

2020 SUSTAINABILITY REPORT



BALL CORPORATION

TABLE OF CONTENTS

Content headings are hyperlinked to each individual section

ABOUT BALL	02
HIGHLIGHTS	03
CIRCULAR ECONOMY	06
CLIMATE CHANGE	16
WATER STEWARDSHIP	24
RESPONSIBLE SOURCING	30
DIVERSITY & INCLUSION	34
SUSTAINABILITY MANAGEMENT	38

CONTACTS

We welcome your comments and questions on our sustainability efforts. Please direct them to sustainability@ball.com.

More details on our sustainability performance, best practices and updates on our progress are available at www.ball.com/sustainability.

ABOUT OUR REPORTING

Throughout the PDF of this report, click this symbol  for additional web content.

This is Ball Corporation's seventh biennial sustainability report, covering calendar years 2018 and 2019. It complements our financial reporting and covers the sustainability topics identified by Ball and our stakeholders as most material to our company. Customers, investors, employees and suppliers are the primary audience for our reporting.

Unless otherwise stated, we are reporting sustainability metrics globally, covering facilities where Ball has operational control, which include owned manufacturing facilities, major administrative offices, warehouses, and research and development facilities. Operations that are outside of these criteria, such as joint venture locations where Ball does not have control and full authority to introduce and implement its operating policies, are not included in our reporting.

In addition to reporting Ball's latest environmental performance data online, Ball annually updates historical environmental performance data to incorporate updated emission factors and any more accurate data that has become available. An external assurance statement  by ERM Certification and Verification Services (ERM CVS) and further details on reporting principles, boundaries and data normalization are available on our website. Our reporting was developed in accordance with the Core Level of the Global Reporting Initiative (GRI)  Standards. A detailed GRI Content Index appears online. 

Governments around the world officially adopted the United Nations Sustainable Development Goals (SDGs)  in 2015 to end poverty, protect the planet and ensure prosperity for all by 2030. At Ball, we focus our efforts on four SDGs where we can have the highest impact: Responsible Consumption and Production, Climate Action, Clean Water and Sanitation, and Partnerships for the Goals.

While this report predominately features Ball's environmental sustainability and diversity and inclusion efforts, other social and economic sustainability activities are key aspects of our strategy as well. We remain focused on the safety of our employees, economic returns and shareholder returns. More resources on these efforts can be found in our annual report,  safety performance  and sustainability priorities. 

EXTERNAL ASSESSMENTS

Ball's sustainability management and performance have again been recognized by external experts.



SUSTAINABILITY UPDATE WITH BALL LEADERS

JOHN HAYES

Chairman, President & CEO

KATHLEEN PITRE

Chief Commercial & Sustainability Officer

What progress has Ball made on its sustainability journey over the past two years?

Sustainability is a key element of our long-term Drive for 10 vision, and we have taken thoughtful, deliberate action to ensure that our business, operations and products are sustainable for the long term, from an environmental, social and economic perspective.

Since we issued our last sustainability report, we've reached several significant milestones in enhancing the environmental sustainability profile of our products and our operations, including the approval of our ambitious science-based greenhouse gas emission reduction target, substantial renewable energy deals in North America and Europe, greater responsible sourcing assurance through our ASI Certification in EMEA, and the introduction of our award-winning Ball Aluminum Cup™.

One other important action was to more formally integrate our commercial and sustainability strategies through the creation of a new role, Chief Commercial and Sustainability Officer for Global Beverage Packaging, to which Kathleen was promoted.

Tell us more about the chief commercial and sustainability officer role.

I'm guiding the development of Ball's vision for market and sustainability leadership, and aligning our commercial and sustainability teams behind this vision. Collectively, we are formulating and executing our market-leading sustainability strategy and implementing it – as well as leveraging the significant sustainability credentials of aluminum beverage packaging – to benefit our customers around the world.

The integration of commercial and sustainability functions is unique. Why is this important to Ball?

Sustainability matters more than ever, and even amidst other significant concerns, such as the global COVID-19 pandemic, consumers are concerned about the negative impacts of plastic pollution on human health and the environment. They expect brands to make sustainability a priority. Beverage brands understand this and know they need to diversify their packaging mix.

As the most sustainable beverage packaging material, aluminum is a real-world solution to the challenges that our customers are facing.



Ball's integrated sustainability and commercial teams are helping our customers leverage the sustainability credentials of aluminum packaging to profitably grow their businesses, while helping to ensure that our products enable the circular economy. We are also continually innovating to instill even greater confidence in aluminum cans, bottles and cups to help them stand out with consumers as the most sustainable package and win in the marketplace.

Speaking of the circular economy, can you tell us a bit more about what is driving this trend and how Ball is responding?

People understand that the old take-make-waste model is not working and that society must move toward a more circular economy – one in which materials can be reused or recycled endlessly to minimize environmental impacts.

We couldn't agree more, which is why we are progressively focused on product design, real circularity and increasing global aluminum packaging recycling rates. In the coming pages, you will learn more about our progress in all of these critical areas and how we plan to move our products to the next sustainability level to benefit all of our stakeholders moving forward.

ABOUT BALL

(YEAR-END 2019)

OVERALL

FOUNDED 1880	EMPLOYEES 18,300
2019 NET SALES (\$ IN MILLIONS) \$11,474	LOCATIONS 79

LINES OF BUSINESS

3

GLOBAL BEVERAGE PACKAGING

FOUNDED 1969	EMPLOYEES 11,267
2019 NET SALES (\$ IN MILLIONS) \$9,681	MANUFACTURING LOCATIONS 58

PRODUCTS

Beverage Cans, Beverage Ends,
Aluminum Bottles, Aluminum Cups

CANS PRODUCED

101.5 billion

ACTIVE IN

North & Central America,
South America, Europe,
Asia, Middle East & Africa

AEROSOL PACKAGING

FOUNDED 2010	EMPLOYEES 1,450
2019 NET SALES (\$ IN MILLIONS) \$384	MANUFACTURING LOCATIONS 8

PRODUCTS

Aluminum Aerosol Cans,
Aluminum Slugs

CANS PRODUCED

1.2 billion

ACTIVE IN

North & Central America,
Europe & Asia

AEROSPACE

FOUNDED 1956	EMPLOYEES 4,516
2019 NET SALES (\$ IN MILLIONS) \$1,479	LOCATIONS 13

PRODUCTS

Spacecraft & Space Science,
Instruments & Sensors, Antennas,
Technologies & Components,
Data Analytics/Exploitation,
Engineering Services, Testing

ACTIVE IN

U.S.

HIGHLIGHTS



- Set a new 1.5-degree Celsius science-based target for a 55% absolute reduction in greenhouse gas emissions from our own operations by 2030
- Signed agreements to purchase a significant amount of our energy from

renewable sources, equal to our energy load in North America and Europe, dramatically reducing our carbon footprint

- Donated more than \$7.5 million, supporting over 2,000 non-profit organizations worldwide, and Ball

employees volunteered over 38,500 hours in 2019

- Rolled out Unconscious Bias training globally and a female talent initiative, resulting in the promotion of 20% of participants



- Introduced the infinitely recyclable, lightweight Ball Aluminum Cup™ for cold beverages in North America
- Global production volumes increased 5% in 2019

- Conducted a peer reviewed comparative Life Cycle Assessment (LCA) for beverage packaging across the United States, Europe and Brazil

- Eliminated the use of over 5,000 metric tons of aluminum through weight optimization of cans, saving more than 16,000 metric tons of greenhouse gas emissions



- Launched new range of lightweight, reusable Infinity aluminum bottles, designed to provide a circular solution to plastic pollution for personal care products

- In 2019, passed the milestone of producing 1 billion aluminum aerosol cans using Ball's ReAl® alloy. Since starting production in 2014, this innovation has enabled lightweighting, saving more than 16,500 metric tons of GHG emissions

- Water efficiency increased 6.3% per can from 2018 to 2019
- Global aluminum aerosol volumes increased 1% in 2019



- Partnered with NASA and USGS to develop land imaging technologies that enable the Landsat program to build on its historic data archive and provide critical information about global water resources

- Signed a contract with MethaneSAT LLC to develop an advanced remote sensing instrument that will detect methane emissions across the globe from space
- Contracted backlog grew 155% since 2010

- Created Ball Enterprise Intelligence, an advanced analytics services group providing large organizations with actionable, predictive intelligence to inform operations, strategy and financial decision making

BALL'S 2020 SUSTAINABILITY GOALS

CATEGORY	SUSTAINABILITY GOALS	STATUS AS OF YEAR-END 2019	SDG
PRODUCT STEWARDSHIP	Cut the carbon footprint of our beverage cans by 25% (considering goals on multiple issues, including weight optimization, energy in can making and metal production, recycling rates). <i>(2010 baseline)</i>	⬆️ Reduced carbon footprint by 26% between 2010-2019.	  
	Achieve industry recycling rates targets for metal packaging products in developed markets, and work toward measurement and improvement of metal packaging recycling in emerging markets.	⬆️ Contribute to increasing recycling rates of beverage cans, working through partnerships to set future recycling rate targets.	
	Deliver three major aerospace programs that will provide significant benefits in areas such as climate change, weather, drought, pollution and biodiversity measurements.	⭐ Among several projects that provide actionable environmental intelligence on air quality, land resources and ozone, Ball Aerospace partnered with customers to develop the Geostationary Environment Monitoring Spectrometer (GEMS), the Operational Land Imager (OLI) and the Ozone Mapping and Profiler Suite (OMPS).	
OPERATIONAL EXCELLENCE	Reduce three-year rolling average Total Recordable Incident Rate by 25%. <i>(2015 baseline)</i>	⬆️ Reduced the 2017-2019 global average Recordable Incident Rate by 25%.	  
	By year-end 2016, determine baseline for electricity, natural gas, water, waste and VOCs for our company post-close of the Rexam acquisition, and commit to bottom-up normalized targets for our global beverage can business by mid-2017. <i>(2015 baseline)</i>	⬆️ Established baseline and normalized targets across global beverage operations in 2017.	
	Improve energy efficiency by 5%. <i>(2016 baseline)</i>	⬆️ Increased energy efficiency 5.5% between 2016-2019.	
	Improve water efficiency by 5%. <i>(2016 baseline)</i>	⬆️ Increased water efficiency 11% between 2016-2019.	
	Reduce total waste generation per unit of production by 6%. <i>(2016 baseline)</i>	⬇️ Total waste generation increased in 2019; however, as our waste reduction initiatives continue, we expect waste reductions going forward.	
	Determine a science-based greenhouse gas emission reduction target by mid-2018.	⭐ 1.5°C target was approved in early 2020 by the Science-Based Target Initiative.	
TALENT MANAGEMENT	Enhance overall employee engagement and talent retention by assessing and continuously improving the processes that support the way we acquire, onboard, develop and move talent at Ball.	⬆️ Implemented Success Factors and a more rigorous approach with company-wide employee goal setting within that system. We are continuing to evaluate the best approach for an employee listening strategy.	 
	Roll out diversity and inclusion (D&I) tools globally, expand our Ball Resource Groups company-wide, and meet the criteria required to secure a place on the Diversity, Inc. Top 50 Companies for Diversity.	⬆️ Expanding Diversity & Inclusion strategy and tools globally, including the expansion of resource groups to all regions.	
COMMUNITY AMBASSADORS	Global roll out of Community Ambassadors program.	⭐ Plants from every region participated in the 2019 Global Recycling Can Challenge.	 
	Establish 2030 global volunteer goal that is aligned with the UN Sustainable Development Goals.	➡️ We are still working toward establishing a volunteer goal.	 

⭐ ACHIEVED

⬆️ ON TRACK

🟡 SOME PROGRESS

⬇️ BEHIND

DATA

Within each sustainability report we cover five calendar years, in order to provide stakeholders with trend analyses. An interactive charting tool on our website [⊕](#) allows users to filter, analyze and display data on our environmental and safety performance. Environmental, safety and employee data covers all Ball sites globally, including manufacturing facilities, major administrative offices, external warehouses and research and development facilities where we have operational control. Since 2015, the company acquired Rexam PLC in 2016, sold its steel food and steel aerosol businesses in 2018 and 2019, respectively, and sold its Chinese beverage can assets in late 2019.

FINANCIAL DATA	UNIT	2015	2016	2017	2018	2019	Change vs 2015
Net sales	\$ in millions	7,997	9,061	10,983	11,635	11,474	43 %
Comparable operating earnings ¹	\$ in millions	801	976	1,220	1,290	1,331	66 %
Free cash flow ^{12,3}	\$ in millions	509	(413)	922	750	950	87 %
EVA dollars ^{1,4}	\$ in millions	181	199	240	242	217	20 %
Diluted earnings per share (comparable basis) ¹⁵	\$	1.74	1.74	2.04	2.20	2.53	45 %
Cash dividends per share ⁵	\$	0.26	0.26	0.365	0.40	0.55	112 %
Total corporate giving ⁶	\$ in millions	3.5	4	4.2	5.8	7.5	-

ENVIRONMENTAL DATA	UNIT	2015	2016	2017	2018	2019	Change vs 2015	
							absolute	normalized ⁷
Energy consumption	MWh in thousands	4,089	4,136	4,117	4,266	4,403	8 %	-5 %
- Direct energy ⁸		1,971	1,974	1,987	2,064	2,134	8 %	-4 %
- Indirect energy ⁹		2,118	2,162	2,130	2,202	2,269	7 %	-6 %
Renewable energy ¹⁰		-	10	11	11	11	-	-
Greenhouse gas emissions (Scope 1+2)		1,274,412	1,213,208	1,213,282	1,226,470	1,242,941	-2 %	-15 %
- Scope 1 ¹¹		402,118	398,468	401,253	418,301	434,670	8 %	-3 %
- Scope 2 ¹²	metric tons CO ₂ e	872,294	814,741	812,029	808,169	808,272	-7 %	-20 %
- Scope 3 ¹³		-	-	8,489,022	8,293,578	8,636,045	-	-
Water consumption	m ³	9,432,078	9,450,016	9,135,030	9,284,933	9,450,203	0 %	-12 %
Waste generation ¹⁴		60	64	63	62	72	19 %	4 %
- Recycled/reused	metric tons	34	35	39	38	44	30 %	14 %
- Landfill	in thousands	11	11	8	8	7	-41 %	-49 %
- Other treatment		15	18	16	16	21	38 %	22 %
VOC emissions	metric tons	8,940	8,510	8,760	9,705	10,012	12 %	-1 %

SOCIAL DATA	UNIT	2015	2016	2017	2018	2019	Change vs 2015
Employees (year-end) ^{15,16,17}	#	15,100	18,700	18,300	17,500	18,300	21 %
- Male	% of total workforce	83 %	83 %	84 %	83 %	80 %	-4 %
- Female		17 %	17 %	16 %	17 %	17 %	0 %
- <30		13 %	15 %	15 %	17 %	20 %	54 %
- 30-50	% of total workforce	54 %	57 %	57 %	58 %	55 %	2 %
- >50		33 %	28 %	28 %	25 %	25 %	-24 %
Employee turnover ¹⁸	% of total workforce	11 %	13 %	14 %	15 %	12 %	7 %
Total recordable incident rate	recordable incidents/200k hrs worked	1.24	1.06	1.00	0.88	0.90	-27 %
Severity rate	lost work days/200k hrs worked	7.42	9.18	9.63	5.54	9.68	30 %
Work-related fatalities	#	0	0	0	0	0	0 %

¹ Non-U.S. GAAP measures should not be considered in isolation and should not be considered superior to, or a substitute for, financial measures calculated in accordance with U.S. GAAP. Further discussion of non-GAAP financial measures is available in Item 7 of the Annual Report on Form 10-K.

² Free cash flow is not a defined term under U.S. GAAP, and it should not be inferred that the entire free cash flow amount is available for discretionary expenditures. The company defines free cash flow as cash flow from operating activities less capital expenditures.

³ Amounts in 2017, 2016 and 2015 have been retrospectively adjusted to reflect the adoption of new accounting guidance for the preparation of the statement of cash flows that was effective January 1, 2018. Cash provided by operating activities was increased by \$30 million in 2015 as a result of adopting the new accounting guidance.

⁴ Net operating earnings after tax less a capital charge of 9% after-tax on average invested capital employed.

⁵ Amounts in 2016 and 2015 have been retrospectively adjusted for the two-for-one stock split that was effective on May 16, 2017.

⁶ 2015, 2016 and 2017 are for North American giving only. 2018 and 2019 compile global giving, which was not previously tracked.

⁷ Product group-specific normalization factors are used to calculate a consolidated intensity index for Ball. The index accounts for overall changes in production over a period, and for changes in production mix between business segments. It is set at 100 for the reference year 2015. [⊕](#)

⁸ Natural gas, propane, diesel, jet fuel

⁹ Electricity, hot water, steam

¹⁰ Renewable energy falls within Indirect energy

¹¹ Direct GHG emissions from sources owned or controlled by Ball, primarily from fossil fuels, such as natural gas and diesel, burned on site.

¹² Indirect GHG emissions from the generation of electricity, heating, cooling and steam generated off site and purchased by Ball. The Scope 2 emissions reported here are market-based, our Scope 2 location-based emissions can be found online. [⊕](#)

¹³ Indirect GHG emissions from sources not owned or directly controlled by Ball, but related to our activities (e.g. purchased goods and services, business travel). Details regarding Ball's Scope 3 reporting criteria can be found online. [⊕](#)

¹⁴ Metal manufacturing scrap not included, all of which is sent back to our suppliers and remelted

¹⁵ Numbers have been rounded. The increase in 2016 was as result of our acquisition of Rexam PLC.

¹⁶ We strive to create an environment that unlocks qualities, values and potential of each employee and leverages diverse perspectives, experiences, competencies, cultures and aspirations. With our global diversity and inclusion efforts further maturing, we expect to report other D&I metrics than gender and age in the future.

¹⁷ The 2019 gap between male and female employees accounts for the percentage who chose not to identify as male or female.

¹⁸ Included are voluntary departures and those due to dismissal, retirement and passing. 2018 and 2019 turnover do not include the divestiture of Ball's Metalpack business and China beverage packaging operations.



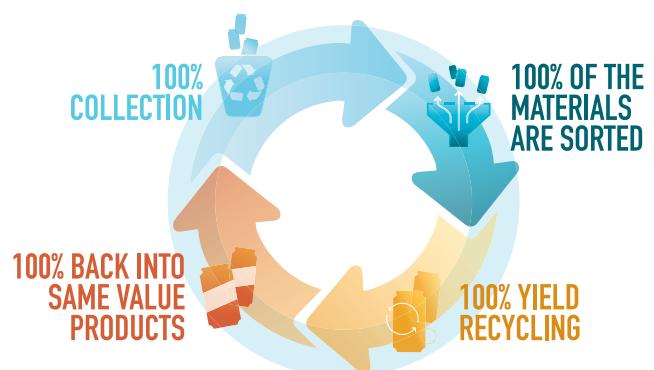
Why we need an entirely new circular packaging system

In the last few years the world has seen a renewed concern with the undeniable fact that litter from packaging with limited recyclability is harming the planet. This has led to an urgent public debate about how to find sustainable packaging alternatives that move us toward a circular economy – one in which materials are not just used and thrown away, but are reused or recycled endlessly.

What is real circularity?

At its purest, real circularity involves the continuous recovery and reuse of materials, with nothing lost during the process on economic terms that are not a tax to society. In terms of recycling, this means that all materials are properly collected and sorted, then each part of each product is separated out and fully recycled with minimum material loss, to become part of a product of similar value. This is “real recycling,” where materials are kept in the loop at their highest economic value and function, rather than being subject to high losses and “downcycling” into products of lower value.

REAL CIRCULARITY: A CIRCLE THAT NEVER ENDS



To achieve full circularity, packaging must be designed from the outset to ensure that all of its elements can be 100% recycled or reused cost effectively. There also must be a well-functioning collection infrastructure that ensures the flow of high-quality materials instead of a cheap process that leads to downcycling. The collection infrastructure needs to reach beyond the home, providing opportunities for people to recycle in the places where they work and go about their leisure.

The key imperatives for a truly circular packaging system

Extended Producer Responsibility

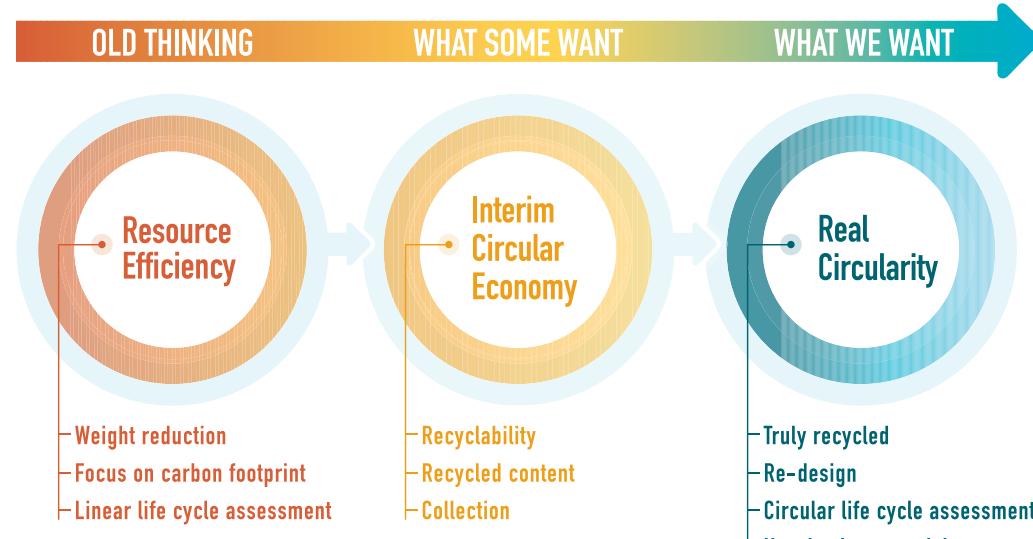
- Producers are responsible for the cost of take-back, recycling and final disposal of their products
- Products are designed for easy sorting and recycling
- Different products attract variable fees and taxes, depending on their recyclability (known as eco-modulation)

100% collection

- Packaging collection should cover on-the-go locations, as well as at home.
- Modern technology-enabled deposit return systems, which are more convenient for consumers
- Treatment of municipal waste before landfill or incineration uses latest recovery technologies for high-value materials

Recycling processes that really work

- Reduced complexity of packaging design so that all parts of a product are easily separated and cost-effectively recycled



- Minimal material losses during the recycling process
- Use of materials that do not lose value and properties through many recycling cycles

Aluminum cans: packaging closest to the real circularity ideal

Aluminum cans are a good example of a packaging option that is well-suited for real circularity. Since they are made of an infinitely recycled, homogenous material, they can be sorted easily and do not require complex processing to be recycled. This “design for circularity,” combined with high end-of-life economic value, makes 100% recycling of cans viable, and should be the goal if we are to move from a “take-make-waste” society toward a fully

circular economy. It is not enough for products to be recyclable in theory – they need to be recycled in the real world. That is why design for circularity is always the starting point for product innovations at Ball (see ‘Our new aluminum bottle’).

Aluminum is a permanent material with high economic value that can be used over and over again without any loss of quality, while producing extraordinarily high recycling yields. This means that aluminum beverage cans can be recycled forever. All that is needed is for the cans to be collected, sorted, melted down, and then returned to the market – a process that not only saves on resources, but cuts energy use by 95% compared to making a can from primary

“ Whilst there are types of plastic that are recyclable, it can be confusing what can and can't be recycled, especially when you're on the go. It's not like that with cans. It's easy, and the vast majority know what bin to use. ”

LUKE WILKES
Operations Director,
Jimmy's Iced Coffee,
United Kingdom



material. Currently, this cycle typically takes approximately 60 days.

While aluminum cans retain their worth infinitely, other materials, such as plastic bottles, are often turned into different products of lower value (such as trays, carpet or textiles) that are unable to be recycled again.

More often, however, plastic bottles end up not being recycled at all and are thrown away. Approximately 9% \oplus of all the plastic ever made has been recycled once, while 79% has ended up in landfill sites or in the environment as litter. By contrast, 75% of all the aluminum ever produced in the history of mankind is still in use today. With the right systems and incentives established, most aluminum can be recycled and kept in the material loop much more

efficiently than other common packaging substrates. We then will have moved toward a truly circular packaging system.

Producer responsibility is key

Most of the world's collective packaging waste management systems struggle. They are challenged by shifting commodity economics, concerns about material quality and higher operational costs related to several market changes, among other aspects. Many collection services and sorting plants are run by municipalities, which are facing budget constraints and often lack sufficient funding to run effective recycling programs. On top of all this, the overall business model for collection, processing, sorting and disposal of waste was designed decades ago, when single-use products were in their infancy.



As things stand, there are few incentives, economic or otherwise, for brands to redesign their packaging for better circularity. The current design, manufacture and disposal of inexpensive consumer goods has created products that are cheap to produce, yet difficult and expensive to recycle, with environmental costs that are largely borne by society. Some of these products are made in such a complex fashion that they are unviable to recycle, both technically and economically.

This disconnect of ownership and funding between brands, waste management systems and local government prevents the redesign and proper funding of state-of-the-art collection methods, sorting facilities and recycling plants.

The best way to do this is through the concept of Extended Producer Responsibility (EPR), under

which – often through legislation – producers are made responsible for the cost of take-back, recycling and final disposal of their products. Higher costs of recycling are normally translated into higher EPR fees – which are designed to reflect the full, but often hidden, environmental and economic costs of goods in the market price.

Through the tiering of EPR fees – charging different fees for different materials depending on their net recycling costs – policy makers can incentivize manufacturers to focus on product redesign for optimal circularity. By incorporating the real cost of recycling through eco-modulated fees, products that are more difficult to recycle become more expensive than those that are easier to recycle. We see key competitive advantages for aluminum packaging in this scenario, including brands switching to aluminum because of lower fees in EPR systems or even negative fees such as exist in Deposit Return Systems (DRS) in Norway and Denmark. Our own analysis of EPR fees in the European Union (excluding the U.K.) shows that between 2014 and 2019, EPR fees for PET grew by 39% and for glass by 13%, while for aluminum cans they decreased by 2%.

Another key policy to favor real circularity is setting the right tipping / landfill or incineration fee. In the U.S., the economic relationship between sorting plants and landfill owners is a few decades old, going back to a time when recycling was not society's priority. In Europe, the same dynamic occurs between waste management companies and incineration plants.

To favor real circularity, higher fees for landfill and incineration are needed.

Toward 100% real recycling - smarter collection is key

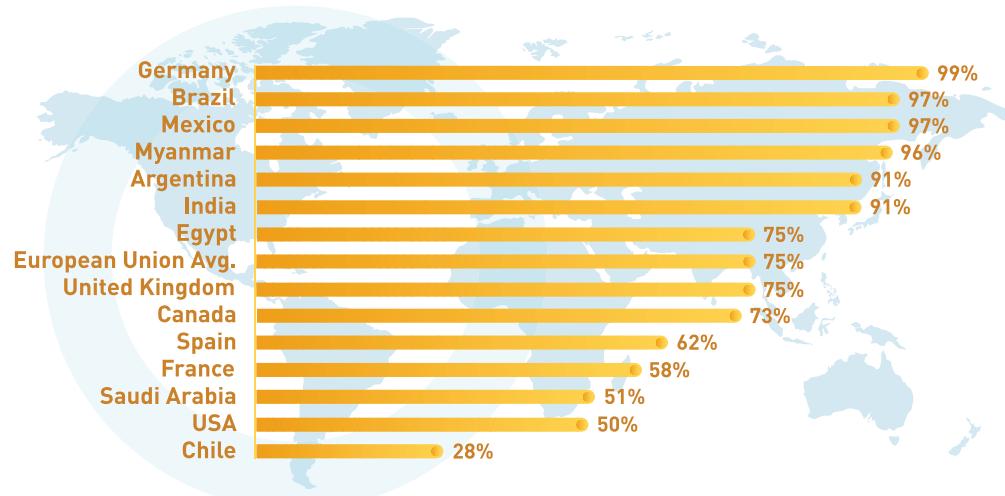
The global recycling rate for aluminum beverage cans stands at 69%, making them the world's most recycled beverage container. But there are significant regional variations: in Brazil, for instance, the rate is 97%,  while the average across Europe is 75%  and in the U.S. it is 50%.  These figures are much better than for other beverage and personal care packaging materials, but they are still not good enough. If aluminum cans are to be a perfect fit for a

circular economy, then the recycling rate needs to be close to 100%. We believe that is possible by 2030.

Used beverage cans are around 10 times more valuable than glass, and around six times more valuable than clear PET. Their clean, homogenous design, using a material that is endlessly recyclable through simple remelting, means that the recycling of used beverage cans is a profitable activity. Because used cans are so sought-after – not only to make new cans, but also to make other aluminum products – if a can is collected, then it will certainly get recycled and stay in the material loop, in contrast to other packaging materials.

BEVERAGE CAN RECYCLING RATES AROUND THE WORLD

Latest data available as of June 2020





The key for cans, therefore, lies not in inventing new recycling processes, nor through better product design, but by ensuring that the number of cans collected is increased through a focus on smarter collection infrastructure (including when people are on the go), improving sorting centers (which need to be updated with the right number and right size of eddy current sorting machines to extract the most valuable material from the stream), and making it easier for consumers to recycle.

There is certainly an opportunity to make changes to curbside collection systems so households can more conveniently sort materials at home. While curbside collection can be upgraded in many regions, especially in the U.S., there is also a significant need to address the widespread lack of infrastructure for can collection on public transportation, in offices, and at sporting and music events.

These venues need to encourage the greater accessibility of recycling bins to allow consumers to separate waste as they throw it away. Perhaps the most pressing requirement is for the greater availability of clearly labeled double or even triple bins in public places that offer separate collection of recyclables and beverage packaging. This needs to become commonplace in all main streets, public places, and in offices and at events – and must be backed up with strong communications campaigns. These extra collection points will require funding, and one of the ways to keep costs low for the industry is to rely on the value of materials recovered more than on increasing EPR fees.

In developing countries, informal collection of cans by individuals and small-time operators is already achieving close to 100% recycling rates in multiple regions. This can be an effective way of collecting valuable recyclables in some parts of the world (see 'Supporting the informal sector in Myanmar' [⊕](#)). The best way to help such collectors is to ensure a safe workplace and efficient transportation of the separated materials, and to educate the public about the advantages of beverage can recycling so people can support the informal sector by providing easy access to used beverage cans.

The economic case for aluminum separation

Metal recycling has a higher economic impact than all other recyclable materials combined. In the U.S., for example, the economic impact of metal recycling was \$55 billion in 2019

compared with \$6 billion for plastics and \$600 million for glass.

Aluminum is the most valuable material in the recycling stream. While aluminum cans represent only about 2.7% of the weight of all recyclable materials generated at single-family homes in the U.S., they make up nearly 50% of the market value from those recyclables.

Aluminum cans can be sorted with proven inexpensive technology. Eddy current separators are rotating magnets that generate a magnetic field that separates aluminum packaging from the waste stream. Most existing Material Recovery Facilities (MRFs) have some form of eddy current separation technology installed to capture aluminum. And we are seeing additional investments being made to minimize can losses and capture as many valuable cans as possible.

Using a representative sorting plant in Europe that processes 80,000 tons of material a year with an average aluminum content of 5.5%, a study conducted by HTP for European Aluminium found that using at least two eddy current separators can boost the recovery rate by 30%, compared to using just one. Using separators for the super fine, fine and medium-sized fractions can achieve beverage can recovery rates at MRFs of 90%. Adding induction sensors, robots and machine learning, MRFs can expect up to 96% recovery rates for aluminum packaging.

Aluminum cans are also easily recoverable from the municipal solid waste stream. A study in Spain from Virtus Environment (2020) shows that

one-third of the current aluminum packaging losses could be recovered through eddy current investments for municipal solid waste. As tipping fees increase and incinerators realize the attractive paybacks of metal recovery pre- and post-incineration, these options are more attractive. We believe that a combination of regulations, changing public expectations and the development of novel sorting technologies will contribute to further increases in aluminum packaging recycling rates.

Smart deposit return systems for the 21st Century

If we want to achieve recycling rates approaching 100%, we also need to introduce a modern and convenient DRS in which consumers pay a deposit on beverage packaging that can be redeemed by returning cans to strategically placed collection points. In addition, existing DRS need to be modernized, as many of the older systems are not well designed, some lack sustained funding and almost none take advantage of the latest digital smart technology.

All existing DRS are based on an old model of consumers lining up with large bags of beverage packaging in expensive retail spaces to redeem deposits from cumbersome and costly reverse vending machines. This is not a convenient option for the modern consumer, nor is it useful for the person who is out and about and may buy just one can on the go, perhaps at a bus station or at an open-air event.



METAL RECYCLES FOREVER

A Trusted Logo

Launched in 2014, the Metal Recycles Forever logo has proven to be one of the most striking and effective ways of marketing the benefits of aluminum cans around the world.

Using just three words and a closed loop symbol, the logo conveys, in the simplest terms, the fact that metals are infinitely recyclable.

Research carried out in 2019 in the U.S., U.K., Brazil and Spain found that consumers in each country are “compelled” by aluminum’s infinite recyclability, which resonates “strongly” with them, and in particular are “very drawn” to the statistic that 75% of aluminum ever produced is still in use today.

SUPPORTING THE INFORMAL SECTOR IN MYANMAR

Self-employed collectors in Myanmar travel from house to house, buying used aluminum cans. These are sold on until they reach one of the country's five main aggregators, who melt and recycle them.

Until recently, it was unclear just how efficient informal collection is in Myanmar – or what support informal collectors need. To gain more insight, we conducted a research project and found that, in 2019, the weight of used aluminum beverage cans collected for recycling was 13,100 metric tons in Myanmar, representing a recycling rate of 96%.

Based on these findings, we are now supporting this success story in two ways: by working with suppliers to make it easier and cheaper for collectors to get their cans to aggregators, and by providing financial support for two local non-governmental organizations, Thant Myanmar and Clean Yangon, to run education campaigns that promote can recycling in schools and on radio and television.



A new generation of more efficient and cost-effective DRS can be established, for example, through the use of unique packaging coding, ensuring only one redeemable deposit is associated with each individual container.

This technology could enable the use of inexpensive return hardware such as smart recycling bins and simplified reverse vending machines. It could be more convenient for consumers, still address fraud, and enable accurate tracking and traceability.

Ball supports innovations around "smart DRS." We are, for instance, piloting smart can crushers in Serbia and trialing individual coding engraved in tabs using laser technology. Through the industry body Metal Packaging Europe, we are also backing a project to measure the cost advantages of smart versus traditional DRS.

Fair and effective DRS design

There is a growing consensus about what constitutes a modern, well-designed and effective DRS, with best-case examples in the Scandinavian and Baltic countries. The key principles of a 21st century DRS are that it must:

- Take all beverage containers at all sizes from all materials
- Allow for deposit levels to be variable by container size, with higher deposits paid on larger packaging (as is the case in some of the best functioning systems)
- Reflect the true sorting and recycling costs of each container (based on the polluter pays principle at its best), with each type of packaging material required to cover its

- full net cost without cross-subsidy from other materials
- Be subject to design criteria that penalize packaging that is difficult to recycle
 - Be supported with significant infrastructure, closer to the point of consumption, to avoid consumer frustration and long queues
 - Incorporate handling fee compensation to retailers or other return points on the basis of the real costs of collection in each situation
 - Keep unredeemed deposits within the system
 - Use the latest technologies such as bulk returns or digitalization

Recycling processes that really work

There is no point in putting a lot of effort into collection and sorting if we then lose up to 20 to 30% of the material during the recycling process. This happens with some materials, but not with aluminum cans, which simply have to be remelted at 700 degrees Celsius.

Only around 1 to 2% of aluminum is lost when shredding the bales, and another 2 to 3% due to oxidation in the furnace. Total metal losses in the recycling process can be between 3 to 5%. When factoring in the recycling rate and the material losses in recycling, it is clear that, as we move near 100% collection, yields really matter. Once again, this demonstrates the true advantages of the aluminum can.

We believe there is an opportunity to increase can-to-can recycling. Today the remelted aluminum from used beverage cans is also used to make other aluminum products such as cans,



building products or less recyclable packaging. As recycling rates increase and contamination decreases (e.g., through DRS), there will be greater opportunities to ensure that cans are recycled back into cans. We see this as an inherent competitive advantage of our material. Already the average recycled content in cans today far outweighs any other substrate.

The Ball Cup – circular thinking applied to cups

We have an important role to play in continuing to design and launch circular products. Our recent product innovation, the Ball Aluminum Cup™, is a prime example that satisfies consumer desires for truly circular solutions.

Our new portfolio of infinitely recyclable aluminum cups, which launched in 2019 in the U.S., is becoming increasingly popular as a way of boosting recycling rates and avoiding plastic waste. The organizers of the 2020 Super Bowl in Florida chose aluminum cups as part of a drive to eliminate 99.4% of single-use plastics from

the venue. Centerplate, the catering partner for the stadium where the big game took place, plans to eliminate more than 500,000 plastic cups at this one venue each year.

Introducing the aluminum cup and raising awareness about aluminum packaging's sustainability credentials, as well as the importance of recycling, has been a cornerstone of the commercialization strategy of our aluminum cup business. Our initial introduction of the product into high-profile sporting and entertainment events will help create awareness for the benefits of aluminum as we further penetrate the on-premise food service marketplace. This sets the stage for the cup's launch in retail and on-premise outlets, including grocery, drug and C-stores, specialty channels and select mass channel retailers, in 2021.

Encouraging recycling in our communities

Our global Recycling Can Challenge aims to inspire employees to take steps to promote the

OUR NEW ALUMINUM BOTTLE

Our new range of lightweight Infinity aluminum bottles are designed to provide a circular solution to plastic pollution.

Available in various shapes, sizes and formats, the bottles can be customized for use as food and beverage containers, as well as for beauty and personal care products – for example, as an alternative to plastic shampoo bottles and jars for cosmetics.

They are ideal for all kinds of products, from body creams and soap to alcoholic spirits, energy shots, yogurt, dressings, syrups and condiments. The bottles can be branded without the use of sleeves or labels, via printing directly onto the aluminum.

With a reclosable threaded cap that allows consumers to twist the top on and off, the bottles are, of course, infinitely recyclable, and can be turned into other aluminum products over and over again.



economic, environmental and social benefits of cans. 2019 participation was especially strong in Asia, Middle East and Africa. In addition, all of our 13 plants in South America either donated cans collected from their Recycling Can Challenge activities to waste pickers or voluntary organizations in the community, or promoted recycling in their communities through education programs in schools and on-site tours for students.

In Brazil, our Brasilia plant, for example, held recycling workshops for around 700 schoolchildren, while employees at our Santa Cruz plant invited members of a cooperative of waste pickers to learn about the aluminum can production process.

In 2019, we arranged promotional events in India aimed at retailers and consumers in the states of Karnataka and Maharashtra, supported by communications on Facebook and Instagram, and established an outreach campaign to disseminate messages about aluminum can recycling to more than 100 media outlets across major cities in India.

Every Can Counts

In Europe, the Every Can Counts (ECC) program, an industry initiative supported by Ball, operates in 14 countries to encourage people to recycle the cans they consume outside of their homes. ECC focuses on getting messages across in a fun way, in particular at sporting events, festivals, schools and universities, and in shopping centers and parks.



“As an agile, independent company, we know AMI is uniquely positioned to help address the need for sustainable bottled water solutions and we are proud to provide an environmentally friendly brand celebrating the infinite recyclability of aluminum.”

MICHAEL KIRBAN

CEO of All Market Inc.

(Vita Coco, RUNA, and Ever & Ever)



In the U.K. in 2019, ECC had a presence at more than 30 music festivals and sporting occasions attended by more than one million people, allowing representatives to talk directly to approximately 10,000 people about recycling.

In Montenegro, ECC has been working on promotion and educational initiatives with Ozone, a local non-governmental organization, and in Austria a virtual reality game has helped to convey important recycling messages to young people, including at beach volleyball and MotoGP events.

At the 2019 Red Bull Moto Grand Prix event in Milan, Italy, watched by 158,300 spectators, around 15,000 people visited the ECC exhibition, with 30,000 cans recycled over the three days.

ECC was also present at five major music festivals in the region of Galicia in Spain during 2019, working with the beer company Estrella Galicia, which sponsored each event, to promote recycling to 200,000 festival goers.

How the market is choosing aluminum based on its true recyclability

Prompted by consumer pressure and governmental action, beverage producers are increasingly integrating the environmental attributes of packaging options into their business decisions, resulting in a move away from a sole focus on cost and toward a consideration of economic and environmental impacts along the entire life cycle.

In 2019, a number of beverage manufacturers around the world switched from plastic water

bottles to aluminum cans for their brands, partly prompted by local municipalities' bans on on-premise sales of plastic water bottles. Many hotels, office-based businesses and retailers are now doing all they can to remove plastics from their operations, and pressure is growing on manufacturers to respond.

One consequence of these strong trends is that demand for aluminum cans is growing rapidly, especially for use with beverages that may not have traditionally been associated with cans, such as water, coffee and tea. The proportion of new products launched in cans is on the rise, particularly in the U.S., where 67% of new beverage launches in 2019 were in aluminum cans, up from 50% in 2018 and just 36% in 2015. In Europe, 22% of new product launches were exclusively in cans – up 5% from 2018.



CLIMATE CHANGE

We see ambitious targets and collaboration as key to reducing the carbon footprint of our products

Climate change is a defining issue of our time. All of our stakeholders want to know what we are doing to make our products low carbon and more sustainable.

Investors are now looking seriously at the risks and opportunities associated with climate change, and governments and global organizations are considering regulatory action in line with the Paris Climate Agreement's objective of limiting global warming to under 1.5 °C.

At Ball we are committed to reducing our impact on climate change, as this is critical to the company's long-term success. We are doing this through a combination of renewable energy use, actions to increase recycling rates, and the adoption of science-based targets on operational efficiency which are putting us in a leadership position in our industry.

This focus is now driving transformational change throughout the business. Doing so is imperative to Ball's future, and will ensure aluminum as a low carbon packaging of choice. We are determined to address the challenges that the movement to low carbon economy brings, and also to seize the opportunities. We are doing this by setting ambitious emission reduction goals and taking the measures necessary to deliver on those goals.



Aligning with the latest climate science

In 2019 we set an ambitious new target of achieving a 55% absolute reduction in greenhouse gas (GHG) emissions from our own operations by 2030, despite expectations that the business will experience

unprecedented growth during this period. The target aligns with the latest climate science reported by the Intergovernmental Panel on Climate Change, a global body of climate experts which has announced that global warming should be limited to 1.5°C above pre-industrial levels if its worst impacts are to be avoided.

Our 1.5°C target was approved in early 2020 by the Science Based Target Initiative, [⊕](#) an international governing body that independently assesses and approves companies' GHG goals. We are the first aluminum can manufacturer to adopt a science-based target. We will aim to meet the 55% target in two main ways: by switching to renewable energy and by improving energy efficiency in our manufacturing processes.

By setting such an ambitious goal, we are striving not only to help with global efforts on climate change, but to improve Ball's performance and to help our customers reach their own emissions reduction targets – which rely heavily on the carbon footprint of our aluminum cans. Providing support for our customers in this way provides us with a commercial advantage and is a key example of how sustainability supports the strategy that drives our business.

We began to transform the way we embed climate change throughout our business in 2019 with our first internal Climate Summit. Sixty leaders from across the company gathered to generate and commit to actions that will meet our ambitious targets and prepare the company

for a transition to a low-carbon economy. Climate Summit discussions focused on four key concepts: 1) embedding the cost of carbon; 2) transformative process innovation; 3) igniting ownership; and 4) addressing value chain emissions.

Switching to renewable energy

By driving forward a transition to renewable energy across all operations, we make further strides toward our science-based target.

In 2019, we signed two landmark 15-year virtual power purchase agreements for 388 megawatts of new renewable energy in North America, generated by wind and solar power. As a result, we will be addressing 100% of our electricity load in North America with renewable energy by the end of 2021. [⊕](#)

This will allow us to effectively reduce our global Scope 2 GHG emissions by 50%; the equivalent of removing 180,000 passenger vehicles from the road annually.

With our science-based targets in mind, we are also moving quickly to focus on other markets, and have increased our commitment to sourcing renewable energy in Europe. Here we have signed two long-term virtual power purchase agreements, one in Spain and one in Sweden, covering the electricity load of 10 beverage packaging plants. [⊕](#)

These agreements will provide 93 megawatts of wind energy, addressing 63% of our European beverage electricity load (excluding Russia) by

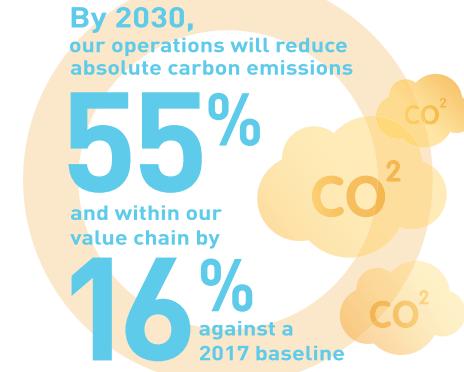
**By 2030,
our operations will reduce
absolute carbon emissions**

55%

and within our
value chain by

16%

against a
2017 baseline

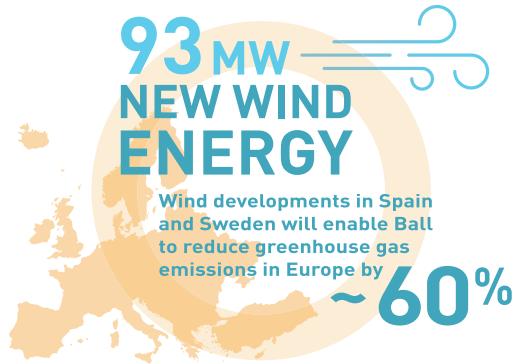
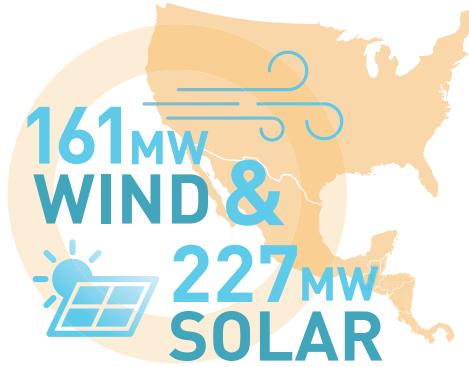


2021 and enabling us to reduce Scope 2 GHG emissions in Europe by approximately 60%; equivalent to removing 47,000 passengers from the road annually.

In May 2020 we purchased energy attribute certificates (EACs) to fully cover our operations in the European Union, Serbia and the U.K. through 2020. Our strategy in Europe is to increasingly address our electricity load with renewable energy agreements, and until then, fulfill the rest with EACs.

Improving energy efficiency

At the same time as we are driving to reach 100% renewable energy around the world, we are also improving energy efficiency at all of our manufacturing plants. We tailor energy use reduction strategies to each of our plants, which commit to annual energy goals supported by detailed action plans. Real-time energy information systems delivered by energy meters provide higher visibility into our operations



at the equipment level so that we can better understand, manage, report on and benchmark the performance of energy-consuming processes. At year-end 2019, 54% of our plants had energy monitoring systems.

Every year Ball invests in installing high energy efficient equipment in new plants, and repairing and replacing less efficient old equipment in existing plants. On top of this routine work, in 2019 we also invested \$4.02 million in energy efficiency measures that are expected to deliver electricity savings of approximately 24.6 million kilowatt-hours and natural gas savings of 18.9 million kilowatt-hours, resulting in more than 15,000 metric tons of greenhouse gas emissions savings. Around two-thirds of GHG emissions in Ball's direct operations stem from electricity, with the remainder from on-site fuel combustion.

As our Global Beverage Packaging business accounts for most of our energy consumption (90% of our total of 4,403 thousand megawatt hours in 2019), much of our focus is directed in

this area, in which air compressors and ovens use significant amounts of energy.

Electricity

In 2019 a global team of regional staff developed a compressed air global standard for new construction projects to ensure future energy efficiency. Every year we conduct assessments of our compressed air systems and optimize performance by reducing system pressure, minimizing wasteful air use and leaks, decreasing manufacturing equipment demand, and upgrading compressed air equipment.

For example, an energy efficient compressor was installed during 2019 at our Milton Keynes plant in the United Kingdom, saving 1,172 megawatt-hours of electricity annually.

Our Monterrey, Mexico, plant has also been able to save 594 metric tons of GHG emissions each year by using sophisticated compressors, which automatically shift to standby when they are not being used.

Natural Gas

Through oven audits, optimization projects and fostering increased employee awareness of oven energy use, we have realized natural gas efficiency gains in our can businesses of 11% between 2012 and 2019.

A 2019 program at our Tampa plant in the U.S., for example, led to the replacement of eight inefficient oven burners and the rebuilding of another four, saving 4,886 megawatt-hours of energy from gas annually. In Taloja, India, the installation of new standby settings on ovens is saving 741 megawatt-hours each year.

All of these measures, and others, have led to energy efficiency gains in our Global Beverage Packaging business. Between 2015 and 2019 Ball reduced its absolute energy usage for its beverage packaging business by 8%. The amount of energy needed to produce one beverage can fell by 5% from 2015 to the end of 2019.

Emissions in our value chain

As part of our science-based target, we will aim to cut greenhouse gas emissions 16% across our value chain by 2030.

Around 80% of the GHG emissions associated with our products come from within our value chain rather than our own operations. We collaborate with our value chain partners to make a difference in this area, both 'upstream' in the products and services we purchase from suppliers, and 'downstream' in the way our products are collected, sorted and recycled.



DESIGNING CANS WITH A SMALLER FOOTPRINT

One specific way of lowering our product carbon footprint is through weight optimization in cans. Although we have been taking weight out of our products for decades, we are determined to continue to make them weigh even less without impacting their inherent qualities. Since the 1980s, the weight of Ball cans has been reduced by around a third, resulting in less raw material use and lower GHG emissions.

Through weight optimization in 2019, we reduced aluminum use in our beverage and aerosol packaging businesses by more than 5,000 metric tons, which equates to saving more than 16,336 metric tons of GHG emissions, or the average emissions of 3,550 U.S. passenger vehicles per year. Our next generation STARcan in Europe, South America and North America is setting new standards for weight optimization.

Compared to preceding beverage cans of the same size, it reduces weight by between 3% and 8%, further lowering the carbon footprint of our products and contributing to our science-based target. Once fully integrated globally, we expect it to save approximately 30,000 metric tons of metal each year, or the equivalent to nearly 200,000 metric tons of GHG emissions.

In addition, Ball's aerosol packaging business has developed ReAl®, a lightweight alternative to standard aluminum slugs used in aerosol can manufacturing. ReAl® permits up to a 20% lighter container than standard aluminum and provides up to an 18% lower carbon footprint. Visit our All About ReAl® page to learn more about this innovative technology.

LATEST COMPARATIVE LCA UNDERLINES THE OPPORTUNITY FOR ALUMINUM CANS

Life cycle assessment (LCA) is a valuable tool to track the carbon footprint of our products. In 2020, we published a peer-reviewed comparative LCA for aluminum beverage cans, PET and glass bottles, as well as beverage cartons in Brazil, Europe and the United States. Among other findings, the study revealed that recycling is a key factor when it comes to the sustainability profile of all substrates.

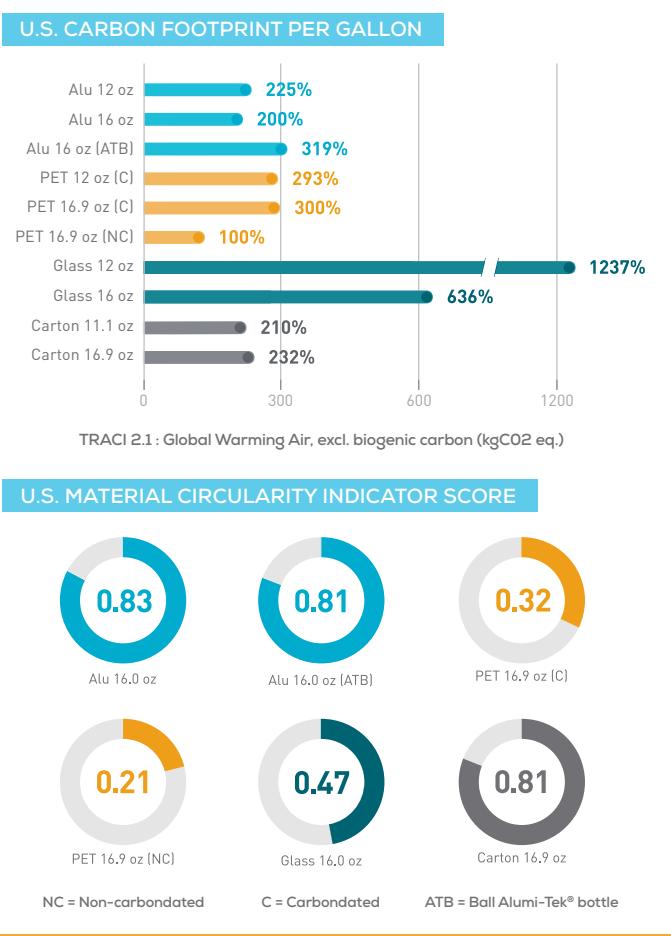
To the right is a representative example for the LCA analysis of the U.S. Here, the LCA found that with today's actual recycling rates and recycled content, aluminum cans have a lower carbon footprint compared with glass bottles and PET bottles for carbonated beverages.

This LCA also covered various sensitivity analysis and scenarios. For example, it shows that beverage cans have the most carbon footprint variability when recycling rates, recycled content, and container weights are changed. Therefore, the cans' environmental impacts will benefit more than other substrates from increasing recycling rates, higher recycled content and lower container weights.

To move from linear to circular thinking, this study also applied the Material Circularity Indicator (MCI) methodology developed by the Ellen MacArthur Foundation. [⊕] Related scores allow interested parties to understand to what extent different packaging options are a good fit for the circular economy. MCI scores range from 0.1, a linear product, to 1, a perfectly circular product. In all three regions, aluminum cans achieve the best material circularity scores of any single-use packaging option. Despite the fact that beverage cartons are challenging to recycle, the MCI methodology considers paperboard from sustainable sources as fully circular.

The study results underline that by increasing efficiencies in our own operations and within our supply chain, switching our electricity use to renewable energy and – most importantly – working with our customers, suppliers and other partners to increase recycling rates, the environmental profile of aluminum cans can be further enhanced, making cans a low carbon and circular package of choice.

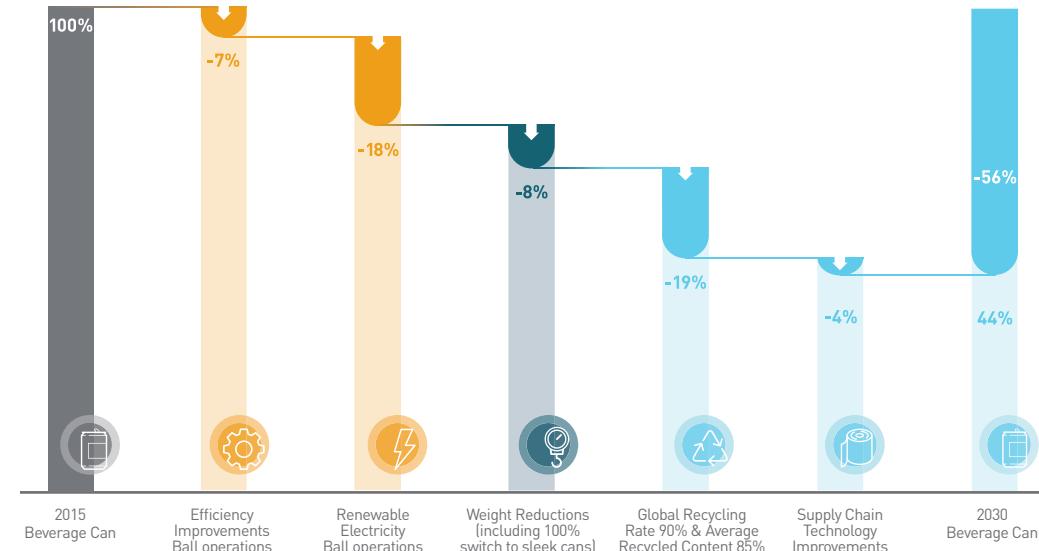
The full LCA report, regional summaries and additional information about the LCA can be found online. [⊕]





GLOBAL 2030 PRODUCT CARBON FOOTPRINT REDUCTION PATHWAY

This pathway is based upon LCA calculations using the Product Environmental Footprint Guidelines, taking into account measures outside of Ball's direct control.



We are able, for instance, to work with various stakeholders to cut GHG emissions by increasing recycling rates (as we explain in our Circular Economy section), and we can also help to reduce downstream emissions (such as through transportation) by lightweighting our cans (see 'Designing cans with a smaller footprint').

Cutting energy use in our value chain

Because recycled aluminum uses 95% less energy than primary aluminum, the most effective way of achieving our science-based target of a 16% reduction in value chain GHG emissions, and of reducing the carbon footprint of our products, is to raise recycling rates, which increases the recycled content of the aluminum can sheet that we use. That is why we are

investing in recycling around the globe, as outlined in the Circular Economy section.

However, where primary material is used, the industry is also working to reduce its energy consumption. The carbon intensity of primary aluminum production in Europe decreased by 21% between 2005 and 2010, and there has been a significant decrease in the carbon intensity of semi-fabrication processes in Europe. The carbon intensity of the aluminum rolling process falling by 25% from 2010 to 2015 and by 11% for the extrusion process over the same period.

The carbon intensity of primary aluminum production in the U.S. and Canada declined by 26% between 1995 and 2010.

Our focus on CO₂ reductions began a decade ago and continues today with improvements in emissions and energy reduction. We have invested over \$160 million in recycling capabilities with technology that allows us to convert post-consumer scraps and used beverage cans into usable raw materials.

HENRY GORDINIER
President & CEO
Tri-Arrows Aluminum



Ball's overall carbon footprint

Total GHG emissions during 2019 in our own operations (scope 1 and 2) stood at 1.24 million metric tons of GHG emissions – up by 1.3% in absolute terms due to increased production, but down by 3.6% on normalized performance compared to 2018, and down by 15% on normalized performance compared to our 2015 baseline.

Within this total, 2019 scope 2 emissions – from electricity purchased by Ball – remained virtually the same as the previous year in absolute terms, at 808,272 metric tons of GHG emissions. This marks a 5.3% reduction in normalized scope 2 emissions compared to 2019. On a 2015 baseline, scope 2 emissions were down by 20% on normalized performance.

Scope 1 emissions – from activities such as gas burning, vehicle use and air-conditioning – rose

in absolute terms by 3.9% to 434,670 metric tons of GHG emissions in 2019, but fell by 0.2% on normalized performance compared to 2018. On a 2015 baseline, scope 1 emissions were down by 3.5% on normalized performance.

Total GHG emissions during 2019 in our value chain (scope 3) stood at 8.6 million metric tons of GHG emissions – up by 1.7% on the previous year due to increased production.

These figures show the extent of our task – and our ambition – in aiming to reduce absolute emissions by 55% by 2030 against a background of an expected continuation in production output.

Expanding disaster relief support

The consensus of scientific opinion suggests that with climate change comes the likelihood of more frequent natural disasters. As a long-standing supporter of disaster preparedness and relief

efforts, our partnership with the American Red Cross and the International Federation of Red Cross and Red Crescent Societies helps to ensure that assistance gets to disaster areas when it is most needed.

Globally, Ball Corporation and The Ball Foundation have contributed more than \$2 million in cash and in-kind donations to Red Cross efforts since 2017. Ball also partners with several beverage customers to donate millions of cans of clean drinking water to disaster victims.

Around the world, our employees also donated more than 1,000 volunteer hours and \$78,000 of matched cash donations to disaster preparedness efforts in 2019. Our work with charitable partners covered 21 international disasters throughout the year, including 15 that affected locations where Ball has operations.





TRACKING EMISSIONS FROM SPACE

Beyond efforts to reduce greenhouse gas emissions in our value chain, we can also use our advanced capabilities and technologies to monitor these emissions from space.

In 2019, Ball Aerospace signed a contract with MethaneSAT LLC, a subsidiary of the Environmental Defense Fund (EDF), to develop an advanced remote sensing instrument that will detect regional and point source methane emissions across the globe from space. The MethaneSAT mission will help companies and countries develop strategies to reduce those emissions while supporting EDF's goal of achieving a 45% reduction in methane emissions from the oil and gas sector by 2025.

Existing satellites can either map large-scale methane emissions across broad geographic areas or make more precise measurements at specific locations. MethaneSAT will serve both functions – providing regional-scale high

precision measurements globally. Ball Aerospace spectrometers at the heart of the mission will measure methane concentration in a column of air observed by the MethaneSAT satellite. Once positioned over a target area, the spectrometers can detect methane concentrations as low as two parts per billion, the equivalent to sensing a couple of colored dye drops in a 10,000-gallon swimming pool.

Ball Aerospace has extensive experience providing high-accuracy environmental data for applications, including atmospheric science, operational weather, quantitative land use and air quality assessments. The MethaneSAT mission builds on our long history of developing space-based instruments and missions to support critical Earth science, while underscoring our commitment to sustainability. The mission is expected to launch in 2022.



WATER STEWARDSHIP

We aim to use water responsibly by reducing demand on supplies across our value chain and by maintaining or improving its quality when we use it

Why water matters to us

Water is essential across our value chain – for our suppliers, who harness it in the refining, smelting and rolling processes that turn bauxite into aluminum can sheets; in our own manufacturing processes (including through can washers and cooling towers); and for our customers, whose beverages and agriculture-based ingredients, such as barley, hops and fruit, depend on water.

While the availability of water is important to our business continuity, so too is water quality, for if the water we source is of poor quality, then we will have to invest in more pre-treatment. We install wastewater treatment technologies to ensure our operations do not adversely affect water quality near our plants – something that could lead to reputational damage within the communities in which we operate and beyond.

Water-related risks are, therefore, important to us. By making sure that we have continued access to high quality water and we use it responsibly, we can reduce those risks, cut costs and lessen our impact on the environment.

As various regions around the world, become more water stressed due to factors such as population growth, water-intensive food and energy demands, pollution and climate change, we recognize that companies such as ours must play their part in maintaining or improving water quality and reducing demands on water supplies across the value chain.

At all our plants around the world we are working to minimize water use and to maintain water quality by re-evaluating the design of our can washers, re-using water, training employees and implementing innovative water-saving and treatment projects.

Mapping our water-related risks

By making use of the globally recognized WRI Aqueduct tool,[⊕] we have established that the majority of our beverage packaging plants today (57%) are in low or low-to-medium water risk locations, with 23% in medium-to-high risk areas. However, 18.5% are in high risk areas, with the remaining 1.5% designated as extremely high risk.

To assess overall water risk levels, WRI considers issues such as water stress, baseline depletion, interannual and seasonal variability, groundwater table decline, coastal and riverine flood risks, drought propensity, untreated wastewater, coastal eutrophication potential and the availability of drinking water.

One plant identified as being in an extremely high-risk area is the Sri City facility in India, due to several factors including risk of drought, riverine flood and coastal eutrophication potential. There we have implemented a series of measures – including reverse osmosis projects and manufacturing efficiencies – that are saving 33,000 cubic meters of water annually. These changes have allowed the plant to continue to function efficiently with no detrimental impact on water availability or quality in the area.

Among plants that have made notable reductions in water use are our facility in Monterrey, Mexico, which saved 29,000 cubic meters of water in 2019 through reducing the consumption of its can washers by 19%, and our facility in Cabanillas, Spain, which reduced

consumption in its water cooling system, saving 1,000 cubic meters. Our plants in high risk areas are also implementing water saving and water quality measures. In Taloja, India, for instance, our plant is saving 20,000 cubic meters of water each year through rainwater harvesting and the use of reverse osmosis water filtration systems in its cooling tower.

While all of our plants are aware of the need to conserve water and maintain its quality, the WRI tool has allowed us to focus our main water stewardship efforts on those areas with highest water risk. Together with Ball's Enterprise Intelligence unit,[⊕] we also analyze weather

patterns and assess related impacts to prepare for potential disruptions in our value chain caused by hurricanes, water pollution, flooding, drought or sea level rises.

Our water footprint

In 2019, we used 9,450,203 cubic meters of water worldwide in our own operations, up from 9,284,933 cubic meters in 2018. Global Beverage Packaging accounted for 94% of the total. More than 90% of the water we use in our plants is sent to a municipal treatment plant, then returned to watersheds, with most of the remainder evaporating.

ANNUAL GLOBAL WATER CONSUMPTION

in m³



The AMA can is an innovation in the market: one more option for consumers who, in addition to staying hydrated, will be able to help the environment and people who live without access to drinking water.

RICHARD LEE
Head of Sustainability,
Ambev



As can washing is our most water-intensive process, accounting for about two-thirds of water consumption in a beverage can plant, we focus many of our efforts on making improvements in this area. Over the past 12 years we have reduced the water consumption of washers by 69% through improvements to washer design.

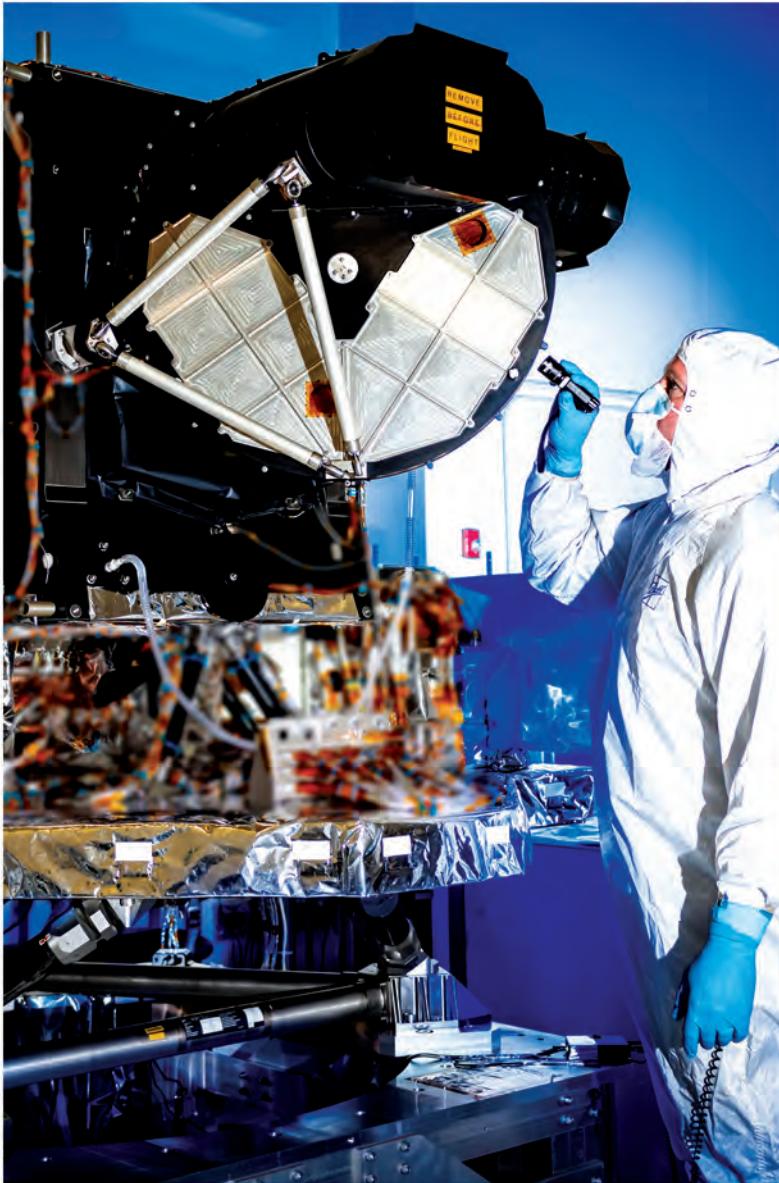
We are working toward water efficiency standardization globally, in order to document and share our best practices and development in machine design. We have also been working across different plants to update machinery, introduce new water-saving concepts and to re-educate plant employees on water saving measures.

Notable water-saving initiatives introduced in 2019 included:

- Replacing traditional deionizing water filtration, which removes minerals from water by exposing it to electrically charged resins with reverse osmosis systems that use a partially permeable membrane to do the same job. Water that has been treated through reverse osmosis can be recirculated and re-used more easily than water that has been deionized. At our Três Rios, Brazil, plant this switch has saved 7,000 cubic meters of water annually
- Additional re-use of the water flow on can washers at plants in Extrema and Pouso Alegre in Brazil, Fort Atkinson in the U.S.

and Fosie in Sweden, saving a combined 76,000 cubic meters of water annually

- Returning water to the production cycle at our Vsevolozhsk, Russia, plant after it is used in cooling towers and in deionizing systems, saving 12,000 cubic meters a year. In addition, in 2018 the plant implemented a rainwater reuse project, which reduced water consumption by 48%
- Installation at our Buenos Aires, Argentina, plant of two new washer systems that save 52,560 cubic meters per year compared to previous washers
- Improved training of employees at seven European plants, including on how to measure and interpret water usage, how



MONITORING WATER FROM SPACE

Every day for more than 45 years, Landsat satellites operated by the United States Geological Survey (USGS) have provided essential measurements to inform decisions about natural resource management. Ball Aerospace partners with NASA and USGS to develop imaging technologies that enable the Landsat program to build on its historic data archive and provide critical information about global water resources.

From helping farmers eliminate wasteful overwatering of crops to reducing water pollution related to land use, Landsat's space-based insights impact millions of people worldwide by supporting informed decision-making on how limited water resources are allocated, such as managing water usage in arid regions, settling water rights disputes and anticipating and responding to water shortages.

Ball Aerospace designed and built the Operational Land Imager (OLI)  for Landsat 8. The most advanced Landsat imager launched to date, OLI has demonstrated excellent performance since entering orbit in 2013, enabling new coastal and inland water science. In 2019, Ball delivered a second OLI instrument for the Landsat 9 mission, which is expected to launch in 2021.

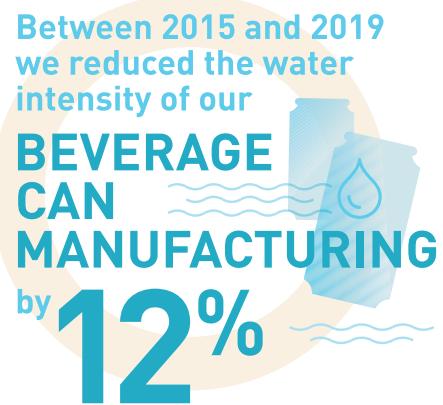
As part of NASA's Sustainable Land Imaging program, Ball Aerospace is demonstrating innovative new land imaging instruments that will improve Landsat measurements while significantly reducing size and cost. These instruments will lower costs associated with building and launching Landsat satellites, ultimately ensuring high-quality Landsat data will remain available to the public for decades to come.

to re-use water in various processes and how to conduct trials – leading directly to cuts of around 30% in the amount of water used for can washing.

Water in our value chain

Water is crucial both for aluminum production and, further down the line, as a primary ingredient in our customers' beverages.

Aluminum production processes typically use about 12 times more water than it takes to make the can, while production of the beverages that are put into the can may use up to 200 times more water, depending on the product and region in question.



In aluminum production

According to data gathered by the International Aluminium Institute, about 16 cubic meters of fresh water and 11 cubic meters of sea water are consumed per metric ton of aluminum ingot produced, mainly to process the bauxite, manage dust emissions, generate hydroelectric power and for cooling. Once the aluminum has been produced, the subsequent rolling process, which provides us with sheets for can making, consumes another 7 cubic meters of water per metric ton.

Much of the world's aluminum production takes place in regions of Canada, Scandinavia and Russia, where water availability is often not an issue. Nonetheless, in areas where water availability is scarcer, our aluminum suppliers are working to minimize consumption by reducing water intake, recycling water back into processes, where possible, and by setting water use reduction goals. At several refineries, for instance, water is reclaimed from bauxite residue, which can then be circulated back into the refining process.

In beverage production

Given the large amounts of water needed to grow crops for ingredients that go into many beverages, plus the water that forms the basis of the drinks themselves, water stewardship is a high priority for our customers.

Water footprint studies suggest, for example, that it takes between 10 and 30 liters of water to produce 1 liter of beer, due both to the amount of liquid involved in growing barley and hops, and the water used in the actual production process. Beer producers are working to minimize water usage in the brewing process and are working with farmers to reduce water consumption in the growing of their crops, for instance, by using drip-feed irrigation systems on fields.

Some brewers, for example, advise farmers on improving soil quality through reduced tilling and increased planting of companion crops, coupled with the installation of modernized irrigation systems and the monitoring of soil moisture to reduce overwatering. Sometimes satellite technology built by Ball Aerospace assists farmers in identifying areas where careful water management is needed.

Soft drinks companies, which typically use around 2 liters of water to make 1 liter of product, work in similar ways, and some have made commitments to replenish more water than they use, in particular by working with suppliers in agriculture and with manufacturers such as ourselves. This improves water efficiency, reduces consumption, supports sustainable farming practices and helps with investments in community water projects.



PARTNERING TO BRING AID

In 2019, in partnership with our customer Molson Coors Beverage Company, we donated 300,000 cans of water to people in the U.S. and the Bahamas during the immediate aftermath of Hurricane Dorian, and also to residents affected by tornadoes in Ohio and general flooding across the U.S.

The cans for the Bahamas were distributed locally by the Bahamas Red Cross. In Ohio, they were delivered to residents via a food bank in the city of Dayton.

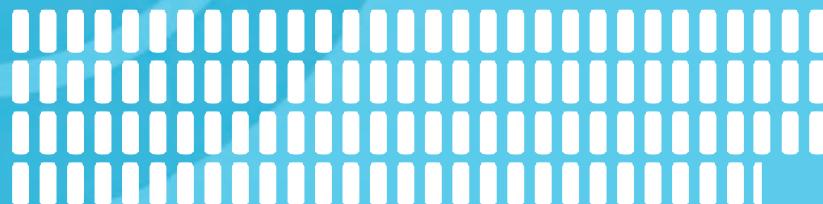
In all cases, the cans of water were also made available to first responder emergency personnel who helped victims of the disasters.

Molson Coors Beverage Company launched its water donation program in partnership with Ball in 2017, and together we have committed to providing more than two million cans of water to the Red Cross to help communities affected by disasters in the period up to 2021. At the end of 2019, more than 1.2 million cans had already been donated.

2017-2019

1,225,000 CANS DONATED

= 10,000 cans





RESPONSIBLE SOURCING

We collaborate with our suppliers
to improve their sustainability
and reduce impacts

Strategic and responsible sourcing

With increasing demand for aluminum around the world, we need to focus on sustaining a consistent supply while also mitigating any environmental, social and governance (ESG) impacts related to that supply. We do this by working directly with our suppliers to embed our strategic sourcing framework, which incorporates sustainability criteria.

There are various ESG impacts in our upstream supply chain, and the most significant ones occur in the production of the aluminum that we buy. Mining of bauxite, for example, is associated with safety, biodiversity and human rights issues, while smelting, casting and rolling requires significant amounts of energy and generates greenhouse gas emissions. Consideration of ESG issues is at the forefront of our mind when we source our materials.

Many of our strategic suppliers have well-established sustainability programs. We maintain continuous dialogue with them so that we can collaborate to reduce impacts. We also engage in various cross-industry platforms that promote sustainability.

In addition, as outlined in the Circular Economy chapter,  as Ball continues to improve the circularity of aluminum cans, we will achieve reduced impacts across the supply chain.



Leading the industry on certification

Ball became a member of the Aluminum Stewardship Initiative (ASI)  in 2012 and, in conjunction with NGOs



CONFIDENCE IN COATINGS

We work proactively with our suppliers to develop coatings that are effective and meet expectations for transparency and safety.

These coatings have, for many years, included trace amounts of bisphenol A (BPA). Acting in response to stakeholder feedback, we have developed with our suppliers a new generation of coatings that contain no intentionally added BPA. In partnership with our customers, we have already converted a significant portion of our business to these new coatings, and we expect that this transition will speed up as more and more customers select this option.

As part of our broader vision to create more transparency and confidence in the aluminum beverage can, we have gone further and are seeking Cradle to Cradle™ material health certification for coatings

we use, as well as other materials such as sealants and varnishes. Cradle to Cradle™ material health certification requires product ingredients to be inventoried throughout the supply chain and evaluated for their impact on human and environmental health.

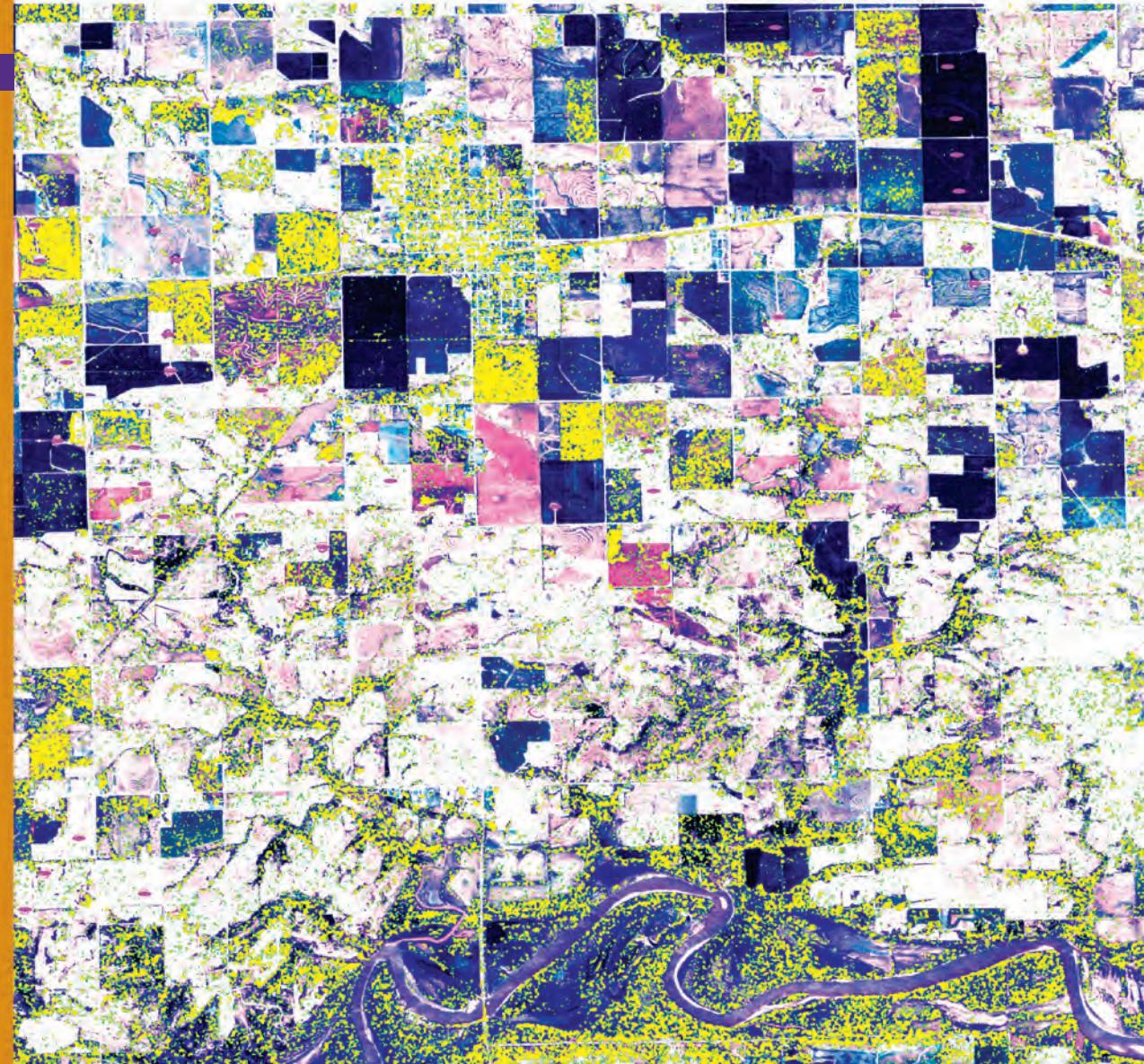
Once assessed by a third party, a product can be assigned a Material Health Certificate at an achievement level of basic, bronze, silver, gold or platinum, upon meeting certain requirements. To date, more than one-third of our European coatings, sealants, and varnishes have received a material health certification. These certificates provide a foundation for confidence in formulations and suggest roadmaps for improvement so that we can continue to offer our customers a variety of coating solutions.

USING OUR OWN EXPERTISE

Ball Enterprise Intelligence (BEI)  draws on 140 years of business experience and more than 60 years of technical expertise in aerospace and remote sensing to deliver intelligence to industry leaders through trusted partnerships.

In addition to its work for external clients, BEI also addresses high-value strategic questions for Ball. As the world faces a climate crisis and energy transition, BEI is increasing its visibility of specific threats and opportunities to Ball's business. Its experts have mapped and profiled energy assets that power Ball's supply chain to better inform resilience planning. Additionally, BEI has created real-time and future-looking water risk models to improve our understanding of the short- and long-term impacts of the changing climate on our assets and those of our value chain partners.

By taking steps to improve our own supply chain visibility, BEI is informing the sustainability discussion across our business to ensure long-term success for everyone in the communities within which we operate.



and industry partners, crafted the ASI standards, which were launched in late 2017. In early 2020  all 23 of our beverage can plants in the Europe, Middle East and Africa (EMEA) region were certified to the ASI standards, making us the first beverage can manufacturer to achieve this distinction. Now, we are working toward ASI certification for all of our packaging businesses by the end of 2022.

We became the first business to receive ASI certification in 18 countries in parallel, and in some of those countries, such as Egypt, Finland, Poland, Saudi Arabia, Serbia and Turkey, the first company of any kind to be ASI certified.

We achieved both ASI's Performance  and Chain of Custody  standard certifications. The Performance standard is a measure of how much effort a company is making to assess, manage and disclose its ESG impacts – including on issues such as life-cycle thinking, recycling, greenhouse gas emissions, water and waste management, biodiversity, business integrity and the human rights of both workers and local communities. The Chain of Custody standard sets out requirements for the creation of a chain of custody throughout the entire value chain, which, in our case, covers all areas from mining and re-melting to casting, rolling, can manufacturing and filling.

We are working to encourage all our aluminum suppliers to have their supplying rolling mills ASI certified, as well as all upstream processes from mining to casting and remelting. Once that

has been accomplished, and once some of our customers have also completed a simplified certification, ASI-certified cans will hit the shelves. This will enable beverage brands to showcase their responsible sourcing practices and demonstrate how they can drive positive change in their value chains.

Supplier collaboration

Since 2013 we have used our in-house Responsible Sourcing Framework to assess the ESG risks and performance of all key suppliers and to engage with them on sustainability matters. The framework is based on a four-step approach:

- 1: We draw up sustainability profiles for procurement categories such as aluminum or other direct materials, outlining the most material ESG risks by category.
- 2: We require all suppliers to comply with our Supplier Guiding Principles,  which cover areas such as employment practices, human rights, environment, health and safety, antitrust activities, and bribery and corruption. In addition, we provide suppliers with our conflict minerals policy,  and slavery and human trafficking statement. 
- 3: We develop individual sustainability profiles of key suppliers based on site-specific online self-assessment questionnaires, which we require them to complete. In addition, Sedex, the supplier ethical data exchange, collects information on the inherent risk factors (such

as geographic location) faced by our suppliers. This data is combined to identify an overall level of supplier risk, and we may request actions from suppliers to reduce this risk, if necessary. As of January 2020, 27% of our key suppliers had low risk profiles, with the remainder classified as medium, mainly as a result of their geographical location. The level of risk assigned to each supplier helps us to identify the likelihood of risks in our supply chain.

4: We take remedial action, if necessary.

If a supplier scores below expectations we work with them to develop a continuous improvement plan. If there is no evidence of improved performance across the following calendar year, then we may undertake an ethical audit to investigate the issue and agree on corrective actions. If identified gaps are not closed, we may decide to terminate business relations with a supplier.



DIVERSITY & INCLUSION

We have established a dedicated D&I function to build on our commitment to, and systemic investment in, D&I across the company

Ball's commitment to Diversity and Inclusion

Diversity and Inclusion (D&I) is imbedded in our Drive for 10 strategy and is key to the long-term success of our business. Four years ago we established a dedicated D&I function to build on our commitment to, and systemic investment in, D&I across the company. During the past several years we have made good progress on D&I, and this has been recognized by external organizations, including Forbes,  which ranked Ball as No 1 on its 2019 list of "America's Best Employers for Diversity."

Our dedicated D&I function reports to our CEO, and we understand that the key to success is shared accountability rather than designating a single owner for this critical area. Our focus to date has been on the fundamentals – creating an internal team and infrastructure to set us up for future success. As part of this, we have also created an unconscious bias training curriculum, expanded our Ball Resource Groups (BRGs) in terms of quantity and geography, and have increased awareness around the importance of D&I and how each employee can play a role in ensuring that we have a culture where people can bring their whole selves to work. While we are proud of our progress, we know there is more work to do.

As we move forward, we are accelerating our efforts with a greater sense of urgency. In June 2020 we instituted a new global business system that will – among many other employee-related features – enable us to more fully understand employee demographics and identify how we can better recruit and retain minority populations around the world. We are taking a new approach to





Diversity and Inclusion is one of the key pillars that should be embedded within the grain of any company. D&I benefits Ball with recruiting, retention and innovation, offers opportunities to gather different perspectives, promotes team cohesiveness, and provides a sense of unity and solidarity. With diversity and inclusion principles as our guide, we are strengthening our culture of trust and respect.

SHEILA GARLAND
Sr. Operations Manager, Security & Mission Assurance
African American Ball Resource Group Co-Lead



talent acquisition and development, and are focusing more intently on diverse candidates for our internship programs, candidate slates and succession planning. We realize that our employee population needs to reflect the markets in which we operate and we have a long way to go to make that happen.

With greater system transparency comes the opportunity for increased accountability, and each of our business segment leaders is committing to key performance indicators for three, five and 10 years, along with strategies on how to reach those goals.

Our D&I strategy is focused on three core areas:

PARTNERING. A dedicated team of diversity and inclusion experts has partnered closely with business leaders to develop and implement strategies that advance our D&I commitments. This has allowed us to address specific needs and gaps with targeted programs – for example, by instituting a new women's talent focus project through which we have identified women across the company who are “ready and rising.” Since the launch of this program in 2018, we have seen nearly 20% of participants promoted within a year. In 2019 we also set up an annual

summit for our most senior leaders to share best practices and identify gaps in processes so that we can make an impact on D&I more quickly.

In addition to internal partnerships, we have extended our commitment beyond our company’s walls into the communities where we live and operate. To help inspire future generations of engineers who may join Ball one day, more than 200 employees are active mentors and recruiters within groups such as the Society of Women Engineers. We partner with the National Society of Black Engineers, and we partner with educational institutions to encourage minority students to continue their



pursuit of engineering and science degrees. One example of this has been the launch of the Ball Big Sisters program, which creates direct relationships between female engineering and business students and female professionals at Ball. This has provided an ideal network for sharing best practices, building a talent pipeline and inspiring future talent.

EDUCATING. To help our workforce look at the world through a different lens and to encourage them to have courageous conversations, we have introduced a "Think, Speak and Meet Inclusively" training module, which helps Ball employees learn techniques for communicating in a way that opens minds and allows for a better understanding of personal biases and behaviors. This is a complement to our Unconscious Bias training, in which more than 1,000 Ball employees have participated over the past two years. In 2019, our Colorado campus employees participated in the Unconscious Bias Bus Tour, which provided a virtual reality experience designed to create awareness of bias and offered tools to guard against making judgments based on bias.

Through formal training programs such as these, and via more informal "lunch and learns" and listening sessions, our employees have ongoing opportunities to learn about other cultures and perspectives. This education begins on day one, as D&I is also a critical part of our onboarding program. Additionally, we believe that education is best instilled through a bottom-up approach, so we capture the voices of employees at all

levels through testimonials that can help teach others and inform our future strategies.

ENGAGING. Awareness building and education is ineffective without true engagement. Our nine Ball Resource Groups (BRGs) play a pivotal role in providing opportunities for our people to participate in programs designed to strengthen our culture of belonging. These groups lead and implement a number of initiatives focused on career development, company culture, community outreach and commercial activities. They are visible and value-added organizations that work with our leadership teams to address significant matters of interest to more than 1,650 members. In 2019 alone, these groups organized more than 75 events, including our first-ever International Women's Summit, during which employees were able to learn from each other and translate their learnings into professional and personal development. To complement our North American team, we recently hired D&I managers for South America and EMEA, who will help expand our BRG presence in those regions. Each BRG is sponsored by at least one company executive who is dedicated to helping the group chart its course and execute on its mission. Currently, more than 80% of our executives are sponsors and participate in these BRGs.

To better understand where and how to engage, we will conduct more frequent listening sessions and surveys as part of our enterprise listening strategy. We will use this feedback to help shape future focus areas and programs.



Board diversity

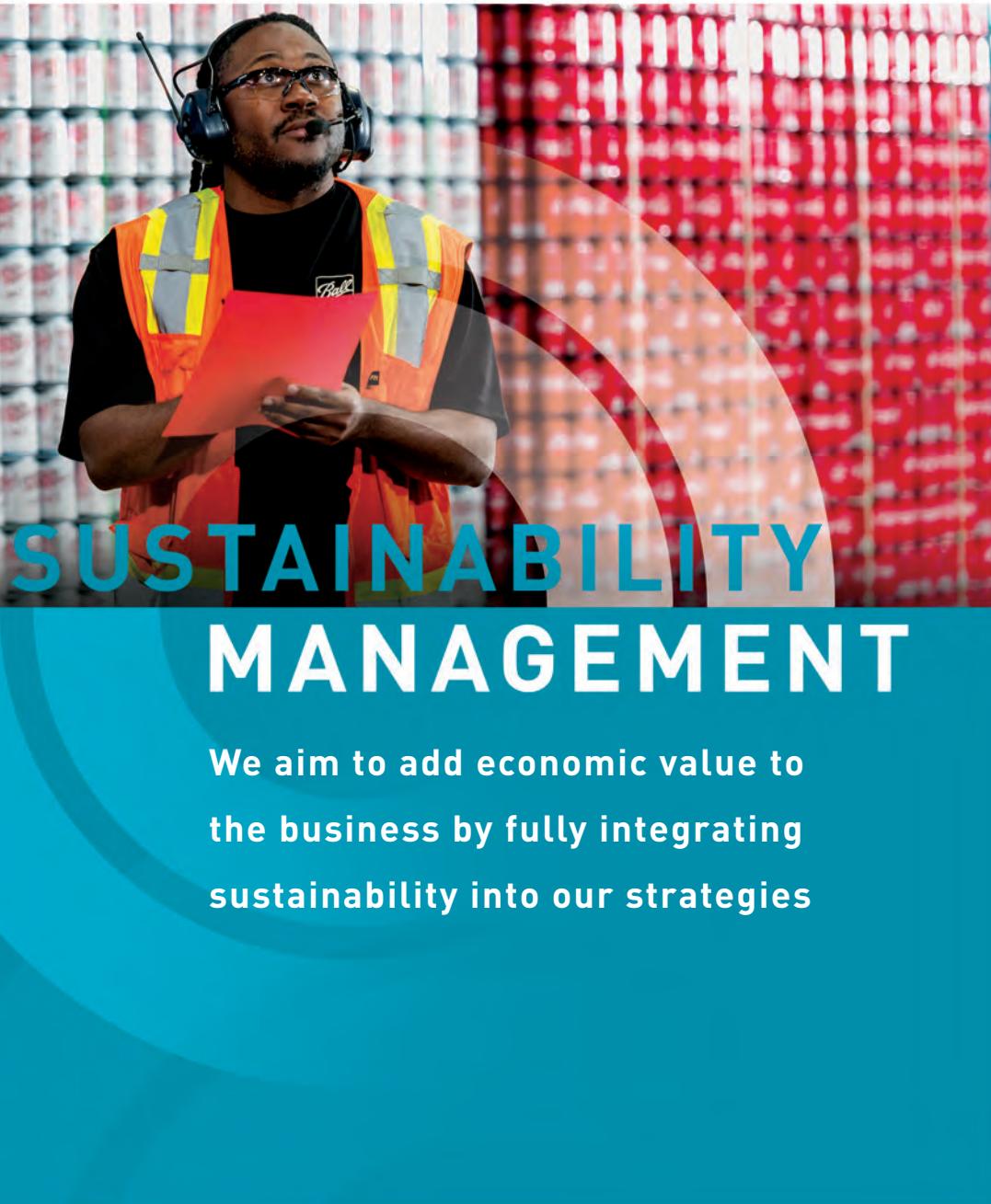
More than half of our board of directors consists of women and ethnic minorities. The board regularly reviews our D&I progress and challenges the company to go deeper and faster. Leveraging the power of their extensive networks, its members connect our leaders and D&I team to D&I functions at other organizations, so that we can share best practices and key learnings with the goal of furthering our investments in the activities that support our culture of belonging. Our directors also serve as panelists and keynote speakers at the many internal diversity and inclusion events held across our organization.

Our challenge: both sobering and invigorating

There is no question that D&I enables us to find innovative solutions to global challenges, push

the boundaries of our imagination, and tap into the unique perspectives that can only be garnered through a diverse workforce. For these valuable reasons, our D&I programs remain some of the most important and influential drivers for our culture of belonging. For Ball, D&I is a business imperative.

As we look to the future, however, we realize we have a steep hill to climb. We understand that if we do not feel uncomfortable and impatient, we likely are not pushing ourselves hard enough. We are committed to stretching ourselves to deliver actionable results and will hold ourselves accountable to make a real impact, providing interim updates as our D&I program expands and matures.



SUSTAINABILITY MANAGEMENT

We aim to add economic value to the business by fully integrating sustainability into our strategies

Oversight

A monthly global data monitoring system keeps tabs on our sustainability performance at all levels of the business, and is overseen by our Corporate Governance Committee, made up of our board of directors and chaired by a non-executive board member.

The committee's scope is to ensure we add economic value to the business by fully integrating sustainability into our strategies and aligning ourselves with stakeholder expectations.

At all times our business operations are guided by our Business Ethics Code of Conduct, [⊕](#) and our Global Environmental Policy. [⊕](#)

Each year our environmental data goes through a rigorous third party assurance [⊕](#) process to ensure we deliver accurate reporting both in this report and elsewhere.

Risk Management

To remain a resilient business we need to anticipate and mitigate sustainability-related risks.

We identify and assess these risks so we can develop management plans to address them. Among the key risks we examine are those related to climate change, water scarcity, disruptions due to extreme weather events, human rights abuses and packaging waste regulations.

Stakeholder engagement

We engage with stakeholders to better understand their expectations and to identify emerging opportunities and challenges in our markets.

We also operate in collaboration with investors, customers, suppliers, trade associations, governmental





Ball Corporation has a cross-functional sustainability initiative in which business executives, geographic leads and plant operators drive toward a set of company-wide sustainability goals. We believe that Ball Corporation and its sustainability initiative has significant positive sustainability optionality driven by environmentally conscious consumers' preference for highly recyclable aluminum containers over more harmful single-use plastic. This developing environmental theme strengthens the company's durable competitive advantage, growth prospects and long-term margin outlook. JJ

THOMAS KAMEI
Executive Director, Counterpoint Global
Morgan Stanley Investment Management



representatives, regulatory authorities and non-governmental organizations to find solutions to the sustainability challenges we face – from increasing recycling rates to mitigating environmental and social risks. We cannot work on these alone.

One particular area of focus for stakeholder engagement is with our suppliers, with whom we work to bring about sustainability improvements in our value chain. A useful vehicle for doing this is the Aluminum Stewardship Initiative (see Responsible Sourcing section [⊕](#)).

Integrating sustainability

It is important that sustainability is given high priority in all parts of the business, from plant workers keeping machines efficient, to engineers designing innovative products, to making sure that we source against sustainability criteria.

Our senior executives consistently communicate the importance of sustainability, and make sure this message reaches all levels, creating a sense of ownership among employees.

One way of achieving this has been through the Hoover Sustainability Award, [⊕](#) which recognizes Ball plants that have achieved the most significant sustainability improvements.

The award is given to one plant in each of our four Global Beverage Packaging regions, plus one plant in our Aerosol Packaging division. The 2019 winners for beverage packaging are Kapolei (Hawaii), Gelsenkirchen (Germany), Yangon (Myanmar) and Buenos Aires (Argentina). The 2019 winner for aerosol packaging is San Luis Potosí (Mexico).



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You can download this report along with additional sustainability information at www.ball.com/sustainability

FORWARD-LOOKING STATEMENTS

This release contains "forward-looking" statements concerning future events and financial performance. Words such as "expects," "anticipates," "estimates," "believes," "targets," "likely," "positions" and similar expressions typically identify forward-looking statements, which are generally any statements other than statements of historical fact. Such statements are based on current expectations or views of the future and are subject to risks and uncertainties, which could cause actual results or events to differ materially from those expressed or implied. You should therefore not place undue reliance upon any forward-looking statements and any such statements should be read in conjunction with, and, qualified in their entirety by, the cautionary statements referenced below. The company undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Key factors, risks and uncertainties that could cause actual outcomes and results to be different are summarized in filings with the Securities and Exchange Commission, including Exhibit 99 in our Form 10-K, which are available on our website and at www.sec.gov. Additional factors that might affect: **a)** our packaging segments include product capacity, supply, and demand constraints and fluctuations, including due to virus and disease outbreaks and responses thereto; availability/cost of raw materials and logistics; competitive packaging, pricing and substitution; changes in climate and weather; footprint adjustments and other manufacturing changes, including the startup of new facilities and lines; failure to achieve synergies, productivity improvements or cost reductions; mandatory deposit or other restrictive packaging laws; customer and supplier consolidation; power and supply chain interruptions; potential delays and tariffs related to the U.K.'s departure from the EU; changes in major customer or supplier contracts or a loss of a major customer or supplier; political instability and sanctions; currency controls; changes in foreign exchange or tax rates; and tariffs, trade actions, or other governmental actions, including business restrictions and shelter-in-place orders in any country or jurisdiction affecting goods produced by us or in our supply chain, including imported raw materials, such as those related to COVID-19 and those pursuant to Section 232 of the U.S. Trade Expansion Act of 1962 or Section 301 of Trade Act of 1974; **b)** our aerospace segment include funding, authorization, availability and returns of government and commercial contracts; and delays, extensions and technical uncertainties affecting segment contracts; **c)** the company as a whole include those listed plus: the extent to which sustainability-related opportunities arise and can be capitalized upon; changes in senior management, succession, and the ability to attract and retain skilled labor; regulatory action or issues including tax, environmental, health and workplace safety, including U.S. FDA and other actions or public concerns affecting products filled in our containers, or chemicals or substances used in raw materials or in the manufacturing process; technological developments and innovations; the ability to manage cyber threats and the success of information technology initiatives; litigation; strikes; disease; pandemic; labor cost changes; rates of return on assets of the company's defined benefit retirement plans; pension changes; uncertainties surrounding geopolitical events and governmental policies both in the U.S. and in other countries, including policies, orders and actions related to COVID-19, the U.S. government elections, stimulus package(s), budget, sequestration and debt limit; reduced cash flow; interest rates affecting our debt; and successful or unsuccessful joint ventures, acquisitions and divestitures, and their effects on our operating results and business generally.



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