



# 2019 Sustainability Report

Building a Sustainable Roadmap



# Table of Contents

---

## Our Story

## About Our Report

### Section 1

- From Our CEO
- Our Sustainability Journey
- Who We Are
- Our People
- Our Value Chain

### Section 2

- Our Primary Product
- Our Communities

### Section 3

- Materiality
- Our Principles
- Stakeholder Engagement

### Section 4

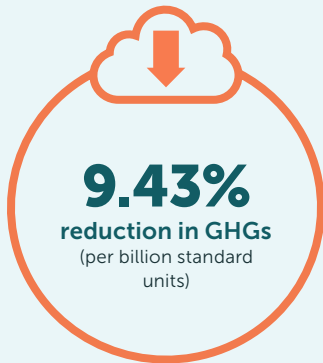
- 2020 Sustainability Goals
- Chairman's Sustainability Awards
- Energy and Carbon Footprint
- Employee Health, Safety and Wellness
- Business Ethics
- Product Quality and Safety
- Water Management and Scarcity
- Waste Reduction and Management
- Governance

# Our Story

Our sustainability journey started with a single innovation designed to extend the shelf life of beverages and reduce waste. More than 125 years later, our product portfolio, geographic footprint and employee base have expanded significantly, but our core principles and commitment to sustainability have been steadfast. We remain driven by a desire for continuous improvement, both in terms of what we make and how we make it. That mindset has been a driving force behind the progression of our sustainability commitments as a Company. We are excited to share information about the next step of our sustainability journey with you in this report.

## Progress Against 2020 Sustainability Goals

### Reducing GHG Emissions



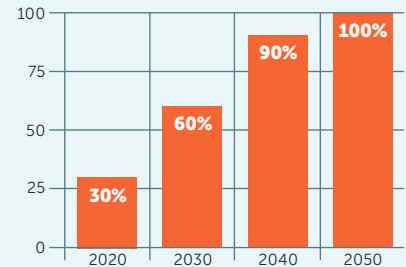
**94% of the 2020 GHG reduction goal achieved** as of December 31, 2018

### Decreasing Energy Consumption



Our metal packaging plants have **reduced energy consumption by 6.23%**, surpassing our goal (as of December 31, 2018)

### Our Path to 100% Renewable



**6.7% of our total electricity was consumed from renewable sources by the end of 2018.**

This is the first step on the path of our commitment to reach 100% renewable electricity by 2050.

**We are proud of the strides we have made to become a more sustainable company.**

As we approach the completion of our 2020 Sustainability Goals, we are looking toward the future and how we can advance all aspects of our sustainability activities.

# About Our Report

---

## Reporting Period

This report represents data for fiscal years 2017 and 2018. We issue our Corporate Sustainability Report on a biennial basis. Our last report was published in December 2017.

## What's Covered

Crown's 2019 Sustainability Report includes environmental, economic and social data from facilities within our three metal packaging operating divisions (Crown Americas, Crown Europe and Crown Asia Pacific). The data also reflects any acquired or divested facilities that were operated by Crown for the reporting period of January 1, 2017, through December 31, 2018. It also includes information from the Company's regional headquarter locations in Yardley, Pennsylvania, U.S.; Zug, Switzerland; and Singapore; our research and development facilities in Alsip, IL, U.S. and Wantage, U.K.; and our Centers of Excellence in Singapore; Massillon, Ohio, U.S.; Lancaster, Ohio, U.S.; and Aprilia, Italy, where engineers specialize in specific packaging technologies.

Environmental data from our promotional packaging plants and our CMB Engineering equipment and tooling division have not been included in this report since there is too much variability from year to year in their product portfolios to allow the effective normalization of data and, together, they represent less than 5% of Crown's overall revenue. However, the employee demographics, safety performance and other elements of social sustainability are included. This is consistent with how we have historically reported data.

Facilities gained from the acquisition of Signode Industrial Group in April 2018, which is now known as our Transit Packaging Division, have not been factored into the environmental or safety performance data of this report. That is because these plants were not operated by Crown during the entire reporting period and it was not possible to segment this information. This data will be included in future reports.

There are no restatements of information provided in previous reports.

## Contact Us

---

Seeking further details? Contact our Global Sustainability and Regulatory Affairs department at [sustainability@crowncork.com](mailto:sustainability@crowncork.com).

## GRI Content

This report has been organized and prepared in accordance with GRI Standards: Core option. We have also presented information not specified by GRI that provides additional insight into our approach and commitment to sustainability. Crown has voluntarily followed GRI reporting guidelines since issuing its first formal sustainability report in 2011.

See the GRI index on the Sustainability Report website for a summary of disclosures addressed in this report.

## Assurance

Information provided in our sustainability reporting is subject to internal reviews and, for select data, external assurance.

We engaged Lucideon CICS Limited to provide limited assurance in relation to our total 2018 data for greenhouse gas (GHG) emissions (Scope 1 and 2 categories). The assurance was conducted according to Lucideon's assurance methodology, based on ISO 14064-3 verifications.

A short assurance statement is available for download on the Sustainability Report website.





## Section 1

---

- From Our CEO
- Our Sustainability Journey
- Who We Are
- Our People
- Our Value Chain



# From Our CEO

---

## Progressing Sustainability

It is an exciting time at Crown, both in terms of where we are as a business and what lies ahead for our sustainability journey.

Since our last report in 2017, our product portfolio, geographic footprint and employee base have expanded significantly with the addition of our Transit Packaging Division and strategic investments in our beverage can business in several regions of the world. Even with all that change, and a 5% increase in production of beverage and food cans, we have stayed laser-focused on safety and well-being, efficiency, resource management, governance and innovation, which together serve as the backbone of our sustainability strategy.

That steadfast commitment has been ingrained in our culture since we were founded more than 125 years ago with an innovation that extended the shelf life of beverages and reduced waste. We have worked hard to achieve our first formal external sustainability goals and are proud of our continued progress. As of December 31, 2018, we were in striking distance of our greenhouse gas emissions reduction target and decreased our absolute emissions despite an increase in production levels for both metal and glass packaging. This kind of progress demonstrates our ability to grow our global operations in ways that benefit our customers and shareholders and minimizes impact on the environment. We are grateful to our global team for their drive, innovative thinking and commitment to continuous improvement—all key factors in our success. You can read more about the incredible work they are doing throughout this report.

Another key aspect of our success lies with our primary product—metal—a material that supports the circular economy, protects our customers' products by delivering outstanding shelf life and provides an unparalleled return on investment at every level.

The dawn of the new decade also starts a fresh chapter for Crown. In early 2020, we will announce our next set of sustainability goals, which will focus on several overarching priorities: reducing the impact of climate change, using natural resources efficiently, supporting circularity, enacting social change and enhancing product performance, all of which are underpinned by a strong commitment to governance and ethics.

We are already making headway in several of these priority areas:

- **Renewable Energy:** Over the last two years, we have implemented alternative sources of electricity when and where possible. In 2020, all our U.S. and Canadian beverage can plants will transition to wind power, and in the U.K., 100% of our facilities already run solely on renewable electricity. These advancements were made in alignment with Crown's commitment to the RE100 initiative, through which we have pledged a total transition to 100% renewable electricity by 2050.
- **Science-Based Targets:** To support our plan to minimize our carbon footprint, we have also committed to the Science-Based Targets initiative, which will require us to set specific goals for reducing greenhouse gas (GHG) emissions. These targets, to be announced in early 2020, will align with global temperature limits set by the Paris Agreement of 2015.

Our next set of objectives will also include our first formal stewardship goals for water, a key priority for our beverage can customers, as well as waste reduction targets.

To maintain a high level of transparency with our stakeholders, we will issue our next formal sustainability progress report in early 2021. That report will wrap up our 2020 sustainability goals and provide a roadmap for our future strategy.

We are enthusiastic about the next part of our journey and look forward to keeping you up to date along the way.



TIMOTHY J. DONAHUE  
PRESIDENT AND CHIEF EXECUTIVE OFFICER  
CROWN HOLDINGS, INC.

# Our Sustainability Journey

## Charting Our Next Course

As we approach the target date for our 2020 Sustainability Goals, we are proud of our accomplishments and the strides we have made to become a more sustainable company.

In recognition that sustainability is a never-ending journey, we are already looking toward the future and exploring how we can further elevate our commitments across every aspect of our Company.

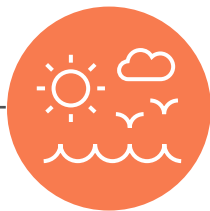
Our sustainability journey focuses on six overarching priorities that draw from the values that guide us, present the greatest opportunity for impact and support our growth strategy. These focus areas will serve as the foundation for our next set of sustainability goals, which we will formally announce in early 2020. We will report annually on our progress against these new goals.

### Climate



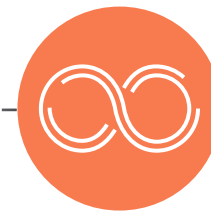
Reduce operations and value chain greenhouse gas emissions

### Resource Efficiency



Water use, efficiency and stewardship  
Responsible materials sourcing

### Circularity



Support increased recycling rates  
Move toward zero waste to landfill  
Raw materials use efficiency

### Social Change



Diversity and inclusion  
Community participation

### Product Stewardship



Food product safety  
Lifecycle thinking

**GOVERNANCE & ETHICS**

# Who We Are

## Crown Holdings, Inc. At a Glance

We have been passionate about helping our customers build their brands for over 125 years. Our **241 manufacturing plants** are strategically located in **47 countries**, allowing us to support our regional and international customers in established economies as well as developing markets in Asia, Eastern Europe, South America, the Middle East and North Africa.

In this reporting period, Crown opened 8 plants and closed or divested 11 plants. We also added 95 manufacturing facilities through our acquisition of Signode Industrial Group, which is now known as our Transit Packaging Division, in April 2018. We also moved our global headquarters to Yardley, PA (U.S.) in September 2018.

### Financial Highlights

2018 Net Sales

**\$11.2 billion**

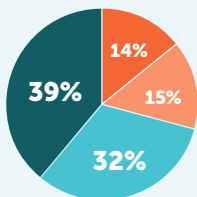
Crown is publicly traded (NYSE: CCK) with **over 90% of its stock held by institutional and mutual fund investors**

#### Net Sales by Product



- Beverage Cans
- Food Can & Closures
- Transit Packaging
- Other

#### Net Sales by Geographic Area



- Europe, Middle East & North Africa
- United States & Canada
- Central & South America
- Asia

### Our Technologies

We are a leading global supplier of rigid packaging products to consumer marketing companies, as well as transit and protective packaging products, equipment and services to a broad range of end markets. Our robust and diverse product portfolio stems from a commitment to continuous innovation and enables customers to build their brands locally and globally and deliver safe, reliable and convenient products to consumers.

- Aluminum and steel beverage cans and ends
- Aluminum and steel food cans and ends
- Decorative steel packaging
- Glass bottles for beverage products
- Metal vacuum and composite closures
- Steel aerosol cans
- Steel beverage crowns and aluminum caps
- Transit and protective packaging
  - Stretch film and steel strapping
  - Woven and plastic strapping
  - Honeycomb, container-liners, transit protection airbags and edge protectors for pallet unitization
  - Automatic and semi-automatic manufacturing equipment and tools



## Products Sold

### Metal Packaging (in billions)<sup>1</sup>

TYPE	2015	2016	2017	2018
Beverage Cans	61.8	63.6	65.3	67.7
Food Cans	15.6	15.3	15.4	15.1

<sup>1</sup> These volumes represent the primary packaging units for each of the businesses (e.g. cans for beverage and food). Ends are not included in these raw numbers as we broadly assume that we make the necessary ends for each can format. These numbers are not normalized in any way.

<sup>2</sup> Calculated based on volume of material purchased in fiscal year 2018. More than 75% of this material is recycled material.

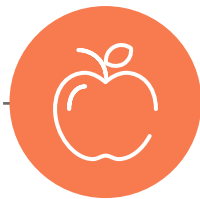
### Transit Packaging<sup>2</sup>

- Over 330,000 metric tons of steel strapping and seals.
- More than 176,000 metric tons of paper-based protective packaging products including cornerboards, angleboards, door cores and custom paper packaging solutions.
- Over 175,000 metric tons of plastic strapping and separator sheets.

## Industries We Serve



Beverage



Food



General Industrial



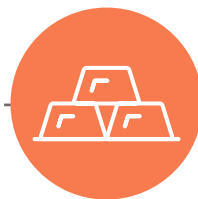
Health & Beauty



Household/Industrial



Luxury Goods



Metals



Promotional

# Our People

## Counting On Our Workforce

Our global workforce is the backbone of our sustainability and business success. We value the contributions made by each employee and remain committed to providing them with safe, engaging work environments and access to high-value learning experiences to help them reach their highest potential.

Crown is committed to creating an atmosphere that provides equal opportunities for everyone. We embed diversity and inclusion into our recruitment practices as we believe that different points of view and perspectives generate powerful new ideas and foster good decision-making. Further advancing diversity and inclusion in our workplace will be included in our next set of sustainability goals.

As of December 31, 2018, Crown employed approximately 33,000 individuals around the world. Roughly 44% of our workforce is employed in our European operations, 34% in the Americas and the remaining 22% in Asia.

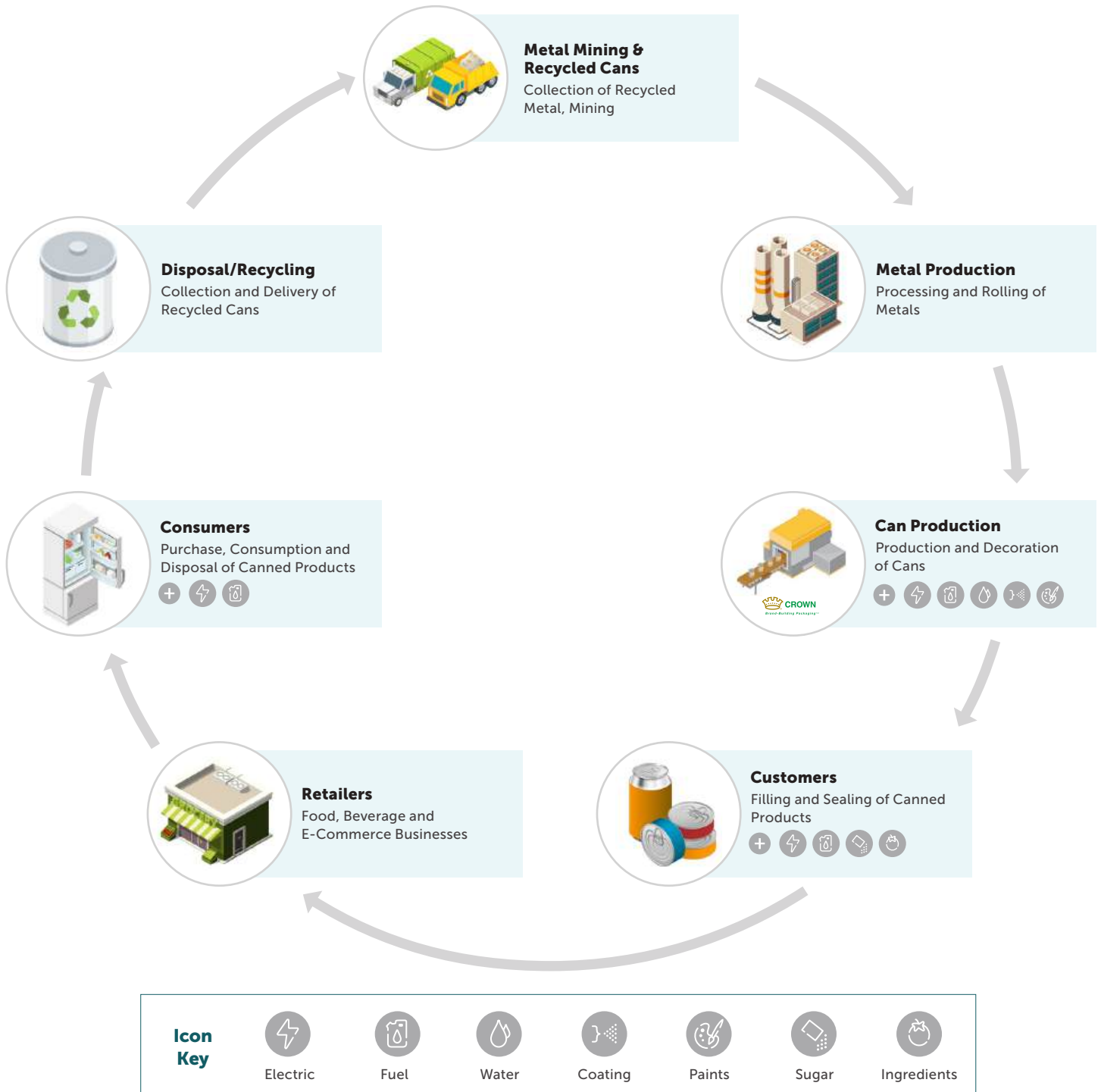
	Employment Type & Contract	2017		2018	
		MALE	FEMALE	MALE	FEMALE
Americas	Permanent employees - full time	6,162	953	8,555	1,912
	Permanent employees - part time	2	1	10	4
	Temporary/fixed term employees - full time	224	25	682	136
	Temporary/fixed term employees - part time	9	2	12	2
	Agency staff working in Crown facilities - full time	117	59	127	73
	Agency staff working in Crown facilities - part time	0	0	0	0
	Unionized employees	4,181		5,202	
Europe	Permanent employees - full time	8,597	1,393	10,284	1,811
	Permanent employees - part time	36	195	114	241
	Temporary/fixed term employees - full time	818	198	951	247
	Temporary/fixed term employees - part time	126	81	101	74
	Agency staff working in Crown facilities - full time	643	174	551	161
	Agency staff working in Crown facilities - part time	25	8	15	6
	Unionized employees	8,597		9,993	
Asia Pacific	Permanent employees - full time	2,936	846	4,609	1,287
	Permanent employees - part time	0	1	2	2
	Temporary/fixed term employees - full time	311	202	910	354
	Temporary/fixed term employees - part time	1	1	0	1
	Agency staff working in Crown facilities - full time	108	78	96	82
	Agency staff working in Crown facilities - part time	10	0	17	0
	Unionized employees	2,422		2,555	
	<b>TOTAL GLOBAL EMPLOYEES</b>	<b>24,342</b>		<b>33,429</b>	



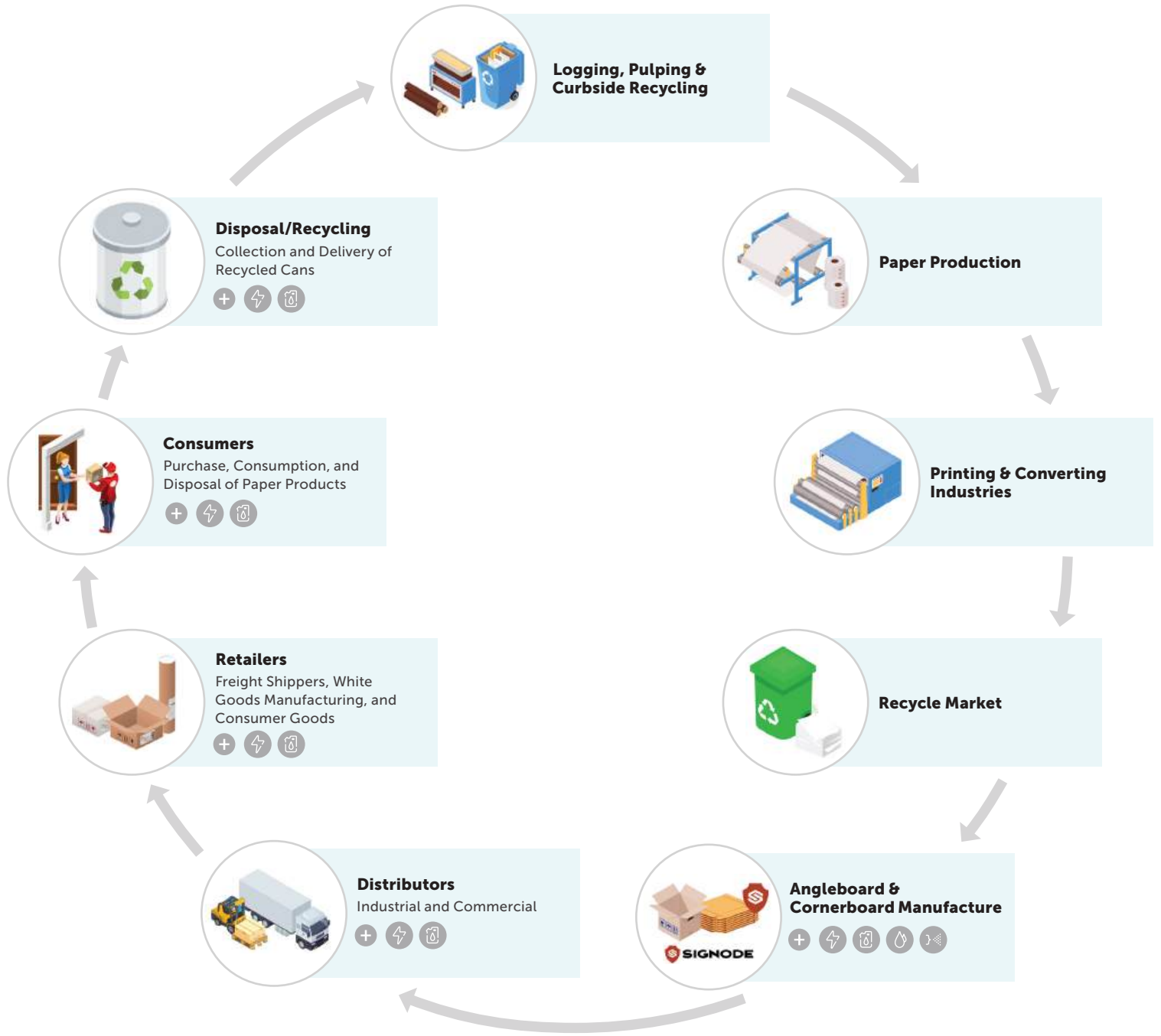
# Our Value Chain

We integrate sustainability considerations into every aspect of how we design, source, manufacture and distribute our products. We continue to invest in people, innovate our processes and technologies and work closely with our partners up and down the value chain to reduce our environmental impact.

## Metal Packaging Value Chain



# Paper Products Value Chain



**Icon Key**

- Electric
- Fuel
- Water
- Paints



# Plastic Products Value Chain



**Icon Key**

- Electric
- Fuel
- Water
- Paints

# Steel Products Value Chain



**Icon Key**

- Electric
- Fuel
- Water
- Paints





## Section 2

- Our Primary Product
- Our Communities

# Our Primary Product

## Sustainable to the Core

Metal is central to our business—and to our sustainability story. Its inherent properties, including its strength, recyclability and elemental nature help us excel across all three dimensions of sustainability.

From every angle, our primary materials—steel (formed from iron) and aluminum—are naturally circular. At their origin, they respectively represent more than 5% and 8% of the earth's crust, ranking them among the most abundant resources in the world. As elements, metals are also infinitely recyclable with zero loss of properties, ensuring they will never be taken for granted but instead be used for valuable innovation time and time again.

## Champion of the Circular Economy

The metal packaging industry is a perfect example of the circular economy at work. Consider these facts:

- 80% of all metals produced are still available today.<sup>3</sup>
- Metal is a permanent material recognized by Standard BSI 8905:2011—its inherent properties don't change during use or repeated recycling.<sup>4</sup>
- Metal can be recycled infinitely in a closed material-to-material loop.<sup>5</sup>
- It is possible for recycled beverage cans to return to store shelves—as new beverage cans—in as little as 60 days.<sup>6</sup>
- No metal scrap created throughout the production process goes to waste, with any leftover materials simply recycled back into production.

As a permanent, highly recyclable material, the resources utilized in metal manufacturing continue to be reinvested in the production of new metal products, including cans.



Each year, roughly one third of the food produced globally—approximately

**1.3 billion metric tons**

is lost or wasted.<sup>7</sup>

Food losses and waste cost about

**US \$680 billion**

in industrialized countries and US \$310 billion in developing countries.<sup>8</sup>

<sup>3</sup> Source: Metal Packaging Europe (<https://metalpackagingeurope.org/article/metal-packaging-true-circular-economy>)

<sup>4</sup> Source: Metal Packaging Europe (<https://www.metalpackagingeurope.org/sustainability>)

<sup>5</sup> Source: Metal Packaging Europe (<https://www.metalpackagingeurope.org/sustainability>)

<sup>6</sup> Source: Can Manufacturers Institute (<http://www.cancentral.com/can-stats/history-of-the-can/renewable-can-0>)

<sup>7</sup> Source: Food and Agriculture Organization of the United Nations (<http://www.fao.org/save-food/resources/keyfindings/en/>)

<sup>8</sup> Source: Food and Agriculture Organization of the United Nations (<http://www.fao.org/save-food/resources/keyfindings/en/>)

## Protector of Products and Consumers

Metal packaging protects products across the distribution chain, ensuring goods reach consumers in peak condition. By safeguarding critical characteristics such as taste, quality and functionality, the material fosters brand differentiation and builds trust through reliability.

Metal packaging's superior strength, durability and barrier properties help reduce waste and support healthy, nutritious diets.

### Combats food waste

- Metal packaging serves as an unbeatable barrier to the intrusion of oxygen, light and bacteria, extending the shelf life of products and preventing premature spoilage.
- Optimized sizes, whether fit for family dinner recipes or for individual portions, help to reduce food wastage by consumers.
- If food waste was considered a country, it would be the third largest emitter of greenhouse gases worldwide, after only China and the U.S.<sup>9</sup>

### Makes healthy foods more accessible

- Canned produce is picked and packed within hours of harvesting, locking in freshness and nutrients. Fresh produce, in contrast, loses nutrients from the moment it is picked, throughout transportation and refrigeration, until the moment of consumption
- Dependable seal locks in freshness without the need for preservatives, supporting organic and more natural, healthy foods.
- Ready-to-eat nature of canned foods enables busy consumers to prepare nutritious meals quickly.
- Cans make the important food groups of fruit and vegetables more accessible. In the U.S., for example, consumers who consume canned foods have more fruit and vegetables in their diets than the average American.<sup>10</sup>

### Supports food safety

- Metal packaging has an unprecedented food safety record due to the high temperatures of retort cooking, which effectively sterilizes the food in cans.
- Cans offer 100% contamination protection, an important responsibility when foodborne illness reportedly costs Americans \$15.6 billion annually.<sup>11</sup>
- Tamper-proof and tamper-resistant features indicate when a package has been compromised and help consumers feel confident about the quality and safety of their food products.

9 Source: Food and Agriculture Organization of the United Nations, "Food Wastage Footprint: Impacts on Natural Resources" © FAO 2013

10 Source: Can Manufacturers Institute (<http://www.cancentral.com/foodcans/nutritious>)

11 Source: Centers for Disease Control and Prevention (<https://www.cdc.gov/foodsafety/cdc-and-food-safety.html>)

## Best-in-Class Recycling

### Aluminum Recycling Rates

**U.S.: 49.8%**<sup>12</sup>

**U.S. industry recycling rate: 63.6%**

(does not include used beverage container (UBC) imports/exports)<sup>13</sup>

**Europe: 74.5%**<sup>14</sup>

The average recycled content for aluminum cans produced in the U.S. is 73%.<sup>15</sup>

### Steel Recycling Rates

**U.S.: 70%**<sup>16</sup>

**Europe: 80.5%**<sup>17</sup>



12 Source: The Aluminum Association (<https://www.aluminum.org/sites/default/files/KPI%20Report%202019.pdf>)

13 Source: The Aluminum Association (<https://www.aluminum.org/sites/default/files/KPI%20Report%202019.pdf>)

14 Source: European Aluminium Association (<https://european-aluminium.eu/media/2673/european-aluminium-mpe-aluminium-beverage-can-2017-recycling-rate-press-release.pdf>)

15 Source: Can Manufacturers Institute (<http://www.cancentral.com/media/news/report-aluminum-can-maintains-position-most-sustainable-beverage-package>)

16 Source: Steel Recycling Institute (<https://www.steelsustainability.org/recycling>)

17 Source: APEAL (<https://www.apeal.org/news/record-recycling-means-steel-packaging-hits-its-own-industry-target-in-europe-three-years-early/>)



## Agent of Material Stewardship

Recycling steel **saves up to 75%** of the energy used to produce virgin steel.<sup>18</sup>

Recycling aluminum **saves up to 95%** of the energy used to produce virgin aluminum.<sup>19</sup>

Recycling metal minimizes the use of Earth's resources and the level of greenhouse gas emissions used in subsequent production.

### Enables reductions in energy consumption

- The energy saved by recycling 100% of aluminum cans could power four million homes for a full year,<sup>20</sup> and the energy saved by recycling steel could power 20 million homes for a year.<sup>21</sup>
- Each item of recycled steel packaging saves over one and a half times its weight in CO<sub>2</sub>. In 2017, over 2.8 million metric tons of packaging steel was recycled in Europe, saving over four million metric tons of CO<sub>2</sub>.<sup>22</sup>
- Recycling one ton of steel cans conserves one ton of iron ore, 1,400 pounds of coal and 120 pounds of limestone. Recycling one ton of aluminum cans conserves the equivalent of 21 barrels of oil.<sup>23</sup>
- Metal cans are easily stackable and allow more units to ship in one truckload, reducing greenhouse gas emissions. Once in the store, unlike the frozen and refrigerated products that require energy-intensive cold chain distribution, shelf-stable cans do not require a constant source of power to maintain quality and safety.
- Fresh food transportation uses twice as much energy as the transportation of canned food while nearly three times more energy is used to transport and store frozen produce than is needed for cans.<sup>24</sup>

### Encourages recycling and upcycling

- Consumers are highly aware of metal's recyclability and consistently contribute to its collection, recycling more aluminum cans than any other beverage container.
- Changing packaging waste legislation in the EU does not affect metal, which has always been able to claim "Real Recycling."<sup>25</sup>
- Magnetic properties and easy separation make steel the easiest and most economic packaging material to sort, recover and recycle.<sup>26</sup>
- Consumers often upcycle and reuse metal packaging in their homes, maintaining brand promotion for much longer than the immediate product life.

18 Source: Environmental Protection Agency (<https://archive.epa.gov/epawaste/conservation/smm/wastewise/web/html/factoid.html>)

19 Source: Metal Packaging Europe (<https://www.metalpackagingeurope.org/article/aluminium-beverage-can-recycling-europe-hits-record-745-2017>)

20 Source: The Aluminum Association (<https://www.aluminum.org/aluminum-can-advantage>)

21 Source: Steel Recycling Institute

22 Source: APEAL (<https://www.apeal.org/co2-emissions/>)

23 Source: Steel Recycling Institute

24 Source: "Effects of Metal Packaging on Energy and Food Waste" – University of Delaware and CROWN Packaging Technology

25 Source: APEAL (<https://www.steelforpackaging.org/recycling-resource-saving/really-recycled/>)

26 Source: APEAL (<https://www.apeal.org/steel-for-packaging/>)

## Investor in the Economy

With high market value, impressive inherent properties and design flexibility, metal helps support the health of the manufacturing and farming industries.



### Creates new job opportunities

- More than 160,000 workers are directly employed in the U.S. aluminum industry and for each job, approximately 3.3 employment positions are created elsewhere.<sup>27</sup>



### Reduces loss of farmed product

- Canned produce moves from the field to the package within 4.5 hours, much faster than the 24 days it takes for fresh produce to make the same journey, helping to maximize the amount of product farmers can sell and support the health of the farming industry.
- “Flawed” produce can be used for chopped fruit and vegetable products, minimizing food loss, food waste and encouraging greater use of crops.



### Reinvests in the industry

- The infinite recyclability of metal packaging allows the industry to maintain production without requiring additional supply.
- Aluminum contains tremendous market value at over \$1,300 per ton, serving as one of the only materials in the consumer disposal stream that more than pays for the cost of its own collection.<sup>28</sup>
- Americans alone have earned \$25 billion through recycling aluminum beverage cans since 1976.



### Continues to drive innovation to stimulate purchases

- Advancements for the beverage can, like the 360 End®, allow businesses to offer fully branded, yet eco-friendly alternatives to plastic cups, as well as enhance the consumer experience and retain market share.
- Innovations in food cans such as Peelfit™ and Easylift® ends breathe new life into canned products, providing convenience and functionality that translate to added value for consumers.
- The 360-degree billboard surface of beverage cans allow for eye-catching branding and messaging that encourages consumer engagement and purchases. The inks and finishes used for decoration do not detract from the recyclability of the cans, but in fact help to fuel the process.

<sup>27</sup> Source: The Aluminum Association (<https://www.aluminum.org/sustainability/aluminum-recycling>)

<sup>28</sup> Source: The Aluminum Association (<https://www.aluminum.org/sites/default/files/KPI%20Report%202019.pdf>)

# Our Communities

---

## Acting Locally

Being a responsible partner, neighbor and citizen means looking beyond the confines of our facilities and supporting our employees' families, friends and neighbors. With this in mind, we set out to make meaningful contributions in all of the locations in which we operate and the many individuals who call those places home.

While the 2019 Chairman's Sustainability Awards program includes recognition for social sustainability efforts, here are some additional examples of how we are trying to do our part in our local communities:

### Aiding our neighbors in need

- In the aftermath of the devastating 2017 earthquake in Mexico City, which registered an 8.2 on the Richter scale, our **Toluca, Mexico** beverage can plant partnered with Heineken and Coca-Cola to donate 2.3 million cans of water to victims. Our employees also helped provide food and construct temporary houses for the countless individuals who lost their homes or needed shelter.

### Protecting our precious environment

- Recognizing the detrimental effects that copper runoff can have on fish and wildlife, our **Olympia, Washington** beverage can plant fabricated and installed pre-filters into its stormwater catch basins. These filters help prevent oysters floating in and out of the basins from absorbing toxic runoff, protecting the local oyster population and, ultimately, the creatures that form the state's local aquatic ecosystem.

### Minimizing community impact

- Our aerosols plant in **Spilamberto, Italy** took active steps to reduce external noise levels. By installing new air filters, doors and windows that could provide more active soundproofing during production, the facility succeeded in decreasing noise and maintaining positive relationships with nearby residents.

### Investing in local youth

- To contribute to the educational development of local public school students and provide a safe, healthy extracurricular activity, our **Teresina, Brazil** beverage can plant created a Judo program. It selected the sport for its core principles of discipline, dedication and respect. By providing a constructive outlet to children and teenagers of nearby communities in need, our employees hope to encourage students to focus on academic performance and reduce neighborhood violence. After experiencing success in Teresina, the initiative will expand to Manaus by 2020.

With similar goals in mind, the **Estância** and **Cabreúva** plants in Brazil developed a music program after observing that there were no extracurricular activities available to local students. The plants arranged for children from ages 8 to 14 to take flute classes, supplying them with instruments, books, uniforms and meals. The program was well received by the community, with many parents of participants reporting that the program helped their children improve concentration, work well with others and, ultimately, achieve higher grades in school.



## Equipping the workforce of tomorrow

- As an organization dedicated to building our customers' brands, we value the innovative minds that help us drive the technology advancements of the future. We look to students and recent graduates for these creative ideas and aim to support their personal and professional development. As a result, we have designed multiple programs that can help propel tomorrow's workforce to success:
  - For nearly 30 years, our **John F. Connelly Scholarship Fund** has provided children of Crown employees with one-year post-secondary educational scholarships. In 2019, we awarded 133 scholarships to applicants in 33 different countries. To date, the program has awarded over 2,300 scholarships totaling \$5.1 million.
  - Our **internship and apprenticeship programs** have connected countless young professionals with opportunities for a fulfilling career path in manufacturing. With our "promote-from-within" philosophy, many of these interns and apprentices have pursued full-time careers with us, with some remaining members of the Crown family for decades.
  - CMB Engineering, our Shipley, U.K.-based equipment and tooling division, continues to manage an apprenticeship program geared toward sharpening engineering skills in metal packaging manufacturing. The program actively encourages young talent to grow and flourish through spirited and friendly competition. Since the program's inception, the division's budding engineers have excelled four times at the U.K. Skills competition, which tests abilities in areas including engineering, construction, creative arts and logistics. In 2019, Crown's contestants earned a place on the U.K. team at the larger WorldSkills event—a prestigious competition known as the "Skills Olympics" and held in Kazan, Russia—underscoring the quality of our engineering training resources and ongoing dedication to innovation.

## Sustaining STEM education

- Science, Technology, Engineering and Mathematics are an important part of education in a competitive global marketplace. By partnering with academic institutions at various levels both regionally and internationally, we aim to dispel myths about industrial fields and highlight the valuable career paths available in manufacturing. The modern, state-of-the-art capabilities of Crown's facilities help strengthen this conversation and provide validation that the packaging industry not only keeps up with technological advancements, but often leads them.

Stateside, our local Human Resources team in Batesville, MS, is helping educate elementary to high school students about manufacturing and, hopefully, inspiring them to pursue careers in the field. The program consists of classroom visits, where a Crown representative sheds light on our operations, and visits to our Batesville beverage can plant, where students can observe the entire manufacturing process up close. In addition to debunking myths about the industry, the program works to equip students with real-world applications of subjects they are studying in school and foster the development of practical and "soft manufacturing" skills. Moving forward, this local mission may be used as a framework for larger-scale, more formal student outreach initiatives around the U.S.



We also partner with Penn College of Technology and have hired graduates from its two-year electrician program in our Nichols, NY beverage can plant and our Hanover, PA food can facility.

Support for this worthy issue extends to our European operations. For example, our food can plant in Wisbech, U.K. hosted a group of thirteen-year-old students and their teachers who are part of a STEM Club in a local school. The students got an up-close look at Crown's manufacturing operations and learned about the different jobs available in canmaking facilities. In addition, Crown Bevcan France participates in an annual "Company Discovery Day" for middle and high school students. The program is executed in conjunction with local municipalities and the national education system.

### **Supporting our heroes**

- As a corporation, we are honored to be able to give back to the men and women of the United States Armed Forces by connecting them with rewarding careers in manufacturing. From roles including electrician and mechanic, which require advanced technical skills, to plant manager, quality manager or regional operations manager, which lean on effective leadership abilities, we find that veterans embody the qualities and experience needed to succeed on our teams. At this time, the Company employs 320 former military personnel. To recruit veterans seeking to make the transition from military service to the private sector, we partner with organizations that are dedicated to creating job opportunities for U.S. citizens, including Hire Heroes USA, Hero 2 Hired, Military.com, RecruitMilitary, Veteran Jobs Mission, Military Times and Lucas Group. We also regularly participate in military-sponsored events and job fairs throughout the United States.

### **Leading the conversation on health**

- We often champion the myriad benefits of canned foods, with one key advantage being the vitamins and nutrients they deliver. Whether the package contains fruit, vegetables or fish, canned foods are nutritionally on par with fresh and frozen products, and in many cases, they are actually more nutritious. Food is canned within hours of being picked, at the time when it is at its freshest. The food is then cooked in the can to destroy bacteria, leaving a low oxygen environment that maintains the same amount of vitamins and nutrients from the day the food was canned—without any need for preservatives—for its entire shelf life.

To communicate these benefits to consumers, we have supported educational campaigns in partnership with industry associations and other groups. For example, our work with UPPIA, an association representing the French canning industry, targeted Millennials with a 14-episode educational series on Facebook. Dubbed "La conserve, Ça déboîte!" (Cantastic Foods), the video series featured prominent French actors and explored topics such as nutritional value, the sustainable nature of metal packaging and the circular economy.

With Princes Group, one of the U.K.'s leading food and beverage brands, we kickstarted the Love Canned Food campaign, aiming to resolve misconceptions young female consumers had about the quality and taste of canned foods. The project continues to expand today, utilizing social media platforms like Instagram and YouTube and involving high-profile influencers such as TV personalities and widely respected dietitians to reach an audience of more than 50 million and counting.



## Section 3

---

- Materiality
- Our Principles
- Stakeholder Engagement



# Materiality

## Defining Materiality

We conducted our first Sustainability Materiality Assessment in 2017 in accordance with GRI’s guidelines. This exercise identified a set of environmental, social and governance focus areas that our stakeholders care about and that intersect with our business. These focus areas were identified with the input of nearly 100 internal and external stakeholders and were listed in our Materiality Matrix in that report.

For this report, we have revisited the assessment completed in 2017 and updated it. Our process included three main steps:

### 1 Identification

We expanded our 2017 assessment to reflect the following changes since our last report:

- Key changes in our business, with the most notable being the acquisition of Signode Industrial Group, now known as our Transit Packaging Division.
- Alignment with GRI Standards, the latest reporting guidance offered. Our 2017 report was developed in accordance with G4 guidelines.
- Other changes related to our business, customers, public policy, the context in which we do business and the evolving expectations of key stakeholders.

The majority of the feedback we received from stakeholders in 2017 remains relevant—there were no major changes in material topics. We augmented the data collected from our previous assessment by conducting in-depth interviews with Company executives from around the world and all of our product lines, surveying employees, reviewing the sustainability priorities of customers and peer companies and researching key topics affecting the industry.

MATERIAL TOPICS				
<b>Responsible Business Practices</b> <ul style="list-style-type: none"> <li>• Business ethics and governance</li> <li>• Compliance with ESG expectations</li> <li>• Responsible sourcing</li> </ul>	<b>Product Responsibility</b> <ul style="list-style-type: none"> <li>• Product quality, safety (including food safety) and stewardship</li> <li>• Package lightweighting</li> <li>• Customer satisfaction</li> </ul>	<b>Labor Practices</b> <ul style="list-style-type: none"> <li>• Employee health, safety and wellness</li> <li>• Employee relations and engagement</li> <li>• Diversity and inclusion</li> </ul>	<b>Environment</b> <ul style="list-style-type: none"> <li>• Energy and carbon footprint</li> <li>• Increasing the recycling rate of packaging materials</li> <li>• Water management and scarcity</li> <li>• Waste reduction and management</li> <li>• Resource scarcity</li> </ul>	
<b>Economic</b> <ul style="list-style-type: none"> <li>• Cost reduction (including operational excellence)</li> </ul>	<b>Customer Engagement</b> <ul style="list-style-type: none"> <li>• Ongoing dialogue with customers to ensure alignment on sustainability</li> </ul>	<b>Innovation</b> <ul style="list-style-type: none"> <li>• Business model/ sustainable innovation, product innovation</li> </ul>	<b>Legislation</b> <ul style="list-style-type: none"> <li>• Regulations related to chemical, waste, recycling and other issues that customers expect suppliers to comply with</li> </ul>	<b>Society</b> <ul style="list-style-type: none"> <li>• Consumer education about the sustainability of metal packaging and recycling practices</li> <li>• Community involvement, including support of nonprofits</li> </ul>

## 2

### Evaluation

Our evaluation process included assessing reports outlining the environmental, social and governance stakeholders for the industry and analyzing our business plans, strategies and key risk assessments. Industry peers and enterprise customers were also benchmarked as part of this analysis.

## 3

### Prioritization

While all the topics identified as part of this process are important, six of the most “material” issues were selected as among the most critical to manage on a continuing basis and have been featured in this report.

- Energy and Carbon Footprint
- Employee Health, Safety and Wellness
- Product Quality and Safety
- Business Ethics
- Water Management and Scarcity
- Waste Reduction and Management

Several of the other areas that were deemed to be material will serve as the foundation for our next set of formal sustainability goals.



# Our Principles

---

## Living by Our Principles

There are five values that are fundamental to our organizational culture. These values inspire everyday decisions as well as our future goals and plans.

**1 Put People First.** Our global workforce is the key to our success. As such, we have built a Total Safety Culture that provides the framework for all health and safety initiatives across the company and empowers employees to take a proactive role in their safety and that of their peers.

We also support the well-being of our employees and their families outside the walls of our facilities with a variety of physical, mental and social wellness programs. As part of this focus, we place a priority on employee development, offering a mix of learning opportunities including work experience, coaching, training and education.

---

**2 Governance and Ethics.** We operate in the spirit and letter of the law, upholding high ethical standards wherever we conduct business. We maintain and regularly review our governance principles, policies and practices for the purpose of meeting or exceeding current legal requirements and commercial best practices. Many of these policies and standards can be found on our Corporate website.

---

**3 Operate Sustainably.** Sustainable practices permeate the Company's entire Value Chain, including the way we operate our facilities and manufacture our products, how we support our employees and communities and our engagement with suppliers. We are proud of our continued progress in reducing our use of materials and resources and decreasing energy consumption even as our manufacturing footprint has grown and production volumes have increased. We are currently establishing our next set of sustainability goals focused on climate action, efficient use of natural resources, supporting circularity, enacting social change and enhancing product performance.

---

**4 Commitment to Quality.** Customer satisfaction is one of our highest priorities. We achieve this goal by continuously improving the performance and cost-effectiveness of all our products and processes.

---

**5 Innovate Every Day.** Maintaining our position as a top global supplier requires constant innovation, determination and a deep understanding of customer and market needs. We remain inspired by our founder, William Painter, who revolutionized the beverage industry with the invention of the "crown cork," and are driven by a desire to help customers build their brands through packaging innovation. Today, our metal packaging technologies boost shelf appeal, enhance convenience and spur consumer engagement—all while enhancing production efficiency and being environmentally friendly. Our Transit Packaging Division is also focused on innovation, developing solutions for reducing and reusing packaging materials as part of a long-term strategy to optimize efficiencies and enhance the sustainability of the supply chain.

# Stakeholder Engagement

## Building Lasting Partnerships

We interact with a variety of stakeholders on a global, national and local scale to exchange ideas, help us prioritize critical issues, inform our business strategy and maximize the value we deliver. Appropriate stakeholders are identified based on several factors, including alignment with our goals and values, expertise, willingness to collaborate, location and reputation. We strive to maintain an open and ongoing dialogue with each group.

Stakeholder engagement occurs at all levels of the Company, from employees in our manufacturing plants to senior management in our Business Units and Divisions to our Board of Directors.

Examples of how we engage with our main stakeholder groups are outlined below.

Stakeholder Group	Methods of Engagement	Relevant Topics and Issues
Community	Community engagement programs	Environmental issues, plant openings and closings, site expansions, employment, health and safety issues, local community issues, volunteer efforts
	Philanthropic efforts	
	Volunteering	
Customers	Conferences and trade shows	Energy and carbon footprint, water stewardship, waste management, product quality and safety, ethical business practices, responsible sourcing, product and process innovation, legislation, cost reduction
	Corporate website	
	Customer relationship managers	
	Customer satisfaction surveys	
	Direct contact through sales	
	Innovation meetings	
Educational Institutions	Apprenticeship programs	Training and education, employment, research and development activities
	Equipment donation for training programs	
	Guest lecturing on packaging- and engineering-related topics	
	Research partnerships	
Employees	Community projects	Environmental sustainability, operational efficiency, health, safety and wellness, ethical business practices, training and education, diversity and inclusion, business performance, product and process innovation
	Corporate website	
	Employee engagement surveys	
	Focus groups	
	Intranets	
	Training opportunities	
Government and Regulatory Authorities	Governmental affairs liaisons	Compliance with regulations and legislation, ethical business practices
	Meetings	
	Plant tours	



Stakeholder Group	Methods of Engagement	Relevant Topics and Issues
Industry Trade Associations	Board memberships	Product quality and safety, increasing the recycling rate of packaging materials, consumer education about the sustainability of metal packaging and recycling practices, regulations and legislation
	Conference and event participation	
	Organizational memberships and leadership	
	Research efforts	
	Sponsorships	
Investors and Analysts	Annual Report	Business performance, governance practices, sustainability strategy
	Conference participation	
	Corporate website	
	Investor releases	
	Quarterly earnings calls	
	Shareowner meetings	
Non-Governmental Organizations (NGOs)	Collaborative partnerships	Diverse issues depending on focus of NGO
	Meetings	
	Organizational memberships	
Suppliers	Assessments and audits	Product quality and safety, responsible sourcing, ethical business practices, product and process innovation, compliance with regulations and legislation, environmental and sustainability practices
	Innovation meetings	
	Logistical planning	
	Partnership meetings	
	Trainings and workshops	

## Engagement in Action



In constant pursuit of manufacturing methods that can elevate production efficiencies, performance and overall sustainability, we have embarked on a “smart factory” study with Swansea University, a public research university in Wales that has enjoyed a long-standing relationship with Crown. Launched in 2019 and headed by our Crown Technology Center in Wantage, U.K., the project works to collect large data sets from select beverage can plants and apply algorithms to pinpoint areas of operational improvement.

Benefits of the study could include identification of manufacturing bottlenecks—such as quality issues or spoilage—and resulting downtime, as well as exploration of the ways burgeoning technologies such as artificial intelligence (AI) could positively impact operations. As the study continues over a three-year period, we envision its findings potentially influencing a wide range of forward-looking investments, from designs to applications to facilities.



## Section 4

---

- 2020 Sustainability Goals
- Chairman's Sustainability Awards
- Energy and Carbon Footprint
- Employee Health, Safety and Wellness
- Business Ethics
- Product Quality and Safety
- Water Management and Scarcity
- Waste Reduction and Management
- Governance





# 2020 Sustainability Goals

## Making Progress Our Business

We have lived by the principles of sustainability since the day we were founded more than 125 years ago. Operating safely and efficiently and conserving our resources is core to our culture and is a cornerstone of our business strategy.

In 2016, to formalize our commitment to sustainability, we established a series of external goals to be achieved by the end of 2020. We focused on two areas that are material to our business success and present the greatest opportunity to make an impact.

Here is an update on how we are doing against our stated 2020 goals:

Goal	Status	Progress to Date (as of FY 2018)	Status Key
Reduce Scope 1 and Scope 2 GHG emissions by 10% per billion standard units of production* (vs. 2015 levels)		<ul style="list-style-type: none"> <li>We have achieved 94% of our Scope 1 and Scope 2 GHG emissions reduction target, putting us within striking distance of our goal.</li> <li>Absolute emissions have decreased by 1.7% even as production has increased by 8.4%.</li> </ul>	 Achieved
Reduce energy consumption by 5% per billion standard units of production* (vs. 2015 levels)		<ul style="list-style-type: none"> <li>When focusing on results for just our metal packaging plants, we reduced energy consumption by 6.23% and surpassed our goal.</li> <li>We have reduced energy consumption per billion standard units by 0.06% against the 2015 baseline. This figure reflects the completion of a glass bottle manufacturing facility in Mexico in 2018. The glass manufacturing process is energy intensive, leading to higher usage of natural gas and electricity when compared to metal packaging.</li> </ul>	 In progress

\*Since we manufacture a variety of containers in different sizes, using different metals and serving different markets, along with ends, vacuum closures and crowns, we developed a set of conversion factors to transform these container and closure production volumes into 12-ounce (355ml) aluminum beverage can equivalent volume or "units." This unique approach, first used in our 2013 Sustainability Report, helps us more accurately depict our progress by correcting for an ever-changing product mix and a variety of other market forces.

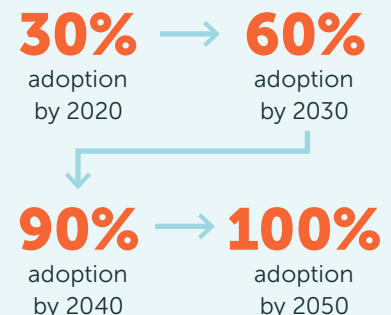
## The Power of Renewable Alternatives

Increasing our reliance on renewable energy is a critical step in our sustainability journey, both in terms of achieving our 2020 goals and as part of our long-term climate strategy.

- 6.7%:** Percentage equivalent to Crown global operations currently using renewable electricity
- 100%:** Percentage of our U.K. facilities that have been powered by direct supply of renewable electricity since 2018
- 100%:** Percentage of electricity in U.S. and Canadian beverage can plants that will be matched with wind power generation as of July 1, 2020

### The Path to 100% Renewable

In 2019, we joined RE100, which focuses on accelerating the transition to zero-carbon grids on a global scale. Our plan to get there includes these milestones:



# Chairman's Sustainability Awards

---

## Taking Global Action

Making meaningful strides on our sustainability journey requires the commitment and support of every Crown employee around the world. At the Corporate level, we focus on establishing a roadmap for sustainability and implementing initiatives that can extend across our global network. At the plant level, our teams make critical contributions to our advancement toward greener, leaner operations and exemplify good corporate citizenship in our local communities.

We developed the biennial Chairman's Sustainability Awards program to recognize and celebrate the manufacturing facilities that have shown outstanding leadership and innovation in the three dimensions of sustainability. Many of the initiatives highlighted by the program since its inception have been scalable to other facilities, amplifying their impact on our overall sustainability efforts.

The 2019 awards include recognition of plants in our Transit Packaging Division for the first time.

Our winning plants have innovated on the shop floor and in manufacturing processes, gone above and beyond to support their employees and made valued contributions to their local communities. The successes achieved by our 2019 winners inspire our future progress and help raise our standards of how we can contribute to sustainability on a global level.

## Metal Packaging Plants



### Environmental Sustainability Award

**Award Parameters:** Must demonstrate excellence in environmental conservation by minimizing the impact of the Company's operations, reducing material consumption or improving recycling or reuse.

**The Winner:** Dubai, United Arab Emirates

**Results Achieved:** The beverage can plant set out to reduce the amount of waste it sent to landfill by 20% and minimize its carbon footprint by decreasing vehicle movements, electricity and water and material consumption by the end of 2017. Its "Go Green" program, which focused on improving efficiency and reducing overall waste, led to a 65% decrease in the facility's landfill contribution and a 12% decrease in its carbon footprint. These waste management practices also received recognition from numerous customers, who visited the facility to observe the improved operations. The program also achieved a significant 8% reduction in water usage, crucial in this water-scarce region.



### Economic Sustainability Award

**Award Parameters:** Must display a significant, measurable reduction in the Company's use of resources, including freight, energy, fuel and water.

**The Winner:** Izmit, Turkey

**Results Achieved:** The beverage can facility pledged to help regulate the quality of the community's groundwater, which serves as a source of drinking water, helps to grow local food and recharges nearby lakes, rivers and wetlands. As part of this project, the plant implemented a new cleaning system to improve water pH levels. The facility also reduced energy consumption from 81,000 kilowatt hours (kWh) to 6,300 kWh after investing in energy-monitoring software and a high-tech cooling tower replacement, as well as installing solar panels to minimize the impact of its energy usage.





### Social Sustainability Award

**Award Parameters:** Must exhibit a significant impact on the well-being of the workforce and/or the local community.

**The Winner:** Acayucan, Mexico

**Results Achieved:** The beverage packaging plant first initiated a “Development and Equity of Women” campaign in 2017 to connect women in the surrounding rural community, including the spouses of Crown employees, with health and wellness education. The program invited more than 100 participants to attend sessions on subjects ranging from breast cancer and cervical cancer prevention to diet and dental care. In 2018, the campaign grew to include business and social aspects, offering entrepreneurial classes and hosting discussions on gender inequalities and violence. The facility also focused on safety, reducing its serious injuries rate to zero in 2018 by implementing safety training for emergency brigades, creating new training plans, executing inspections and reinforcing risk prevention signage.



### Divisional Excellence in Social Sustainability Award

**Award Parameters:** Must showcase an overall commitment to one or more aspects of sustainability, implementing programs to affect regional impact.

**The Winner:** Brazil

**Results Achieved:** The inaugural Divisional Excellence Award in Social Sustainability goes to our Brazil operations, which as a group has developed and executed multiple community-focused initiatives such as providing initial workforce training to students, offering flute classes to children without access to extracurricular activities and teaching judo to students in need of a safe physical outlet. Crown Brazil’s series of projects aims to spark creativity and instill discipline through healthy, engaging activities that many children may otherwise not have been able to access. After kick-starting these programs in Teresina, Estância and Cabreúva and receiving positive feedback from community participants, the division is considering expanding efforts to additional regions.



## Transit Packaging Plants

The Transit Packaging plants were judged on their overall contributions to sustainability. The winners demonstrated an ability to excel in a diverse range of activities.



### Winner: Virton, Belgium

#### Results Achieved:

- This stretch film facility invested in a reclaim line, which enabled 90% of its waste to be reprocessed and upcycled into usable material. Through product eco-innovation, they also helped one major customer reduce its environmental footprint by 60%.
- The team has also made significant progress across multiple ESG metrics over a three-year period: 62% reduction in CO<sub>2</sub> footprint, 45% reduction in water usage and US \$50,000 in waste disposal savings.
- A voluntary agreement with the plant's local region to reduce energy consumption by 7.2% in five years as part of a commitment to Horizon 2020 set a precedent for other facilities to follow.



### Winner: Sriracha, Thailand

#### Results Achieved:

- This facility has won numerous external awards, including an Employee Relations Excellence at Provincial Level award in 2018 from the Thai Department of Labour Protection and Welfare and an Environment and Safety Governance Award for work in the local community.
- Employee well-being is prioritized with programs that support breastfeeding and annual health checkups.
- The team has decreased energy usage by 70% by rationalizing its fan-cooling systems.



### Winner: Bangalore, India

#### Results Achieved:

- The facility, which manufactures dunnage air bags and inflation tools, developed multiple programs to assist local communities in need, both economically and socially. To help support its neighbors, the plant supported a project for free midday meal assistance for students, benefiting 1,000 children, and also invested in upgrading nine schools, including seven preschools—a project that benefited nearly 500 children.
- The plant also offered free health checkups for all (330) plant employees and a Safety Week celebration to highlight the facility's progress and encourage a continued focus on safety.

# Transit Packaging Plant: Runners-Up

## Runner-Up: Rudraram, India

### Results Achieved:

The plant, which manufactures predominantly steel strapping and strapping seals, established a wide range of sustainability goals including reducing material usage and conserving energy. The facility achieved a year-to-year reduction of 256 tons per year of scrap from steel strap production, a year-to-year decrease of 14 tons per year in scrap from strap seal production and a corresponding reduction of 500 tons in carbon footprint. Multiple initiatives to reduce energy usage, such as improving insulation in the lead circulation pump, the removal of worn or unused pipelines and the installation of air consumption meters, have reduced energy consumption by 16 units per ton of strap produced. The plant's new method of reusing wood for pallets is also saving an estimated 225 trees annually, which is significant in India where deforestation is a problem.

---

## Runner-Up: Silvassa, India

### Results Achieved:

A producer of plastic packaging supplies including strapping, corner protectors and wrapping film, the facility's "Leading the Way Toward Zero" initiative aimed to minimize the use of "prime" materials and energy, among other goals. By plugging leakages, replacing light sources and making equipment modifications, the plant reduced average consumption per ton of production from 784 units in 2016 to 750 units in 2018. Non-prime material usage has increased for a range of strapping and board products, with contrax strap now incorporating 35% more non-prime material than in previous production years. Beyond decreasing its footprint, the facility has led community-focused programs including on-site blood donation camps, dental checkups and tree-planting activities.

---

## Runner-Up: Florence, KY, U.S.

### Results Achieved:

The facility, which produces packaging supplies such as plastic strapping, developed a Closed Loop Recycling Program that contributes to internal sustainability accomplishments and assists customers pursuing similar goals. The full-circle system, recognized with a 2018 Supply & Demand Chain Executive Green Supply Chain Award, operates by collecting and recycling polyester beverage containers, polyester strapping and other recyclable materials. Through the initiative, customers can return their used plastic strap to the plant, enabling them to reduce their own packaging supplies waste and disposal costs. Internally, the facility marries this returned strapping with other recycled materials. As a result, it can reduce its dependency on new raw material consumption and produce strap containing up to 85% recycled content.

# Energy and Carbon Footprint

---

## Reducing Our Environmental Footprint

Our primary product—metal packaging—embodies sustainability in its manufacture and its contributions to the circular economy. While effective management and conservation of resources have always been the bedrock of Crown’s operations, as our global footprint has grown and production volumes have increased, these principles have taken on new meaning.

In recognition of this, we established two ambitious sustainability goals in 2016, focusing on the reduction of greenhouse gas emissions and energy consumption by 2020. We are proud to report that we are making strong progress against these goals, particularly in the area of greenhouse gas emissions. In just three years, we have achieved 94% of our greenhouse gas emissions reduction goal—an incredible performance. Our next set of sustainability goals continues to prioritize these issues and focuses on several new areas.

We know that operating unsustainably is detrimental to long-term success and impacts profitability and our reputation with our key stakeholders. As such, we rely on an environmental management system to help us manage compliance, reduce costs and increase efficiencies.

## Our Performance

The charts on the next page detail our progress in primary environmental metrics for the metal and glass packaging that we manufacture. As stated elsewhere in this report, environmental data from our promotional packaging plants, CMB Engineering equipment and tooling division and Transit Packaging division is not included in these calculations. Additionally, since our reports focus on aspects of sustainability important to our core stakeholders, some previously reported data that primarily serves as a means to confirm regulatory compliance where we manufacture our products has not been included in this report. This data is reported directly to appropriate regulatory bodies to ensure compliance.

In this report, we have presented data from 2015 to 2018 to align with the reporting period for our 2020 Sustainability Goals. Visit our archived sustainability reports for data prior to 2015.

As done in our 2017 Sustainability Report, we have broken out data for the production of metal packaging and glass bottles as the manufacturing processes for these products are materially different. For example, we manufacture the glass used to produce glass bottles, but source the metal to make cans. This has a material effect on our Scope 1, Scope 2 and Scope 3 emissions. Glass, which we currently manufacture only in Mexico, represents between 1% and 2% of total Company revenue.



## Metal Packaging Data

### Aluminum & Steel (~Metric tons per billion standard units)

	ALUMINUM	STEEL
2015	16,848.89	28,582
2016	16,776.09	29,135
2017	16,569.47	27,488
2018	16,195.51	28,182

Aluminum efficiency per standard unit continues to improve. The uptick in steel usage per billion standard units between 2017 and 2018 is due to consumption in Asia for promotional packaging products. As stated elsewhere in this report, we do not count data from our global promotional packaging plants in our production figures, so production volumes that would offset this increased consumption are not included.

### Energy Consumption (~Megajoules per billion standard units)

	FUELS	ELECTRICITY
2015	76700.6	65472.9
2016	70676.0	62180.5
2017	72743.3	63819.8
2018	71043.0	61869.5

We continue to improve our resource efficiency and have consistently lowered our energy consumption, VOC emissions and direct and indirect GHG emissions per standard unit.

### Direct and Indirect GHG Emissions (~Tons per billion standard units)

	DIRECT	INDIRECT
2015	4010.8	7806.6
2016	3854.1	7308.6
2017	3752.9	7196.6
2018	3700.0	5565.7

We continue to improve our resource efficiency and have consistently lowered our direct and indirect GHG emissions, energy consumption and VOC emissions per standard unit.

### VOC Emissions (~Tons per billion standard units)

2015	121.4
2016	130.0
2017	128.4
2018	112.8

We continue to improve our resource efficiency and have consistently lowered our VOC emissions, direct and indirect GHG emissions and energy consumption per standard unit.

## Glass Packaging Data

### Direct and Indirect GHG Emissions (~Tons per billion standard units)

	DIRECT	INDIRECT
2015	85805.1	34669.9
2016	85513.5	35602.4
2017	92997.5	38359.4
2018	97163.5	40678.9

The direct emissions figures from our glass facilities are significantly higher than those from our metal plants due to the energy-intensive process of converting sand to glass. As with all our operations, we will focus on continued improvement to help drive these numbers down in future reporting periods.

### Energy Consumption (~Megajoules per billion standard units)

	FUELS	ELECTRICITY
2015	1,689,461.2	270,663.0
2016	1,678,104.0	277,944.3
2017	1,839,866.9	299,463.9
2018	1,918,087.3	314,392.4

The glass manufacturing process is energy-intensive, leading to higher usage of natural gas, electricity and propane per standard unit when compared to metal packaging.



### Beverage Cans Reduce Carbon Emissions by 31% in a Decade

A recent Life Cycle Assessment (LCA) completed by Metal Packaging Europe shows that the carbon footprint associated with the production of aluminum beverage cans has decreased by 31% over a 10-year span. The LCA focused on 25-, 33- and 50cl volumes and compared production data from 2016, the latest figures available, to that of 2006.

The impressive results can be attributed to the continuous improvements being made in the production of aluminum and the canmaking process, technology development and innovation enables overall lightweighting of beverage cans and an increasing recycling rate.

# Employee Health, Safety and Wellness

## Investing in Our Workforce

Our people are our most important asset. The work they do every day allows us to deliver best-in-class innovation, service and support to our customers and enhance the efficiencies of our operations while also serving as an example of corporate citizenship in our communities. In all our endeavors, we are committed to providing a safe and healthy working environment for our employees and creating ample career development opportunities so they can realize their full potential.

## It Starts with Safety

Workplace health and safety are important Crown values. They are requirements that get built into every process, procedure and system of the Company as well as the attitudes and values of every employee—from top management down. We believe that a safe and healthy workplace is a fundamental right of every person and a business imperative.

We have built a Total Safety Culture by supporting each employee and exceeding basic requirements to achieve safety excellence. Our focus includes helping employees develop a keen sense of responsibility for observation, behavior and attitude, identifying ways of instilling safer work practices and fostering communication so they feel encouraged to discuss safety issues with their peers. The end result is safer decision-making, correction of unsafe behaviors and reduction of incidents, injuries and near-misses.

### Total Safety Culture Principles

- Every Crown employee understands that he or she is responsible for safety.
- Safe work practices and procedures are supported by positive feedback from peers and all levels of management.
- Our focus is on behaviors and attitudes and achieving success in incident, injury and near-miss reduction.
- Employees at all levels consistently identify unsafe behaviors and conditions that are present and intervene to correct deficiencies.
- The importance of a safe workplace is not just a priority, but a value linked to every employee in the organization. That is because while priorities can change over time, values remain core to what we do.

### Our approach to workplace health and safety includes multiple programs and procedures:

- Our Environment, Health and Safety (EHS) organizations support every Crown location—including corporate offices, research and development facilities, Centers of Excellence and plants—in meeting or exceeding regulatory requirements and Company standards. Crown's health and safety team members focus on safety training, increasing safety awareness, safety audits, healthcare and more.
- Our SAFE (Safety Awareness For Employees) behavioral observation program has resulted in thousands of peer-to-peer safety observations every day.
- Auditing each Crown site to identify and correct potential hazards and liabilities, helping ensure continuous improvement.
- Holding safety workshops for salaried and hourly employees at every Crown location.
- Recognizing achievements in safety excellence through our World-Class Performance program.
- Mandating a job hazard analysis at each site for every significant task, developing safe job procedures and reviewing every new process and purchase against a safety checklist.
- Setting strict safety requirements for contractors and third-party vendors who work with Crown.
- Implementing a program to monitor contractor safety.
- Providing ergonomic training to reduce and eliminate musculoskeletal disorders.
- Implementing a system for injury and accident investigations, including near-misses, that examines root causes and assigns short- and long-term corrective actions.

## Our Journey Toward Improved Outcomes

We aspire to zero work-related injuries. To help us achieve that goal, we constantly review, evaluate and invest in improving our processes, procedures, technology and training programs.

To help make our approach to safety metrics more proactive, we are moving away from reliance on lagging indicators, such as Recordable Case Rates, to leading indicators such as employee engagement in safety, near-miss investigations and hazard recognition.

### Safety Performance<sup>29,30</sup> Days Away Case Rate<sup>31</sup>

DIVISION	2015	2016	2017	2018
Worldwide	1.0	0.9	1.0	1.0
Crown Americas	0.8	0.9	1.0	1.1
Crown Europe <sup>32</sup>	1.4	1.0	1.2	1.1
Crown Asia Pacific	0.2	0.5	0.5	0.5

The Days Away Case Rate considers only injuries and illnesses in which an employee was unable to work. The rate is calculated by multiplying the number of days away cases by 200,000 and dividing the result by the total number of hours worked.

### Recordable Case Rate

DIVISION	2015	2016	2017	2018
Worldwide	2.7	2.5	2.4	2.1
Crown Americas	2.0	1.9	2.3	2.1
Crown Europe <sup>33,34</sup>	3.6	3.4	3.2	2.4
Crown Asia Pacific <sup>35</sup>	0.2	0.6	0.6	0.7

Regional differences in regulatory standards and definitions of Recordable Case Rates may make Divisional comparisons misleading. In contrast, trend data within the Divisions over time offers an accurate view of progress as the country-to-country profile has not significantly changed during the reporting period.

### Work-Related Fatalities

DIVISION	2015	2016	2017	2018
Worldwide	0	0	0	1
Crown Americas	0	0	0	0
Crown Europe	0	0	0	0
Crown Asia Pacific	0	0	0	1

Unfortunately, even with a comprehensive health and safety program in place, Crown sustained a fatality in one of our Asia Pacific facilities in 2018. After a thorough investigation and analysis of the incident, corrective actions were implemented throughout our operations. In addition, we used this tragic event as an opportunity to increase safety awareness in all our facilities. The reinvigoration of our behavior-based employee safety program has led to increased conversations with employees about safe and unsafe behaviors – at home as well as at work. The idea that employees bear responsibility for their own safe behavior has helped reduce incidents and injuries by decreasing at-risk actions and increasing safe behaviors. Through this process, employees have also become more aware of the actions of others, making safety a community effort as well as a personal one.

<sup>29</sup> Safety performance data does not include plants from our Transit Packaging Division. These plants were not operated by Crown during the entire reporting period and it was not possible to segment this information. This data will be included in future reports.

<sup>30</sup> Crown does not track data for Days Away Case Rate, Recordable Case Rate or Work-Related Fatalities by gender.

<sup>31</sup> Days Away Case Rate = ((Number of Lost Time Cases) x (200,000)) / (Number of Employee Labor Hours Worked)

<sup>32</sup> Increases in the Days Away Case Rate figure for Crown Europe in 2015 can be attributed to the inclusion of data from the newly acquired Mivisa food can manufacturing facilities into the calculation.

<sup>33</sup> Crown does not have data measuring the Recordable Case Rate for this region in 2007 and 2008.

<sup>34</sup> Increases in the Recordable Case Rate figure for Crown Europe in 2015 can be attributed to the inclusion of data from the newly acquired Mivisa food can manufacturing facilities into the calculation.

<sup>35</sup> Crown did not collect Recordable Case Rate data in its Asia Pacific Division until 2015.

## Developing Talent

Crown places a high value on skills management and lifelong learning opportunities that benefit both the individual employee and the Company. One hundred percent of salaried employees receive annual reviews, and we provide a variety of educational opportunities, including a mix of mandatory and voluntary training programs that occur in classrooms, online, on the job or in partnership with academic institutions.

We also recognize that some of the best learning experiences come from challenging job tasks and through participation in multifunctional teams. That is why, for example, our management training involves a variety of assignments including customized functional training, international exposure and core Division-wide activity to develop common approaches and values.

In many of the countries where we operate, there are strict legal obligations related to the amount of training that companies must provide for employees. To help retain a high level of talent at Crown and ensure that each employee has ample opportunities to grow and prosper, we often go above and beyond these requirements. We can report that over 55% of our global employees received some level of company-sponsored training in 2018.

### Talent Development Programs (programs vary by region)

Here are just a few of the ways we help our employees advance their skills:

- Elements of Engagement Leadership Program
- Engage for Excellence program to support employee performance management
- Operations Leadership Development Program
- Lean Manufacturing trainings and Six Sigma certification (Green or Black Belt)
- Crown Leading Edge (CLE) program to develop future leaders
- Early career development programs, including FORWARD and SEED
- Higher education sponsorship for senior managers
- Language courses for non-native speakers

## Staying Healthy

Our commitment to the health and wellness of our employees extends beyond the time they spend inside our facilities. That is why we offer a range of physical, mental and social wellness programs to our global team and their families. We administer health and wellness programs differently from country to country based on local needs, but many of our employees have access to:

- Pre-employment medical checkups
- Company- or government-sponsored medical insurance or subsidized medical insurance over and above governmental provisions
- Annual medical and audiometry screenings
- Reimbursement for outpatient medical expenses and yearly screenings
- Employee Assistance Programs to help improve health and wellness
- Voluntary health fairs at all sites in the U.S. The fairs are open to hourly and salaried employees and their spouses. Free blood work and medical screenings are provided, along with follow-up and physician referrals upon request.



### Beating Breast Cancer at Crown HQ

About one in eight U.S. women will develop invasive breast cancer in her lifetime. For the women affected and their loved ones, early detection is key.

Each year around National Women's Health Week, we encourage our employees to get tested by providing on-site mammograms at our corporate headquarters in Yardley, PA (U.S.). Provided in partnership with the Fox Chase Cancer Center of Philadelphia, the mobile Mammography Screening Unit visits Crown and opens its doors to help women detect masses, malformations and other warning signs of disease that, if caught at the right time, can make a life-changing difference.

Our goal is to make preventative care more accessible for our employees who may not live close to screening centers or haven't had the chance to get tested on their own.

To date, the unit has conducted more than 800 mammography screenings. It will continue to return each May, with the hopes of growing that number and encouraging our employees to take proactive steps toward wellness.



# Business Ethics

---

## Operating Responsibly

We know that to operate successfully, we must have the trust of all our stakeholders. That includes our employees, customers, shareholders, partners and suppliers, the governmental and nongovernmental organizations we work with and the communities where we conduct business.

We earn that trust by doing what is right and ethical. We comply with applicable legal, regulatory and industry code requirements and uphold the highest principles of integrity and standards in every aspect of our business and every market in which we operate. That mindset is ingrained into our business culture and is monitored, enforced and improved through our globally deployed Code of Business Conduct and Ethics. Available in 14 languages, the code outlines the high level of ethical behavior expected from our directors, officers and employees.

We supplement our Code of Business Conduct and Ethics with standalone policies for certain issues covered by the Code, such as Antitrust Law Compliance, Anti-Corruption Law Compliance, Trade Sanctions Law Compliance, Related Party Transactions and Environment, Health and Safety Compliance.

### Ethics Management

Our Code of Business Conduct and Ethics is reviewed regularly by our Board of Directors, management and outside counsel to consider evolving issues and best practices. Final decisions on changes to the Code must be approved by the Board of Directors.

In addition, each year, our salaried personnel certify their personal compliance with the Code. Our proactive compliance training program includes live and online Code training in numerous contexts for employees of all levels. Approximately 8,500 employees, or over 25% of our workforce, including all our senior executives and middle management, received online Code training in 2018 to supplement our in-person training programs.

We offer several ways for employees and other stakeholders to report concerns about suspected unethical behavior safely, promptly and confidentially:

- Speak directly to their supervisor or plant manager (or equivalent).
- Call the Crown Compliance Office using the 24/7 toll-free reporting hotline (800-523-3644).
- Contact their local Compliance Officer (see list available on the Corporate website).

We handle all inquiries promptly and investigate to the fullest extent necessary. Violations of the Code of Business Conduct and Ethics are subject to disciplinary action up to and including termination of employment. Any employee who reports a violation will be treated with dignity and respect and will not be subjected to any form of discipline or retaliation for reports made in good faith. Senior management regularly reports to the Audit Committee of the Board of Directors on the status of open Code matters.

## Anti-Corruption Policies

No Crown employee, officer, director or independent third party acting on behalf of the Company may pay, offer or promise to pay, or authorize payment to any party, public or private, in any country, in order to secure an improper benefit for the Company, to cause the party to act contrary to their duties or, in the case of a government official, to influence that government official to obtain or retain business or an advantage in the conduct of business. Nor may they accept or solicit such payments or advantages. "Payment" includes making bribes or kickbacks, as well as conferring anything of value or any advantage, whether tangible or intangible (e.g., gifts, entertainment, travel expenses, charitable donations, political contributions, hiring an individual or relative).

Management undertook a risk analysis of 100% of Company operations and their susceptibility to corruption. Based on those findings, we identified the personnel within those operations who might face a greater possibility of exposure to corruption based on their job functions and levels. Each of these individuals receives comprehensive training, including in-person education sessions every few years. We supplement the in-person sessions with regular mandatory online courses assigned to 100% of our salaried staff.



# Product Quality and Safety

---

## Committing to Product Quality and Safety

Our customers, and our customers' customers, demand products that are high in quality, safe and sustainable—and so do we. That is why we have built an integrated, global manufacturing approach designed to ensure high quality and reduce our impact on the environment.

To underpin our approach, we place great emphasis on forming collaborative relationships with customers and suppliers, offering our team as a resource for technical support, troubleshooting and ongoing consultation to address challenges and resolve issues from the outset. For example:

- Our technical and process audit programs address seaming, pasteurization, hygiene and can handling to help customers improve safety standards, reduce spoilage and enhance line performance.
- Our fully equipped pilot facilities let production processes or new product packaging be carefully tested and fine-tuned before launch, saving brand owners both time and money.
- Our extensive Food Hall enables us to replicate our customers' filling and processing conditions, streamlining new product development timelines and ensuring food safety.
- Our Customer Technical Service team is composed of food scientists, design engineers, chemical engineers and microbiologists, giving us a deep understanding of the food and beverage processing and packaging industries. With longstanding expertise across the industry, we can help improve our customers' processes, evaluate new technologies, optimize solutions and provide guidance on operation and implementation.

### Double Seaming Made Simple

When it comes to food cans, the ability to lock in and preserve the freshness of ingredients, while also keeping out unwanted elements like microorganisms, light and oxygen, is a big advantage. The same is true for the secure containment of internal carbonation and pressure in beverage cans. The double seam, found on virtually all food and beverage cans today, is a simple and proven way to provide a hermetic seal. If not monitored and adequately controlled, inadequate seaming in the customer's filling locations can lead to wasted materials and costly product recalls.

While the end goal is simple, seaming is the most demanding element of can production and can filling. We offer support in all aspects of the seaming process with a dedicated team of experts. Our team can optimize seamer tooling equipment, provide technical guidance and run comprehensive training programs, which can be tailored to the experience levels of the participants. Classes range from three-day sessions on the basics of seam evaluation and risk analysis to intensive two-week courses that incorporate information on more complex issues such as the assembly and dismantling of seamer equipment. The classes can be tailored to different experience levels.

Finally, our Integra™ intelligent double seaming system helps food and beverage fillers monitor the integrity and quality of seams in real time. This proprietary technology not only detects and ejects poorly seamed cans but also provides trend analyses to identify seamers that are drifting out of specification so that preventive measures can be taken before seam quality deteriorates. As a result, this unique technology facilitates the efficient production of fault-free, quality packaged products for Crown's customers.

## Metal Packaging: Playing a Critical Role in Food Safety

Metal packaging is one of the safest options for food and beverage packaging:

- High-temperature sterilization ensures the purity of food products by protecting against food poisoning caused by microbiological contamination.
- Coatings maintain the integrity of the package by preventing perforation defects.
- Cans are impact- and puncture-resistant, making them unbreakable.
- The format is capable of withstanding extreme pressures and temperatures.
- Metal provides a complete barrier against light, gas and oxygen, protecting product freshness, flavor and quality as well as enhancing shelf life.

### Chemicals Management

We proactively examine manufacturing methods and standards—including the use of chemicals and materials—to ensure products meet customer expectations without compromising the well-being of consumers, employees and the environment.

While few, if any, of the materials we directly use to manufacture coated metal cans, ends and closures are classified as hazardous, our suppliers inevitably have to use a small number of hazardous substances to formulate the high-performance materials essential for the long-term safe storage of food provided by our containers. Using expert risk assessment and management, Crown and our supply chain ensure that any hazards intrinsic to the raw materials do not present a risk from the finished container to consumers. We constantly monitor the status of raw materials so that any emerging concerns can be safely and efficiently dealt with through substitution, reformulation or refined risk assessment, allowing us to offer customers choice with respect to product performance and substance use.

We manage the materials we use through a comprehensive material database that includes qualification data, key compositional information along with safety data sheets, declarations of compliance and other regulatory compliance statements covering food contact, Classification, Labeling and Packaging (CLP) and environmental requirements. This information allows our risk assessment experts to ensure the safety and compliance of our finished products.

Read our formal chemical policy for food contact, which addresses occupational safety, food contact safety and substances of concern, on the Sustainability Report website.



According to the U.S. Food & Drug Administration, there has not been an incident of food-borne illness resulting from a failure of metal packaging in **more than 40 years.**



# Water Management and Scarcity

---

## Pursuing Water Stewardship

Few natural resources are as essential as fresh water. Yet, in many regions of the world, it is becoming an increasingly scarce resource in the face of growing demand, pollution and climate change.

- More than two billion people live in countries experiencing high water stress.<sup>36</sup>
- More than 40% of the global population is projected to be living in areas of severe water stress by 2050.<sup>37</sup>
- With the existing climate change scenario, by 2030, water scarcity in some arid and semi-arid places will displace between 24 million and 700 million people.<sup>38</sup>
- 25% of freshwater consumption in the U.S. is used to produce food that is never eaten.<sup>39</sup>

At Crown, where water is a key input for our beverage can manufacturing process (forming, washing, rinsing and cooling), as well as for the manufacture of aluminum and the production of our customers' products, we recognize our role in helping protect this invaluable resource. We have always been committed to responsible water use and to meeting our Company's water demand without impacting the availability or quality of the resource to others.

**In recognition of the importance of water to our business, customers, suppliers and communities, we recently announced plans to reduce water usage in our global operations by 20% from 2019 levels by the end of 2025. These efforts will decrease our water usage by over 500 million gallons annually.**

This goal will serve as part of a larger water stewardship strategy that will be announced in 2020. As part of this effort, we are currently assessing our global operations to understand our full water footprint, evaluating water risks, taking steps to further boost monitoring protocols and measurement practices and establishing stringent reporting guidelines. This assessment will align with CDP's water security program, and a report will be submitted in 2020.

Our goals will be based on several key strategies:

- Increasing efficiencies to reduce overall water use.
- Identifying alternative water sources such as recycled and reclaimed water.
- Discharging water responsibly to prevent pollution.
- Reporting publicly on our performance and progress annually.

---

<sup>36</sup> Source: UN Water (<https://www.unwater.org/water-facts/climate-change/>)

<sup>37</sup> Source: UN Water (<https://www.unwater.org/water-facts/water-food-and-energy/>)

<sup>38</sup> Source: UN Water (<https://www.unwater.org/water-facts/climate-change/>)

<sup>39</sup> Source: NRDC, "Wasted: How America is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill" (<https://www.nrdc.org/resources/wasted-how-america-losing-40-percent-its-food-farm-fork-landfill>)

# Waste Reduction and Management

---

## Moving Toward Zero Waste

As a global manufacturer, we have an important role to play in reducing our operational waste and supporting the circular economy. For decades, our sites around the world have practiced effective waste management, focusing on reducing, reusing and recycling as much waste as possible. When reduction, reuse or recycling is not possible, we apply controls and treatment technologies to prevent human health effects and minimize environmental impacts of disposal.

Every Crown facility around the world tracks and reports the amount of operational waste it generates and how it is managed. Since requirements for disposal vary from country to country, waste reporting is done at the local business level, and documentation is supplied by the waste contractor or the facility itself. We continue to work with our waste management suppliers to improve the collection of data against waste categories in a reliable and consistent way.

In our metal packaging facilities, steel and aluminum represent about 85% of our incoming materials. Significant effort is made to capture, recover and recycle nearly 100% of our metal waste globally. To process the remainder of our waste, which includes items such as pallets, shrink wrap and cores from our metal coils, we take every step possible to divert it from landfills by reusing, recycling or generating energy. In 2018, several of our European sites achieved zero waste to landfill and less than 10% of total waste generated across the European Division's 61 sites was sent to landfill.

Effective waste management is an important component of our goals for world-class manufacturing and sustainability. That is why we are currently establishing an enterprise-wide system to better understand our waste footprint, and we plan to announce formal waste management goals in early 2020. Our goals will be based on several key strategies, including:

- Improving processes, equipment and materials to reduce waste generation.
- Continuing to send less waste to landfill globally by maximizing the use of environmentally beneficial disposal methods like recycling, composting and waste-to-energy.
- Collaborating with suppliers to reduce waste across the value chain.

## Sustainable Efforts at Every Point of the Line

The Florence, KY (U.S.) operation of our Transit Packaging Division was recognized with a 2018 Supply & Demand Chain Executive Green Supply Chain Award for its Closed Loop Recycling Program. The full-circle system collects and recycles polyester beverage containers, polyester strapping and other recyclable materials, contributing to internal sustainability accomplishments and enabling customers to achieve concurrent goals. The initiative encourages customers to participate to reduce packaging supplies waste and disposal costs by returning used plastic strap to the Florence facility. By combining this returned strapping with other recycled materials, the facility produces strap from nearly 90% recycled material, significantly reducing dependency on new raw material consumption.

# Governance

## Focusing on Governance

Our commitment to responsible business is built on a well-established system of governance principles and accountability structures that are designed to advance the best interests of the Company, our shareholders and society.

### Corporate Governance

Our Board of Directors has ultimate responsibility for setting business policies for the Company and is accountable to shareholders for the Company's performance. The Board selects and controls the compensation of the Chief Executive Officer, ensures that appropriate corporate procedures and controls are in place and approves the policies that are intended to ensure that the Company operates in an ethical manner on a day-to-day basis.

The Board has adopted Corporate Governance Guidelines and charters for each of our three Committees (Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee). The guidelines and the charters are publicly available in the Corporate Governance section of our Company website.

### Sustainability Governance

Sustainability is embedded at all levels of our company, from our policies and procedures to our programs and value chain.

SUSTAINABILITY GOVERNANCE	
<p><b>Chief Executive Offer</b></p> <ul style="list-style-type: none"> <li>Oversight of Nominating and Corporate Governance Committee.</li> <li>Final review of the Company's annual CDP disclosure.</li> <li>Provides additional executive support.</li> </ul>	<p><b>Board of Directors</b></p> <ul style="list-style-type: none"> <li>Nominating and Corporate Governance Committee collects and manages information to better inform the Company's sustainability strategy.</li> <li>Provide oversight.</li> </ul>
<p><b>Global Executive Sustainability Committee</b></p> <ul style="list-style-type: none"> <li>Makes strategic decisions related to all three dimensions of sustainability and guides daily activities to help the Company meet its goals.</li> <li>Composed of Crown's Executive Vice President and Chief Operating Officer; Vice President of Global Sustainability and Regulatory Affairs; Director of Sustainability; and other executives from investor relations, technology development, procurement, human resources, EHS, risk management and legal, as well as the Company's four operating divisions.</li> </ul>	<p><b>Vice President of Global Sustainability and Regulatory Affairs</b></p> <ul style="list-style-type: none"> <li>Reports to the CEO and the Board and leads global strategy.</li> </ul>
	<p><b>Risk Management Team</b></p> <ul style="list-style-type: none"> <li>Elevates and appropriately assigns risks to designated teams within the Company so they can be addressed and mitigated at an operational level.</li> <li>In parallel, elevates risks directly to the Chief Executive Officer, who determines whether further evaluation by the Board is necessary.</li> </ul>

Additionally, local plant management champions on-the-ground sustainability efforts, including in the communities in which we operate.

## Precautionary Approach

As one of the world's largest and most comprehensive packaging companies, risk is inherent in our growing global operations. We follow a comprehensive approach to risk that strives to protect the assets of the Company and the investments of our shareholders, as well as to address the concerns of all our other stakeholders and ensure the continuity of our business.

We recognize that managing risk must be a dynamic process that is integrated into day-to-day management practices and applies process rigor. Our business decision-making process is governed by a philosophy that requires a conscious awareness of the risks and opportunities that different alternatives may entail. We carefully evaluate our business environment to identify potential risks, take appropriate measures to eliminate or reduce their adverse impact, and act in a manner consistent with our strategic objectives.

To achieve this, and in addition to the day-to-day risk management activities that occur globally throughout our organization, we have a global Enterprise Risk Management (ERM) program. Crown's ERM program was formed in 2010 to provide a process for identifying, assessing and managing global risks. ERM program participants include representatives from multiple functions, including senior corporate executives, business units, corporate-level support functions, information technology, regulatory and operations. This program ensures that the Company takes a holistic view of risk in order to identify any risks that would prevent the Company from achieving its strategic objectives.

A comprehensive risk assessment process is performed to identify all potential risk factors affecting Crown. These risks are ranked and eventually classified in the following four categories: Strategic, Corporate, Financial and Operations. To allow us to fully understand our environmental, economic and social impacts, sustainability is a continuous consideration within our ERM process.

