

2019 Sustainability Report



Executive Letter

GRI 102-14

At Greif, we are focused on developing solutions to safely package and protect our customers' products in pursuit of our vision: In industrial packaging, be the best performing customer service company in the world.

While our 2019 Sustainability Report discusses the progress Greif has made in our sustainability programs in 2019, as we publish this report, our business is responding to the global COVID-19 pandemic. As an essential business and critical supplier around the globe, we formed global and regional task forces to monitor the situation in real time and take appropriate action as quickly as possible to protect the health and safety of our colleagues, maintain the service levels our customers have come to expect of us and protect business continuity. Please visit our [Coronavirus \(COVID-19\) Customer Update](#) page for current information on our response efforts.

As we respond to this global crisis, our long-term sustainability strategies remain consistent. Whether it is through innovating our own products, collaborating with our customers to reduce the impact of their packaging or expanding our end-of-life solutions and capabilities, 2019 saw great advancements towards implementing the circular economy principles that are core to our sustainability – and business – strategy.

Our Greif Green Tool continues to drive collaboration, and reduce environmental impact, with our customers by enabling lowest impact packaging decisions. We have continued our work with customers and leading food safety experts to further evolve our industry leading Food Safety Initiative. These partnerships have led to revolutionary manufacturing processes and product launches, and are helping to set new standards for product quality across our business.

In 2019 we completed our acquisition of Carastar, greatly expanding our Paper Packaging & Services business segment and the end-of-life services we can provide. With our expanded footprint, we are now proud to be a net positive paper recycler, recovering and recycling more waste paper than we produce. We are also growing the EarthMinded reconditioning network in our Rigid Industrial Packaging business and introducing industry-leading services to make them easier and more efficient for our customers to use.

Our commitment to circular economy is just one of our sustainability strategies that supports our three strategic priorities of engaged teams, differentiated customer service and enhanced performance. Our efforts to better engage our colleagues resulted in increased participation in our engagement survey, as well as increased engagement scores. Our dedication to instilling a culture of safety in the organization is unwavering, with 53 percent of our manufacturing sites recording zero accidents in 2019.

In 2019 we achieved our highest Net Promoter Score and Customer Service Index, further illustrating the direct link between customer service excellence and profitable growth.

We delivered a step change in our financial results, fueled by the acquisition and ongoing integration of Carastar, with significant improvements in EBITDA, earnings per share and Free Cash Flow.

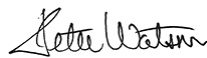
Our sustainability initiatives continue to receive external recognition. EcoVadis awarded Greif the 'Gold Recognition Level' in sustainability performance for the second year in a row, placing us in the top four percent of companies they evaluate. We once again received an A- rating from CDP for our 2019 Climate Change response, our second consecutive year achieving this score. We also received an A for Supplier Engagement, placing Greif in the top three percent of companies responding to CDP, for our actions and strategies to reduce emissions and manage climate risks in our supply chain.

We are proud of our climate-related achievements, but recognize the urgency to address climate change is only increasing for our organization and for our planet. To further understand and address our climate impacts and implement recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD), we have taken the first steps in conducting a scenario analysis and will be establishing a new 2030 climate goal. We greatly look forward to announcing our new goals in 2020.

We are proud to share our 2019 progress in our 11th annual sustainability report. Our report, prepared in full accordance with the GRI Standards Core guidelines, serves as our annual Communication on Progress to the United Nations Global Compact and is our first reporting to SASB standards.

Greif is better positioned than ever to create value for our colleagues, the communities where we operate and live, our customers and our shareholders. As we continue to embed sustainability into the fabric of our organization, we are optimistic and excited about our future.

Best Regards,



Peter G. Watson
President and Chief Executive Officer



Ole G. Rosgaard
Senior Vice President, Rigid Industrial Packaging & Services
and Global Sustainability



Peter G. Watson



Ole G. Rosgaard

1.49
Medical Case Rate

Down 57 percent since 2007.

Gold
Recognition from
EcoVadis

Received for our commitment to Corporate Social Responsibility, placing us in the top four percent of all assessed suppliers.

89.8
Average Customer
Satisfaction Index Score

Our highest scores ever, demonstrating our commitment to serving our customers better.

About Our Company

GRI 102-1, 102-3, 102-7

With approximately 290 production, warehouse and office locations across the globe, Greif is a leading world producer of industrial packaging products and services. Our approximately 17,000 colleagues work in more than 40 countries, with our headquarters in Delaware, Ohio. During Fiscal Year 2019, we generated more than \$4.5 billion in net sales.

Products, Services & Markets

GRI 102-4, 102-6

At Greif, we produce rigid industrial, paper and flexible packaging goods as well as provide land management services. Our packaging services primarily consist of filling, blending, reconditioning, recycling, recycled fiber collection, warehousing and logistics. Soterra, our land management subsidiary, provides timberland management, consulting, wildlife stewardship and wetlands mitigation bank development. We sell to various industries including food and beverage, chemicals, agricultural, pharmaceutical, petroleum, automotive, home appliances and many more. To see a full description of our products, services and markets, please visit Greif.com.

COUNTRIES OF OPERATION*

North America	Canada ^{1,3}	Mexico ^{1, 2}	United States ^{1, 2, 3, 4}
Latin America	Argentina ¹ Brazil ¹	Chile ¹ Columbia ¹	Costa Rica ¹ Guatemala ¹
Asia Pacific	China ^{1,2} India ²	Malaysia ¹ Singapore ¹	Vietnam ^{1, 2}
Europe	Austria ¹ Belgium ^{1, 2} Czech Republic ¹ Denmark ¹ France ^{1, 2} Germany ^{1, 2} Greece ¹	Hungary ¹ Ireland ² Italy ¹ Netherlands ^{1, 2} Poland ¹ Portugal ¹	Romania ² Russia ¹ Spain ¹ Sweden ¹ Turkey ^{1, 2} Ukraine ^{1, 2} United Kingdom ^{1, 2}
Middle East	Israel ¹	Saudi Arabia ¹	
Africa	Algeria ¹ Egypt ¹	Kenya ¹ Morocco ¹	Nigeria ¹ South Africa ¹

1 Rigid Industrial Packaging & Services;

2 Flexible Products & Services;

3 Paper Packaging & Services;

4 Land Management

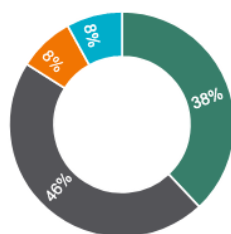
*As of close of FY2019

Our Workforce

GRI 102-8, 102-41

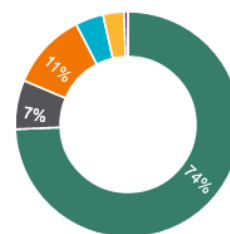
EMPLOYEES BY REGION

■ Europe, the Middle East and Africa
■ North America
■ Asia Pacific
■ Latin America

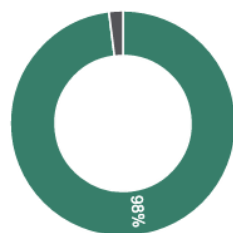


EMPLOYEES BY ROLE

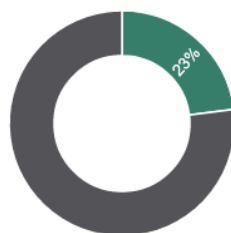
■ Operations
■ Professional
■ Facilities/Engineering
■ Transportation/Logistics (4%)
■ Sales (3%)
■ Other (0.9%)
■ Management (0.1%)



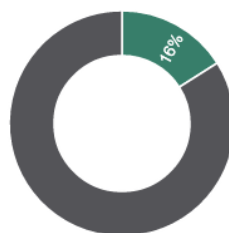
PERMANENT EMPLOYEES



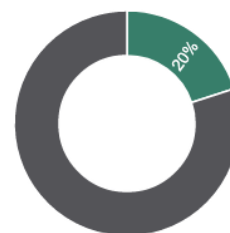
FEMALE EMPLOYEES



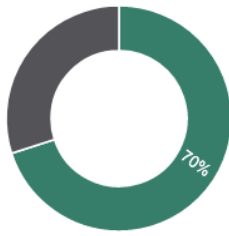
WOMEN IN MANAGEMENT



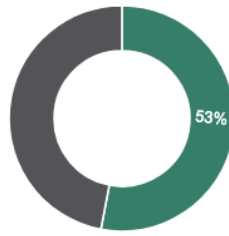
INTERNATIONAL SENIOR EXECUTIVES



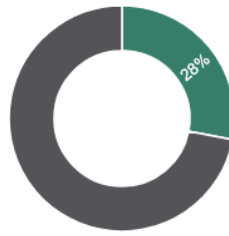
Europe, the Middle East, & Africa



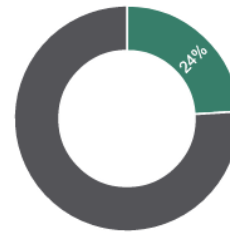
Latin America



Asia Pacific



North America



290

290 sites around the world

Our global reach is near you.

17,000

Colleagues

Our people—principled, intelligent and reliable—reaffirm our reputation for integrity every day with their every action.

142

Years of Experience

For the past 142 years, the world's most important products have travelled around the world in Greif industrial packaging.

Governance, Policies & Partnerships

Governance

GRI 102-20

Sustainability reaches all levels of our organization. In 2016, we established board oversight of sustainability. The Board of Directors receives annual updates from the Senior Vice President, Rigid Industrial Packaging & Services (RIPS) and Global Sustainability on behalf of our 11-member Sustainability Steering Committee. The Committee, which includes representatives from Greif's Executive Leadership Team (ELT), is tasked with further integrating sustainability into our strategy and operations, reviewing our sustainability progress and priorities biannually and ensuring accountability at all levels of our organization. The Board holds the Sustainability Committee accountable for reaching annual goals, which impacts the remuneration of Committee members and determines the level of funding for Greif's sustainability programs. The Steering Committee guides the activities of our six-member Sustainability Management Team, which works with topic teams consisting of representatives from each region and business unit to drive facility level projects and priorities.

SUSTAINABILITY GOVERNANCE STRUCTURE



Corporate Policies

GRI 102-16

We believe that behavior influences culture and culture determines performance. Our culture—and ethics and compliance expectations—are based on the principles set forth in *The Greif Way*. We practice these principles every day through the policies that govern our organization.

- Anti-bribery and Sanctions Policy
- Anti-Harassment and Anti-Discrimination Policy
- Antitrust/Competition Compliance Policy
- Code of Business Conduct and Ethics
- Contractor Safety Policy
- Corporate Governance Guidelines
- Corrective Actions Policy
- Data Privacy Policy
- Economic and Trade Sanctions Policy
- Environmental Health and Safety Policy
- Equal Employment Opportunity & Diversity Policy
- Fair Treatment of Others Policy
- Human Rights Policy
- Insider Trading Policy
- IT Procurement and Services Policy
- Records Management & Retention Policy
- Relationships at Work Policy
- Tobacco-Free Workplace Policy

Partnerships

GRI 102-12

Greif seeks to actively engage with organizations to increase the reach of our sustainability efforts. Some of our key partnerships include:

Operation Clean Sweep

To expand our commitment to reducing waste, in 2017, Greif became a signatory to Operation Clean Sweep (OCS), an international program originally designed by the plastics industry and supported by The British Plastics Federation and PlasticsEurope to prevent pellet, flake and powder loss and the potential introduction of pellets to the marine environment where they create both a litter problem and a threat to sea life and wildlife. The essence of OCS is to help each segment of the plastics industry, including resin producers, transporters, bulk terminal operators and plastics processors, to implement good housekeeping and pellet, flake and powder containment practices towards achieving zero pellet, flake and powder loss.

For more information on our partnership with OCS, please visit our [Waste](#) page.

Pollinator Partnership

In 2009, our Soterra operations embarked on a multi-year study with the Pollinator Partnership and NAPCC, the world's foremost experts on pollination issues, to learn how pollinators impact wildlife food availability on timber landscapes, the added value of hosting honey bees and beekeepers on the landscape and to discover the best management practice for ecosystem services on forest landscapes. For more information, please visit our [Biodiversity](#) page.

SmartWay

The SmartWay Transport Partnership is an innovative collaboration between the freight industry and the U.S. Environmental Protection Agency (U.S. EPA). It is a market-driven partnership aimed at helping businesses move goods in the cleanest, most efficient way possible. Its purpose is to accelerate the availability, adoption and market penetration of advanced fuel-efficient technologies and operational practices in the freight supply chain, while helping companies save fuel, lower costs and reduce adverse environmental impacts.

To improve efficiency and reduce greenhouse gas emissions from our vehicle fleet, Greif joined the SmartWay Transport Partnership in 2009. For more information about our partnership, please see our [Climate Strategy](#), [Energy & Emissions](#) page.

UN Global Compact

Integrity and respect for people are [Core Values](#) for Greif, and we believe that social and environmental responsibility are aligned and essential for long-term sustainability. The [United Nations Global Compact](#) is a voluntary strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally-accepted Principles in the areas of human rights, labor, environment and anti-corruption.

We consider these Principles to be a natural extension of our [Code of Business Conduct and Ethics](#), which outlines our commitment to be open, honest and trustworthy in all of our dealings with all stakeholders. Our policies and procedures incorporate our commitment to human rights, freedom of association, excellence in environment and health and safety.

In April 2016, Greif became a signatory to the UN Global Compact, confirming our commitment to these Principles. Each year, we publish our [Communication on Progress](#) on the Ten Principles of the compact.

World Business Council for Sustainable Development

Greif is a member of the [World Business Council for Sustainable Development](#) (WBCSD), a CEO-led global association of approximately 200 of the most environmentally-responsible companies in the world. Member companies are committed to providing business leadership as a catalyst for change toward sustainable development. Members are drawn from more than 30 countries and 20 major industrial sectors. We signed on to the organization's Manifesto for Energy Efficiency in Buildings (EEB).

Greif is proud to have hosted the first Midwest WBCSD conference in 2011, and again in 2012 and 2013, to discuss and share ideas and strategies about how to respond to some of the key environmental and business sustainability questions we face today and to share best practices. We are proud to have partnered with WBCSD to publish [From Cradle to Grave: Greif's Life Cycle Analysis](#), a case study on how we implement Life Cycle Analysis in our business. In 2018 we joined WBCSD's Factor 10 working group on circular economy. The following year, in 2019, we joined two groups, WBCSD's ReScale group, which is focused on renewable energy, and the newly created Energy Solutions group. However, the Energy Solutions group, whose focus is on climate and energy, to better drive pre-competitive improvements across industries on these critical topics, officially launched at the start of 2020.

Trade Associations

GRI 102-13

As a leader in the global industrial packaging industry, Greif participates in trade associations to discuss relevant issues and opportunities and to continue to move the industry in a positive direction. Please review our [Trade Associations](#) for more information.

290

290 sites around the world

Our global reach is near you.

17,000

Colleagues

Our people—principled, intelligent and reliable—reaffirm our reputation for integrity every day with their every action.

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Years of Experience

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Accreditations & Awards

Accreditations

- CDP Climate Change Report
 - 2019 – A-, Leadership; A, Supplier Engagement
 - 2018 – A-, Leadership
 - 2017 – B, Management
 - 2016 – A-, Leadership
 - 2015 – 92B
 - 2014 – 87
- EcoVadis
 - 2019 - Gold Recognition
 - 2018 - Gold Recognition
 - 2017 – Silver Recognition
 - 2016 – Silver Recognition
 - 2015 – Silver Recognition
 - 2014 – Bronze Recognition
- Forbes 2014 America's 100 Most Trustworthy Companies
- Forest Stewardship Council/Programme for the Endorsement of Forest Certification
 - 2011 – Massillon, Ohio Mill
- Sustainable Forestry Initiative (SFI)
 - 2008 – 2013 – Soterra Forest Certification
 - 2010 – 2011 – Riverville, Virginia Mill Sourcing Certification

Awards

- DoubleGreen COEX 10-liter plastic jerry can
 - 2014 IAIR Sustainability Award
 - Frost & Sullivan's 2014 Manufacturing Leadership Sustainability Award
- EarthMinded DIY Rain Barrel Kit
 - Lawn, Garden & Outdoor Living Innovation Awards Honorable Mention
- Energy Efficiency
 - Consumers Energy – Business Energy Efficiency Program *Project of the Year*
- packH2O
 - Premio Eco Brasil 2015 Award for Sustainability Practices
 - PackTheFuture 2014 Award for Sustainable Plastic Packaging
 - People's Design 2013 Award in the Smithsonian Cooper-Hewitt, National Design Award Competition
 - SEED (Social Economic Environmental Design®) 2013 Excellence in Public Interest Design Honorable Mention
 - Popular Science Magazine 2012 Best of What's New Award, Green Category
 - Global Green USA's 2012 Industrial Design Award
- Responsible Companies
 - Newsweek's America's Most Responsible Companies of 2020
- Source Reduction – Callaway Golf “Greener on the Greens” package (Caraustar)
 - 21st DuPont Packaging Innovations Awards: Noteworthy Accomplishment Award for Sustainable Packaging
- Soterra and Pollinator Partnership
 - Sustainable Forestry Initiative (SFI) Conservation Leadership Award
 - Environmental Stewardship Award by the Partners for Environmental Progress (PEP)
- Supply Chain Services
 - Solvay Supplier Sustainability Award
 - 2016 Eastman Chemical Company Innovation and Sustainability Awards
 - 2011 23rd DuPont Awards Packaging Innovation Gold
- Waste Reduction
 - AbsorbTech Achievement in Waste Reduction Award

Third Party Audits

- Sedex
 - 2018 – Amsterdam, Netherlands – SMETA 4-pillar audit
 - 2018 – Araucaria, Brazil – SMETA 4-pillar audit
 - 2016 – Tianjin, China – SMETA 4-pillar audit
 - 2015 – Sultanbeyli, Turkey – 100% audit performance
- Together for Sustainability (TFS)
 - 2019
 - Cologne, Germany – 98% audit performance
 - Sultanbeyli, Turkey – 98% audit performance
 - 2018
 - Usti, Czech Republic – 95% audit performance
 - Campana, Argentina – 83% audit performance
 - 2017
 - Naperville, Illinois - 100% audit performance
 - Lockport, Illinois - 98% audit performance
 - 2016
 - Attendorn, Germany – 96% audit performance
 - Shanghai, China – 80% audit performance
 - 2015
 - Europoort, Netherlands – 97% audit performance

A- Greif's 2019 CDP Score

Demonstrating excellence in carbon management, governance, strategy and best practices, and outperforming the overall and North American average CDP score of C.

Gold Recognition from EcoVadis

Received for our commitment to Corporate Social Responsibility, placing us in the top four percent of all assessed suppliers.

93.9% Average Together for Sustainability Score

Our audited facilities are contributing to developing industry-wide sustainability standards for suppliers to chemical manufacturers.

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About Our Report

GRI 102-50, 102-52, 102-53, 102-54

This is Greif's 11th annual sustainability report, based on our fiscal year, November 1, 2018, through October 31, 2019. In February 2019, Greif completed the acquisition of Caraustar Industries, Inc., a leading vertically-integrated paperboard manufacturer in North America ("Caraustar"). While Caraustar is now a wholly owned subsidiary of Greif, some management practices and data systems will continue to be integrated through 2020. This report reflects the status of Caraustar's integration through October 31, 2019, with a primary focus on the alignment of Caraustar's sustainability data and practices with Greif's pre-existing programs. This report is prepared in accordance with the GRI Standards: Core option, SASB Application Guidance and fulfills the [United Nations Global Compact \(UNGC\)](#) annual Communication on Progress (COP). For questions on this report, please contact Aysu Katun, Director of Sustainability at Aysu.Katun@Greif.com.

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Stakeholder Engagement & Materiality

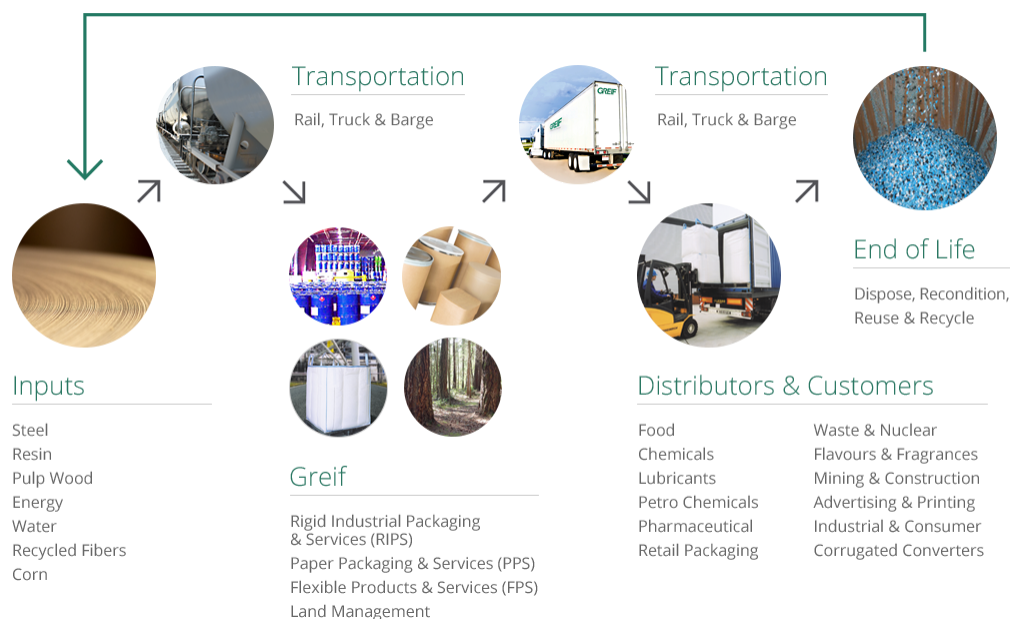
GRI 102-49

We published our first sustainability report in 2009. While Greif has experienced incredible success these past 11 years, we continue to evolve and refine the way we approach sustainability. In 2019, we enhanced the sustainability programs that make our company efficient, enhanced the management of our material topics, engaged colleagues on sustainability and worked to integrate our new colleagues from Caraustar into our organization and our sustainability strategies. Our 2019 GRI Core report showcases our accomplishments and progress on our long-term sustainability goals.

Value Chain

GRI 102-9

Greif's value chain consists of raw material suppliers, transportation and distribution partners, customers, end-of-life services and external stakeholders that influence our activities.



Materiality Assessment Process

GRI 102-42, 102-43

In 2017, Greif conducted our first materiality assessment to identify and prioritize our material sustainability topics, identify and engage our key stakeholders and inform our sustainability strategies, reporting and communications. The assessment was led by a third-party and conducted in accordance with industry best practices for material topic identification and stakeholder engagement. As part of the materiality process we:

- Mapped our value chain and identified key stakeholders along it
- Reviewed a wide range of source documents to determine potentially material topics, including:
 - Greif's vision, strategic priorities, CEO scorecard, business unit strategies and colleagues engagement survey
 - Customer satisfaction survey results
 - Peer sustainability reports
 - ESG investment analyst reports
 - Industry association priorities
 - Global sustainability trend reports
- Conducted interviews and surveys with Greif leadership and external stakeholders and reviewed additional publicly available sources to collect feedback on potentially material topics
- Consolidated feedback from interviews and surveys to identify our most material topics

Through the interview, survey and document review process, participants were asked to identify and provide specific evidence in support of the topics that posed the impact, risk and/or opportunity for Greif. Participants were asked to consider impact, risk and opportunity in terms of financial gains or losses, reputation and trends that may alter the way Greif creates value, and provide specific examples in support of their answers.

We began with 32 environmental, social, product, economic and governance topics and narrowed the list down to 16 topics during the stakeholder engagement process. These 16 topics represent the highest priority indicators to our stakeholders. The results of the assessment were reviewed and validated with Greif's leadership during a third-party-led validation workshop and serve as the basis for our reporting.

In 2021, we will refresh our materiality assessment to understand how stakeholder expectations have evolved and account for the impact of Caraustar on our material topics.

Material Topics

GRI 102-40, 102-44, 102-46, 102-47

Our 16 most highly material issues identified through our materiality assessment process are described below and collectively form our sustainability strategies. The stakeholder engagement and materiality assessment process validated many topics that have historically been important to Greif and our stakeholders. Our sustainability reporting serves to address topics that are of high concern to each group, as indicated below. Our engagement yielded topic owners within Greif and goals for 2025. We continue to strengthen our approach to managing and addressing the opportunities available to our company. Throughout this report you will learn about our goals, management approach and performance for our material topics.

MATERIAL TOPIC	BOUNDARY	STAKEHOLDERS ENGAGED, TYPES OF STAKEHOLDER ENGAGEMENT & CONCERNS RAISED				
		Greif's Board of Directors & Leaders	Customers	Investors	Society/Community	Environment
Types of Engagement		Daily interactions, impact mapping interviews, materiality assessment survey, quarterly updates on sustainability	Daily interactions, bi-annual satisfaction, surveys, materiality assessment interviews	Daily interactions, investor day events, materiality assessment interviews	Community engagement (face-to-face meetings, interviews, survey), community service events	Greif LCA, interviews with sustainability experts (e.g., WBCSD)
Delivering Superior Customer Experience						
Product Quality	All internal operations; during use	✓	✓			
Customer Service Excellence	All internal operations; all customers	✓	✓	✓		
Reducing Our Footprint						
Environmental Management Systems	All internal operations	✓	✓	✓		✓
Climate Strategy, Energy & Emissions	All internal operations	✓	✓	✓	✓	✓
Water	PPS operations	✓	✓	✓		✓
Waste	All internal operations	✓	✓	✓		✓
Addressing Risk						
Ethics & Compliance	All internal operations; all suppliers	✓	✓	✓	✓	
Risk Management & Business Continuity	All internal operations; all suppliers	✓	✓	✓	✓	
Security	All internal operations	✓	✓	✓		
Valuing Our People						
Talent Attraction, Development & Retention	All internal operations	✓	✓	✓		
Health & Safety	All internal operations; Community	✓	✓	✓	✓	
Human Rights & Fair Labor Practices	All internal operations; all suppliers	✓	✓	✓	✓	
Advancing Circular Economy						
Innovation	All internal operations; suppliers; customers	✓	✓	✓		✓
Cradle to Cradle Reconditioning, Reuse, & Recycling	Reconditioning operations; reconditioning partners; customers	✓	✓	✓	✓	✓
Supply Chain Management	All internal operations; all suppliers; trucking partners	✓	✓	✓	✓	✓
Financial Performance & Profitable Growth						
Financial Performance & Profitable Growth	All internal operations	✓	✓	✓		

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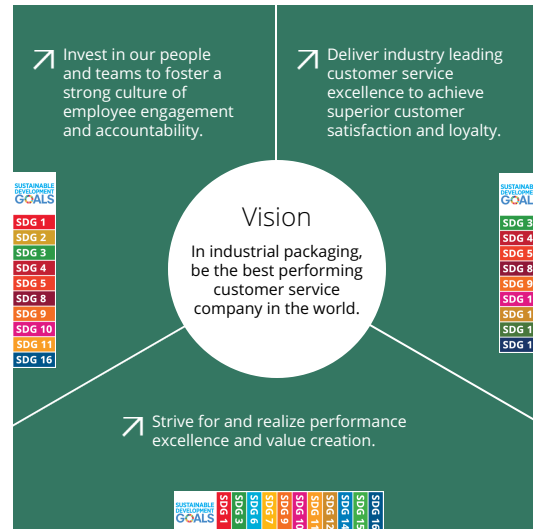
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Strategic Priorities

From our material topics to our strategic priorities, Greif's sustainability strategies support our fundamental vision of, in industrial packaging, be the best performing customer service company in the world and our commitment to conducting business The Greif Way. Our sustainability efforts contribute to our commitment to creating shared value for our customers, stakeholders and the environment. We invite you to explore our strategic integration graphic, which demonstrates the interconnectedness of Greif's sustainability program across our entire business.

In 2019, we surveyed 18 of Greif's senior leaders to better understand how Greif uses and transforms financial, manufactured, intellectual, human, social and natural capital to create value for our company. These conversations reinforced the importance of our sustainability investments in executing our business strategies and will help inform how we further integrate sustainability into our business.



Invest in our people and teams to foster a strong culture of employee engagement and accountability.

Sustainability Strategies

Valuing Our People


- Health & Safety
- Human Rights & Fair Labor Practices
- Talent Attraction, Development & Retention

The Greif Way

- Ethical
- Strong Through Diversity

2025 Goals

- 2025 Goals
- 100 percent of permanent employees will participate in regular performance development discussions by the end of fiscal year 2025.
- Using fiscal year 2017 baseline, increase average hours of annual training per employee by 50 percent by the end of fiscal year 2025.
- 100 percent of employees will be covered by parental leave by the end of fiscal year 2025.
- Reduce Medical Case Rate by 10 percent annually to achieve 100 percent safety - Medical Case Rate Zero - in the long term.
- Every plant will have a collaborative environmental health and safety committee consisting of both management and workers by the end of fiscal year 2025.
- 100 percent of our operations will be subject to internal human rights reviews, measured on a rolling cycle, by the end of fiscal year 2025.
- 100 percent of employees will be trained in human rights policies and procedures by the end of fiscal year 2025.
- Using fiscal year 2017 baseline, increase the proportion of women in management positions by 25 percent by the end of fiscal year 2025.

 Deliver industry leading customer service excellence to achieve superior customer satisfaction and loyalty.

Sustainability Strategies



Delivering Superior Customer Service

- Customer Service Excellence
- Product Quality



Reducing Our Footprint

- Supply Chain Management



Addressing Risk

- Risk Management & Business Continuity



Advancing Circular Economy


- End-of-Life Reconditioning, Reuse & Recycling
- Innovation

The Greif Way

- Ethical
- Serious About Sustainability
- Committed to Continuous Improvement

2025 Goals

- Using a fiscal year 2017 baseline, reduce raw materials/logistical costs used to produce current product offering by one percent by the end of fiscal year 2025.
- Move from non-green (oil-based, more energy intensive) to green material sourcing if it is economically feasible and doing so provides high quality products to our customers by the end of fiscal year 2025.

 Strive for and realize performance excellence and value creation.

Sustainability Strategies



Addressing Risk

- Ethics & Compliance
- Security



Financial Performance & Profitable Growth



Reducing Our Footprint

- Biodiversity
- Climate Strategy, Energy & Emissions
- Environmental Management Systems
- Waste
- Water

The Greif Way

- Ethical
- Strong through Diversity
- Serious About Sustainability
- Committed to Continuous Improvement

2025 Goals

- 10 percent reduction in energy and greenhouse gas (GHG) emissions per unit of production, from a fiscal 2014 baseline.* (* 2020 Goal)
- Reduce Biochemical Oxygen Demand (BOD) discharged in kilograms by 10 percent per metric ton of production from Riverville and Massillon mills using a 2014 baseline by the end of fiscal year 2025.
- Divert 90 percent of waste from landfills from all Greif production facilities globally by the end of fiscal year 2025.
- Provide online training of the Greif Code of Business Conduct and Ethics to 100 percent of employees with access to computers by the end of fiscal year 2025.
- Provide training and information on the Greif Anti-bribery Policy to 100 percent of employees for whom training is relevant by the end of fiscal year 2025.
- Provide online training of the Fair Treatment of Employees Policy to 100 percent of employees with access to computers and provide accessible and traceable information to all employees by the end of fiscal year 2025.

Financial Capital

Key material topics: Innovation, Financial Performance, Ethics & Compliance, Security, Product Quality

The need to invest and be in a financial position to be competitive is at the heart of Greif's operations. Our ability to generate financial capital is dependent on efficient operations, attracting and retaining a skilled workforce, continuing to innovate to meet our customers' expectations, and maintaining the trust of our customers. Effectively achieving each of these both requires investment and is necessary to generate financial returns.

Human Capital

Key material topics: Talent Attraction, Development & Retention, Health & Safety, Human Rights & Fair Labor Practices, Customer Service Excellence, Financial Performance

Despite the increasing availability of technologies that could allow us to automate some of our operations, there continues to be a strong, and growing, demand for skilled labor in our organization. Our investments in training and development are aimed at providing our over 17,000 employees with the skills they need to perform their jobs, serve our customers and move our company into the future. Collectively, our people have the capability to impact our performance across all forms of capital more than any other form of capital.

Social Capital

Key material topics: Customer Service Excellence, Cradle-to-Cradle Reconditioning, Reuse & Recycling, Innovation, Ethics & Compliance

As a global organization, we must maintain the trust of a large and complex group of stakeholders. Whether through collaboration with our customers, partnerships we establish with academic institutions and other NGOs, or any other interaction we have with our stakeholders, we work to instill high quality relationships by demonstrating our commitment to The Greif Way and responsible business practices. Our sustainability initiatives help us communicate these commitments and directly impacts our brand, reputation and willingness for customers to do business with us.

Intellectual Capital

Key material topics: Innovation, Supply Chain Management

Innovation and new technologies have the potential to be great differentiators. Our dedicated innovation activities, thought leadership and collaboration with customers and other external stakeholders are critical elements of developing, demonstrating and leveraging our intellectual capital. Focusing on innovation and developing our intellectual capital allows us to identify new business models and solutions that will lead to new opportunities that can positively impact Greif's financials. As many of our customers set long-term goals, particularly on environmental topics such as energy, emissions, waste and reducing plastics, we are positioning ourselves, and our products, to help them meet their objectives.

Manufactured Capital

Key material topics: Product Quality, Supply Chain Management, Cradle-to-Cradle Reconditioning, Reuse & Recycling, Risk Management & Business Continuity

Greif's global footprint is a key differentiator and critical component to how we protect and grow our business. Our investments in and maintenance of our facilities, production lines and capabilities and products we manufacture are directly tied to our ability to generate revenue, but also provide an opportunity to operate more efficiently, minimize our risk exposure and reduce our environmental impact by applying circular economy principles and executing on our strategies to reduce our footprint.

Natural Capital

Key material topics: Environmental Management Systems, Climate Strategy, Energy & Emissions, Water, Waste, Biodiversity, Innovation, Supply Chain Management, Cradle-to-Cradle Reconditioning, Reuse & Recycling

Greif relies heavily on the use of natural resources in our business. Through the materials we source, manufacturing processes we implement and logistics that enable our supply chain, we have a responsibility to minimize our reliance on natural resources, and reduce our footprint, as much as possible. Over time, as natural resources become more constrained and regulations over the use of them continue to advance, these resources will become more valuable and organizations that have worked to responsibly manage, and minimize use, of them where possible will be better positioned to compete. Each of our sustainability strategies to reduce our footprint and advance circular economy principles is aimed at reducing our use of natural capital, engaging our customers and supply chain to do the same and establishing partnerships that will help us advance these priorities more quickly.

290

290 sites around the world

Our global reach is near you.

17,000

Colleagues

Our people—principled, intelligent and reliable—reaffirm our reputation for integrity every day with their every action.

142

Years of Experience

For the past 142 years, the world's most important products have travelled around the world in Greif industrial packaging.

Delivering Superior Customer Service

Our vision of, in industrial packaging, be the best performing customer service company in the world, depends on our ability to supply quality products and continually find ways to better serve our customers.



61

Net Promoter Score

We realized continued improvement in our NPS score, achieving our highest score ever in 2019.

1.0

Corrective Action Rate

Reduced by 52 percent since 2015 in our RIPS North America business.

89.8

Average Customer Satisfaction Index Score

Our highest scores ever, demonstrating our commitment to serving our customers better.

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Product Quality

Establishing quality control standards to meet customer expectations with every order and every delivery.



Why Product Quality Matters

GRI 416: 103-1, 103-2, 103-3

The quality of our products lies at the heart of our business. We hold ourselves to the highest standards, as product quality is non-negotiable for our customers. Every year, our customers' expectations increase, leading us to focus on continuous product quality improvement. Greif's financial success depends on our capacity to reliably produce high-quality, defect-free products that meet the applicable specifications at all of our manufacturing facilities.

Governance

We evaluate product quality based on the structure and integrity of our products and compliance with applicable specifications for each item we manufacture. In 2019, 52 percent of Greif's approximately 250 eligible global production sites were certified to ISO 9001 standards for quality management. 100 percent of Flexible Products & Services (FPS) and Tri-Sure sites and 91 percent of Rigid Industrial Packaging & Services (RIPS) sites globally are ISO 9001 certified. We actively maintain product quality centrally through our quality standards and track performance on two product quality indicators: Corrective Action Rate (CAR) and total customer complaints. Additionally, select facilities use order reliability rate as a product quality indicator. Each month, regional presidents, vice presidents and general managers are updated on our performance on these indicators.

We use our integrated quality system, Greif QS, to communicate quality standards to our production network. Greif QS houses a suite of applications that ensure quality and consistency in our product processes throughout all of our facilities. Examples of these applications include:

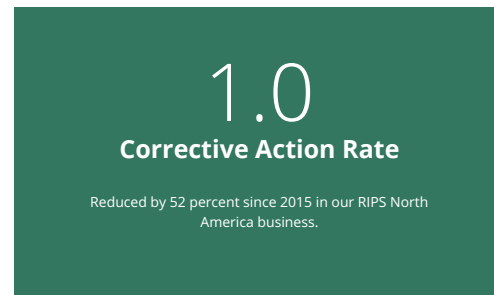
- Complaint Response/Corrective Action Systems
- Internal Corrective and Preventive Action Systems
- Audit Management System
- Calibration Systems
- Supplier Management Systems
- Management Review System
- Document and Training Management Systems

While each facility implements the applications most relevant to their operations, Greif QS enables us to utilize critical control points in the manufacturing process to discover and correct deviations from production specifications before a potential defect has the opportunity to negatively impact production or reach a customer. Potential quality issues are reported through our ERP system. When a quality issue is identified, corrective procedures are documented and conveyed through the appropriate communication channels. If we identify a recurring product quality defect, we launch a Product/Process Audit, which is conducted by an internal team of engineering, quality and product representatives. The team uses specific criteria to assess a facility against the processes, standards, equipment and tools that were used during production. This enables the team to work with the facility to resolve the reoccurring issue and improve the product quality process. Evaluation teams also leverage our root cause corrective action tool that allows us to assess the severity of a quality complaint based on a number of indicators, including financial impact, frequency and type of complaint. By providing objective criteria to evaluate complaints, the process allows us to better prioritize and address the highest risk complaints. As part of the Caraustar acquisition and integration, legacy Caraustar sites have begun using Greif QS to manage customer complaints in addition to their existing quality management systems. Additional Greif QS applications will be implemented at legacy Caraustar facilities as systems continue to be integrated.

We continue to use our Quality Management System (QMS) scorecard to better evaluate the performance of the applications within Greif QS. The scorecard generates an organizational health report based upon all the tools centralized within Greif QS, including customer complaints, internal corrective actions, management reviews and supplier evaluations. The Greif QS Steering Committee, consisting of quality leaders from our RIPS, Tri-Sure and FPS divisions, reviews all applications and requests for new applications to determine and prioritize improvements that will provide the most benefit and improve product quality performance globally. The committee supports regional Quality Councils comprised of regional, business unit and product management leadership.

In 2018, we created a Management of Change tool within Greif QS to identify and categorize changes to raw materials, suppliers, processes and other indicators that could impact product quality. Management of Change uses a series of questions to determine the severity of the change and initiates a review process prior to the change being approved for implementation. Once a change is approved, it is communicated to the impacted functions throughout Greif. This tool allows us to engage departments across the organization and generate tasks to ensure compliance. 2019 brought continued advancement of the tool, which now enables us to communicate changes to the commercial team, who can then notify our customers of changes as quickly as possible. We have incorporated our UN certification process into Greif QS in 2019. Within Greif QS, we defined the required specifications to achieve UN certification for our relevant products and can now manage the manufacturing process to ensure we remain in compliance.

In 2019, we continued to place an emphasis on improving our food safety programs. We conducted a market analysis on food safety requirements and practices, including topics such as sanitation, pest control and traceability, to establish a baseline good manufacturing practice (GMP) program to implement across Greif. Based on those requirements, we developed a new ISO/GMP system integrating our food safety requirements with our current manufacturing processes. At the end of 2019, 45 percent of our RIPS North America facilities were compliant with the new standards. All RIPS North America facilities are planned to be compliant by the end of 2020.



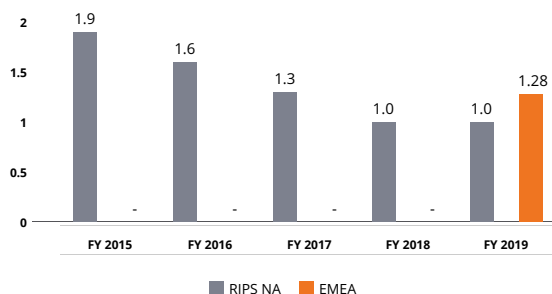
In RIPS North America, we continue to execute on our strategic quality roadmaps, which help us ensure that our product quality initiatives are identified through a standardized process, align to Greif's strategic objectives, 2025 goals and support continuous improvement. Our roadmaps are reviewed annually by RIPS North American leadership and provide a three- to five-year plan for our focus initiatives and detailed project plans for short-term initiatives. Outcomes of the initiatives contribute to individual and team performance goals and contribute to improvements to CAR, customer complaints and ultimately Greif's Customer Service Index (CSI) and Net Promoter Score (NPS) performance. In 2019 we improved our process for identifying focus plants by incorporating additional metrics into the process, including recurring complaints, severity of the quality issue and system utilization, into the evaluation process. Assessing these metrics allows us to address potential quality issues at facilities that may currently be performing well on CSI and proactively address concerns that could impact performance in the future.

Collectively, our product quality efforts allow us to continue to improve in the highest priority areas to our customers: leaks, on-time delivery, contaminants and aesthetic quality. In 2020, we will continue implementing our new ISO/GMP food safety system across the business. Our Intermediate Bulk Container (IBC) facilities in Houston, Texas and Ede, Netherlands and RIPS facilities in Jubail and Riyadh, Saudi Arabia will receive ISO 9001 certification. We will enhance our focus plant initiative by incorporating CSI, percent recurring defect and system engagement into our plant selection process. We will supplement our Product Process Audits that are currently part of the focus plant program with root cause problem solving activities, quality dashboards and Kaizen events.

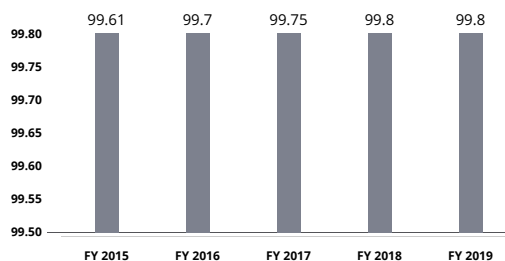
Performance

GRI 416-2

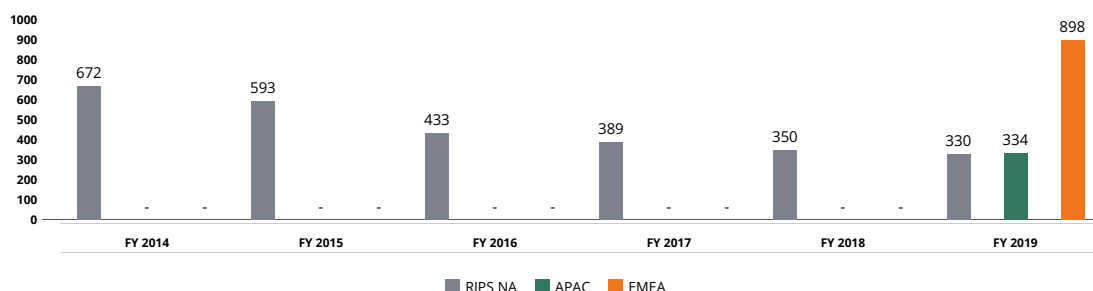
CORRECTIVE ACTION RATE*



ORDER RELIABILITY RATE*



CUSTOMER COMPLAINTS*



Data is reported for Rigid Industrial Packaging & Services North America (RIPS NA), Asia Pacific (APAC) and Europe, the Middle East and Africa (EMEA) as indicated.

*CAR measures customer complaints per 100,000 units produced

**Order Reliability Rate defines the rate of failure between orders produced and estimates non-compliance with voluntary codes, reported for RIPS North America only. No regulatory failures or resultant fines have been identified.

Highlight Stories

Zero-Leak Program

In 2014, our CAR data indicated that leaks were the most common quality complaint from our customers. In response, we initiated a Zero-Leak Program to eliminate leaks from our products. When a leak complaint was received, it was escalated to the regional vice president and general manager and our engineering team was tasked with developing a concrete resolution to the problem and disseminate it to all facilities. Our focus on reducing leaks led to a 67 percent reduction in leak complaints from 2014 to 2018, as well as significant improvements in leakers in our Tri-Sure business. We are reevaluating and relaunching the program in 2020, complete with new metrics intended to help drive continuous improvement in leakers.



Greif Quality Day in Belgium

In 2019 Greif's RIPS facility in Ghent, Belgium took steps to further improve awareness on quality by conducting "Quality Day," a four-hour workshop with a dedicated focus on quality in products, process and customer service. A total of 89 colleagues participated, going through specific interactive sessions designed to provide participants a different perspective on quality and how it can be improved. Many colleagues reported that they gained better understanding of their specific contributions towards quality and were re-energized to make a positive difference improving overall customer satisfaction. This initiative will be promoted in the rest of EMEA with the hope of implementation in more countries in 2020.



Real-time Quality Management

Greif's CorrChoice facilities, part of our Paper Packaging & Services (PPS) business, have implemented a set of tools that enable us to monitor and correct for potential quality issues in real-time. The tools allow us to set alerts for a variety of factors that may impact quality, such as temperature and material storage capacity, and correct any deviations before they fall out of specification. This ability allows us to reduce waste, track potential recurring deviations and avoid long production runs of products that would not meet our customers' expectations. As part of our Zero Defect System, our production lines are lined with ultrasonic sensors that are able to detect any separation or variation that may occur during production, such as differences in caliper spacing and weights of paper. The system allows us to track defects as they move down the production line, remove only defective products and recycle the scrap.



DELIVERING SUPERIOR CUSTOMER SERVICE

Customer Service Excellence

Leading through service, reliability and creating a customer-centric culture.

GREIF
PACKAGING SUCCESS TOGETHER™



Why Customer Service Excellence Matters

Customer Service Excellence 2019: 103-1, 103-2, 103-3

For over 140 years, customers have relied on Greif's industrial packaging to ship their most important products. They depend on our business acumen and ability to quickly and reliably provide quality packaging. Our value and technical expertise have set us apart from our competitors for over a century. We focus on meeting our customers' expectations, a key aspect of Greif's vision of, in industrial packaging, be the best performing customer service company in the world. We are committed to finding the best ways to serve our customers.

Governance

All Greif businesses manage customer service daily. Our practices and policies are managed through our Customer Service Excellence (CSE) Team, led by our Chief Administrative Officer. The team is comprised of 10 representatives from various business units and regions within Greif. The team meets monthly to discuss customer service initiatives, while tracking progress on Customer Satisfaction Index (CSI) and Net Promoter Score (NPS)—our measures of customer satisfaction and likelihood of a customer recommending Greif to others. Our CSE Team partners with all global business units to share best practices, improve communications, drive processes, engage cross-functional leaders and develop a curriculum and training to bolster our colleagues' skills and behaviors related to providing exceptional customer service.

Our CSE Team is supported by our Global Commercial Excellence team that we formed in 2016. The team was formed to provide better structure and alignment to sales, communications, market research and pricing functions. This structure also allows us to better organize around the key markets that Greif serves, ultimately improving our ability to address the unique needs of each customer we serve.

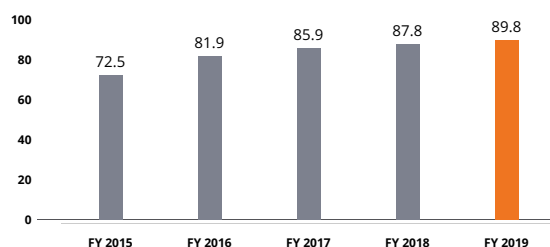
Across Greif, we view feedback collected from our NPS survey as an opportunity to address our customers' concerns and provide corrective actions when necessary. Through this approach, we work with our customers to create improvement plans addressing their concerns. As a result of these engagements, we are focusing on improving our communication with our customers, proactively engaging them so they have the time to respond to communications appropriately – one of the seven skills we are teaching our colleagues through training. We are also evaluating the quality of our sales visits through analysis and coaching sessions by sales leaders. Our sales account managers are more prepared than ever to address our customers' needs and ensure quality visits with our customers. Additionally, we directly engage customers via Product Lunch N' Learns—informal events to provide training and information about our products, as well as build relationships with our customers.

In 2019, we began rolling out facilitated CSE training for all Greif professional colleagues, including colleagues that joined us as part of the Carastar acquisition. Every six weeks, these colleagues focus on one of seven unique CSE skills, each of which is followed by an online knowledge check. As each colleague advances in the program, peers provide feedback to each other, reinforcing learning on a daily basis and helping to instill the customer service culture we are working to achieve. This training is offered in 19 languages and provides our customer service professionals with the skills and tools they need to provide the best service possible to both internal and external customers. By the end of 2020, 100 percent of our professional colleagues will have fully completed the training.

In 2020, we will continue to build Customer Service Excellence into our everyday behaviors via development programs and by using NPS and CSI results to inform how we provide service to our customers, including enhancing our understanding of the industries our customers serve. We will begin developing facilitated CSE training for our manufacturing colleagues, building on the success and learnings of the professional colleagues program.

Performance

CUSTOMER SATISFACTION INDEX

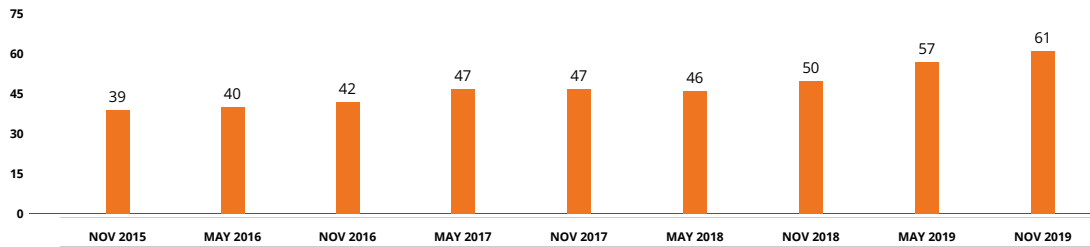


43

Customer Service Excellence Award Winners

Honoring our facilities that demonstrated best-in-class customer service performance throughout 2019.

NET PROMOTER SCORE



Highlight Stories

Dempsey Award for Customer Excellence

Each year, Greif's Dempsey Award is presented to a Greif business unit that achieves a CSI score of 95 or greater, an NPS of 55 or more and demonstrates best in class customer service performance throughout the year. The award formally honors the business, function or team within Greif that exhibits the greatest performance aligned to our values and vision.

For 2019, the FPS business in APAC received the Dempsey Award for Customer Service Excellence for achieving a CSI score of 95 and NPS score of 72 while also increasing sales volume by 13.4 percent in a very competitive market of over 500 other potential suppliers. The largest customer in the battery powder segment has named FPS APAC as the best supplier of the year four times in a row and one of the largest listed companies in Singapore awarded the team its Excellent Supplier certification in August. During the 2019 Colleague Engagement Survey, teams in China FPS were 91 percent engaged and the teams in Vietnam were 71 percent engaged.

The FPS APAC business was selected from the 43 winners of the 2019 Greif Customer Service Excellence Award. Those businesses each achieved a CSI of 95 or greater, an NPS of 55 or more and demonstrated "best in class performance." FPS APAC demonstrates there is a direct link between our customer service metrics, customer loyalty, colleague engagement and profitable growth.



Huayou Cobalt Supplier of the Year

In November 2018, Greif's Flexible Products & Services (FPS) business in China was named the "Excellent Supplier of the Year" by Huayou Cobalt for their commitment to understanding and delivering upon, the exact needs of their customer. Greif supplies three Huayou Cobalt plants with a variety of big bag products. This award is the latest achievement in a partnership that started in 2013 and we look forward to continuing in the future.



Customer Collaboration for Improved Performance

Greif partnered with one of our global key accounts to resolve ordering process challenges and operational inefficiencies. Greif's Global Supply Chain team, Warminster, Pennsylvania facility and Global Account Lead partnered with the customer's Operations Excellence and Logistics teams to design and pilot a simple-to-use Kanban process that triggers production only when product is needed. Within the first three months of implementation we achieved zero stock-outs, a seven day lead-time reduction and a 25 percent reduction in inventory. The new process has also simplified ordering, improved visibility of customer demand for more stable production runs and improved Greif's relationship with the customer.



Reducing Our Footprint

As a global manufacturer, it is our obligation to understand and work to minimize our environmental impact. Whether in our operations or along our supply chain, our sustainability agenda works to create sustainable value for our customers, the environment and Greif stakeholders.



A-

Greif's 2019 CDP Score

Demonstrating excellence in carbon management, governance, strategy and best practices, and outperforming the overall and North American average CDP score of C.

11.0%

Emissions Intensity Reduction

Against our 2014 baseline in support of our 2020 goal.

17

ISO14001 Certified Facilities

We take our responsibility towards environmental standards and regulations seriously and implement systems to manage our obligations.

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REDUCING OUR FOOTPRINT

Environmental Management Systems

Demonstrating our commitment to our regulatory obligations.



Why Environmental Management Systems Matter

GRI 307: 103-1, 103-2, 103-3

Following the various environmental laws and regulations applicable to our business is an integral part of Greif's ongoing operations. Our environmental management systems and collaborative relationships with regulators enable us to proactively and efficiently demonstrate to our stakeholders our deep understanding of the complex regulatory obligations we are subject to, while illustrating our ability to consistently meet them.

Governance

In 2011, Greif implemented our proprietary Compliance Management System (CMS) to allow us to track and monitor our compliance with certain laws and regulations, including environmental compliance related to emissions, energy, water and waste in our facilities. CMS is administered by our Environmental Health and Safety (EHS) Team, led by our Vice President of EHS and Operations for North America with support from our EHS Director and regional managers supporting each of Greif's four operating regions. Environmental compliance within our Paper Packaging and Services (PPS) operations is managed by two dedicated EHS professionals.

Greif is a diverse, complex global manufacturer subject to a wide range of EHS regulations that may impact our organization in a variety of different ways. Across our organization, we use a variety of tools and processes to appropriately manage geographic and business specific needs, however all of our global environmental management systems are administered under a consistent set of principles. All Greif facilities globally have an environmental management system that is supported by a compliance management software. All required compliance tasks are linked to an escalation process to ensure they are fully and accurately completed on time. Escalations can go as high as our CEO, if necessary. Audits are performed to confirm that work is completed and facilities remain in compliance with all required regulations.

CMS is accessible to all Greif facilities worldwide. All Rigid Industrial Products & Services (RIPS), Container Life Cycle Management and Delta facilities in the United States and Canada use CMS to manage environmental compliance tasks. Management at each of these facilities leverage CMS to track progress on upcoming regulatory tasks and deadlines. As deadlines approach, CMS sends notifications to facility managers reminding them of their obligations. If progress on a task is not made in a timely manner, notifications are escalated through Greif's EHS Team, ultimately reaching the CEO, if necessary. Each task follows a standard escalation protocol and facility management is incentivized to minimize escalations.

Legacy Carastar sites will continue to operate their own compliance systems in 2020. Carastar's legacy systems provide their facilities the same tracing, management and escalation capabilities as Greif's CMS.

Both legacy Carastar and Greif facilities in North America supplement their compliance management systems through Dakota, an advanced EHS compliance and risk management software that tracks new and upcoming regulations applicable to each facility's unique profile. Dakota improves our ability to assess our readiness to comply with upcoming regulations. Greif began using Dakota in our RIPS business unit in 2018 in conjunction with third-party audits to determine additional resources and support that is needed at each facility to better manage their unique environmental risks. Through 2019, 16 third-party audits have been conducted and 10 more are planned for 2020. Legacy Carastar facilities have been using Dakota since 2010 to support both third-party audits and manage compliance tasks. In these facilities, colleagues, that will be using Dakota to manage compliance tasks, will receive two days of training on how to use and fully complete tasks in Dakota. Since 2018, Dakota has been used to perform quarterly compliance audits to better manage environmental risks.

In 2018, we introduced a monthly task to all Greif facilities globally to report waste data in an effort to improve the efficiency, accuracy and reliability of our waste data. In 2019, we worked to further improve how we collect and report our waste data by offering as-needed training to facility teams on best practices for collecting and inputting data, sharing best practices for organizing and reviewing data and educating on identifying gaps and potential errors in data. These efforts were taken as part of a larger effort to improve the support and communication we provide to each facility to best set expectations for environmental management and reduce the risk of falling out of compliance with any of our obligations. In 2019, Greif was not subject to any fines of material significance to the organization.

We are actively taking steps to prevent any equipment or materials that may introduce compliance risks to our facilities from entering our doors. In 2019, we introduced two programs in support of this objective. The New Chemical Request form must be submitted and approved by our EHS team prior to any new chemical being approved for use in our operations. The review assesses the potential for the requested chemical to create hazardous waste, impact air emissions or otherwise jeopardize Greif's compliance with regulations. Similarly, any new piece of equipment that Greif is considering installing at any of our facilities must undergo an Equipment Pre-Acceptance Review (EPAR) to assess the overall environmental, quality, health and safety of equipment prior to being approved for purchase and installation. In 2019, 100 EPARs were completed. In RIPS North America any material or process change is subject to a Management of Change (MOC) review. The reviews assess potential commercial, EHS, plant, quality and regulatory impacts of the change prior to being implemented. In 2019, 12 MOC reviews were completed.

Our global Flexible Products & Services (FPS), PPS and RIPS production facilities manage quality, safety and environmental standards through certifications such as OHSAS, ISO, FSSC and SQF. Our PPS operations maintain ABI, FSC, OSHA, PEFC, SFI and PEFC certifications. Globally, 17 sites have achieved ISO 14001 certification.

2020 will see continued growth and sophistication of our environmental compliance practices. We will pursue ISO 14001 certification for our Naperville, Illinois facility. To support continued growth and enhancement of our compliance programs, we will add additional EHS managers with the goal of providing more facility-level support and consistency in implementation. Within our PPS operations, we will implement Dakota at our mill in Riverville, Virginia and all CorrChoice facilities and expand our use of Dakota at our Massillon, Ohio facility to include air compliance and spill prevention, control and countermeasures by the end of 2021.

17

ISO14001 Certified Facilities

We take our responsibility towards environmental standards and regulations seriously and implement systems to manage our obligations.

Climate Strategy, Energy & Emissions

Driving operational change in a changing world.



Why Climate Strategy, Energy & Emissions Matters

GRI 302: 103-1, 103-2, 103-3; 305: 103-1, 103-2, 103-3,

Greif integrates our climate strategy into every facet of our operations to ensure we are doing everything we can to reduce emissions and combat climate change. We create our products as efficiently as possible, implement energy and emissions projects throughout our operations and engage with partners across our value chain to further extend our impact beyond our walls. In addition to being part of our responsibility as a global manufacturer, our climate efforts give us a competitive advantage.

Governance

We integrate energy efficiency throughout the organization. Greif includes energy and emission reduction targets in incentive structures, ensuring emissions reduction strategies align to compensation programs. Energy efficiency is a factor in capital expenditure decisions. All Greif colleagues are eligible for awards and recognition related to energy reduction. Since 2010 Greif has maintained a Global Energy Team, currently consisting of 25 members, that is responsible for coordinating energy and emissions reduction projects throughout the company. In 2019, we restructured the team to place an increased emphasis on including regional leadership to better engage and identify energy opportunities within each business unit and include legacy Caraustar facilities. This change in structure has allowed us to streamline our energy roadmap process to focus on and invest in the business units and facilities that have the most impactful energy opportunities. Whereas previously each facility was responsible for developing their own roadmap, regional leadership is now responsible for collaborating with each business unit to identify energy reduction and efficiency opportunities. Five of our production facilities have achieved ISO 50001 certification for energy management.

In 2019 we implemented 84 energy efficiency projects, resulting in \$2,715,453 of savings across our organization. These projects commonly include replacing equipment and updating processes that reduce energy demand, such as replacing ovens, boilers and adjusting water temperatures and implementing energy efficiency practices, such as lighting and HVAC replacements and upgrades. For more information about our energy efficiency projects, please see section C4.2 and C4.3b of our CDP response.

A large focus in 2019 was fully integrating legacy Caraustar facilities into our energy and emissions reporting. Throughout the year, we met with representatives from each facility to educate them about our energy and emissions initiatives and learn more about their energy use. The ultimate goal of this engagement was establishing the right data collection processes to enable us to include these facilities in our reporting, which we are proud to say we are now able to do. This was a critically important accomplishment, as our legacy Caraustar facilities now account for 45 percent of our energy consumption and emissions impact globally, significantly changing the scale of our impact and adaptation and mitigation activities that are appropriate for our business.

We continued to implement our Energy Procurement Policy in support of procuring more renewable energy and monitored the progress of our renewable energy credit (REC) program in North America. We also continued to evaluate power purchase agreements and evaluate renewable energy programs that are available to us in North America, EMEA and Latin America.

We continue to engage our colleagues in our climate strategy. In 2019 we launched our Serious About Sustainability colleague engagement program in North America aimed at sharing more detailed energy information with our colleagues for the facilities where they work and identifying both projects and everyday opportunities to impact our energy use. Facilities that signed up to the program participated in a three-month competition to reduce energy usage. The three winning facilities received a certificate and catered lunch in recognition of their efforts. We are excited to continue offering and expanding this program in 2020.

In 2020, we will continue to complete energy efficiency projects, supported by our energy roadmaps, and report the savings resulting from those efforts. In collaboration with our colleagues in the Soterra Land Management business, we will explore additional carbon offset opportunities that may be available as a result of our land management operations. In Rigid Industrial Packaging & Services (RIPS) North America, we will evaluate new energy programs, such as energy as a service, to accelerate energy and emissions reduction activities.

Finally, 2020 is the last year of our current energy and greenhouse gas goal, but not the end of our commitment to reduce our environmental impact. In 2020, we will set and announce a new 2030 climate goal. As part of the process, we will take science-based target guidelines under consideration and evaluate our ability to commit to a goal that will be approved by the Science Based Target Initiative.

Goals & Progress

In 2016, Greif announced our current energy and emissions goal:

2020 Goal: 10 percent reduction in energy and greenhouse gas (GHG) emissions per unit of production, from a fiscal 2014 baseline.

Progress: As of the end of fiscal 2019, we achieved an eleven percent emissions reduction per unit of production decrease from a fiscal 2014 baseline and were even compared to our reduction in energy per unit of production baseline.



Performance

	FY 2014*	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Energy***						
Total Energy Consumption (MWh)	3,228,000	3,057,000	3,009,000	3,058,000	3,103,200	5,398,000
% Reduction in Energy per Unit of Production	(Baseline year)	6%	1.8%	3.1%	4.2%	0.0%
% Reduction in Emissions per Unit of Production**	(Baseline year)	N/A	2%	8.4%	10.3%	11.0%
GHG Emissions (Metric Tons)***						
Scope 1	362,300	322,500	345,700	367,700	376,700	675,900
Scope 2 (Location-based)	496,000	438,600	446,700	416,000	415,900	614,200
Scope 3	251,500	221,900	2,927,000	3,089,000	2,867,090	4,403,000
Total	1,109,800	983,000	3,719,400	3,872,700	3,659,600	5,693,100

Notes:

1. Source: [Greif 2019 CDP Climate Response](#)
2. Emissions data accounts for CO₂, CH₄ and N₂O.
3. Scope 3 emissions takes into account upstream transportation and distribution. In 2017, scope 3 was expanded to include purchased goods and services, capital goods, fuel and energy related activities not included in Scope 1 and 2, including waste generated in operations, business travel, employee commuting and end of life treatment of sold products. Data based on legacy Greif Facilities only.
4. [2019 GHG Verification Statement](#)

*To standardize emissions and inform year-over-year progress toward our 2025 goal, our 2014 emissions data has been restated to correct several facilities' eGRID regions. Total does not include 246,000 metric tons of CO₂e from biogenic sources.

**Our percent reduction in emissions per unit of production dropped from FY 2015 to FY 2016 due to increased fugitive emissions from our Riverville, Virginia, paper mill and total emissions from our Massillon, Ohio, paper mill. Updated emissions and global warming potential factors also contributed to this change. Data based on legacy Greif facilities only to maintain comparability with 2014 baseline.

***Data includes Greif legacy and Carastar legacy facilities.

Highlight Stories

Advancing Renewable Energy

Renewables, such as biomass, solar and wind energy, will play a major role in addressing the challenges of climate change over the long term. We are committed to testing and expanding the use of renewable energy technologies across our global operations when doing so is economically viable and in the best interest of our stakeholders. Across our global operations, we have installed over 6,800 solar panels capable of 1.84 million kilowatt hours of solar production and annual savings of \$120,000. Due to our continued investment, renewables now account for 12 percent of Greif's energy use.

In North America, we have installed more than 2,000 solar panels in seven facilities, delivering 640,000 kilowatt hours (kWh) of energy and saving more than \$100,000 annually.

In 2016, three of our largest Brazilian plants began sourcing their energy partly through renewable resources. In 2017, we expanded the program to three additional plants in Brazil, reducing emissions by 70 percent and saving \$1.4 million USD annually.

In April 2017, Greif's Shanghai RIPS facility completed installation of solar panels, converting 15.4 percent of the facility's electricity to a renewable source and saving over \$16,000 USD annually. Throughout our China operations, we source renewable energy through 4,800 solar panels via energy purchase contracts.

Our Turkey FPS operations produce over two million kWh of energy through wind turbines and windmills.



Energy Efficiency in Production

Greif recently made a large scale investment in a new blow molding machine used to manufacture Greif's plastic jerrycans at our Casablanca, Morocco plant. The new machine uses up to 30 percent less energy than older generation machines while also delivering significantly higher productivity levels. The new equipment increases production capacity by up to 25 percent for our one- to five-liter bottles and is designed to optimize and reduce raw material usage, extending the environmental benefit of the machine beyond energy use.

The team in Morocco also implemented other energy efficiency projects such as eliminating air leakages in our plastic and steel plants, replacing hydraulic extruders with electric ones on four machines, upgrading old equipment and replacing DC motors with AC motors on several blow molding machines that help to significantly reduce our energy consumption.



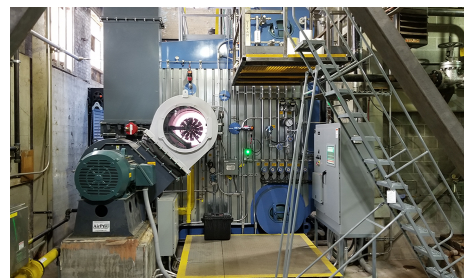
Transitioning to Electric Forklifts

As part of our overarching goal of having more efficient and sustainable equipment, in 2018 we began transitioning our fleet of forklifts from being powered by combustion gasoline to electricity, which reduces our forklift emissions approximately 50 percent. Through 2019, we replaced approximately 400 forklifts, approximately 27 percent of our fleet, resulting in a 1.1 metric ton emissions reduction. Due to the success of the program, and in support of our overall Renewable Forklift Policy, the program will continue to be rolled out globally in 2020, beginning with our North America facilities. In addition to the environmental benefits, the transition provides a safer working environment for our colleagues by reducing the need to keep containers of gasoline in our facilities.



Replacement of Boiler with 10% Energy Efficiency Improvement

Greif's paperboard mill in Fitchburg, Massachusetts was operating a boiler that was initially installed to support two paper machines. The boiler was oversized for the mills operating needs and as a result was not operating as efficiently as possible and causing reliability problems. In 2019, a new boiler was purchased to allow for improved steam efficiency and reliability. Due to these improvements, the new boiler is expected to generate 15,811,200 kWh and \$324,000 savings annually.



Emission Reduction Credits (ERCs)

In an attempt to lower Greif's emissions of air pollutants such as Nitrogen Oxides (NOx) Volatile Organic Compounds (VOCs), Greif's paperboard mills in Los Angeles, California and Fitchburg, Massachusetts replaced equipment with more energy efficient technology that reduces air pollutants. Operations in Massachusetts, alone, saved 96 tons of NOx and 27 tons of VOCs in a single year. The updates also allowed Greif to take advantage of Cap-and-Trade programs in California and Massachusetts that provide ERCs for similar activities. In 2019, Greif was awarded \$1,037,100 in ERCs through these programs.



Water

Optimizing the use and improving the quality of water in our operations.



Why Water Matters

GRI 303: 103-1, 103-2, 103-3; GRI 306: 103-1, 103-2, 103-3, 306-1

As global concerns over water scarcity rise, Greif is at risk of higher water supply costs and potential shortages in water-stressed regions. Ensuring water consumption is responsibly managed and water is properly treated and returned to its sources helps to alleviate potential water supply shortages, supports the environmental health in the communities in which we operate while also leading to operational efficiencies, lowering operating costs and minimizing regulatory risk.

Governance

Greif's Environmental Health and Safety (EHS) Policy provides global guidelines for water conservation to improve water efficiencies in existing operations and incorporate water management in planning for future projects and technology investments. Each Greif facility is expected to manage water locally in accordance with our EHS policy with supervision and support from Greif's EHS team regarding compliance obligations and best practices for water use, treatment, and recycling. Local management teams are incentivized to improve water efficiencies and quality, reduce water withdrawal to minimize impact to local sources, maintain regulatory compliance and reduce costs related to water.

Historically, 90 percent of Greif's water use and impact has been from our two Paper Packaging and Services (PPS) containerboard mills in Riverville, Virginia, and Massillon, Ohio. In February 2019, Greif completed the acquisition of Carastar Industries, adding 106 additional PPS facilities to our operations, including 12 additional paper mills. Collectively, our mills still account for at least 95 percent of the water use and impact in our organization.

Greif's Riverville, Virginia, Tama, Iowa, and Baltimore, Ohio mills are equipped with on-site water treatment facilities and return water directly to local sources. Our Massillon, Ohio mill has an on-site water facility that returns treated water to a municipal water treatment plant. Our remaining mills return water to municipal treatment facilities before it is returned to local sources. Beginning in 2020, our Baltimore, Ohio mill will be diverting direct discharge wastewater to the local municipal treatment plant. Taking this step will reduce our overall withdrawal by 400,000 gallons a day. Regardless of where water is treated, we continually look for opportunities to reuse water in our operations before it is treated and returned to sources, reducing our overall water needs.

While Greif's water impact is predominately in our PPS operations, we do take steps to curb water use across all of our operations, particularly in water-stressed regions in Latin America, Africa and the Middle East. In these facilities, and across all of our operations, we reduce water pressure where it is higher than needed, replace leaky valves, and collect and use rainwater when possible. Our Rigid Industrial Packaging & Services (RIPS) facility in Riyadh, Saudi Arabia implemented many such measures in an effort to reduce and recycle their wastewater, ultimately resulting in a 32 percent reduction in waste to landfill from their facility. Please see our [Waste](#) page for more information on their achievement.

In 2020, we will continue our efforts to recycle and reuse water throughout our PPS operations and spread best practices regarding water consumption.

Goals & Progress

In 2017, Greif announced a 2020 goal of 10 percent reduction in kilograms of biochemical oxygen demand (BOD) per metric ton of production, from a 2014 baseline of 1.47, in our PPS operations. Our 2017 materiality process led to the creation of new 2025 goals and restating our BOD goal as a 2025 goal.

In 2018, we reevaluated our historical water use and BOD data to confirm our baseline and assumptions to support continual improvement related to water. Through this process, we restated our 2014 BOD baseline to 1.40.

2025 Goal: Reduce BOD discharged in kilograms by 10 percent per metric ton of combined production from the Riverville and Massillon mills using the 2014 restated baseline by the end of fiscal year 2025.

Progress: Since 2014, we have reduced BOD per metric ton of production by 78.4 percent. Our significant progress against our BOD goal was enabled by the installation of a wastewater treatment facility at our Massillon mill. Completed in July 2017, the project led to modest improvements in 2017 and far surpassed expectations in 2018. These benefits continued to be realized in 2019.

In 2020, we will continue to track our progress in reducing BOD while controlling specific water use in our mills and reevaluate our goals to include both our legacy Greif mills and Carastar mills that are now part of our organization.



Performance Data

GRI 303-1, 306-1, 306-5

WATER*

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Water Withdrawal (Thousands of cubic meters)*	8,365.4	8,420.2	9,666.3	9,360.8	13,864.4
Surface Water	-	-	9,242.7	8,630.0	10,266.8
Ground Water	-	-	423.6	730.7	3,597.6
Rainwater	-	-	-	-	-
Wastewater	-	-	-	-	-
Municipal Water†	-	-	-	-	-
Wastewater Discharge (Thousands of cubic meters)**	8,255.1	7,961.4	8,983.2	9,316.2	11,853.5
James River**	-	-	8,788.8	8,907.1	7,949.5
City of Massillon^	-	-	191.6	407.1	424.0
Tuscarawas River^	-	-	2.8	2.0	2.5
Sweetwater Creek^					0.0
Cobb County WWTP^					844.9
Cincinnati Metropolitan Sewerage District^^					37.6
Milwaukee Metropolitan Sewerage District^^					349.0
Los Angeles County Sanitation District WWTF^^					196.8
Three Mile Creek^					0.0
Mobile Wright Smith WWTP^					337.2
Village of Baltimore WWTF**					0.0
West Branch Paw Paw Creek**					146.7
San Jose-Santa Clara Regional WWTP^^					288.1
Tacoma Central WWTP^^					6.9
City of Fitchburg WWTP^					322.6
Iowa River**					291.8
Cherry Lake**					597.8
Iowa Tributary**					58.0
Biochemical Oxygen Demand (Thousands of kg)	2,080.4	1,050.4	890.4	204.2	3508.3
Total Suspended Solids (kg)	489,334	546,857	465,098	349,003	875,790.8
Phosphorus (kg)	5,517	5,728	4,991	6,617	4,708.0
Production (MT)	637,000	665,000	690,000	713,336	1,729,062
Consumption Rate (m³/MT)	13.1	12.7	14.0	13.1	8.02

Notes:

1. 2015 to 2018 data is from Greif's two paper mills, one of which is located in Riverville, Virginia, and the other in Massillon, Ohio. Historically, these two paper mills accounted for more than 90% of Greif's global water footprint. They draw from the James River and onsite water wells, respectively. 2019 data includes 12 former Carastar mills that were acquired and integrated in 2019. All 2019 data is full year data. Quality of wastewater discharged from our mills meets permit requirements. No discharged water was used by another organization. WWPT = Wastewater Treatment Plant.

*Evaporative losses estimated

**Treated with primary clarification, secondary clarification and aeration before direct discharge

^Treated with wastewater pre-treatment including soluble BOD removal

^^Treated with wastewater pre-treatment with solids only.

† Greif does not currently track withdrawal of municipal water.

Improving Our Wastewater

In 2017, Greif's Massillon, Ohio mill completed construction of a water treatment facility to significantly reduce the biological oxygen demand (BOD) of the plant's discharge water before being returned to the municipal treatment plant. High BOD levels promote bacteria growth, release odors and must be controlled using chemicals. Since installing the treatment facility, we reduced BOD discharged to the municipal system by over 96 percent, contributing to our 2025 BOD reduction goal. This also eliminated several chemicals that were previously needed to control bacteria.



Efficiency in Water Treatment at our Los Angeles Mill

Greif's Los Angeles mill is located in a water-stressed area. Water used in the mill is drawn from a regional water aquifer that supplies both industrial and residential sources and recollects and treats water for redistribution. Because water supplied by the aquifer must serve multiple purposes, including use by community members, returning clean water back to the supplier is critically important. Wastewater generated in our Los Angeles mill is first treated through a HydroFloat to be cleansed, then is run through a tertiary treatment step to treat the water even further. As a result of our processes, wastewater generated from our mill is clean enough to reintroduce into a fresh water tank. Currently, our processes reintroduce or offset 10 percent of incoming water; it is our intention to continue to save water so that we are not a contributor – in any capacity – to water shortages in our community.



Waste

Working towards a zero waste to landfill organization.



Why Waste Matters

GRI 301: 103-1, 103-2, 103-3; GRI 306: 103-1, 103-2, 103-3

We reduce our operational waste, waste to landfill and packaging waste to efficiently drive our business. By working to reduce waste, we lower material use and transportation costs and provide the lighter weight and more cost-effective products that our customers value. Our waste reduction efforts lead to reduced emissions in our operations and throughout our supply chain and contribute to addressing global environmental waste issues. Through our waste efforts, we work to establish closed loop and zero waste processes that support a transition to a more circular economy.

Governance

The regional leaders and the global leader of our Global Waste Team, comprised of 22 representatives from each business unit, meet monthly to discuss our waste reduction strategies. The Waste Team holds facility management accountable for managing and reducing waste. Waste reduction is integrated into the annual performance reviews of select facility management. Greif implements colleague engagement strategies to encourage production colleagues to focus on waste reduction. Greif's Environmental Health & Safety (EHS) policies, procedures and training govern the labeling, handling, storage and transportation of hazardous waste.

In 2017, we established trackable waste stream data, identified most plant-level waste streams and set waste baselines for each facility globally. In 2018, we built on this critical step in managing waste by creating a task within our Compliance Management System (CMS) requiring all facilities to report waste data monthly—the first globally required sustainability task we have implemented in our CMS. In addition to improving the accuracy of our waste data, we are now able to more efficiently collect and take action on the information. In 2019 we continued to reinforce best practices for reporting waste data into CMS to improve the consistency and reliability of our data. Waste data is now subject to verification by our internal audit team, who began evaluating waste data as part of internal audits. Beginning in 2020, each facility will be required to submit documentation in support of their data when reporting into CMS and we will begin tracking and reporting waste data for the facilities that have been added to our network through the Caraustar acquisition.

In 2018, we introduced the Best Demonstrable Practice (BDP) program to expand our waste reduction efforts. Through the program we established and promoted a small number of scalable waste management activities in select facilities that could be expanded throughout Greif. These initiatives included recycling personal protective equipment, coffee grounds and single-use coffee pods and implementing absorbent laundering. Collectively, these three programs removed 47 tons of waste from landfill in 2018. In 2019, we established a detailed waste matrix to help us understand more detailed sources of waste in each of our facilities. In 2020, each of our facilities globally will complete the matrix, which will allow us to identify the actions most relevant to each facility and continue to expand the impact of the program. Our continued progress on the BDP program, and our ability to better understand our waste streams at a more detailed level, is in part a result of improved collaboration and transparency with our waste collection partners.

Each of our colleagues are integral to managing our waste. To reinforce their role and importance of managing waste, we introduced a colleague engagement program called Serious about Sustainability to educate colleagues about waste impacts in their local facilities and provide them an opportunity to share opportunities they see to help Greif reduce waste. Management at each facility is responsible for collecting and identifying the highest impact opportunities that come out of the sessions and continuing to work with their colleagues to implement them. We conducted the program in 33 facilities in North America in 2019 and will continue to introduce it to more in 2020.

In 2018, Greif entered into a partnership with Operation Clean Sweep (OCS), an organization dedicated to keeping plastics out of the environment, to expand our commitment to reducing plastic waste. Through the partnership we commit to conducting audits in our facilities to evaluate our plastic resin handling operations and implement good housekeeping and pellet, flake and powder containment practices. Through 2019, we have conducted OCS audits in our Hazleton, Pennsylvania, Houston and Mt. Sterling, Kentucky facilities. We report audit findings through our quality system to address root causes and implement corrective actions based on the results. Our partnership will continue in 2020 with an audit of our Lavonia, Georgia facility.

In 2020 we will continue to share and implement best practices across facilities. We will train our legacy Caraustar facilities on reporting waste data through CMS in order to begin tracking and reporting on their progress against our 2025 goals. We will continue to quantify the costs associated with our waste streams and identify ways to better manage them, including introducing per unit waste cost KPIs. To engage colleagues outside of our manufacturing facilities, we will pilot an office waste program at our main corporate campus, further demonstrating our commitment to reducing waste across our entire organization.

31 Facilities Achieving Zero Waste to Landfill

Our efforts to reduce waste are global, with each facility working towards our 2025 goal.

Goals & Progress

In 2018, we created a goal to divert 90 percent of waste from landfills from all Greif production facilities globally by the end of fiscal year 2025.

Progress:

FY2019*	TOTAL FACILITIES	FACILITIES WITH 90%+ DIVERSION	FACILITIES WITH 99%+ DIVERSION	FACILITIES WITH ZERO WASTE TO LANDFILL
Total	145*	82	35	31
North America	55	26	4	3
Europe	62	45	28	27
Latin America	16	4	0	0
Asia Pacific	12	7	3	1

*Data accounts for production facilities only.

Globally, we diverted 85 percent of total waste from landfills in 2019. In 2020, we will evaluate waste data for facilities obtained as part of the Caraustar acquisition, reevaluate our goals in consideration of those facilities and begin including those facilities in our waste reporting.

Performance

GRI 301-3, 306-2

WASTE STREAM

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Hazardous Waste					
Total Waste to Landfill	220	146	527	1,639	2,428
Waste to Landfill	220	146	527	1,292	1,161
Incinerated (no energy recovery)****	-	-	-	347	1,267
Total Non-Landfill*	413	411	7,109	14,105	20,725
Incinerated (with energy recovery)**	-	-	1,202	3,372	4,073
Composted***	-	-	-	0	0
Recycled†	10	39	2,011	7,604	14,084
Reused††	-	-	399	1,513	651
Reclaimed†††	25	-	194	217	366
Miscellaneous (Non Landfill) ††††	378	372	3,303	1,399	1,551
Total Hazardous Waste	633	556	7,638	15,744	23,153
Non-Hazardous Waste					
Total Waste to Landfill	41,174	45,199	57,403	54,594	33,837
Waste to Landfill	41,174	45,199	57,403	54,110	33,380
Incinerated (no energy recovery)****	-	-	-	485	457
Total Non-Landfill*	40,827	51,904	161,796	257,219	184,357
Incinerated (with energy recovery)**	-	-	945	2,054	2,950
Composted***	-	-	15,277	35	15,784
Recycled†	9,764	9,129	111,861	231,997	141,217
Reused††	33	128	17,147	11,641	12,321

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Reclaimed†††	14	5	13,187	9,439	9,847
Miscellaneous (Non Landfill)††††	31,016	42,642	3,379	2,052	2,239
Total Non-Hazardous Waste	82,001	97,103	219,199	311,813	218,194
Total Waste (Hazardous & Non-Hazardous)	82,634	97,660	226,835	327,557	241,347

Notes:

1. In our 2015 Sustainability Report, we reported our waste stream for our RIPS North America business unit only. In 2016, we expanded our data collection to all of our North American business units. In 2017, we expanded our data collection to all global operations. Data does not include facilities obtained as part of the acquisition of Carastar. Legacy Carastar facilities will be incorporated into waste reporting in 2020.

*Non-Landfill: Includes chemical-physical, incineration with energy recovery, recycled, reused, reclaimed, composted and fuels blending treatment methods

**Incinerated (with energy recovery): Treatment method involving the combustion of solid waste that results in energy capture.

***Composted: Treatment method involving the biological decomposition of solid or liquid operational waste.

**** Incinerated (no energy recovery): Treatment method involving the combustion of solid waste that does not result in energy capture.

†Recycled: Treatment method involving the separation, preparation and sale of recyclable materials to end-user manufacturers.

††Reused: Treatment method involving the use of a material for its original purpose multiple times.

†††Reclaimed: Treatment method involving the process of extracting and converting materials from recycled materials to be used again.

†††† Miscellaneous (Non Landfill): All other treatment methods not mentioned previously, including Deep Well Injection and On-Site Storage, which were reported separately in 2017.

EARTHMINDED LIFE CYCLE SERVICES - ESTIMATED DRUMS AND IBCS RECONDITIONED*

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Recycled	780,500	1,045,093	904,883	849,498	831,576
Steel Drums	553,300	689,513	534,369	571,355	509,884
Poly Drums	196,300	277,672	212,272	161,447	243,186
IBCs	30,900	77,908	158,242	116,696	78,506
Reconditioned	4,076,700	3,808,242	3,218,885	3,258,848	3,533,358
Steel Drums	3,356,200	3,072,348	2,565,052	2,713,025	2,699,393
Poly Drums	374,100	375,307	321,188	244,497	194,011
IBCs	346,400	360,587	332,645	301,326	639,954
Total Collected	4,857,200	4,853,335	4,136,828	4,105,936	4,348,706
Steel Drums	3,909,500	3,761,861	3,099,633	3,284,380	3,193,049
Poly Drums	570,400	652,979	535,460	405,944	437,197
IBCs	377,300	438,495	501,735	415,612	718,460
Virgin Materials Saved by Reconditioning and Reuse (Metric Tons)**	77,773	71,573	63,111	63,587	76,400
Steel	70,198	65,743	56,200	57,664	66,900
High-Density Polyethylene	5,742	5,830	5,150	4,243	5,900
Wood	1,833		1,761	1,680	3,600
Virgin Materials Saved by Recycling (Metric Tons)***	12,076	17,402	18,755	16,644	16,145
Steel	9,657	13,288	13,463	12,697	10,918
High-Density Polyethylene	2,297	3,817	4,580	3,385	4,888
Wood	122	297	712	562	339

Notes:

1. Virgin Materials Saved by Reconditioning and Reuse data has been restated to standardize units across regions

*Estimated Drums and Intermediate Bulk Containers (IBCs) Recycled and Reconditioned (North America and Europe, Middle East and Africa)

**Estimates based on the quantity of reconditioned packaging and average packaging specifications (North America and Europe)

***Estimates based on the quantity of recycled packaging and average packaging specifications (North America and Europe)

REBU - ESTIMATED FIBCS RECONDITIONED (EMEA)*

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Total FIBCs Collected	-	-	-	316,324	275,732
Reconditioned	-	-	-	224,418	179,912
Recycled	-	-	-	91,906	95,820
Total Virgin Polyethylene Saved (Metric Tons)**				727.6	634.2
Virgin Polyethylene Saved by Reconditioning and Reuse (Metric Tons)**	-	-	-	516.2	413.8
Virgin Polyethylene Saved by Recycling (Metric Tons)***	-	-	-	211.4	220.4

*Estimated Flexible Intermediate Bulk Containers (FIBCs) Recycled and Reconditioned (Europe, Middle East and Africa)

**Estimates based on the quantity of reconditioned packaging and average packaging specifications (Europe)

***Estimates based on the quantity of recycled packaging and average packaging specifications (Europe)

Highlight Stories

Reuse of Exterior Paint in RIPS North America

Greif's North American Rigid Industrial Packaging & Services (RIPS) operations collect excess exterior steel drum paint to reuse to paint the bottom of the drums. Termed "Greif Gray," this recollected paint reduced paint waste 22 percent in 2017.



Reducing VOC's Through Use of Water-Based Exterior Paints

Since 2009, Greif has been committed to using water-based exterior paints in our operations, rather than high volatile organic compound (VOC) exterior paints. Through transitioning to water-based paints, Greif reduced VOC-based emissions by 40 percent. Greif's Alsip, Illinois facility reduced VOC content by approximately 2 lbs./gallon. In RIPS China, five Greif facilities have successfully tested their capabilities to use water-based exterior paints and some have begun transitioning customers to the products using them. In 2020, we will begin testing the use of water-based RDL liners in our products to further reduce the VOC impact of our products.



Greif Riyadh Reduces Waste by Addressing Wastewater

In 2017 Greif's RIPS facility in Riyadh, Saudi Arabia was the largest contributor of waste to landfill in the EMEA region with 36 percent of waste going to landfill. Through analyzing their waste streams, the facility team determined that this was primarily due to wastewater that, if treated properly, could be recycled. Despite limited infrastructure support, availability of recycling partners and transportation options, the team worked to establish a process to internally separate and clean water to acceptable levels for local transporters and recyclers, and consistently return water to them. Through these measures, the team reduced the oil content of the water from 60 ppm to 1.5 ppm and decreased their waste-to-landfill to four percent by the end of 2019. Due to Saudi Arabia's own water scarcity, the impact of this initiative goes far beyond Greif's operations. Through initiatives like this Greif has the ability to set a precedent for other businesses and, ultimately, impact the local community.



Turning Waste to Fuel

In 2019, Greif collaborated with one of our waste management partners to identify materials used in our operations that could enter their engineered fuels program, which aims to identify materials that have a high heat value such as plastics, oils and absorbents, that can be used as fuel in certain applications that require significant amounts of energy, such as cement kilns. Through this collaboration, polypropylene lids used on Greif's fiber and plastic drums were identified as strong options to enter this program. Since these lids cannot be recycled, Greif's Naperville, Illinois facility collected and palletized 3.3 tons of lids to enter into this program. Without this program, the lids would have been sent to landfill. This program is available to Greif North American facilities.



Achieving Waste Reduction through Customer Service Excellence

In 2019, Greif's RIPS facility in Sweden received a customer complaint that Jerry cans were being damaged during unpacking because the plastic film used to wrap the pallets was too tight and difficult to remove. In response, the facility tested a number of film alternatives that were easier to remove and posed less risk of damaging the cans and ultimately selected an alternative that reduced the use of film by 48 percent, saving 7500 kg of materials annually. The transition also led to \$12,000 USD savings and a 22,000 kg emission reduction. In order to scale the project, the team has updated the standard operating procedure for using similar films and have worked with our procurement team to update the supplier and material for the film.



Biodiversity

Understanding and protecting the habitats where we work.



Why Biodiversity Matters

GRI 304: 103-1, 103-2, 103-3

Greif focuses on biodiversity to help preserve a healthy environment. By taking actions to understand and manage the potential impacts of our operations on ecosystem services and biodiversity, we position ourselves to preserve natural resources. Our land management operations and services are dedicated to conserving the Earth's biodiversity and ecosystem functions to promote wildlife and habitat restoration.

Governance

GRI 304-3

Since December 2008, Soterra, LLC, our subsidiary engaged in Land Management, has adhered to the principles of the Sustainable Forestry Initiative (SFI) and followed Best Management Practices defined by each state for its managed timberlands. Soterra forests provide timberland habitat for wildlife, forestry management services and serve as a space for recreational land use. Soterra operates in the Southeastern United States, managing 244,600 acres of timberland in Alabama, Louisiana and Mississippi. In 2019, Soterra forests sequestered over 1,707,000 tons of CO₂.

Soterra's harvesting, and overall forestry practices, are guided by SFI and state-specific Best Management Practices to ensure we adhere to all regulatory requirements and apply the highest standard practices throughout our operations whenever possible. We apply a sustainable harvest methodology, which is based on a 30-year rotation, to our timberlands. Prior to harvesting any site, we conduct a thorough review of the area to assess the overall biodiversity value of the site and identify any protected animal or plant species that may be impacted by the harvest. If any areas within a site are identified as having a high biodiversity value or serve as a habitat to a protected species, appropriate buffer zones are established to ensure that land or species is not impacted and, if necessary, preparation and harvesting methods will be altered accordingly. To-date, no Soterra managed lands have been identified as having high biodiversity value, however since 2008, eight species of concern have been identified within our geographic areas and protected when necessary.

Safety is among our top priorities. Our colleagues and subcontractors operate heavy machinery when harvesting and can drive 40,000-50,000 miles annually assessing and maintaining our land. We maintain a Safety Team within Soterra that is responsible for building and maintaining a strong safety culture throughout our operations. We are proud to say that we have not had a reportable incident in Soterra's operations in over eight years. All of our operational policies, including our safety policies, extend to subcontractors that perform work on our behalf. For more information about our safety practices and priorities, please visit [Health & Safety](#).

We work to improve our land management practices through technology whenever possible. In 2007 we began implementing geographic information systems to track our planting, maintenance and harvesting activities. The technology allows us to better understand the geography of our properties, age of the trees on our land, treatments that have been applied and make better harvesting and overall land management decisions. We consider ourselves a pioneer in using drone technology to evaluate the health of our forests. Drones allow us to efficiently scan our acreage and identify potential threats to the health of our forests such as pest outbreaks. We use drones to accurately estimate acres to help efficiently plan resources for chemical application and planting as well as reducing the safety risk for colleagues by eliminating the need to physically traverse difficult terrain to map acres via GPS. To date, our drone pilots have mapped over 56,000 acres of company and private land.

Historically, Soterra's revenue has primarily been from the harvest and sale of timber from our timberlands. While still a core part of our business, in recent years we have made a conscious shift to invest resources in our consulting and recreational lease services. In addition to diversifying our revenue, expanding these services ensures we will be able to continue harvesting our timber in a sustainable manner and only harvest mature timber.

The growth of our consulting services also allows us to expand our impact beyond our own land. Since 2016, we have regenerated more land and planted more trees on privately owned land than we have on our own acreage – over 18,000 total acres planted on private land. Through our consulting engagements, we work with land owners to implement the same responsible land management practices, and leverage the same technology, that we do for our own managed acreage. We partner with land owner associations, such as the Alabama Forest Owners Association, Forest/Lamar Forest Owners Association, and St. Helena Forestry Association, to host field days where land owners can learn about best practices to implement on their own land. We are also working to diversify through forest byproducts. In 2015, we began collecting and repurposing pine straw – the fallen needles from evergreen trees – as landscape cover that can be used by home gardeners.

In 2020, we will continue to diversify our services to maintain our ability to run our business with sustainable practices. We will continue to grow our consulting services and identify new byproducts that can be sold without impacting the health of the land. We will improve our land management practices by setting new standards for herbicide and fertilizer application and diversifying the type and quality of seedlings that we plant, providing many benefits to our land including healthier trees, higher harvest yields and more sustainable harvest volume, which will also provide greater carbon capture, in the future. We will place an increased focus on forest density, further ensuring that we protect that land and its biodiversity as we harvest in the future.

244,600
Acres Under Management

We practice sustainable forestry across our operations in Alabama, Louisiana and Mississippi and offer services to improve land management practices across industries.

Pollinator Habitat Improvement Study

The year 2013 marked the conclusion of a multi-year pollinator research project that occurred on Greif/Soterra LLC timberlands in south Mississippi. The study was conducted in conjunction with the [Pollinator Partnership](#) and [NAPCC](#)—the world's foremost experts on pollination issues—to learn how pollinators impact wildlife food availability on timber landscapes, the added value of hosting honey bees and beekeepers on the landscape and to discover the best management practice for ecosystem services on forest landscapes.

The study produced some interesting recommendations for sustainable timberland management practices that should benefit timberland owners, pollinator species, local wildlife and ecosystems alike. Greif is committed to its sustainable land use platform, and will help distribute any resulting publications to industry partners, regulators and members of the academic community globally to influence positive environmental management in timberland systems.

In 2013, the Sustainable Forestry Initiative (SFI) recognized Soterra LLC and the Pollinator Partnership with its coveted [Conservation Leadership Award](#) for this research. The state of Louisiana also recognized the efforts on the program by declaring a state-wide [Pollinator Week](#) in the spring of 2018. As of 2019, Soterra LLC continues its support for education, outreach, conservation and scientific research relating to the importance of pollinators in our ecosystem by maintaining its involvement in the Pollinator Partnership as an active Board of Directors member. To learn more, please see our article in [Bee Culture Magazine](#).



Rain Barrel Program Receives Stewardship Environmental Award

In 2018, Soterra established a partnership with the National Estuary Program to use donated Greif drums to collect rainwater. Through the program, each drum is outfitted with a rain barrel conversion kit to help store, capture and put rainwater to good use. The barrels are installed in impoverished areas with historically high utility costs that are also prone to flooding and water pollution associated with excessive water runoff. By the end of 2020, 200 drums capable of providing 260,000* gallons of water will be installed in the community. In 2019, we [received](#) an Environmental Stewardship award from Partners for Environmental Progress in recognition of the program.

**According to the United States Environmental Protection Agency, a rain barrel saves 1,300 gallons of water during peak summer months.*



Addressing Risk

Protecting our business, colleagues and stakeholders from risk is paramount to our sustained success. The principles that guide our business ensure we're engaging in ethical behaviors and partnering with organizations that share our values, contributing to how we mitigate risk.



290

290 sites around the world

Our global reach is near you.

17,000

Colleagues

Our people—principled, intelligent and reliable—reaffirm our reputation for integrity every day with their every action.

39

SOX Audits Completed

We work to ensure our internal policies are implemented and our operations are compliant with relevant regulations.

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Ethics & Compliance

Creating a culture *The Greif Way*.



Why Ethics & Compliance Matters

GRI 102-11; 102-16; 205: 103-1, 103-2, 103-3; 205-1; 205-2; 206: 103-1, 103-2, 103-3; 412-2

The principles set forth in *The Greif Way* establish a company culture rooted in ethics and compliance. We believe that behavior influences culture and culture determines performance, which is why establishing positive behaviors is important to our business. Every day, our colleagues implement these principles which are formalized through the policies that govern our organization.

Governance

Greif maintains a broad set of ethics- and compliance-related policies:

- [Anti-Bribery Compliance Policy](#)
- [Anti-Harassment and Anti-Discrimination Policy](#)
- [Antitrust/Competition Compliance Policy](#)
- [Child Labor Policy](#)
- [Code of Business Conduct and Ethics](#)
- [Corporate Governance Guidelines](#)
- [Data Privacy Policy](#)
- [Economic and Trade Sanctions Policy](#)
- [Fair Treatment of Others Policy](#)
- [Human Rights Policy](#)
- [Insider Trading Policy](#)
- [Records Management and Retention Policy](#)

Each policy is managed, reviewed and implemented by a diverse team comprised of representatives from human resources, finance and legal. We regularly review our policies and revise them as necessary to strengthen language, address emerging risks and communicate best practices. Greif leverages training and audits to actively implement our policies. We require each of Greif's over 2,300 manager-level and above colleagues to complete policy training. We actively encourage our colleagues to anonymously report ethics and compliance violations through our Ethics Hotline. The Hotline is administered by a third-party provider to protect the anonymity of our colleagues and is available 24 hours a day, seven days a week. In 2019, we took steps to make the Hotline more accessible to our colleagues and improve our governance and oversight of potential ethical violations. Information on the Hotline, and related policies, is included in the Code of Conduct – which all colleagues receive training on – through our internal colleague portal and via posters at each facility. Complaints can also now be reported via an online portal or e-mail as well as by phone globally. All reported incidents are sent to our newly formed Ethics Committee, chaired by Greif's General Counsel, for review. Incidents are reported to the Audit Committee of Greif's Board of Directors quarterly. In 2019, we investigated and resolved 90 percent of the complaints from our Ethics Hotline.

To validate our compliance to our established policies, we conduct annual Sarbanes Oxley Act (SOX) audits for all of our facilities that are material to our financial statements. Prior to the Caraustar acquisition in 2019, Greif had 175 auditable entities. With Caraustar now integrated into Greif, we now have 265. In 2019, 39 of these entities were in-scope for SOX testing. In addition to required SOX audits, Greif conducts risk-based audits at each of our facilities at least once every five years. Each year we ensure that facilities accounting for at least 75 percent of our revenue receive risk-based audits. Facilities that are audited are identified through a multi-layered process that includes management surveys, in-person discussions, approval by executive leadership and reports to Ethics Hotline. Following this process, in 2019 we completed 24 risk-based audits. We continue to strengthen our internal control environment as we leverage shared processes across locations.

As part of the Caraustar integration, we performed a full review of their ethics and compliance policies and training to confirm their practices were well-aligned to Greif's expectations. Based on this review, we provided Insider Trading Training to key Caraustar colleagues, but found no other significant gaps in their legacy ethics and compliance practices. As Caraustar fully integrates into Greif's training and business systems, legacy Caraustar colleagues will be expected to complete ethics and compliance training in accordance with Greif's policies. In 2019, we implemented a clawback policy, which allows for the possibility to recover colleague incentives in the case of a breach in compliance, to better protect our financial interests and further promote ethical behaviors.

In addition to continuing to work towards our 2025 goals, in 2020 we will continue to promote ethical behavior internally and throughout the supply chain. We will publish an updated Code of Conduct that more clearly reinforces the key behaviors we desire our colleagues to demonstrate and launch updated Code of Conduct training in support of our 2025 goal. We will release an updated Supplier Code of Conduct that better outlines our business ethics expectations.

Goals & Progress

In 2017, we established our first ethics and compliance goals. By the end of fiscal year 2025 we will:

- Provide online training of the Greif Code of Business Conduct and Ethics to 100 percent of colleagues with access to computers
- Provide training and information on the Greif Anti-bribery Policy to 100 percent of colleagues for whom training is relevant
- Provide online training of the Fair Treatment of Others Policy to 100 percent of colleagues with access to computers, and provide accessible and traceable information to all colleagues

In 2019, 78 percent of colleagues* with access to computers completed training on Greif's Code of Business Conduct and Ethics. The training was fully transitioned to Greif's learning management system, SkillPort, which allows for training to be more easily accessible and trackable. We developed and launched new Anti-bribery Training and began rolling it out to the organization. In 2019, 82 percent of eligible colleagues completed the training. In 2020, we will translate the training to four additional languages and transition the training to SkillPort. Together, these steps will allow us to provide the training in the primary language for more of our colleagues and improve the trackability of the training in support of our 2025 goal. In addition, 69 percent of colleagues for whom training is relevant received training on our Insider Trading Policy.

*Excludes legacy Caraustar colleagues

39
SOX Audits Completed

We work to ensure our internal policies are implemented and our operations are compliant with relevant regulations.

Risk Management & Business Continuity

Maintaining our commitments through difficult situations.



Why Risk Management & Business Continuity Matters

102-11; Risk Management & Business Continuity: 103-1, 103-2, 103-3

Greif mitigates risks that may negatively impact our customers through risk management and our business continuity efforts. By focusing on effectively managing our risks, we ensure quality in our products, safety of our colleagues and are able to maintain commitments to our customers.

Governance

Greif assesses organization-wide risk through our formal Enterprise Risk Management (ERM) process, which considers all Greif business units and geographies. Risk information is identified and analyzed through Greif's Risk and Content Monitoring processes by assurance providers across the organization, including Executive Leadership, Internal Audit, Legal/Compliance, feedback from customers and investor engagement and Greif's Sustainability Steering Committee (SSC). The SSC monitors industry reports (i.e. World Business Council for Sustainable Development (WBCSD) ESG Enterprise Risk Management Framework, WRI's Assessing the Post-2020 Clean Energy Landscape, and CSSR's Fourth National Climate Assessment), ESG ratings and rankings, energy pricing, evolving government regulations and programs, and holds formal relationships with ESG-specific associations and NGOs, including WBCSD and the United Nations Global Compact, to identify emerging risks that may impact our business. Information from these groups, including long-term emerging risks, is provided to Greif's Risk Leader Committee (RLC), led by Greif's chief audit executive, and is comprised of members of Greif's Executive, Business Unit and Strategic Business Unit Leadership teams and Greif's director of sustainability. The RLC identifies, ranks, reviews and prioritizes risks in conjunction with Greif's Audit Committee to determine the most critical risks based on potential impact and likelihood to occur. Each risk is evaluated for potential opportunities and reported to the Board quarterly for approval. Risks are evaluated by the RLC to develop plans for risk mitigation and opportunity capture. This committee meets quarterly.

290
290 sites around the world

Our global reach is near you.

Climate-related risks and opportunities are integrated directly into our overall ERM process and considered alongside all information provided by assurance providers across the organization. Through this process, Greif has identified extreme weather events, raw material price and supply volatility and rising sea levels as our most significant climate risks. For more information regarding our climate-related risk governance, risks and opportunities, please see section C2 of our [CDP response](#).

Beginning in 2019, Greif began incorporating results from our internal Global Trends Report into our ERM process. Based on interviews with internal leaders and secondary research, the report identifies six global trends with particular relevance to our business:

- Companies are Becoming More Environmentally Friendly
- Digitization & Automation of Manufacturing
- Digitization of Supply Chain & Logistics
- Digitization of Enterprise Purchasing & B2B Selling
- Workforce Shortages, Surpluses & Skill Gaps
- Growth Opportunities Increasing in Emerging Markets

In conjunction with other internal and external sources that are considered in our ERM process, the trend report improves our ability to forecast and plan for long-term trends that may impact our business in the future. For more information regarding our trends report, please see the [Innovation](#) section of our Sustainability Report.

In 2019, Greif participated in a working session led by WBCSD to better understand how to consider and incorporate environmental, social and governance risks into our ERM process. Through the workshop, we discussed opportunities to better align risks that are communicated in our financial reporting with our sustainability risks, improve the line of communication regarding enterprise risks between our RLC, Operations, Executive Leadership Team and Board and better incorporate our preparedness to respond to enterprise risks into our assessments.

In 2020, we will be reviewing the recommendations that we developed from the workshop and the impact they may have to our ERM process. We will continue collaborating with WBCSD to evaluate our climate risks specifically and have begun conducting a scenario analysis in support of that work. The ERM program is being updated to expand the risk identification process, enhance the risk assessment process, engage with other companies on ERM best practices and improve engagement and awareness.

To improve our ability to respond to potential crises, we launched a Crisis Management Program in 2019. Greif partnered with a third-party mass notification system to launch an alert system capable of notifying and updating our colleagues via text message, phone call, email and smartphone app during emergencies and significant situations that pose danger or disrupt work operations. The system is also used to convene Greif's Crisis Response Team, a team of executive leaders responsible for coordinating communications and response to crises and executing Greif's Crisis Communications Playbook. The system is currently active for all legacy Greif facilities and colleagues in the United States and will be introduced to all global and legacy Caraustar facilities in 2020.

Business Continuity

Our We Got Chu program, established in 2017 in our Rigid Industrial Packaging & Services (RIPS) business, manages risk and business continuity through inventory and production redundancy capabilities, facility risk assessments and proactive labor relations. The program outlines a 25 step process to identify customer orders that may be impacted if a disaster impacts one of our facilities, identify alternative products that meet customer specifications and facilities that are able to produce the products our customers have ordered. We conduct random mock disasters monthly to ensure the process is understood in the organization and can be implemented should a disaster occur. We have conducted 24 mock disasters since introducing the program. The program, and our associated Disaster Recovery Business Continuity policy, are reviewed annually. Colleagues from sales, customer service, operations, marketing and logistics administer the program in tandem with business unit leadership.

Greif's global network of 290 locations allows us to manufacture identical products at multiple sites, giving us the flexibility to shift production based on inventory, customer needs or in the unlikely event a shutdown would occur. This capability is enabled by centralized inventory management and our robust Sales and Operations Planning process (S&OP), which allows for visibility into raw and finished good materials across our facilities. Each facility multi-sources raw materials, ensuring production will not be interrupted due to delays or shortages from a supplier.

Greif's facilities undergo loss control engineering inspections by our property insurance company periodically. These inspections are conducted by engineers and focus on identifying risks to the facility, including those that may be caused by natural disasters, and ways to reduce and control those risks. We make capital investments in our facilities to mitigate the risks identified in these inspections. For example, Greif recently opened a new facility in Pennsylvania. During the site selection process, we evaluated the risk of flooding to ensure the new facility was not located in a flood zone. We also installed a custom designed sprinkler system to best protect the facility in the unfortunate event of a fire.

We also consider the risk of labor disputes to business continuity. We manage collective bargaining agreements on a two-to-three-year timeline, not simply when a negotiation must occur. Our senior leadership actively builds relationships with union leadership and members in each plant. This proactive approach ensures positive labor relations and business continuity.

Greif has not experienced a work stoppage since 2014, when we experienced a labor strike and illegal occupation at a facility in Turkey. In response to the stoppage, Greif conducted in-depth focus groups with management and line colleagues to gain a deeper understanding of the issues that led to the strike and occupation. We implemented new compensation and benefit plans, safety processes, hiring practices and training to address the concerns raised by our colleagues and created a compliance manager position at the facility to help build and strengthen local relationships. From May 2014 to June 2015, Greif directly hired and unionized 1,300 workers. The workforce became the largest non-government direct hiring in our industry in Turkey—where most workers are hired as sub-contractors—and signaled a new approach to hiring in the country. During this period, we shifted production to other sites, ensuring we kept our customer commitments.

We continue to build on our reputation as a model employer in Turkey. Turnover in the facility has reduced from 36 percent in 2014 to 10.3 percent in 2019. We recently implemented our Gallup Q12 Colleague Engagement Survey to create a formal forum for colleague feedback, including those in Turkey. To learn more, please visit [Talent Attraction, Development & Retention](#).

Highlight Stories

Maintaining Our Commitments Through Natural Disasters

In 2017, Greif's North American operations were hit by hurricanes Harvey and Irma, resulting in \$5.3 million of impact to our business. Despite the impact, our risk management and business continuity practices allowed us to meet our customer commitments during recovery without declaring force majeure. Greif supported our colleagues directly impacted by the hurricanes by continuing to pay wages during the week production was down, paying for hotels and rental cars and setting up a Wish List for colleagues in North America to purchase items for their peers. Greif also matched colleague cash donations to the Red Cross to support relief efforts, donating a match of \$11,745.

In 2019, a Greif facility that was previously part of Caraustar was forced to evacuate in advance of a hurricane. The facility ultimately was shut down for a week, however customer demand was able to be fulfilled at other Greif facilities.



Security

Protecting our people and products, and the data we are trusted with.

Why Security Matters

GRI 102-11; 418: 103-1, 103-2, 103-3; 418-1

Greif prioritizes the security of our assets—people, product and data. This includes the physical security of our facilities, ensuring the safety of our colleagues and maintaining a safe environment for our manufacturing assets. Data security protects our internal and customer data from cyber-attacks. Product security safeguards our customers' products throughout the supply chain, including shipping and transport.

Governance

Our data security practices comply with Sarbanes-Oxley, EU General Data Protection Regulation (GDPR) and Greif's Records Management and Retention Policy. Greif's Information Technology Team, led by our manager of Global IT Security, manages data security, which includes annual audits for IT control processes, quarterly reviews of data permissions and quarterly phishing simulations. At the center of our security operations is training. All colleagues with access to computers are required to complete quarterly cybersecurity training, receive quarterly newsletters promoting cybersecurity awareness and weekly security tips on topics ranging from password security to avoiding phishing scams, and participate in our annual Cybersecurity Month each October. Greif Executives receive updates through a cybersecurity dashboard that is shared with Greif's Enterprise Risk Management Team and Board quarterly. The dashboard currently tracks our performance using the [National Institute of Standards and Technology NSF maturity index score](#). Should Greif fall victim to a cybersecurity breach, we maintain an IT Services Cyber Incident and Response Plan and an IT Services Global Business Continuity Plan, which outlines our steps to quickly respond to and mitigate the impact of an incident. Greif received zero substantiated complaints concerning breaches of customer privacy and identified zero leaks, thefts or losses of customer data in 2019.

To manage the physical security of our buildings, Greif installs tag readers and PIN codes locks at our facilities. We require a bill of lading for each shipment picked up from our facilities. Greif supports product security throughout our supply chain by offering tamper-resistant closures.

Since 2018 we have been working to implement findings from a cybersecurity maturity assessment we conducted in collaboration with a third-party partner. In 2019 we continued to implement programs based on findings from the assessment. We introduced annual online Cybersecurity and Awareness training to help improve our colleagues' ability to identify and respond to potential threats and minimize risk in both digital and physical spaces. After completing the training, each of our colleagues must complete a quarterly checkup, ensuring knowledge is retained and put into practice. The training is mandatory for all colleagues with access to computers, including our Executive Leadership Team. To further comply with GDPR, we have conducted GDPR training for our colleagues in EMEA and began establishing a formal data classification framework. The framework will help us better understand, and ultimately manage, the personal information we store.

In 2019 we established a three year cybersecurity strategy that we will begin implementing in 2020. The strategy will focus on implementation of multi-factor authentication, privilege access management, NxGenAV with EDR, and data classification framework, positioning ourselves to implement internet of things technology and continuing to train and educate our colleagues on current cybersecurity best practices.

Highlight Stories

FPS In Turkey Receives ISO 27001 Certification

Since 2018, Greif's Flexibles Products and Services (FPS) Turkey operations have been ISO 27001 certified, reflecting of our commitment to keeping Greif's, and Greif's customers, information assets secure. The certification demonstrates that the information security management system (ISMS) meets international best practices and shows the significant efforts made by FPS Turkey towards compliance with the General Data Protection Regulation (GDPR) in Europe. The certification builds on FPS Turkey's impressive quality credentials, which include ISO 9001 certified Quality Management Systems, Grade AA BRC IoP Global Standard for Packaging and Packaging Materials Issues compliant Product Safety Management Systems and ISO 14001 compliant Environmental Management Systems.



Valuing Our People

With more than 17,000 colleagues and operations around the globe, our success is dependent on our ability to protect, engage and develop talent in our organization and uphold human rights along our supply chain.



0.69

Lost Workday Case Rate

Down 47 percent since 2011.

1.49

Medical Case Rate

Down 57 percent since 2007.

92%

**Performance
Development Review
Completion**

Eligible colleagues completed their annual Performance Development review, reviewing their competencies and planning against their competency frameworks.

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VALUING OUR PEOPLE

Talent Attraction, Development & Retention

Discovering and growing the workforce that will carry Greif into the future.

GREIF



Why Talent Attraction, Development, & Retention Matters

GRI 401: 103-1, 103-2, 103-3; 404: 103-1, 103-2, 103-3; 404-2

Greif's success hinges on our capacity to attract, develop and retain the greatest talent from around the world. Our talent management programs span the globe and ranges from recruitment to succession planning.

Governance

Greif's talent attraction, development and retention programs are administered by our Global Talent & Learning team in line with our Global Talent Management Strategy and philosophy. The strategy and philosophy set our global standards for performance management, training and development activities, recruitment and career planning. The Global Talent & Learning team executes programs in collaboration with regional representatives who are responsible for implementing programs in accordance with country-specific laws and regulations and serve as an extension of the talent management team. We have a dedicated team of 55 engagement champions who each completed a two-day training program to better equip them to drive engagement globally. Learnings from this training are reinforced through monthly champions meetings. Our talent efforts are ultimately overseen by our chief human resources officer. In 2019, we created a Global Talent Center, to further improve our governance of talent management, acquisition, global learning, and diversity and inclusion and provide a more consistent, centralized approach to talent management for each region to apply to their local needs.

294
LEAP Participants

Since 2014, 294 colleagues have participated in LEAP, our three-week leadership development program.

Greif uses performance management as a platform to communicate colleague performance expectations, maintain ongoing performance dialogue and conduct annual performance appraisals. We enable the assessment and development of our colleague's knowledge, attitudes, skills and behaviors through competency frameworks. All professional, clerical and administrative colleagues — approximately 21 percent of Greif's workforce — participate in an annual Performance Development Review. The process consists of a self- and manager-evaluation of their performance against job-specific competencies. In 2019, 92 percent of eligible colleagues completed Performance Development Reviews. Throughout 2019, we continued our pilot of a quarterly review process in Rigid Industrial Packaging & Services (RIPS) North America — an initiative that began in 2018 to promote more consistent performance feedback throughout the year — and added additional features to our technology platforms that support our processes. Colleagues are now able to track development progress via online tools as often as monthly, which provides greater visibility to reviews, promotes better on-going development conversations and provides flexibility to capture development conversations.

Our Performance Development Review process informs our succession planning, which is on a standard global cadence for director-level and above roles, ensuring we have an appropriate talent pipeline to enable our success in the future. In 2019, we enhanced our succession planning process with the goal of incorporating more touch points with our colleagues, improving the diversity of our talent pipeline and identifying development needs for high potential colleagues. The process is now supported by an annual talent calibration session with our Executive Leadership Team and Board review of our succession plan.

Training and development are integral aspects of our development strategies. Our global Leadership Development and Training archive contains over 300 courses dedicated to educating our colleagues on topics ranging from computer literacy to job-specific technical training. Any Greif colleague with access to a computer can access the courses through the Greif Learning Network, Skillport. Our network tracks required training to ensure compliance with internal policies and relevant regulatory requirements. We supplement our global training with regional programs that address relevant needs and are actively improving our practices to integrate compliance and code of conduct training into the system and making it easier for our colleagues to navigate. In 2019, Greif experienced a 60 percent increase in the number of unique users leveraging our learning management system. In 2020 we will continue to streamline and centralize our learning and development efforts by launching Greif University. Greif University will serve as a centralized hub for all across legacy Greif and Carastar training programs. The launch will be supported by transitioning from Skillport to Workday Learning, which also allows for better integration with our performance development process.

All new Greif colleagues hired in North America participate in an onboarding program that features 30- 60- and 90-day touchpoints, Champions and Customer Service Excellence training, onboarding modules, job-specific training (including manager training, when appropriate) and new hire focus groups. To strengthen the overall program, we created a manager onboarding guide, new hire onboarding guide and Workday hiring guide. In 2019, we launched the program in our Budapest office in support of our ambition to roll out the program globally by the end of 2020.

We continue to be proud of the success and growth of our internship program. Since being launched in 2018, we have hired over 45 interns and anticipate hiring 50 more in 2020. Internship opportunities are available in both our corporate and manufacturing facilities and focus on providing opportunities to participate in cross-functional projects and observe how we operate and make decisions in our business. As part of our ambition to expand the program globally, in 2019, we expanded the program to EMEA and established partnerships with local universities to help identify candidates. Please see our [Careers](#) page for current internship opportunities.

In 2019 we continued our company-wide internal colleague engagement survey using the Gallup Q12 survey. We conducted the survey in 16 languages and achieved a 94 percent response rate across all of our colleagues. In 2019, we linked improvements in colleague engagement to our key safety, customer service, financial and human capital metrics to better understand the impact of colleague engagement on our business and drive continuous improvement. The results demonstrated that engaged colleagues drive greater profitability and customer service index performance as well as reduced medical case rate and labor costs. We administered the new survey to our new colleagues that were previously part of Caraustar. In 2019, they participated in a separate wave of the survey to set a baseline and identify specific areas of opportunity. Beginning in 2020 and going forward, legacy Caraustar colleagues will be integrated into the global process.

In order to stay competitive and to show our commitment to our colleagues, we have expanded our colleague benefit programs. We are happy to now offer diabetes support, commuter & transit benefits and affordable legal care services to our United States based colleagues. As we look to the future, we hope to expand these benefits globally.

Goals & Progress

In 2017, Greif established three Talent Attraction, Development, and Retention Goals:

- 100 percent of permanent colleagues will participate in regular performance development discussions by the end of fiscal year 2025.
- Using fiscal year 2017 baseline, increase average hours of annual training per colleague by 50 percent by the end of fiscal year 2025.
- 100 percent of colleagues will be covered by parental leave by the end of fiscal year 2025.

Greif's continuous improvement in talent attraction, development and retention enabled us to make great progress on our 2025 goals this past year. Almost all eligible colleagues receive some form of performance review, but in an effort to continue to increase colleague participation in a performance review process, Greif will be aligned on one global performance management process beginning in 2020. We will continue to formalize our measurements and communicate progress annually.

Thanks to the continued growth and accessibility of the Greif Learning Network, we are proud to announce we have surpassed our training goal by having increased average hours of annual training per colleague 175 percent from our 2017 baseline. We are looking forward to continuing to increase this number as we launch Greif University.

Overall 56 percent of Greif colleagues globally are covered by a parental leave policy. In 2018, we implemented a Parental Leave policy in the United States which provides four weeks of paid parental leave for professional colleagues, including parents who adopt a child. Thanks in part to this, 100 percent of our professional colleagues in North America are covered by a parental leave policy.

COLLEAGUES COVERED BY PARENTAL LEAVE	
Total	56%
Asia Pacific	28%
Europe	99%
Latin America	100%
North America	18%

Performance

GRI 401-1, 404-1, 404-3

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
New Colleague Hires	3,917	2,467	2,925	2,941	3,626
Colleague Attrition*	27.9%	21.8%	21.3%	24.3%	24.0%
Training Hours per Colleague**					
Skillport (Greif Learning Network)	-	-	2	2.6	5.5
Leadership, Professional, Production	-	-	9.6	6	3.2
Colleagues Completing Regular Performance Reviews^	-	90%^	92 %	85%	92%

*Attrition by region and length of service given as percent of attrition for fiscal year.

**Average hours of training per unique participant. Data excludes safety training and local functional training. For more information on safety training, please see Health & Safety.

^Includes eligible professional, clerical and administrative colleagues.

Developing Leaders

In 2014, Greif established a three-week leadership development program designed to support high-potential colleagues develop leadership skills and career-advancement opportunities. In 2019, we continued to grow the program globally. Since inception, 294 colleagues have participated in our three-week course, including 28 in 2019.



Greif Scholarship Program

In 2007, Greif established a scholarship program to assist our colleagues' children who plan to continue education in college or vocational school programs. Scholarship recipients are selected on the basis of financial need, academic record, demonstrated leadership, participation in school and community activities, honors, statement of educational aspirations and goals, unusual personal and family circumstances and an outside appraisal.

The program is administered by Scholarship Management Services, a division of Scholarship America. Scholarship Management Services is the nation's largest designer and manager of scholarship and tuition reimbursement programs for corporations, foundations, associations and individuals. Awards are granted without regard to race, color, creed, religion, sexual orientation, gender, disability or national origin. Selection of recipients is made by Scholarship Management Services. In no circumstance does any officer or colleague of Greif play a part in the selection. Since 2007, 137 students from around the world have received scholarships.



Greif Champions Coin

As part of our continuous efforts to develop and engage our colleagues, in July 2019, Greif introduced Greif Champion Challenge Coins. Greif created coins for the top executives comprising our Leadership Council, including our CEO and executive leadership team. The program began by each of our leaders passing the coin to one of our colleagues and expressing recognition for a job well done using a specific feedback model. Within one week, the recipient is expected to pass the coin to another colleague in recognition of a job well done and using the same feedback model. Overall, the coins changed hands more than 600 times in the first six months of the program. Each time a coin changes hands, our colleague that passes the coin along describes the specific situation and impact the recipient created through their behavior, allowing for further recognition from leadership.



VALUING OUR PEOPLE

Health & Safety

Protecting our colleagues' right to work in a safe and accident-free environment.



Why Health & Safety Matters

GRI 403: 103-1, 103-2, 403-4

Colleague safety lies at the heart of our business and is our first and foremost priority. Our colleagues deserve a workspace that supports their health and safety. Our efforts work to avoid close calls and prevent injury, particularly potentially serious and life changing safety events.

Governance

Our global **Environmental Health and Safety (EHS) Policy** provides the structure and standards that enable our safety culture. The policy is supplemented by business unit specific EHS policies for all facilities, further strengthening our commitment to safety. Our Safety Leadership Team, led by our chief administrative officer and comprised of representatives from each region and strategic business unit, manages our global EHS policy and is responsible for driving progress on policies, programs and initiatives to support a culture of safety at Greif. To ensure our policies fairly represent the entirety of our workforce, we maintain safety committees comprised of colleagues and management at all of our locations. Every two years, we conduct third-party audits at each facility to ensure compliance with all laws, regulations and policies. We use our **Compliance Management System (CMS)** to track health and safety tasks, including safety observations, incidents and close calls at the facility level. Our 20 global policies apply to all union and non-union colleagues in our workforce. Our **Contractor Safety Policy** makes provisions for the safety of our contractors.

Our Serious Injury and Fatality (SIF) global workgroup was formed in 2016 to analyze industry research regarding SIF events and methods of advancing our program. Based on their work, we introduced the Life Changing Injury and Fatality Elimination (LIFE) program in 2017 to better understand and track close call and potentially life-altering, life-threatening and life-ending safety events. Through LIFE, we introduced our **PIT-Pedestrian Policy** to safeguard our colleagues against the dangers of lift truck operations, the event with the highest risk of a LIFE injury in Greif's facilities. In 2018, we continued to focus on reducing potential LIFE events in our facilities by addressing suspended load-related safety, lockout-tagout procedures and enhanced machine guarding and focusing on safety behaviors that are most important in each of our facilities. To improve LIFE incident tracking, we incorporated reporting LIFE program incidents and close calls into our CMS. We use this data to increase our knowledge and awareness of the conditions and behaviors that lead to at-risk situations, including developing a risk index to focus future decision making. In 2019, we used our LIFE data to identify global and regional leading indicators and develop safety action plans to address the highest risk injury events. In 2020, we will refine LIFE into a holistic LIFE Fatalities program. Through the program, we will replace the risk index with an improved LIFE metric and implement corrective actions tracking for LIFE events.

Our colleagues in Rigid Industrial Packaging & Services (RIPS) North America use our Commitment-Based safety program to highlight the value of daily safety. They identify potential safety hazards within their job function, articulate and rank their safety performance and make pledges to take responsibility for their actions. In 2020 we will launch a program to help our colleagues apply a similar thought process to non-routine tasks. The program, called Take Two, will encourage our colleagues to "take two minutes" to think about the process, personal actions, equipment and potential hazards involved when they are performing a task that is not part of their normal work day. We will also place an increased focus on safety risks our colleagues may face at home that are relevant to the workplace, and vice versa.

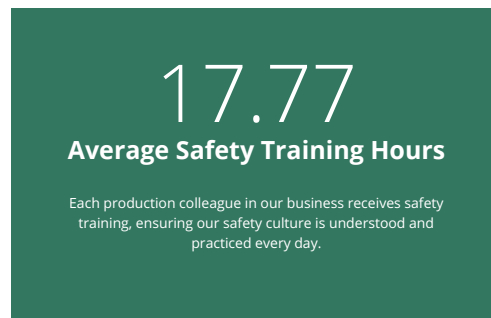
Formal training continues to be critical to our safety initiatives. In 2019, we delivered 17.77 hours of safety training per production colleague, an increase from 16.28 in 2018.

In 2019 we introduced a Global Safety Scorecard and visual standards to help promote consistent safety metrics globally. The Scorecard standardizes metrics within each business unit to ensure we are evaluating safety similarly across all of our operations, but considers business- and facility-specific safety risks that drive global metrics.

Our CorrChoice facilities continued their tradition of convening safety leaders from their operations at their Annual Safety Summit in 2019. Historically, the Summit has been used to refine the safety charter, establish safety priorities and share best practices. The 2019 summit was used to reinforce the fundamentals of safety within CorrChoice, including load securement, hand safety and identifying and reducing LIFE events.

To promote a continuous focus on safety, Paper Packaging & Services (PPS) facilities, apart from our CorrChoice facilities, hold weekly safety calls attended by all General Managers, senior leadership and other select colleagues from each facility. During the call, each facility is responsible for reviewing any incidents that have occurred over the past week and there is rotating responsibility to share at least one best practice for promoting safety with the group. These calls have led to the adoption of innovative safety risk reduction and elimination solutions in every operation.

Historically, Caraustar has shared Greif's commitment to safety among their facilities. As part of their integration into Greif, Caraustar's legacy safety policies and procedures were evaluated in comparison to Greif's to identify similarities and differences in support of aligning all PPS facilities to a single set of health and safety policies. In 2020, this review will be completed, and all PPS facilities will follow a single program that incorporates best practices from both programs while still accounting for facility specific risks that must be addressed to protect the safety of our colleagues. For example, Caraustar had established a program that provides our colleagues with access to an athletic trainer to help them prevent and recover from both non-work-related and work-related injuries that may result from the physical demands of the job and at home. This program is currently in use at nearly half our mills and several select PPS facilities. Additional sites are under consideration for 2020, as is a virtual athletic trainer program, which is currently being piloted in some facilities. The Industrial Products Group adopted an innovative solution that utilizes technology to analyze standard activities to identify ergonomic risks and modify workstation configurations and practices to eliminate conditions that can contribute to injury.



Goals & Progress

Greif has two Health & Safety goals:

- Reduce Medical Case Rate (MCR) by 10 percent annually to achieve a MCR Zero in the long term.
- Every plant will have a collaborative environmental health and safety committee consisting of both management and workers by the end of fiscal year 2025.

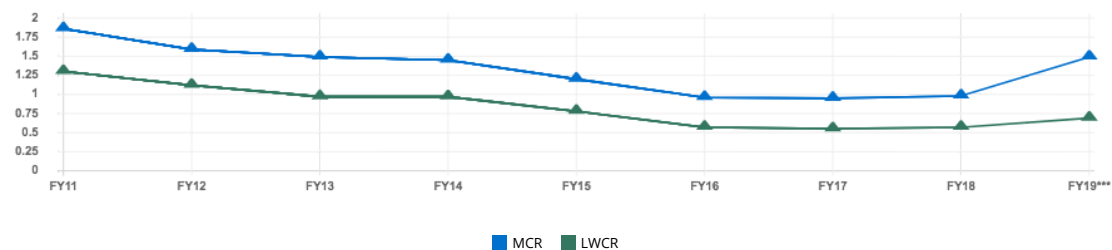
Performance

As of 2018, each Greif plant had a safety committee comprised of managers and colleagues. We are proud of the results that have come from our vigilance in health and safety.

We experienced an increase in MCR in 2019, which has prompted a renewed focus on safety across our organizations, specifically at facilities where we are seeing increased safety incidents. Within these facilities we have implemented focused safety facility plans and reinforced goals and actions on the largest safety risks, and the risks that have led to incidents at each facility. Within our PPS operations, our two-day 8 Fundamentals of Safety Leadership training was delivered to over 250 leaders. All PPS facilities have shared our focus on separating mobile equipment and people, a continual focus from our pedestrian safety priority. Our Mill Group partnered with a third-party to document and deliver training on all major lockout procedures at each of the facilities. While we have experienced an increase in MCR in 2019, we have experienced a 57 percent reduction in MCR since 2007, improving from 3.51 to 1.49. Since 2011, LWCR has improved from 1.3 to 0.69, a 47 percent reduction.

We remain steadfast in our commitment to safety and reaching the goals we have set for ourselves. We believe our overall safety strategy and culture of safety that we have created in our organization is effective and provides the foundation we need to continue reducing MCR and LWCR in the coming years. We believe our Commitment Based Safety, Behavior Based Safety Observation and Take Two programs are critical in strengthening our commitment to our safety culture.

EMPLOYEE HEALTH & SAFETY



*MCR, or Medical Case Rate, measures the number of recordable injuries per 100 full-time colleagues in a 12-month period.

**LWCR, or Lost Workday Case Rate, measures the number of recordable injuries resulting in lost workdays per 100 full-time colleagues in a 12-month period.

*** 2019 data includes Carastar for only March forward – no data included for first 4 months of fiscal year.

Highlight Stories

Chairman's Safety Excellence Award

Each facility that achieves an MCR of less than one and third-party EHS audit score of 90 percent* or greater wins the Chairman's Safety Excellence Award. Globally, 101 of our approximately 250 production facilities received the award in 2019.

*Sites receiving first time audits are only required to achieve a score of 80 percent to qualify



Employee Assistance Program (EAP)

All Greif colleagues in Canada and the United States have access to an employee assistance program (EAP). Greif's EAP is a confidential work-based intervention program offering colleagues and their families informational services designed to enhance emotional, mental and general psychological well-being. The program provides preventive and proactive interventions for the early detection, identification and/or resolution of both work and personal problems that may adversely affect performance and well-being. These problems and issues may include but are not limited to, relationships, health, trauma, substance abuse, gambling and other addictions, financial problems, depression, anxiety disorders, psychiatric disorders, communication problems and coping with change.



Celebrating Long-Term Accident Free Operations

Greif's long-term health and safety aspiration is to achieve zero accidents at all of our facilities worldwide. While we recognize the challenge of this aspiration, many of our facilities have achieved multiple years of accident free operation, including:

- RIPS Amatitlán, Guatemala – 12 years accident free
- RIPS Västerhaninge, Sweden – 11 years accident free
- RIPS Mandra, Greece – 11 years accident free
- RIPS Augusta, Georgia (formerly a Caraustar facility) – Eight years accident free
- PPS Dalton, Georgia (formerly a Caraustar facility) – Seven years accident free

The achievements of these, as well as countless other zero injury facilities in 2019, provide strong models in support of our aspiration of zero accidents at all of our facilities worldwide.



Human Rights & Fair Labor Practices

Upholding fundamental rights in our operations and throughout our supply chain.



Why Human Rights & Fair Labor Practices Matters

GRI 102-41; 405: 103-1, 103-2, 103-2, 103-2, 103-2, 103-2, 103-2, 103-3

As a manufacturing company, Greif participates in a labor-intensive industry. Our commitment to upholding international human rights and fair labor practices is directly aligned with our commitments to the health and safety of our colleagues. We maintain these standards and expectations throughout our supply chain. We are committed to working with responsible supply partners to ensure our customers' confidence in our responsible sourcing and labor practices.

Governance

Greif maintains human rights and fair labor practices in accordance with the UN Global Compact Principles and International Labor Organization's Declaration on Fundamental Principles and Rights at Work. We enforce various policies to manage our commitment to these Principles internally and in our supply chain. This includes our Anti-harassment, Child Labor, Code of Business Conduct and Ethics, Equal Employment Opportunity and Diversity, Fair Treatment of Others, Human Rights and Supplier Code of Conduct policies. Greif's local HR teams leverage risk assessments, age and legal working status verifications, awareness training, localized gender equality procedures and whistleblower procedures to implement these policies in our operations. To enable our colleagues to anonymously report potential human rights violations, we publicly post our global Ethics Line in all facilities. Each complaint is instantly directed to a regional vice president so it can be addressed appropriately. We investigated and resolved 90 percent of complaints. The remaining complaints are under ongoing investigation.

Gold Recognition from EcoVadis

Received for our commitment to Corporate Social Responsibility, placing us in the top four percent of all assessed suppliers.

45 percent of Greif's colleagues engage in collective bargaining agreements (CBA). Each CBA is independently managed in each region with our Human Resources and Legal teams providing oversight. For further information on Greif's approach to labor relations, please see [Risk Management & Business Continuity](#).

In 2019, we reorganized our Human Rights and Labor Practice team to better support progress towards our goals. This team is led by EMEA's Regional Human Resources Director with support from members of the global human resources community representing each region and business unit, including Caraustar. In 2019 we began integrating our new colleagues from the Caraustar acquisition into our Human Rights and Labor Practice policies and programs, with the aim of completion in 2020.

Gender diversity is a critical component of Greif's commitment to fair labor practices. Greif's Women Network was formed to promote gender diversity in the organization and support progress against our women in management goal. Formed under the executive sponsorship of our CEO, the 70-plus member organization was founded with the mission of creating a diverse and inclusive network working together to inspire, connect and develop women for the success of Greif and a vision to support and enhance the experience and contributions of women at Greif, and to elevate diverse perspectives across the organization through greater gender parity. In 2019, the network began embedding diversity actions into Greif's succession planning efforts and working to impact affirmative action plans, placement goals and proactive recruitment outreach efforts. Through 2020, the network aims to expand membership to over 100 members, including 25 percent males, establish local satellite chapters globally and educate Greif on the value of the network.

In 2020 we will partner with a third-party to conduct a global human rights review intended to create a pragmatic, consistent program to identify human rights and labor risks in all our facilities, identify mitigating actions and implement best-practice actions and solutions in line with our commitments to the UN Sustainable Development Goals, UN Global Compact, ILO Declaration on Fundamental Principles and Rights at Work and Guiding Principles on Business and Human Rights framework. Once complete, the Human Rights Review process will be embedded into our operations and will provide an ongoing mechanism to ensure we are consistently auditing and improving our human rights and labor practices.

Goals & Progress

Our three Human Rights & Fair Labor Practice goals are:

- 100 percent of our operations will be subject to internal human rights reviews, measured on a rolling cycle, by the end of fiscal year 2025.
- 100 percent of colleagues will be trained in human rights policies and procedures by the end of fiscal year 2025.
- Using fiscal year 2017 baseline, increase the proportion of women in management positions by 25 percent by the end of fiscal year 2025.

In 2019, we continued to develop and implement action plans towards the achievement of our goals. We further defined our Human Rights Review roadmap in support of beginning to develop our internal review program in 2020. We developed content for human rights training and will realize an implementation plan in 2020. With the support of Greif's Leadership Council and Greif Women's Network, we developed a gender diversity work stream in support of our women in management goal. The work stream will begin in 2020, focusing on key activities to promote Greif as an attractive employer for women, train our Human Resources team to interview female candidates, eliminate gender bias from our interview processes and establish new recruitment partners to gain access to more diverse candidate pools.

In 2019, we incorporated Caraustar in the scope of our human rights and labor practice commitments. In 2020, we will re-evaluate our goals to account for our new colleagues.

Advancing Circular Economy

Through process, materials and manufacturing innovations, we work in collaboration with our stakeholders to reduce the environmental impact of our products and work towards a more circular economy.

Gold

**Recognition from
EcoVadis**

Received for our commitment to Corporate Social Responsibility, placing us in the top four percent of all assessed suppliers.

31

**Facilities Achieving Zero
Waste to Landfill**

Our efforts to reduce waste are global, with each facility working towards our 2025 goal.

89.8

**Average Customer
Satisfaction Index Score**

Our highest scores ever, demonstrating our commitment to serving our customers better.

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Innovation

Improving products and processes to reduce our footprint and drive customer satisfaction.



Why Innovation Matters

Innovation 2018: 103-1, 103-2, 103-3; GRI 301: 103-1, 103-2, 103-3

Our approach to innovation enables Greif to advance sustainable packaging and circular economy principles. As we continue to innovate, we reduce our footprint and support our customers' desire for safer, lighter weight products and reduced transportation costs. We analyze our entire value chain—from the extraction of raw materials to our products' end-of-life—to find opportunities to improve our products and processes. This strategy is not only the right thing to do, but provides us a competitive advantage.

Governance

Our innovation efforts focus on transforming our product portfolio by developing sustainable packaging solutions based on a set of eight environmental, social and financial sustainability criteria. Through internally-initiated solutions and collaboration with customers, our innovation efforts focus on dematerialization—producing products that are lighter weight, utilize less virgin raw materials and more recycled content—and green material substitution—identifying safer materials to produce our products, including bio-based materials—while continuing to meet performance requirements. Innovation is managed by our Global Innovation Committee, comprised of representatives from each of Greif's business units and is responsible for driving collaboration and idea sharing across and within business units. The new committee structure facilitates idea sharing and collaboration across the enterprise, which allows ideas to serve and influence multiple business units. The committee updates Greif's Executive Leadership Team (ELT) quarterly providing progress on innovation priorities and industry megatrends that may influence investment and overall company strategy in the future. Innovation is managed by a process that evaluates and prioritizes projects based on potential financial return, sustainability impacts and overall value to Greif and our customers.

In 2019 the Innovation Committee published the inaugural "Greif Global Innovation Trends Report." The report was developed through in-depth primary and secondary research, interviews with experts across Greif, and engagement with thought leaders both inside and out of the packaging industry. The result was used to provide global trend information for strategic planning and decision-making purposes across the Enterprise. The report identifies six trends that are strategically relevant to Greif:

- Companies are Becoming More Environmentally Friendly
- Digitization & Automation of Manufacturing
- Digitization of Supply Chain & Logistics
- Digitization of Enterprise Purchasing & business-to-business Selling
- Workforce Shortages, Surpluses & Skills Gap
- Growth Opportunities Increasing in Emerging Markets

While these findings will be used to inform business decisions and innovation priorities going forward, their relevance can already be seen in our recent innovation efforts across our organization.

The Greif Green Tool continues to be an important tool for us to communicate our innovations and sustainable products to our customers. In 2019 we continued to update the tool with our latest product information, ensuring data and product classifications are as up-to-date as possible. Going forward, we will continue to keep data in the tool as up-to-date as possible and all new product launches will be analyzed and added to our sustainable product portfolio if they meet the criteria. In 2019, Greif used the Green Tool to collaborate with a customer in Italy to identify more sustainable products for them. The analysis helped identify four projects to present to the customer – transitioning to lighter-weight jerry cans, increasing use of products with high percentages of postconsumer resin (PCR), create and coordinate closed loop packaging in Europe and test Greif's GCUBE Track technology to optimize logistics and supply chain. The customer will be implementing one of these projects in 2020 and will continue to evaluate the remaining for implementation in 2020 or 2021. Customer engagement like this, as well as the work done by our commercial team to educate our customers about the benefits of our sustainability tagged products lead to tremendous sales opportunities for Greif. In 2019, Greif had \$430,962,128* in revenue from sustainability-tagged products.

\$1.0M
Savings from Gauge
Improvement Program

Working with our suppliers to meet minimum specifications requirements resulted in significant savings in 2019.

Our innovation priorities vary based on the specific needs of each of our business units and needs of the customers they serve. In 2019 our Flexible Products & Services (FPS) business continued advancing multiple sustainable product projects to reduce material use that, collectively, are estimated to generate 380 tons of material savings annually. The business unit continued to work with our stakeholders to maintain our position as a market leader in food safety and meet emerging compliance requirements as part of our Food Safety Initiative. As part of this work we have launched our new SealGuard Flexible Intermediate Bulk Container (FIBC). SealGuard is made with polyethylene (PE) using a revolutionary automated bonding process that allows for contamination- and leak-free transportation, better protects against moisture without using an inner liner, and reduces risk of tearing during filling processes. The material is also more resistant to ultraviolet degradation than comparable materials, reducing the risk of the packaging deteriorating if it is handled and stored incorrectly. In contrast to conventional FIBCs which are produced from polypropylene (PP) and PE, the SealGuard is only made from PE which makes it easily recyclable.

Our Food Safety Initiative has also progressed in our Rigid Industrial Packaging & Services (RIPS) business. In 2019, we formalized our integrated ISO-certified food manufacturing practice program, which involves integrating standard food safety practices into our quality management system. At the end of 2019, 45 percent of our facilities were compliant with the new standards. All facilities are planned to be compliant by the end of 2020 ultimately becoming the standard quality system used across RIPS North America.

The acquisition and integration of Caraustar into our Paper Packaging & Services (PPS) operations has advanced innovation within the business unit even further. With their collaboration and capabilities we have increased our ability to offer recycled single use paper products and fibre drums, flame retardant floor board, wax coatings suitable for produce packaging and produce wood alternatives out of recycled containerboard. We are also proud of our automation and digital printing abilities both of which make our manufacturing operations more efficient and significantly reduce waste.

Our innovation efforts also address regionally-specific needs and can go beyond our products. Greif's Latin American (LATAM) offices are encouraging innovation in their working environment. In 2019, the team hosted interactive and in-person innovation workshops to teach our colleagues about innovation and brainstorm not just product and process ideas, but innovations we can bring to our working environment to be a better and more attractive employer for current and future colleagues. The workshops also served as an opportunity to share innovation projects that may be beneficial to other facilities. In 2020, we will build on the success of the workshops by conducting them globally.

For more information about our innovation efforts, please see:

- [MITSloan Management Review: Surprising Insights from Environmental Screenings](#)
- [MITSloan Management Review: The Innovation Bottom Line](#), pp11
- [Packaging Strategies: A Commitment to Life Cycle Assessment](#), pp 6-7
- [WBCSD U.S., Inc.: From cradle to grave: Greif's Life Cycle Analysis](#)
- [World Resources Institute: Aligning Profit and Environmental Sustainability: Stories from Industry](#)

Goals & Progress

Our innovation priorities continue to support our 2025 supply chain goals to reduce raw materials/logistics costs used to produce current product offerings by one percent and move from non-green to green material sourcing if it is economically feasible and doing so provides high quality products to our customers. In 2020, we will continue to analyze new and innovative products through research and development and engage our customers to inform our innovation priorities.

*Global revenue from sustainability-tagged products for Greif's Rigid Industrial Packaging & Services (RIPS) business unit, including end-of-life services

Highlight Stories

Reducing the Weight of Jerry Cans

Greif manufactured our first lighter weight 20 and 25 liter jerry can models in 2015. This design is 15 percent lighter than the previous model while maintaining performance specifications of the previous design. Due to the reduced weight, the new jerry cans reduce materials and energy used in production by up to 15 percent and have a reduced emissions impact. Since being introduced, we have continually worked to improve this product line. In 2019, we expanded this product line to include sizes 16 and 18 liters. The 20 and 25 liter lighter jerry cans are manufactured in Italy and Sweden while the other sizes are manufactured in Israel.



Increasing the Use of PCR in Our Products

Containers made from post-consumer resin (PCR) significantly reduce the need to use virgin resin—in some cases eliminating it completely—require less energy to manufacture and divert materials headed to landfills by repurposing them into new products. Where possible, Greif works to increase the use of PCR in our product lines. At the end of 2017, Greif launched its new EcoBalance™ product line in North America. The line includes drums and other shipping containers made using approximately 75 percent recycled plastic obtained from post-consumer shipping containers, while still meeting competitive performance standards. Our line of PCR containers reduces CO2 emissions by 30-53 percent. In 2019, Greif's EMEA operations processed 7,500 metric tons of PCR to produce almost one million drums, pallets and drum accessories. Among these products are jerry cans and open head drums of different sizes made with up to 75 percent PCR.

Where possible, we incorporate PCR into our products as much as we can and are increasing our production capabilities for PCR products. Our line of multilayer, tight head and open head drums can be produced using up to 60 percent PCR with UN rating, while single layer tight head drums can be made with a minimum of 75 percent PCR with UN rating and single layer open head drums can be made with a minimum of 50 percent PCR with UN rating. Our PCR drums can be produced at our Hazelton, Alsip/Bradley, Houston and Lavonia facilities in North America, Bottanuco and Castenedolo facilities in Italy and the Netherlands.

We are also increasing our production of PCR in many of our facilities, including those in the Netherlands, France, Germany, Austria and Italy.



DoubleGreen™ Product Line

In 2014, Greif received the IAIR Sustainability Award for our enduring commitment to sustainability and innovations in industrial packaging and services. IAIR specifically cited our DoubleGreen COEX 10L stackable jerry can, which incorporates green polyethylene derived from sugarcane ethanol, exceeding 50 percent of the total packaging composition. Through its stackable design, the can eliminates the need for carbon boxes for transportation, improves inventory management costs, removes the necessity for printing a duplicate label and optimizes the recycling process.

We conducted a Life Cycle Assessment (LCA) demonstrating the DoubleGreen COEX 10L jerry can is able to reduce CO2 emissions by roughly 50 percent compared to traditional jerry cans. Annually, this can equate to a 220 ton reduction in CO2 emissions, while saving 112 tons of paper. By reducing carbon packaging from transportation, we estimate saving 3,643 trees and avoiding 23 tons of excess CO2 emissions. Our DoubleGreen COEX 10L jerry cans are UN certified and achieve higher SKU utilization.

In Brazil, our team developed the first 20 liter monolayer packaging for agrochemicals. With a weight less than 1 kg, it requires fewer raw materials for production while preserving the mechanical strength required for stacking. Packaging weight reduction also translates into a CO2 emissions reduction of approximately 42 tons per year.



Innovating Injection and Welding Production with NexDRUM®

Greif's NexDRUM® plastic drum is produced with 15 percent less material than our standard blow molded plastic drum. The NexDRUM® design was created through an innovative injection and welding production process that works with reduced material inputs, without negatively affecting the performance and stability of the drum. The unique production method also results in a 12 percent CO2 emissions reduction compared with conventional drums.



Agribusiness Virtuous Cycle

Greif's plastics operations in Brazil developed a process that uses DuPont™ Fusabond®, a polymer compatibilizer, to turn waste into automotive lubricant bottles, rigid pipes and other products.

The "Agribusiness Virtuous Cycle" is a full-cycle recycling system that diverts multilayer plastic agrochemical bottle waste from landfills and remakes it into high-value products. Through this process, over 550,000 tons of agrochemical plastic bottles have been collected*, saving 688,000 tons of CO2 equivalents.

This innovation was honored as a Gold winner in the 23rd DuPont Awards for Packaging Innovation.

*Figures estimated by INPEV



Sustainable Solutions for IBCs Using PCR

In 2019 Greif's Castenedolo, Italy facility began producing multi-layer GCUBE IBCs made with up to 60 percent PCR. The IBCs use PCR from the facility's IBC collection service and are extruded at its on-site recycling center to manufacture the product. The inner layer of this sustainable bottle remains 100 percent virgin high density polyethylene (HDPE), while the two external layers are made from a blend of PCR. It offers all the same features as the standard IBC bottle including transparency. In addition to reducing the need for virgin resin, the new product reduces the carbon footprint of the IBC bottle by up to 38 percent and up to 11 percent for the entire IBC. Throughout 2020, production of this product will expand to facilities in Germany, Netherlands, Russia, China, Spain and the USA. These new IBCs are particularly suited to customers already taking advantage of our empty IBC collection service.



Shield Technology

Permeation, the penetration of liquid, vapor or gas through a solid, is a significant concern within the packaging industry, particularly for products that will be used to store and transport food. As part of our Food Safety Initiative, Greif introduced GCube Shield, and FIBC's that leverage shield technology to extend the shelf-life of products, protect products while also protecting the environment from packaging contents, reduce lead time and improve safety through the reduction of dangerous permeated gasses.



Innovating Food Safety

In 2014, Greif's Flexible Product & Services segment was approached by multiple leading producers within the infant food and formula industry to develop solutions to meet changing requirements for product handling in the industry. Greif worked with milk powder producers and stakeholders throughout the supply chain to understand the developing industry regulations. In partnership with our key customers and suppliers, we implemented solutions to meet their requirements. In 2017, Greif opened a food safety center of excellence in Belgium featuring an ISO Class 7 clean room. The facility set the highest hygiene and food safety standards in the industry and has made Greif the supplier of choice for flexible packaging in the infant food and formula market.

We are also improving food safety in our Tri-Sure business. In 2018, we introduced our RDL 100 and RDL 101 BPA-free linings that not only comply with all current EC and FDA food application requirements, but also meet regulations that we anticipate being introduced in the near future. Our new linings reduce working capital, save costs, guarantee consistent quality, provide sustainable solutions and protect our environment.



Cradle to Cradle Manufacturing, Reconditioning & Recycling

Working to divert used packaging from landfills and reduce the use of virgin materials.

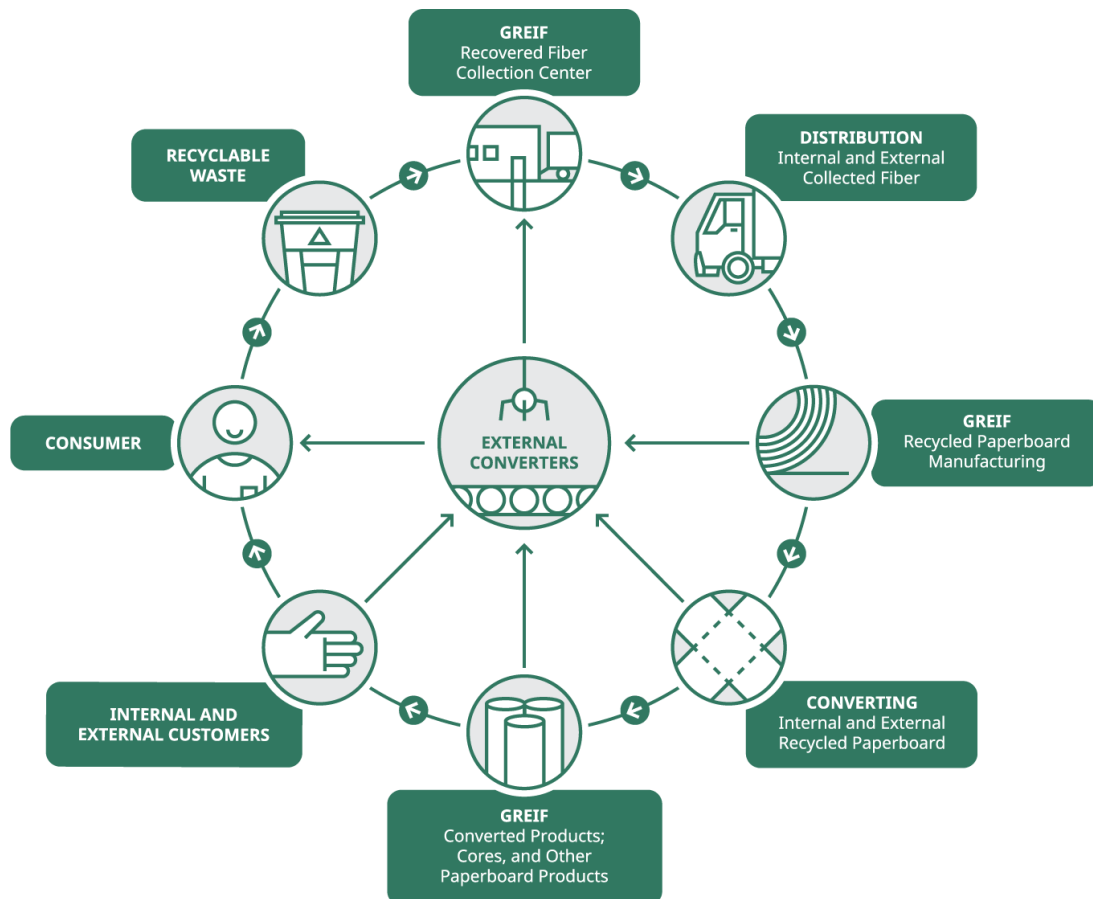


Why Cradle to Cradle Manufacturing, Reconditioning, Reuse & Recycling Matters

Cradle to Cradle Manufacturing, Reconditioning, Reuse & Recycling 2019: 103-1, 103-2, 103-3; 307-1

Greif actively manages the Cradle to Cradle life cycle of industrial packaging through manufacturing, reconditioning, reuse and recycling to advance circular economy principles. We work with our customers, and even their customers, to produce new packages and products that build economic, environmental and social capital. Our Cradle to Cradle management through manufacturing, reconditioning, reuse and recycling solutions help divert waste from landfills while strengthening relationships within our supply chain. As the demand for sustainable solutions increases, our collaborative efforts with our suppliers and our customers, enable us all to reach our collective sustainability goals.

Greif Recycling Operations



Governance

We provide end-of-life services through a program called EarthMinded Life Cycle Services (LCS), which leverages a network of Greif joint-venture owned and other third-party owned and operated facilities in EMEA and North America, including Container Life Cycle Management LLC (CLCM)*. Participant reconditioners in the network collect used, empty, plastic, steel and Intermediate Bulk Containers (IBC). Flexible Intermediate Bulk Containers (FIBCs) are recollected in EMEA through our wholly owned subsidiary, Rebu. The collected containers are reconditioned so they are suitable for reuse and then reintroduced into trade. The reconditioned containers reduce the demand for new containers and demand for virgin raw materials, while decreasing the number of containers that go to landfill. If a container cannot be reconditioned, the materials are recycled for use into other products. Across our reconditioning operations, we reconditioned, remanufactured, or recycled more than 4.3 million containers and managed over 4 million tons of recycled paper fibre in 2019.

Many of Greif's largest customers use the EarthMinded LCS network to recondition their containers. Customers who use the network can access real-time reports through EcoTrack and the Greif Green Tool, which enables customers to quantify performance by tracking key indicators like carbon impact and weight of reused and recycled materials.

In 2019, we took a number of deliberate steps to better integrate and align our reconditioning operations into the overall Greif business, beginning with instating a General Manager to oversee all EarthMinded LCS and CLCM operations. The General Manager is tasked with implementing Greif's policies, procedures, training and business objectives throughout the network. The network is now also operating on many of Greif's IT systems, including our Compliance Management System (please see the [Environmental Management Systems](#) section of our report for additional information). We established a three-year strategy that is well-aligned to the needs we see in the reconditioning market and Greif's strategic objectives. As part of this strategy, we will be working in 2020 and beyond to expand our return program, build our capabilities across multiple packaging materials and enhance our IBC services.

Our new management structure will allow us to improve our management of social and environmental issues that have the potential to impact the communities in which we operate. Since 2017, CLCM has been actively addressing the concerns of the St. Francis community and applicable regulators related to odor and alleged health and safety violations (many of which CLCM disputes) at a reconditioning facility operating under the trade name "Mid America Steel Drum." CLCM's history of engagement with the community and regulators and actions taken to address their concerns, are available at [CLCMWI.com](#). In 2019 CLCM initiated use of a regenerative thermal oxidizer (RTO) at the St. Francis facility intended to reduce odors emanating from the site's operations. Thermal oxidation is recognized as the most effective way to destroy odor-causing compounds and is commonly used throughout the United States for a wide variety of processes. CLCM is one of the first industrial packaging reconditioners to adopt this technology. CLCM is continuing to engage with local officials to endeavor to maintain positive relations with the community and continue to identify areas for improvement.

Our commitment to enhancing our IBC services expands outside of North America. In 2019, we took a majority stake in Tholu, an IBC rebottling, reconditioning and distribution company serving the EMEA region. We will also be working with our new colleagues that have joined Greif through the Carastar acquisition to improve our capabilities to provide reconditioning services for fibre containers.

Greif's acquisition of Carastar vastly expanded our recycling footprint and operational capabilities. Greif now operates 20 recycling facilities, offers complete outsourcing solutions for plastics, pulp and paper fibre procurement, transportation and administration and provides complete paper fibre audit and management solutions. 98 percent of the products we handle, by volume, is paper fibre. Our paper fibre recycling operations collect paper fibre for use in our own containerboard mills and for sale to other containerboard manufacturers or converters. Because of our integrated capabilities, Greif now holds a central position in the paper recycling industry and operates as a net positive recycler. Approximately 50 percent of the fibre we collect is used in our own operations to manufacture paper products for use in consumer and industrial settings. The remaining 50 percent of the fibre we collect is sold to external converters for use in their own operations. Over 90 percent of the fibre we use in our paper manufacturing is from 100 percent recycled inputs.

We are proud to be able to offer these services, however global demand for fibre from converters is falling and driving commodity prices down. For many recyclers, the cost of collecting fibre is now higher than its commodity price. Many users of recycling services, including municipalities, have not yet realized or adjusted to the costs that may be required to continue offering these services. Through our sales force and participation in various industry groups, we are doing our part to educate the market on the dynamics of the changing industry to ensure this remains a viable business for ourselves and our peers. As a collector, converter, and supplier of fibre, Greif is well positioned to continue to operate profitably as the market adjusts to these changing dynamics.

Beyond our Paper Packaging & Services (PPS) operations, the use of recycled plastics plays an important role in our business. In our Rigid Industrial Packaging & Services (RIPS) business, all of our plastic products globally are 100 percent recyclable and 100 percent of our internal regrind plastic is reused to be incorporated back into our products. Internal regrind accounts for approximately 20 percent of our drums and IBCs.

We use recycled steel where possible. Globally, steel products were made from a minimum of 15 percent recycled steel in 2019. In North America, steel products were made from a minimum of 33 percent recycled steel.

In our Flexible Packaging & Services (FPS) business, 90 percent of our internal scrap is recycled by ourselves and the balance is sold to recycling companies. There is approximately 7 percent recycled plastics (internal scrap) in our FPS plastics products.

Cradle-to-cradle and the use of recycled products are just two components of our circular economy strategy that spans across our operations and value chain. As part of that strategy, we are working to drive circular economy principles in four key areas:

- Reducing raw material use
- Waste reduction and reducing natural resource use
- Innovation and increasing recyclability, and use of recycled materials, in our products
- End-of-life

Please see the [Supply Chain Management](#), [Waste](#) and [Innovation](#) pages of our report for more information about how our circular economy strategy spans our entire business.

In 2020, we will continue to engage customers on packaging innovation and partner to develop new reconditioning solutions. Greif will develop the appropriate tools to educate and encourage our customers to ensure empty packaging is disposed of in a sustainable fashion. This includes engaging customers at conferences and other events. Greif is continually evaluating partners who can both manage collection and ensure Greif's safety standards so we can support our customers' goals and to better offer a truly global reconditioning service. Currently, we are building the infrastructure to respond to demand, particularly as the global market continues to evolve to meet consumer expectations for sustainable products and operations.

* EarthMinded LCS is comprised of Greif, Inc. subsidiary EarthMinded Europe (formerly "pack2pack") with network sites and alliance participants across Europe, and Container Life Cycle Management LLC in North America, a joint venture composed of Greif and the former owners of Drumco of Arkansas, Drumco of Tennessee and Mid-America Steel Drum Co., Inc. The EarthMinded LCS network in North America also includes West Texas Drum Company covering the Gulf Coast, Chambers Drum Company, Inc. covering the southeast United States, and Kearny Steel Container covering the northeast United States.

Goals & Progress

Our end-of-life efforts support our 2025 supply chain, waste and innovation goals.

Performance

EARTHMINDED LIFE CYCLE SERVICES - ESTIMATED DRUMS AND IBCS RECONDITIONED*

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Recycled	780,500	1,045,093	904,883	849,498	831,576
Steel Drums	553,300	689,513	534,369	571,355	509,884
Poly Drums	196,300	277,672	212,272	161,447	243,186
IBCs	30,900	77,908	158,242	116,696	78,506
Reconditioned	4,076,700	3,808,242	3,218,885	3,258,848	3,533,358
Steel Drums	3,356,200	3,072,348	2,565,052	2,713,025	2,699,393



	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Poly Drums	374,100	375,307	321,188	244,497	194,011
IBCs	346,400	360,587	332,645	301,326	639,954
Total Collected	4,857,200	4,853,335	4,136,828	4,105,936	4,348,706
Steel Drums	3,909,500	3,761,861	3,099,633	3,284,380	3,193,049
Poly Drums	570,400	652,979	535,460	405,944	437,197
IBCs	377,300	438,495	501,735	415,612	718,460
Virgin Materials Saved by Reconditioning and Reuse (Metric Tons)**	77,773	71,573	63,111	63,587	76,400
Steel	70,198	65,743	56,200	57,664	66,900
High-Density Polyethylene	5,742	5,830	5,150	4,243	5,900
Wood	1,833		1,761	1,680	3,600
Virgin Materials Saved by Recycling (Metric Tons)***	12,076	17,402	18,755	16,644	16,145
Steel	9,657	13,288	13,463	12,697	10,918
High-Density Polyethylene	2,297	3,817	4,580	3,385	4,888
Wood	122	297	712	562	339

1. Virgin Materials Saved by Reconditioning and Reuse data has been restated to standardize units across regions

*Estimated Drums and Intermediate Bulk Containers (IBCs) Recycled and Reconditioned (North America and Europe, Middle East and Africa)

**Estimates based on the quantity of reconditioned packaging and average packaging specifications (North America and Europe)

***Estimates based on the quantity of recycled packaging and average packaging specifications (North America and Europe)

REBU - ESTIMATED FLEXIBLE INTERMEDIATE BULK CONTAINERS (FIBCS) RECONDITIONED EUROPE, MIDDLE EAST AND AFRICA

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Total FIBCs Collected	-	-	-	316,324	275,732
Reconditioned	-	-	-	224,418	179,912
Recycled	-	-	-	91,906	95,820
Total Virgin Polyethylene Saved (Metric Tons)				727.6	634.2
Virgin Polyethylene Saved by Reconditioning and Reuse (Metric Tons)*	-	-	-	516.2	413.8
Virgin Polyethylene Saved by Recycling (Metric Tons)**	-	-	-	211.4	220.4

*Estimates based on the quantity of reconditioned packaging and average packaging specifications (Europe)

**Estimates based on the quantity of recycled packaging and average packaging specifications (Europe)

Highlight Stories

Using Recycled Plastic in IBC Molding

Greif's Tri-Sure facility in Carol Stream collaborated with RIPS North America purchasing, RIPS Italy and four RIPS NA plants to source 800,000 pounds of recycled plastic resins to use in the production of IBC rear/corner feet and corner protectors. This internal sourcing strategy reduced costs by \$100,000. The team also reused empty corrugated bulk boxes to ship the recycled products they manufacture, reducing corrugated bulk box purchases by 84 percent. The project created company value and established environmental and financial benefits, while closing two internal loop systems and contributing to our circular economy by diverting waste from landfills and finding a new purpose for them. Due to the outstanding sustainability impact of the project and its ability to be scaled to other molding and injection molding facilities, the project and Tri-Sure Carol Stream team was awarded the 2019 Michael J. Gasser Sustainability Award.

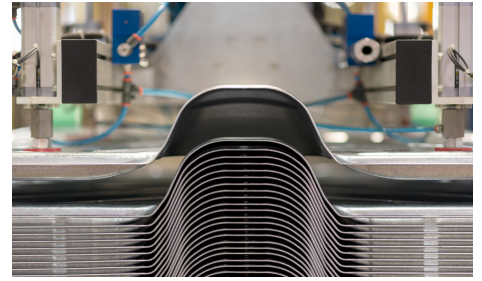


Life Cycle Assessments

Life cycle assessments (LCAs) are key to Greif's innovation process. LCA is a technique that evaluates the environmental impact of products over their entire lifetime including raw material extraction, manufacturing, transportation, distribution, use and disposal or recycling. This information helps us understand the overall environmental profile of our existing products, where and how our impacts occur, target improvements in materials and products and to prioritize analysis of processes, components and materials that have the greatest environmental impact.

In the mid-2000s, we began using LCA to evaluate our entire product portfolio to assess our products' overall environmental impact and identify steps in the cycle where a sustainable improvement can have the most positive impact. We learned that material mass is strongly linked to the environmental performance of most industrial packaging. This finding led us to focus on lightweighting our products, including the NexDRUM®, contributing to reduced emission and environmental impact in our supply chain.

LCAs also showed that extending product life has a greater impact on the environmental profile of our businesses than transportation of our products. Based on this knowledge, we launched EarthMinded Life Cycle Services, to recondition, refurbish and recycle used drums, extending the life of our products and fulfilling a critical need for our customers. Please visit [Cradle to Cradle Manufacturing, Reconditioning & Recycling](#) for more information.



State of the Art Reconditioning Services in Lille

Greif's EarthMinded LCS facility in Lille, France has taken significant steps to innovate the logistics associated with offering reconditioning services to our customers. Traditionally, empty IBCs were picked up from and delivered to a single location for a single customer. EarthMinded LCS Lille has begun picking up from locations along our customers supply chain, then delivering reconditioned IBCs back to our customers, simplifying logistics for our customers. Lille as also implemented datamatrix, a traceability system that allows us to record all production steps from reception to delivery, have visibility into the origins of an IBC and provide a real time view of our inventory in support of overall enhanced customer service. Datamatrix also supports better management of residue in the IBCs they collect. Each IBC that enters the facility is automatically weighed to determine how much residue is in the container and inform how it is treated. With datamatrix, this information can be sent directly back to customers to improve how they manage IBCs that are ready for pick-up. Lille uses a closed loop water system for water that is used to clean IBCs recycling 100 percent of the water they use, and collects, treats and shreds plastic that is used to manufacture new IBCs and plastic drums.



Greif Takes Majority Share in Tholu

In 2019 Greif signed an agreement to acquire a majority share in the Tholu group, a Netherlands-based market leader in IBC rebottling, reconditioning and distribution. Tholu implements a variety of high-speed, state-of-the-art, closed looped systems to recondition IBCs to a high level of reconditioning that is suitable to use to store and transport a wide variety of products. All IBCs collected by the facility are collected as waste under government regulation. All IBCs that are collected by the facility are either cleaned and returned to use or processed to be used in alternate products. Greif's investment in Tholu helps us to strengthen our footprint in the overall IBC market in Northwestern Europe. A family-owned business, Tholu has been buying Greif produced IBCs in Ede, Netherlands since 2016 through a joint-venture agreement. Tholu reported \$45.2 million in revenue in 2018. The new venture will operate as Greif Tholu, operating under current Tholu management.



Reconditioning Conical Drums in Portugal

For the past 20 years Greif's RIPS facility in Iberia, Portugal has been supplying customers with reconditioned conical drums, having reconditioned over 10 million drums and saving 50,000 tons of steel, 197,600 tonnes of CO2 emissions, 2,600,000 gigajoules of energy, and 343,200 cubic meters of water in the process. The project was initially started as a way to help address our customers' wish to reduce waste and lower their carbon footprint and overall improve customer satisfaction. The team collaborated with customers to understand their needs, including volume, specification requirements and safety, developed a reconditioning process, and ultimately installed a reconditioning line to begin serving customers. Today, the facility serves a multitude of customers, reconditioning 500,000 conical drums and saving 5,200 tons of steel each year.



Supply Chain Management

Working with our suppliers to create shared value.



Why Supply Chain Management Matters

GRI 301: 103-1, 103-2, 103-3; Supply Chain Management: 103-1, 103-2, 103-3

Greif engages suppliers to ensure our commitment to sustainability encompasses more than just our own operations. We expect our suppliers to uphold the same levels of integrity, responsibility and commitment to sustainability that we do. By actively working with our suppliers, we minimize potential environmental and social risks while creating opportunities to efficiently use materials and implement solutions that positively impact our customers.

Governance

Greif sources direct materials such as resins, paint and steel and indirect materials such as consumables, services and transportation. Greif's Global Sourcing and Supply Chain Team tracks monthly improvements in material costs, working capital, deal terms and inventory as part of the Greif Business System (GBS). We outline our expectations for our suppliers in our [Supplier Code of Conduct](#) and evaluate each of our top 20 suppliers on a scorecard that considers quality, delivery, cost, value-added services, environmental impact and technical support. Sustainability criteria, such as material reduction, use of lower environmental impact materials and supplier sustainability initiatives, account for five percent of the supplier scorecard.

Greif complies with applicable laws to manage potential human rights violations in our supply chain. Due to the fact that some Greif products contain tin, we are committed to understanding the 3TG metals in our supply chain. To assess conflict risk throughout our supply chain, we validate our [Conflict Minerals Policy](#) and publish our [Conflict Minerals Report](#) annually. In accordance with the [California Transparency in Supply Chains Act of 2010](#), Greif takes measures to prevent and eliminate forced labor in our direct supply chain, as outlined in our [Supplier Code of Conduct](#) and [Transparency in Supply Chain Disclosure](#).

\$1.0M
Savings from Gauge Improvement Program

Working with our suppliers to meet minimum specifications requirements resulted in significant savings in 2019.

Supply chain sustainability objectives are supported by our Sustainable Procurement Team, which evaluates opportunities to minimize material use and finds more sustainable raw materials alternatives. The team, made up of colleagues from each region, evaluates opportunities across the globe and works to share best practices in sustainable sourcing with the Global Procurement Team. For example, in 2018 Greif began replacing combustible gasoline and LPG powered forklifts with electricity powered forklifts. The transition both supported Greif's Renewable Forklift Policy and resulted in significant emissions savings. In 2020, this project will continue to expand globally. Please see our [Climate Strategy, Energy & Emissions](#) page for more information on this project. We have also made changes to impact energy and emissions use among our trucks and colleague vehicle fleet. We have begun transitioning GPS devices in our trucks to run on solar as opposed to battery power. By the end of 2019, this transition was 56 percent complete and will be completed in 2020. We have set more stringent emission guidelines for approved colleague vehicles to promote more energy efficient and, where feasible, electric vehicles. Collectively we continue to track procurement projects that have potential to provide positive sustainability impacts through GBS. In 2019, we identified 10 projects with \$1.136 million in savings on sustainability impact projects.

Greif works to identify and implement chemical substitutions in our products and operations to remove and reduce hazardous waste, including VOCs. Since 2015, we replaced 10 percent of steel coil material volume and potentially hazardous paint within our operations. We now use safer alternatives in many of our products, including our Tri-Sure Vreeland linings and our water-based acrylic paints. In fact, all of our facilities, except in Auburndale, Florida, are exclusively using water-based paints. The steps we take to reduce hazardous waste align with our Environmental Health and Safety Policy.

In 2019, 100 percent of our new suppliers were given access to our [Supplier Code of Conduct](#) via Greif.com and expected to adhere to the principles within. In North America, our Supplier Code of Conduct is part of every purchase order and agreement that has to be signed by our suppliers. We began revising our Supplier Code of Conduct to set better expectations for our suppliers and better address environmental and social risks within our supply chain based on the key industries that we serve. In 2020, we will issue an updated Supplier Code of Conduct as a formal policy and begin stronger enforcement among our suppliers, including integration into supplier audits and incorporating it into every purchase order globally. In 2020 we will also issue an internal Purchasing Policy that provides guidelines for procurement to our colleagues. The policy will include considerations for environmental and social procurement criteria including green materials, waste and supplier diversity.

We continue to integrate environmental and social criteria into our supplier audits. To ensure continuous supplier improvement in areas such as colleague health and safety, we integrated language on conformance to standards and ISO certification development into our supplier audits. We benchmarked industry best practices to improve our supplier scorecards, [Supplier Code of Conduct](#) and rating procedures. We created legal training on anti-trust policies and products, which are available to all colleagues through our online training system.

Goals & Progress

In 2017, we set 2025 goals to:

- Using a fiscal year 2017 baseline, reduce raw materials/logistical costs used to produce current product offering by one percent.
- Move from non-green (oil-based, more energy intensive) to green material sourcing if it is economically feasible and doing so provides high quality products to our customers.

To progress on our 2025 goals, we incorporate our goals into our RFQ process when soliciting potential suppliers. Our sourcing managers incorporate topics such as carbon content, recyclability and packaging improvement into conversations with many of our suppliers to identify opportunities to impact our goals. We have made green material substitutions to increase the use of post-consumer regrind plastic in our products. We increased our efficiency with corrugated cardboard boxes and other packaging materials to increase reusability, while optimizing logistical routes, to reduce shipping expenditures. In some EMEA facilities, we have introduced a more biodegradable oil to clean our paint lines. Throughout 2019, we identified green material substitutions and identified cost savings opportunities. The move from non-green products and materials, such as oil-based products, has prompted us to engage in green-material sourcing from our suppliers. We have already begun to move away from solvent based paints to water-based paints and liners for drums. This collaborative work is internally supplemented by internal changes, such as a transition to LED lights. These initiatives are all a part of a larger training initiative with the supply chain team to think-of and develop new projects and integrate sustainability into the buyer's performance appraisals for 13 of our buyers, including buyers for steel, resin and logistics. We will continue implementing these, and similar measures, in 2020.

Highlight Stories

Gauge Improvement

Each month, Greif tracks specifications of incoming raw materials. We work with our suppliers to consistently meet our minimum specifications, helping us reduce logistics costs and minimize virgin material used in our products compared to materials at our maximum specifications. In 2019, our gauge improvement efforts resulted in \$1 million in savings.



Together for Sustainability

Since 2014, Greif has worked with Together For Sustainability (TFS), to help build an industry-wide sustainability standard for suppliers to chemical manufacturers. On behalf of its more than 20 chemical manufacturer members, TFS audits supply chain partners on more than 30 management, environment, health and safety, labor and human rights and governance criteria. TFS distributes results to their members to support purchasing decisions, replacing the need for company-specific audits and holding suppliers to a consistent standard for the industry. Nine Greif facilities have been audited, achieving an average score of 93.9% percent, indicating no major concerns at our facilities. In 2019, TFS conducted audits of RIPS facilities in Cologne, Germany and Sultanbeyli, Turkey.

TFS Audit Performance

- RIPS Naperville, Illinois: **100%**
- RIPS Cologne, Germany: **98%**
- RIPS Lockport, Illinois: **98%**
- FPS Sultanbeyli, Turkey: **98%**
- RIPS Europoort, Netherlands: **97%**
- RIPS Attendorn, Germany: **96%**
- RIPS Usti, Czech Republic: **95%**
- RIPS Campana, Argentina: **83%**
- RIPS Shanghai, China: **80%**



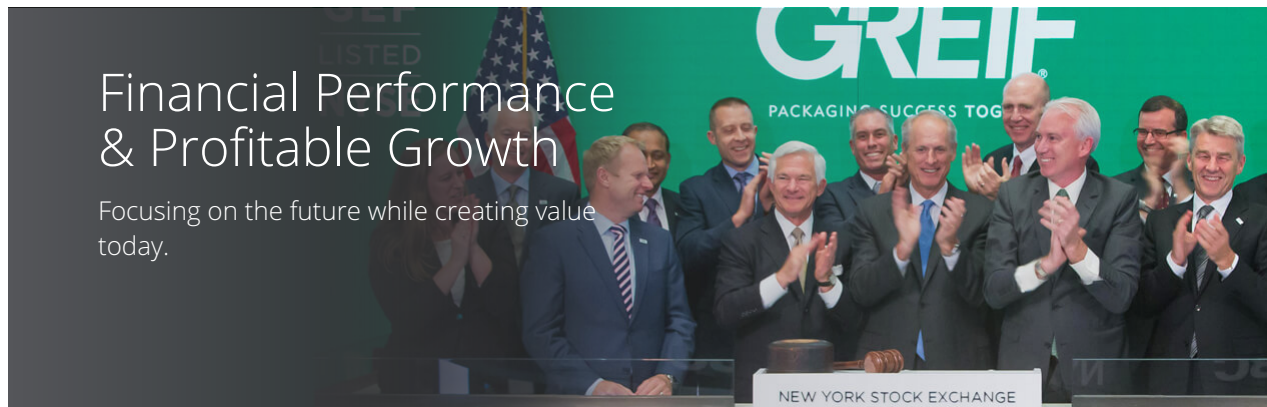
EcoVadis

In 2019, Greif earned Gold Recognition level from EcoVadis for superior Corporate Social Responsibility performance. This score places Greif in the top three percent of plastic products manufacturers and top four percent of all suppliers assessed by EcoVadis.



Financial Performance & Profitable Growth

Focusing on the future while creating value today.



Why Financial Performance & Profitable Growth Matters

GRI 201: 103-1, 103-2, 103-3, 201-2

Our financial performance and sustainability strategy are mutually beneficial. We leverage our strong financial performance to invest in the sustainability efforts that we believe in—a pillar of *The Greif Way*. Our sustainability strategy enables stronger sales, increased efficiency and reduced costs that create greater value for our shareholders.

Performance

We celebrated our 142nd year of operation in FY 2019. We continued our strong trend of financial performance by increasing Adjusted EBITDA by more than 30 percent over Fiscal 2018. We also generated \$267.8 million in Adjusted Free Cash Flow while returning more than \$100 million to our shareholders via dividends paid.

In 2019, we completed the acquisition of Carastar Industries, significantly expanding our Paper Products and Services business. Through the acquisition we gained 106 new operating sites, warehouses and offices, and expanded our paper services significantly, allowing us to better serve our customers. We originally forecasted run rate synergies of \$45 million from the acquisition, but have been pleased to increase that forecast to at least \$70 million by the end of Fiscal 2022. \$24 million in synergies were realized in 2019 and provided a meaningful contribution to our 2019 performance.

Our commitments to delivering the highest level of customer satisfaction through product quality and service excellence enabled us to improve our Customer Satisfaction Index, Net Promoter and Corrective Action Rate scores, all contributing to our efforts to attract and retain customers. We also continue to incorporate sustainability further into our products and conversations with customers, which reinforces the value our services provide. We are building stronger relationships with our customers, which is leading to greater strategic partnerships.

We are continuing to invest in our end-of-life services to provide our customers with efficient steel, plastic and Intermediate Bulk Container (IBC) reconditioning options, reducing demand for virgin materials. We completed the acquisition of Tholu in 2019, expanding our IBC reconditioning footprint in Europe. Additionally, through our acquisition of Carastar, we can now offer more comprehensive paper recollection and recycling services.

We work closely with our customers to create new and innovative products. Our collaborative approach to product innovation and end-of-life solutions enables us to support our customers in solving the business challenges they face while lowering input costs and contributing to sustainability performance.

Greif's focus on sustainable activities reduces our operational footprint while providing economic and environmental benefits. We are actively working to reduce energy and waste, as they tie directly to cost savings, and our efforts to drive raw material and water efficiencies. Our compliance management system (CMS) reduces the risk of regulatory fines and aligns to our initiatives that address ethics, security risks and business continuity. Our CMS is also becoming increasingly important to how we track and manage waste data. All Greif sites globally are required to submit waste data and supporting documentation to CMS monthly, improving the speed, efficiency, accuracy, and ultimately the ability to effectively manage waste across our entire business.

Our colleagues make these efforts possible. We are creating a workplace that our colleagues want to participate in by creating a safe and productive environment. We focus on colleague retention and development to ensure our colleagues have a customer service mindset and do business *The Greif Way*.

Our 2019 financial performance was supported by lower raw material costs and better than anticipated results and synergy capture from the Carastar acquisition, offset by weaker demand in our Rigid Industrial Packaging & Services (RIPS), Flexible Products & Services (FPS) and legacy paper businesses in part due to uncertain global trade dynamics. Given the uncertain market environment, we focused on controllable aspects of our business such as tight cost controls and customer service excellence. We reorganized our RIPS business under a single leadership team that now oversees all global RIPS operations. This new structure will allow for more impactful management of costs, commercial initiatives and sustainability. We invested in growth capital projects in our RIPS facilities to expand our IBC and plastics capacity to better meet customer needs. We also expanded the CorrChoice network with the addition of a new sheet feeder in northeast Pennsylvania to penetrate an attractive market. Finally, we invested in maintenance projects across our facilities to ensure our business continues to perform at optimal levels and continued to make investments in our facilities to protect against the risk of damages from extreme weather events, protecting not just our facilities, but our colleagues.

As a result of our efforts, we generated \$3.96 in Adjusted Class A Earnings per Share in Fiscal 2019, near the high end of our stated guidance range for the year. We also exceeded our Adjusted Free Cash Flow expectation for Fiscal 2019 in part due to better than expected synergies from the Carastar acquisition and stronger operating working capital performance.

In 2020 we will advance the implementation of a new single system ERP platform around our portfolio and expect to continue realizing synergies from the Carastar integration. We will also bring new IBC and plastics projects online that will help deliver high quality, sustainable solutions to our customers.

Goals & Progress

Our 2020 financial goals are:

- Generating between \$3.63 and \$4.13 in Class A Earnings per Share before Special Items.
- Delivering between \$245 and \$285 million in Free Cash Flow.

Sustainability Goals

Reducing Our Footprint

Climate Strategy, Energy & Emissions

- **2020 Goal:** 10 percent reduction in energy and greenhouse gas (GHG) emissions per unit of production, from a fiscal 2014 baseline.

Water

- **2025 Goal:** Reduce Biochemical Oxygen Demand (BOD) discharged in kilograms by 10 percent per metric ton of production from Riverville and Massillon mills using a 2014 baseline by the end of fiscal year 2025.

Waste

- **2025 Goal:** Divert 90 percent of waste from landfills from all Greif production facilities globally by the end of fiscal year 2025.

Supply Chain Management

- **2025 Goal:** Using a fiscal year 2017 baseline, reduce raw materials/logistical costs used to produce current product offering by one percent by the end of fiscal year 2025.
- **2025 Goal:** Move from non-green (oil-based, more energy intensive) to green material sourcing if it is economically feasible and doing so provides high quality products to our customers by the end of fiscal year 2025.

Addressing Risk

Ethics & Compliance

- **2025 Goal:** Provide online training of the Greif Code of Business Conduct and Ethics to 100 percent of colleagues with access to computers by the end of fiscal year 2025.
- **2025 Goal:** Provide training and information on the Greif Anti-bribery Policy to 100 percent of colleagues for whom training is relevant by the end of fiscal year 2025.
- **2025 Goal:** Provide online training of the Fair Treatment of Employees Policy to 100 percent of colleagues with access to computers and provide accessible and traceable information to all colleagues by the end of fiscal year 2025.

Valuing Our People

Talent Attraction, Development, & Retention

- **2025 Goal:** 100 percent of permanent colleagues will participate in regular performance development discussions by the end of fiscal year 2025.
- **2025 Goal:** Using fiscal year 2017 baseline, increase average hours of annual training per colleagues by 50 percent by the end of fiscal year 2025.
- **2025 Goal:** 100 percent of colleagues will be covered by parental leave by the end of fiscal year 2025.

Health & Safety

- **2025 Goal:** Reduce Medical Case Rate by 10 percent annually to achieve 100 percent safety – Medical Case Rate Zero – in the long term.
- **2025 Goal:** Every plant will have a collaborative environmental health and safety committee consisting of both management and workers by the end of fiscal year 2025.

Human Rights & Fair Labor Practices

- **2025 Goal:** 100 percent of our operations will be subject to internal human rights reviews, measured on a rolling cycle, by the end of fiscal year 2025.
- **2025 Goal:** 100 percent of colleagues will be trained in human rights policies and procedures by the end of fiscal year 2025.
- **2025 Goal:** Using fiscal year 2017 baseline, increase the proportion of women in management positions by 25 percent by the end of fiscal year 2025.

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**Facilities Achieving Zero
Waste to Landfill**

Our efforts to reduce waste are global, with each facility working towards our 2025 goal.

1.49

Medical Case Rate

Down 57 percent since 2007.

Performance Dashboard

Environmental Data

GRI 302-1, 302-4

ENERGY

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Total Energy Consumption (MWh)	3,228,000	3,057,000	3,009,000	3,058,000	3,103,200	5,398,000
Energy Reduction per Unit of Production	Baseline year	N/A	1.8%	3.1%	4.2%	0.0%
Electricity Used (MWh)	-	-	848,000	859,000	861,000	1,398,000
Renewable Energy Used (Thousands of MWh)	-	-	3	3	4	15
Energy Reductions Due to Reduction Initiatives (Scope 1, 2, and 3; gigajoules)	-	-	15,000	27,000	32,000	243,800

GRI 302-1

FUEL

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Total Non-Renewable (gigajoules)	-	5,138,000	5,470,000	5,626,000	12,083,100
Coal/Lignite Used (Thousands of MT)	-	0	0	0	0.31
Natural Gas Used (Thousands of m3)	-	126,865	135,100	139,400	303,900
Crude Oil/Distillate Fuels (Including Diesel, #2 Fuel) Used (Thousands of m3)	-	10,907	11,660	10,700	16,500
Renewables* (gigajoules)	-	2,631,000	2,446,000	2,446,000	2,316,000
Total Fuel (gigajoules)	-	7,770,000	7,916,000	8,072,000	14,399,000

*Renewable fuel sources include bark, scrap wood and cardboard

GRI 305-1, 305-2, 305-3, 305-4, 305-5

EMISSIONS (THOUSANDS OF METRIC TONS)

	FY 2014*	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
GHG Scope 1	362.3	322.5	345.7	367.7	376.7	676.0
GHG Scope 2 (Location-based)	496.0	438.6	446.7	416.0	415.9	614.0
GHG Scope 3	251.5	221.9	2,927.0	3,089.0	2,867.0	4,403.0
GHG Total	1,109.8	983.0	3,719.4	3,872.7	3,659.6	5,693.0
% Reduction in Emissions per Unit of Production**	Baseline year	6.0%	2.0%	8.4%	10.3%	11.0%
GHG Intensity (Scope 1 and 2, total per \$ revenue)	0.00020	0.00021	0.00025	0.00022	0.00021	0.00028
Emission Reductions Due to Reduction Initiatives (Scope 1, 2, and 3)	-	-	Baseline year	25.0	25.0	3.0
Percentage of the Company's Operations That Are Covered in Its Disclosures on Emissions	-	-	100%	100%	100%	100%

Notes:

1. Source: Greif 2019 CDP Climate Response
2. Emissions data accounts for CO₂, CH₄ and N₂O
3. Scope 3 emissions takes into account upstream transportation and distribution. In 2017, scope 3 was expanded to include purchased goods and services, capital goods, fuel and energy related activities not included in Scope 1 and 2, including waste generated in operations, business travel, employee commuting and end of life treatment of sold products.
4. 2019 GHG Verification Statement

*To standardize emissions and inform year-over-year progress toward our 2025 goal, our 2014 emissions data has been restated to correct several facilities' eGRID regions. Total does not include 246,000 metric tons of CO₂e from biogenic sources.

**Our percent reduction in emissions per unit of production dropped from FY 2015 to FY 2016 due to increased fugitive emissions from our Riverville, Virginia, paper mill and total emissions from our Massillon, Ohio, paper mill. Updated emissions and global warming potential factors also contributed to this change. 2019 data includes only legacy Greif facilities.

GRI 303-1, 306-1, 306-5

WATER*

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Water Withdrawal (Thousands of cubic meters)*	8,365.4	8,420.2	9,666.3	9,360.8	13,864.4
Surface Water	-	-	9,242.7	8,630.0	10,266.8
Ground Water	-	-	423.6	730.7	3,597.6
Rainwater	-	-	-	-	-
Wastewater	-	-	-	-	-
Municipal Water†	-	-	-	-	-
Wastewater Discharge (Thousands of cubic meters)**	8,255.1	7,961.4	8,983.2	9,316.2	11,853.5
James River	-	-	8,788.8	8,907.1	7,949.5
City of Massillon	-	-	191.6	407.1	424.0
Tuscarawas River	-	-	2.8	2.0	2.5
Sweetwater Creek^	-	-	-	-	0.0
Cobb County WWTP^	-	-	-	-	844.9
Cincinnati Metropolitan Sewerage District^^	-	-	-	-	37.6
Milwaukee Metropolitan Sewerage District^^	-	-	-	-	349.0
Los Angeles County Sanitation District WWTF^^	-	-	-	-	196.8
Three Mile Creek^	-	-	-	-	0.0
Mobile Wright Smith WWTP^	-	-	-	-	337.2
Village of Baltimore WWTF**	-	-	-	-	0.0
West Branch Paw Paw Creek**	-	-	-	-	146.7
San Jose-Santa Clara Regional WWTP^^	-	-	-	-	288.1
Tacoma Central WWTP^^	-	-	-	-	6.9
City of Fitchburg WWTP^	-	-	-	-	322.6
Iowa River**	-	-	-	-	291.8
Cherry Lake**	-	-	-	-	597.8
Iowa Tributary**	-	-	-	-	58.0
Biochemical Oxygen Demand (Thousands of kg)	2,080.4	1,050.4	890.4	204.2	3,508.3
Total Suspended Solids (kg)	489,334	546,857	465,098	349,003	875,791
Phosphorus (kg)	5,517	5,728	4,991	6,617	4,708
Production (MT)	637,000	665,000	690,000	713,336	1,729
Consumption Rate (m³/MT)	13.1	12.7	14.0	13.1	8.02

Notes:

1. 2015 to 2018 data is from Greif's two paper mills, one of which is located in Riverville, Virginia, and the other in Massillon, Ohio. Historically, these two paper mills accounted for more than 90% of Greif's global water footprint. They draw from the James River and onsite water wells, respectively. 2019 data includes 12 former Carastar mills that were acquired and integrated in 2019. All 2019 data is full year data. Quality of wastewater discharged from our mills meets permit requirements. No discharged water was used by another organization. WWTP = Wastewater Treatment Plant.

*Evaporative losses estimated

**Treated with primary clarification, secondary clarification and aeration before direct discharge

^Treated with wastewater pre-treatment including soluble BOD removal

^^Treated with wastewater pre-treatment with solids only.

† Greif does not currently track withdrawal of municipal water.

GRI 306-2

WASTE STREAM

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Hazardous Waste (Thousands of Metric Tons)					
Total Waste to Landfill	0.22	0.15	0.53	1.64	2.43
Waste to Landfill	0.22	0.15	0.53	1.29	1.16
Incinerated (no energy recovery)****	-	-	-	0.35	1.27
Total Non-Landfill*	0.41	0.41	7.10	14.10	20.72
Incinerated (with energy recovery)**	-	-	1.20	3.37	4.07

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Composted***	-	-	-	0	0
Reused†	-	-	0.40	1.51	0.65
Reclaimed††	0.02	-	0.19	0.22	0.37
Recycled†††	0.01	0.04	2.01	7.60	14.08
Miscellaneous (Non Landfill)††††	0.38	0.37	3.30	1.40	1.55
Total Hazardous Waste	0.63	0.56	7.64	15.74	23.15
Non-Hazardous Waste (Thousands of Metric Tons)					
Total Waste to Landfill	41.17	45.20	57.40	54.59	33.84
Waste to Landfill Landfill	41.17	45.20	57.40	54.11	33.38
Incinerated (no energy recovery)****	-	-	-	0.48	0.46
Total Non-Landfill*	40.83	51.90	161.80	257.22	184.36
Incinerated (with energy recovery)**	-	-	0.95	2.05	2.95
Composted***	-	-	15.28	0.35	15.78
Reused†	0.03	0.13	17.15	11.64	12.32
Reclaimed††	0.01	0.01	13.2	9.44	9.85
Recycled†††	9.8	9.1	111.86	232.00	141.22
Miscellaneous (Non Landfill)††††	31.02	42.64	3.38	2.05	2.24
Total Non-Hazardous Waste	82.00	97.10	219.20	311.81	218.19
Total Waste	82.63	97.66	226.84	327.55	241.33

Notes:

1. In our 2015 Sustainability Report, we reported our waste stream for our RIPS North America business unit only. In 2016, we expanded our data collection to all of our North American business units. In 2017, we expanded our data collection to all global operations. Data does not include facilities obtained as part of the acquisition of Caraustar. Legacy Caraustar facilities will be incorporated into waste reporting in 2020.

*Non-Landfill: Includes chemical-physical, incineration with energy recovery, recycled, reused, reclaimed, composted and fuels blending treatment methods

**Incinerated (with energy recovery): Treatment method involving the combustion of solid waste that results in energy capture.

***Composted: Treatment method involving the biological decomposition of solid or liquid operational waste

**** Incinerated (no energy recovery): Treatment method involving the combustion of solid waste that does not result in energy capture.

†Recycled: Treatment method involving the separation, preparation and sale of recyclable materials to end-user manufacturers.

††Reused: Treatment method involving the use of a material for its original purpose multiple times

†††Reclaimed: Treatment method involving the process of extracting and converting materials from recycled materials to be used again.

†††† Miscellaneous (Non Landfill): All other treatment methods not mentioned previously, including Deep Well Injection and On-Site Storage, which were reported separately in 2017.

PRODUCT LIFECYCLE MANAGEMENT (SASB RT-CP-410A.1, RT-CP-410A.2)

RAW MATERIALS FROM RECYCLED AND RENEWABLE SOURCES (FY 2019, % OF METRIC TONS)*	PERCENT OF SUBSTRATE	PERCENT OF TOTAL MATERIALS SOURCED
Total		71.2%
Recycled Content	13.7%	4.4%
Steel	15.0%	4.1%
Plastic	5.6%	0.4%
Renewable Sources	0.2%	1.7%
Plastic	0.2%	1.7%
Renewable and Recycled Content	100%	65.0%
Fibre	100%	65.0%

* As Greif's first year reporting SASB metrics, all figures are estimated based on our current product classifications and reporting practices. Data is reported only for our Rigid Industrial Packaging and Paper Packaging Services business segments and is estimated based on average procurement and manufacturing data across our product lines. 90% of the fiber used in our Paper Packaging Services business segment is sourced from 100% recycled content. 100% of the fiber used in our Paper Packaging Services business segment is sourced from renewable sources. For reporting purposes, 100% of that volume is reported as renewable and recycled content. Our 2020 report will include data with updated assumptions and from additional business segments.

REVENUE FROM PRODUCTS THAT ARE REUSABLE, RECYCLABLE, AND/OR COMPOSTABLE (\$)*	FY 2019
Total	\$2,631,808,470
Recyclable	\$2,444,531,000
Reusable	\$0
Compostable	\$187,277,000

*As Greif's first year reporting SASB metrics, all figures are estimated based on our current product classifications and financial reporting practices. Data has been aggregated to eliminate double counting. In our Rigid Industrial Packaging and Paper Packaging Services businesses, all steel, plastic and paper products are recyclable. All steel and plastic products are also designed to be reusable. Revenue from these products is counted as recyclable except for coated container board, which is compostable. Greif's fibre drums are recyclable, but excluded from these figures as doing so is not a common market practice. We will begin reporting fibre drums as recyclable when doing so becomes a more common practice in the market. Data does not include revenue from our Flexible Packaging Services business segment or Tri-Sure operating segment. Accurate data is currently unavailable from those segments, however we will include them in our 2020 report along with more accurate estimates across all of our business segments.

GRI 306-3

EARTHMINDED LIFE CYCLE SERVICES - ESTIMATED DRUMS AND IBCS RECONDITIONED*

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Recycled	780,500	1,045,093	904,883	849,498	831,576
Steel Drums	553,300	689,513	534,369	571,355	509,884
Poly Drums	196,300	277,672	212,272	161,447	243,186
Intermediate Bulk Containers	30,900	77,908	158,242	116,696	78,506
Reconditioned	4,076,700	3,808,242	3,218,885	3,258,848	3,533,358
Steel Drums	3,356,200	3,072,348	2,565,052	2,713,025	2,699,393
Poly Drums	374,100	375,307	321,188	244,497	194,011
Intermediate Bulk Containers	346,400	360,587	332,645	301,326	639,954
Total Collected	4,857,200	4,853,335	4,136,828	4,105,936	4,348,706
Steel Drums	3,909,500	3,761,861	3,099,633	3,284,380	3,193,049
Poly Drums	570,400	652,979	535,460	405,944	437,197
Intermediate Bulk Containers	377,300	438,495	501,735	415,612	718,460
Virgin Materials Saved by Reconditioning and Reuse (Metric Tons)**	77,773	71,573	63,111	63,587	76,400
Steel	70,198	65,743	56,200	57,664	66,900
High-Density Polyethylene	5,742	5,830	5,150	4,243	5,900
Wood	1,833	-	1,761	1,680	3,600
Virgin Materials Saved by Recycling (Metric Tons)**	12,076	17,402	18,755	16,644	16,145
Steel	9,657	13,288	13,463	12,697	10,918
High-Density Polyethylene	2,297	3,817	4,580	3,385	4,888
Wood	122	297	712	562	339

Notes:

1. Virgin Materials Saved by Reconditioning and Reuse data has been restated to standardize units across regions

*Estimated Drums and Intermediate Bulk Containers (IBCs) Recycled and Reconditioned (North America and Europe, Middle East and Africa)

**Estimates based on the quantity of reconditioned packaging and average packaging specifications (North America and Europe)

***Estimates based on the quantity of recycled packaging and average packaging specifications (North America and Europe)

REBU - ESTIMATED FLEXIBLE INTERMEDIATE BULK CONTAINERS (FIBCS) RECONDITIONED, EUROPE, MIDDLE EAST AND AFRICA*

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Total FIBCs Collected	-	-	-	316,324	275,732
Reconditioned	-	-	-	224,418	179,912
Recycled	-	-	-	91,906	95,820
Total Virgin Polyethylene Saved (Metric Tons)				727.6	634.2
Virgin Polyethylene Saved by Reconditioning and Reuse (Metric Tons)*	-	-	-	516.2	413.8
Virgin Polyethylene Saved by Recycling (Metric Tons)**	-	-	-	211.4	220.4

*Estimates based on the quantity of reconditioned packaging and average packaging specifications (Europe)

**Estimates based on the quantity of recycled packaging and average packaging specifications (Europe)

ENVIRONMENTAL OPERATIONAL POLICIES

Climate Change Policy

Climate Strategy, Energy, & Emissions

Climate Change Risks Discussed

2019 Annual Report, page 19; CDP C2.3a

Energy Efficiency Policy	Climate Strategy, Energy, & Emissions
Emissions Reduction Initiatives	Climate Strategy, Energy, & Emissions
Waste Reduction Policy	Waste
Water Policy	Water
Sustainable Packaging	Innovation, Supply Chain Management
Environmental Quality Management Policy	Environmental Management Systems
Environmental Supply Chain Management	Environmental Management Systems, Supply Chain Management
GRI Criteria Compliance	About Our Report
Biodiversity Policy	Biodiversity

Social Data

GRI 401-1, 404-1, 404-3

EMPLOYMENT

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Total Employees	-	-	13,171	13,066	17,042
Full Time	-	-	11,799	12,473	16,668
Part Time	-	-	175	151	169
Temporary	-	-	1,197	442	205
% Women in Management	-	22.0%	17.0%	16%	16%
% Women in Workforce	-	24.0%	25.0%	24%	23%
% Employees Covered by Collective Bargaining Agreements	-	65.3%	49.7%	52.0%	45.2%
New Employee Hires (Total)	3,917	2,467	2,925	2,941	3,626
Region					
Asia Pacific	-	-	647	560	456
Europe, Middle East and Africa	-	-	991	1,279	1,074
Latin America	-	-	240	170	410
North America	-	-	1,047	932	1,686
Gender					
Female	-	-	782	754	841
Male	-	-	2,143	2,187	2,785
Age					
16–20	-	-	202	163	247
21–30	-	-	1,198	1,102	1,372
31–40	-	-	798	865	1,023
41–50	-	-	507	568	620
51–60	-	-	208	202	315
60+	-	-	12	31	49
Employee Attrition*	27.9%	21.8%	21.3%	24.3%	24.0%
Region					
Asia Pacific	-	-	20.2%	19.7%	14.8%
Europe, Middle East and Africa	-	-	39.6%	40.0%	31.0%
Latin America	-	-	8.0%	10.5%	9.1%
North America	-	-	32.3%	29.8%	45.1%
Length of Service					
Less than 12 Months	-	-	50.2%	48.0%	49.0%
More than 12 Months	-	-	49.8%	52.0%	51.0%

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Training Hours per Employee**					
Skillport (Greif Learning Network)	-	-	2	2.55	5.5
Leadership, Professional, Production	-	-	9.6	6	3.2
Employees Receiving Regular Performance Reviews^	-	90%	92%	85%	92%

*Attrition by region and length of service given as percent of attrition for fiscal year.

**Average hours of training per unique participant. Data excludes safety training and local functional training. FY2017 data has been restated from the 2018 Sustainability Report to exclude this data. For more information on safety training, please see Health & Safety.

^Includes eligible professional, clerical and administrative employees.

GRI 403-2

EMPLOYEE HEALTH & SAFETY

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019***
MCR*	1.59	1.49	1.45	1.2	0.96	0.95	0.98	1.49
LWCR**	1.12	0.97	0.97	0.78	0.57	0.55	0.57	0.69

*MCR, or Medical Case Rate, measures the number of recordable injuries per 100 full-time employees in a 12-month period.

**LWCR, or Lost Workday Case Rate, measures the number of recordable injuries resulting in lost workdays per 100 full-time employees in a 12-month period.

*** 2019 data includes Caraustar for only March forward – no data included for first 4 months of fiscal year.

SOCIAL OPERATIONAL POLICIES

Health and Safety Policy	Environmental Health and Safety Policy
Equal Opportunity Policy	Equal Employment Opportunity & Diversity Policy
Human Rights Policy	Human Rights Policy
Training Policy	Talent Management Policy
Business Ethics Policy	Code of Business Conduct and Ethics
Fair Remuneration Policy	Equal Employment Opportunity & Diversity Policy Fair Treatment of Others Policy
Employee Protection/Whistle Blower Policy	Code of Business Conduct and Ethics
Anti-Bribery Ethics Policy	Anti-Bribery and Sanctions Policy
Policy Against Child Labor	Child Labor Policy

SUPPLY CHAIN MANAGEMENT

Social Supply Chain Management	Supplier Code of Conduct, Conflict Minerals Policy, Conflict Minerals Report
Supplier Guidelines Encompass ESG Areas; Publicly Disclosed	Supplier Code of Conduct

Product Data

GRI 416-2

PRODUCT QUALITY

		FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Corrective Action Rate (CAR)*	Rigid Industrial Packaging & Services North Amerca	-	1.9	1.6	1.3	1.0	1.0
	Europe, Middle East and Africa	-	-	-	-	-	1.28
Order Reliability Rate**	Rigid Industrial Packaging & Services North Amerca	-	99.6%	99.7%	99.8%	99.8%	99.8%
Number of Customer Complaints	Rigid Industrial Packaging & Services North Amerca	672	593	433	389	350	330
	Asia Pacific	-	-	-	-	-	334

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Europe, Middle East and Africa	-	-	-	-	-	898

*CAR measures customer complaints per 100,000 units produced

**Order Reliability Rate defines the rate of failure between orders produced and estimates non-compliance with voluntary codes. No regulatory failures or resultant fines have been identified.

ACTIVITY METRICS (SASB RT-CP-000.A, RT-CP-000.B, RT-CP-000.C)

PRODUCTION BY SUBSTRATE (METRIC TONS)*	FY 2019
Total	3,551,278
Paper	2,319,195
Plastic	264,450
Steel	967,633

*Production figures are aggregated based on primary substrate of finished good products.

PRODUCTION BY REVENUE (%)*	FY 2019
Paper	38.8%
Plastic	17.9%
Steel	32.0%
Other*	11.3%

*Other includes Filling, Reconditioning, Land and Other Misc. Products. Greif does not produce glass.

1.49
Medical Case Rate

Down 57 percent since 2007.

78.4%
Reduction in
Biochemical Oxygen
Demand

Our efforts in water quality have allowed us to already meet our 10% reduction by 2025 goal.

Internal Awards

Michael J. Gasser Global Sustainability Award

In 2010, we introduced the Michael J. Gasser Global Sustainability Award to encourage all Greif colleagues to consider the sustainability of their decisions at work. The award recognizes the environmentally-focused activities of Greif colleagues and superior effort in creating sustainable value across our supply chain.

2019 – Rigid Industrial Packaging & Services (RIPS) and Tri-Sure Businesses

Greif's Tri-Sure facility in Carol Stream collaborated with RIPS North America purchasing, RIPS Italy and four RIPS NA plants to source 800,000 pounds of recycled plastic resins to use in the production of IBC rear/corner feet and corner protectors. This internal sourcing strategy reduced costs by \$100,000. The team also reused empty corrugated bulk boxes to ship the recycled products they manufacture, reducing corrugated bulk box purchases by 84 percent. The project created company value and established environmental and financial benefits, while closing two internal loop systems and contributing to our circular economy by diverting waste from landfills and finding a new purpose for them. Due to the outstanding sustainability impact of the project and its ability to be scaled to other molding and injection molding facilities, the project and Tri-Sure Carol Stream team was awarded the 2019 Michael J. Gasser Sustainability Award.

2018 – RIPS EMEA

In 2018, we awarded the Michael J. Gasser Sustainability Award to a regional team consisting of HR and GSSC representatives from Greif's Rigid Industrial Packaging and Services (RIPS) business in our Europe, Middle East and Africa (EMEA) region for their successful efforts in reducing total fuel costs and overall CO2 emissions. RIPS EMEA modified the company car policy to standardize the types of cars available for use in the region. The updated policy applies to all colleagues in EMEA who renewed their company car. In total, the policy impacted 296 users during the project. The program achieved:

- A \$228,000 reduction in fuel costs
- 35 percent reduction in total CO2 emissions

The RIPS EMEA project truly demonstrates the wide array of possibilities that exist across the business, beyond the operational arena. This year's project helps Greif work towards its sustainability goals.

2017 – Greif RIPS and Tri-Sure Businesses in Brazil

Greif's Rigid Industrial Packaging and Services (RIPS) and Tri-Sure businesses in Brazil were awarded the 2017 Michael J. Gasser Sustainability Award for their successful efforts to reduce energy costs and environmental impact by migrating to renewable energy.

In 2016, a multifunctional team representing engineering, supply chain and operations from multiple plants collaborated with the objective to transition the plants' energy contracts from a captive to free market energy platform, improve the efficiency and profitability of operations and reduce their environmental footprint. The team leveraged new legislation encouraging renewable energy sources, offering lower energy transmission costs and lower tax rates. By implementing biomass, hydro-electric, wind and solar energy sources, the team far surpassed their goal to reduce energy costs by 10 percent annually. After one year, the team achieved:

- A 30 percent reduction of energy costs
- A cost savings of more than \$1.4 million USD
- A 70 percent reduction in CO2 emissions

In addition to the environmental and financial benefits for Greif, the changes help us create shared value with our customers. We congratulate our colleagues in Brazil for their success in demonstrating how we can take care of our facilities, benefit the environment, realize costs savings and improve operating results at the same time.

2016 – Greif RIPS Castenedolo Plant in Italy

The Greif Rigid Industrial Packaging and Services (RIPS) division's Castenedolo plant colleagues in Italy won the 2016 Michael J. Gasser Sustainability Award by fully embracing sustainable innovation principles to manufacture products that utilize methods, such as the use of recycled materials and dematerialization, that have a reduced negative impact on the environment while maintaining Greif's commitment to only produce products of the highest quality.

The Castenedolo plant colleagues worked on two separate sustainable innovation projects. The first project involved the reduction of the weight of our GCube bottles from 14kg to 13kg while maintaining product integrity. This resulted in a seven percent reduction in natural resources consumed to manufacture the product in addition to a reduction of 312 tons of carbon emissions and 432 MWh of electricity consumption per year.

The second project was the development of new manufacturing techniques over a six-month period to increase the percentage of Post-Consumer Resin (PCR) content in the production of plastic drums that can now be made with 75 percent PCR. PCR is produced from recollected plastics packaging products through a process of crashing, flaking, washing, melting and granulation. Through this development, the Castenedolo team replaced 500 tons of virgin raw materials with recycled plastic and reduced their carbon emissions by 750 tons per year.

The RIPS Italy colleagues from different departments came together and worked as one team to utilize sustainability as a catalyst to drive and inspire innovation beyond the usual parameters and boundaries. In doing so, they saved precious natural resources that not only improve Greif's overall environmental performance but also create value for our customers.

2015 – Greif Tri-Sure Business Unit

Greif's global packaging accessories business unit, Tri-Sure, won the 2015 Michael Gasser Sustainability Award. Tri-Sure has been investing in many aspects of sustainability including resource consumption reduction, colleagues health and safety, waste reduction and innovation for the last five years.

Tri-Sure led all the Greif business units by reducing their energy consumption by 37 percent, saving over four million dollars over the past five years and far exceeding the global corporate target of a 15 percent reduction in energy consumption.

Tri-Sure also invested in innovation to create a safer work environment, ahead of government regulations, by developing a passivation method called Chromium-3 Passivation that eliminated the risk of colleagues exposure to toxic materials while also decreasing toxicity of wastewater. This innovation made Tri-Sure the first in the market with such a product.

Moreover, Tri-Sure invested in sustainable product development to create a new venting screw cap system, Plasticap 60™ MPV3 Screwcap, that not only meets customer requirements but also requires fewer raw materials to make and reduces production waste. With this innovation, Tri-Sure grew the business of the screw caps market by 220 percent. By collaborating with their customers and integrating sustainability criteria to their innovation process, Tri-Sure grew their business, profitability and market reach.

The total economic benefit achieved from all 2015 nominations, including cost savings and increases in revenue, was approximately \$21 million. The total energy saved was close to two million kilowatt-hours, equivalent to carbon sequestered from 1,038 acres of U.S. forests in one year. Carbon emissions reduction equaled 20,501 tons, equivalent to 4,316 passenger vehicles driven for one year and the total reduction in waste equaled 6,067 tons.

2014 – President of RIPS EMEA and APAC; Green Tool Team

Ivan Signorelli, Group President for Greif Rigid Industrial Packaging and Services (RIPS) in EMEA and APAC, and the Green Tool team received the 2014 Michael J. Gasser Sustainability Award for their visionary work with life cycle assessments (LCA) and the practical application of this science at Greif with The Greif Green Tool.

Under the leadership of Ivan Signorelli, a team of Greif colleagues and Prof. Dr. Holger Buxel from the University of Applied Sciences Münster, worked with independent life cycle assessment specialists from the IFEU institute, located in Germany, to conduct life cycle assessments on Greif's industrial packaging products with the aim of discovering sustainability-related opportunities and threats in the market.

This information was used to develop the proprietary "Greif Green Tool", which helps companies of all sizes to reduce their carbon footprint by understanding the environmental impact of different containers and shipping solutions.

The Greif Green Tool is a flexible calculator that uses independent life cycle data of Greif products. It allows Greif's customers to see their carbon footprint data, review and compare the effects of different packaging application decisions and see possible reductions in greenhouse gas emissions. This enables them to choose the right packaging products that will keep their products safe while helping them meet their sustainability goals.

The team members were also recognized for their commercial leadership in utilizing this powerful tool with Greif's customers. More than 50 Greif customers have requested Green Tool demonstrations and analysis since the tool's development.

The Green Tool has been recognized by the Harvard Business Review in the article [Making the Consensus Sale](#). The article highlights Greif's Green Tool as a method for building consensus across an organization while showing the sustainability benefits of Greif products. The Greif Green Tool was also featured in other publications such as the MIT Sloan Management Review and case studies published by the WBCSD and [The Corporate Executive Board Company](#).

2013 – Greif PPS Riverville Mill Team

The Paper Packaging and Services (PPS) Riverville Mill team won the 2013 Michael J. Gasser Global Sustainability Award for their energy reduction project that began approximately five years ago. The team succeeded in reducing Riverville Mill's energy consumption by more than 7 percent while increasing throughput by almost 5 percent compared to FY 2008. They accomplished this through continuous improvement projects to modify operating strategies through process optimization and colleagues education and engagement; through a series of capital investments to utilize technology to improve controls; and through the involvement of all colleagues.

In addition to reducing the plant's specific energy consumption and cost, the team's work has also directly resulted in a reduction in carbon emissions through their efforts to reducing reliance on fossil fuel. The team has applied technologies including Variable Frequency Drives (VFDs) in 40 applications since 2009 and seven in 2013 that were identified by internal auditing to be candidates for significant energy reduction.

The team's work has reduced site energy consumption by 300 million KWh/year since 2009.

2012 – Greif Subsidiary CorrChoice

Greif subsidiary CorrChoice won the 2012 Michael J. Gasser Global Sustainability Award for developing the game-changing product LeaderCorr™. LeaderCorr replaces foam board used by the retail industry and others for printed signs and in-store displays.

LeaderCorr is a double-walled corrugated sheet that, unlike foam board, is completely recyclable. This means it can be put into the OCC (old corrugated containers, i.e., used cardboard) waste stream, which is an income source for the retailer.

The production of LeaderCorr is also environmentally responsible and, because it is an income source, sustainable. In its manufacture, the product uses less energy, less water and less starch than traditional paper-based corrugated materials. Because of the technology that uses less water, the LeaderCorr sheets are flatter than other corrugated sheets, and when overlaid with a high quality white liner, provide an ideal surface for high-impact printing. Its thickness can also be tailored for specific applications.

In 2012, the total energy saved from all nominations of the Michael J. Gasser Sustainability Award equaled to 66 million KWH and a carbon emissions reduction of 12,000 metric tons, which is equivalent to greenhouse gas emissions from 9,595 passenger vehicles or the electricity use of 6,967 homes for one year.

2011 – Greif Subsidiary Delta Companies Group

For their work in developing more sustainable engine lubricants and automotive fluids for the future, Greif subsidiary Delta Companies Group won Greif's 2011 Michael J. Gasser Global Sustainability Award.

The team collaborated to create high performing yet sustainable oil, lube and automotive fluid products for consumers. By using alternative renewable resources, packaging and recycled materials, and then conducting a life cycle assessment on the products, Delta was able to:

- Achieve a carbon footprint reduction of 29 to 50 percent in improved bar and chain, automotive and small engine oils, and a 38 to 51 percent lower abiotic resource depletion than conventional alternatives. The cumulative environmental impact demonstrated a 10 to 28 percent improvement over conventional products
- Realize a 71 percent reduction in landfill waste with alternative packaging
- Reduce landfill waste by 977,000 gallons, energy consumption of oil products by 90 percent and CO2 emissions by 64 percent with the use of re-refined base oils, methanol and glycols

The total economic benefit achieved from all nominations in 2011, including cost savings and increases in revenue, was over \$14 million dollars.

2010 – Greif's Latin America Business Unit

The first recipient of the Michael J. Gasser Global Sustainability Award was Greif's entire Latin America strategic business unit. The organization tackled the reduction of their energy use, embracing energy excellence to the extent of taking their commitment home with them. They developed training and delivered it to all workers, and in the process effected a cultural change and generated a passion for conservation.

Consistent with their commitment, this award is not the capstone of their efforts. They have continued to reduce their energy consumption, began to work on reducing their water consumption and institutionalized Greif's zero waste initiative.

The total economic benefit achieved from all nominations in 2010, including cost savings and increases in revenue, was over \$17 million. We also documented an environmental impact of:

- 118 million pounds of CO2 averted
- 6 million pounds of waste eliminated
- 5 million gallons of water saved

A-
Greif's 2019 CDP Score

Demonstrating excellence in carbon management, governance, strategy and best practices, and outperforming the overall and North American average CDP score of C.

Gold
Recognition from EcoVadis

Received for our commitment to Corporate Social Responsibility, placing us in the top four percent of all assessed suppliers.

93.9%
Average Together for Sustainability Score

Our audited facilities are contributing to developing industry-wide sustainability standards for suppliers to chemical manufacturers.

GRI Content Index

General Standard Disclosures

GRI INDICATOR	DESCRIPTION	LOCATION
Organizational Profile		
GRI 102: General Disclosures 2016	102-1 Name of the organization	Greif Inc.
GRI 102: General Disclosures 2016	102-2 Activities, brands, products, and services	Products, Services, and Markets 2019 Annual Report, Item 1, pp. 8-11
GRI 102: General Disclosures 2016	102-3 Location of headquarters	Delaware, OH
GRI 102: General Disclosures 2016	102-4 Location of operations	Countries of Operation Global Footprint
GRI 102: General Disclosures 2016	102-5 Ownership and legal form	2019 Annual Report, p. 4
GRI 102: General Disclosures 2016	102-6 Markets served	Countries of Operation Global Footprint Products, Services, and Markets
GRI 102: General Disclosures 2016	102-7 Scale of the organization	Organizational Overview 2019 Annual Report, p. 4, Item 8, p. 58
GRI 102: General Disclosures 2016	102-8 Information on employees and other workers	Our Workforce
GRI 102: General Disclosures 2016	102-9 Supply chain	Stakeholder Engagement & Materiality
GRI 102: General Disclosures 2016	102-10 Significant changes to the organization and its supply chain	2019 Annual Report, pp. 46-48, Note 6, p. 80
GRI 102: General Disclosures 2016	102-11 Precautionary Principle or approach	Addressing Risk 2019 Proxy Statement, pp. 24-25
GRI 102: General Disclosures 2016	102-12 External initiatives	About Our Report; Governance, Policies & Partnerships
GRI 102: General Disclosures 2016	102-13 Memberships of associations	Trade Associations
Strategy		
GRI 102: General Disclosures 2016	102-14 Statement from senior decision-maker	Executive Letter
Ethics and Integrity		
GRI 102: General Disclosures 2016	102-16 Values, principles, standards, and norms of behavior	Governance, Policies & Partnerships; Ethics & Compliance The Greif Way
Governance		
GRI 102: General Disclosures 2016	102-18 Governance structure	Governance, Policies & Partnerships 2019 Proxy Statement, pp. 23-24
GRI 102: General Disclosures 2016	102-20 Executive-level responsibility for economic, environmental, and social topics	Governance, Policies & Partnerships
GRI 102: General Disclosures 2016	102-23 Chair of the highest governance body	Michael Gasser serves as Chairman of the Board of Directors; Peter Watson serves as President and Chief Executive Officer
Stakeholder Engagement		
GRI 102: General Disclosures 2016	102-40 List of stakeholder groups	Stakeholder Engagement & Materiality
GRI 102: General Disclosures 2016	102-41 Collective bargaining agreements	Human Rights & Fair Labor Practices; Performance Dashboard Our Workforce
GRI 102: General Disclosures 2016	102-42 Identifying and selecting stakeholders	Stakeholder Engagement & Materiality
GRI 102: General Disclosures 2016	102-43 Approach to stakeholder engagement	Stakeholder Engagement & Materiality
GRI 102: General Disclosures 2016	102-44 Key topics and concerns raised	Stakeholder Engagement & Materiality
Reporting Practices		
GRI 102: General Disclosures 2016	102-45 Entities included in the consolidated financial statements	Greif's Significant Subsidiaries 2019 Annual Report, Exhibit 21, pp. 123-124
GRI 102: General Disclosures 2016	102-46 Defining report content and topic Boundaries	Stakeholder Engagement & Materiality
GRI 102: General Disclosures 2016	102-47 List of material topics	Stakeholder Engagement & Materiality
GRI 102: General Disclosures 2016	102-48 Restatements of information	Performance Dashboard
GRI 102: General Disclosures 2016	102-49 Changes in reporting	Report topics based on 2017 Stakeholder Engagement & Materiality
GRI 102: General Disclosures 2016	102-50 Reporting period	About Our Report
GRI 102: General Disclosures 2016	102-51 Date of most recent report	2019 Sustainability Report
GRI 102: General Disclosures 2016	102-52 Reporting cycle	Annual
GRI 102: General Disclosures 2016	102-53 Contact point for questions regarding the report	About Our Report

GRI 102: General Disclosures 2016	102-54 Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option
GRI 102: General Disclosures 2016	102-55 GRI content index	GRI Content Index
GRI 102: General Disclosures 2016	102-56 External assurance	Emission data assured through Bureau Veritas

Specific Standard Disclosures

GRI INDICATOR	DESCRIPTION	LOCATION	OMISSIONS
Economic Topics			
ECONOMIC PERFORMANCE			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	2019 Annual Report	
GRI 103: Management Approach 2016	103-2 Explain management approach components	2019 Annual Report	
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Financial Performance & Profitable Growth 2019 Annual Report	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	2019 Annual Report	
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	2019 Annual Report, Item 1A, pp. 20, 22	
GRI 201: Economic Performance 2016	201-3 Defined benefit plan obligations and other retirement plans	2019 Annual Report, Note 12, pp. 93-100	
ANTI-CORRUPTION			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Ethics & Compliance Anti-Bribery Compliance Policy Code of Business Conduct and Ethics Corporate Governance Guidelines Insider Trading Policy	
GRI 103: Management Approach 2016	103-2 Explain management approach components	Ethics & Compliance Anti-Bribery Compliance Policy Code of Business Conduct and Ethics Corporate Governance Guidelines Insider Trading Policy	
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Ethics & Compliance Anti-Bribery Compliance Policy Code of Business Conduct and Ethics Corporate Governance Guidelines Insider Trading Policy	
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Ethics & Compliance Anti-Bribery Compliance Policy	
GRI 205: Anti-corruption 2016	205-2 Communication and training about anti-corruption policies and procedures	Ethics & Compliance Anti-Bribery Compliance Policy	
GRI 205: Anti-corruption 2016	205-3 Confirmed incidents of corruption and actions taken	Greif is not aware of confirmed incidents of corruption	
ANTI-COMPETITIVE BEHAVIOR			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Ethics & Compliance Antitrust/Competition Compliance Policy	
GRI 103: Management Approach 2016	103-2 Explain management approach components	Ethics & Compliance Antitrust/Competition Compliance Policy	
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Ethics & Compliance Antitrust/Competition Compliance Policy	
GRI 206: Anti-competitive behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Zero	
CUSTOMER SERVICE EXCELLENCE			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Customer Service Excellence	
GRI 103: Management Approach 2016	103-2 Explain management approach components	Customer Service Excellence	
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Customer Service Excellence	
	Customer Satisfaction Index	Customer Service Excellence	
	Net Promoter Score	Customer Service Excellence	
INNOVATION			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Innovation	
GRI 103: Management Approach 2016	103-2 Explain management approach components	Innovation	
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Innovation	
	Percentage of revenue from sustainability-tagged products	11%	
RISK MANAGEMENT & BUSINESS CONTINUITY			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Risk Management & Business Continuity	
GRI 103: Management Approach 2016	103-2 Explain management approach components	Risk Management & Business Continuity	
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Risk Management & Business Continuity	

	Significant business continuity issues in 2019	Greif did not experience any business continuity issues that resulted in missed customer orders in 2019.
Environmental Topics		
MATERIALS		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Waste; Innovation
GRI 103: Management Approach 2016	103-2 Explain management approach components	Waste; Innovation
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Waste; Innovation
GRI 301: Materials 2016	301-3 Reclaimed products and their packaging materials	Waste; Performance Dashboard
ENERGY		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Climate Strategy, Energy & Emissions
GRI 103: Management Approach 2016	103-2 Explain management approach components	Climate Strategy, Energy & Emissions
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Climate Strategy, Energy & Emissions
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Climate Strategy, Energy & Emissions; Performance Dashboard; UNGC COP
GRI 302: Energy 2016	302-4 Reduction of energy consumption	Climate Strategy, Energy & Emissions; Performance Dashboard
WATER		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Water
GRI 103: Management Approach 2016	103-2 Explain management approach components	Water
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Water
GRI 303: Water 2016	303-1 Water withdrawal by source	Performance Dashboard
GRI 303: Water 2016	303-2 Water sources significantly affected by withdrawal of water	Performance Dashboard; Water
GRI 303: Water 2016	303-3 Water recycled and reused	Performance Dashboard
BIODIVERSITY		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Biodiversity
GRI 103: Management Approach 2016	103-2 Explain management approach components	Biodiversity
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Biodiversity
GRI 304: Biodiversity 2016	304-3 Habitats protected or restored	Biodiversity
EMISSIONS		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Climate Strategy, Energy & Emissions
GRI 103: Management Approach 2016	103-2 Explain management approach components	Climate Strategy, Energy & Emissions
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Climate Strategy, Energy & Emissions
GRI 305: Emissions 2016	305-1.2 Explain whether offsets were used	Performance Dashboard
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Climate Strategy, Energy & Emissions; Performance Dashboard
GRI 305: Emissions 2016	305-2 Energy indirect (Scope 2) GHG emissions	Climate Strategy, Energy & Emissions; Performance Dashboard
GRI 305: Emissions 2016	305-3 Other indirect (Scope 3) GHG emissions	Climate Strategy, Energy & Emissions; Performance Dashboard
GRI 305: Emissions 2016	305-4 GHG emissions intensity	Climate Strategy, Energy & Emissions; Performance Dashboard
GRI 305: Emissions 2016	305-5 Reduction of GHG emissions	Climate Strategy, Energy & Emissions; Performance Dashboard
EFFLUENTS AND WASTE		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Water; Waste
GRI 103: Management Approach 2016	103-2 Explain management approach components	Water; Waste
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Water; Waste
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	Water; Performance Dashboard
GRI 306: Effluents and Waste 2016	306-2 Waste by type and disposal method	Water; Performance Dashboard

GRI 306: Effluents and Waste 2016	306-3 Significant spills	Performance Dashboard; Water Zero
GRI 306: Effluents and Waste 2016	306-5 Water bodies affected by water discharges and/or runoff	Water; Performance Dashboard
ENVIRONMENTAL COMPLIANCE		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Environmental Management Systems
GRI 103: Management Approach 2016	103-2 Explain management approach components	Environmental Management Systems
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Environmental Management Systems
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	Cradle to Cradle Manufacturing, Reconditioning & Recycling Container Life Cycle Management
SUPPLY CHAIN MANAGEMENT		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Supply Chain Management
GRI 103: Management Approach 2016	103-2 Explain management approach components	Supply Chain Management
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Supply Chain Management
	Annual EcoVadis score	Gold
END-OF-LIFE RECONDITIONING, REUSE & RECYCLING		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Cradle to Cradle Manufacturing, Reconditioning & Recycling
GRI 103: Management Approach 2016	103-2 Explain management approach components	Cradle to Cradle Manufacturing, Reconditioning & Recycling
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Cradle to Cradle Manufacturing, Reconditioning & Recycling
	Drums and IBCs Reconditioned	Performance Dashboard; Waste
Social Topics		
EMPLOYMENT		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Talent Attraction, Development & Retention
GRI 103: Management Approach 2016	103-2 Explain management approach components	Talent Attraction, Development & Retention
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Talent Attraction, Development & Retention
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Talent Attraction, Development & Retention; Performance Dashboard
GRI 401: Employment 2016	401-3 Parental leave	Talent Attraction, Development & Retention
OCCUPATIONAL HEALTH AND SAFETY		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Health & Safety
GRI 103: Management Approach 2016	103-2 Explain management approach components	Health & Safety
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Health & Safety
GRI 403: Occupational Health and Safety 2016	403-1 Workers representation in formal joint management-worker health and safety committees	Health & Safety
GRI 403: Occupational Health and Safety 2016	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Health & Safety; Performance Dashboard
GRI 403: Occupational Health and Safety 2016	403-4 Health and safety topics covered in formal agreements with trade unions	Health & Safety
TRAINING AND EDUCATION		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Talent Attraction, Development & Retention
GRI 103: Management Approach 2016	103-2 Explain management approach components	Talent Attraction, Development & Retention
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Talent Attraction, Development & Retention
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	Talent Attraction, Development & Retention; Performance Dashboard
GRI 404: Training and Education 2016	404-2 Programs for upgrading employee skills and transition assistance programs	Talent Attraction, Development & Retention Outplacement support may be provided when appropriate to support career endings and facility closures, determined by local management discretion.
GRI 404: Training and Education 2016	404-3 Percentage of employees receiving regular performance and career development reviews	Talent Attraction, Development & Retention
DIVERSITY AND EQUAL OPPORTUNITY		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Human Rights & Fair Labor Practices Equal Employment Opportunity and Diversity Policy
GRI 103: Management Approach 2016	103-2 Explain management approach components	Human Rights & Fair Labor Practices Equal Employment Opportunity and Diversity Policy

GRI 103: Management Approach 2016	103-3 Evaluate management approach	Human Rights & Fair Labor Practices Equal Employment Opportunity and Diversity Policy
GRI 405: Diversity and Equal Opportunity 2016	405-2 Ratio of basic salary and remuneration of women to men	Performance Dashboard
NON-DISCRIMINATION		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Human Rights & Fair Labor Practices Equal Employment Opportunity and Diversity Policy
GRI 103: Management Approach 2016	103-2 Explain management approach components	Human Rights & Fair Labor Practices Equal Employment Opportunity and Diversity Policy
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Human Rights & Fair Labor Practices Equal Employment Opportunity and Diversity Policy
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	No incidents reported
FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Human Rights & Fair Labor Practices Human Rights Policy
GRI 103: Management Approach 2016	103-2 Explain management approach components	Human Rights & Fair Labor Practices Human Rights Policy
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Human Rights & Fair Labor Practices Human Rights Policy
GRI 407: Freedom of Association and Collectiv	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Human Rights & Fair Labor Practices
CHILD LABOR		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Human Rights & Fair Labor Practices Child Labor Policy
GRI 103: Management Approach 2016	103-2 Explain management approach components	Human Rights & Fair Labor Practices Child Labor Policy
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Human Rights & Fair Labor Practices Child Labor Policy
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	No significant risks have been identified
FORCED OR COMPULSORY LABOR		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Human Rights & Fair Labor Practices Human Rights Policy
GRI 103: Management Approach 2016	103-2 Explain management approach components	Human Rights & Fair Labor Practices Human Rights Policy
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Human Rights & Fair Labor Practices Human Rights Policy
GRI 409: Forced of Compulsory Labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	No significant risks have been identified
HUMAN RIGHTS ASSESSMENT		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Human Rights & Fair Labor Practices Human Rights Policy
GRI 103: Management Approach 2016	103-2 Explain management approach components	Human Rights & Fair Labor Practices Human Rights Policy
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Human Rights & Fair Labor Practices Human Rights Policy
GRI: 412: Human Rights Assessment 2016	412-2 Employee training on human rights policies or procedures	Ethics & Compliance
CUSTOMER HEALTH AND SAFETY		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Product Quality
GRI 103: Management Approach 2016	103-2 Explain management approach components	Product Quality
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Product Quality
GRI 416: Customer Health and Safety 2016	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Product Quality; Performance Dashboard
CUSTOMER PRIVACY		
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Security 2019 Annual Report, p. 20
GRI 103: Management Approach 2016	103-2 Explain management approach components	Security 2019 Annual Report, p. 20
GRI 103: Management Approach 2016	103-3 Evaluate management approach	Security 2019 Annual Report, p. 20
GRI 418: Customer Privacy 2016	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Security

93.9%

**Average Together for
Sustainability Score**

Our audited facilities are contributing to developing industry-wide sustainability standards for suppliers to chemical manufacturers.

17.77

**Average Safety Training
Hours**

Each production colleague in our business receives safety training, ensuring our safety culture is understood and practiced every day.

78.4%

**Reduction in
Biochemical Oxygen
Demand**

Our efforts in water quality have allowed us to already meet our 10% reduction by 2025 goal.

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UNGC COP

PRINCIPLE	PRINCIPLE DESCRIPTION	LOCATION
1	Businesses should support and respect the protection of internationally proclaimed human rights	Policies <ul style="list-style-type: none"> ■ Environmental Health & Safety Policy ■ Fair Treatment of Others Policy ■ Human Rights Policy Implementation <ul style="list-style-type: none"> ■ Health & Safety ■ Human Rights & Fair Labor Practices ■ Supply Chain Management
2	Businesses should make sure they are not complicit in human rights abuses	Policies <ul style="list-style-type: none"> ■ Conflict Minerals Policy ■ Conflict Minerals Report ■ Human Rights Policy ■ Supplier Code of Conduct Implementation <ul style="list-style-type: none"> ■ Health & Safety ■ Human Rights & Fair Labor Practices ■ Supply Chain Management
3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	Policies <ul style="list-style-type: none"> ■ Human Rights Policy Implementation <ul style="list-style-type: none"> ■ Health & Safety ■ Human Rights & Fair Labor Practices ■ Our Workforce ■ Risk Management & Business Continuity ■ Supply Chain Management
4	Businesses should uphold the elimination of all forms of forced and compulsory labor	Policies <ul style="list-style-type: none"> ■ Child Labor Policy ■ Human Rights Policy ■ Supplier Code of Conduct ■ Transparency in Supply Chain Disclosure Implementation <ul style="list-style-type: none"> ■ Human Rights & Fair Labor Practices
5	Businesses should uphold the effective abolition of child labor	Policies <ul style="list-style-type: none"> ■ Child Labor Policy ■ Human Rights Policy Implementation <ul style="list-style-type: none"> ■ Human Rights & Fair Labor Practices
6	Businesses should uphold the elimination of discrimination in respect of employment and occupation	Policies <ul style="list-style-type: none"> ■ Anti-Harassment and Anti-Discrimination Policy ■ Human Rights Policy ■ Equal Employment Opportunity and Diversity ■ Fair Treatment of Others Policy Implementation <ul style="list-style-type: none"> ■ Human Rights & Fair Labor Practices ■ Talent Attraction, Development & Retention
7	Businesses should support a precautionary approach to environmental challenges	Policies <ul style="list-style-type: none"> ■ Environmental Health and Safety Policy ■ Greif Code of Business Conduct Implementation <ul style="list-style-type: none"> ■ Executive Letter ■ Innovation ■ Reducing our Footprint ■ Risk Management & Business Continuity ■ Governance, Policies & Partnerships
8	Businesses should undertake initiatives to promote greater environmental responsibility	Policies <ul style="list-style-type: none"> ■ Environmental Health & Safety Policy ■ Greif Code of Business Conduct Implementation <ul style="list-style-type: none"> ■ Advancing Circular Economy ■ Executive Letter ■ Governance, Policies & Partnerships ■ Reducing our Footprint ■ Stakeholder Engagement & Materiality ■ Sustainability Goals

PRINCIPLE	PRINCIPLE DESCRIPTION	LOCATION
9	Businesses should encourage the development and diffusion of environmentally friendly technologies	Policies <ul style="list-style-type: none"> ■ Environmental Health & Safety Policy Implementation <ul style="list-style-type: none"> ■ Advancing Circular Economy ■ Reducing our Footprint
10	Businesses should work against corruption in all its forms, including extortion and bribery	Policies <ul style="list-style-type: none"> ■ Anti-Bribery & Sanctions Policy ■ Antitrust/Competition Compliance Policy ■ Code of Business Conduct and Ethics ■ Economic and Trade Sanctions Policy ■ Insider Trading Policy ■ Supplier Code of Conduct Implementation <ul style="list-style-type: none"> ■ About This Report ■ Ethics & Compliance ■ Governance, Policies & Partnerships ■ Supplier Code of Conduct

11.0%

Emissions Intensity Reduction

Against our 2014 baseline in support of our 2020 goal.






31

Facilities Achieving Zero Waste to Landfill

Our efforts to reduce waste are global, with each facility working towards our 2025 goal.

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UN SDG Content Index

SDG	RELEVANT INDICATORS	SUPPORTING METRICS	MATERIAL TOPIC ALIGNMENT
3 GOOD HEALTH AND WELL-BEING 	3.7: By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes	Providing maternity or paternity leave	<ul style="list-style-type: none"> Talent Attraction, Development & Retention
	3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Performance Dashboard: GRI 305-1, 305-2, 305-3	<ul style="list-style-type: none"> Waste Supply Chain Management Biodiversity Health & Safety Human Rights & Fair Labor Practices
Quality Education Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.			
4 QUALITY EDUCATION 	4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes	Enforcing zero-tolerance child labor policies within own operations, and influencing child labor policies within the supply chain	<ul style="list-style-type: none"> Human Rights and Fair Labor Practices
	4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university	Performance Dashboard: GRI 404-1	<ul style="list-style-type: none"> Talent Attraction, Development & Retention
	4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development	Including information on human rights, gender equality and sustainable development in internal policies, such as employee and supplier codes of conduct, and increasing awareness and practice by ensuring that these policies are thoroughly shared and understood by all employees including those in the supply chain	<ul style="list-style-type: none"> Supply Chain Management Health & Safety
Gender Equality Achieve gender equality and empower all women and girls			
5 GENDER EQUALITY 	5.1 End all forms of discrimination against all women and girls everywhere	Including non-discrimination clauses in supplier code of conduct policies and supporting suppliers in advancing gender equality and women's empowerment.	<ul style="list-style-type: none"> Human Rights and Fair Labor Practices Supply Chain Management
	5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life	Performance Dashboard: GRI 406-1	<ul style="list-style-type: none"> Talent Attraction, Development & Retention
Clean Water and Sanitation Ensure access to water and sanitation for all			
6 CLEAN WATER AND SANITATION 	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	Performance Dashboard: GRI 303-3, 306-1	<ul style="list-style-type: none"> Environmental Management Systems Water Waste
	6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	Performance Dashboard: GRI 304-3	<ul style="list-style-type: none"> Biodiversity
Decent Work and Economic Growth Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all			
8 DECENT WORK AND ECONOMIC GROWTH 	8.2: Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors	Improving the efficiency of use of energy, water, (raw) materials and other resources.	<ul style="list-style-type: none"> Innovation
	8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation	Performance Dashboard: GRI 302-1	<ul style="list-style-type: none"> Product Quality Innovation End-of-Life Reconditioning, Reuse & Recycling
	8.7: Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms	Performance Dashboard: GRI 408-1	<ul style="list-style-type: none"> Human Rights & Fair Labor Practices
	8.8: Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment	Performance Dashboard: GRI 403-2	<ul style="list-style-type: none"> Health & Safety

Industry, Innovation and Infrastructure

Build resilient infrastructure, promote sustainable industrialization and foster innovation



9.2: Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

Embedding policies which promote diversity and inclusion throughout own operations, and encouraging suppliers and other business partners to do the same.

Performance Dashboard: GRI 305-4

- Talent Attraction, Development & Retention

- Product Quality
- Customer Service Excellence
- Environmental Management Systems
- Climate Strategy, Energy & Emissions
- Innovation
- End-of-Life Reconditioning, Reuse, & Recycling

Reduced Inequalities

Reduce inequality within and among countries



10.2: By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

10.3: Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

10.4: Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality

Embedding policies which promote diversity and inclusion throughout own operations, and encouraging suppliers and other business partners to do the same.

Ensuring non-discrimination across business operations including remuneration and benefits, product impact (for example the impact of product design on harmful gender stereotypes), and the inclusion of the supply chain

Paying at a minimum the living wage and providing insurance for employees, such as income protection, life or accident insurance and social security

- Talent Attraction, Development & Retention

- Ethics & Compliance

- Risk Management & Business Continuity

Responsible Consumption and Production

Ensure sustainable consumption and production patterns



12.2: By 2030, achieve the sustainable management and efficient use of natural resources

12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

Performance Dashboard: 302-1, 302-4

Performance Dashboard: GRI 306-2

Performance Dashboard: GRI 306-2

Reporting economic, social and environmental sustainability using a common international reporting standard/framework

- Environmental Management Systems

- Environmental Management Systems
- Innovation

- Waste
- Supply Chain Management
- End-of-Life Reconditioning, Reuse, & Recycling

- Biodiversity

Climate Action

Take urgent action to combat climate change and its impacts



13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

GRI Content Index; GRI 201-2

- Climate Strategy, Energy & Emissions
- Risk Management & Business Continuity
- Innovation
- End-of-Life Reconditioning, Reuse & Recycling

294

LEAP Participants

Since 2014, 294 colleagues have participated in LEAP, our three-week leadership development program.

1.49

Medical Case Rate

Down 57 percent since 2007.

290

290 sites around the world

Our global reach is near you.

SASB Index

TOPIC	METRIC	CATEGORY	UNIT OF MEASUREMENT	CODE	RESPONSE/COMMENT
Greenhouse Gas Emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tons (t) CO ₂ -e, Percentage (%)	RT-CP-110a.1	Performance Dashboard - Emissions 0% of Greif's emissions are covered under emissions-limiting regulations
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	N/A	RT-CP-110a.2	<ul style="list-style-type: none"> Climate Strategy, Energy & Emissions CDP Climate Change C3, C4, C5
Air Quality	Air emissions of the following pollutants: (1) NO _x (excluding N ₂ O), (2) SO _x , (3) volatile organic compounds (VOCs), and (4) particulate matter (PM)	Quantitative	Metric tons (t)	RT-CP-120a.1	Greif does not currently report this data. We will evaluate our ability to report this data in our 2020 report.
Energy Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	Quantitative	Gigajoules (GJ), Percentage (%)	RT-CP-130a.1	<ul style="list-style-type: none"> Performance Dashboard - Energy CDP Climate Change C8.2e, C8.2f
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic meters (m ³), Percentage (%)	RT-CP-140a.1	Greif currently reports total water withdrawn and consumed within the relevant boundary of our organization, but does not currently report this data by regions with high levels of water stress. We will evaluate our ability to report this data in our 2020 report.
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Quantitative	Number	RT-CP-140a.2	Water
	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Quantitative	Number	RT-CP-140a.3	Zero
Waste Management	Amount of hazardous waste generated, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	RT-CP-150a.1	Performance Dashboard - Waste Stream
Product Safety	Number of recalls issued, total units recalled	Quantitative	Number	RT-CP-250a.1	Zero
	Discussion of process to identify and manage emerging materials and chemicals of concern	Discussion and Analysis	N/A	RT-CP-250a.2	<p>Greif currently conducts health and safety assessments for any new chemicals, materials or equipment that will be introduced in our company. Please Environmental Management Systems for more information about these processes.</p> <p>In 2020 Greif will be conducting a chemical safety assessment in support of building a more enhanced and formalized chemical safety program. We will report our progress on this initiative in our 2020 report.</p>
Product Lifecycle Management	Percentage of raw materials from: (1) recycled content, (2) renewable resources, and (3) renewable and recycled content	Quantitative	Percentage (%) by weight	RT-CP-410a.1	Performance Dashboard - Product Lifecycle Management
	Revenue from products that are reusable, recyclable, and/or compostable	Quantitative	Reporting currency	RT-CP-410a.2	Performance Dashboard - Product Lifecycle Management
	Discussion of strategies to reduce the environmental impact of packaging throughout its lifecycle	Discussion and Analysis	N/A	RT-CP-410a.3	<ul style="list-style-type: none"> Cradle-to-Cradle Recconditioning, Reuse & Recycling Innovation Supply Chain Management Waste

TOPIC	METRIC	CATEGORY	UNIT OF MEASUREMENT	CODE	RESPONSE/COMMENT
Supply Chain Management	Total wood fiber procured, percentage from certified sources	Quantitative	Metric tons (t), Percentage (%)	RT-CP-430a.1	In FY19 Greif purchased 411,541 metric tons of virgin wood fiber. Weight of the fiber is based on weight at received moisture, which can include approximately 50 percent water weight. 100 percent of fiber is sourced under an SFI-certified Procurement program. All wood fiber is procured by our Riverville mill.
	Total aluminum purchased, percentage from certified sources	Quantitative	Metric tons (t) CO ₂ -e, Percentage (%)	RT-CP-430a.2	Greif purchased 62 metric tons of aluminum in FY2019. 100% was from certified sources.
Activity Metrics	Amount of production, by substrate	Quantitative	Metric tons (t)	RT-CP-000.A	Performance Dashboard - Activity Metrics
	Percentage of production as: (1) paper/wood, (2) glass, (3) metal, and (4) plastic	Quantitative	Percentage (%) by revenue	RT-CP-000.B	Performance Dashboard - Activity Metrics
	Number of employees	Quantitative	Number	RT-CP-000.C	17,000

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Facilities Achieving Zero Waste to Landfill

Our efforts to reduce waste are global, with each facility working towards our 2025 goal.

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