adjustments are highly volatile and are difficult to forecast. Mark-to-market adjustments were \$365 million, \$(295) million and \$(630) million for the fiscal years ended September 30, 2021, 2020 and 2019, respectively.

The following chart illustrates the estimated increases (decreases) in projected benefit obligation and future ongoing pension expense, which excludes any potential mark-to-market adjustments, assuming an increase of 25 basis points in the key assumptions for our pension plans (in millions):

	Pension Benefits										
	U.S.	Plans	Non-U.	S. Plans							
	Change in Projected Benefit Obligation	Change in Ongoing Pension Expense	Change in Projected Benefit Obligation	Change in Ongoing Pension Expense							
Discount rate	\$ (51)	\$ 5	\$ (84)	\$ 4							
Expected return on plan assets	—	(6)		(5)							

A 25 basis point change in the discount rate would not have a material impact on our post-retirement benefit plan obligations.

Loss Contingencies

Accruals are recorded for various contingencies including legal proceedings, environmental matters, self-insurance and other claims that arise in the normal course of business. The accruals are based on judgment, the probability of losses and, where applicable, the consideration of opinions of internal and/or external legal counsel and actuarially determined estimates. Additionally, the Company records receivables from third party insurers when recovery has been determined to be probable.

The Company is subject to laws and regulations relating to protecting the environment. It is difficult to estimate the Company's ultimate level of liability at many remediation sites due to the large number of other parties that may be involved, the complexity of determining the relative liability among those parties, the uncertainty as to the nature and scope of the investigations and remediation to be conducted, the uncertainty in the application of law and risk assessment, the various choices and costs associated with diverse technologies that may be used in corrective actions at the sites, and the often quite lengthy periods over which eventual remediation may occur. It is possible that technological, regulatory or enforcement developments, the results of additional environmental studies or other factors could change the Company's expectations with respect to future charges and cash outlays, and such changes could be material to the Company's future results of operations, financial condition or cash flows. Nevertheless, the Company does not currently believe that any claims, penalties or costs in addition to the amounts accrued will have a material adverse effect on the Company's financial position, results of operations or cash flows. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. Refer to Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements.

The Company records liabilities for its workers' compensation, product, general and auto liabilities. The determination of these liabilities and related expenses is dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. The Company records receivables from third party insurers when recovery has been determined to be probable. The Company maintains captive insurance companies to manage its insurable liabilities.

Asbestos-Related Contingencies and Insurance Receivables

The Company and certain of its subsidiaries along with numerous other companies are named as defendants in personal injury lawsuits based on alleged exposure to asbestos-containing materials. The Company's estimate of the liability and corresponding insurance recovery for pending and future claims and defense costs is based on the Company's historical claim experience, and estimates of the number and resolution cost of potential future claims that may be filed and is discounted to present value from 2068 (which is the Company's reasonable best estimate of the actuarially determined time period through which asbestos-related claims will be filed against Company affiliates). Asbestos-related defense costs are included in the asbestos liability. The Company's legal strategy for resolving claims also impacts these estimates. The Company considers various trends and developments in evaluating the period of time (the look-back period) over which historical claim and settlement experience is used to estimate and value claims reasonably projected to be made through 2068. Annually, the Company assesses the sufficiency of its estimated liability for pending and future claims and defense costs by evaluating actual experience regarding claims filed, settled and dismissed, and amounts paid in settlements. In addition to claims and settlement experience, the Company considers additional quantitative and qualitative factors such as changes in legislation, the legal environment, and the Company's defense strategy. The Company also evaluates the recoverability of its insurance receivable on an annual basis. The

Company evaluates all of these factors and determines whether a change in the estimate of its liability for pending and future claims and defense costs or insurance receivable is warranted.

In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable. The Company's estimate of asbestos-related insurance recoveries represents estimated amounts due to the Company for previously paid and settled claims and the probable reimbursements relating to its estimated liability for pending and future claims discounted to present value. In determining the amount of insurance recoverable, the Company considers available insurance, allocation methodologies, solvency and creditworthiness of the insurers. Refer to Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for a discussion on management's judgments applied in the recognition and measurement of asbestos-related assets and liabilities.

Income Taxes

The Company accounts for income taxes in accordance with ASC 740, "Income Taxes." Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and other loss carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The Company records a valuation allowance that primarily represents non-U.S. operating and other loss carryforwards for which realization is uncertain. Management judgment is required in determining the Company's provision for income taxes, deferred tax assets and liabilities, and the valuation allowance recorded against the Company's net deferred tax assets.

The Company reviews the realizability of its deferred tax asset valuation allowances on a quarterly basis, or whenever events or changes in circumstances indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset are considered, along with any other positive or negative evidence. Since future financial results may differ from previous estimates, periodic adjustments to the Company's valuation allowances may be necessary. At September 30, 2021, the Company had a valuation allowance of \$5.9 billion for continuing operations, of which \$5.2 billion relates to net operating loss carryforwards primarily in France, Germany, Ireland, Luxembourg, Mexico, Spain, United Kingdom and the U.S. for which sustainable taxable income has not been demonstrated; and \$0.7 billion for other deferred tax assets.

The Company's federal income tax returns and certain non-U.S. income tax returns for various fiscal years remain under various stages of audit by the IRS and respective non-U.S. tax authorities. Although the outcome of tax audits is always uncertain, management believes that it has appropriate support for the positions taken on its tax returns and that its annual tax provisions included amounts sufficient to pay assessments, if any, which may be proposed by the taxing authorities. At September 30, 2021, the Company had recorded a liability of \$2.7 billion for its best estimate of the probable loss on certain of its tax positions, the majority of which is included in other noncurrent liabilities in the consolidated statements of financial position. Nonetheless, the amounts ultimately paid, if any, upon resolution of the issues raised by the taxing authorities may differ materially from the amounts accrued for each year.

The Company does not generally provide additional U.S. or non-U.S. income taxes on outside basis differences of consolidated subsidiaries included in shareholders' equity attributable to Johnson Controls International plc, except in limited circumstances including anticipated taxation on planned divestitures. The reduction of the outside basis differences via the sale or liquidation of these subsidiaries and/or distributions could create taxable income. The Company's intent is to reduce the outside basis differences only when it would be tax efficient. Refer to "Capitalization" within the "Liquidity and Capital Resources" section for discussion of U.S. and non-U.S. cash projections.

Refer to Note 19, "Income Taxes," of the notes to consolidated financial statements for the Company's income tax disclosures.

NEW ACCOUNTING PRONOUNCEMENTS

Refer to the "New Accounting Pronouncements" section within Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements.

RISK MANAGEMENT

The Company selectively uses derivative instruments to reduce market risk associated with changes in foreign currency, commodities and stock-based compensation. All hedging transactions are authorized and executed pursuant to clearly defined policies and procedures, which strictly prohibit the use of financial instruments for speculative purposes. At the inception of the

hedge, the Company assesses the effectiveness of the hedge instrument and designates the hedge instrument as either (1) a hedge of a recognized asset or liability or of a recognized firm commitment (a fair value hedge), (2) a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to an unrecognized asset or liability (a cash flow hedge) or (3) a hedge of a net investment in a non-U.S. operation (a net investment hedge). The Company performs hedge effectiveness testing on an ongoing basis depending on the type of hedging instrument used. All other derivatives not designated as hedging instruments under ASC 815, "Derivatives and Hedging," are revalued in the consolidated statements of income.

For all foreign currency derivative instruments designated as cash flow hedges, retrospective effectiveness is tested on a monthly basis using a cumulative dollar offset test. The fair value of the hedged exposures and the fair value of the hedge instruments are revalued, and the ratio of the cumulative sum of the periodic changes in the value of the hedge instruments to the cumulative sum of the periodic changes in the value of the hedge is deemed as highly effective if the ratio is between 80% and 125%. For commodity derivative contracts designated as cash flow hedges, effectiveness is tested using a regression calculation. Ineffectiveness is minimal as the Company aligns most of the critical terms of its derivatives with the supply contracts.

For net investment hedges, the Company assesses its net investment positions in the non-U.S. operations and compares it with the outstanding net investment hedges on a quarterly basis. The hedge is deemed effective if the aggregate outstanding principal of the hedge instruments designated as the net investment hedge in a non-U.S. operation does not exceed the Company's net investment positions in the respective non-U.S. operation.

Equity swaps and any other derivative instruments not designated as hedging instruments under ASC 815 require no assessment of effectiveness.

A discussion of the Company's accounting policies for derivative financial instruments is included in Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements, and further disclosure relating to derivatives and hedging activities is included in Note 11, "Derivative Instruments and Hedging Activities," and Note 12, "Fair Value Measurements," of the notes to consolidated financial statements.

Foreign Exchange

The Company has manufacturing, sales and distribution facilities around the world and thus makes investments and enters into transactions denominated in various foreign currencies. In order to maintain strict control and achieve the benefits of the Company's global diversification, foreign exchange exposures for each currency are netted internally so that only its net foreign exchange exposures are, as appropriate, hedged with financial instruments.

The Company hedges 70% to 90% of the nominal amount of each of its known foreign exchange transactional exposures. The Company primarily enters into foreign currency exchange contracts to reduce the earnings and cash flow impact of the variation of non-functional currency denominated receivables and payables. Gains and losses resulting from hedging instruments offset the foreign exchange gains or losses on the underlying assets and liabilities being hedged. The maturities of the forward exchange contracts generally coincide with the settlement dates of the related transactions. Realized and unrealized gains and losses on these contracts are recognized in the same period as gains and losses on the hedged items. The Company also selectively hedges anticipated transactions that are subject to foreign exchange exposure, primarily with foreign currency exchange contracts, which are designated as cash flow hedges in accordance with ASC 815.

The Company has entered into foreign currency denominated debt obligations to selectively hedge portions of its net investment in non-U.S. subsidiaries. The currency effects of debt obligations are reflected in the accumulated other comprehensive income ("AOCI") account within shareholders' equity attributable to Johnson Controls ordinary shareholders where they offset gains and losses recorded on the Company's net investments globally.

At September 30, 2021 and 2020, the Company estimates that an unfavorable 10% change in the exchange rates would have decreased net unrealized gains by approximately \$213 million and \$363 million, respectively.

Interest Rates

Substantially all of the Company's outstanding debt has fixed interest rates. A 10% increase in the average cost of the Company's variable rate debt would have had an immaterial impact on pre-tax interest expense for the years ended September 30, 2021 and 2020.

Commodities

The Company uses commodity hedge contracts in the financial derivatives market in cases where commodity price risk cannot be naturally offset or hedged through supply base fixed price contracts. Commodity risks are systematically managed pursuant to policy guidelines. As a cash flow hedge, gains and losses resulting from the hedging instruments offset the gains or losses on purchases of the underlying commodities that will be used in the business. The maturities of the commodity hedge contracts coincide with the expected purchase of the commodities.

ENVIRONMENTAL, HEALTH AND SAFETY AND OTHER MATTERS

The Company's global operations are governed by environmental laws and worker safety laws. Under various circumstances, these laws impose civil and criminal penalties and fines, as well as injunctive and remedial relief, for noncompliance and require remediation at sites where Company-related substances have been released into the environment.

The Company has expended substantial resources globally, both financial and managerial, to comply with applicable environmental laws and worker safety laws and to protect the environment and workers. The Company believes it is in substantial compliance with such laws and maintains procedures designed to foster and ensure compliance. However, the Company has been, and in the future may become, the subject of formal or informal enforcement actions or proceedings regarding noncompliance with such laws or the remediation of Company-related substances released into the environment. Such matters typically are resolved with regulatory authorities through commitments to compliance, abatement or remediation programs and in some cases payment of penalties. Historically, neither such commitments nor penalties imposed on the Company have been material.

Refer to Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for additional information.

ITEM 7A QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

See "Risk Management" included in Item 7 - Management's Discussion and Analysis of Financial Condition and Results of Operations.

ITEM 8 FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Johnson Controls International plc

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of Johnson Controls International plc and its subsidiaries (the "Company") as of September 30, 2021 and 2020, and the related consolidated statements of income, of comprehensive income (loss), of shareholders' equity attributable to Johnson Controls ordinary shareholders, and of cash flows for each of the three years in the period ended September 30, 2021, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of September 30, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 30, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2021 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2021, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 9 to the consolidated financial statements, the Company changed the manner in which it accounts for leases as of October 1, 2019.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Silent-Aire from its assessment of internal control over financial reporting as of September 30, 2021 because it was acquired by the Company in a purchase business combination during 2021. We have also excluded Silent-Aire from our audit of internal control over financial reporting. Silent-Aire is a wholly-owned subsidiary of the Company whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting represent less than 1% of each of the related consolidated financial statement amounts as of and for the year ended September 30, 2021.

Definition and Limitations of Internal Control over Financial Reporting

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

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

Critical Audit Matters

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

Uncertain Tax Positions

As described in Note 19 to the consolidated financial statements, the Company has recorded liabilities for uncertain tax positions totaling \$2,726 million, primarily as a non-current liability, as of September 30, 2021. The Company is subject to income taxes in the U.S. and numerous foreign jurisdictions. Judgment is required by management in determining the Company's worldwide provision for income taxes and recording the related income tax assets and liabilities. In the ordinary course of the Company's business, there are many transactions and calculations where the ultimate tax determination is uncertain. As disclosed by management, a liability for the best estimate of the probable loss on certain of the tax positions has been recorded by management. The Company's income tax filings are regularly under audit by tax authorities. The amounts ultimately paid, if any, upon resolution of the issues raised by the taxing authorities may differ materially from the amounts accrued for each year.

The principal considerations for our determination that performing procedures relating to uncertain tax positions is a critical audit matter are (i) the significant judgment by management in identifying and recording the estimated probable loss for each uncertain tax position; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures to evaluate the identification and accurate measurement of uncertain tax positions, (iii) the evaluation of audit evidence available to support the tax liabilities for uncertain tax positions is complex and resulted in significant auditor judgment as the nature of the evidence is often highly subjective; and (iv) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's assessment of uncertain tax positions, including controls over the identification and estimate of probable loss for uncertain tax positions. These procedures also included, among others (i) for a sample of uncertain tax positions by jurisdiction, testing the information used in the calculation of the estimate of probable loss and testing the calculation of the estimate of

probable loss; (ii) testing the completeness of management's assessment of the identification of uncertain tax positions; and (iii) evaluating the status and results of income tax audits with the relevant tax authorities, as applicable. Professionals with specialized skill and knowledge were used to assist in the evaluation of the completeness and measurement of the Company's uncertain tax positions, including evaluating the reasonableness of management's assessment of whether tax positions are more-likely-than-not of being sustained and the amount of potential benefit to be realized, and the application of relevant tax laws.

/s/ PricewaterhouseCoopers LLP Milwaukee, Wisconsin November 15, 2021

We have served as the Company's auditor since 1957.

Johnson Controls International plc Consolidated Statements of Income

	Year	End	ed Septembe	er 30	,
(in millions, except per share data)	2021		2020		2019
Net sales					
Products and systems	\$ 17,202	\$	16,253	\$	17,711
Services	 6,466		6,064		6,257
	 23,668		22,317		23,968
Cost of sales	11.040		11 401		10 577
Products and systems Services	11,848		11,401		12,577
Services	 3,761		3,505 14,906		3,698
	 15,009		14,900		10,275
Gross profit	8,059		7,411		7,693
Selling, general and administrative expenses	(5,258)		(5,665)		(6,244)
Restructuring and impairment costs	(242)		(783)		(235)
Net financing charges	(206)		(231)		(350)
Equity income	 261		171		192
Income from continuing operations before income taxes	2,614		903		1,056
Income tax provision (benefit)	 868		108		(233)
Income from continuing operations	1,746		795		1,289
Income from discontinued operations, net of tax (Note 3)	 124				4,598
Net income	1,870		795		5,887
Income from continuing operations attributable to noncontrolling interests	233		164		189
Income from discontinued operations attributable to noncontrolling interests	 				24
Net income attributable to Johnson Controls	\$ 1,637	\$	631	\$	5,674
Amounts attributable to Johnson Controls ordinary shareholders:					
Income from continuing operations	\$ 1,513	\$	631	\$	1,100
Income from discontinued operations	124				4,574
Net income	\$ 1,637	\$	631	\$	5,674
Basic earnings per share attributable to Johnson Controls					
Continuing operations	\$ 2.11	\$	0.84	\$	1.26
Discontinued operations	0.17		_		5.26
Net income	\$ 2.28	\$	0.84	\$	6.52
Diluted earnings per share attributable to Johnson Controls					
Continuing operations	\$ 2.10	\$	0.84	\$	1.26
Discontinued operations	0.17		_		5.23
Net income	\$ 2.27	\$	0.84	\$	6.49

Johnson Controls International plc Consolidated Statements of Comprehensive Income (Loss)

	Year Ended September 30,								
(in millions)		2021	2020			2019			
Net income	\$	1,870	\$	795	\$	5,887			
Other comprehensive income (loss), net of tax:									
Foreign currency translation adjustments		376		25		(342)			
Realized and unrealized gains (losses) on derivatives		(18)		8		6			
Pension and postretirement plans		4		8		(6)			
Other comprehensive income (loss)		362		41		(342)			
Total comprehensive income		2,232		836		5,545			
Comprehensive income attributable to noncontrolling interests		253		186		195			
Comprehensive income attributable to Johnson Controls	\$	1,979	\$	650	\$	5,350			

Johnson Controls International plc Consolidated Statements of Financial Position

	Septem	iber 3	0,
(in millions, except par value and share data)	2021		2020
Assets			
Cash and cash equivalents	\$ 1,336	\$	1,951
Accounts receivable - net	5,613		5,294
Inventories	2,057		1,773
Other current assets	 992		1,035
Current assets	9,998		10,053
Property, plant and equipment - net	3,228		3,059
Goodwill	18,335		17,932
Other intangible assets - net	5,549		5,356
Investments in partially-owned affiliates	1,066		914
Noncurrent assets held for sale	156		147
Other noncurrent assets	3,558		3,354
Total assets	\$ 41,890	\$	40,815
Liabilities and Equity			
Short-term debt	\$ 8	\$	31
Current portion of long-term debt	226		262
Accounts payable	3,746		3,120
Accrued compensation and benefits	1,008		838
Deferred revenue	1,637		1,435
Other current liabilities	 2,473		2,562
Current liabilities	 9,098		8,248
Long-term debt	7,506		7,526
Pension and postretirement benefits	628		1,140
Other noncurrent liabilities	 5,905		5,368
Long-term liabilities	 14,039		14,034
Commitments and contingencies (Note 23)			
Ordinary shares (par value \$0.01; 2.0 billion shares authorized; shares issued: 2021 - 737,090,363; 2020 - 753,907,315)	7		8
Ordinary A shares (par value €1.00; 40,000 shares authorized, none outstanding as of September 30, 2021 and 2020)			
Preferred shares (par value \$0.01; 200,000,000 shares authorized, none outstanding as of September 30, 2021 and 2020)	_		
	—		—
Ordinary shares held in treasury, at cost (shares held: 2021 - 28,356,889; 2020 - 27,684,632)	(1,152)		(1,119)
Capital in excess of par value	17,116		16,865
Retained earnings	2,025		2,469
Accumulated other comprehensive loss	(434)		(776)
Shareholders' equity attributable to Johnson Controls	17,562		17,447
Noncontrolling interests	1,191		1,086
Total equity	18,753		18,533
Total liabilities and equity	\$ 41,890	\$	40,815

Johnson Controls International plc Consolidated Statements of Cash Flows

	Yea	r Ended September	r 30,
(in millions)	2021	2020	2019
Operating Activities of Continuing Operations			
Net income from continuing operations attributable to Johnson Controls	\$ 1,513	\$ 631	\$ 1,100
Income from continuing operations attributable to noncontrolling interests	233	164	189
Net income from continuing operations	1,746	795	1,289
Adjustments to reconcile net income from continuing operations to cash provided by operating activities:			
Depreciation and amortization	845	822	825
Pension and postretirement benefit expense (income)	(551)	118	515
Pension and postretirement contributions	(68)	(61)	(53)
Equity in earnings of partially-owned affiliates, net of dividends received	(117)	(36)	(34)
Deferred income taxes	36	(537)	612
Non-cash restructuring and impairment charges	98 76	582 74	235 95
Equity-based compensation	(85)	(90)	29
Other - net	(65)	(90)	29
Changes in assets and liabilities, excluding acquisitions and divestitures:	(143)	534	(312)
Accounts receivable	(219)	45	(72)
Inventories Other assets	(164)	(52)	(99)
Restructuring reserves	(44)	(29)	(121)
Accounts payable and accrued liabilities	813	(717)	56
Accrued income taxes	328	1,031	(1,222)
Cash provided by operating activities from continuing operations	2,551	2,479	1,743
		7 **	· · ·
Investing Activities of Continuing Operations	(552)	(443)	(586)
Capital expenditures	(332)	(143)	27
Sale of property, plant and equipment	(725)	(77)	(25)
Acquisition of businesses, net of cash acquired Business divestitures, net of cash divested	(725)	135	12
Changes in long-term investments	8		25
Proceeds from equity swap	35	_	14
Other - net	1	_	
Cash used by investing activities from continuing operations	(1,090)	(258)	(533)
Financing Activities of Continuing Operations			
Decrease in short-term debt - net	(17)	(33)	(1,296)
Increase in long-term debt	496	1,804	—
Repayment of long-term debt	(507)	(1,386)	(2,333)
Debt financing costs	(3)	(12)	—
Stock repurchases and retirements	(1,307)	(2,204)	(5,983)
Payment of cash dividends	(762)	(790)	(920)
Proceeds from the exercise of stock options	178	75	171
Dividends paid to noncontrolling interests	(142)	(114)	(132)
Cash received related to prior acquisitions and divestitures, net	1	2	4
Employee equity-based compensation withholding taxes	(33)	(34)	(31)
Cash paid to acquire a noncontrolling interest	(14)	(132)	1
Other - net Cash used by financing activities from continuing operations	(21) (2,131)	(2,824)	(10,519)
Discontinued Operations	(-,)	(-,)	(-,>)
Cash used by operating activities	(64)	(260)	(541)
Cash provided by investing activities		_	12,611
Cash used by financing activities	_	(113)	(35)
Cash provided (used) by discontinued operations	(64)	(373)	12,035
Effect of exchange rate changes on cash, cash equivalents and restricted cash	116	115	(120)
Change in cash, cash equivalents and restricted cash held for sale	_	_	15
Increase (decrease) in cash, cash equivalents and restricted cash	(618)	(861)	2,621
Cash, cash equivalents and restricted cash at beginning of period	1,960	2,821	200
Cash, cash equivalents and restricted cash at end of period	1,342	1,960	2,821
Less: Restricted cash	6	9	16
Cash and cash equivalents at end of period	\$ 1,336	\$ 1,951	\$ 2,805
The accompanying notes are an integral part of the consolidated financial statements.			

Johnson Controls International plc Consolidated Statements of Shareholders' Equity Attributable to Johnson Controls Ordinary Shareholders

(in millions, except per share data)	Total	Ordinary Shares	E	apital in xcess of ar Value	etained arnings	reasury Stock, at Cost	Accumulated Other Comprehensive Income (Loss)
At September 30, 2018	\$ 21,164	\$ 10	\$	16,549	\$ 6,604	\$ (1,053)	\$ (946)
Comprehensive income (loss)	5,350				5,674		(324)
Cash dividends Ordinary (\$1.04 per share)	(887)				(887)		_
Repurchases and retirements of ordinary shares	(5,983)	(2)		—	(5,981)		
Divestiture of Power Solutions	483						483
Adoption of ASC 606	(45)				(45)		
Adoption of ASU 2016-01					8		(8)
Adoption of ASU 2016-16	(546)				(546)		
Other, including options exercised	230			263		(33)	—
At September 30, 2019	19,766	8		16,812	4,827	(1,086)	(795)
Comprehensive income	650				631		19
Cash dividends Ordinary (\$1.04 per share)	(780)	_			(780)	_	_
Repurchases and retirements of ordinary shares	(2,204)	—		—	(2,204)	—	
Adoption of ASC 842	(5)				(5)		
Change in noncontrolling interest share	(83)			(83)			
Other, including options exercised	103	 		136		(33)	
At September 30, 2020	17,447	8		16,865	2,469	(1,119)	(776)
Comprehensive income	1,979	—		—	1,637	—	342
Cash dividends Ordinary (\$1.07 per share)	(771)				(771)		_
Repurchases and retirements of ordinary shares	(1,307)	(1)			(1,306)		
Adoption of ASU 2016-13	(4)			—	(4)		
Change in noncontrolling interest share	(8)			(8)			
Other, including options exercised	226			259		(33)	
At September 30, 2021	\$ 17,562	\$ 7	\$	17,116	\$ 2,025	\$ (1,152)	\$ (434)

Johnson Controls International plc Notes to Consolidated Financial Statements

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements include the consolidated accounts of Johnson Controls International plc, a corporation organized under the laws of Ireland, and its subsidiaries (Johnson Controls International plc and all its subsidiaries, hereinafter collectively referred to as the "Company," "Johnson Controls" or "JCI plc").

Nature of Operations

Johnson Controls International plc, headquartered in Cork, Ireland, is a global diversified technology and multi-industrial leader, serving a wide range of customers in more than 150 countries. The Company's products and solutions enable smart, energy efficient, sustainable buildings that work seamlessly together to advance the safety, comfort and intelligence of spaces to power its customers' mission. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

In 2019, the Company sold its Power Solutions business to BCP Acquisitions LLC ("Purchaser"), an entity controlled by investment funds managed by Brookfield Capital Partners LLC, completing the Company's transformation into a pure-play building technologies and solutions provider. The transaction closed on April 30, 2019 with net cash proceeds of \$11.6 billion after tax and transaction-related expenses. Refer to Note 3, "Discontinued Operations," of the notes to consolidated financial statements for further information.

The Company is a global leader in engineering, manufacturing and commissioning building products and systems, including residential and commercial heating, ventilating, air-conditioning ("HVAC") equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. The Company further serves customers by providing technical services, including maintenance, repair, retrofit and replacement of equipment (in the HVAC, security and fire-protection space), energy-management consulting and data-driven "smart building" services and solutions powered by its digital platforms and capabilities.

Principles of Consolidation

The consolidated financial statements include the consolidated accounts of Johnson Controls International plc and its subsidiaries that are consolidated in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). All significant intercompany transactions have been eliminated. The results of companies acquired or disposed of during the year are included in the consolidated financial statements from the effective date of acquisition or up to the date of disposal. Investments in partially-owned affiliates are accounted for by the equity method when the Company's interest exceeds 20% and the Company does not have a controlling interest.

The Company consolidates variable interest entities ("VIE") in which the Company has the power to direct the significant activities of the entity and the obligation to absorb losses or receive benefits from the entity that may be significant. The Company did not have a significant variable interest in any consolidated or nonconsolidated VIEs in its continuing operations for the presented reporting periods.

Use of Estimates

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

Fair Value of Financial Instruments

The fair values of cash and cash equivalents, accounts receivable, short-term debt and accounts payable approximate their carrying values. See Note 11, "Derivative Instruments and Hedging Activities," and Note 12, "Fair Value Measurements," of the notes to consolidated financial statements for fair value of financial instruments, including derivative instruments, hedging activities and long-term debt.

Assets and Liabilities Held for Sale

The Company classifies assets and liabilities (disposal groups) to be sold as held for sale in the period in which all of the following criteria are met: management, having the authority to approve the action, commits to a plan to sell the disposal group; the disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such disposal groups; an active program to locate a buyer and other actions required to complete the plan to sell the disposal group have been initiated; the sale of the disposal group is probable, and transfer of the disposal group is expected to qualify for recognition as a completed sale within one year, except if events or circumstances beyond the Company's control extend the period of time required to sell the disposal group beyond one year; the disposal group is being actively marketed for sale at a price that is reasonable in relation to its current fair value; and actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

The Company initially measures a disposal group that is classified as held for sale at the lower of its carrying value or fair value less any costs to sell. Any loss resulting from this measurement is recognized in the period in which the held for sale criteria are met. Conversely, gains are not recognized on the sale of a disposal group until the date of sale. The Company assesses the fair value of a disposal group, less any costs to sell, each reporting period it remains classified as held for sale and reports any subsequent changes as an adjustment to the carrying value of the disposal group, as long as the new carrying value does not exceed the carrying value of the disposal group at the time it was initially classified as held for sale.

Upon determining that a disposal group meets the criteria to be classified as held for sale, the Company reports the assets and liabilities of the disposal group, if material, in the line items assets held for sale and liabilities held for sale in the consolidated statements of financial position. Refer to Note 3, "Discontinued Operations," of the notes to consolidated financial statements for further information.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Restricted Cash

At September 30, 2021 and September 30, 2020, the Company held restricted cash of approximately \$6 million and \$9 million, respectively all of which was recorded within other current assets in the consolidated statements of financial position. These amounts related to cash restricted for payment of asbestos liabilities.

Receivables

Receivables consist of amounts billed and currently due from customers and unbilled costs and accrued profits related to revenues on long-term contracts that have been recognized for accounting purposes but not yet billed to customers. The Company extends credit to customers in the normal course of business and maintains an allowance for expected credit losses resulting from the inability or unwillingness of customers to make required payments. The allowance for expected credit losses is based on historical experience, existing economic conditions, reasonable and supportable forecasts, and any specific customer collection issues the Company has identified. The Company enters into various factoring agreements to sell certain accounts receivable to third-party financial institutions. For ease of administration, the Company collects customer payments related to certain factored receivables on behalf of the financial institutions but otherwise maintains no other continuing involvement with respect to the factored receivables. Sales of accounts receivable are reflected as a reduction of accounts receivable in the consolidated statements of financial position and the proceeds are included in cash flows from operating activities in the consolidated statements of cash flows.

Inventories

Inventories are stated at the lower of cost or net realizable value using the first-in, first-out ("FIFO") method. Finished goods and work-in-process inventories include material, labor and manufacturing overhead costs.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation is provided over the estimated useful lives of the respective assets using the straight-line method for financial reporting purposes and accelerated methods for income tax purposes. The estimated useful lives generally range from 3 to 40 years for buildings and improvements, subscriber systems up to 15 years,

and from 3 to 15 years for machinery and equipment. The Company capitalizes interest on borrowings during the active construction period of major capital projects. Capitalized interest is added to the cost of the underlying assets and is amortized over the useful lives of the assets.

Goodwill and Indefinite-Lived Intangible Assets

Goodwill reflects the cost of an acquisition in excess of the fair values assigned to identifiable net assets acquired. The Company reviews goodwill for impairment during the fourth fiscal quarter or more frequently if events or changes in circumstances indicate the asset might be impaired. The Company performs impairment reviews for its reporting units, which have been determined to be the Company's reportable segments or one level below the reportable segments in certain instances, using a fair value method based on management's judgments and assumptions or third party valuations. The fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. In estimating the fair value, the Company uses the multiples of earnings approach based on the average of published multiples of earnings of comparable entities with similar operations and economic characteristics and applies the multiples to the Company's average of historical and future financial results for each reporting unit. In certain instances, the Company uses discounted cash flow analyses or estimated sales price to further support the fair value estimates. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement." The estimated fair value is then compared with the carrying amount of the reporting unit, including recorded goodwill. The Company is subject to financial statement risk to the extent that the carrying amount exceeds the estimated fair value. Refer to Note 8, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for information regarding the goodwill impairment testing performed in fiscal years 2021, 2020 and 2019.

Indefinite-lived intangible assets are also subject to at least annual impairment testing. Indefinite-lived intangible assets primarily consist of trademarks and trade names and are tested for impairment using a relief-from-royalty method. A considerable amount of management judgment and assumptions are required in performing the impairment tests.

Leases

Lessee arrangements

The Company leases certain administrative, production and other facilities, fleet vehicles, information technology equipment and other equipment under arrangements that are accounted for as operating leases. The Company determines whether an arrangement contains a lease at contract inception based on whether the arrangement involves the use of a physically distinct identified asset and whether the Company has the right to obtain substantially all of the economic benefits from the use of the asset throughout the period as well as the right to direct the use of the asset.

Right-of-use assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. Right-of-use assets and the corresponding lease liabilities are recognized at commencement date based on the present value of lease payments for all leases with terms longer than twelve months. As the majority of the Company's leases do not provide an implicit interest rate, to determine the present value of lease payments, the Company uses its incremental borrowing rate based on information available on the lease commencement date and uses the implicit rate when readily determinable. The Company determines its incremental borrowing rate based on a comparable market yield curve consistent with its credit rating, term of the lease and relative economic environment. The Company has elected to combine lease and nonlease components for its leases.

Lessor arrangements

The Company's monitoring services and maintenance agreements within its security business that include subscriber system assets for which the Company retains ownership contain both lease and nonlease components. The Company has elected to combine lease and nonlease components for these arrangements where the timing and pattern of transfer of the lease and nonlease components are the same and the lease component would be classified as an operating lease if accounted for separately. The Company has concluded that in these arrangements the nonlease components are the predominant characteristic, and as a result, the combined component is accounted for under the revenue guidance.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, including right-of-use assets under operating leases, other tangible assets and intangible assets with definitive lives, for impairment whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. The Company conducts its long-lived asset impairment analyses in accordance with

ASC 360-10-15, "Impairment or Disposal of Long-Lived Assets," ASC 350-30, "General Intangibles Other than Goodwill" and ASC 985-20, "Costs of Software to be Sold, Leased, or Marketed."

The Company groups assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities and evaluates the asset group against the sum of the undiscounted future cash flows. If the undiscounted cash flows do not indicate the carrying amount of the asset group is recoverable, an impairment charge is measured as the amount by which the carrying amount of the asset group exceeds its fair value based on discounted cash flow analysis or appraisals. Intangible assets acquired in a business combination that are used in research and development activities are considered indefinite-lived until the completion or abandonment of the associated research and development efforts. During the period that those assets are considered indefinite lived, they are not amortized but are tested for impairment annually and more frequently if events or changes in circumstances indicate that it is more likely than not that the asset is impaired. If the carrying amount of an intangible asset exceeds its fair value, the Company recognizes an impairment loss in an amount equal to that excess. Unamortized capitalized costs of a computer software product are compared to the net realizable value of the product. The amount by which the unamortized capitalized costs of a computer software product exceed the net realizable value of that asset is written off. Refer to Note 18, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for information regarding the impairment testing performed in fiscal years 2021, 2020 and 2019.

Revenue Recognition

The Company recognizes revenue from certain long-term contracts to design, manufacture and install building products and systems as well as unscheduled repair or replacement services on an over time basis, with progress towards completion measured using a cost-to-cost input method based on the relationship between actual costs incurred and total estimated costs at completion. The cost-to-cost input method is used as it best depicts the transfer of control to the customer that occurs as the Company incurs costs. Changes to the original estimates may be required during the life of the contract and such estimates are reviewed monthly. If contract modifications result in additional goods or services that are distinct from those transferred before the modification are not distinct from those in the original contract, sales and gross profit are adjusted using the cumulative catch-up method for revisions in estimated total contract costs and contract values. Estimated losses are recorded when identified. The Company does not adjust the promised amount of consideration for the effects of a significant financing component as at contract inception the Company expects to receive the payment within twelve months of transfer of goods or services.

The Company enters into extended warranties and long-term service and maintenance agreements with certain customers. For these arrangements, revenue is recognized over time on a straight-line basis over the respective contract term.

The Company also sells certain HVAC and refrigeration products and services in bundled arrangements with multiple performance obligations, such as equipment, commissioning, service labor and extended warranties. Approximately four to twelve months separate the timing of the first deliverable until the last piece of equipment is delivered, and there may be extended warranty arrangements with duration of one to five years commencing upon the end of the standard warranty period. In addition, the Company sells security monitoring systems that may have multiple performance obligations, including equipment, installation, monitoring services and maintenance agreements. Revenues associated with the sale of equipment and related installations are recognized over time on a cost-to-cost input method, while the revenue for monitoring and maintenance services are recognized over time as services are rendered. The transaction price is allocated to each performance obligation based on the relative selling price is not directly observable, the Company estimates the standalone selling price using an adjusted market assessment approach or expected cost plus margin approach. For transactions in which the Company retains ownership of the subscriber system asset, fees for monitoring and maintenance services are recognized over time on a straight-line basis over the contract term. Non-refundable fees received in connection with the initiation of a monitoring contract, along with associated direct and incremental selling costs, are deferred and amortized over the estimated life of the contract.

In all other cases, the Company recognizes revenue at the point in time when control over the goods or services transfers to the customer.

The Company considers the contractual consideration payable by the customer and assesses variable consideration that may affect the total transaction price, including discounts, rebates, refunds, credits or other similar sources of variable consideration, when determining the transaction price of each contract. The Company includes variable consideration in the estimated transaction price when it is probable that significant reversal of revenue recognized would not occur when the uncertainty associated with variable consideration is subsequently resolved. These estimates are based on the amount of consideration that the Company expects to be entitled to.

Shipping and handling costs billed to customers are included in sales and the related costs are included in cost of sales when control transfers to the customer. The Company presents amounts collected from customers for sales and other taxes net of the related amounts remitted.

Subscriber System Assets, Dealer Intangibles and Related Deferred Revenue Accounts

The Company considers assets related to the acquisition of new customers in its electronic security business in three asset categories: internally generated residential subscriber systems outside of North America, internally generated commercial subscriber systems (collectively referred to as subscriber system assets) and customer accounts acquired through the ADT dealer program, primarily outside of North America (referred to as dealer intangibles). Subscriber system assets include installed property, plant and equipment for which the Company retains ownership and deferred costs directly related to the customer acquisition and system installation. Subscriber system assets represent capitalized equipment (e.g. security control panels, touch pad, motion detectors, window sensors, and other equipment) and installation costs associated with electronic security monitoring arrangements under which the Company retains ownership of the security system assets in a customer's place of business, or outside of North America, residence. Installation costs represent costs incurred to prepare the asset for its intended use. The Company pays property taxes on the subscriber system assets and upon customer termination, may retrieve such assets. These assets embody a probable future economic benefit as they generate future monitoring revenue for the Company.

Costs related to the subscriber system equipment and installation are categorized as property, plant and equipment rather than deferred costs. Deferred costs associated with subscriber system assets represent direct and incremental selling expenses (such as commissions) related to acquiring the customer. Commissions related to up-front consideration paid by customers in connection with the establishment of the monitoring arrangement are determined based on a percentage of the up-front fees and do not exceed deferred revenue. Such deferred costs are recorded as other current and noncurrent assets within the consolidated statements of financial position.

Subscriber system assets and any deferred revenue resulting from the customer acquisition are accounted for over the expected life of the subscriber. In certain geographical areas where the Company has a large number of customers that behave in a similar manner over time, the Company accounts for subscriber system assets and related deferred revenue using pools, with separate pools for the components of subscriber system assets and any related deferred revenue based on the same month and year of acquisition. The Company depreciates its pooled subscriber system assets and related deferred revenue using a straight-line method with lives up to 12 years and considering customer attrition. The Company uses a straight-line method with a 15-year life for non-pooled subscriber system assets (primarily in Europe, Latin America and Asia) and related deferred revenue, with remaining balances written off upon customer termination.

Certain contracts and related customer relationships result from purchasing residential security monitoring contracts from an external network of independent dealers who operate under the ADT dealer program, primarily outside of North America. Acquired contracts and related customer relationships are recorded at their contractually determined purchase price.

During the first 6 months (12 months in certain circumstances) after the purchase of the customer contract, any cancellation of monitoring service, including those that result from customer payment delinquencies, results in a chargeback by the Company to the dealer for the full amount of the contract purchase price. The Company records the amount charged back to the dealer as a reduction of the previously recorded intangible asset.

Intangible assets arising from the ADT dealer program described above are amortized in pools determined by the same month and year of contract acquisition on a straight-line basis over the period of the customer relationship. The estimated useful life of dealer intangibles ranges from 12 to 15 years.

Research and Development Costs

Expenditures for research activities relating to product development and improvement are charged against income as incurred and included within selling, general and administrative expenses for continuing operations in the consolidated statements of income. Such expenditures for the years ended September 30, 2021, 2020 and 2019 were \$275 million, \$274 million and \$319 million, respectively.

Earnings Per Share

The Company presents both basic and diluted EPS amounts. Basic EPS is calculated by dividing net income attributable to Johnson Controls by the weighted average number of ordinary shares outstanding during the reporting period. Diluted EPS is calculated by dividing net income attributable to Johnson Controls by the weighted average number of ordinary shares and ordinary equivalent shares outstanding during the reporting period that are calculated using the treasury stock method for stock options, unvested restricted stock and unvested performance share awards. The treasury stock method assumes that the Company uses the proceeds from the exercise of stock option awards to repurchase ordinary shares at the average market price during the period. The assumed proceeds under the treasury stock method include the purchase price that the grantee will pay in the future and compensation cost for future service that the Company has not yet recognized. For unvested restricted stock and unvested performance share awards, assumed proceeds under the treasury stock method include unamortized compensation cost. See Note 14, "Earnings per Share," of the notes to consolidated financial statements for the calculation of earnings per share.

Foreign Currency Translation

Substantially all of the Company's international operations use the respective local currency as the functional currency. Assets and liabilities of international entities have been translated at period-end exchange rates, and income and expenses have been translated using average exchange rates for the period. Monetary assets and liabilities denominated in non-functional currencies are adjusted to reflect period-end exchange rates. The aggregate transaction gains (losses), net of the impact of foreign currency hedges, included in income from continuing operations for the years ended September 30, 2021, 2020 and 2019 were \$56 million, \$(32) million and \$(10) million, respectively.

Derivative Financial Instruments

The Company has written policies and procedures that place all financial instruments under the direction of Corporate treasury and restrict all derivative transactions to those intended for hedging purposes. The use of financial instruments for speculative purposes is strictly prohibited. The Company selectively uses financial instruments to manage the market risk from changes in foreign exchange rates, commodity prices, stock-based compensation liabilities and interest rates.

The fair values of all derivatives are recorded in the consolidated statements of financial position. The change in a derivative's fair value is recorded each period in current earnings or accumulated other comprehensive income ("AOCI"), depending on whether the derivative is designated as part of a hedge transaction and if so, the type of hedge transaction. See Note 11, "Derivative Instruments and Hedging Activities," and Note 12, "Fair Value Measurements," of the notes to consolidated financial statements for disclosure of the Company's derivative instruments and hedging activities.

Investments

The Company invests in debt and equity securities which are marked to market at the end of each accounting period. Unrealized gains and losses on these securities are recognized in the Company's consolidated statements of income. The deferred compensation plan assets are marked to market at the end of each accounting period and all unrealized gains and losses are recorded in the consolidated statements of income.

Pension and Postretirement Benefits

The Company utilizes a mark-to-market approach for recognizing pension and postretirement benefit expenses, including measuring the market related value of plan assets at fair value and recognizing actuarial gains and losses in the fourth quarter of each fiscal year or at the date of a remeasurement event. Refer to Note 16, "Retirement Plans," of the notes to consolidated financial statements for disclosure of the Company's pension and postretirement benefit plans.

Loss Contingencies

Accruals are recorded for various contingencies including legal proceedings, environmental matters, self-insurance and other claims that arise in the normal course of business. The accruals are based on judgment, the probability of losses and, where applicable, the consideration of opinions of internal and/or external legal counsel and actuarially determined estimates. Additionally, the Company records receivables from third party insurers when recovery has been determined to be probable.

The Company is subject to laws and regulations relating to protecting the environment. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. Refer to Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements.

The Company records liabilities for its workers' compensation, product, general and auto liabilities. The determination of these liabilities and related expenses is dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. The Company records receivables from third party insurers when recovery has been determined to be probable. The Company maintains captive insurance companies to manage its insurable liabilities.

Asbestos-Related Contingencies and Insurance Receivables

The Company and certain of its subsidiaries along with numerous other companies are named as defendants in personal injury lawsuits based on alleged exposure to asbestos-containing materials. The Company's estimate of the liability and corresponding insurance recovery for pending and future claims and defense costs is based on the Company's historical claim experience, and estimates of the number and resolution cost of potential future claims that may be filed and is discounted to present value from 2068 (which is the Company's reasonable best estimate of the actuarially determined time period through which asbestos-related claims will be filed against Company affiliates). Asbestos-related defense costs are included in the asbestos liability. The Company's legal strategy for resolving claims also impacts these estimates. The Company considers various trends and developments in evaluating the period of time (the look-back period) over which historical claim and settlement experience is used to estimate and value claims reasonably projected to be made through 2068. Annually, the Company assesses the sufficiency of its estimated liability for pending and future claims and defense costs by evaluating actual experience regarding claims filed, settled and dismissed, and amounts paid in settlements. In addition to claims and settlement experience, the Company's defense strategy. The Company also evaluates the recoverability of its insurance receivable on an annual basis. The Company evaluates all of these factors and determines whether a change in the estimate of its liability for pending and future claims should be recoverability of its insurance receivable on an annual basis. The Company evaluates all of these factors and determines whether a change in the estimate of its liability for pending and future claims and defense costs or insurance receivable is warranted.

In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable. The Company's estimate of asbestos-related insurance recoveries represents estimated amounts due to the Company for previously paid and settled claims and the probable reimbursements relating to its estimated liability for pending and future claims discounted to present value. In determining the amount of insurance recoverable, the Company considers available insurance, allocation methodologies, solvency and creditworthiness of the insurers. Refer to Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for a discussion on management's judgments applied in the recognition and measurement of asbestos-related assets and liabilities.

Income Taxes

Deferred tax liabilities and assets are recognized for the expected future tax consequences of events that have been reflected in the consolidated financial statements. Deferred tax liabilities and assets are determined based on the differences between the book and tax basis of particular assets and liabilities and operating loss carryforwards, using tax rates in effect for the years in which the differences are expected to reverse. A valuation allowance is provided to reduce the carrying or book value of deferred tax assets if, based upon the available evidence, including consideration of tax planning strategies, it is more-likely-than-not that some or all of the deferred tax assets will not be realized. Refer to Note 19, "Income Taxes," of the notes to consolidated financial statements.

Retrospective Changes

Certain amounts as of September 30, 2020 and 2019 have been revised to conform to the current year's presentation.

New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." ASU No. 2016-13 and its related amendments replace the previous expected credit loss methodology with a new incurred loss methodology. The new standard applies to financial instruments, including, but not limited to, trade receivables. Under the new standard, companies must consider historical information, current conditions and a reasonable forecast period when estimating credit losses. The Company adopted ASU No. 2016-13 and the related amendments

effective October 1, 2020. The adoption did not have a material impact on the Company's consolidated financial statements. Refer to Note 5, "Accounts Receivable, Net," of the notes to the consolidated financial statements for further information.

Recently Issued Accounting Pronouncements

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," which requires contract assets and contract liabilities (e.g. deferred revenue) acquired in a business combination to be recognized and measured by the acquirer on the acquisition date in accordance with ASC 606, "Revenue from Contracts with Customers." Generally, this new guidance will result in the acquirer recognizing contract assets and contract liabilities at the same amounts recorded by the acquiree. Historically, such amounts were recognized by the acquirer at fair value in acquisition accounting. The guidance should be applied prospectively to acquisitions occurring on or after the effective date. The guidance is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years (October 1, 2023 for the Company). Early adoption is permitted, including in interim periods, for any financial statements that have not yet been issued. The impact of the new standard will depend on the magnitude of future acquisitions.

Other recently issued accounting pronouncements are not expected to have a material impact on the Company's consolidated financial statements.

2. ACQUISITIONS AND DIVESTITURES

Fiscal Year 2021

Silent-Aire Acquisition

In May 2021, the Company completed its acquisition of Silent-Aire, a global leader in hyperscale data center cooling and modular critical infrastructure solutions, for approximately \$755 million, net of cash acquired, which is comprised of an upfront net cash payment of approximately \$661 million, the estimated fair value of contingent earn-out liabilities of approximately \$86 million and a working capital adjustment of \$8 million. The contingent earn-out liabilities are based upon the achievement of certain defined operating results in each of the three years following the acquisition, with a maximum payout of approximately \$250 million. The fair value of contingent earn-out liabilities is reassessed on a quarterly basis and could differ materially from the initial estimates. Subsequent changes in the estimated fair value of contingent earn-out liabilities will be recorded in the consolidated statements of income when incurred. The earn-out payments that are less than or equal to the contingent earn-out liabilities on the acquisition date are reflected as financing cash outflows. The Silent-Aire business is reported within the Global Products segment.

In connection with the acquisition, the Company recorded goodwill of \$244 million in the Global Products segment. Goodwill is attributable primarily to expected synergies, expanded market opportunities and other benefits that the Company believes will result from combining its operations with the operations of Silent-Aire. The goodwill created in the acquisition is not deductible for tax purposes.

The fair values of the assets acquired and liabilities assumed related to Silent-Aire are as follows (in millions):

Cash and cash equivalents	\$ 5	
Accounts receivable	141	
Inventories	60)
Other current assets	4	
Property, plant, and equipment - net	33	i
Goodwill	244	ļ
Intangible assets - net	497	,
Other noncurrent assets	84	
Total assets acquired	\$ 1,068	;
Accounts payable	62	
Accrued compensation and benefits	6)
Deferred revenue	32	
Other current liabilities	12	
Other noncurrent liabilities	196	_
Other noncurrent liabilities Total liabilities acquired	\$ 308	_
		}

The purchase price allocation to identifiable intangible assets acquired related to Silent-Aire are as follows:

	Fair (in m	Weighted Average Life (in years)	
Customer relationships	\$	291	19
Technology		116	13
Other definite-lived intangibles		23	1
Indefinite-lived trademarks		67	
Total identifiable intangible assets	\$	497	

Other acquisitions and divestitures

During fiscal 2021, the Company completed certain additional acquisitions for a combined purchase price, net of cash acquired, of \$81 million, of which \$64 million was paid as of September 30, 2021. In connection with these acquisitions and final purchase price allocation adjustments from fiscal 2020 acquisitions, the Company recorded goodwill of \$35 million within the Building Solutions EMEA/LA segment and \$21 million within the Building Solutions North America segment. The acquisitions were not material to the Company's consolidated financial statements.

During fiscal 2021, the Company completed certain divestitures within the Buildings Solutions Asia Pacific segment. The combined selling price was \$27 million, of which \$19 million was received as of September 30, 2021. In connection with the divestitures, the Company reduced goodwill by \$7 million.

Fiscal Year 2020

During fiscal 2020, the Company completed certain acquisitions for a combined purchase price, net of cash acquired, of \$82 million, of which \$77 million was paid as of September 30, 2020. In connection with the acquisitions, the Company recorded goodwill of \$35 million within the Building Solutions EMEA/LA segment and \$21 million within the Global Products segment. The acquisitions were not material to the Company's consolidated financial statements.

Additionally, in the fourth quarter of fiscal 2020, the Company acquired additional ownership interest in one of its consolidated subsidiaries within the Global Products segment for a purchase price of \$132 million, all of which was paid as of September 30, 2020. In connection with this transaction, the Company recorded a compensation charge of \$39 million related to the cash settlement of equity awards.

In the fourth quarter of fiscal 2020, the Company completed certain divestitures within the Global Products and Building Solutions Asia Pacific segments. The combined selling price, net of cash divested, was \$152 million, of which \$135 million was received as of September 30, 2021. In connection with the divestitures, the Company reduced goodwill by \$11 million within the Building Solutions Asia Pacific segment. The divestitures were not material to the Company's consolidated financial statements.

Fiscal Year 2019

On April 30, 2019, the Company completed the sale of its Power Solutions business to BCP Acquisitions LLC for a purchase price of \$13.2 billion. The net cash proceeds after tax and transaction-related expenses were \$11.6 billion. In connection with the sale, the Company recorded a gain, net of transaction and other costs, of \$5.2 billion (\$4.0 billion after tax), subject to post-closing working capital and net debt adjustments, within income from discontinued operations, net of tax, in the consolidated statements of income. Refer to Note 3, "Discontinued Operations," of the notes to consolidated financial statements for further disclosure related to the Company's discontinued operations.

During fiscal 2019, the Company completed certain divestitures within the Global Products and Building Solutions EMEA/LA segments. The combined selling price was \$18 million, \$16 million of which was received as of September 30, 2019. In connection with the sale, the Company reduced goodwill by \$1 million within the Building Solutions EMEA/LA segment. The divestitures were not material to the Company's consolidated financial statements.

During fiscal 2019, the Company completed certain acquisitions for a combined purchase price of \$32 million, \$25 million of which was paid as of September 30, 2019. In connection with the acquisitions, the Company recorded goodwill of \$11 million within the Global Products segment, \$8 million within the Building Solutions Asia Pacific segment, and \$6 million within the Building Solutions EMEA/LA segment. The acquisitions were not material to the Company's consolidated financial statements.

3. DISCONTINUED OPERATIONS

Power Solutions

On April 30, 2019, the Company completed the sale of its Power Solutions business, which met the criteria to be classified as a discontinued operation, to BCP Acquisitions LLC for a purchase price of \$13.2 billion. The net cash proceeds after tax and transaction-related expenses were \$11.6 billion. In connection with the sale, the Company recorded a gain, net of transaction and other costs, of \$5.2 billion (\$4.0 billion after tax), subject to post-closing working capital and net debt adjustments, within income from discontinued operations, net of tax, in the consolidated statements of income. In December 2020, the favorable resolution of certain post-closing working capital and net debt adjustments resulted in income from discontinued operations, net of tax, of \$124 million due to a reversal of a reserve established in connection with the sale of Power Solutions.

The following table summarizes the results of Power Solutions which are classified as discontinued operations for the fiscal years ended September 30, 2021, 2020 and 2019 (in millions).

	Year Ended September 30,					
	2	021		2020		2019
Net sales	\$	_	\$	_	\$	5,001
Income from discontinued operations before income taxes		150				6,039
Provision for income taxes on discontinued operations		(26)				(1,441)
Income from discontinued operations attributable to noncontrolling interests, net of tax						(24)
Income from discontinued operations	\$	124	\$		\$	4,574

For the fiscal year ended September 30, 2019, income from discontinued operations before income taxes included a gain on sale of the Power Solutions business, net of transaction and other costs, of \$5.2 billion and a favorable impact of \$117 million for ceasing depreciation and amortization expense as the business was held for sale.

For the fiscal year ended September 30, 2019, the effective tax rate was more than the Irish statutory rate of 12.5% primarily due to the tax impacts of the divestiture of the Power Solutions business and tax rate differentials.

Assets and Liabilities Held for Sale

During the third quarter of fiscal 2020, the Company determined that certain assets of the Building Solutions Asia Pacific segment met the criteria to be classified as held for sale. The estimated fair value, less costs to sell, of these assets was \$156 million at September 30, 2021 and \$147 million at September 30, 2020.

4. **REVENUE RECOGNITION**

Disaggregated Revenue

The following table presents the Company's revenues disaggregated by segment and by products and systems versus services revenue for the years ended September 30, 2021 and 2020 (in millions):

	Year Ended September 30,											
				2021						2020		
		oducts & ystems	S	ervices		Total		oducts & ystems	S	ervices		Total
Building Solutions North America	\$	5,312	\$	3,373	\$	8,685	\$	5,371	\$	3,234	\$	8,605
Building Solutions EMEA/LA		1,772		1,955		3,727		1,644		1,796		3,440
Building Solutions Asia Pacific		1,516		1,138		2,654		1,369		1,034		2,403
Global Products		8,602				8,602		7,869				7,869
Total	\$	17,202	\$	6,466	\$	23,668	\$	16,253	\$	6,064	\$	22,317

The following table presents further disaggregation of Global Products segment revenues by product type for the years ended September 30, 2021 and 2020 (in millions):

		Septemb	er 30,	
		2021		2020
HVAC	\$	6,173	\$	5,685
Fire & Security		2,192		1,957
Industrial Refrigeration		237		227
Total	\$	8,602	\$	7,869

Contract Balances

Contract assets relate to the Company's right to consideration for performance obligations satisfied but not billed and consist of unbilled receivables and costs in excess of billings. Contract liabilities relate to customer payments received in advance of satisfaction of performance obligations under the contract. Contract liabilities consist of deferred revenue. Contract balances are classified as assets or liabilities on a contract-by-contract basis at the end of each reporting period.

The following table presents the location and amount of contract balances in the Company's consolidated statements of financial position (in millions):

		 Septem	ıber 30,			
	Location of contract balances	2021		2020		
Contract assets - current	Accounts receivable - net	\$ 1,718	\$	1,395		
Contract assets - noncurrent	Other noncurrent assets	99		104		
Contract liabilities - current	Deferred revenue	(1,637)		(1,435)		
Contract liabilities - noncurrent	Other noncurrent liabilities	 (269)		(245)		
Total		\$ (89)	\$	(181)		

For the year ended September 30, 2021, the Company recognized revenue of approximately \$1.2 billion that was included in the beginning of period contract liability balance. For the year ended September 30, 2020, the Company recognized revenue of approximately \$1.3 billion that was included in the beginning of period contract liability balance.

Performance Obligations

A performance obligation is a distinct good, service, or bundle of goods and services promised in a contract. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. When contracts with customers require significant and complex integration, contain goods or services which are highly interdependent or interrelated, or are goods or services which significantly modify or customize other promises in the contracts and, therefore, are not distinct, then the entire contract is accounted for as a single performance obligation. For any contracts with multiple performance obligations, the contract's transaction price is allocated to each performance obligation based on the estimated relative standalone selling price of each distinct good or service in the contract. For product sales, each product sold to a customer typically represents a distinct performance obligation.

Performance obligations are satisfied as of a point in time or over time. The timing of satisfying the performance obligation is typically indicated by the terms of the contract. As of September 30, 2021, the aggregate amount of the transaction price allocated to remaining performance obligations was approximately \$16.1 billion, of which approximately 60% is expected to be recognized as revenue over the next two years. The remaining performance obligations expected to be recognized in revenue beyond two years primarily relate to large, multi-purpose contracts to construct hospitals, schools and other governmental buildings, which include services to be performed over the building's lifetime, with average initial contract terms of 25 to 35 years. Future contract modifications could affect both the timing and the amount of the remaining performance obligations. The Company excludes the value of remaining performance obligations for contracts with an original expected duration of one year or less.

Costs to Obtain or Fulfill a Contract

The Company recognizes the incremental costs incurred to obtain or fulfill a contract with a customer as an asset when these costs are recoverable. These costs consist primarily of sales commissions and bid/proposal costs. Costs to obtain or fulfill a contract are capitalized and amortized to revenue over the period of contract performance.

The following table presents the location and amount of costs to obtain or fulfill a contract recorded in the Company's consolidated statements of financial position (in millions):

	September 30,						
	20	021		2020			
Other current assets	\$	149	\$	119			
Other noncurrent assets		117		104			
Total	\$	266	\$	223			

During the year ended September 30, 2021, the Company recognized amortization of \$173 million related to costs to obtain or fulfill a contract. There were no impairment losses recognized in the year ended September 30, 2021. During the year ended September 30, 2020, the Company recognized amortization of \$162 million related to costs to obtain or fulfill a contract. There were no impairment losses recognized in the year ended September 30, 2020, the Company recognized amortization of \$162 million related to costs to obtain or fulfill a contract. There were no impairment losses recognized in the year ended September 30, 2020.

5. ACCOUNTS RECEIVABLE

Receivables consist of amounts billed and currently due from customers and unbilled costs and accrued profits related to revenues on long-term contracts that have been recognized for accounting purposes but not yet billed to customers. The Company extends credit to customers in the normal course of business and maintains an allowance for expected credit losses resulting from the inability or unwillingness of customers to make required payments. The allowance for expected credit losses is based on historical experience, existing economic conditions, reasonable and supportable forecasts, and any specific customer collection issues the Company enters into various factoring agreements to sell certain accounts receivable to third-party financial institutions. For ease of administration, the Company collects customer payments related to certain factored receivables. During the year ended September 30, 2021, the Company sold \$129 million of accounts receivable under such factoring agreements, and the costs of factoring such receivables were not material. As of September 30, 2021, the outstanding amount of accounts receivable sold under the factoring agreements was \$127 million. No receivables were factored under such agreements in fiscal 2020. Sales of accounts receivable are reflected as a reduction of accounts receivable in the

consolidated statements of financial position and the proceeds are included in cash flows from operating activities in the consolidated statements of cash flows.

Accounts receivable, net consisted of the following (in millions):

	September 30,					
		2021		2020		
Accounts receivable	\$	5,723	\$	5,467		
Less: Allowance for expected credit losses ⁽¹⁾		(110)		(173)		
Accounts receivable, net	\$	5,613	\$	5,294		

⁽¹⁾ Allowance for doubtful accounts as of September 30, 2020, prior to the adoption of ASU 2016-13.

The changes in the allowance for expected credit losses related to accounts receivable for the year ended September 30, 2021 were as follows (in millions):

	Year Ended September 30, 202		
Balance as of September 30, 2020	\$	173	
Provision for expected credit losses		(3)	
Write-offs charged against the allowance for expected credit losses		(65)	
Currency translation		1	
Other (including impact of adoption of ASU 2016-13)		4	
Balance as of September 30, 2021	\$	110	

6. INVENTORIES

Inventories consisted of the following (in millions):

	September 30,						
	2021						
Raw materials and supplies	\$	769	\$	629			
Work-in-process		166		142			
Finished goods		1,122		1,002			
Inventories	\$	2,057	\$	1,773			

7. **PROPERTY, PLANT AND EQUIPMENT**

Property, plant and equipment consisted of the following (in millions):

	September 30,					
	2021					
Buildings and improvements	\$	1,313	\$	1,351		
Subscriber systems		802		679		
Machinery and equipment		3,669		3,332		
Construction in progress		500		327		
Land		231		241		
Total property, plant and equipment		6,515		5,930		
Less: Accumulated depreciation		(3,287)		(2,871)		
Property, plant and equipment - net	\$	3,228	\$	3,059		

8. GOODWILL AND OTHER INTANGIBLE ASSETS

The changes in the carrying amount of goodwill in each of the Company's reportable segments for the fiscal years ended September 30, 2021 and 2020 were as follows (in millions):

	ember 30, 2019	siness iisitions	Business vestitures	Impairments		Currency Translation and Other		Sept	ember 30, 2020
Building Solutions North America	\$ 9,588	\$ _	\$ _	\$	(424)	\$	(4)	\$	9,160
Building Solutions EMEA/LA	1,849	35	—				83		1,967
Building Solutions Asia Pacific	1,194		(11)				43		1,226
Global Products	 5,547	 21	—				11		5,579
Total	\$ 18,178	\$ 56	\$ (11)	\$	(424)	\$	133	\$	17,932

	1	ember 30, 2020	usiness juisitions	Business vestitures	Imp	airments	Tra	nslation d Other	Sep	tember 30, 2021
Building Solutions North America	\$	9,160	\$ 21	\$ 	\$		\$	34	\$	9,215
Building Solutions EMEA/LA		1,967	35					19		2,021
Building Solutions Asia Pacific		1,226		(7)				21		1,240
Global Products		5,579	244					36		5,859
Total	\$	17,932	\$ 300	\$ (7)	\$		\$	110	\$	18,335

At September 30, 2019, accumulated goodwill impairment charges included \$47 million related to the Building Solutions EMEA/LA - Latin America reporting unit.

The Company reviews goodwill for impairment during the fourth fiscal quarter or more frequently if events or changes in circumstances indicate the asset might be impaired. There were no goodwill impairments resulting from the fiscal 2021 and 2020 annual impairment tests. No reporting unit was determined to be at risk of failing the goodwill impairment test as of September 30, 2021.

During fiscal 2020, the Company considered the deterioration in general economic and market conditions due to the COVID-19 pandemic and its impact on each of the Company's reporting units' performance. Due to declines in cash flow projections of the North America Retail reporting unit in the third quarter of fiscal 2020 as a result of the COVID-19 pandemic, the Company concluded a triggering event occurred requiring assessment of impairment for its North America Retail reporting unit. As a result, the Company recorded a non-cash impairment charge of \$424 million within restructuring and impairment costs in the consolidated statements of income in the third quarter of fiscal 2020, which was determined by comparing the carrying amount of a reporting unit to its fair value in accordance with ASU No. 2017-04, "Intangible - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment," which the Company early adopted. The North America Retail reporting unit has a remaining goodwill balance of \$235 million at September 30, 2021. The Company used a discounted cash flow model to estimate the fair value of the reporting unit. Other than management's internal projections of future cash flows, the primary assumptions used in the model were the weighted-average cost of capital and long-term growth rates, which are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement." Although the Company's cash flow forecasts are based on assumptions that are considered reasonable by management and consistent with the plans and estimates management is using to operate the underlying business, there was significant judgment in determining the expected future cash flows attributable to the North America Retail reporting unit.

The Company's other intangible assets, primarily from business acquisitions valued based on independent appraisals, consisted of (in millions):

		September 30, 2021						September 30, 2020						
	С	Gross arrying mount		umulated		Net	Ca	Gross Carrying Amount		Accumulated Amortization		Net		
Definite-lived intangible assets														
Technology	\$	1,464	\$	(629)	\$	835	\$	1,332	\$	(497)	\$	835		
Customer relationships		3,097		(1,191)		1,906		2,773		(969)		1,804		
Miscellaneous		750		(354)		396		657		(268)		389		
		5,311		(2,174)		3,137		4,762		(1,734)		3,028		
Indefinite-lived intangible assets														
Trademarks/tradenames		2,332				2,332		2,248		—		2,248		
Miscellaneous		80				80		80				80		
		2,412				2,412		2,328				2,328		
Total intangible assets	\$	7,723	\$	(2,174)	\$	5,549	\$	7,090	\$	(1,734)	\$	5,356		

The Company reviews indefinite-lived intangible assets for impairment during the fourth fiscal quarter or more frequently if events or changes in circumstances indicate the asset might be impaired. Indefinite-lived intangible assets primarily consist of trademarks and tradenames and are tested for impairment using a relief-from-royalty method.

There were no indefinite-lived intangible asset impairments resulting from fiscal 2021 and 2020 annual impairment tests. For fiscal 2021, the estimated fair values of all indefinite-lived intangibles substantially exceeded their carrying values, with the exception of the indefinite-lived trademarks related to the Company's Asia Pacific subscriber businesses. The estimated fair value for the Asia Pacific indefinite-lived trademark was consistent with its carrying value of \$38 million.

During the second and third quarters of fiscal 2020, the Company determined that it had a triggering event at each reporting period end requiring assessment of impairment for certain of its indefinite-lived intangible assets due to declines in revenue directly attributable to the COVID-19 pandemic. As a result, the Company recorded an impairment charge of \$62 million related primarily to the Company's retail business indefinite-lived intangible assets within restructuring and impairment costs in the consolidated statements of income in the second quarter of fiscal 2020. No further impairment was required to be recorded in the third quarter of fiscal 2020 as a result of the completed impairment assessment.

Amortization of other intangible assets included within continuing operations for the fiscal years ended September 30, 2021, 2020 and 2019 was \$435 million, \$386 million and \$377 million, respectively. Excluding the impact of any future acquisitions, the Company anticipates amortization for fiscal 2022, 2023, 2024, 2025 and 2026 will be approximately \$457 million, \$439 million, \$424 million, \$403 million and \$335 million, respectively.

9. LEASES

The Company adopted ASU 2016-02, "Leases (Topic 842)" and the related amendments using a modified-retrospective approach as of October 1, 2019.

Most leases contain options to renew or terminate the lease. Right-of-use assets and lease liabilities reflect only the options which the Company is reasonably certain to exercise. Lease expense is recognized on a straight-line basis over the lease term.

The Company has certain real estate leases that contain variable lease payments which are based on changes in the Consumer Price Index (CPI). Additionally, the Company's leases generally require it to pay for fuel, maintenance, repair, insurance and taxes. These payments are not included in the right-of-use asset or lease liability and are expensed as incurred.

The following table presents the Company's lease costs for the fiscal years ended September 30, 2021 and 2020 (in millions):

	Year Ended September 30,					
	2	021		2020		
Operating lease cost	\$	384	\$	399		
Variable lease cost		130		145		
Total lease costs	\$	514	\$	544		

Total rental expense for continuing operations for the fiscal year ended September 30, 2019 was \$452 million.

The following table presents supplemental consolidated statement of financial position information as of September 30, 2021 and 2020 (in millions):

		September 30,						
	Location of lease balances		2021		2020			
Operating lease right-of-use assets	Other noncurrent assets	\$	1,376	\$	1,190			
Operating lease liabilities - current	Other current liabilities		319		332			
Operating lease liabilities - noncurrent	Other noncurrent liabilities		1,055		875			
Weighted-average remaining lease term			7 years		6 years			
Weighted-average discount rate			1.8 %	,)	2.2 %			

The following table presents supplemental cash flow information related to operating leases for the fiscal years ended September 30, 2021 and 2020 (in millions):

		Year Ended September 30,					
	2	2021	2020				
Cash paid for amounts included in the measurement of lease liability:							
Operating cash outflows from operating leases	\$	398 \$	397				
Noncash operating lease activity:							
Right-of-use assets obtained in exchange for operating lease liabilities		515	467				

The following table presents maturities of operating lease liabilities as of September 30, 2021 (in millions):

	Septem	ber 30, 2021
2022	\$	337
2023		275
2024		226
2025		164
2026		115
After 2026		353
Total operating lease payments		1,470
Less: Interest		(96)
Present value of lease payments	\$	1,374

10. DEBT AND FINANCING ARRANGEMENTS

Short-term debt consisted of the following (in millions):

	September 30,					
	2021			2020		
Bank borrowings	\$	8	\$	31		
Weighted average interest rate on short-term debt outstanding	0.2 %		3.4 %			

The Company had no commercial paper outstanding as of September 30, 2021 and 2020.

As of September 30, 2021, the Company has a syndicated \$2.5 billion committed revolving credit facility, which is scheduled to expire in December 2024, and a syndicated \$500 million committed revolving credit facility, which is scheduled to expire in December 2021. As of September 30, 2021, there were no draws on the facilities.

Long-term debt consisted of the following (in millions; due dates by fiscal year):

2021 2020 Unsecured notes 5 — \$ 204 JC1 ple - 4.25% due in 2021 (\$53 million par value) — 53 JC1 ple - 3.75% due in 2022 (\$171 million par value) — 73 JC1 lne - 3.75% due in 2022 (\$22 million par value) — 22 1C1 ple - 4.625% due in 2023 (\$25 million par value) 25 26 JC1 ple - 4.625% due in 2023 (\$25 million par value) 980 1,039 1,039 JC1 ple - 3.625% due in 2024 (\$453 million par value) 980 1,039 1,039 JC1 ple - 1.00% due in 2023 (\$24 million par value) 433 453 1,031 32 32 33 33 33 31 31),		
JC1 plc - 4.25% due in 2021 (5204 million par value) \$			2021		2020
JC1 Inc 4.25% due in 2021 (\$53 million par value) — 53 JC1 plc - 3.75% due in 2022 (\$171 million par value) — 171 JC1 plc - 4.625% due in 2023 (\$25 million par value) 25 26 Tyco International Finance S.A. ("TIFSA") - 4.625% due in 2023 (\$7 million par value) 7 7 JC1 plc - 4.625% due in 2023 (\$25 million par value) 980 1.039 JC1 plc - 3.625% due in 2024 (\$453 million par value) 31 31 JC1 plc - 3.625% due in 2024 (\$453 million par value) 496 503 JC1 plc - 3.75% due in 2025 (\$454 million par value) 496 503 JC1 plc - 3.75% due in 2025 (\$454 million par value) 510 516 TIFSA - 1.375% due in 2025 (\$454 million par value) 510 516 JC1 plc and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 577 583 JC1 plc and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2031 519 519 JC1 plc and TSCA - 1.75% due in 2031 (\$500 million par value) 503 523 623 JC1 plc and TSCA - 1.05% due in 2032 (\$650 million par value) 503 539 339 339 JC1 plc - 6.00% due in 2036 (\$424 million par value) 508 6 6	Unsecured notes				
JC1 plc - 3.75% due in 2022 (\$171 million par value) — 171 JC1 mc 3.75% due in 2023 (\$25 million par value) 25 26 JC1 plc - 4.625% due in 2023 (\$25 million par value) 7 7 JC1 plc - 1.00% due in 2023 (\$464 million par value) 980 1,039 JC1 plc - 1.00% due in 2023 (\$451 million par value) 980 1,039 JC1 plc - 3.625% due in 2024 (\$431 million par value) 453 453 JC1 plc - 3.75% due in 2025 (\$454 million par value) 63 64 JC1 plc - 3.75% due in 2025 (\$457 million par value) 510 516 TIFSA - 1.375% due in 2025 (\$457 million par value) 51 51 JC1 plc - 3.90% due in 2026 (\$457 million par value) 577 583 JC1 plc and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 623 623 JC1 plc and TFSCA - 1.00% due in 2030 (\$500 million par value) 496	JCI plc - 4.25% due in 2021 (\$204 million par value)	\$		\$	204
JC1 Inc 3.75% due in 2023 (\$25 million par value) — 22 JC1 ple - 4.625% due in 2023 (\$25 million par value) 7 7 JC1 ple - 1.00% due in 2023 (\$26 million par value) 980 1.039 JC1 ple - 1.00% due in 2023 (\$45 million par value) 980 1.039 JC1 ple - 1.00% due in 2024 (\$453 million par value) 453 453 JC1 ple - 3.625% due in 2024 (\$453 million par value) 31 31 JC1 ple - 1.375% due in 2025 (\$642 million par value) 63 64 JC1 ple - 3.625% due in 2024 (\$541 million par value) 63 64 JC1 ple - 3.90% due in 2026 (\$487 million par value) 51 51 JC1 ple - 3.90% due in 2026 (\$487 million par value) 51 51 JC1 ple and TPSCA - 1.75% due in 2030 (\$625 million par value) 577 583 JC1 ple and TPSCA - 1.75% due in 2031 (\$500 million par value) 578 584 JC1 ple - 6.00% due in 2036 (\$342 million par value) 578 584 JC1 ple - 6.00% due in 2036 (\$342 million par value) 30 30 JC1 ple - 6.00% due in 2036 (\$342 million par value) 58 8 JC1 ple - 6.00% due in 2036 (\$342 million par value) 16 6 JC1 ple - 5.70%	JCI Inc 4.25% due in 2021 (\$53 million par value)				53
ICl plc - 4.625% due in 2023 (\$25 million par value) 25 26 Tyco International Finance S.A. ("THFSA") - 4.625% due in 2023 (\$7 million par value) 7 7 ICl plc - 1.00% due in 2023 (\$4846 million par value) 453 453 JCl plc - 3.625% due in 2024 (\$453 million par value) 31 31 JCl plc - 3.625% due in 2025 (\$423 million par value) 496 503 TFFSA - 1.375% due in 2025 (\$443 million par value) 510 516 JCl plc - 3.90% due in 2026 (\$487 million par value) 511 511 JCl ple and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 577 583 JCl ple and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 577 583 JCl ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 623 623 JCl ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 578 584 JCl ple and TFSCA - 1.00% due in 2031 (\$500 million par value) 578 584 JCl ple - 6.00% due in 2034 (\$628 million par value) 8 8 79 JCl ple - 5.70% due in 2041 (\$190 million par value) 189 189 161 JCl ple - 5.70% due in 2041 (\$190 million par value) 155 155 155 <td>JCI plc - 3.75% due in 2022 (\$171 million par value)</td> <td></td> <td></td> <td></td> <td>171</td>	JCI plc - 3.75% due in 2022 (\$171 million par value)				171
Tyco International Finance S.A. ("TIFSA") - 4.625% due in 2023 (\$7 million par value) 7 7 JCI ple - 1.00% due in 2023 (€346 million par value) 980 [1,039 JCI ple - 3.625% due in 2024 (\$453 million par value) 31 31 JCI ple - 3.625% due in 2024 (\$453 million par value) 31 31 JCI ple - 3.625% due in 2025 (€423 million par value) 63 64 JCI ple - 3.90% due in 2025 (€54 million par value) 510 516 TIFSA - 1.375% due in 2026 (\$477 million par value) 51 51 JCI ple and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 623 623 JCI ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 577 583 JCI ple and TFSCA - 1.00% due in 2031 (\$500 million par value) 496 JCI ple and TFSCA - 0.00% due in 2031 (\$500 million par value) 58 584 JCI ple and TFSCA - 1.00% due in 2031 (\$500 million par value) 58 8 JCI ple and TFSCA - 1.00% due in 2031 (\$500 million par value) 58 8 JCI ple and TFSCA - 1.00% due in 2031 (\$500 million par value) 58 8 JCI ple - 5.70% due in 2041 (\$190 million par value) 58 <t< td=""><td>JCI Inc 3.75% due in 2022 (\$22 million par value)</td><td></td><td></td><td></td><td>22</td></t<>	JCI Inc 3.75% due in 2022 (\$22 million par value)				22
JC1 plc - 1.00% due in 2023 (E846 million par value) 980 1,039 JC1 plc - 3.625% due in 2024 (S453 million par value) 31 31 JC1 plc - 1.375% due in 2025 (E423 million par value) 496 503 JC1 plc - 1.375% due in 2025 (E43 million par value) 63 64 JC1 plc - 3.90% due in 2026 (S487 million par value) 510 516 JC1 plc - 3.90% due in 2026 (S487 million par value) 51 511 JC1 plc and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 623 623 (E500 million par value) 577 583 JC1 plc and TFSCA - 1.75% due in 2030 (\$625 million par value) 623 623 JC1 plc and TFSCA - 1.00% due in 2031 (\$500 million par value) 577 583 JC1 plc - 6.00% due in 2036 (\$428 million par value) 578 584 JC1 plc - 5.70% due in 2046 (\$428 million par value) 578 584 JC1 plc - 5.70% due in 2046 (\$150 million par value) 30 309 JC1 plc - 5.70% due in 2046 (\$150 million par value) 189 189 189 189 JC1 plc - 5.70% due in 2044 (\$190 million par value) 155 155 155 155 155 155 155 155 155 155 155	JCI plc - 4.625% due in 2023 (\$25 million par value)		25		26
ICI ple - 3.625% due in 2024 (\$453 million par value) 453 453 JCI Inc 3.625% due in 2024 (\$453 million par value) 31 31 JCI ple - 1.375% due in 2025 (\$423 million par value) 63 64 JCI ple - 3.90% due in 2026 (\$457 million par value) 51 51 JCI ple - 3.90% due in 2026 (\$457 million par value) 51 51 JCI ple and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 577 583 JCI ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 623 623 JCI ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 578 584 JCI ple and TFSCA - 1.00% due in 2031 (\$500 million par value) 578 584 JCI ple and TFSCA - 1.00% due in 2032 (\$600 million par value) 39 339 339 JCI le and TFSCA - 1.00% due in 2032 (\$500 million par value) 8 8 8 JCI ple and TSCA - 1.00% due in 2032 (\$500 million par value) 30 30 30 JCI le a. di 2036 (\$342 million par value) 8 8 8 JCI ple - 6.00% due in 2034 (\$30 million par value) 8 8 6 6 JCI ple - 5.70% due in 2041 (\$190 million par value) 165 155	Tyco International Finance S.A. ("TIFSA") - 4.625% due in 2023 (\$7 million par value)	7		7
JC1 Inc 3.625% due in 2024 (\$31 million par value) 31 31 JC1 plc - 1.375% due in 2025 (€423 million par value) 496 503 TIFSA - 1.375% due in 2026 (\$487 million par value) 63 64 JC1 plc - 3.90% due in 2026 (\$51 million par value) 51 51 ITFSA - 3.90% due in 2026 (\$51 million par value) 51 51 JC1 plc and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 623 623 JC1 plc and TFSCA - 1.05% due in 2030 (\$625 million par value) 66 6 - JC1 plc and TFSCA - 1.00% due in 2032 (£500 million par value) 578 584 - JC1 plc and TFSCA - 1.00% due in 2032 (£500 million par value) 339 339 339 339 JC1 plc - 6.00% due in 2036 (\$342 million par value) 8 8 8 8 8 101 plc - 5.00% due in 2036 (\$342 million par value) 30 30 30 30 30 30 30 31 <	JCI plc - 1.00% due in 2023 (€846 million par value)		980		1,039
JC1 plc - 1.375% due in 2025 (€423 million par value) 496 503 TIFSA - 1.375% due in 2025 (€487 million par value) 63 64 JC1 plc - 3.90% due in 2026 (\$487 million par value) 510 516 TIFSA - 3.90% due in 2026 (\$487 million par value) 51 51 JC1 ple and TYco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 577 583 JC1 ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 623 623 JC1 ple and TFSCA - 2.00% due in 2031 (\$500 million par value) 578 584 JC1 ple and TFSCA - 1.00% due in 2032 (€500 million par value) 339 339 JC1 ple - 6.00% due in 2036 (\$422 million par value) 8 8 JC1 ple - 6.00% due in 2036 (\$42 million par value) 30 300 JC1 ple - 5.00% due in 2041 (\$190 million par value) 189 189 JC1 ple - 5.70% due in 2041 (\$30 million par value) 155 155 JC1 lne 4.625% due in 2044 (\$44 million par value) 6 6 JC1 ple - 5.25% due in 2044 (\$44 million par value) 441 441 JC1 lne 4.625% due in 2044 (\$44 million par value) 560 564 JC1 ple - 5.125% due in 2044 (\$477 million par value) 22 22	JCI plc - 3.625% due in 2024 (\$453 million par value)		453		453
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JCI ple - 3.90% due in 2026 (\$487 million par value) 51 516 TIFSA - 3.90% due in 2026 (\$51 million par value) 51 51 JCI ple and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 577 583 JCI ple and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 623 623 JCI ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 623 623 JCI ple and TFSCA - 1.00% due in 2031 (\$500 million par value) 578 584 JCI ple and TFSCA - 1.00% due in 2035 (\$42 million par value) 339 339 JCI ple - 6.00% due in 2036 (\$342 million par value) 8 8 JCI ple - 5.70% due in 2041 (\$190 million par value) 189 189 JCI ple - 5.70% due in 2041 (\$30 million par value) 30 30 JCI ple - 5.70% due in 2042 (\$6155 million par value) 155 155 JCI ne 5.25% due in 2044 (\$64 million par value) 6 6 JCI ple - 5.125% due in 2044 (\$64 million par value) 6 6 JCI ple - 5.125% due in 2045 (\$477 million par value) 6 6 JCI ple - 5.125% due in 2046 (\$32 million par value) 32 32 JCI ple - 5.95% due in 2046 (\$32 million par value) 34	JCI plc - 1.375% due in 2025 (€423 million par value)		496		503
TIFSA - 3.90% due in 2026 (\$51 million par value) 51 51 JCI ple and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 577 583 JCI ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 623 623 JCI ple and TFSCA - 1.00% due in 2031 (\$500 million par value) 496 JCI ple and TFSCA - 1.00% due in 2032 (€500 million par value) 578 584 JCI ple and TFSCA - 1.00% due in 2032 (€500 million par value) 339 339 JCI le c. 6.00% due in 2036 (\$8 million par value) 8 8 JCI ple - 6.00% due in 2046 (\$342 million par value) 8 8 JCI ple - 5.70% due in 2041 (\$190 million par value) 30 30 JCI hc 5.70% due in 2042 (\$155 million par value) 155 155 JCI le - 5.70% due in 2042 (\$155 million par value) 6 6 JCI ple - 5.25% due in 2042 (\$155 million par value) 6 6 JCI ple - 5.25% due in 2042 (\$150 million par value) 6 6 JCI ple - 5.25% due in 2042 (\$157 million par value) 6 6 JCI ple - 5.25% due in 2044 (\$44 million par value) 6 6 JCI ple - 5.125% due in 2045 (\$477 million par value) 6 6	TIFSA - 1.375% due in 2025 (€54 million par value)		63		64
ICI plc and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 ($(e500 million par value)$ 577583JCI plc and TFSCA - 1.75% due in 2030 ($(s625 million par value)$ 623623JCI plc and TFSCA - 2.00% due in 2031 ($(s500 million par value)$ 496JCI plc and TFSCA - 1.00% due in 2032 ($(e500 million par value)$ 578584JCI plc - 6.00% due in 2036 ($(s42 million par value)$ 339339JCI Inc 6.00% due in 2036 ($(s42 million par value)$ 339339JCI Inc 5.70% due in 2041 ($(s100 million par value)$ 189189JCI plc - 5.70% due in 2042 ($(s155 million par value)$ 3030JCI plc - 5.25% due in 2042 ($(s155 million par value)$ 66JCI plc - 4.625% due in 2044 ($(s44 million par value)$ 66JCI plc - 4.625% due in 2044 ($(s6 million par value)$ 66JCI plc - 4.625% due in 2045 ($(s477 million par value)$ 66JCI plc - 6.95% due in 2046 ($(s23 million par value)$ 32322JCI plc - 6.95% due in 2046 ($(s23 million par value)$ 3030JCI plc - 4.50% due in 2046 ($(s10 million par value)$ 3232JCI plc - 4.50% due in 2046 ($(s10 million par value)$ 3444JCI plc - 4.50% due in 2046 ($(s10 million par value)$ 340340JCI plc - 4.50% due in 2046 ($(s10 million par value)$ 3232JCI plc - 4.50% due in 2046 ($(s10 million par value)$ 340340JCI plc - 4.50% due in 2046 ($(s10 million par value)$ 340340JCI plc - 4.50% due in 2046	JCI plc - 3.90% due in 2026 (\$487 million par value)		510		516
(€500 million par value) 577 583 JC1 ple and TFSCA - 1.75% due in 2030 (\$625 million par value) 623 623 JC1 ple and TFSCA - 2.00% due in 2031 (\$500 million par value) 496 — JC1 ple and TFSCA - 1.00% due in 2032 (€500 million par value) 578 584 JC1 ple and TFSCA - 1.00% due in 2032 (€500 million par value) 339 339 JC1 ple - 6.00% due in 2036 (\$8 million par value) 8 8 JC1 ple - 5.70% due in 2041 (\$190 million par value) 189 189 JC1 ple - 5.70% due in 2042 (\$155 million par value) 30 30 JC1 ple - 5.25% due in 2042 (\$6 million par value) 6 6 JC1 ple - 5.25% due in 2044 (\$444 million par value) 6 6 JC1 ple - 5.125% due in 2044 (\$6 million par value) 6 6 JC1 ple - 5.25% due in 2044 (\$6 million par value) 6 6 JC1 ple - 5.125% due in 2045 (\$477 million par value) 6 6 JC1 ple - 5.55% due in 2045 (\$477 million par value) 32 32 JC1 ple - 6.95% due in 2045 (\$23 million par value) 32 32 JC1 ple - 6.95% due in 2046 (\$32 million par value) 4 4 JC1 ple - 4.95% due in 2046 (\$31 million par va	TIFSA - 3.90% due in 2026 (\$51 million par value)		51		51
JCI plc and TFSCA - 2.00% due in 2031 (\$500 million par value) 496 — JCI plc and TFSCA - 1.00% due in 2032 (€500 million par value) 578 584 JCI plc - 6.00% due in 2036 (\$342 million par value) 339 339 JCI plc - 5.00% due in 2036 (\$8 million par value) 8 8 JCI plc - 5.70% due in 2041 (\$190 million par value) 189 189 JCI plc - 5.70% due in 2042 (\$155 million par value) 30 30 JCI plc - 5.25% due in 2042 (\$6 million par value) 155 155 JCI plc - 4.625% due in 2042 (\$6 million par value) 6 6 JCI plc - 4.625% due in 2044 (\$444 million par value) 6 6 JCI plc - 5.125% due in 2045 (\$477 million par value) 6 6 JCI plc - 6.95% due in 2046 (\$32 million par value) 22 22 JCI plc - 6.95% due in 2046 (\$32 million par value) 23 32 JCI lnc - 6.95% due in 2046 (\$311 million par value) 4 4 JCI plc - 4.50% due in 2046 (\$311 million par value) 340 340 JCI plc - 4.50% due in 2046 (\$311 million par value) 340 340 JCI plc - 4.50% due in 2046 (\$311 million par value) 15 15 JCI plc - 4.50% due in 2044 (\$			577		583
JCI ple and TFSCA - 1.00% due in 2032 (€500 million par value) 578 584 JCI ple - 6.00% due in 2036 (\$342 million par value) 339 339 JCI lne 6.00% due in 2036 (\$8 million par value) 8 8 JCI ple - 5.70% due in 2041 (\$190 million par value) 189 189 JCI lne 5.70% due in 2041 (\$190 million par value) 30 30 JCI ple - 5.25% due in 2042 (\$155 million par value) 155 155 JCI lne 5.25% due in 2042 (\$6 million par value) 6 6 JCI ple - 4.625% due in 2044 (\$444 million par value) 6 6 JCI ple - 5.125% due in 2044 (\$6 million par value) 6 6 JCI ple - 5.125% due in 2044 (\$6 million par value) 22 22 JCI ple - 6.95% due in 2045 (\$23 million par value) 22 22 JCI ple - 6.95% due in 2046 (\$32 million par value) 32 32 JCI ple - 4.50% due in 2046 (\$4 million par value) 340 340 JCI ple - 4.50% due in 2046 (\$4 million par value) 340 340 JCI ple - 4.50% due in 2046 (\$4 million par value) 340 340 JCI ple - 4.50% due in 2064 (\$15 million par value) 15 15 JCI ple - 4.95% due in 2064 (\$15 million p	JCI plc and TFSCA - 1.75% due in 2030 (\$625 million par value)		623		623
JCI plc - 6.00% due in 2036 ($\$342$ million par value)339339JCI Inc 6.00% due in 2036 ($\$$ million par value)88JCI plc - 5.70% due in 2041 ($\$190$ million par value)189189JCI Inc 5.70% due in 2041 ($\$100$ million par value)3030JCI plc - 5.25% due in 2042 ($\$155$ million par value)155155JCI Inc 5.25% due in 2042 ($\$6$ million par value)66JCI plc - 4.625% due in 2044 ($\$444$ million par value)66JCI plc - 4.625% due in 2044 ($\$444$ million par value)66JCI plc - 5.125% due in 2044 ($\$447$ million par value)66JCI plc - 5.125% due in 2044 ($\$64$ million par value)2222JCI plc - 6.95% due in 2045 ($\$321$ million par value)3232JCI plc - 6.95% due in 2046 ($\$321$ million par value)340340JCI plc - 4.50% due in 2046 ($\$341$ million par value)1515JCI plc - 4.95% due in 2046 ($\$341$ million par value)340340JCI plc - 4.95% due in 2046 ($\$341$ million par value)1515JCI plc - 4.95% due in 2064 ($\$341$ million par value)1515JCI plc - Term Loan - $\$25$ billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI plc and TFSCA - 2.00% due in 2031 (\$500 million par value)		496		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	JCI plc and TFSCA - 1.00% due in 2032 (€500 million par value)		578		584
JCI plc - 5.70% due in 2041 (\$190 million par value) 189 189 JCI lnc 5.70% due in 2041 (\$30 million par value) 30 30 JCI plc - 5.25% due in 2042 (\$155 million par value) 155 155 JCI nc 5.25% due in 2042 (\$6 million par value) 6 6 JCI plc - 4.625% due in 2044 (\$444 million par value) 441 441 JCI plc - 4.625% due in 2044 (\$6 million par value) 6 6 JCI plc - 5.125% due in 2045 (\$477 million par value) 6 6 JCI plc - 5.125% due in 2045 (\$477 million par value) 560 564 JTFSA - 5.125% due in 2045 (\$23 million par value) 32 32 JCI plc - 6.95% due in 2046 (\$32 million par value) 32 32 JCI plc - 4.50% due in 2046 (\$32 million par value) 32 32 JCI plc - 4.50% due in 2046 (\$32 million par value) 340 340 JCI plc - 4.50% due in 2064 (\$10 million par value) 4 4 JCI plc - 4.95% due in 2064 (\$15 million par value) 15 15 JCI plc - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022 223 237 Other 8 8 8 Gross long-term debt 7,764 7,822	JCI plc - 6.00% due in 2036 (\$342 million par value)		339		339
JCI Inc 5.70% due in 2041 (\$30 million par value)3030JCI plc - 5.25% due in 2042 (\$155 million par value)155155JCI Inc 5.25% due in 2042 (\$6 million par value)66JCI plc - 4.625% due in 2044 (\$444 million par value)441441JCI Inc 4.625% due in 2044 (\$6 million par value)66JCI plc - 5.125% due in 2044 (\$6 million par value)66JCI plc - 5.125% due in 2044 (\$6 million par value)560564JTFSA - 5.125% due in 2045 (\$23 million par value)2222JCI plc - 6.95% due in 2046 (\$32 million par value)3232JCI plc - 4.50% due in 2046 (\$4 million par value)340340JCI plc - 4.50% due in 2046 (\$4 million par value)340340JCI plc - 4.50% due in 2064 (\$341 million par value)1515JCI plc - 4.95% due in 2064 (\$15 million par value)1515JCI plc - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI Inc 6.00% due in 2036 (\$8 million par value)		8		8
JCI plc - 5.25% due in 2042 (\$155 million par value)155155JCI Inc 5.25% due in 2042 (\$6 million par value)66JCI plc - 4.625% due in 2044 (\$444 million par value)441441JCI Inc 4.625% due in 2044 (\$6 million par value)66JCI plc - 5.125% due in 2044 (\$6 million par value)66JCI plc - 5.125% due in 2045 (\$477 million par value)2222JCI plc - 5.125% due in 2045 (\$23 million par value)3232JCI plc - 6.95% due in 2046 (\$32 million par value)3232JCI plc - 4.50% due in 2046 (\$32 million par value)44JCI plc - 4.50% due in 2046 (\$31 million par value)496496JCI plc - 4.50% due in 2046 (\$341 million par value)340340JCI plc - 4.95% due in 2064 (\$15 million par value)1515JCI plc - Term Loan - $$25$ billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt $7,764$ $7,822$ Less: current portion226262Less: debt issuance costs3234	JCI plc - 5.70% due in 2041 (\$190 million par value)		189		189
JCI Inc 5.25% due in 2042 (\$6 million par value) 6 6 JCI plc - 4.625% due in 2044 (\$444 million par value) 441 441 JCI plc - 4.625% due in 2044 (\$6 million par value) 6 6 JCI plc - 5.125% due in 2045 (\$477 million par value) 560 564 JIFSA - 5.125% due in 2045 (\$23 million par value) 22 22 JCI plc - 6.95% due in 2046 (\$32 million par value) 32 32 JCI plc - 6.95% due in 2046 (\$4 million par value) 32 32 JCI plc - 4.50% due in 2046 (\$4 million par value) 4 4 JCI plc - 4.95% due in 2046 (\$4 million par value) 4 4 JCI plc - 4.95% due in 2046 (\$4 million par value) 4 4 JCI plc - 4.95% due in 2046 (\$341 million par value) 340 340 JCI plc - 4.95% due in 2064 (\$15 million par value) 15 15 JCI plc - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022 223 237 Other 8 8 8 Gross long-term debt 7,764 7,822 26 262 262 262 Less: current portion 32 32 34 34 34 34 34	JCI Inc 5.70% due in 2041 (\$30 million par value)		30		30
JCI ple - 4.625% due in 2044 (\$444 million par value)441441JCI Inc 4.625% due in 2044 (\$6 million par value)66JCI ple - 5.125% due in 2045 (\$477 million par value)560564JIFSA - 5.125% due in 2045 (\$23 million par value)2222JCI ple - 6.95% due in 2046 (\$32 million par value)3232JCI ple - 6.95% due in 2046 (\$4 million par value)3232JCI ple - 4.50% due in 2046 (\$4 million par value)44JCI ple - 4.50% due in 2046 (\$4 million par value)44JCI ple - 4.50% due in 2046 (\$4 million par value)496496JCI ple - 4.95% due in 2064 (\$341 million par value)340340JCI ple - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI plc - 5.25% due in 2042 (\$155 million par value)		155		155
JCI Inc 4.625% due in 2044 (\$6 million par value)66JCI plc - 5.125% due in 2045 (\$477 million par value)560564JTFSA - 5.125% due in 2045 (\$23 million par value)2222JCI plc - 6.95% due in 2046 (\$32 million par value)3232JCI nc 6.95% due in 2046 (\$32 million par value)3232JCI plc - 4.50% due in 2046 (\$4 million par value)44JCI plc - 4.50% due in 2046 (\$4 million par value)496496JCI plc - 4.50% due in 2064 (\$341 million par value)340340JCI plc - 4.95% due in 2064 (\$15 million par value)1515JCI plc - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI Inc 5.25% due in 2042 (\$6 million par value)		6		6
JCI plc - 5.125% due in 2045 (\$477 million par value)560564TIFSA - 5.125% due in 2045 (\$23 million par value)2222JCI plc - 6.95% due in 2046 (\$32 million par value)3232JCI lnc 6.95% due in 2046 (\$4 million par value)44JCI plc - 4.50% due in 2047 (\$500 million par value)496496JCI plc - 4.50% due in 2064 (\$341 million par value)340340JCI nc 4.95% due in 2064 (\$15 million par value)1515JCI plc - Term Loan - ± 25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI plc - 4.625% due in 2044 (\$444 million par value)		441		441
TIFSA - 5.125% due in 2045 (\$23 million par value)2222JCI plc - 6.95% due in 2046 (\$32 million par value)3232JCI Inc 6.95% due in 2046 (\$4 million par value)44JCI plc - 4.50% due in 2047 (\$500 million par value)496496JCI plc - 4.95% due in 2064 (\$341 million par value)340340JCI plc - 4.95% due in 2064 (\$341 million par value)1515JCI plc - 7erm Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI Inc 4.625% due in 2044 (\$6 million par value)		6		6
JCI plc - 6.95% due in 2046 ($\$22$ million par value)3232JCI Inc 6.95% due in 2046 ($\$4$ million par value)44JCI plc - 4.50% due in 2047 ($\$500$ million par value)496496JCI plc - 4.95% due in 2064 ($\$341$ million par value)340340JCI plc - 4.95% due in 2064 ($\$15$ million par value)1515JCI plc - Term Loan - $\$25$ billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI plc - 5.125% due in 2045 (\$477 million par value)		560		564
JCI Inc 6.95% due in 2046 (\$4 million par value)44JCI plc - 4.50% due in 2047 (\$500 million par value)496496JCI plc - 4.95% due in 2064 (\$341 million par value)340340JCI lnc 4.95% due in 2064 (\$15 million par value)1515JCI plc - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt $7,764$ $7,822$ Less: current portion226262Less: debt issuance costs3234	TIFSA - 5.125% due in 2045 (\$23 million par value)		22		22
JCI plc - 4.50% due in 2047 (\$500 million par value)496496JCI plc - 4.95% due in 2064 (\$341 million par value)340340JCI Inc 4.95% due in 2064 (\$15 million par value)1515JCI plc - Term Loan - ± 25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI plc - 6.95% due in 2046 (\$32 million par value)		32		32
JCI plc - 4.95% due in 2064 (\$341 million par value) 340 340 JCI Inc 4.95% due in 2064 (\$15 million par value)1515JCI plc - Term Loan - $\frac{1}{2}25$ billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI Inc 6.95% due in 2046 (\$4 million par value)		4		4
JCI Inc 4.95% due in 2064 (\$15 million par value)1515JCI plc - Term Loan - ± 25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI plc - 4.50% due in 2047 (\$500 million par value)		496		496
JCI plc - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022223237Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI plc - 4.95% due in 2064 (\$341 million par value)		340		340
Other88Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI Inc 4.95% due in 2064 (\$15 million par value)		15		15
Gross long-term debt7,7647,822Less: current portion226262Less: debt issuance costs3234	JCI plc - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022		223		237
Less: current portion226262Less: debt issuance costs3234	Other		8		8
Less: debt issuance costs 32 34	Gross long-term debt		7,764		7,822
	Less: current portion		226		262
Net long-term debt \$ 7,506 \$ 7,526	Less: debt issuance costs		32		34
	Net long-term debt	\$	7,506	\$	7,526

The following table presents maturities of long-term debt as of September 30, 2021 (in millions):

2022	\$ 226
2023	1,012
2024	484
2025	559
2026	561
After 2026	 4,922
Total	\$ 7,764

The Company's long-term debt includes various financial covenants, none of which are expected to restrict future operations.

Total interest paid on both short and long-term debt for continuing operations for the fiscal years ended September 30, 2021, 2020 and 2019 was \$242 million, \$247 million and \$369 million, respectively.

Financing Arrangements

In September 2021, the Company and its wholly owned subsidiary, TFSCA issued \$500 million of sustainability-linked bonds with an initial interest rate of 2.0%, which are due in 2031. Beginning in March 2026, the interest rate payable on the note will be increased by an additional 12.5 basis points per annum if the Scope 1 and Scope 2 emissions sustainability performance target is not met and an additional 12.5 basis points per annum if the Scope 3 emissions sustainability performance target is not met. The proceeds were used for general corporate purposes, including the repayment of near-term indebtedness.

In September 2021, the Company repaid \$193 million of 3.75% notes which were due in December 2021, and a \notin 200 million bank term loan which was issued in March 2021 and due in March 2022.

The Company repaid \$257 million in principal amount, plus accrued interest, of 4.25% fixed rate notes when they expired in March 2021.

Additionally, during fiscal year 2021, the Company repaid €43 million in principal amount, plus accrued interest, of 1.0% fixed rate notes which were due in September 2023.

Net Financing Charges

The Company's net financing charges line item in the consolidated statements of income for the years ended September 30, 2021, 2020 and 2019 contained the following components (in millions):

	Year Ended September 30,							
	2021		2021 2020			2019		
Interest expense, net of capitalized interest costs	\$	219	\$	240	\$	335		
Banking and other fees and amortization of bond costs, premiums and discounts		25		26		28		
Loss on debt extinguishment						60		
Interest income		(9)		(23)		(61)		
Net foreign exchange results for financing activities		(29)		(12)		(12)		
Net financing charges	\$	206	\$	231	\$	350		

11. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

The Company selectively uses derivative instruments to reduce market risk associated with changes in foreign currency, commodities, stock-based compensation liabilities and interest rates. Under Company policy, the use of derivatives is restricted to those intended for hedging purposes; the use of any derivative instrument for speculative purposes is strictly prohibited. A description of each type of derivative utilized by the Company to manage risk is included in the following paragraphs. In addition, refer to Note 12, "Fair Value Measurements," of the notes to consolidated financial statements for information related to the fair value measurements and valuation methods utilized by the Company for each derivative type.

Cash Flow Hedges

The Company has global operations and participates in foreign exchange markets to minimize its risk of loss from fluctuations in foreign currency exchange rates. The Company selectively hedges anticipated transactions that are subject to foreign exchange rate risk primarily using foreign currency exchange hedge contracts. The Company hedges 70% to 90% of the notional amount of each of its known foreign exchange transactional exposures.

The Company selectively hedges anticipated transactions that are subject to commodity price risk, primarily using commodity hedge contracts, to minimize overall price risk associated with the Company's purchases of copper and aluminum in cases where commodity price risk cannot be naturally offset or hedged through supply base fixed price contracts. Commodity risks are systematically managed pursuant to policy guidelines. The maturities of the commodity hedge contracts coincide with the expected purchase of the commodities.

As cash flow hedges under ASC 815, "Derivatives and Hedging," the hedge gains or losses due to changes in fair value are initially recorded as a component of AOCI and are subsequently reclassified into earnings when the hedged transactions occur and affect earnings. These contracts were highly effective in hedging the variability in future cash flows attributable to changes in currency exchange rates during the fiscal years ended September 30, 2021 and 2020.

The Company had the following outstanding contracts to hedge forecasted commodity purchases (in metric tons):

	Volume Outstanding as of							
Commodity	September 30, 2021	September 30, 2020						
Copper	2,656	2,497						
Aluminum	5,159	3,036						

In April 2021, the Company entered into two forward-starting interest rate swaps with a combined notional amount of \$500 million, in conjunction with its anticipated \$500 million note issuance. In September 2021, the Company terminated the swaps as the debt was issued. The fair value of each interest rate swap, which is the difference between the swap's reference rate and the fixed rate of the note issuance, will be amortized to interest expense over the life of the respective note issuance.

Net Investment Hedges

The Company enters into foreign currency denominated debt obligations to selectively hedge portions of its net investment in non-U.S. subsidiaries. The currency effects of the debt obligations are reflected in the AOCI account within shareholders' equity attributable to Johnson Controls ordinary shareholders where they offset currency gains and losses recorded on the Company's net investments globally. At September 30, 2021, the Company had 2.3 billion of euro-denominated bonds designated as net investment hedges in Europe and 25 billion of yen-denominated debt designated as a net investment hedge in Japan. At September 30, 2020, the Company had 2.4 billion of euro-denominated bonds designated as net investment hedges in Europe and 25 billion of yen-denominated bonds designated as net investment hedges in Europe and 25 billion of euro-denominated bonds designated as net investment hedges in Europe and 25 billion of euro-denominated bonds designated as net investment hedges in Europe and 25 billion of euro-denominated bonds designated as net investment hedges in Europe and 25 billion of euro-denominated bonds designated as net investment hedges in Europe and 25 billion of yen-denominated bonds designated as net investment hedges in Europe and 25 billion of yen-denominated debt designated as a net investment hedge in Japan.

Derivatives Not Designated as Hedging Instruments

The Company selectively uses equity swaps to reduce market risk associated with certain of its stock-based compensation plans, such as its deferred compensation plans. These equity compensation liabilities increase as the Company's stock price increases and decrease as the Company's stock price decreases. In contrast, the value of the swap agreement moves in the opposite direction of these liabilities, allowing the Company to fix a portion of the liabilities at a stated amount. The Company hedged approximately 0.3 million of its ordinary shares, which have a cost basis of \$23 million, as of September 30, 2021 and approximately 1.4 million ordinary shares, which had a cost basis of \$60 million, as of September 30, 2020.

The Company also holds certain foreign currency forward contracts for which hedge accounting treatment was not elected. The change in fair value of foreign currency exchange derivatives not designated as hedging instruments under ASC 815 are recorded in the consolidated statements of income.

Fair Value of Derivative Instruments

The following table presents the location and fair values of derivative instruments and hedging activities included in the Company's consolidated statements of financial position (in millions):

		Derivatives and Hedging Activities Designated as Hedging Instruments under ASC 815					Derivatives and Hedging Activities No Designated as Hedging Instruments under ASC 815			
	September 30, 2021		September 30, 2020		September 30, 2021		September 30, 2020			
Other current assets										
Foreign currency exchange derivatives	\$	15	\$	10	\$	17	\$	17		
Commodity derivatives		2		2		_				
Other noncurrent assets										
Equity swap		_		_		23		58		
Total assets	\$	17	\$	12	\$	40	\$	75		
Other current liabilities										
Foreign currency exchange derivatives	\$	11	\$	10	\$	6	\$			
Commodity derivatives		1		_		_		—		
Long-term debt										
Foreign currency denominated debt		2,918		3,010		_				
Total liabilities	\$	2,930	\$	3,020	\$	6	\$	_		

Counterparty Credit Risk

The use of derivative financial instruments exposes the Company to counterparty credit risk. The Company has established policies and procedures to limit the potential for counterparty credit risk, including establishing limits for credit exposure and continually assessing the creditworthiness of counterparties. As a matter of practice, the Company deals with major banks worldwide having strong investment grade long-term credit ratings. To further reduce the risk of loss, the Company generally enters into International Swaps and Derivatives Association ("ISDA") master netting agreements with substantially all of its counterparties. The Company enters into ISDA master netting agreements with counterparties that permit the net settlement of amounts owed under the derivative contracts. The master netting agreements generally provide for net settlement of all outstanding contracts with a counterparty in the case of an event of default or a termination event. The Company has not elected to offset the fair value positions of the derivative contracts recorded in the consolidated statements of financial position.

The Company's derivative contracts do not contain any credit risk related contingent features and do not require collateral or other security to be furnished by the Company or the counterparties. The Company's exposure to credit risk associated with its derivative instruments is measured on an individual counterparty basis, as well as by groups of counterparties that share similar attributes. The Company does not anticipate any non-performance by any of its counterparties, and the concentration of risk with financial institutions does not present significant credit risk to the Company.

The gross and net amounts of derivative assets and liabilities were as follows (in millions):

		Fair Value	ets	Fair Value of Liabilities				
	Septem	ber 30, 2021	Septe	ember 30, 2020	Septem	ber 30, 2021	September 30, 2020	
Gross amount recognized	\$	57	\$	87	\$	2,936	\$	3,020
Gross amount eligible for offsetting		(16)		(10)		(16)		(10)
Net amount	\$	41	\$	77	\$	2,920	\$	3,010

Derivatives Impact on the Statements of Income and Statements of Comprehensive Income

The following table presents the pre-tax gains (losses) recorded in other comprehensive income (loss) related to cash flow hedges for the fiscal years ended September 30, 2021, 2020 and 2019 (in millions):

	Year Ended September 30,							
Derivatives in ASC 815 Cash Flow Hedging Relationships		2021		2020	2019			
Foreign currency exchange derivatives	\$	15	\$	1	\$	2		
Commodity derivatives		4		6		(4)		
Interest rate swap		(21)		_		_		
Total	\$	(2)	\$	7	\$	(2)		

The following table presents the location and amount of the pre-tax gains (losses) on cash flow hedges reclassified from AOCI into the Company's consolidated statements of income for the fiscal years ended September 30, 2021, 2020 and 2019 (in millions):

Derivatives in ASC 815 Cash Flow	Location of Gain (Loss)	Year Ended September 30,												
Hedging Relationships	Reclassified from AOCI into Income	2021				2021 2020		2021 2020		2021 2020		2021 2020 2019		2019
Foreign currency exchange derivatives	Cost of sales	\$	11	\$	(5)	\$	4							
Commodity derivatives	Cost of sales		3		2		(4)							
Commodity derivatives	Income from discontinued operations		_				(10)							
Total		\$	14	\$	(3)	\$	(10)							

The following table presents the location and amount of pre-tax gains (losses) on derivatives not designated as hedging instruments recognized in the Company's consolidated statements of income for the fiscal years ended September 30, 2021, 2020 and 2019 (in millions):

Derivatives Not Designated as Hedging	Location of Gain (Loss)		Year Ended September 30,						
Instruments under ASC 815	Recognized in Income on Derivative		2021		2020	2019			
Foreign currency exchange derivatives	Cost of sales	\$	(6)	\$	(1)	\$	(8)		
Foreign currency exchange derivatives	Net financing charges		174		87		(60)		
Foreign currency exchange derivatives	Selling, general and administrative		(2)		_				
Foreign currency exchange derivatives	Income tax provision		(1)		_		(1)		
Foreign currency exchange derivatives	Income from discontinued operations				_		52		
Equity swap	Selling, general and administrative		28		(4)		14		
Total		\$	193	\$	82	\$	(3)		

The pre-tax gains (losses) recorded in foreign currency translation adjustment ("CTA") within other comprehensive income (loss) related to net investment hedges were \$42 million, \$(172) million and \$145 million for the years ended September 30, 2021, 2020 and 2019, respectively. For the years ended September 30, 2021, 2020 and 2019, no gains or losses were reclassified from CTA into income for the Company's outstanding net investment hedges.

12. FAIR VALUE MEASUREMENTS

ASC 820, "Fair Value Measurement," defines 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. ASC 820 also establishes a three-level fair value hierarchy that prioritizes information used in developing assumptions when pricing an asset or liability as follows:

Level 1: Observable inputs such as quoted prices in active markets for identical assets or liabilities;

Level 2: Quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs where there is little or no market data, which requires the reporting entity to develop its own assumptions.

ASC 820 requires the use of observable market data, when available, in making fair value measurements. When inputs used to measure fair value fall within different levels of the hierarchy, the level within which the fair value measurement is categorized is based on the lowest level input that is significant to the fair value measurement.

Recurring Fair Value Measurements

The following tables present the Company's fair value hierarchy for those assets and liabilities measured at fair value as of September 30, 2021 and 2020 (in millions):

	Fair Value Measurements Using:							
		otal as of ber 30, 2021	Quoted Prices in Active Markets (Level 1)		in Active Observable Markets Inputs		Significat	
Other current assets								
Foreign currency exchange derivatives	\$	32	\$	_	\$	32	\$	
Commodity derivatives		2		_		2		
Other noncurrent assets								
Deferred compensation plan assets		63		63		_		
Exchange traded funds (fixed income) ¹		146		146		_		
Exchange traded funds (equity) ¹		168		168		_		
Equity swap		23				23		
Total assets	\$	434	\$	377	\$	57	\$	
Other current liabilities								
Foreign currency exchange derivatives	\$	17	\$	_	\$	17	\$	—
Commodity derivatives		1		_		1		—
Contingent earn-out liabilities		32		_	\$	_		32
Other noncurrent liabilities								
Contingent earn-out liabilities		50						50
Total liabilities	\$	100	\$		\$	18	\$	82

	Fair Value Measurements Using:							
		al as of per 30, 2020	Quoted Prices in Active Markets (Level 1)		in Active Observable Markets Inputs		τ	Significant Jnobservable Inputs (Level 3)
Other current assets								
Foreign currency exchange derivatives	\$	27	\$		\$	27	\$	
Exchange traded funds (fixed income) ¹		19		19				
Commodity derivatives		2		—		2		
Other noncurrent assets								
Deferred compensation plan assets		63		63				
Exchange traded funds (fixed income) ¹		143		143		_		
Exchange traded funds (equity) ¹		129		129				
Equity swap		58		_		58		
Total assets	\$	441	\$	354	\$	87	\$	
Other current liabilities								
Foreign currency exchange derivatives	\$	10	\$		\$	10	\$	
Total liabilities	\$	10	\$		\$	10	\$	

¹Classified as restricted investments for payment of asbestos liabilities. See Note 23, "Commitments and Contingencies" of the notes to consolidated financial statements for further details.

Valuation Methods

Foreign currency exchange derivatives: The foreign currency exchange derivatives are valued under a market approach using publicized spot and forward prices.

Commodity derivatives: The commodity derivatives are valued under a market approach using publicized prices, where available, or dealer quotes.

Equity swaps: The equity swaps are valued under a market approach as the fair value of the swaps is equal to the Company's stock price at the reporting period date.

Deferred compensation plan assets: Assets held in the deferred compensation plans will be used to pay benefits under certain of the Company's non-qualified deferred compensation plans. The investments primarily consist of mutual funds which are publicly traded on stock exchanges and are valued using a market approach based on the quoted market prices. Unrealized gains (losses) on the deferred compensation plan assets are recognized in the consolidated statements of income where they offset unrealized gains and losses on the related deferred compensation plan liability.

Investments in exchange traded funds: Investments in exchange traded funds are valued using a market approach based on the quoted market prices, where available, or broker/dealer quotes of identical or comparable instruments. Refer to Note 23, "Commitments and Contingencies," of the notes to consolidated financial statements for further information.

Contingent earn-out liabilities: The contingent earn-out liabilities related to the Silent-Aire acquisition were established using a Monte Carlo simulation based on the forecasted operating results and the earn-out formula specified in the purchase agreement.

The following table presents the portion of unrealized gains (losses) recognized in the consolidated statements of income for the years ended September 30, 2021 and 2020 that relate to equity securities still held at September 30, 2021 and 2020 (in millions):

		Year Ended September 30,			
	20	2021		2020	
Deferred compensation plan assets	\$	7	\$	1	
Investments in exchange traded funds		37		21	

All of the gains and losses on investments in exchange traded funds related to restricted investments.

The fair values of cash and cash equivalents, accounts receivable, short-term debt and accounts payable approximate their carrying values. At September 30, 2021, the fair value of long-term debt was \$8.5 billion, including public debt of \$8.3 billion and other long-term debt of \$0.2 billion. At September 30, 2020, the fair value of long-term debt was \$8.6 billion, including public debt of \$8.4 billion and other long-term debt of \$0.2 billion. The fair value of public debt was determined primarily using market quotes which are classified as Level 1 inputs within the ASC 820 fair value hierarchy. The fair value of other long-term debt was determined using quoted market prices for similar instruments and are classified as Level 2 inputs within the ASC 820 fair value hierarchy.

13. STOCK-BASED COMPENSATION

On March 10, 2021, the shareholders of the Company approved the Johnson Controls International plc 2021 Equity and Incentive Plan, which terminated the 2012 Share and Incentive Plan, as amended in September 2016 (collectively, the "Plans"). The Plans authorize stock options, stock appreciation rights, restricted (non-vested) stock/units, performance shares, performance units and other stock-based awards. The Compensation and Talent Development Committee of the Company's Board of Directors determines the types of awards to be granted to individual participants and the terms and conditions of the awards. As of September 30, 2021, there were 55 million shares of the Company's common stock reserved and 54 million shares available for issuance under the 2021 Equity and Incentive Plan.

The Company has four share-based compensation awards, which are described below. For the fiscal years ended September 30, 2021, 2020 and 2019, compensation cost charged against income for continuing operations, excluding the offsetting impact of outstanding equity swaps, for those plans was approximately \$97 million, \$66 million and \$103 million, respectively, all of which was recorded in selling, general and administrative expenses.

The total income tax benefit recognized for continuing operations in the consolidated statements of income for share-based compensation arrangements was approximately \$24 million, \$16 million and \$26 million for the fiscal years ended September 30, 2021, 2020 and 2019, respectively. The tax impact from the exercise and vesting of equity settled awards was \$12 million of tax benefit, less than \$1 million of tax benefit and \$6 million of tax expense for the fiscal years ended September 30, 2021, 2020 and 2019, respectively. The Company does not settle stock options granted under share-based payment arrangements to cash.

Stock Options

Stock options are granted with an exercise price equal to the market price of the Company's stock at the date of grant. Stock option awards typically vest between two and three years after the grant date and expire ten years from the grant date.

The fair value of each option is estimated on the date of grant using a Black-Scholes option valuation model that uses the assumptions noted in the following table. The expected life of options represents the period of time that options granted are expected to be outstanding, assessed separately for executives and non-executives. The risk-free interest rate for periods during the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. Expected volatility is based on the historical volatility of the Company's stock since October 2016 blended with the historical volatility of certain peer companies' stock prior to October 2016 over the most recent period corresponding to the expected life as of the grant date. The expected dividend yield is based on the expected annual dividend as a percentage of the market value of the Company's ordinary shares as of the grant date. The Company uses historical data to estimate option exercises and employee terminations within the valuation model.

	Y ear Ended September 30,					
	2021	2020	2019			
Expected life of option (years)	6.5	6.5	6.4			
Risk-free interest rate	0.60%	1.67%	2.77%			
Expected volatility of the Company's stock	27.60%	22.40%	21.80%			
Expected dividend yield on the Company's stock	2.28%	2.49%	3.29%			

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A summary of stock option activity at September 30, 2021, and changes for the year then ended, is presented below:

	Weighted Average Option Price		Shares Subject to Option	Subject to Contractual		regate insic ilue illions)
Outstanding, September 30, 2020	\$	37.14	10,114,905			
Granted		45.69	932,678			
Exercised		36.70	(4,840,511)			
Forfeited or expired		37.16	(256,061)			
Outstanding, September 30, 2021	\$	38.84	5,951,011	5.9	\$	174
Exercisable, September 30, 2021	\$	37.01	3,536,889	4.3	\$	110

The weighted-average grant-date fair value of options granted during the fiscal years ended September 30, 2021, 2020 and 2019 was \$9.36, \$7.29 and \$5.56, respectively.

The total intrinsic value of options exercised during the fiscal years ended September 30, 2021, 2020 and 2019 was approximately \$94 million, \$30 million and \$73 million, respectively.

In conjunction with the exercise of stock options, the Company received cash payments for the fiscal years ended September 30, 2021, 2020 and 2019 of approximately \$178 million, \$75 million and \$171 million, respectively.

At September 30, 2021, the Company had approximately \$10 million of total unrecognized compensation cost related to non-vested stock options granted for continuing operations which is expected to be recognized over a weighted-average period of 1.6 years.

Stock Appreciation Rights ("SARs")

SARs vest under the same terms and conditions as stock option awards; however, they are settled in cash for the difference between the market price on the date of exercise and the exercise price. As a result, SARs are recorded in the Company's consolidated statements of financial position as a liability until the date of exercise.

The fair value of each SAR award is estimated using a similar method described for stock options. The fair value of each SAR award is recalculated at the end of each reporting period and the liability and expense are adjusted based on the new fair value.

The assumptions used to determine the fair value of the SAR awards at September 30, 2021 were as follows:

Expected life of SAR (years)	0.01 - 4.29
Risk-free interest rate	0.07% - 0.88%
Expected volatility of the Company's stock	27.60%
Expected dividend yield on the Company's stock	2.28%

A summary of SAR activity at September 30, 2021, and changes for the year then ended, is presented below:

	A	eighted verage R Price	Shares Subject to SAR	Weighted Average Remaining Contractual Life (years)	Aggreg Intrins Valu (in milli	sic e
Outstanding, September 30, 2020	\$	30.14	212,637			
Granted		45.69	35,254			
Exercised		28.16	(88,600)			
Forfeited or expired		32.45	(18,708)			
Outstanding, September 30, 2021	\$	34.99	140,583	3.1	\$	5
Exercisable, September 30, 2021	\$	31.40	105,329	1.0	\$	4

In conjunction with the exercise of SARs granted, the Company made payments of \$3 million, \$2 million and \$3 million during the fiscal years ended September 30, 2021, 2020 and 2019, respectively.

Restricted (Non-vested) Stock / Units

Restricted stock or restricted stock units are typically share settled unless the employee is a non-U.S. employee, in which case the awards are settled in cash. Restricted awards typically vest over a period of three years from the grant date. The Plans allow for different vesting terms on specific grants with approval by the Compensation and Talent Development Committee. The fair value of each share-settled restricted award is based on the closing market value of the Company's ordinary shares on the date of grant. The fair value of each cash-settled restricted award is recalculated at the end of each reporting period based on the closing market value of the Company's ordinary shares are adjusted based on the new fair value.

A summary of non-vested restricted stock awards at September 30, 2021, and changes for the fiscal year then ended, is presented below:

	Weighted Average Price	Shares/Units Subject to Restriction
Non-vested, September 30, 2020	\$ 38.58	3,229,879
Granted	48.29	1,865,566
Vested	37.80	(1,439,284)
Forfeited	 41.32	(321,724)
Non-vested, September 30, 2021	\$ 44.06	3,334,437

At September 30, 2021, the Company had approximately \$103 million of total unrecognized compensation cost related to non-vested restricted stock arrangements granted for continuing operations which is expected to be recognized over a weightedaverage period of 2.0 years.

Performance Share Awards

Performance-based share unit ("PSU") awards are generally contingent on the achievement of predetermined performance goals over a performance period of three years as well as on the award holder's continuous employment until the vesting date. The PSUs are also indexed to the achievement of specified levels of total shareholder return versus a peer group over the performance period. Each PSU that is earned is settled with shares of the Company's ordinary shares following the completion of the performance period.

The fair value of each PSU is estimated on the date of grant using a Monte Carlo simulation that uses the assumptions noted in the following table. The risk-free interest rate for periods during the contractual life of the PSU is based on the U.S. Treasury yield curve in effect at the time of grant. For fiscal years ended 2021 and 2020, the expected volatility is based on the historical volatility of the Company's stock over the most recent three-year period as of the grant date. For fiscal year ended 2019, the

expected volatility is based on the historical volatility of the Company's stock since October 2016 blended with the historical volatility of certain peer companies' stock prior to October 2016 over the most recent three-year period as of the grant date.

	Year Ended September 30,						
	2021	2020	2019				
Risk-free interest rate	0.20%	1.60%	2.76%				
Expected volatility of the Company's stock	30.90%	21.80%	22.90%				

A summary of the status of the Company's non-vested PSUs at September 30, 2021, and changes for the fiscal year then ended, is presented below:

	 Weighted Average Price	Shares/Units Subject to PSU
Non-vested, September 30, 2020	\$ 39.06	1,617,944
Granted	50.53	410,934
Vested	38.75	(789,129)
Forfeited	 41.86	(43,431)
Non-vested, September 30, 2021	\$ 43.11	1,196,318

At September 30, 2021, the Company had approximately \$29 million of total unrecognized compensation cost related to non-vested performance-based share unit awards granted for continuing operations which is expected to be recognized over a weighted-average period of 1.8 years.

14. EARNINGS PER SHARE

The following table reconciles the numerators and denominators used to calculate basic and diluted earnings per share (in millions):

	Year Ended September 30,					
	2021		2020			2019
Income Available to Ordinary Shareholders						
Income from continuing operations	\$	1,513	\$	631	\$	1,100
Income from discontinued operations		124		—		4,574
Basic and diluted income available to shareholders	\$	1,637	\$	631	\$	5,674
Weighted Average Shares Outstanding						
Basic weighted average shares outstanding		716.6		751.0		870.2
Effect of dilutive securities:						
Stock options, unvested restricted stock and unvested performance share awards		4.5		2.6		4.1
Diluted weighted average shares outstanding		721.1		753.6		874.3
Antidilutive Securities						
Options to purchase shares		—		1.4		1.4

15. EQUITY AND NONCONTROLLING INTERESTS

Dividends

The authority to declare and pay dividends is vested in the Board of Directors. The timing, declaration and payment of future dividends to holders of the Company's ordinary shares is determined by the Company's Board of Directors and depends upon many factors, including the Company's financial condition and results of operations, the capital requirements of the Company's businesses, industry practice and any other relevant factors.

Under Irish law, dividends may only be paid (and share repurchases and redemptions must generally be funded) out of "distributable reserves." The creation of distributable reserves was accomplished by way of a capital reduction, which the Irish High Court approved on December 18, 2014 and as acquired in conjunction with the Merger.

Share Repurchase Program

In March 2021, the Company's Board of Directors approved a \$4.0 billion increase to the Company's share repurchase authorization, adding to the \$2.0 billion remaining as of December 31, 2020 under the prior share repurchase authorization approved in 2019. The share repurchase program does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. As of September 30, 2021, approximately \$5.1 billion remains available under the share repurchase program.

During fiscal year 2021, the Company repurchased and retired approximately \$1,307 million of its ordinary shares. During fiscal year 2020, the Company repurchased and retired approximately \$2,204 million of its ordinary shares. During fiscal year 2019, the Company repurchased approximately \$5,983 million of its ordinary shares, of which \$4,035 million of its ordinary shares were purchased through a publicly announced "modified Dutch auction" tender offer and immediately retired, and \$1,948 million of its ordinary shares were purchased on an open market and retired in the fourth quarter of fiscal 2019.

Other comprehensive income includes activity relating to discontinued operations. The following schedules present changes in consolidated equity attributable to Johnson Controls and noncontrolling interests (in millions, net of tax):

	Equity Attributable to Johnson Controls International plc	Equity Attributable to Noncontrolling Interests	Total Equity
At September 30, 2018	\$ 21,164	\$ 1,294	22,458
Total comprehensive income (loss):			
Net income	5,674	213	5,887
Foreign currency translation adjustments	(325)	(17)	(342)
Realized and unrealized gains (losses) on derivatives	7	(1)	6
Pension and postretirement plans	(6)		(6)
Other comprehensive loss	(324)	(18)	(342)
Comprehensive income	5,350	195	5,545
Other changes in equity:			
Cash dividends - ordinary shares (\$1.04 per share)	(887)		(887)
Dividends attributable to noncontrolling interests	_	(132)	(132)
Repurchases and retirements of ordinary shares	(5,983)		(5,983)
Divestiture of Power Solutions	483	(295)	188
Adoption of ASC 606	(45)	_	(45)
Adoption of ASU 2016-16	(546)	_	(546)
Other, including options exercised	230	1	231
At September 30, 2019	19,766	1,063	20,829
Total comprehensive income:	-)	,	-)
Net income	631	164	795
Foreign currency translation adjustments	7	18	25
Realized and unrealized gains on derivatives	4	4	8
Pension and postretirement plans	8		8
Other comprehensive income	19	22	41
Comprehensive income	650	186	836
Other changes in equity:		100	000
Cash dividends - ordinary shares (\$1.04 per share)	(780)		(780)
Dividends attributable to noncontrolling interests	(700)	(114)	(114)
Repurchases and retirements of ordinary shares	(2,204)	(114)	(2,204)
Change in noncontrolling interest share	(83)	(49)	(132)
Adoption of ASC 842	(5)	(47)	(152)
Other, including options exercised	103		103
At September 30, 2020	103	1,086	18,533
Total comprehensive income (loss):	1/,44/	1,000	18,555
Net income	1,637	233	1,870
Foreign currency translation adjustments	357	19	376
Realized and unrealized gains (losses) on derivatives	(19)		
ũ ()		1	(18)
Pension and postretirement plans	4		4
Other comprehensive income	342	20	362
Comprehensive income	1,979	253	2,232
Other changes in equity:	(221)		(771)
Cash dividends - ordinary shares (\$1.07 per share)	(771)	(140)	(771)
Dividends attributable to noncontrolling interests		(142)	(142)
Repurchases and retirements of ordinary shares	(1,307)		(1,307)
Change in noncontrolling interest share	(8)	(6)	(14)
Adoption of ASU 2016-13	(4)	_	(4)
Other, including options exercised	226		226
At September 30, 2021	\$ 17,562	\$ 1,191 \$	5 18,753

The Company adopted ASU 2016-13 "Financial Instruments - Credit Losses" effective October 1, 2020. As a result the Company recorded \$4 million to beginning retained earnings.

The Company adopted ASC 842, "Leases" effective October 1, 2019. As a result, the Company recorded \$5 million to beginning retained earnings, which relates primarily to adoption day impairment of previously exited facilities.

The Company adopted ASC 606, "Revenue from Contracts with Customers" effective October 1, 2018. As a result, the Company recorded \$45 million to beginning retained earnings, which relates primarily to deferred revenue recorded for the Power Solutions business for certain battery core returns that represent a material right provided to customers.

The Company adopted ASU 2016-16, "Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other Than Inventory" effective October 1, 2018. As a result, the Company recognized deferred taxes of \$546 million related to the tax effects of all intra-entity sales of assets other than inventory on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of October 1, 2018.

The following schedules present changes in AOCI attributable to Johnson Controls (in millions, net of tax):

	Year Ended September 30,				
	, ,	2021	2020	2019	
Foreign currency translation adjustments					
Balance at beginning of period	\$	(778)	\$ (785)	\$ (939)	
Divestiture of Power Solutions		_	_	479	
Aggregate adjustment for the period (net of tax effect of \$0, \$1 and \$0)		357	7	(325)	
Balance at end of period		(421)	(778)	(785)	
Realized and unrealized gains (losses) on derivatives					
Balance at beginning of period		2	(2)	(13)	
Divestiture of Power Solutions (net of tax effect of \$0, \$0 and \$1)		_	—	4	
Current period changes in fair value (net of tax effect of \$5, \$1 and \$(1))		(8)	3	(1)	
Reclassification to income (net of tax effect of (3) , 0 and (2) (1)		(11)	1	8	
Balance at end of period		(17)	2	(2)	
Realized and unrealized gains (losses) on marketable securities					
Balance at beginning of period			_	8	
Adoption of ASU 2016-01 ⁽²⁾				(8)	
Balance at end of period					
Pension and postretirement plans					
Balance at beginning of period			(8)	(2)	
Reclassification to income (net of tax effect of \$0, \$(1) and \$0)		(3)	(1)	_	
Other changes (net of tax effect of \$(1), \$4 and \$0)		7	9	(6)	
Balance at end of period		4		(8)	
Accumulated other comprehensive loss, end of period	\$	(434)	\$ (776)	\$ (795)	

(1) Refer to Note 11, "Derivative Instruments and Hedging Activities," of the notes to consolidated financial statements for disclosure of the line items in the consolidated statements of income affected by reclassifications from AOCI into income related to derivatives.

(2) The Company adopted ASU 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities" effective October 1, 2018 and, as a result, reclassified \$8 million of unrealized gains on marketable securities to retained earnings.

16. RETIREMENT PLANS

Pension Benefits

The Company has non-contributory defined benefit pension plans covering certain U.S. and non-U.S. employees. The benefits provided are primarily based on years of service and average compensation or a monthly retirement benefit amount. Certain of the Company's U.S. pension plans have been amended to prohibit new participants from entering the plans and no longer accrue benefits. Funding for U.S. pension plans equals or exceeds the minimum requirements of the Employee Retirement Income Security Act of 1974. Funding for non-U.S. plans observes the local legal and regulatory limits. Also, the Company makes contributions to union-trusteed pension funds for construction and service personnel.

Information for pension plans with accumulated benefit obligations ("ABO") in excess of plan assets (in millions):

	 September 30,							
	2021		2020					
Accumulated benefit obligation	\$ 4,402	\$	5,539					
Fair value of plan assets	3,841		4,528					

Information for pension plans with projected benefit obligations ("PBO") in excess of plan assets (in millions):

	 September 30,						
	 2021	2020					
Projected benefit obligation	\$ 4,519	\$	5,643				
Fair value of plan assets	3,954		4,570				

In fiscal 2021, total employer contributions to the defined benefit pension plans were \$65 million, none of which were voluntary contributions made by the Company. The Company expects to contribute approximately \$42 million in cash to its defined benefit pension plans in fiscal 2022. Projected benefit payments from the plans as of September 30, 2021 are estimated as follows (in millions):

2022	\$ 329
2023	298
2024	285
2025	280
2026	284
2027 - 2031	1,387

Postretirement Benefits

The Company provides certain health care and life insurance benefits for eligible retirees and their dependents primarily in the U.S. and Canada. Most non-U.S. employees are covered by government sponsored programs, and the cost to the Company is not significant.

Eligibility for coverage is based on meeting certain years of service and retirement age qualifications. These benefits may be subject to deductibles, co-payment provisions and other limitations, and the Company has reserved the right to modify these benefits.

The health care cost trend assumption does not have a significant effect on the amounts reported.

Information for postretirement plans with accumulated postretirement benefit obligations ("APBO") in excess of plan assets (in millions):

	September 30,							
		2021		2020				
Accumulated postretirement benefit obligation	\$	96	\$	105				
Fair value of plan assets		38		34				

In fiscal 2021, total employer contributions to the postretirement plans were \$3 million. The Company expects to contribute approximately \$3 million in cash to its postretirement plans in fiscal 2022 for continuing operations. Projected benefit payments from the plans as of September 30, 2021 are estimated as follows (in millions):

2022	\$ 11
2023	11
2024	11
2025	10
2026	10
2027 - 2031	38

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 ("Act") includes a prescription drug benefit under Medicare as well as a federal subsidy to sponsors of retiree health care benefit plans providing a benefit that is at least actuarially equivalent to Medicare Part D.1. Under the Act, the Medicare subsidy amount is received directly by the plan sponsor and not the related plan. Further, the plan sponsor is not required to use the subsidy amount to fund postretirement benefits and may use the subsidy for any valid business purpose. Projected subsidy receipts are estimated to be less than \$1 million per year over the next ten years.

Defined Contribution Plans

The Company sponsors various defined contribution savings plans that allow employees to contribute a portion of their pre-tax and/or after-tax income in accordance with plan specified guidelines. Under specified conditions, the Company will contribute to certain savings plans based on predetermined percentages of compensation earned by the employee and/or will match a percentage of the employee contributions up to certain limits. The Company temporarily suspended contributions in fiscal 2021 and 2020 in response to the COVID-19 pandemic. Defined contribution plan contributions charged to expense for continuing and discontinued operations amounted to \$118 million, \$104 million and \$198 million for the fiscal years ended 2021, 2020 and 2019, respectively.

Multiemployer Benefit Plans

The Company contributes to multiemployer benefit plans based on obligations arising from collective bargaining agreements related to certain of its hourly employees in the U.S. These plans provide retirement benefits to participants based on their service to contributing employers. The benefits are paid from assets held in trust for that purpose. The trustees typically are responsible for determining the level of benefits to be provided to participants as well as for such matters as the investment of the assets and the administration of the plans.

The risks of participating in these multiemployer benefit plans are different from single-employer benefit plans in the following aspects:

- Assets contributed to the multiemployer benefit plan by one employer may be used to provide benefits to employees of other participating employers.
- If a participating employer stops contributing to the multiemployer benefit plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
- If the Company stops participating in some of its multiemployer benefit plans, the Company may be required to pay those plans an amount based on its allocable share of the underfunded status of the plan, referred to as a withdrawal liability.

The Company participates in approximately 275 multiemployer benefit plans, none of which are individually significant to the Company. The number of employees covered by the Company's multiemployer benefit plans has remained consistent over the past three years, and there have been no significant changes that affect the comparability of fiscal 2021, 2020 and 2019 contributions. The Company recognizes expense for the contractually-required contribution for each period. The Company contributed \$67 million, \$66 million and \$69 million to multiemployer benefit plans in fiscal 2021, 2020 and 2019, respectively.

Based on the most recent information available, the Company believes that the present value of actuarial accrued liabilities in certain of these multiemployer benefit plans may exceed the value of the assets held in trust to pay benefits. Currently, the Company is not aware of any significant multiemployer benefit plans for which it is probable or reasonably possible that the Company will be obligated to make up any shortfall in funds. Moreover, if the Company were to exit certain markets or otherwise cease making contributions to these funds, the Company could trigger a withdrawal liability. Currently, the Company is not aware of any multiemployer benefit plans for which it is probable or reasonably possible that the Company will have a significant withdrawal liability. Any accrual for a shortfall or withdrawal liability will be recorded when it is probable that a liability exists and it can be reasonably estimated.

Plan Assets

The Company's investment policies employ an approach whereby a mix of equities, fixed income and alternative investments are used to maximize the long-term return of plan assets for a prudent level of risk. The investment portfolio primarily contains a diversified blend of equity and fixed income investments. Equity investments are diversified across U.S. and non-U.S. stocks, as well as growth, value and small to large capitalization. Fixed income investments include corporate and government issues, with short-, mid- and long-term maturities, with a focus on investment grade when purchased and a target duration close to that of the plan liability. Investment and market risks are measured and monitored on an ongoing basis through regular investment of the portfolio is invested in a diversified portfolio of high-quality, operating properties with cash yields greater than the targeted appreciation. Investments in other alternative asset classes, including hedge funds and commodities, diversify the expected investment returns relative to the equity and fixed income investments. As a result of the Company's diversification strategies, there are no significant concentrations of risk within the portfolio of investments.

The Company's actual asset allocations are in line with target allocations. The Company rebalances asset allocations as appropriate, in order to stay within a range of allocation for each asset category.

The expected return on plan assets is based on the Company's expectation of the long-term average rate of return of the capital markets in which the plans invest. The average market returns are adjusted, where appropriate, for active asset management returns. The expected return reflects the investment policy target asset mix and considers the historical returns earned for each asset category.

The Company's plan assets at September 30, 2021 and 2020, by asset category, are as follows (in millions): Fair Value Measurements Using: Quoted Prices Other Significant in Active Observable Unobservable

Asset Category		tal as of ber 30, 2021		in Active Markets (Level 1)		Other Observable Inputs (Level 2)		Significant Inobservable Inputs (Level 3)
U.S. Pension								
Cash and Cash Equivalents	\$	75	\$	_	\$	75	\$	_
Equity Securities								
Large-Cap		185		185		—		_
Small-Cap		215		215				_
International - Developed		182		182		_		_
International - Emerging Fixed Income Securities		34		34				
Government		286		98		188		
Corporate/Other		1,279		1,279				_
Total Investments in the Fair Value Hierarchy		2,256	\$	1,993	\$	263	\$	
Real Estate Investments Measured at Net Asset Value*		280		· · · · · · · · · · · · · · · · · · ·				
Due to Broker		(77)						
Total Plan Assets	\$	2,459						
Non-U.S. Pension								
Cash and Cash Equivalents	\$	151	\$	151	\$	_	\$	_
Equity Securities								
Large-Cap		197		23		174		_
International - Developed		128		30		98		
International - Emerging		2				2		—
Fixed Income Securities								
Government		1,123		77		1,046		—
Corporate/Other		597		320		277		—
Hedge Fund		27		_		27		_
Real Estate		14		14				
Total Investments in the Fair Value Hierarchy		2,239	\$	615	\$	1,624	\$	
Real Estate Investments Measured at Net Asset Value*	<u> </u>	105						
Total Plan Assets	\$	2,344						
Postretirement	¢	-	¢	-	^		¢	
Cash and Cash Equivalents	\$	5	\$	5	\$		\$	
Equity Securities		24				24		
Large-Cap Small-Cap		24 8		_		24 8		_
International - Developed		8 19				8 19		
International - Emerging		12		_		12		_
Fixed Income Securities								
Government		20		—		20		—
Corporate/Other		56		_		56		_
Commodities		17		—		17		—
Real Estate		11				11		
Total Plan Assets	\$	172	\$	5	\$	167	\$	_

		Fair	Value Measu	irem	Fair Value Measurements Using:								
Asset Category	al as of ber 30, 2020	i	oted Prices n Active Markets Level 1)		Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)							
U.S. Pension													
Cash and Cash Equivalents	\$ 36	\$	_	\$	36	\$	_						
Equity Securities													
Large-Cap	198		198		—		—						
Small-Cap	255		255		—		_						
International - Developed	220		220		—		—						
International - Emerging	33		33		—		—						
Fixed Income Securities													
Government	382		159		223		—						
Corporate/Other	 1,386		1,386										
Total Investments in the Fair Value Hierarchy	2,510	\$	2,251	\$	259	\$							
Real Estate Investments Measured at Net Asset Value*	276												
Due to Broker	 (80)												
Total Plan Assets	\$ 2,706												
Non-U.S. Pension													
Cash and Cash Equivalents	\$ 178	\$	178	\$	_	\$	_						
Large-Cap	357		23		334		_						
International - Developed	226		52		174		_						
International - Emerging	4		_		4		_						
Fixed Income Securities													
Government	704		64		640		—						
Corporate/Other	652		321		331		—						
Hedge Fund	49		_		49		—						
Real Estate	 27		27				_						
Total Investments in the Fair Value Hierarchy	2,197	\$	665	\$	1,532	\$							
Real Estate Investments Measured at Net Asset Value*	 16												
Total Plan Assets	\$ 2,213												
Postretirement													
Cash and Cash Equivalents	\$ 5	\$	5	\$	_	\$	_						
Equity Securities													
Large-Cap	23		_		23		—						
Small-Cap	7		—		7		—						
International - Developed	16		—		16		—						
International - Emerging	10				10		—						
Fixed Income Securities													
Government	19		—		19		_						
Corporate/Other	53				53		_						
Commodities	12		—		12		_						
Real Estate	 8				8								
Total Plan Assets	\$ 153	\$	5	\$	148	\$							

* The fair value of certain investments in real estate do not have a readily determinable fair value and requires the fund managers to independently arrive at fair value by calculating net asset value ("NAV") per share. In order to calculate NAV per

share, the fund managers value the real estate investments using any one, or a combination of, the following methods: independent third party appraisals, discounted cash flow analysis of net cash flows projected to be generated by the investment and recent sales of comparable investments. Assumptions used to revalue the properties are updated every quarter. Due to the fact that the fund managers calculate NAV per share, the Company utilizes a practical expedient for measuring the fair value of its real-estate investments, as provided for under ASC 820, "Fair Value Measurement." In applying the practical expedient, the Company is not required to further adjust the NAV provided by the fund manager in order to determine the fair value of its investment as the NAV per share is calculated in a manner consistent with the measurement principles of ASC 946, "Financial Services - Investment Companies," and as of the Company's measurement date. The Company believes this is an appropriate methodology to obtain the fair value of these assets. For the component of the real estate portfolio under development, the investments are carried at cost until they are completed and valued by a third party appraiser. In accordance with ASU No. 2015-07, "Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)," investments for which fair value is measured using the net asset value per share practical expedient should be disclosed separate from the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of total plan assets to the amounts presented in the notes to consolidated financial statements.

The following is a description of the valuation methodologies used for assets measured at fair value. Certain assets are held within commingled funds which are valued at the unitized NAV or percentage of the net asset value as determined by the manager of the fund. These values are based on the fair value of the underlying net assets owned by the fund.

Cash and Cash Equivalents: The fair value of cash and cash equivalents is valued at cost.

Equity Securities: The fair value of equity securities is determined by direct quoted market prices. The underlying holdings are direct quoted market prices on regulated financial exchanges.

Fixed Income Securities: The fair value of fixed income securities is determined by direct or indirect quoted market prices. If indirect quoted market prices are utilized, the value of assets held in separate accounts is not published, but the investment managers report daily the underlying holdings. The underlying holdings are direct quoted market prices on regulated financial exchanges.

Commodities: The fair value of the commodities is determined by quoted market prices of the underlying holdings on regulated financial exchanges.

Hedge Funds: The fair value of hedge funds is accounted for by the custodian. The custodian obtains valuations from underlying managers based on market quotes for the most liquid assets and alternative methods for assets that do not have sufficient trading activity to derive prices. The Company and custodian review the methods used by the underlying managers to value the assets. The Company believes this is an appropriate methodology to obtain the fair value of these assets.

Real Estate: The fair value of real estate is determined by quoted market prices of the underlying Real Estate Investment Trusts ("REITs"), which are securities traded on an open exchange.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

There were no Level 3 assets as of September 30, 2021 or 2020 or any Level 3 asset activity during fiscal 2021 or 2020.

Funded Status

The table that follows contains the ABO and reconciliations of the changes in the PBO, the changes in plan assets and the funded status (in millions):

	Pension Benefits								 Postretirement 			
		U.S.	Pla	ns		Non-U.S. Plans			Benefits			ciit
September 30,		2021		2020	_	2021		2020	_	2021		2020
Accumulated Benefit Obligation	\$	2,629	\$	3,217	\$	2,540	\$	2,627	\$		\$	
Change in Projected Benefit Obligation												
Projected benefit obligation at beginning of year	\$	3,217	\$	3,115	\$	2,726	\$	2,652	\$	146	\$	174
Service cost		_		_		27		25		1		1
Interest cost		47		67		32		36		2		4
Plan participant contributions						3		3		3		4
Other divestitures		_		_		_		(2)				
Actuarial (gain) loss		(52)		298		(103)		7		(13)		(3)
Amendments made during the year		_		_		(6)		_				(13)
Benefits and settlements paid		(583)		(263)		(124)		(109)		(17)		(21)
Estimated subsidy received		—		—		—		_				1
Curtailment		—		—		(3)		(8)				
Other		—		—		(2)		4				
Currency translation adjustment						75		118		1		(1)
Projected benefit obligation at end of year	\$	2,629	\$	3,217	\$	2,625	\$	2,726	\$	123	\$	146
Change in Plan Assets												
Fair value of plan assets at beginning of year	\$	2,706	\$	2,736	\$	2,213	\$	2,098	\$	153	\$	163
Actual return on plan assets		333		228		125		75		30		4
Employer and employee contributions		3		5		65		56		6		7
Benefits paid		(108)		(112)		(79)		(73)		(17)		(21)
Settlement payments		(475)		(151)		(45)		(36)		_		_
Other		_		_		(1)		_				
Currency translation adjustment						66		93				
Fair value of plan assets at end of year	\$	2,459	\$	2,706	\$	2,344	\$	2,213	\$	172	\$	153
Funded status	\$	(170)	\$	(511)	\$	(281)	\$	(513)	\$	49	\$	7
Amounts recognized in the statement of financial position	con	sist of										
Prepaid benefit cost	\$	44	\$	32	\$	79	\$	29	\$	107	\$	78
Accrued benefit liability	ψ	(214)	ψ	(543)	ψ	(360)	ψ	(542)	ψ	(58)	ψ	(71)
-			_		_							
Net amount recognized	\$	(170)	\$	(511)	\$	(281)	\$	(513)	\$	49	\$	7
Weighted Average Assumptions (1)												
Discount rate (2)		2.50 %		2.25 %		1.80 %		1.35 %		2.30 %		1.90 %
Rate of compensation increase		N/A		N/A		2.85 %		2.75 %		N/A		N/A
Interest crediting rate		N/A		N/A		1.45 %		1.50 %		N/A		N/A

(1) Plan assets and obligations are determined based on a September 30 measurement date at September 30, 2021 and 2020.

(2) The Company considers the expected benefit payments on a plan-by-plan basis when setting assumed discount rates. As a result, the Company uses different discount rates for each plan depending on the plan jurisdiction, the demographics of participants and the expected timing of benefit payments. For the U.S. pension and postretirement plans, the Company uses a discount rate provided by an independent third party calculated based on an appropriate mix of high quality bonds. For the non-U.S. pension and postretirement plans, the Company consistently uses the relevant country specific benchmark indices for determining the various discount rates. The Company has elected to utilize a full yield curve approach in the estimation of service and interest components of net periodic benefit cost (credit) for pension and other postretirement for plans that utilize a yield curve approach. The full yield curve approach applies the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows.

The fiscal 2021 net actuarial gains related to changes in the benefit obligation were the result of the increase in the discount rates globally. The fiscal 2020 net actuarial losses related to changes in the benefit obligation were primarily driven by the decrease in the U.S. discount rates.

Accumulated Other Comprehensive Income

The amounts in AOCI in the consolidated statements of financial position, exclusive of tax impacts, that have not yet been recognized as components of net periodic benefit credit at September 30, 2021 and 2020 related to pension and postretirement benefits are \$8 million and \$5 million, respectively.

Net Periodic Benefit Cost

The table that follows contains the components of net periodic benefit costs, which are primarily recorded in selling, general and administrative expenses in the consolidated statements of income (in millions):

Pension Benefits										
		U.S. Plans		No	on-U.S. Pla	ins	Postre	tirement B	enefits	
Year ended September 30,	2021	2020	2019	2021	2020	2019	2021	2020	2019	
Components of Net Periodic Benefit Cost (Credit):										
Service cost	\$ —	\$ —	\$ 8	\$ 27	\$ 25	\$ 22	\$ 1	\$ 1	\$ 1	
Interest cost	47	67	108	32	36	54	2	4	6	
Expected return on plan assets	(171)	(180)	(199)	(112)	(111)	(105)	(8)	(9)	(9)	
Net actuarial (gain) loss	(214)	244	361	(115)	43	236	(35)	2	17	
Amortization of prior service cost (credit)				1	1		(4)	(3)		
Curtailment gain				(3)	(8)	—		—		
Settlement (gain) loss		6	13	(1)	—	4		—		
Special termination benefit cost				2						
Net periodic benefit cost (credit)	(338)	137	291	(169)	(14)	211	(44)	(5)	15	
Net periodic benefit cost related to discontinued operations			(2)							
Net periodic benefit cost (credit) included in continuing operations	\$(338)	\$ 137	\$ 289	\$(169)	\$ (14)	\$ 211	\$ (44)	\$ (5)	\$ 15	
Expense Assumptions:										
Discount rate	2.25 %	2.95 %	4.10 %	1.35 %	1.50 %	2.45 %	1.90 %	2.65 %	3.80 %	
Expected return on plan assets	6.50 %	6.90 %	7.10 %	4.90 %	5.20 %	5.20 %	5.30 %	5.70 %	5.65 %	
Rate of compensation increase	N/A	N/A	3.50 %	2.75 %	2.80 %	2.95 %	N/A	N/A	N/A	
Interest crediting rate	N/A	N/A	N/A	1.50 %	1.50 %	1.55 %	N/A	N/A	N/A	

17. SIGNIFICANT RESTRUCTURING AND IMPAIRMENT COSTS

To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company commits to various restructuring plans as necessary. Restructuring plans generally result in charges for workforce reductions, plant closures, asset impairments and other related costs which are reported as restructuring and impairment costs in the Company's consolidated statements of income. The other related costs consist primarily of consulting costs incurred as a direct result of the restructuring initiatives. The Company expects the restructuring actions to reduce cost of sales and SG&A due to reduced employee-related costs, depreciation and amortization expense.

In fiscal 2021, the Company committed to a significant restructuring plan ("2021 Plan"). During the year ended September 30, 2021, the Company recorded \$242 million of restructuring and impairment costs in the consolidated statements of income. The total amount expected to be incurred for this restructuring plan is \$385 million across all segments and at Corporate. Of the restructuring and impairment costs recorded in the year ended September 30, 2021, \$91 million related to the Global Products segment, \$70 million related to the Building Solutions North America segment, \$29 million related to the Building Solutions Asia Pacific segment and \$24 million related to Corporate.

The following table summarizes the changes in the Company's 2021 Plan reserve, included primarily within other current liabilities in the consolidated statements of financial position (in millions):

	Employee Severance and Long-Live Termination Asset Benefits Impairmen		sset	 Other	 Total	
Original reserve	\$	68	\$	98	\$ 76	\$ 242
Utilized—cash		(28)			(51)	(79)
Utilized—noncash				(98)	 	 (98)
Balance at September 30, 2021	\$	40	\$		\$ 25	\$ 65

In fiscal 2020, the Company committed to a significant restructuring plan ("2020 Plan") and recorded \$297 million of restructuring and impairment costs in the consolidated statements of income. This is the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. Of the restructuring and impairment costs recorded, \$136 million related to the Global Products segment, \$64 million related to the Building Solutions North America segment, \$49 million related to the Building Solutions Asia Pacific segment, \$43 million related to the Building Solutions EMEA/LA segment and \$5 million related to Corporate. The restructuring actions were substantially complete in fiscal 2021.

The following table summarizes the changes in the Company's 2020 Plan reserve, included within other current liabilities in the consolidated statements of financial position (in millions):

	Seve Ter	nployee erance and mination Benefits	ong-Lived Asset pairments	Other		 Total
Original reserve	\$	196	\$ 96	\$	5	\$ 297
Utilized—cash		(92)			(3)	(95)
Utilized—noncash			(96)			(96)
Currency translation		2	 			 2
Balance at September 30, 2020		106	_		2	108
Utilized—cash		(69)	 		(2)	 (71)
Balance at September 30, 2021	\$	37	\$ 	\$		\$ 37

Also included in restructuring and impairment costs in the consolidated statements of income in fiscal 2020 are goodwill impairment related to the North America Retail reporting unit of \$424 million and indefinite-lived intangible asset impairments of \$62 million. Refer to Note 8, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for further information regarding these impairments.

The Company's fiscal 2021 and 2020 restructuring plans included workforce reductions of approximately 10,000 employees. Restructuring charges associated with employee severance and termination benefits are paid over the severance period granted to each employee or on a lump sum basis in accordance with individual severance agreements. As of September 30, 2021, approximately 7,800 of the employees have been separated from the Company pursuant to the restructuring plans.

Company management closely monitors its overall cost structure and continually analyzes each of its businesses for opportunities to consolidate current operations, improve operating efficiencies and locate facilities in close proximity to customers. This ongoing analysis includes a review of its manufacturing, engineering and purchasing operations, as well as the overall global footprint for all its businesses.

18. IMPAIRMENT OF LONG-LIVED ASSETS

In fiscal 2021, the Company concluded it had triggering events requiring assessment of impairment for certain of its long-lived assets in conjunction with its restructuring actions announced in fiscal 2021. As a result, the Company reviewed the long-lived assets for impairment and recorded \$98 million of asset impairment charges within restructuring and impairment costs in the consolidated statements of income. Of the total impairment charges, \$50 million related to the Global Products segment, \$33 million related to the Building Solutions North America segment, \$6 million related to Corporate assets, \$5 million related to the Building Solutions EMEA/LA segment and \$4 million related to the Building Solutions Asia Pacific segment. Refer to Note 17, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured under a market approach utilizing an appraisal to determine fair values of the impaired assets. This method is consistent with the methods the Company employed in prior periods to value other long-lived assets. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement.

In fiscal 2020, the Company concluded it had triggering events requiring assessment of impairment for certain of its long-lived assets caused by the economic impacts of the COVID-19 pandemic on the North America Retail asset group. The Company performed a quantitative impairment analysis and determined there was no impairment of long-lived assets as of September 30, 2020.

In fiscal 2020, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with its restructuring actions announced in fiscal 2020. As a result, the Company reviewed the long-lived assets for impairment and recorded \$81 million of asset impairment charges within restructuring and impairment costs in the consolidated statements of income. Of these impairment charges, \$42 million related to the Global Products segment, \$24 million related to the Building Solutions Asia Pacific segment and \$15 million related to the Building Solutions North America segment. The impairments were primarily measured under a market approach utilizing an appraisal to determine fair values of the impaired assets. This method is consistent with the methods the Company employed in prior periods to value other long-lived assets. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

In fiscal 2019 and again in 2020, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with the plans to dispose of a business within its Global Products segment that met the criteria to be classified as held for sale. Assets and liabilities held for sale are required to be recorded at the lower of carrying value or fair value less any costs to sell. Accordingly, the Company recorded impairment charges of \$250 million, including \$15 million in fiscal 2020 and \$235 million in fiscal 2019, within restructuring and impairment costs in the consolidated statements of income to write down the carrying value of the assets held for sale to fair value less any costs to sell. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

Refer to Note 17, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured under a market approach utilizing an appraisal to determine fair values of the impaired assets. This method is consistent with the methods the Company employed in prior periods to value other long-lived assets. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

At September 30, 2021, 2020 and 2019, the Company concluded it did not have any other triggering events requiring assessment of impairment of its long-lived assets. Refer to Note 1, "Summary of Significant Accounting Policies," and Note 8, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for discussion of the Company's goodwill and indefinite-lived intangibles impairment testing.

19. INCOME TAXES

The more significant components of the Company's income tax provision from continuing operations are as follows (in millions):

	Year Ended September 30,					
		2021		2020		2019
Tax expense at Ireland statutory rate	\$	327	\$	113	\$	132
U.S. state income tax, net of federal benefit		34		8		15
Income subject to the U.S. federal tax rate		3		(92)		(110)
Income subject to rates different than the statutory rate		30		99		38
Reserve and valuation allowance adjustments		66		(70)		(284)
Intercompany intellectual property transfer		417				
Restructuring and impairment costs		(9)		50		(24)
Income tax provision (benefit)	\$	868	\$	108	\$	(233)

The statutory tax rate in Ireland of 12.5% is being used as a comparison since the Company is domiciled in Ireland.

For fiscal 2021, the effective tax rate for continuing operations was 33% and was higher than the statutory tax rate primarily due to the tax impacts of an intercompany transfer of certain of the Company's intellectual property rights, valuation allowance adjustments, the income tax effects of mark-to-market adjustments and tax rate differentials, partially offset by the benefits of continuing global tax planning initiatives.

For fiscal 2020, the effective tax rate for continuing operations was 12% and was lower than the statutory tax rate primarily due to tax audit reserve adjustments, the income tax effects of mark-to-market adjustments, valuation allowance adjustments and the benefits of continuing global tax planning initiatives, partially offset by a discrete tax charge related to the remeasurement of deferred tax assets and liabilities as a result of Swiss tax reform, the tax impact of an impairment charge and tax rate differentials.

For fiscal 2019, the effective rate for continuing operations was below the statutory rate primarily due to tax audit reserve adjustments, the income tax effects of mark-to-market adjustments, a tax indemnification reserve release, the tax benefits of an asset held for sale impairment charge and continuing global tax planning initiatives, partially offset by valuation allowance adjustments as a result of tax law changes, a discrete tax charge related to newly enacted regulations related to U.S. Tax Reform and tax rate differentials.

Valuation Allowances

The Company reviews the realizability of its deferred tax asset valuation allowances on a quarterly basis, or whenever events or changes in circumstances indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset are considered, along with any other positive or negative evidence. Since future financial results may differ from previous estimates, periodic adjustments to the Company's valuation allowances may be necessary.

In the fourth quarter of fiscal 2021, as a result of an intercompany transfer of certain of the Company's intellectual property rights, the Company determined that it is more likely than not that certain deferred tax assets of Switzerland would be realized, and it was more likely than not that certain deferred tax assets of Canada would not be realized. The valuation allowance adjustments resulted in a \$39 million net benefit to income tax expense in the three month period ended September 30, 2021.

In the second quarter of fiscal 2021, due to changes in forecasted taxable income, the Company recorded a discrete tax charge of \$105 million related to valuation allowances on certain Mexico deferred tax assets now considered unrealizable.

In the fourth quarter of fiscal 2020, the Company performed an analysis related to the realizability of its worldwide deferred tax assets. As a result, and after considering feasible tax planning initiatives and other positive and negative evidence, the Company determined that it was more likely than not that certain deferred tax assets primarily within the U.S. would not be realized, and it is more likely than not that certain deferred tax assets of Canada would be realized. The valuation allowance adjustments resulted in a \$26 million net benefit to income tax expense in the three month period ended September 30, 2020.

In the fourth quarter of fiscal 2019, the Company performed an analysis related to the realizability of its worldwide deferred tax assets. As a result, and after considering feasible tax planning initiatives and other positive and negative evidence, the Company determined that it was more likely than not that certain deferred tax assets primarily within the U.S., Belgium, Japan and the United Kingdom would not be realized, and it is more likely than not that certain deferred tax assets of the U.S. and France will be realized. The valuation allowance adjustments resulted in an immaterial net impact to income tax expense for the three-month period ended September 30, 2019.

In the first quarter of fiscal 2019, as a result of changes to U.S. tax law, the Company recorded a discrete tax charge of \$76 million related to valuation allowances on certain U.S. deferred tax assets.

Uncertain Tax Positions

The Company is subject to income taxes in the U.S. and numerous non-U.S. jurisdictions. Judgment is required in determining its worldwide provision for income taxes and recording the related assets and liabilities. In the ordinary course of the Company's business, there are many transactions and calculations where the ultimate tax determination is uncertain. The Company is regularly under audit by tax authorities.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in millions):

	Year Ended September 30,					
	2021		2020			2019
Beginning balance, October 1	\$	2,528	\$	2,451	\$	2,358
Additions for tax positions related to the current year		240		128		433
Additions for tax positions of prior years		33		129		347
Reductions for tax positions of prior years		(6)		(27)		(88)
Settlements with taxing authorities		(24)		(54)		
Statute closings and audit resolutions		(45)		(99)		(599)
Ending balance, September 30	\$	2,726	\$	2,528	\$	2,451

The amount of gross tax effected unrecognized tax benefits that, if recognized, would impact the effective tax rate was \$2,268 million, \$2,132 million, and \$2,121 million as of September 30, 2021, 2020 and 2019, respectively. Total net accrued interest was approximately \$252 million, \$205 million, and \$181 million (net of tax benefit) at September 30, 2021, 2020 and 2019, respectively.

During fiscal 2020, tax audit resolutions resulted in a \$44 million net benefit to income tax expense.

During fiscal 2019, the Company settled tax examinations impacting fiscal years 2015 to 2016 and adjusted various tax audit reserves which resulted in a \$586 million net benefit to income tax expense in the fourth quarter. In the third quarter of fiscal 2019, the Company recorded a discrete charge related to newly enacted regulations related to U.S. Tax Reform and a discrete charge related to non-U.S. tax examinations which impacted the Company's reserves for uncertain tax positions resulting in a \$226 million net charge to income tax expense.

In the U.S., fiscal years 2017 through 2018 are currently under exam by the Internal Revenue Service ("IRS") for certain legal entities. Additionally, the Company is currently under exam in the following major non-U.S. jurisdictions for continuing operations:

Tax Jurisdiction	Tax Years Covered
Belgium	2015 - 2020
China	2017 - 2019
Germany	2007 - 2018
Luxembourg	2017 - 2018
Mexico	2015 - 2020
United Kingdom	2014 - 2015, 2017 - 2018

It is reasonably possible that certain tax examinations and/or tax litigation will conclude within the next twelve months, which could have a material impact on tax expense. Based upon the circumstances surrounding these examinations, the impact is not currently quantifiable.

Other Tax Matters

In the fourth quarter of fiscal 2021, the Company completed an intercompany transfer of certain of the Company's intellectual property rights which resulted in a net tax charge of \$417 million.

During fiscal 2021, the Company incurred charges for restructuring and impairment costs for continuing operations of \$242 million. Refer to Note 17, "Significant Restructuring and Impairment Costs," and Note 18, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for additional information. These costs generated tax benefits of \$39 million, which reflects the Company's current tax position in these jurisdictions.

During fiscal 2021, 2020 and 2019, the Company recorded mark-to-market gains (losses) of \$402 million, \$(274) million and \$(618) million, respectively. These gains (losses) generated tax expense (benefit) of \$93 million, \$(65) million and \$(130) million, respectively, which reflects the Company's current tax position in these jurisdictions.

During fiscal 2020, the Company incurred charges for restructuring and impairment costs for continuing operations of \$783 million. Refer to Note 8, "Goodwill and Other Intangible Assets," Note 17, "Significant Restructuring and Impairment Costs," and Note 18, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for additional information. These costs generated tax benefits of \$48 million, which reflects the Company's current tax position in these jurisdictions.

During fiscal 2020 and 2019, the Company recorded transaction and integration costs for continuing operations of \$135 million and \$317 million, respectively. These costs generated tax benefits of \$18 million and \$35 million, respectively, which reflects the Company's current tax position in these jurisdictions.

During fiscal 2019, the Company recorded a \$235 million impairment charge related to assets held for sale. Refer to Note 18, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for further information regarding the impairment charge. The impairment charge generated a \$53 million tax benefit. Also during fiscal 2019, the Company released a \$226 million tax indemnification reserve, which was recorded within selling, general and administrative expenses in the consolidated statements of income. The reserve release generated no income tax expense.

Impacts of Tax Legislation and Change in Statutory Tax Rates

On March 27, 2020, in response to the COVID-19 pandemic, the "Coronavirus Aid, Relief and Economic Security Act" ("CARES") was signed into law by the President of the United States. The CARES Act includes, among other things, U.S. corporate income tax provisions related to net operating loss carryback periods, alternative minimum tax credits, modifications to interest deduction limitations and technical corrections on tax depreciation methods for qualified improvement property. A majority of non-U.S. countries have also introduced various COVID-19 related corporate income tax relief provisions. The Company does not expect either the U.S. or non-U.S. corporate income tax provisions to have a material effect on its financial statements.

In the first quarter of fiscal 2020, the Company recorded a noncash discrete tax charge of \$30 million due to the remeasurement of deferred tax assets and liabilities related to Switzerland and the canton of Schaffhausen. On September 28, 2018, the Swiss Parliament approved the Federal Act on Tax Reform and AHV Financing ("TRAF"), which was subsequently approved by the Swiss electorate on May 19, 2019. During the fourth quarter of fiscal 2019, the Swiss Federal Council enacted TRAF which became effective for the Company on January 1, 2020. The impacts of the federal enactment did not have a material impact to the Company's financial statements. TRAF also provides for parameters which enable the Swiss cantons to adjust tax rates and establish new regulations for companies. As of September 30, 2019, the canton of Schaffhausen had not concluded its public referendum; however, the enactment did occur during the first quarter of fiscal 2020.

During the fiscal years ended 2021, 2020 and 2019, other tax legislation was adopted in various jurisdictions. These law changes did not have a material impact on the Company's consolidated financial statements.

Continuing Operations

Selected income tax data related to continuing operations were as follows (in millions):

	Year Ended September 30,					
		2021		2020		2019
Components of income (loss) from continuing operations before income taxes:						
U.S.	\$	543	\$	(385)	\$	(259)
Non-U.S.		2,071		1,288		1,315
Income from continuing operations before income taxes	\$	2,614	\$	903	\$	1,056
Components of the provision (benefit) for income taxes:						
Current						
U.S. federal	\$	459	\$	309	\$	(1,025)
U.S. state		108		72		(33)
Non-U.S.		265		264		213
		832		645		(845)
Deferred						
U.S. federal		(7)		(382)		412
U.S. state		46		(43)		84
Non-U.S.		(3)		(112)		116
		36		(537)		612
Income tax provision (benefit)	\$	868	\$	108	\$	(233)
Income taxes paid (refunded)	\$	504	\$	(386)	\$	377

At September 30, 2021 and 2020, the Company recorded within the consolidated statements of financial position in other current assets approximately \$120 million and \$252 million, respectively, of income tax assets. At September 30, 2021 and 2020, the Company recorded within the consolidated statements of financial position in other current liabilities approximately \$201 million and \$243 million, respectively, of accrued income tax liabilities.

The Company has not provided U.S. or non-U.S. income taxes on approximately \$22.8 billion of outside basis differences of consolidated subsidiaries of Johnson Controls International plc. The Company is indefinitely reinvested in these basis differences. The reduction of the outside basis differences via the sale or liquidation of these subsidiaries and/or distributions could create taxable income. The Company's intent is to reduce the outside basis differences only when it would be tax efficient. Given the numerous ways in which the basis differences may be reduced, it is not practicable to estimate the amount of unrecognized withholding taxes and deferred tax liability on the outside basis differences.

Deferred taxes were classified in the consolidated statements of financial position as follows (in millions):

	September 30,						
	2	021	2020				
Other noncurrent assets	\$	755 \$	862				
Other noncurrent liabilities		(443)	(385)				
Net deferred tax asset	\$	312 \$	477				

Temporary differences and carryforwards which gave rise to deferred tax assets and liabilities included (in millions):

	September 30,				
		2021		2020	
Deferred tax assets					
Accrued expenses and reserves	\$	407	\$	474	
Employee and retiree benefits		148		286	
Property, plant and equipment		369		182	
Net operating loss and other credit carryforwards		6,293		6,306	
Research and development		42		112	
Operating lease liabilities		334		304	
Other, net		28		99	
		7,621		7,763	
Valuation allowances		(5,853)		(5,518)	
		1,768		2,245	
Deferred tax liabilities					
Subsidiaries, joint ventures and partnerships		346		730	
Intangible assets		776		734	
Operating lease right-of-use assets		334		304	
		1,456		1,768	
Net deferred tax asset	\$	312	\$	477	

At September 30, 2021, the Company had available net operating loss carryforwards of approximately \$23.7 billion, of which \$13.2 billion will expire at various dates between 2022 and 2041, and the remainder has an indefinite carryforward period. The Company had available U.S. foreign tax credit carryforwards at September 30, 2021 of \$35 million which will expire in 2030. The valuation allowance, generally, is for loss and credit carryforwards for which realization is uncertain because it is unlikely that the losses and/or credits will be realized given the lack of sustained profitability and/or limited carryforward periods in certain countries.

20. SEGMENT INFORMATION

ASC 280, "Segment Reporting," establishes the standards for reporting information about segments in financial statements. In applying the criteria set forth in ASC 280, the Company has determined that it has four reportable segments for financial reporting purposes.

Building Solutions North America: Building Solutions North America designs, sells, installs and services HVAC, controls, building management, refrigeration, integrated electronic security and integrated fire-detection and suppression systems for commercial, industrial, retail, small business, institutional and governmental customers in the United States and Canada. Building Solutions North America also provides energy efficiency solutions and technical services, including inspection, scheduled maintenance, and repair and replacement of mechanical and controls systems, as well as data-driven "smart building" solutions, to non-residential building and industrial applications in the United States and Canadian marketplace.

Building Solutions EMEA/LA: Building Solutions EMEA/LA designs, sells, installs, and services HVAC, controls, building management, refrigeration, integrated electronic security, integrated fire-detection and suppression systems, and provides technical services, including data-driven "smart building" solutions, to markets in Europe, the Middle East, Africa and Latin America.

Building Solutions Asia Pacific: Building Solutions Asia Pacific designs, sells, installs, and services HVAC, controls, building management, refrigeration, integrated electronic security, integrated fire-detection and suppression systems, and provides technical services, including data-driven "smart building" solutions, to the Asia Pacific marketplace.

Global Products: Global Products designs, manufactures and sells HVAC equipment, controls software and software services for residential and commercial applications to commercial, industrial, retail, residential, small business, institutional and

governmental customers worldwide. In addition, Global Products designs, manufactures and sells refrigeration equipment and controls globally. The Global Products business also designs, manufactures and sells fire protection, fire suppression and security products, including intrusion security, anti-theft devices, access control, and video surveillance and management systems, for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. Global Products the Johnson Controls-Hitachi joint venture.

Management evaluates the performance of its business segments primarily on segment earnings before interest, taxes and amortization ("EBITA"), which represents income from continuing operations before income taxes and noncontrolling interests, excluding general corporate expenses, intangible asset amortization, net financing charges, restructuring and impairment costs, and net mark-to-market adjustments related to pension and postretirement plans and restricted asbestos investments.

Financial information relating to the Company's reportable segments is as follows (in millions):

	Year Ended September 30,							
		2021		2020	2019			
Net Sales								
Building Solutions North America	\$	8,685	\$	8,605	\$	9,031		
Building Solutions EMEA/LA		3,727		3,440		3,655		
Building Solutions Asia Pacific		2,654		2,403		2,658		
Global Products		8,602		7,869		8,624		
Total net sales	\$	23,668	\$	22,317	\$	23,968		
		Y	ear En	ded September 3	0.			
		2021	eur En	2020	•,	2019		
Segment EBITA								
Building Solutions North America (1)	\$	1,204	\$	1,157	\$	1,153		
Building Solutions EMEA/LA (2)		391		338		368		
Building Solutions Asia Pacific (3)		349		319		341		
Global Products (4)		1,441		1,134		1,179		
Total segment EBITA	\$	3,385	\$	2,948	\$	3,041		
Amortization of intangible assets		(435)		(386)		(377)		
Corporate expenses (5)		(290)		(371)		(405)		
Net financing charges		(206)		(231)		(350)		
Restructuring and impairment costs		(242)		(783)		(235)		
Net mark-to-market adjustments		402		(274)		(618)		
Income from continuing operations before income taxes	\$	2,614	\$	903	\$	1,056		

	September 30,					
	2021			2020		2019
Assets						
Building Solutions North America (6)	\$	15,317	\$	15,215	\$	15,562
Building Solutions EMEA/LA (7)		5,241		4,989		4,786
Building Solutions Asia Pacific (8)		2,783		2,720		2,657
Global Products (9)		15,328		13,882		13,945
		38,669		36,806		36,950
Assets held for sale		156		147		158
Unallocated		3,065		3,862		5,179
Total	\$	41,890	\$	40,815	\$	42,287

	Year Ended September 30,						
	2021		2020			2019	
Depreciation/Amortization							
Building Solutions North America	\$	245	\$	233	\$	233	
Building Solutions EMEA/LA		103		102		112	
Building Solutions Asia Pacific		25		24		23	
Global Products		432		414		396	
		805		773		764	
Corporate		40		49		61	
Continuing Operations		845		822		825	
Discontinued Operations						32	
Total	\$	845	\$	822	\$	857	

	Year Ended September 30,					
	2021		2020			2019
Capital Expenditures						
Building Solutions North America	\$	87	\$	93	\$	119
Building Solutions EMEA/LA		128		99		93
Building Solutions Asia Pacific		31		36		26
Global Products		265		191		310
		511		419		548
Corporate		41		24		38
Continuing Operations		552		443		586
Discontinued Operations						197
Total	\$	552	\$	443	\$	783

- (1) Building Solutions North America segment EBITA for the year ended September 30, 2021 and 2020 excludes \$70 million and \$520 million, respectively, of restructuring and impairment costs. For the year ended September 30, 2021, Building Solutions North America includes \$5 million of equity income. For the year ended September 30, 2020, Building Solutions North America includes \$1 million of equity losses.
- (2) Building Solutions EMEA/LA segment EBITA for the years ended September 30, 2021 and 2020 excludes \$29 million and \$59 million, respectively, of restructuring and impairment costs. For the years ended September 30, 2021, 2020 and 2019, Building Solutions EMEA/LA segment EBITA includes \$5 million, \$6 million and \$12 million, respectively, of equity income.
- (3) Building Solutions Asia Pacific segment EBITA for the year ended September 30, 2021 and 2020 excludes \$28 million and \$56 million, respectively, of restructuring and impairment costs. For the years ended September 30, 2021, 2020 and 2019, Building Solutions Asia Pacific segment EBITA includes \$1 million, less than \$1 million and less than \$1 million, respectively, of equity income.
- Global Products segment EBITA for the years ended September 30, 2021, 2020 and 2019 excludes \$91 million, \$143 million and \$235 million, respectively, of restructuring and impairment costs. For the years ended September 30, 2021, 2020 and 2019, Global Products segment EBITA includes \$250 million, \$166 million and \$179 million, respectively, of equity income.
- (5) Corporate expenses for the year ended September 30, 2021 and 2020 excludes \$24 million and \$5 million, respectively, of restructuring and impairment costs.

- (6) Buildings Solutions North America assets as of September 30, 2021, 2020 and 2019 include \$8 million, \$7 million and \$8 million, respectively, of investments in partially-owned affiliates.
- (7) Building Solutions EMEA/LA assets as of September 30, 2021, 2020 and 2019 include \$111 million, \$108 million and \$109 million, respectively, of investments in partially-owned affiliates.
- (8) Building Solutions Asia Pacific assets as of September 30, 2021, 2020 and 2019 include \$2 million, \$2 million, and \$6 million, respectively, of investments in partially-owned affiliates.
- (9) Global Products assets as of September 30, 2021, 2020 and 2019 include \$945 million, \$797 million and \$730 million, respectively, of investments in partially-owned affiliates.

In fiscal years 2021, 2020 and 2019, no customer exceeded 10% of consolidated net sales.

Geographic Segments

Financial information relating to the Company's operations by geographic area is as follows (in millions):

	Year Ended September 30,					
		2021		2020	2019	
Net Sales						
United States	\$	11,577	\$	11,371	\$	11,973
Europe		4,069		3,523		3,697
Asia Pacific		5,748		5,285		5,888
Other Non-U.S.		2,274		2,138		2,410
Total	\$	23,668	\$	22,317	\$	23,968
Long-Lived Assets (Year-end)						
United States	\$	1,638	\$	1,713	\$	1,824
Europe		436		278		261
Asia Pacific		727		667		866
Other Non-U.S.		427		401		397
Total	\$	3,228	\$	3,059	\$	3,348

In fiscal 2021, the Company changed the basis for the net sales attribution to geographic areas from the location of the assets producing the sales to the location where the sale originated to better align with the Company's business activities. The prior year amounts have been revised to conform to the current year presentation. Long-lived assets by geographic location consist of net property, plant and equipment.

21. NONCONSOLIDATED PARTIALLY-OWNED AFFILIATES

Investments in the net assets of nonconsolidated partially-owned affiliates are stated in the "Investments in partially-owned affiliates" line in the consolidated statements of financial position as of September 30, 2021 and 2020. Equity in the net income of nonconsolidated partially-owned affiliates is stated in the "Equity income" line in the consolidated statements of income for the years ended September 30, 2021, 2020 and 2019.

The table below presents aggregated summarized financial data for the Company's nonconsolidated partially-owned affiliates which were considered significant subsidiaries in fiscal 2019, but not in fiscal 2021 or 2020 due to the adoption of SEC Final Rule Release No. 33-10786. The summarized income statement data for the year ended September 30, 2019 included in the table below represents 100% of the results of such nonconsolidated partially-owned affiliates accounted for under the equity method (in millions):

	 r Ended per 30, 2019
Net sales	\$ 3,882
Gross profit	1,070
Net income	411
Income attributable to noncontrolling interests	13
Net income attributable to the entity	398

22. GUARANTEES

Certain of the Company's subsidiaries at the business segment level have guaranteed the performance of third-parties and provided financial guarantees for uncompleted work and financial commitments. The terms of these guarantees vary with end dates ranging from the current fiscal year through the completion of such transactions and would typically be triggered in the event of nonperformance. Performance under the guarantees, if required, would not have a material effect on the Company's financial position, results of operations or cash flows.

The Company offers warranties to its customers depending upon the specific product and terms of the customer purchase agreement. A typical warranty program requires that the Company replace defective products within a specified time period from the date of sale. The Company records an estimate for future warranty-related costs based on actual historical return rates and other known factors. Based on analysis of return rates and other factors, the Company's warranty provisions are adjusted as necessary. The Company monitors its warranty activity and adjusts its reserve estimates when it is probable that future warranty costs will be different than those estimates.

The Company's product warranty liability for continuing operations is recorded in the consolidated statements of financial position in other current liabilities if the warranty is less than one year and in other noncurrent liabilities if the warranty extends longer than one year.

The changes in the carrying amount of the Company's total product warranty liability for continuing operations for the fiscal years ended September 30, 2021 and 2020 were as follows (in millions). Extended warranty for which deferred revenue is recorded is not included in the table below, but rather included within the contract balances table in the Note 4, "Revenue Recognition," of the notes to consolidated financial statements for all periods presented.

	Year Ended September 30,			
	2	021	2020	
Balance at beginning of period	\$	167 \$	156	
Accruals for warranties issued during the period		91	71	
Accruals related to pre-existing warranties		11	9	
Settlements made (in cash or in kind) during the period		(77)	(71)	
Currency translation		_	2	
Balance at end of period	\$	192 \$	167	

23. COMMITMENTS AND CONTINGENCIES

Environmental Matters

The Company accrues for potential environmental liabilities when it is probable a liability has been incurred and the amount of the liability is reasonably estimable. As of September 30, 2021, reserves for environmental liabilities for continuing operations totaled \$102 million, of which \$48 million was recorded within other current liabilities and \$54 million was recorded within other noncurrent liabilities in the consolidated statements of financial position. Reserves for environmental liabilities for continuing operations totaled \$130 million at September 30, 2020, of which \$61 million was recorded within other current liabilities and \$69 million was recorded within other noncurrent liabilities in the consolidated statements of financial position.

Tyco Fire Products L.P. ("Tyco Fire Products"), in coordination with the Wisconsin Department of Natural Resources ("WDNR"), has been conducting an environmental assessment of its Fire Technology Center ("FTC") located in Marinette, Wisconsin and surrounding areas in the City of Marinette and Town of Peshtigo, Wisconsin. In connection with the assessment, perfluorooctane sulfonate ("PFOS") and perfluorooctanoic acid ("PFOA") and/or other per- and poly fluoroalkyl substances ("PFAS") have been detected at the FTC and in groundwater and surface water outside of the boundaries of the FTC. Tyco Fire Products continues to investigate the extent of potential migration of these compounds and is working with WDNR to address these issues insofar as they related to this migration.

During the third quarter of 2019, the Company increased its environmental reserves, which included \$140 million related to remediation efforts to be undertaken to address contamination relating to fire-fighting foams containing PFAS compounds at or near the FTC, as well as the continued remediation of arsenic and other contaminants at the Tyco Fire Products Stanton Street manufacturing facility also located in Marinette, Wisconsin (the "Stanton Street Facility"). The Company is not able to estimate a possible loss or range of loss in excess of the established accruals at this time.

A substantial portion of the increased reserves relates to remediation resulting from the use of fire-fighting foams containing PFAS at the FTC. The use of fire-fighting foams at the FTC was primarily for training and testing purposes in order to ensure that such products sold by the Company's affiliates, Chemguard, Inc. ("Chemguard") and Tyco Fire Products, were effective at suppressing high intensity fires that may occur at military installations, airports or elsewhere. The reserve was recorded in the quarter ended June 30, 2019 following a comprehensive review by independent environmental consultants related to the presence of PFAS at or near the FTC, as well as remediation discussions with the WDNR.

On June 21, 2019, the WDNR announced that it had received from the Wisconsin Department of Health Services ("WDHS") a recommendation for groundwater quality standards as to, among other compounds, PFOA and PFOS. The WDHS recommended a groundwater enforcement standard for PFOA and PFOS of 20 parts per trillion. On August 22, 2019, the Governor of Wisconsin issued an executive order that, among other things, directed the WDNR to create a PFAS Coordinating Council and to work with other Wisconsin agencies (including WDHS) to establish final groundwater quality standards based on the WDHS's prior recommendation. On November 6, 2020, WDNR received further recommendations from WDHS regarding individual standards for 12 additional PFAS and a combined standard for four additional PFAS, PFOA, and PFOS.

In July 2019, the Company received a letter from the WDNR directing the expansion of the evaluation of PFAS in the Marinette region to include (1) biosolids sludge produced by the City of Marinette Waste Water Treatment Plant and spread on certain fields in the area and (2) the Menominee and Peshtigo Rivers. Tyco Fire Products voluntarily responded to the WDNR's letter to request additional necessary information. On October 16, 2019, the WDNR issued a "Notice of Noncompliance" to Tyco Fire Products and Johnson Controls, Inc. regarding the WDNR's July 3, 2019 letter. The letter stated that "if you fail to take the actions required by Wis. Stat. § 292.11 to address this contamination, the DNR will move forward under Wis. Stat. § 292.31 to implement the SI workplan and evaluate further environmental enforcement actions and cost recovery under Wis. Stat. § 292.31(8)." The WDNR issued a further letter regarding the issue on November 4, 2019. In February 2020, the WDNR sent a letter to Tyco Fire Products and Johnson Controls, Inc. further directing the expansion of the evaluation of PFAS in the Marinette region to include investigation activities south and west of the previously defined FTC study area. In September 2021, the WDNR sent an additional "Notice of Noncompliance" to Tyco Fire Products and Johnson Controls, Inc. concerning land-applied biosolids, which reviewed and responded to the Company's biosolids investigation conducted to date. Tyco Fire Products and Johnson Controls, Inc. believe that they have complied with all applicable environmental laws and regulations. The Company cannot predict what regulatory or enforcement actions, if any, might result from the WDNR's actions, or the consequences of any such actions.

In May 2021, as part of Tyco Fire Products' ongoing investigation and remediation program, WDNR approved Tyco Fire Products' proposed Groundwater Extraction and Treatment System ("GETS"), a permanent groundwater remediation system that will extract groundwater that contains PFAS, treat it using advanced filtration systems, and return the treated water to the

environment. Tyco Fire Products has commenced construction on the GETS. Tyco Fire Products also has started the process of removing PFAS-affected soil from the FTC.

In December 2020, the Company received a notice from the Wisconsin Department of Justice ("WDOJ") that the WDOJ was considering a potential civil enforcement action against the Company relating to environmental matters at the FTC including, but not limited to, the investigation and remediation of PFAS at or near the FTC as discussed above and the Company's alleged failure to timely report the presence of PFAS chemicals at the FTC. Such enforcement action could seek civil monetary penalties and/or injunctive relief. The Company is presently unable to predict the duration, scope, or results of any potential civil enforcement action that may result, the consequences of any such action, or the nature of any resolution of these potential claims with the WDOJ.

Tyco Fire Products has been engaged in remediation activities at the Stanton Street Facility since 1990. Its corporate predecessor, Ansul Incorporated ("Ansul") manufactured arsenic-based agricultural herbicides at the Stanton Street Facility, which resulted in significant arsenic contamination of soil and groundwater on the site and in parts of the adjoining Menominee River. In 2009, Ansul entered into an Administrative Consent Order (the "Consent Order") with the U.S. Environmental Protection Agency to address the presence of arsenic at the site. Under this agreement, Tyco Fire Products' principal obligations are to contain the arsenic contamination on the site, pump and treat on-site groundwater, dredge, treat and properly dispose of contaminated sediments in the adjoining river areas, and monitor contamination levels on an ongoing basis. Activities completed under the Consent Order since 2009 include the installation of a subsurface barrier wall around the facility to contain contaminated groundwater, the installation of a groundwater extraction and treatment system and the dredging and offsite disposal of treated river sediment. The increase in the reserve related to the Stanton Street Facility in the third quarter of 2019 was recorded following a further review of the Consent Order, which resulted in the identification of several structural upgrades needed to preserve the effectiveness of prior remediation efforts. In addition to ongoing remediation activities, the Company is also working with the WDNR to investigate the presence of PFAS at or near the Stanton Street Facility as part of the evaluation of PFAS in the Marinette region.

Potential environmental liabilities accrued by the Company do not take into consideration possible recoveries of future insurance proceeds. They do, however, take into account the likely share other parties will bear at remediation sites. It is difficult to estimate the Company's ultimate level of liability at many remediation sites due to the large number of other parties that may be involved, the complexity of determining the relative liability among those parties, the uncertainty as to the nature and scope of the investigations and remediation to be conducted, the uncertainty in the application of law and risk assessment, the various choices and costs associated with diverse technologies that may be used in corrective actions at the sites, and the often quite lengthy periods over which eventual remediation may occur. It is possible that technological, regulatory or enforcement developments, the results of additional environmental studies or other factors could change the Company's expectations with respect to future charges and cash outlays, and such changes could be material to the Company's future results of operations, financial condition or cash flows. Nevertheless, the Company does not currently believe that any claims, penalties or costs in addition to the amounts accrued will have a material adverse effect on the Company's financial position, results of operations or cash flows. In addition, the Company has identified asset retirement obligations for environmental matters that are expected to be addressed at the retirement, disposal, removal or abandonment of existing owned facilities. The Company recorded conditional asset retirement obligations for continuing operations of \$29 million at both September 30, 2021 and 2020.

Asbestos Matters

The Company and certain of its subsidiaries, along with numerous other third parties, are named as defendants in personal injury lawsuits based on alleged exposure to asbestos containing materials. These cases have typically involved product liability claims based primarily on allegations of manufacture, sale or distribution of industrial products that either contained asbestos or were used with asbestos containing components.

As of September 30, 2021, the Company's estimated asbestos-related net liability recorded on a discounted basis within the Company's consolidated statements of financial position was \$80 million. The net liability within the consolidated statements of financial position was comprised of a liability for pending and future claims and related defense costs of \$458 million, of which \$58 million was recorded in other current liabilities and \$400 million was recorded in other noncurrent liabilities. The Company also maintained separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of \$378 million, of which \$13 million was recorded in other noncurrent assets. Assets included \$6 million of cash and \$314 million of investments, which have all been designated as restricted. In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable; the amount of such recoveries recorded at September 30, 2021 was \$58 million.

As of September 30, 2020, the Company's estimated asbestos-related net liability recorded on a discounted basis within the Company's consolidated statements of financial position was \$115 million. The net liability within the consolidated statements of financial position was comprised of a liability for pending and future claims and related defense costs of \$483 million, of which \$49 million was recorded in other current liabilities and \$434 million was recorded in other noncurrent liabilities. The Company also maintained separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of \$368 million, of which \$39 million was recorded in other current assets. Assets included \$9 million of cash and \$291 million of investments, which have all been designated as restricted. In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable; the amount of such recoveries recorded at September 30, 2020 was \$68 million.

The Company's estimate of the liability and corresponding insurance recovery for pending and future claims and defense costs is based on the Company's historical claim experience, and estimates of the number and resolution cost of potential future claims that may be filed and is discounted to present value from 2068 (which is the Company's reasonable best estimate of the actuarially determined time period through which asbestos-related claims will be filed against Company affiliates). Asbestos-related defense costs are included in the asbestos liability. The Company's legal strategy for resolving claims also impacts these estimates. The Company considers various trends and developments in evaluating the period of time (the look-back period) over which historical claim and settlement experience is used to estimate and value claims reasonably projected to be made through 2068. At least annually, the Company assesses the sufficiency of its estimated liability for pending and future claims and defense costs by evaluating actual experience regarding claims filed, settled and dismissed, and amounts paid in settlements. In addition to claims and settlement experience, the Company considers additional quantitative and qualitative factors such as changes in legislation, the legal environment, and the Company's defense strategy. The Company also evaluates the recoverability of its insurance receivable on an annual basis. The Company evaluates all of these factors and determines whether a change in the estimate of its liability for pending and future claims and defense costs or insurance receivable is warranted.

The amounts recorded by the Company for asbestos-related liabilities and insurance-related assets are based on the Company's strategies for resolving its asbestos claims, currently available information, and a number of estimates and assumptions. Key variables and assumptions include the number and type of new claims that are filed each year, the average cost of resolution of claims, the identity of defendants, the resolution of coverage issues with insurance carriers, amount of insurance, and the solvency risk with respect to the Company's insurance carriers. Many of these factors are closely linked, such that a change in one variable or assumption will impact one or more of the others, and no single variable or assumption predominately influences the determination of the Company's asbestos-related liabilities and insurance-related assets. Furthermore, predictions with respect to these variables are subject to greater uncertainty in the later portion of the projection period. Other factors that may affect the Company's liability and cash payments for asbestos-related matters include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms of state or federal tort legislation and the applicability of insurance policies among subsidiaries. As a result, actual liabilities or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the Company's calculations vary significantly from actual results.

Insurable Liabilities

The Company records liabilities for its workers' compensation, product, general and auto liabilities. The determination of these liabilities and related expenses is dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. At September 30, 2021 and 2020, the insurable liabilities totaled \$325 million and \$363 million, respectively, of which \$77 million and \$83 million was recorded within other current liabilities, \$22 million and \$22 million was recorded within accrued compensation and benefits, and \$226 million and \$258 million was recorded within other noncurrent liabilities in the consolidated statements of financial position, respectively. The Company records receivables from third party insurers when recovery has been determined to be probable. The amount of such receivables recorded at September 30, 2021 were \$20 million, of which \$5 million was recorded within other current assets and \$15 million was recorded within other noncurrent assets, respectively. The amount of such receivables recorded within other noncurrent assets, respectively. The amount of such receivables recorded within other noncurrent assets, respectively. The amount of such receivables recorded within other noncurrent assets, respectively. The amount of such receivables recorded within other noncurrent assets, respectively. The amount of such receivables recorded within other noncurrent assets, respectively. The company econded within other noncurrent assets, respectively. The amount of such receivables recorded within other noncurrent assets, respectively. The amount of such receivables recorded at September 30, 2020 were \$21 million, of which \$5 million was recorded within other current assets and \$16 million was recorded within other noncurrent assets, respectively. The Company maintains captive insurance companies to manage its insurable liabilities.

Aqueous Film-Forming Foam ("AFFF") Litigation

Two of the Company's subsidiaries, Chemguard and Tyco Fire Products, have been named, along with other defendant manufacturers, suppliers and distributors, and, in some cases, certain subsidiaries of the Company affiliated with Chemguard

and Tyco Fire Products, in a number of class action and other lawsuits relating to the use of fire-fighting foam products by the U.S. Department of Defense (the "DOD") and others for fire suppression purposes and related training exercises. Plaintiffs generally allege that the firefighting foam products contain or break down into the chemicals PFOS and PFOA and/or other PFAS compounds and that the use of these products by others at various airbases, airports and other sites resulted in the release of these chemicals into the environment and ultimately into communities' drinking water supplies neighboring those airports, airbases and other sites. Plaintiffs generally seek compensatory damages, including damages for alleged personal injuries, medical monitoring, diminution in property values, investigation and remediation costs, and natural resources damages, and also seek punitive damages and injunctive relief to address remediation of the alleged contamination.

PFOA, PFOS, and other PFAS compounds are being studied by the United States Environmental Protection Agency ("EPA") and other environmental and health agencies and researchers. The EPA has not issued binding regulatory limits, but had initially stated that it would propose regulatory standards for PFOS and PFOA in drinking water by the end of 2019, in accordance with its PFAS Action Plan released in February 2019, and issued interim recommendations for addressing PFOA and PFOS in groundwater in December 2019. While those studies continue, the EPA has issued a health advisory level for PFOA and PFOS in drinking water. In March 2021, EPA published its final determination to regulate PFOS and PFOA in drinking water. The EPA also announced in January 2021 that it will issue an advance notice of proposed rulemaking to solicit public comment on whether the agency should take additional regulatory steps to address PFAS contamination, including designating PFOA and PFOS and other PFAS as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act and seeking comment on whether PFOA and PFOS and other PFAS should be subject to regulation as hazardous waste under the Resource Conservation and Recovery Act. The Agency reissued those actions in February 2021. Both PFOA and PFOS are types of synthetic chemical compounds that have been present in firefighting foam. However, both are also present in many existing consumer products. According to EPA, PFOA and PFOS have been used to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., cookware) that are resistant to water, grease or stains.

In September 2018, Tyco Fire Products and Chemguard filed a Petition for Multidistrict Litigation with the United States Judicial Panel on Multidistrict Litigation ("JPML") seeking to consolidate all existing and future federal cases into one jurisdiction. On December 7, 2018, the JPML issued an order transferring various AFFF cases to a multi-district litigation ("MDL") before the United States District Court for the District of South Carolina. Additional cases have been identified for transfer to or are being directly filed in the MDL.

AFFF Putative Class Actions

Chemguard and Tyco Fire Products are named in 32 putative class actions in federal courts originating from Colorado, Delaware, Florida, Massachusetts, New York, Pennsylvania, Washington, New Hampshire, South Carolina, the District of Columbia, Guam, West Virginia, Michigan, Texas and South Dakota. All of these cases except one have been direct-filed in or transferred to the MDL.

AFFF Individual or Mass Actions

There are more than 1,700 individual or "mass" actions pending that were filed in state or federal court in various states including California, Colorado, New York, Pennsylvania, New Mexico, Missouri, Arizona, Texas, and South Carolina against Chemguard and Tyco Fire Products and other defendants in which the plaintiffs generally seek compensatory damages, including damages for alleged personal injuries, medical monitoring, and alleged diminution in property values. The cases involve plaintiffs from various states including approximately 7,000 plaintiffs in Colorado and more than 1,700 other plaintiffs. All but fourteen of these matters have been transferred to or directly-filed in the MDL: One case filed in federal court in West Virginia has been tagged for transfer to the MDL. Two cases initially filed in state court in Alaska have been removed to federal court and tagged for transfer to the MDL. Nine cases have recently been filed in state court in New York, and it is anticipated that they will be removed to federal court and transferred to the MDL. One case, *Young v. Chemguard et al.*, was filed in superior court in Maricopa County, Arizona, removed to the United States District Court, District of Arizona, and tagged to the MDL, but was remanded to state court prior to being transferred to the MDL. The decision to remand the case to state court is currently being appealed. The final case, *Forbach et al. v. Chemguard et al.*, was filed in superior court in Coconino County, Arizona, and is proceeding to initial discovery.

Many of the additional filed actions were directly filed in South Carolina by plaintiffs who were among the 660 plaintiffs the Company had previously disclosed to have made filings in Pennsylvania state court.

AFFF Municipal Cases

Chemguard and Tyco Fire Products have been named as defendants in approximately 144 cases in federal and state courts involving municipal or water provider plaintiffs in Alaska, Alabama, Arizona, California, Colorado, Connecticut, Florida, Idaho, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, Washington, West Virginia, Wisconsin, the District of Columbia, and several municipalities or water providers from various states who direct-filed complaints in South Carolina. All but nine of these cases have been transferred to or directly filed in the MDL, and it is anticipated that the remaining cases will be transferred to the MDL. These municipal plaintiffs generally allege that the use of the defendants' fire-fighting foam products at fire training academies, municipal airports, Air National Guard bases, or Navy or Air Force bases released PFOS and PFOA into public water supply wells, allegedly requiring remediation of public property.

In May 2018, the Company was also notified by the Widefield Water and Sanitation District in Colorado Springs, Colorado that it may assert claims regarding its remediation costs in connection with PFOS and PFOA contamination allegedly resulting from the use of those products at the Peterson Air Force Base.

State or U.S. Territory Attorneys General Litigation related to AFFF

In June 2018, the State of New York filed a lawsuit in New York state court (*State of New York v. The 3M Company et al* No. 904029-18 (N.Y. Sup. Ct., Albany County)) against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at locations across New York, including Stewart Air National Guard Base in Newburgh and Gabreski Air National Guard Base in Southampton, Plattsburgh Air Force Base in Plattsburgh, Griffiss Air Force Base in Rome, and unspecified "other" sites throughout the State. The lawsuit seeks to recover costs and natural resource damages associated with contamination at these sites. This suit has been removed to the United States District Court for the Northern District of New York and transferred to the MDL.

In February 2019, the State of New York filed a second lawsuit in New York state court (*State of New York v. The 3M Company et al* (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at additional locations across New York. This suit has been removed to the United States District Court for the Northern District of New York v. *The 3M Company et al* (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at further additional locations across New York. This suit has been removed to the United States District Court for the Northern District of New York v. *The 3M Company et al* (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at further additional locations across New York. This suit has been removed to the United States District Court for the Northern District of New York and transferred to the MDL. In November 2019, the State of New York filed a fourth lawsuit in New York state court (*State of New York v. The 3M Company et al* (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company et al (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the MDL. In November 2019, the State of New York filed a fourth lawsuit in New York state court (*State of New York v. The 3M Company et al* (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at further additional locations across New York. This suit has been removed to federa

In January 2019, the State of Ohio filed a lawsuit in Ohio state court (*State of Ohio v. The 3M Company et al.*, No. G-4801-CI-021804752-000 (Court of Common Pleas of Lucas County, Ohio)) against a number of manufacturers, including affiliates of the Company, with respect to PFOS and PFOA contamination allegedly resulting from the use of firefighting foams at various specified and unspecified locations across Ohio. The lawsuit seeks to recover costs and natural resource damages associated with the contamination. This lawsuit has been removed to the United States District Court for the Northern District of Ohio and transferred to the MDL.

In addition, in May and June 2019, three other states filed lawsuits in their respective state courts against a number of manufacturers, including affiliates of the Company, with respect to PFOS and PFOA contamination allegedly resulting from the use of firefighting foams at various specified and unspecified locations across their jurisdictions (*State of New Hampshire v. The 3M Company et al.*; *State of Vermont v. The 3M Company et al.*; *State of New Jersey v. The 3M Company et al.*). All three of these suits have been removed to federal court and transferred to the MDL.

In September 2019, the government of Guam filed a lawsuit in the superior court of Guam against a number of manufacturers, including affiliates of the Company, with respect to PFOS and PFOA contamination allegedly resulting from the use of firefighting foams at various locations within its jurisdiction. This complaint has been removed to federal court and transferred to the MDL.

In November 2019, the government of the Commonwealth of the Northern Mariana Islands filed a lawsuit in the superior court of the Northern Mariana Islands against a number of manufacturers, including affiliates of the Company, with respect to PFOS and PFOA contamination allegedly resulting from the use of firefighting foams at various locations within its jurisdiction. This complaint has been removed to federal court and transferred to the MDL.

In August 2020, Attorney General of the State of Michigan filed two substantially similar lawsuits—one in federal court and one in state court—against a number of manufacturers, including affiliates of the Company, with respect to PFOS and PFOA contamination allegedly resulting from the use of firefighting foams at various locations within the State. The federal action has been transferred to the MDL, and the state court action has been removed to federal court and transferred to the MDL.

In December 2020, the State of Mississippi filed a lawsuit against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land and natural resources allegedly resulting from the use of firefighting foams at various locations throughout the State. This complaint was direct-filed in the MDL in South Carolina.

In April 2021, the State of Alaska filed a lawsuit in the superior court of the State of Alaska against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land and natural resources allegedly resulting from the use of firefighting foams at various locations throughout the State. The State's case has been removed to federal court and transferred to the MDL. The State of Alaska has also named a number of manufacturers and other defendants, including affiliates of the Company, as third-party defendants in two cases brought by individuals against the State. These two cases have been removed to federal court and tagged for transfer to the MDL.

In early November 2021, the Attorney General of the State of North Carolina filed four individual lawsuits in the superior courts of the State of North Carolina against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land, natural resources, and property allegedly resulting from the use of firefighting foams at four separate locations throughout the State. It is anticipated that these four cases will be removed to federal court and tagged for transfer to the MDL.

AFFF Matters Related to the Tyco Fire Products Fire Technology Center in Marinette, Wisconsin

Tyco Fire Products and Chemguard are defendants in one lawsuit in Marinette County, Wisconsin alleging damages due to the historical use of AFFF products at Tyco's Fire Technology Center in Marinette, Wisconsin. The putative class action, *Joan & Richard Campbell for themselves and on behalf of other similarly situated v. Tyco Fire Products LP and Chemguard Inc., et al.* (Marinette County Circuit Court, filed Dec. 17, 2018) alleges PFAS (including PFOA/PFOS) contaminated groundwater migrated off Tyco's property and into residential drinking water wells causing both personal injuries and property damage to the plaintiffs; Tyco and Chemguard removed this case to the United States District Court for the Eastern District of Wisconsin and it has been transferred to the MDL. On January 7, 2021, the parties agreed to settle the lawsuit. The court conducted a hearing regarding the proposed settlement in May 2021 and issued a final order approving an amended settlement agreement and dismissing the case with prejudice in August 2021. The final settlement provides that Tyco will pay up to \$15 million to compensate Town of Peshtigo residents who live in the area affected by PFAS from the FTC for claims related to loss of real property value and/or exposure. The settlement does not constitute an admission of wrongdoing by Tyco or Chemguard.

Other AFFF Related Matters

In March 2020, the Kalispel Tribe of Indians (a federally recognized Tribe) and two tribal corporations filed a lawsuit in the United States District Court for the Eastern District of Washington against a number of manufacturers, including affiliates of the Company, and the United States with respect to PFAS contamination allegedly resulting from the use and disposal of AFFF by the United States Air Force at and around Fairchild Air Force Base in eastern Washington. This case has been transferred to the MDL.

The Company is vigorously defending the above matters and believes that it has meritorious defenses to class certification and the claims asserted, including statutes of limitations, the government contractor defense, various medical and scientific defenses, and other factual and legal defenses. The government contractor defense is a form of immunity available to government contractors that produced products for the United States government pursuant to the government's specifications. Tyco and Chemguard have insurance that has been in place for many years and the Company is pursuing this coverage for these matters. However, there are numerous factual and legal issues to be resolved in connection with these claims, and it is extremely difficult to predict the outcome or ultimate financial exposure, if any, represented by these matters, and there can be no assurance that any such exposure will not be material.

Other Matters

The Company is involved in various lawsuits, claims and proceedings incident to the operation of its businesses, including those pertaining to product liability, environmental, safety and health, intellectual property, employment, commercial and contractual matters, and various other casualty matters. Although the outcome of litigation cannot be predicted with certainty and some lawsuits, claims or proceedings may be disposed of unfavorably to us, it is management's opinion that none of these will have a material adverse effect on the Company's financial position, results of operations or cash flows. Costs related to such matters were not material to the periods presented.

24. RELATED PARTY TRANSACTIONS

In the ordinary course of business, the Company enters into transactions with related parties, such as equity affiliates. Such transactions consist of facility management services, the sale or purchase of goods and other arrangements.

The following table presents net sales to and purchases from related parties for the years ended September 30, 2021, 2020 and 2019 (in millions):

	 Year Ended September 30,					
	2021		2020		2019	
Net sales to related parties	\$ 185	\$	194	\$	217	
Purchases from related parties	185		85		66	

The following table presents receivables from and payables to related parties in the consolidated statements of financial position (in millions):

		September 30,				
	2	2021		2020		
Receivable from related parties	\$	73	\$		48	
Payable to related parties		45			11	

Additionally, the Company leases certain facilities used in its operations from a related party. As of September 30, 2021, the right-of-use asset associated with these leases was \$11 million and the lease liability was \$10 million. Amounts paid for these leases were not material.

JOHNSON CONTROLS INTERNATIONAL PLC AND SUBSIDIARIES SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

(In millions)

Year Ended September 30,	 2021	 2020	 2019
Accounts Receivable - Allowance for Expected Credit Losses (1)			
Balance at beginning of period	\$ 173	\$ 173	\$ 169
Provision (income) charged to costs and expenses	(3)	20	37
Accounts charged off, net of recoveries	(65)	(21)	(21)
Divestiture of businesses	_	_	(10)
Currency translation	1	1	(2)
Other (including impact of adoption of ASU 2016-13)	4	_	
Balance at end of period	\$ 110	\$ 173	\$ 173
Deferred Tax Assets - Valuation Allowance			
Balance at beginning of period	\$ 5,518	\$ 5,068	\$ 5,088
Allowance provision for new operating and other loss carryforwards	505	624	195
Allowance provision (benefits)	 (170)	 (174)	 (215)
Balance at end of period	\$ 5,853	\$ 5,518	\$ 5,068

⁽¹⁾ Allowance for doubtful accounts as of September 30, 2020 and 2019, prior to the adoption of ASU 2016-13.

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

None.

ITEM 9A CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this report. Based on such evaluations, the Company's Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company's disclosure controls and procedures are effective in recording, processing, summarizing, and reporting, on a timely basis, information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act, and that information is accumulated and communicated to the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's internal control over financial reporting based on the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, the Company's management has concluded that, as of September 30, 2021, the Company's internal control over financial reporting was effective.

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 risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the Company's consolidated financial statements and the effectiveness of internal control over financial reporting as of September 30, 2021 as stated in its report which is included in Item 8 of this Form 10-K and is incorporated by reference herein.

Management has excluded Silent-Aire from its assessment of internal control over financial reporting as of September 30, 2021 given its acquisition date of Silent-Aire in May 2021. Silent-Aire is a wholly owned subsidiary of the Company whose total assets and total revenues excluded from our assessment represent less than 1% each of the related consolidated financial statement amounts as of and for the year ended September 30, 2021.

Changes in Internal Control Over Financial Reporting

There have been no changes in the Company's internal control over financial reporting during the quarter ended September 30, 2021, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B OTHER INFORMATION

None.

ITEM 9C DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

In response to Part III, Items 10, 11, 12, 13 and 14, parts of the Company's definitive proxy statement (to be filed pursuant to Regulation 14A within 120 days after Registrant's fiscal year-end of September 30, 2021) for its annual meeting to be held on March 9, 2022, are incorporated by reference in this Form 10-K.

ITEM 10 DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information relating to directors and nominees of Johnson Controls is set forth under the caption "Proposal Number One" in Johnson Controls' proxy statement for its annual meeting of shareholders to be held on March 9, 2022 (the "Johnson Controls Proxy Statement") and is incorporated by reference herein. Information about executive officers is included in Part I, Item 4 of this Annual Report on Form 10-K. The information required by Items 405, 407(c)(3), (d)(4) and (d)(5) of Regulation S-K is contained under the captions "Governance of the Company - Nomination of Directors and Board Diversity," "Governance of the Company - Board Committees", and "Committees of the Board - Audit Committee" of the Johnson Controls Proxy Statement and such information is incorporated by reference herein.

Code of Ethics

Johnson Controls has adopted a code of ethics for directors, officers (including the Company's principal executive officer, principal financial officer and principal accounting officer) and employees, known as Values First, The Johnson Controls Code of Ethics. The Code of Ethics is available on the Company's website at www.valuesfirst.johnsoncontrols.com. The Company posts any amendments to or waivers of its Code of Ethics (to the extent applicable to the Company's directors or executive officers) at the same location on the Company's website. In addition, copies of the Code of Ethics may be obtained in print without charge upon written request by any stockholder to the office of the Company at One Albert Quay, Cork, Ireland.

ITEM 11 EXECUTIVE COMPENSATION

The information required by Item 402 of Regulation S-K is contained under the captions "Compensation Discussion & Analysis" (excluding the information under the caption "Compensation Committee Report on Executive Compensation"), "Executive Compensation Tables" and "Compensation of Non-Employee Directors" of the Johnson Controls Proxy Statement. Such information is incorporated by reference.

The information required by Items 407(e)(4) and (e)(5) of Regulation S-K is contained under the captions "Committees of the Board - Compensation Committee Interlocks and Insider Participation" and "Compensation Discussion & Analysis - Compensation Committee Report on Executive Compensation" of the Johnson Controls Proxy Statement. Such information

(other than the Compensation Committee Report on Executive Compensation, which shall not be deemed to be "filed") is incorporated by reference.

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

The information in the Johnson Controls Proxy Statement set forth under the caption "Security Ownership of Certain Beneficial Owners and Management" is incorporated herein by reference.

On March 10, 2021, the shareholders of the Company approved the Johnson Controls International plc 2021 Equity and Incentive Plan, which terminated the 2012 Share and Incentive Plan, as amended in September 2016 (collectively, the "Plans"). Both plans authorize stock options, stock appreciation rights, restricted (non-vested) stock/units, performance shares, performance units and other stock-based awards. The Compensation and Talent Development Committee of the Company's Board of Directors determines the types of awards to be granted to individual participants and the terms and conditions of the awards.

The following table provides information about the Company's equity compensation plans as of September 30, 2021:

	(a)	(b)	(c)
	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Plan Category			
Equity compensation plans approved by shareholders	5,951,011	\$ 38.84	54,253,453
Equity compensation plans not approved by shareholders			
Total	5,951,011	\$ 38.84	54,253,453

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

The information in the Johnson Controls Proxy Statement set forth under the captions "Committees of the Board," "Governance of the Company - Director Independence," and "Governance of the Company - Other Directorships, Conflicts and Related Party Transactions," is incorporated herein by reference.

ITEM 14 PRINCIPAL ACCOUNTING FEES AND SERVICES

The information in the Johnson Controls Proxy Statement set forth under "Proposal Number Two" related to the appointment of auditors is incorporated herein by reference.

PART IV

ITEM 15 EXHIBITS, FINANCIAL STATEMENT SCHEDULES

	Page in Form 10-K
(a) The following documents are filed as part of this Form 10-K:	
(1) Financial Statements	
Report of Independent Registered Public Accounting Firm	49
Consolidated Statements of Income for the years ended September 30, 2021, 2020 and 2019	52
Consolidated Statements of Comprehensive Income (Loss) for the years ended September 30, 2021, 2020 and 2019	53
Consolidated Statements of Financial Position at September 30, 2021 and 2020	54
Consolidated Statements of Cash Flows for the years ended September 30, 2021, 2020 and 2019	55
Consolidated Statements of Shareholders' Equity for the years ended September 30, 2021, 2020 and 2019	56
Notes to Consolidated Financial Statements	57
(2) Financial Statement Schedule	
For the years ended September 30, 2021, 2020 and 2019:	
Schedule II - Valuation and Qualifying Accounts	114
(3) Exhibits	

Reference is made to the separate exhibit index contained on page 118 filed herewith.

All other schedules are omitted because they are not applicable, or the required information is shown in the financial statements or notes thereto.

Financial statements of 50% or less-owned companies have been omitted because the proportionate share of their revenue or profit before income taxes is individually less than 20% of the respective consolidated amounts and investments in such companies are less than 20% of consolidated total assets.

ITEM 16 FORM 10-K SUMMARY

Not applicable.

(a)	(1) and (2) Financial Statements and Supplementary Data - See Item 8
(b)	Exhibit Index:

Exhibit	Title
2.1	Separation and Distribution Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 2.1 to the registrant's Current Report on Form 8-K filed September 9, 2016)
2.2	Agreement and Plan of Merger by and among Johnson Controls, Inc., Johnson Controls International plc (formerly Tyco International plc) and Jagara Merger Sub LLC, dated as of January 24, 2016 (incorporated by reference to Exhibit 2.1 to the registrant's Current Report on Form 8-K filed January 27, 2016)
2.3	Merger Agreement, dated as of May 30, 2014, between Tyco International Ltd., and Johnson Controls International plc (formerly Tyco International plc) (incorporated by reference to Exhibit 2.1 to the registrant's Current Report on Form 8-K filed on June 4, 2014)
3.1	Memorandum and Articles of Association of Johnson Controls International plc, as amended by special resolutions dated September 8, 2014, August 17, 2016 and March 7, 2018 (incorporated by reference to Exhibit 3.1 to the registrant's Quarterly Report on Form 10-Q filed on May 3, 2018)
4.1	Assumption and Accession Agreement, dated as of November 17, 2014, by Johnson Controls International plc (formerly Tyco International plc) (incorporated by reference to Exhibit 4.1 to the registrant's current report on Form 8-K filed on November 17, 2014)
4.2	Indenture, dated December 28, 2016, between Johnson Controls International plc and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the registrant's current report on Form 8-K filed on December 28, 2016)
4.3	First Supplemental Indenture, dated December 28, 2016, between Johnson Controls International plc, and U.S. Bank National Association, as trustee, and Elavon Financial Services DAC, UK Branch, as paying agent for the New Euro Notes attaching forms of 2.355% Senior Notes due 2017 (retired; no longer outstanding), 7.125% Senior Notes due 2017 (retired; no longer outstanding), 7.125% Senior Notes due 2017 (retired; no longer outstanding), 5.000% Senior Notes due 2020 (retired; no longer outstanding), 4.25% Senior Notes due 2021 (retired; no longer outstanding), 3.750% Senior Notes due 2021 (retired; no longer outstanding), 3.750% Senior Notes due 2021 (retired; no longer outstanding), 3.625% Senior Notes due 2024, 6.000% Notes due 2036, 5.70% Senior Notes due 2041, 5.250% Senior Notes due 2041, 4.625% Senior Notes due 2044, 6.950% Debentures due December 1, 2045, 4.950% Senior Notes due 2044, 6.950% Notes due 2025, 3.900% Notes due 2026, and 5.125% Notes due 2045 (incorporated by reference to Exhibit 4.2 to the registrant's current report on Form 8-K filed on December 28, 2016)
4.4	Second Supplemental Indenture, dated February 7, 2017, between Johnson Controls International plc and U.S. Bank National Association, as trustee, attaching form of 4.500% Senior Notes due 2047 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on February 7, 2017)
4.5	Third Supplemental Indenture, dated March 15, 2017, among Johnson Controls International plc, U.S. Bank National Association, as trustee and Elavon Financial Services DAC, UK Branch, as paying agent, attaching form of 1.000% Senior Notes due 2023 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on March 15, 2017)
4.6	Fifth Supplemental Indenture, dated September 11, 2020, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A. and U.S. Bank National Association, as trustee, attaching form of the 1.750% Senior Notes due 2030 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 11, 2020)
4.7	Sixth Supplemental Indenture, dated September 15, 2020, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A., U.S. Bank National Association, as trustee, and Elavon Financial Services DAC, as paying agent, attaching forms of the 0.375% Senior Notes due 2027 and the 1.000% Senior Notes due 2032 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 15, 2020)

Exhibit	Title
4.8	Seventh Supplemental Indenture, dated September 16, 2021, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A. and U.S. Bank National Association, as trustee, attaching form of the 2.000% Sustainability-Linked Senior Notes due 2031 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 16, 2021)
4.9	Description of the Ordinary Shares of Johnson Controls International plc (filed herewith)
4.10	Description of the Johnson Controls International plc Notes (filed herewith)
4.11	Description of the Johnson Controls International plc and Tyco Fire & Security Finance S.C.A. Notes (filed herewith)
4.12	Miscellaneous long-term debt agreements and financing leases with banks and other creditors and debenture indentures.*
4.13	Miscellaneous industrial development bond long-term debt issues and related loan agreements and leases.*
10.1	Credit Agreement, dated as of December 5, 2019, among Johnson Controls International plc, certain of its subsidiaries party thereto from time to time, the lenders party thereto from time to time, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to the registrant's Current Report filed December 6, 2019)
10.2	Stock and Asset Purchase Agreement, dated as of November 13, 2018, by and between Johnson Controls International plc and BCP Acquisitions LLC (incorporated by reference to Exhibit 2.1 to the registrant's Current Report filed November 13, 2018)
10.3	Tax Matters Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8- K filed on September 9, 2016)
10.4	Employee Matters Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on September 9, 2016)
10.5	Tax Sharing Agreement, dated September 28, 2012 by and among Pentair Ltd., Johnson Controls International plc (formerly Tyco International Ltd.), Tyco International Finance S.A. and The ADT Corporation (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)
10.6	Non-Income Tax Sharing Agreement dated September 28, 2012 by and among Johnson Controls International plc (formerly Tyco International Ltd.), Tyco International Finance S.A. and The ADT Corporation (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)
10.7	Trademark Agreement, dated as of September 25, 2012, by and among ADT Services GmbH, ADT US Holdings, Inc., Johnson Controls International plc (formerly Tyco International Ltd.) and The ADT Corporation (incorporated by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)
10.8	Form of Deed of Indemnification between Johnson Controls International plc (formerly Tyco International plc) and certain of its directors and officers (incorporated by reference to Exhibit 10.4 to the registrant's Current Report on Form 8-K filed on September 6, 2016)

Exhibit	Title
10.9	Form of Indemnification Agreement between Tyco Fire & Security (US) Management, Inc. and certain directors and officers of Johnson Controls International plc (incorporated by reference to Exhibit 10.5 to the registrant's Current Report on Form 8-K filed on September 6, 2016)
10.10	Johnson Controls International plc 2012 Share and Incentive Plan, amended and restated as of March 8, 2017 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on May 4, 2017)**
10.11	Johnson Controls International plc 2007 Stock Option Plan (incorporated by reference to Exhibit 10.7 to the registrant's Current Report on Form 8-K filed on September 6, 2016)**
10.12	Johnson Controls International plc 2012 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.6 to the registrant's Current Report on Form 8-K filed on September 6, 2016)**
10.13	Johnson Controls International plc 2021 Equity and Incentive Plan (incorporated by reference to Annex B to the registrant's Definitive Proxy Statement on Schedule 14A filed on January 22, 2021) **
10.14	Johnson Controls International plc Severance and Change in Control Policy for Officers, amended and restated March 11, 2021 (Incorporated by reference to Exhibit 10.4 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.15	Johnson Controls International plc Executive Deferred Compensation Plan, as amended and restated March 11, 2021 (Incorporated by reference to Exhibit 10.5 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.16	Johnson Controls International plc Retirement Restoration Plan, as amended and restated March 11, 2021 (incorporated by reference to Exhibit 10.7 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)**
10.17	Tyco Supplemental Savings and Retirement Plan as amended and restated effective January 1, 2018 (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on September 19, 2017) **
10.18	Johnson Controls International plc Executive Compensation Incentive Recoupment Policy effective December 10, 2020 (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on January 29, 2021)**
10.19	Letter Agreement between Johnson Controls International plc and George R. Oliver dated December 8, 2017 (Incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on December 11, 2017)**
10.20	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for periods commencing December 6, 2018 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed February 1, 2019)**
10.21	Form of terms and conditions for Option / SAR Awards, and Restricted Stock / Unit Awards, under the Johnson Controls International plc 2012 Share and Incentive Plan commencing December 6, 2018 applicable to Mr. Stief (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed February 1, 2019)**
10.22	Form of Option/SAR Award for Executive Officers (incorporated by reference to Exhibit 10.24 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2019 filed on November 21, 2019)**

Exhibit	Title
10.23	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2018 (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on February 2, 2018)**
10.24	Form of terms and conditions for Option / SAR Awards, and Restricted Stock / Unit Awards, under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2018 applicable to Messrs. Oliver and Stief (incorporated by reference to Exhibit 10.4 to the registrant's Quarterly Report on Form 10-Q filed on February 2, 2018)**
10.25	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for periods commencing on September 2, 2016 (incorporated by reference to Exhibit 10.33 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2016 filed on November 23, 2016)**
10.26	Form of terms and conditions for Option / SAR Awards, and Restricted Stock / Unit Awards, under the Johnson Controls International plc 2012 Share and Incentive Plan for periods commencing on September 2, 2016 applicable to Messrs. Molinaroli, Oliver and Stief (incorporated by reference to Exhibit 10.1 to registrant's Quarterly Report on Form 10-Q filed on February 8, 2017)**
10.27	Form of terms and conditions for Option Awards, Restricted Unit Awards, Performance Share Awards under the 2012 Share and Incentive Plan for fiscal 2016 (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on October 13, 2015)**
10.28	Form of terms and conditions for Option Awards, Restricted Unit Awards, Performance Share Awards under the 2012 Stock and Incentive Plan for fiscal 2015 (incorporated by reference to Exhibit 10.9 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 26, 2014 filed on November 14, 2014) (Commission File No. 1-13836)**
10.29	Form of terms and conditions for Option Awards, Restricted Unit Awards, Performance Share Awards under the 2012 Stock and Incentive Plan for fiscal 2014 (incorporated by reference to Exhibit 10.9 to the registrant's Annual Report on Form 10-K filed on for the year ended September 27, 2013 filed on November 14, 2013) (Commission File No. 1-13836)**
10.30	Johnson Controls, Inc. 2012 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.1(a) to Johnson Controls, Inc.'s Current Report on Form 8-K filed January 28, 2013) (Commission File No. 1-5097)**
10.31	Form of option/stock appreciation right agreement for Johnson Controls, Inc. 2012 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.1(c) to Johnson Controls, Inc.'s Current Report on Form 8-K filed November 21, 2013) (Commission File No. 1-5097)**
10.32	<u>Restrictive covenants applicable to equity award agreements beginning December 2019 (incorporated by</u> reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on January 31, 2020)
10.33	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2021 (incorporated by reference to Exhibit 10.1 to the registrant's Quarterly Report on Form 10-Q filed on January 29, 2021)
10.34	Form of terms and conditions for Performance Share Award under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2021 applicable to Mr. Stief (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on January 29, 2021)

Exhibit	Title
10.35	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2021 Equity and Incentive Plan (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)
10.36	Form of terms and conditions for Restricted Stock Units for Directors under the Johnson Controls International plc 2021 Equity and Incentive Plan (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on April 30, 2021)
21.1	Subsidiaries of Johnson Controls International plc (filed herewith)
22.1	Co-Issuer of Debt Securities (filed herewith)
23.1	Consent of Independent Public Accounting Firm (filed herewith)
31.1	Certification by the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
31.2	<u>Certification by the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)</u>
32.1	Certification by the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
101	Financial statements from the Annual Report on Form 10-K of Johnson Controls International plc for the fiscal year ended September 30, 2021 formatted in iXBRL (Inline Extensible Business Reporting Language): (i) the Consolidated Statements of Financial Position, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Comprehensive Income (Loss), (iv) the Consolidated Statements of Statements of Shareholders' Equity Attributable to Johnson Controls Ordinary Shareholders and (vi) Notes to Consolidated Financial Statements (filed herewith)
*	These instruments are not being filed as exhibits herewith because none of the long-term debt instruments authorizes the issuance of debt in excess of 10% of the total assets of Johnson Controls International plc and its subsidiaries on a consolidated basis. Johnson Controls International plc agrees to furnish a copy of each agreement to the Securities and Exchange Commission upon request.

** Management contract or compensatory plan.

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.

JOHNSON CONTROLS INTERNATIONAL PLC

By <u>/s/ Olivier Leonetti</u>

Olivier Leonetti Executive Vice President and Chief Financial Officer

Date: November 15, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below as of November 15, 2021, by the following persons on behalf of the registrant and in the capacities indicated:

<u>/s/ George R. Oliver</u> George R. Oliver Chairman and Chief Executive Officer (Principal Executive Officer)

<u>/s/ Robert M. VanHimbergen</u> Robert M. VanHimbergen Vice President and Corporate Controller (Principal Accounting Officer)

<u>/s/ Pierre Cohade</u> Pierre Cohade Director

<u>/s/ Juan Pablo del Valle Perochena</u> Juan Pablo del Valle Perochena Director

<u>/s/ Gretchen R. Haggerty</u> Gretchen R. Haggerty Director

<u>/s/ Jürgen Tinggren</u> Jürgen Tinggren Director

<u>/s/ David Yost</u> David Yost Director <u>/s/ Olivier Leonetti</u> Olivier Leonetti Executive Vice President and Chief Financial Officer (Principal Financial Officer)

<u>/s/ Jean Blackwell</u> Jean Blackwell Director

<u>/s/ Mike Daniels</u> Mike Daniels Director

<u>/s/ Roy Dunbar</u> Roy Dunbar Director

<u>/s/ Simone Menne</u> Simone Menne Director

<u>/s/ Mark P. Vergnano</u> Mark P. Vergnano Director

<u>/s/ John D. Young</u> John D. Young Director

CERTIFICATIONS

I, George R. Oliver, of Johnson Controls International plc, certify that:

- 1. I have reviewed this annual report on Form 10-K of Johnson Controls International plc;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer 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 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: November 15, 2021

/s/ George R. Oliver

George R. Oliver Chairman and Chief Executive Officer

CERTIFICATIONS

I, Olivier Leonetti, of Johnson Controls International plc, certify that:

- 1. I have reviewed this annual report on Form 10-K of Johnson Controls International plc;
- 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 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: November 15, 2021

/s/ Olivier Leonetti

Olivier Leonetti Executive Vice President and Chief Financial Officer

CERTIFICATION OF PERIODIC FINANCIAL REPORTS

We, George R. Oliver and Olivier Leonetti, of Johnson Controls International plc, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- the Annual Report on Form 10-K for the year ended September 30, 2021 (Periodic Report) to which this statement is an exhibit fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and
- 2. information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of Johnson Controls International plc.

Date: November 15, 2021

/s/ George R. Oliver

George R. Oliver Chairman and Chief Executive Officer

/s/ Olivier Leonetti

Olivier Leonetti Executive Vice President and Chief Financial Officer

MISC-0032-21 (PLC)