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At O-I, our vision is to be the most innovative, sustainable, and chosen supplier of brand-building packaging solutions.

While we believe glass packaging is already the most sustainable packaging solution, sustainability at O-I is about more than what we make. It is also about how we make it. It is about the interconnected ecosystem that involves our suppliers, our customers, our people, and the communities where we operate. It is about achieving balance between our operations and the products we make with the current and future needs of our communities, the planet, and our collective prosperity. At O-I, the journey to this balance—sustainability—is grounded in resilience, innovation, and the ever-present challenge to transform what we do.

...achieving balance between our operations and the products we make with the current and future needs of our communities, the planet, and our collective prosperity.

The global challenges posed by the likes of climate change, socio-economic disparities, and social justice issues—all exacerbated by COVID-19—are pressing reminders that we must constantly examine our approach to sustainability and the delicate balance that can exist among people, the planet, and prosperity. In 2020, we conducted such an examination and took bold action. We not only refreshed our business strategy, but also structurally elevated sustainability to a global function and expanded our sustainability ambitions. We enhanced matters from our approach to governance and management of sustainability to the number of initiatives and quantitative goals. We are excited to share our elevated ambitions and what they mean for O-I and its stakeholders.

We have about 25,000 employees across 20 countries and 72 facilities. Every day, these skilled artisans transform four natural ingredients—sand, soda ash, limestone, and recycled glass—into millions of different containers that engage consumers and bring our customers’ visions for their products to life. Our finished products preserve and protect what they carry and do not have product-contact issues. They will not harm people, the earth, or oceans and can be infinitely recycled. In this report, you will see how our passionate people and the innovative processes behind remarkable products fit into our sustainable future.
As you will learn in these pages, we have been busy driving innovations to improve the sustainability of our process and product. You will see examples of how we innovated to lower our CO₂ emissions intensity by transforming combustion byproducts into a heat source for the surrounding community. There are examples of how we lower energy and emissions through the use of recycled glass, process improvements, and advanced gas-oxygen-fueled furnaces. We are commercializing an innovative decorating technology to enhance labeling and reduce waste. We are creating lighter containers and a transformative array of new designs meant to help brands connect emotionally with consumers. We are most excited about sharing how we are reimagining and reinventing the glass-making process to not only be more sustainable but also to disrupt how glass packaging solutions are provided.

None of this would be possible without our people and the communities that support our business. We are as focused on transforming our culture and our communities as much as we focus on innovating glass packaging. Our worldwide safety and well-being programs for employees reflect our commitment to balance. Part of our expanded ambitions focus on ensuring we have diverse, inclusive, and purposeful workplaces where people feel welcomed. We demonstrate our commitment to building sustainable communities by rewarding volunteer service and actively contributing to communities where we operate around the globe. For more than 80 years, the O-I Charities Foundation has supported the arts, education, the environment, and social good with millions in grants. Creating collective prosperity through a positive impact on our communities is integrated into O-I’s DNA. We intend to carry on these traditions and have elevated our aspirations here too.

As we strive for a more sustainable future for O-I, our stakeholders, and communities, we hope you will be inspired by what you learn in this report.

We hope you will join us in trying to create sustainability for today and for generations to come.

ANDRES A. LOPEZ
He/Him
MESSAGE FROM THE CSO

Despite the challenges of the pandemic, we continued our transformative leadership in sustainable packaging in 2020 and 2021.

Coming out of 2019—when we were the first packaging company to issue a green bond—in February 2020, we became the first glass packaging company to receive approval from the Science-Based Targets initiative for our emissions reduction goal. We also began an active glass advocacy campaign to re-balance the dialogue on the sustainability of glass packaging and increased our support for glass recycling and reuse initiatives. Our work also included establishing a global sustainability network, expanding our sustainability initiatives, and doubling the total number of goals under these sustainability initiatives. Most importantly, we started up our manufacturing line in Holzminden, Germany that uses tomorrow’s glass-melting technology—O-I’s breakthrough and proprietary MAGMA technology.

New and improved for 2021, our sustainability report showcases all of this work and more. In these pages, we provide a broad view of our sustainability journey, including where we have been, where we are, and where we intend to go. The report touches on many aspects of our business and provides a holistic view of how O-I and glass packaging will play a key role in the sustainable future we all seek.

We are excited about sustainability at O-I and our future. We hope you find this report informative and inspiring.

RANDOLPH L. BURNS
He/Him
The essence of a sustainable organization is a quest for balance among its process and what it produces and the needs of people, organizations, the planet, and our collective prosperity. The aspiration represented by such a balance depends on creating an organization designed for the long term—one that finds strength, resiliency, and coexistence precisely because it constantly seeks and finds this balance. Even though the roadmap to achieve this balance may change with time or circumstances, the path to sustainability always involves vision, innovation, and transformation.

For more than 100 years—through pandemics, two world wars, Prohibition, the Great Depression, the 1970s Energy Crisis, and countless economic and social upheavals—O-I has been here to invent, design, produce, and transform packaging solutions to meet the needs of generations of consumers.

Our sustainability ambitions for today and tomorrow are grounded in the same resiliency created by our foundational commitment to innovation and transformation of our processes, products, and relationships with our stakeholders. While reducing, reusing, and recycling are necessary steps, they alone are not sufficient to achieve the sustainability ambitions of the global community—or those of O-I.

This is why O-I is reimagining and reinventing the business model for glass packaging. We see a future where the innate circularity of glass meets O-I’s disruptive MAGMA melting technology and other innovations to change how glass is made and sold.

**O-I’s vision and journey for this sustainable future is not a blue-sky vision. It is here today.**

This sustainable future of glass involves not just the use of cleaner gas-oxygen fuels and improved hybrid technology in traditional furnaces, but also O-I’s revolutionary MAGMA melting technology capable of using less refined recycled glass, biofuels, and other carbon-neutral renewable sources of energy. It includes a manufacturing process that has on-off technology to optimize the use of energy and efficiency. One that can be co-located at manufacturing and filling facilities, reducing logistics impact and capitalizing on the potential to use and reuse waste heat, water, and other resources. One that can produce breakthrough lightweight containers and capitalize on O-I’s decorating technology.

O-I’s vision and journey for this sustainable future is not a blue-sky vision. It is here today. With the start up in February of 2021 of our full-scale MAGMA line in our Holzminden, Germany plant, O-I is one step closer to bringing this vision to life.
The governance and sustainability infrastructure we have built, and continue to improve, is the foundation of our ambitions. In 2020, we introduced structural enhancements to deepen and accelerate our progress. We enhanced our governance by giving sustainability and ESG oversight to our Nominating and Corporate Governance Committee. We appointed a Chief Sustainability Officer, created a global and executive sustainability advisory committee, created a global executive diversity and inclusion council, and created a sustainability leadership network in every country group.

We summarize our strategy to bring this vision to life in one sentence: we will achieve balance, together, by transforming what we do.

The sustainability balance we seek requires integrated cooperation among stakeholders around shared goals and collaborative changes in what we do and how we do it.

Our strategy toward progress continues to focus on translating our global goals into actionable local objectives and then partnering with customers, suppliers, and communities to achieve our overlapping objectives.

Our approach has produced a number of sustainability and ESG firsts, including the first glass packing maker to have an approved Science-Based Targets initiative (SBTi) emissions reduction target, issue a green bond, achieve platinum status for material health from Cradle to Cradle certification, and establish a dedicated R&D innovation center to improve and reinvent glass melting technology.

Our progress includes forward momentum of our processes and products. We continue to add more state-of-the-art gas-oxygen furnaces to our furnace footprint.
Two of our innovative factories reduce carbon intensity and increase energy efficiency by shifting waste heat to community use.

In 2020, 30% of our furnaces averaged 50% recycled glass usage, which lowers our overall carbon emissions. Our factories continue to receive recognitions, including a NAMA Gold recognition for our Zipaquirá, Colombia plant and an energy-demand-management recognition for our Waco, Texas factory. We have introduced innovative new container designs. Our glass advocacy campaign and outreach on recycling continue to re-balance the dialogue on the sustainability of glass packaging.

Guided by our vision and our values, we continue to be committed to our culture and our passionate people. We were named to Forbes Best Large Employer list. We became a signatory to the CEO Action pledge to support Diversity and Inclusion. Our Corporate Equality Index score increased. We created and implemented several programs focused on employee safety, including our “Golden Rules” initiative and recently our O-I CARES program, which stands for Collective Active Role For Employee Safety. We are proud that our safety initiatives helped reduce our Total Recordable Incident Rate (TRIR) by 30% in 2020.

Together with our stakeholders, O-I is committed to realizing our vision of being the most sustainable maker of rigid packaging.

The strong commitment we have for community support and engagement remained a key part of our drive for sustainability balance. Our 80-year-old charitable foundation continued to support grants, matching employee gifts, and donations to causes supporting the environment, the arts, and community well-being—including funds to support COVID-19 vaccine awareness efforts. We maintained our longstanding social partnerships with organizations like United Way. We also discovered new to ways engage and advocate for social justice, like partnering with one of our beer customers to support their “Black is Beautiful” campaign to help fight racial inequality. O-I will continue our efforts to balance our operations with people, planet, and our collective prosperity.

Together with our stakeholders, O-I is committed to realizing our vision of being the most sustainable maker of rigid packaging.
SUSTAINABILITY AT A GLANCE
## SUSTAINABILITY SCORECARD

### ENERGY

**OUR GOAL**

- **40% RENEWABLE**

**OUR COMMITMENT**

Renewable energy is a pillar in our strategy to lower carbon emissions. Our goal is to reach 40% renewable energy use by 2030 and to reduce total energy consumption by 9%.

**OUR PERFORMANCE**

Global renewable energy volume was 13% for 2020.

**CHANGE**

Positive change

### EMISSIONS

**OUR GOAL**

- **25% GHG REDUCTION**

**OUR COMMITMENT**

Approved SBTi target to reduce GHG emissions 25% by 2030 (interim target of 10% by 2025).

**OUR PERFORMANCE**

Scopes 1 & 2 (market-based) –6,136,514 metric ton of CO₂e

**CHANGE**

13.67% reduction from 2017 base year

### HEALTH & SAFETY

**OUR GOAL**

- **ZERO INJURIES**

**OUR COMMITMENT**

As part of our journey toward zero injuries, we are committed to a 50% improvement of our Total Recordable Incident Rate (TRIR) by 2030.

**OUR PERFORMANCE**

Improved Total Recordable Incident Rate to 1.98

**CHANGE**

30% reduction from 2019

### SOCIAL

**OUR GOAL**

- **SOCIAL IMPACT**

**OUR COMMITMENT**

We see tremendous opportunity to positively impact the planet and communities where we operate. We will collaborate with customers, NGOs, suppliers and local leaders to make glass recycling available in 100% of our locations.

**OUR PERFORMANCE**

91% of our communities in which our plants operate have access to glass recycling

**CHANGE**

Positive change
## SUSTAINABILITY SCORECARD

### PEOPLE

**OUR GOAL**

**DIVERSITY & INCLUSION**

**OUR COMMITMENT**

Continue to build a diverse and inclusive environment where people feel welcomed to create a better future for themselves, each other, and O-I. We are focused on increasing all aspects of diversity across our team.

**OUR PERFORMANCE**

Female representation in workforce declined slightly to 17%

**CHANGE**

2% decrease from 2019

### RECYCLED CONTENT

**OUR GOAL**

**50% TARGET**

**OUR COMMITMENT**

Increase recycled content to 50% average by 2030. O-I is taking a tailored approach to increase recycled content rates across its enterprise network as rates vary significantly by geography.

**OUR PERFORMANCE**

Total external cullet by metric ton packed is 38% on average

**CHANGE**

1% decreased from 2017 base year

### INNOVATION

**OUR GOAL**

**R&D TRANSFORMATION**

**OUR COMMITMENT**

Reinvent and reimagine glass-making so the circularity of glass meets the potential of our MAGMA melting technology, low-carbon alternative fuels, and light-weighted glass packaging.

**OUR PERFORMANCE**

Currently operating a MAGMA prototype in our Innovation Center and a pilot in Illinois and a manufacturing line in Holzminden, Germany

**CHANGE**

Positive change

---

O-I SUSTAINABILITY 2021 • OVERVIEW
# Sustainability Scorecard

## Water

### Our Goal
**25% Water Reduction**

### Our Commitment
We are committed to reducing our global water usage 25% by 2030, prioritizing operations in higher risk areas.

### Our Performance
Water risk screening using the WRI Aqueduct tool. In 2020, 25 plants were in high and extremely high water stressed areas. The majority of facilities meter water usage. Monitoring and metering improvements are underway to develop accurate, standardized data for all facilities.

### Change

## Supply Chain

### Our Goal
**Supply Chain Sustainability**

### Our Commitment
Achieve sustainability balance, together, by aligning our supply chain with our 2030 sustainability vision and goals.

### Our Performance
Partnered with EcoVadis, to better monitor our supplier’s sustainability performance and facilitate our supplier assessment.

### Change

## Waste

### Our Goal
**Zero Waste**

### Our Commitment
Reduce the amount of natural resources used, reduce the generation of waste by reuse, and recycling as we drive towards a “Zero Waste” organization.

### Our Performance
Currently, all regions track waste in various databases. We are working to integrate all regions into this system.

### Change

---

**NEW GOAL!**
CLIMATE CHANGE STRATEGY TO SBTI REDUCTION TARGET AND BEYOND

2017-2030 JOURNEY

As the first glass packaging company to obtain an approved Science-Based Target initiative GHG emissions reduction goal*, our journey to a lower-carbon future begins with working to achieve our 2030 target to reduce GHG emissions by 25%. Over the next 10 years, our strategy to attain that goal involves four key levers.

Potential Risks and Opportunities

**Potential Risks**
- Carbon taxes and regulations
- Cullet supply and recycling
- Product-related regulations
- Climate events
- Logistics
- Technology

**Possible Impacts**
- Increased operating and compliance costs
- Interruption events
- Increased energy and raw material costs
- Asset issues
- Premature technology obsolescence

**Opportunities**
- Competitive advantages through R&D
- Improved business resilience
- More flexible operations
- Increased collaboration with customers
- Use of lower-carbon fuels and heat technology

**Possible Impacts**
- Increased demand
- Lower operating costs
- Lower energy use
- Lower regulatory compliance obligations
- Increased recycled content
- Improve community ecosystems for recycling and reuse

BEYOND 2030: JOURNEY TO NET ZERO

Like many other industries that depend on heat for manufacturing processes, our path to net-zero involves incorporating lower-carbon fuels—as they become commercially available—into our operation. While increased electrification of furnace heat is a bridge to net zero, the main focus of our plan is to combine the existing sustainability benefits of our MAGMA technology, like on-off capability and co-location potential, with our work to prepare the next generations of MAGMA to use lower-carbon fuels.

*Goal established based on 2-degree pathway
EXAMPLES OF GLOBAL SUSTAINABILITY PARTICIPATION

Below are a few examples of projects our plants have undertaken in 2020 to improve sustainability. To learn about some of our key initiatives see the Highlight Stories and the following sections.

- LED lighting installed at seven North American plants saving 8,500,000 kWh
- Partnership with a customer to collect cullet on the Colombian coast, which is then transported to our plant
- Brazil tracking compensation and benefits to guarantee the internal salary equity and eliminate biases or protectionism
- Installation of Continuous Emission Monitoring to measure emissions to the atmosphere in three plants in Mexico
- Four U.S. plants implemented a used tier sheet supplier to increase recycled material usage and reduce emissions
- Seven years without LTI (Lost Time Injury) at a plant in the Netherlands
- Solar panels at two plants in France
- Recycled cooling water used in China to heat water in bathroom instead of Liquid Petroleum Gas
- Four U.S. plants implemented a used tier sheet supplier to increase recycled material usage and reduce emissions
- PPE vending machines introduced in Italy to reduce PPE waste
- Glass manufacturing career presentation shared with middle school students across France
Unlike other substrates that are not 100% recyclable, are complex to recycle (if at all), can be recycled only a few times, and if not recycled, pose serious waste disposal and pollution issues, glass has none of those challenges now or in the future. This is why glass is the most sustainable packaging material.
HIGHLIGHT STORIES
MAGMA

MAGMA (or Modular Advanced Glass Manufacturing Asset) is an O-I proprietary innovation that has reimagined how glass is made and will transform the glass-making business model.
The MAGMA melter and its footprint are significantly smaller than a legacy glass furnace. It is constructed of more sustainable materials and with more sustainable methods. It deploys advanced technologies, enables advanced light-weighting potential, possesses on-off capability, and has the potential to be co-located at customer facilities.

With a more flexible and modular design, MAGMA enables more rapid capacity expansion and unlocks the potential to follow demand more quickly and precisely. MAGMA uniquely positions O-I to help customer brands better capitalize on market opportunities. Over time, we expect this technology to deliver a number of benefits including scalability, lower operating costs, rapid deployment, production flexibility, and mobility.
MAGMA provides the pathway to bring transformative progress to the sustainability of glass manufacturing. A smaller melter size and alternative materials used in its construction allow the MAGMA melter to reduce waste and construction materials needed. The melter itself improves upon the reparability over legacy technologies. Because the on-off technology eliminates the requirement to continuously run around the clock, MAGMA is a step-change improvement in the resiliency of the asset and the overall efficiency of the process—whether for color changes, quality adjustment, or to respond to an unexpected process interruption.

MAGMA is not a blue-sky concept. We currently operate a MAGMA prototype unit in our Innovation Center in Perrysburg, Ohio and a pilot unit in our Streator, Illinois plant. In March 2021, we started our first full-scale MAGMA production line in our Holzminden, Germany plant.

Developments like MAGMA demonstrate O-I’s ability to create transformative innovations to disrupt existing technology and the industry.

As we develop successive generations of MAGMA, we will look to deploy them in our existing footprint and to explore near- and co-location opportunities with our current and future customers. Developments like MAGMA demonstrate O-I’s ability to create transformative innovations to disrupt existing technology and the industry. MAGMA also builds on O-I’s heritage of innovation. It is an example of what we can achieve when we imagine the impossible and challenge the status quo each and every day. “Innovation and technology are key cornerstones of O-I’s business strategy,” said Andres Lopez, CEO. “The MAGMA technology enables us to define a new way of making glass to better serve our customers and bring more options and flexibility to production.”
O-I USES VIRTUAL REALITY TRAINING TO ENHANCE SAFETY

As leaders in the glass industry, we constantly search for new ways to use the latest tools and innovative technologies to improve our processes, enhance our sustainable work practices, and increase employee safety.

At the end of 2018, a cross-functional focus group began to evaluate Virtual Reality Machine Training (VRMT) as a way to improve both the skill level of trainees and employee safety. Not long after the kick-off meetings, our Global Technology team introduced this virtual-reality technology into our factory machinery training programs. The VRMT provides the opportunity to introduce and train employees on our equipment with virtual simulations of life-like scenarios in a very safe and forgiving environment.

By pairing virtual reality with our process and training needs, we have created a process that reduces the potential for training injuries by allowing our employees to learn our glass-making processes without going to a factory. Our VRMT also enables us to test different approaches, test new training elements, or develop an understanding of a critical process in a risk-free environment before attempting them on an active machine.

The VRMT is fully immersive. The person using the equipment enters a 360° active learning environment, which provides the sights and sounds that bridge the barrier between virtual and actual reality. Using headsets and controllers, trainees look, speak, and move about in a 3D virtual setting, interacting with simulated real-world tools, machinery, and other people. This immersive virtual training improves awareness and provides a level of preparation and experience that improves employee readiness and machinery operation.

“People continue to be at the center of O-I’s strategy. Introducing virtual reality will help expose individuals to fundamental process principles safely and efficiently. Virtual reality is one among many steps along the digital journey that will continue the transformation of O-I...”

ADAM HAFER (HE/HIM)
Global Engineering: Infrastructure Process Area Lead

O-I SUSTAINABILITY 2021 • OVERVIEW
O-I Villotta has embraced a variety of production and environmental technologies to improve its sustainable footprint. A primary focus was upgrading both of Villotta’s furnaces to use gas-oxy combustion technology. Gas-oxy combustion increases the energy efficiency of glass melting furnaces by using oxygen created onsite, instead of air, and reduces nitrous oxide (NOx) emissions by 70%.

The use of advanced technology did not stop with gas-oxy combustion. O-I took a systems approach to include cullet pre-heating. The use of cullet is already beneficial as an ingredient in glass manufacturing because it requires less energy to melt and decreases emissions. Villotta’s cullet pre-heating system creates even more energy savings because it captures exhaust heat from the furnaces and reuses it to raise the temperature of incoming cullet. Pre-heated cullet requires less energy from the furnace down the line.

70% NOx EMISSIONS REDUCTION

When gas-oxy combustion increases the energy efficiency of glass melting furnaces by using oxygen created onsite, instead of air.
O-I VILLOTTA IS A MODEL OF ENERGY-EFFICIENT GLASS MANUFACTURING

FURTHER CAPTURING AND REUSING HEAT AT O-I VILLOTTA

In addition to its furnace system innovations, Villotta is reusing heat in multiple ways. For one, O-I Villotta uses an Organic Rankine Cycle (ORC), an electric generator that further transforms waste heat into useful energy to power systems within the facility.

The final exhaust is then treated and filtered to further reduce emissions. Recycled water that absorbs waste heat from equipment is used to heat parts of the shop floor.

The floor heating system has provided 845 MWh of thermal energy since January 2017 – the equivalent of powering 80 homes for a year.

Villotta also captures waste heat from some of the annealing lehrs – essentially long ovens used in the glass-making process – and reuses the heat later in the “cold end” step of the process.

The transformation spanned nearly eight years, beginning in 2012 when O-I identified the plant as a prime candidate for sustainability innovation. In 2020, Italy’s Ministry of Economic Development and the National Research Council of Pisa recognized O-I Villotta as possessing the requirements of an experimental research and development project.

Villotta’s maintenance supervisor Michele Furlan recognizes that the large-scale project wasn’t easy: “We made a decision to pilot all-new technologies that had not been implemented before. In a sense, it was a blind jump for everyone.”

But Furlan says the team’s enduring commitment to quality and innovation was well worth the results. The upgrades translate to 35% energy savings, 10% reduction of CO₂ emissions, and an increase of production by nearly 20%.

O-I SUSTAINABILITY 2021 • OVERVIEW

VILLONCA OUTCOMES

35% ENERGY SAVINGS
10% REDUCTION OF CO₂ EMISSIONS
NEARLY 20% INCREASE IN PRODUCTION
GLOBAL CITIZENSHIP & O-I’S COMMUNITY RESPONSE TO COVID-19

We have a long history of investing in the communities where we operate. Since 1937, O-I has been engaged in our communities through the O-I Charitable Foundation. “O-I and its foundation are committed to taking an active role in the communities where we live and work,” said CEO, Andres Lopez. O-I has worked to advance education, arts, culture, sustainability, and basic human needs. Our employees lead a culture of giving and volunteerism to support our communities around the globe. Our tradition of caring for our people and planet continues to build sustainable communities that are resilient in times of crisis. This tradition was carried forward as we faced the global COVID-19 pandemic and our employees offered their time, materials, and financial support to their communities.

“O-I and its foundation are committed to taking an active role in the communities where we live and work...”

Early in the pandemic, we leveraged the 3D printing capability in our Perrysburg, Ohio Innovation Center to collaborate with local industrial automation company to make reusable face shields for members of the Northwest Ohio medical community. Our Seville, Spain plant joined forces with the Red Cross to collect and distribute PPE, food, and basic necessities. Employees at the Wingles plant in France donated meals and materials for medical gowns and caps to local hospital employees. Thinking creatively to support our communities during COVID-19, our Lapel plant in Indiana used its production capacity to donate bottles to a local distiller for the bottling of hand sanitizer. The San Domenico, Italy plant offered financial support to medical staff at a local infectious disease hospital. We provided additional support to the Red Cross in Northwest Ohio for antibody testing, including blood drives with 1,290 units collected. The Danville, Virginia plant and community leaders collaborated to setup a mobile vaccination unit to provide the community more access to the COVID-19 vaccine; anyone in the area could sign up, whether or not they worked for O-I.

In January 2021, O-I’s Charitable Foundation made donations to support vaccine awareness and inoculation efforts. We were the first corporate donor to the Victory Over COVID-19 Through Vaccination (VProject), an initiative to educate, motivate, and vaccinate the Northwest Ohio corridor to slow the spread of the COVID-19 virus. “As it has done now for over 90 years, O-I has proven again to be a leader in our community,” Toledo Mayor Wade Kapszukiewicz responded after O-I offered its expertise and financial support. “And something tells me that Michael J. Owens would be proud that the company he founded was the very first to step up financially during this time of need.” In addition to financial contributions, O-I employees are active in leadership roles and on the ground volunteering to support the VProject.

We are incredibly proud of these and many other contributions made by our O-I family in the communities all over the world. For more details on these initiatives and other community engagement examples please see Communities.
RECAPTURED HEAT FROM O-I GLASS PLANT HEATS HOMES IN REIMS

Our roadmap to a lower carbon future depends on finding innovative approaches to reducing CO₂ emissions. In Reims, France, we implemented just this kind of solution.

We partnered with the France-based energy solution company Dalkia to build a heat recovery network that is capturing heat from the furnace at our Reims plant and reusing it to heat homes in the area’s historic Saint Remi neighborhood, which is home to the Saint Remi Basilica. The innovative system has resulted in a significant reduction in CO₂ emissions.

To recapture the heat from the furnace, we installed a heat recuperator, which heats recirculated water to over 80°C. This system is connected to a 3.3 km long system that provides thermic energy for 1,240 homes. Recouping the furnace heat and reusing it to heat homes saves 2,630 metric tons of CO₂ annually, which is equivalent to taking 1,460 vehicles off the road each year.
MEET OWEN™—FROM ILLINOIS, AND HIS FRIENDS

They joined our sustainability team in 2020. When we elevated our sustainability ambitions last year, we wanted our internal awareness campaign to capture the same magic and emotional connection that glass provides for our customers and consumers.

So, with a twist on our history, some traditional ingredients, and the same transformational approach that underlies all our technical and other innovations, voilà!, Owen™ and his friends came to life.

With “cullet DNA” from around the world and an instantly recognizable image, Owen™ and friends have embraced their new roles as our official internal sustainability ambassadors. They are instrumental in our drive to integrate sustainability into our culture and decision making. They guide our employees and leaders to look through “sustainability glasses,” finding innovative ways to transform what we do at work or at home by seeing sustainability in everything we do.

Hard at work globally, Owen™ and friends carry our sustainability messages and operate as easy-to-spot icons in presentations, on posters, and in other internal communications to celebrate wins and reinforce when and where sustainability initiatives, action, and progress are present.

“I've been recycled more times than I can count and been re-made into dozens of different containers for many products all over the world,” said Owen™. “While I'm humbled that many people think sustainability is all about me and the fact I'm all-natural, infinitely recyclable, and won't harm the earth or oceans,” Owen™ continued, “the best part of my job is helping others learn that sustainability is about much more. It's about how O-I can work to balance its operation with the competing needs of people, planet, and our collective prosperity.”

“One of Owen™’s mantras is that sustainability can’t happen without collaboration,” said Owen™’s friend Grace. “When all of us get together, there's a familiar ‘clink’ that results from putting our heads together. Special moments like that can't happen without glass and collaboration.”

We couldn’t agree more, and like Owen™ and his friends, we look forward to achieving sustainability balance, together, by transforming what we do.
PROCESS
At O-I Glass, Inc., we love glass. We’re proud to be one of the world’s leading producers of the most sustainable packaging: the glass container. Glass is pure and infinitely recyclable. It’s also beautiful and can transform brands into icons.

We serve and partner with thousands of customers, many of whom produce the world’s best-known food and beverage brands. We serve customers in beer, wine, spirits, food, non-alcoholic beverages (NAB), cosmetics and pharmaceuticals. In 2020, we manufactured 41 billion glass containers.

O-I was founded in 1903 in Ohio by Michael J. Owens, inventor of the automatic bottle-making machine. In 2020, our public company was restructured and renamed O-I Glass, Inc. O-I was proudly ranked 52 out of 500 on Forbes’ list of America’s Best Large Employers 2021. We are led by our team of 25,000 people across 72 plants in 20 countries. Our global headquarters and much of our science, engineering, and R&D teams are located in Perrysburg, Ohio. Perrysburg is located just outside Toledo, Ohio, known as the Glass City1.

At O-I, we do not simply manufacture glass packaging; we use four pure, natural ingredients to masterfully design sustainable and healthy glass packaging. Our products transform brands into icons and create emotional connections to products. We’re dedicated to helping food and beverage brands tell their stories, through glass, to build long-lasting bonds with consumers. We’re dedicated to making what matters and to shaping a healthier, happier, and more sustainable world.

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1 How the Owens Bottle Company Helped End American Child Labor - Pacific Standard (psmag.com)
### Key Facts

<table>
<thead>
<tr>
<th>PERRYSBURG, OHIO</th>
<th>Founded in 1903 as Owens Bottle Company</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry Leader</strong></td>
<td>$6.1 billion in sales (net, 2020)</td>
</tr>
<tr>
<td><strong>More Than 6,000 Direct Customers</strong></td>
<td><strong>34% Beer</strong></td>
</tr>
<tr>
<td><strong>Innovating Glass</strong></td>
<td><strong>19% Wine</strong></td>
</tr>
<tr>
<td><strong>The Most Sustainable Rigid Packaging Option</strong></td>
<td><strong>19% Food</strong></td>
</tr>
<tr>
<td><strong>2020 Product Sales Portfolio</strong></td>
<td><strong>15% Spirits</strong></td>
</tr>
<tr>
<td><strong>2020 Product Sales Portfolio</strong></td>
<td><strong>13% NAB</strong></td>
</tr>
</tbody>
</table>
We love everything about glass packaging and we are proud of how we make it.

O-I manufactures the healthiest and most sustainable packaging materials available. We create our brand-building glass packaging by using high-quality ingredients, standards, and craftsmanship that comes from over 100 years of transforming a few, natural ingredients into the sustainable, brand-building packaging known and loved by our customers and consumers all over the world.

**Ingredients**

With a global average recycled-glass content of about 38% by tons packed, the primary ingredient in our glass containers is recycled glass, or “cullet.” We also use three other natural ingredients: silica sand, soda ash, and limestone. The majority of these four ingredients are sourced locally and shipped by rail and truck, which mitigates the impact of logistics on our environmental footprint.

**Weighing & Mixing**

We use an automated system to accurately weigh and deliver the specified measures of sand, soda ash, and limestone to a mixer. After mixing, we add the appropriate amount of cullet to the mix and send this “batch” mixture through chutes and conveyors to the furnace.
HOW GLASS PACKAGING IS MADE

**Melting**

The batch ingredients make their way into a 1,550 degrees Celsius (or 2,850 degrees Fahrenheit) furnace, which transforms the dry ingredients into a liquid molten glass mixture. We primarily use natural gas and electricity for fuel and couple this with regenerative or oxy-fuel technology to run our furnaces. To ensure our glass meets our quality standards, we use computerized systems to help us carefully and safely monitor and manage the conditions inside the furnace.

**Forming & Moulding**

The freshly cut molten gobs fall into a trough where they are individually distributed into a series of “moulds,” which are located within the forming machines. Once in the mould, using either a mechanical press or blown air, the gobs are first formed into the rough shape and then in a second step, blown into their final, finished container. Once finally formed, the moulds open, and the new glass containers, now cooled to about 700 degrees Celsius, are placed onto a conveyor and head to the annealing process.

**Refiner, Forehearth, and Separation**

After several hours in the furnace, the molten glass flows to the “refiner,” which is essentially a holding basin where the glass cools to about 1,250 degrees Celsius and air bubbles trapped inside escape. From the refiner, the molten glass is split into several smaller streams, which are directed to the “forehearth.” The forehearth conditions the molten glass further before it is sent through a feeder, where the glass is pushed through between one and four “holes” to size the molten stream. The molten stream then enters a “spout” where metal shears cut the molten glass into “gobs.” The gobs are cut to a specific weight that corresponds to the size of container that will be made.

2 steps

**FIRST FORMED INTO A ROUGH SHAPE, THEN BLOWN INTO THEIR FINAL, FINISHED CONTAINER**
**HOW GLASS PACKAGING IS MADE**

**Annealing**

The annealing process reheats the glass in an oven of sorts called a “lehr” (pronounced LAY-er). The annealing process is needed because the outside of the container cools quicker than the inside. The lehr reheats the containers to about 565 degrees Celsius and allows them to slowly cool to about 150 degrees Celsius. This process removes any thermal stresses caused by the forming process or rapid cooling. When the containers exit the lehr, now at about 85 degrees Celsius, they make their way to the “cold end” of the factory for inspection, packing, and shipping.

**565°C**

**TEMPERATURE AT WHICH THE LEHR REHEATS CONTAINERS**

**85°C**

**COOLING TEMPERATURE TO EXIT THE LEHR**

**Inspection**

Before we pack our products for shipment, each container is put through a series of inspections to ensure it meets O-I’s highest standards. Multiple high-resolution cameras inside machines scan as many as 800 glass containers each minute. The cameras sit at different angles and can catch minuscule defects. Another part of the inspection process includes machines exerting pressure on the glass containers to test wall thickness, strength, and if the container seals correctly. O-I’s experts also manually and visually inspect random samples to ensure quality. Any containers that we reject during inspection are reclaimed and go back into the batch process as cullet to be used in another new container.

**Packing & Shipping**

After inspection, the finished glass containers are prepared for shipment to customers. The containers are staged in prescribed holding areas and loaded in layers on pallets with robots. Cardboard sheets are placed between the glass layers to create a taller pallet. Once a complete pallet has been made — 1,000-4,000 containers depending on the container size — the containers are strapped into place, stretch wrapped, or both so that the pallet can be safely moved to the warehouse where they are then shipped to our customers. To learn more about how O-I is working to make our packaging and shipping more sustainable, see [Raw Materials & Waste](#).
ABOUT O-I

INNOVATING FROM THE START

Michael J. Owens was born in 1859 in West Virginia into a humble Irish immigrant family. He started working at the age of 10 at a local glass factory – a typical (and dangerous) job for young boys at the time.

In 1903, Owens invented the Owens Bottle Machine, which revolutionized the glass-making process forever: Owens’ machine launched the Owens Bottle Machine Company and today remains the foundation of the glass-making industry.

In his lifetime, Owens moved from being a blower’s dog to a factory-floor glassblower; to being a major shareholder in a global, leading company bearing his name. Owens was fearless, persistent, and confident. In 2007, he was inducted into the National Inventor’s Hall of Fame.

In 1880, nearly 25% of all glass industry workers were children, but by 1919—less than 20 years after Owens’ invention—child labor in the glass-making industry dropped below 2%. Owen’s machine was not only a landmark advancement in glass production, it created significant improvement in safety and human rights.

The machine assumed dangerous tasks that were historically performed by child laborers. In 1880, nearly 25% of all glass industry workers were children, but by 1919—less than 20 years after Owens’ invention—child labor in the glass-making industry dropped below 2%. To this day, we still pride ourselves on high ethical standards and the spirit of innovation that Owens made a part of O-I’s DNA.

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1 How the Owens Bottle Company Helped End American Child Labor - Pacific Standard (psmag.com)
Michael Owens’ innovation changed the way glass had been made for hundreds, if not thousands, of years. “It can be done” was his personal motto. More than a century later, his legacy lives on as we carry the spirit of his creativity, determination, and desire to transform the glass-making industry.

‘It can be done’ was Owens’ personal motto and more than a century later, his legacy continues as we leverage creativity and technology that innovates and transforms the glassmaking industry.

That same spirit of innovation in glass-making continues as our employees work with our customers and partners to define the future of glass. From licensing machines to producing bottles, from manual to automated inspection technologies, O-I has innovated nearly every production process and brought the sustainable power of glass into everyday use. With more than 3,000 active patents, we remain on the leading edge of innovation and dedicated to what endeared Mr. Owens to glass more than 100 years ago: its beauty, versatility, and sustainability.
ABOUT O-I

O-I was born from innovation. As an essential part of what defines O-I, we believe that innovation is the key to the future of glass. This is why we have reimagined the glass-making process and are now manufacturing with our newest innovation, MAGMA, short for Modular Advanced Glass Manufacturing Asset. This is a breakthrough and proprietary technology that changes the way glass is melted and will disrupt how glass is sold by allowing more flexible and modular capability that will help O-I and our customers meet the growing need for sustainable glass packaging.

We are also leading the way in product innovations with an ever-expanding portfolio of award-winning container designs and decorations. Our O-I: EXPRESSIONS decorating process was named the winner of the 2020 Silver Nut, a prestigious packaging innovation award as part of the De Gouden Noot (The Golden Nut) contest. O-I: EXPRESSIONS is just one example of how our ambition to build brands, create flexibility, and create sustainable differentiation sets O-I apart from other packaging makers. See Innovation to learn more about how O-I is transforming products and process.
IMPROVING OUR PROCESS

When it comes to process innovation and improvements, we focus on more than just finding short-term ways to achieve a reduction or a cost saving. We look for sustainable improvements—and by that we mean improvements designed to optimize as many parts of our operating process as possible. To systematically instill this culture and process, we have implemented and developed programs that focus on our operations. One example is an integrated standard work system that is based on continuous improvement. We call this system Operations Integrated System or “OIS.” Another is an initiative-focused program we developed called Total Systems Cost, or “TSC” for short.
TSC
TOTAL SYSTEMS COST

TSC is an initiative-based program that targets productivity, consumption, and procurement efficiencies. But TSC is also much more. It is a sustainability initiative in the dictionary definition of the word “sustainability.” The objective of TSC is to optimize our processes for the long haul and find better ways to accomplish the same goals. The program seeks to reduce consumption—whether electricity, effort, fuel, cost, or discharge—and to optimize performance in a manner that ensures the efficiencies are temporarily, economically, and practically “sustainable” over time. Grounded in the methodology of “learn, identify, execute, and sustain,” TSC not only makes the business strong and more resilient, but also designs our systems to use less and have less impact, which results in reduced cost, fuel, environmental impacts, etc.

We have dozens of TSC projects underway, led by interdisciplinary teams from manufacturing and EHS to engineering and procurement. Many of these projects, among their other benefits, should reduce energy use and have a positive impact on both our scope 1 and 2 emissions. We are proud of TSC and the positive impact it has across our functions and operations. Through programs like TSC, we are systematically finding ways to improve the balance of our operations with those of the competing needs of people, other firms, the planet and, our collective prosperity.

Since 2017, O-I has accounted for nearly 12,000 TSC projects with a financial impact of over $150 million.
ABOUT O-I

PARTNERING FOR SUSTAINABILITY

O-I embraces the opportunity to collaborate with other companies and engage directly with policymakers and trade associations to positively influence sustainability public policy. We are active members of a number of industry, packaging, recycling, and public policy organizations around the world. Through decades of activity and leadership in these organizations, we seek to advance the interests of rigid packaging on various strategic issues and mitigate risks to our business and sustainability strategies.

As a leader in the packaging industry, O-I also remains committed to providing leadership and advocacy to certain industry associations.

We take pride in the leadership roles we hold globally in important industry education and advocacy groups. Presently, we are privileged to hold leadership roles in the U.S. glass industry association, Glass Packaging Institute (GPI), and the European Container Glass Federation (FEVE), as well as organizations that seek to advance environmental and recycling policies, advocate industry standards and educate on the benefits of glass. O-I’s President,

Beginning as an awareness campaign by FEVE in 2008, Friends of Glass encourages consumers to become passionate about glass for three big reasons: health, taste, and sustainability. O-I played a key role in connecting FEVE with GPI to initiate collaboration to bring Friends of Glass stateside. O-I brings leadership and vision on sustainability, recycling, and broader environmental issues to GPI. Their expertise and thoughtful leadership is helping us build a successful future for the North American glass container industry.
ABOUT O-I

Business Operations and O-I Europe serves as the President for FEVE while also serving on the organization’s board of directors. Our Chief Sales and Marketing Officer is Chairman of the FEVE Market Place Committee. The Managing Director of our Americas North business unit is the chair of the Board of Trustees for GPI, and our Chief Sustainability Officer is on the board of the Container Recycling Institute.

We are members of glass industry associations in virtually every country in which we do business. In some countries, we also participate in organizations that promote recycling and waste reduction. Some of the significant organizations to which we belong or support are listed below.

EUROPE

The European Organization for Packaging and the Environment (EUROPEN): recognized as “The Voice of the Industry for Packaging and the Environment” and is a pan-European cross-sectoral industry body dedicated exclusively to resolving the environmental challenges facing packaging supply chains in an active and cooperative manner.

Food Packaging Forum: a nonprofit foundation that provides independent information on issues related to food contact materials and health, and it also aims to establish a stakeholder dialogue on health and food packaging.

Glass Futures: is creating the Global Centre of Excellence to make glass the low carbon material of choice. It brings together a global supply chain, with common problems, to enable a revolutionary change in glass manufacturing. O-I’s VP Global Technology is a board member.

LATIN AMERICA

ABIVIDRO (Associação Técnica Brasileira das Indústrias Automáticas de Vidro): also known as the Brazilian Technical Association of Glass Automatic Industries. It seeks to promote and enhance the use of glass and the flow of information from all sectors of the supply chain.

CEMPRE (Compromisso Empresarial para a Reciclagem): also known as the Brazilian Business Commitment for Recycling. It is a nonprofit association that promotes recycling through publications, technical assistance, and seminars. O-I supports CEMPRE organizations in Latin America, Brazil, Peru, and Colombia.

Vidrio Mejor Planeta: O-I supports a digital Eco-Community operating in Ecuador, Colombia, and Peru. It works to promote environmental awareness around the recycling process. Vidrio Mejor Planeta discloses the infinite recyclability and other benefits of glass in compliance with Ecuadorian extended producer responsibility law. Recent activities have included community waste collection in Medellin.

NORTH AMERICA

American Institute for Packaging and the Environment (AMERIPEN) and the Packaging Consortium (PAC/PAC NEXT): advocates for industry standards, higher recycling rates, and quality material availability for end-market use, and educates packaging professionals on the benefits of glass.

California Manufacturers and Technology Association (CMTA): seeks to advance glass container-related manufacturing policies in California.

Container Recycling Institute (CRI): advocates for industry standards, higher recycling rates, and quality material availability for end-market use.

U.S. Glass Recycling Coalition: brings together a diverse membership of companies and organizations to improve glass recycling capacity and activities, consisting of glass manufacturers, haulers, processors, materials recovery facilities, capital markets, end markets, and brands that use glass to showcase their products.

Glass Recycling Foundation: a new non-profit organization, focused solely on funding glass recycling initiatives, the Glass Recycling Foundation is working to ensure all glass containers are continuously recycled to the highest and best use, maximizing economic, environmental, and social benefits.
As we strive to be the most innovative, sustainable, and chosen supplier of brand-building packaging solutions, we have built a strong, resilient organization designed for the future.

O-I is not only reimagining and reinventing the business model for glass packaging but also using transformative concepts to heighten our sustainability ambitions. As part of transforming how we engage for a balance with people, planet, and prosperity, we reimagined our sustainability function, elevated it to the Global Leadership level, and broadened and deepened our governance. We believe empowering our people under a broader sustainability umbrella with a more global reach will enhance our efforts to make progress toward our sustainability goals and alignment with the United Nations Sustainable Development Goals that are more relevant to our business.
To embed sustainability across the enterprise and ensure sustainability issues are incorporated into all company decision making, in 2020, O-I appointed its first Chief Sustainability Officer (CSO). The CSO reports directly to the CEO and is also a member of the Global Leadership Team. Working with the Board of Directors, CEO, and a Global Advisory Committee, the CSO develops and drives global corporate sustainability and ESG strategy. The CSO reports monthly to an executive steering team and appears quarterly before the Nominating and Corporate Governance committee of the Board of Directors, which has strategic and oversight responsibility for sustainability and ESG.

O-I’s Sustainability Team

Reporting to the CSO is a corporate-level team of subject matter experts that work to integrate sustainability into company functions and translate global-level goals into the country groups and plant-level action items. The global team is also responsible for global reporting, disclosure, certifications, and social engagement.

To ensure the effective integration of sustainability action at the country group and plant level, we created a Global Sustainability Leadership Team that is led by the CSO and members of the corporate-level sustainability team. Each country group has a sustainability leader and a matrixed network that reaches into each plant. Each country group leader bridges the priorities of corporate strategy with local issues and regulations to facilitate the implementation of sustainability actions at a local level. The matrixed network drives sustainability by reinforcing a common understanding of sustainability in the country groups and communicating goals and action items. We have positioned Sustainability Leadership in each of these country groups:

- Americas North: United States and Canada
- Americas Central: Mexico
- Americas Andean: Colombia, Ecuador, Peru
- Americas South: Brazil
- United Kingdom Europe: United Kingdom
- Southeast Europe: Italy, Hungary
- North Central Europe: Germany, Estonia, Czech Republic, Netherlands, Poland
- Southwest Europe: France, Spain
- Asia: China, Indonesia
OUR SUSTAINABILITY APPROACH

In addition to the Global Sustainability Leadership Team, O-I has created Global Advisory Committees around the nine areas that are material to our business and stakeholders: People, Supply Chain, Engineering and R&D, Raw Materials, Energy, Water, Waste, Emissions, and Social Engagement. The Global Advisory Committees are made up of functional leaders who oversee practices involving these areas and related aspirations and goals.

...functional leaders work with country groups to customize global sustainability goals and strategies to meet local needs and regulations...

They share ownership with the CSO’s team for creating O-I’s 2030 sustainability goals and driving performance into country groups. Like the Global Sustainability Leadership Team, Global Advisory Committee functional leaders work with country groups to customize global sustainability goals and strategies to meet local needs and regulations, facilitating execution of our global sustainability goals by the country groups.
OUR SUSTAINABILITY APPROACH

O-I SUSTAINABILITY GOALS
At O-I we are focused on the future. Our goals are purposefully ambitious and aspirational because that's what drives innovation and transformation. Our baseline is 2017 unless otherwise noted.

50% RECYCLED CONTENT
Increase recycled content to 50% average by 2030. O-I is taking a tailored approach to increase recycled content rates across its enterprise network as rates vary significantly by geography.

25% GHG REDUCTION
Approved SBTi target to reduce GHG emissions 25% by 2030 (interim target of 10% by 2025).

40% RENEWABLE
Renewable energy is a pillar in our strategy to lower carbon emissions. Our goal is to reach 40% renewable energy use by 2030 and to reduce total energy consumption by 9%.

25% WATER REDUCTION
We are committed to reducing our global water usage 25% by 2030, prioritizing operations in higher risk areas.

ZERO INJURIES
As part of our journey toward zero injuries, we are committed to a 50% improvement of our Total Recordable Incident Rate (TRIR) by 2030.

SOCIAL IMPACT
We see tremendous opportunity to positively impact the planet and communities where we operate. We will collaborate with customers, NGOs, suppliers and local leaders to make glass recycling available in 100% of our locations.

R&D TRANSFORMATION
Reinvent and reimagine glass-making so the circularity of glass meets the potential of our MAGMA melting technology, low-carbon alternative fuels, and light-weighted glass packaging.

DIVERSITY & INCLUSION
Continue to build a diverse and inclusive environment where people feel welcomed to create a better future for themselves, each other, and O-I. We are focused on increasing all aspects of diversity across our team.

SUPPLY CHAIN SUSTAINABILITY
Achieve sustainability balance, together, by aligning our supply chain with our 2030 sustainability vision and goals.

25% GHG REDUCTION
Approved SBTi target to reduce GHG emissions 25% by 2030 (interim target of 10% by 2025).

ZERO WASTE
Reduce the amount of natural resources used, reduce the generation of waste by reuse, and recycling as we drive towards a “Zero Waste” organization.

25% WATER REDUCTION
We are committed to reducing our global water usage 25% by 2030, prioritizing operations in higher risk areas.

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UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS
In 2015, all United Nations Member States adopted the 2030 Agenda for Sustainable Development. The 17 Sustainable Development Goals (SDGs) form the foundation of this Agenda, helping to prioritize and mobilize global efforts around these goals. At O-I, we believe there is no sustainable development without increasing our collective prosperity. We see the fundamental role that businesses have in collectively achieving the SDGs and therefore, we have aligned our goals to the SDGs relevant to our business.

MATERIALITY & STAKEHOLDER ENGAGEMENT
O-I understands materiality as the way our activities impact the lives of people and the environment in each and every piece of our process, and vice versa. The material issues, combined with the UN SDGs, are the foundation of our sustainable strategy and what guide us to design our sustainable journey.

When O-I published our very first GRI aligned report in 2014, we worked with a sustainability consulting firm to complete the materiality assessment process for Europe. Then, we replicated this process in other regions and consolidated findings into a global analysis for the company. A group of external stakeholders, including a major investor, several large and small customers, and an environmental non-profit organization, provided input and validated the results of the assessment.

We believe that materiality evolves with the sustainability landscape and as we advance our sustainability journey.

Continuous engagement with our stakeholders allows us to take the pulse of our customers, suppliers, employees, and communities, maintaining the sustainability balance of people, planet, and prosperity.

Such engagement includes open dialogue, surveys, request responses, market analysis, and more. Thus, in collaboration with various stakeholders, O-I has been continuously monitoring changes and progress to identify any new relevant issues that can arise. Since our last third-party assessment, we have identified additional material topics that will be described in further detail in this report.

At O-I, we believe there is no sustainable development without increasing our collective prosperity.
OUR SUSTAINABILITY APPROACH

O-I ACTIONS, MATERIAL TOPICS AND UN SDGs:
United Nations Sustainable Development Goals

NO POVERTY
End poverty in all its forms everywhere

ZERO HUNGER
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

GOOD HEALTH & WELL-BEING
Ensure healthy lives and promote well-being for all at all ages

QUALITY EDUCATION
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

GENDER EQUALITY
Achieve gender equality and empower all women and girls

CLEAN WATER & SANITATION
Ensure availability and sustainable management of water and sanitation for all

AFFORDABLE & CLEAN ENERGY
Ensure access to affordable, reliable, sustainable, and modern energy for all

DECENT WORK & ECONOMIC GROWTH
Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all

INDUSTRY, INNOVATION, & INFRASTRUCTURE
Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

REDUCED INEQUALITIES
Reduce inequality within and among countries

SUSTAINABLE CITIES & COMMUNITIES
Make cities and human settlements inclusive, safe, resilient, and sustainable

RESPONSIBLE CONSUMPTION & PRODUCTION
Ensure sustainable consumption and production patterns

CLIMATE ACTION
Take urgent action to combat climate change and its impacts

LIFE BELOW WATER
Conserve and sustainably use the oceans, seas, and marine resources for sustainable development

LIFE ON LAND
Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss

PEACE, JUSTICE, & STRONG COMMUNITIES
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels

PARTNERSHIPS FOR THE GOALS
Strengthen the means of implementation and revitalize the global partnership for sustainable development

SDGs with a black description card are those that we have identified as material to our business and operations.
## OUR SUSTAINABILITY APPROACH

### OUR PROCESS

<table>
<thead>
<tr>
<th>Interconnections</th>
<th>CHAPTER &amp; SECTION</th>
<th>O-I ACTION</th>
<th>UN SDGS</th>
</tr>
</thead>
</table>
|                  | Our Governance    | • Antidiscrimination, ethics, and compliance, etc. to create a safe, equitable workplace  
|                  |                   | • Managing climate-related risks | 5  13 |
|                  | Environmental Management | • Managing climate-related risks | 13  |
|                  | Energy and Emissions | • Science-Based Targets initiative  
|                  |                   | • Renewable energy purchase  
|                  |                   | • Energy efficiency  
|                  |                   | • Technology innovation to reduce energy  
|                  |                   | • Upgrade and retrofit equipment for resource efficiency and environmentally sound processing | 3  7 |
|                  | Raw Materials & Waste | • Increasing our cullet usage, decreasing our use of raw materials, managing efficient use of materials, and minimizing waste | 3  12  12 |
|                  | Water | • Responsible water sourcing and consumption  
|                  |                   | • Prioritization of conservation initiatives at water-stressed locations  
|                  |                   | • Responsible water treatment and discharge to protect oceans and marine life | 6  5  6
# OUR SUSTAINABILITY APPROACH

## Interconnections, cont.

<table>
<thead>
<tr>
<th>CHAPTER &amp; SECTION</th>
<th>O-I ACTION</th>
<th>UN SDGS</th>
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</table>
| **Our Supply Chain** | • Sustainable procurement practices  
• Aligning our supply chain with our 2030 sustainability vision and goals | ![UN SDGs](image) |

## OUR PRODUCT

### Innovation

- Promoting innovation  
- Engaging stakeholders

### Benefits of Glass

- Creating a product that does not harm the user, earth, or the oceans

### Recycling

- Advancing the circular economy, recycling glass to make new glass

## OUR PEOPLE

### Diversity & Inclusion

- Ensuring we create both a diverse and inclusive workplace environment  
- Prioritizing increased female representation  
- Including minority groups to ensure our innovations benefit all
## OUR SUSTAINABILITY APPROACH

### Interconnections, cont.

<table>
<thead>
<tr>
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</table>
| Employee Experience | • Benefits and Wellness programming to meet the needs of employees and their families  
                         • Competitive compensation - exceeding average regional wage  
                         • Educational assistance  
                         • Vocational training/apprenticeship  
                         • Creating a culture of learning, development, diversity, and inclusion |         |
| Health & Safety    | • Striving for a zero EHS incidents workplace  
                         • Industrial hygiene |         |
| Communities        | • Supporting the Toledo Zoo and Aquarium  
                         • Supporting STEM education, particularly for girls  
                         • Community engagement - Support of United Way programs in our communities that support income stability and financial literacy  
                         • Supporting our local communities during the COVID-19 pandemic |         |
| Human Rights       | • Antidiscrimination, ethics, and compliance, etc. to create a safe, equitable workplace  
                         • Eliminating child labor, forced labor, workplace violence, threat to freedom of association and collective bargaining |         |
OUR SUSTAINABILITY APPROACH

CERTIFICATIONS

CDP (formerly Climate Disclosure Project)

CDP is a not-for-profit that runs a global disclosure system for investors, companies, cities, states, and regions to manage their environmental impacts. Starting in 2010, O-I voluntarily reports progress on carbon emission reductions and efforts to address climate risks through CDP Climate Change and progress on water stewardship through CDP Water every year. We have made significant progress over the past few years, currently achieving a B score for both Climate Change and Water. We also seek opportunities to make advances in the transition to a circular economy by seeking out innovative engineering and market-based solutions throughout our value chain. See our third-party verified Climate Change information here, which will be published at the end of the year.

Science-Based Targets Initiative

O-I is one of more than 460 global companies that have committed to science-based targets for emissions reduction. By committing to these targets, we are taking a public stand to do our part in helping achieve the level of decarbonization required to maintain a global temperature increase below two degrees Celsius from pre-industrial levels in alignment with the Paris Agreement of 2015.

Based on our approved science-based target, our goal is to reach a 25% reduction in GHG emissions by 2030 with an interim target of 10% by 2025. To achieve our goals, we are looking to increase the percentage of renewable energy consumed at our facilities, explore alternative fuels, develop innovations in our manufacturing processes and products, increase energy efficiency in our plants, increase the use of recycled content in our containers, and encourage post-consumer recycling of glass.

EcoVadis

EcoVadis is a global sustainability rating network, which O-I first joined in 2014. It connects buyers and suppliers and assesses companies in a broad range of non-financial management systems, including environment, labor and human rights, ethics, and sustainable procurement impacts. EcoVadis rates companies according to their management performance and against how they compare with industry peers. This fact-based assessment results in a scorecard that stakeholders can use to make informed comparisons and decisions. The rating also provides an assessment of the strengths and potential areas for sustainability performance improvement. In 2020, we received a Bronze rating.

25% GHG emissions target
With an interim target of 10% by 2025

Bronze
Rating in 2020, in a fact-based assessment by EcoVadis

"B" score
For both Climate Change & Water per CDP’s report
O-I SUSTAINABILITY 2021

OUR PROCESS / OUR SUSTAINABILITY APPROACH

Cradle to Cradle
The Cradle to Cradle Certified™ Products Program is one of the premier sustainability certifications for products around the world and across industries. The certification is based on five categories: material health, material re-utilization, water stewardship, renewable energy use, and social fairness.

O-I is the first food and beverage packaging company to achieve a platinum rating in material health on the Cradle to Cradle Product Scorecard.

We received Cradle to Cradle Certification at nearly 90% of our operations producing certain container colors in the beer, food, NAB, spirit, and wine markets. Our aspiration is to reach 100%.

Green Bond
O-I is the first company in the packaging industry to issue a Green Bond, furthering our commitment to sustainability throughout our global manufacturing operations and glass packaging. This bond, offered through O-I European Group B.V., raised nearly €500 million ($590 million) in funding to enable sustainable investments. To support the debt offering, O-I developed a Green Bond Framework, describing in detail the Company’s sustainability strategy and goals and the types of investments that O-I is pursuing from a sustainability perspective.

In the year since issuing the bond, we have allocated €255.6 million ($311 million) to purchase cullet. Cullet—the industry name for recycled glass—is a key to the sustainable manufacturing of glass packaging. The more cullet our plants use, the fewer raw materials needed, and the less energy is needed to create new glass containers. By O-I purchasing cullet, we support the circular economy through building demand for post-consumer recycled glass as well as increasing recycled content in new glass packaging. The cullet purchased through this program corresponds with the conservation of more than 1.4 million metric tons of CO₂—the equivalent CO₂ generated to electrically power over 250,000 homes for one year:

1.4M METRIC TONS OF CO₂ CONSERVED

CO₂ necessary to power over 250,000 homes for one year
OUR GOVERNANCE
CORPORATE GOVERNANCE

OUR VISION

For more than a century, O-I employees around the world have been part of an organization that prides itself on acting with integrity and accountability. Driven by leaders at all levels of the company, our governance and oversight structure reinforces high standards of ethical conduct in everything we do.

O-I’s governance is led by our Board of Directors. Our directors have established an effective corporate governance model that includes the policies and processes needed to support our culture of integrity. The Board fosters the pursuit of our long-term strategic goals while ensuring our governance agenda aligns with the interests of our stakeholders. It oversees the risk factors to the company’s strategic plan and objectives, of which sustainability now features prominently.

The Board is led by our Independent Board Chair (IBC). In 2016 the Board decided that the roles of the Board Chair and CEO would be separated, eliminating the role of Lead Director. In separating the roles, the Board decided that it does not want the IBC to be perceived as “managing the company” or as an “executive chair” in the eyes of management or O-I’s investors. The primary responsibility of the IBC is to make the Board as effective as possible in fulfilling its oversight responsibility for O-I and to ensure that it derives the most benefit from the experience, education, and skills of individual Board members. John H. Walker, an independent member of the Board, was appointed IBC in 2021.

We believe that governance is an important component of a company’s overall performance. As such, the O-I Board of Directors has put in place Corporate Governance Guidelines, which outline the roles and responsibilities of the Board. The guidelines detail director qualification standards, director responsibilities, advisor, chair, and leadership protocol, compensation, orientation and education, voting, procedures, and evaluation. The guidelines stipulate that each director shall have access to O-I’s management, allowing directors to ask questions and glean all information necessary to fulfill their duties.
BOARD COMMITTEES
There are four standing committees of the Board: the Audit Committee, the Compensation and Talent Development Committee, the Nominating/Corporate Governance Committee and the Risk Oversight Committee. Subject to applicable provisions of the company’s By-Laws and Corporate Governance Guidelines, the Board appoints the members of each committee and rotates members periodically consistent with the experience and expertise of individual directors.

The Nominating/Corporate Governance Committee
Assists the Board by identifying and evaluating individuals qualified to become directors. The committee develops and recommends to the Board a set of corporate governance principles contained in O-I’s Corporate Governance Guidelines and Global Code of Business Conduct and Ethics. It oversees O-I’s Ethics and Compliance function, in conjunction with other committees requested to address issues arising in this area. It oversees the evaluation of the Board and O-I management, takes a leadership role in shaping corporate governance, and oversees CEO succession planning and development.

The Nominating/Corporate Governance Committee is specifically responsible for overseeing O-I’s efforts in relation to sustainability including environmental, social, and governance matters. (See Our Sustainability Approach for more information.)

The Compensation and Talent Development Committee
Makes recommendations to the Board with respect to compensation of O-I’s directors, officers, and employees. This committee administers O-I’s incentive award plans, annual bonus plans, and certain other benefit plans. It also makes recommendations on management succession planning and development for key executive positions other than the Chief Executive Officer, including ensuring the availability of qualified replacements and contingency planning. O-I’s efforts around diversity and inclusion are presented to this committee. During any meeting of the committee, members get the chance to make inquiries on this and similar topics to ensure the company’s overall trajectory.

The Risk Oversight Committee
Provides oversight of management’s policies and activities relating to the identification, evaluation, management, and monitoring of the company’s significant enterprise risks. This includes the major strategic, operational, financial, regulatory, compliance, cybersecurity, reporting, reputational, environmental, governance, human resources, and labor risks inherent in O-I’s business. The committee oversees compliance with legal and regulatory requirements, except for those specific compliance matters under the jurisdiction of other committees. It also reports to the Board regarding the Enterprise Risks that have the potential to significantly impact the company’s ability to execute its strategic priorities and achieve its performance goals.

The Audit Committee
Represents and assists the Board with the oversight of the integrity of the O-I’s financial statements and internal controls, compliance with legal and regulatory requirements, the independent registered public accounting firm’s qualifications and independence, and the performance of O-I’s internal audit function and of the independent registered public accounting firm.
CORPORATE GOVERNANCE

NOMINATION, QUALIFICATION, EDUCATION, AND EVALUATION

The Nominating/Corporate Governance Committee is responsible for identifying individuals qualified to become members of the Board and recommending that the Board select the candidates for all directorships to be filled by the Board or by the share owners.

According to the policies regarding the “Identification and Evaluation of Candidates for Director and Procedures,” candidates for the Board should be individuals of the highest integrity and ethical character; who value and appreciate these qualities in others. Candidates should not have any conflicts of interest and be able to represent fairly and equally all share owners of O-I. Candidates are also evaluated on their ability to function effectively in an oversight role and to devote adequate time to the Board and its committees.

O-I’s policies and procedures require the Nominating/Corporate Governance Committee to consider the contributions that a candidate can be expected to make to the collective functioning of the Board based on the totality of the candidate’s background, skills, experience and expertise and the composition of the Board at the time. Our policies reflect our belief that diversity is an important attribute of a well-functioning Board and require the Nominating/Corporate Governance Committee to take into consideration the benefits of having Board members who reflect a diversity of age, gender, ethnicity, and country of citizenship.

The company maintains a skills matrix and actively monitors the skills, experience, and expertise of all its individual directors to ensure the Board is balanced with respect to key skill sets. Given that O-I is a large global public manufacturing company, many of the Board’s directors have skills and experience relating to similar organizations. The Board also has strong skills, experience, and expertise in other areas such as finance and capital allocation, mergers and acquisitions, strategic planning, and corporate governance.
The Nominating/Corporate Governance Committee considers the skills, experience, and expertise of Board members expected to retire or leave the Board in the near future when it identifies candidates for Board membership.

The Nominating/Corporate Governance Committee also considers in its nomination processes the recommendations of current Board members regarding particular skills that could improve the ability of the Board to carry out its responsibilities.

The Nominating/Corporate Governance Committee conducts all necessary and appropriate inquiries into the backgrounds and qualifications of possible candidates and considers questions of independence and possible conflicts of interest. Members of this committee discuss and evaluate possible candidates in detail, and determine which individuals to consider in more depth. Once a candidate is identified whom the Nominating/Corporate Governance Committee wants to move toward nomination, one or more members of the committee will enter into discussions with the candidate.

Following their election, every newly-elected member of the Board participates in an orientation program. This orientation includes presentations designed to familiarize directors with O-I and its strategic plans, significant financial, accounting, and risk oversight issues, Code of Business Conduct and Ethics, compliance programs and other controls, senior management, and internal and independent auditors. The program also addresses procedures of the Board, directors’ collective and individual responsibilities, the Board’s Corporate Governance Guidelines, and Board committee charters.

During their tenure, the Board members are provided with annual education, which includes new topics relevant to the company and the market introduced each year. Directors are also encouraged to participate in continuing education programs sponsored by universities, stock exchanges, or other organizations, or consultants specializing in director education. Directors may attend continuing education programs at the company’s expense.

The performance of incumbent members of the Board is evaluated annually by the Nominating/Corporate Governance Committee. Those directors who continue to satisfy the criteria for Board membership and whom the Nominating/Corporate Governance Committee believes continue to make important contributions to the Board generally will be re-nominated by the Board at the end of their term.
BOARD OF DIRECTORS COMPOSITION

INDEPENDENT BOARD CHAIR
BOARD CHAIR: JOHN H. WALKER

62.8 Average Director Age

3 2 1 0
<55 55-60 60-65 66-70
AGE RANGE

5.3 Director Tenure Average Years

6 4 2 0
0-4 5-9 10-14 15-19
YEARS

1.7 Average Positions Held on Other Public Boards

6 4 2 0
0 1 2 3
BOARD OF DIRECTORS

Overall Attendance
BOARD & COMMITTEE MEETINGS
99.23%

2020 BOARD MEETINGS

3:12 FEMALE TO MALE

11:12 INDEPENDENT NON-EXECUTIVE TO EXECUTIVE

0.7

9.23%
CORPORATE GOVERNANCE

2020 BOARD UPDATES
As part of our regular refreshment process Samuel R. Chapin, Executive Vice Chairman (retired) – Bank of America Merrill Lynch, and Catherine I. Slater, Senior Vice President, Global Cellulose Fibers and IP Asia - International, were nominated to the 2020 slate of Directors. The Board of Directors routinely evaluates Board composition in keeping with the company’s evolving business and strategic needs and also consulted with investors during the selection process.

The nomination of Ms. Slater brings the total percentage of female Board members to 25% of the Board’s composition and the female and minority members to nearly half. In the last six years, the Board has refreshed seven of its 12 members. Eleven of the 12 members are independent and all 12 are elected annually.

POLITICAL ACTIVITIES AND ISSUE ADVOCACY
To ensure alignment, the Chief Sustainability & Corporate Affairs Officer (“CSO”) globally oversees the Company’s political activities, issue advocacy, and external corporate communications. The CSO also oversees the Company’s political action committee and the Employee Good Citizenship Fund (EGCF). The O-I Corporate Affairs department supports our corporate strategic, innovation, and sustainability goals through legislative and regulatory initiatives on a global level. We work to build relationships between O-I employees and key policymakers in capitals around the world where decisions are being made that impact the competitiveness and health of O-I. We also create partnerships with non-governmental organizations and collaborate with O-I customers on matters important to our business. Some of the primary issues we work on include energy, taxation, recycling, and environmental regulations.

O-I does not use corporate funds to support any political candidate, political organization, or campaign.

O-I’s restricted class of employees has the option to make donations into the EGCF. The EGCF is a nonprofit, unincorporated separate segregated fund. Giving to the EGCF is voluntary and provides opportunities for political advocacy that supports and aligns with O-I’s core values and initiatives.
COMPENSATION & TALENT

OUR VISION

O-I’s strategy focuses on creating long-term stakeholder value. As such we aim to compensate company directors and executives in a way that will provide short- and long-term performance motivation and takes stakeholder interests into account.

Each year, in accordance with the terms of its charter, the Compensation and Talent Development Committee reviews the compensation paid to the members of the Board and gives its recommendations regarding both the amount of director compensation and the allocation of that compensation between equity-based awards and cash. In discharging this duty, the Compensation and Talent Development Committee is guided by four goals:

- Compensation should fairly pay directors for work required in a company of similar size and complexity;
- Compensation should align directors’ interests with the long-term interests of stakeholders;
- Compensation should be sufficient to continue to attract and retain directors who satisfy qualifications; and
- The structure of the compensation should be simple, transparent and easy for stakeholders to understand.

The O-I Glass Compensation and Talent Development Committee works with the Board of Directors and management to design compensation plans that motivate O-I’s executives and support business objectives that create stakeholder value.

The Committee maintains executive compensation programs designed to align executive pay with stakeholders’ interests and the annual and long-term performance of the company; O-I believes our executive compensation program strikes the appropriate balance between using responsible, measured pay practices and providing rewards that effectively attract and retain executives while motivating them to create long-term value for the stakeholders.

Each year, in accordance with the terms of its charter, the Compensation and Talent Development Committee reviews the compensation paid...and gives its recommendations

Our CEO attends Compensation and Talent Development Committee meetings and is responsible for providing relevant input on the compensation elements of the executive officers, including individual performance input, and making specific recommendations on base salaries, annual and long-term incentives, and promotions.

For more information about O-I’s director and executive compensation, view our most recent Proxy Statement.
An annual “Say on Pay” vote encourages beneficial dialogue on compensation and provides the most consistent and clear communication channel for stakeholder concerns about executive compensation.

An annual advisory vote is held to approve executive compensation. O-I continues to actively engage major stakeholders and proxy advisory firms regarding frequency of the “Say on Pay” vote, executive pay, and its alignment with stakeholders interests.

The CEO pay ratio, comparing CEO’s total annual compensation to the total annual compensation of the median employee is reported in our most recent Proxy Statement.
ETHICS & COMPLIANCE

OUR VISION

At O-I, we focus not only on the sustainability of the glass packaging we manufacture, but also on sustaining O-I’s integrity.

Each employee’s behavior helps define collectively who O-I is and the purpose we stand for. Each O-I employee is expected to behave in an honest and ethical manner. Employees are expected to demonstrate respect and integrity in all of their actions. Our employees should be guided by two key principles: 1) compliance with applicable laws and regulations, and 2) adherence to high standards of ethical conduct, including a commitment to total and unwavering integrity.

O-I’s Global Code of Business Conduct and Ethics ("Code of Conduct") guides all our people: employees, leaders, board members, contractors, and suppliers, to understand significant legal and ethical issues that may arise while performing their relevant responsibilities. The Code of Conduct applies to all employees worldwide and to the Board of Directors. It is available in all of O-I’s 15 official languages. The Code is available on O-I’s website and intranet, “O-I Dash.” Our policies on various topics including anti-corruption, non-discrimination/non-harassment, and conflicts of interest are described in the Code of Conduct.

Our Code of Conduct requires adherence to the antitrust and competition laws and regulations of all countries in which we operate. This is supplemented by additional internal policies applying to employees of O-I and our subsidiaries, affiliates and joint ventures in which we have management control. The Code of Conduct also prohibits insider trading. An additional internal policy is designed to prevent insider trading or related allegations and to protect O-I’s reputation for integrity and ethical conduct. Pursuant to the U.S. securities laws and regulations, insider transactions must be disclosed in filings with the regulators. We also disclose all insider transactions on our Investors webpage for transparency.

It is important to O-I to uphold our high ethical standards throughout our value chain. We expect suppliers with whom O-I has a contractual/business relationship to comply with our Supplier Guiding Principles and manage their supply chains accordingly. These Principles detail O-I’s requirements and emphasize good workplace policies that comply with all applicable laws including but not limited to anti-corruption, bribery, labor and environmental laws. To learn more about how O-I monitors supplier compliance and ESG performance see Our Supply Chain.
ETHICS & COMPLIANCE

TRANSFORMING TODAY

Creating long-term strength and resiliency involves the process of building infrastructure to encourage strong ethics and compliance.

We are proud of our programs and how we have built them to evolve and grow in a dynamic market.

The compliance program is designed to meet the U.S. Federal Sentencing Guidelines and, as designed, meets similar global standards. The program also reflects various legal requirements of the U.S. and the other countries in which O-I operates.

All salaried employees are required to complete annual online training modules on the Code of Conduct and other policies. Each year, salaried employees complete at least three online courses — one on the Code of Conduct, one on anti-corruption, and one on respect in the workplace. In addition, O-I periodically assigns a variety of specialty online compliance training to salaried employees depending on their roles. Our Chief Ethics and Compliance Officer oversees the process for communicating, training, and enforcing our policies.

The Ethics and Compliance Office seeks to provide employees with the tools and guidance they need to do their jobs in a manner that is consistent with our high standards of ethical conduct. To supplement online training, our Chief Ethics and Compliance Officer provides in-person or virtual compliance training around the world, providing the opportunity for employees to ask questions and discuss relevant issues in an interactive forum. The Chief Ethics and Compliance Officer has conducted training in all of the 20 countries in which O-I currently operates. Various communications to employees, including management speeches, emails, policy spotlights, articles on the employee intranet, videos, and posters enhance and reinforce employee awareness of O-I’s ethics and compliance program. The Ethics and Compliance Office, in collaboration with other functional policy owners, updates or revises policies and guides when necessary and works to ensure company-wide awareness through Policy Spotlight email campaigns.

100% OF COUNTRIES WITH O-I OPERATIONS RECEIVED ETHICS & COMPLIANCE TRAINING


**ETHICS & COMPLIANCE**

**ETHICS AND COMPLIANCE COMMITTEE**
The Chief Ethics and Compliance Officer reports directly to the General Counsel and to the Nominating/Corporate Governance Committee of the O-I Board of Directors. The Chief Ethics and Compliance Officer chairs a management-level Ethics and Compliance Committee, which promotes the Ethics and Compliance Program throughout the company and ensures cross-functional coordination for risk assessment and mitigation. It consists of senior company leaders whose functions own certain ethics and compliance risks or are critical to implementing and managing solutions to address these risks, such as: Legal, Internal Audit, Finance, IT, People & Culture, EHS, Engineering, Global Risk Management, Procurement, and Sales.

The Committee is responsible for participating in an annual ethics and compliance risk assessment and evaluation process as well as analyses of potential new risks. It steers the program by evaluating priorities, contributing to solutions, and assessing program effectiveness.

Members evaluate and promote new ethics and compliance policies, guidelines, procedures, and initiatives.

The Committee meets quarterly. It reviews reports and measures regarding the effectiveness of the Ethics and Compliance Program and determines any needed actions.

**ETHICS AND COMPLIANCE HELPLINE**
Employees who have questions about company policies or want to raise a concern about possible illegal or unethical conduct are encouraged to speak with their supervisor, human resources representative or a member of management. If an employee is not comfortable with these options, O-I’s Ethics and Compliance Helpline is available. The Helpline is a confidential, multilingual reporting mechanism available 24/7 via the telephone or the Internet for all our stakeholders, not only employees. It is staffed by an independent third party who provides written reports regarding the concerns raised to the Chief Ethics and Compliance Officer. The Helpline and portal to file reports can be accessed at oitheics.com. Reports made to the Helpline may be made anonymously, subject to local laws. Each complaint to the Helpline is reviewed by the Chief Ethics and Compliance Officer who determines the appropriate resources to conduct the investigation of the particular report. Upon completion of the investigation, for those reports that are found to have merit, action is taken that may range from employee coaching or training to employee reprimands and, in some cases, dismissal. We strive to conduct thorough investigations in a timely manner and to determine the root cause of an issue so that we can implement measures that will minimize the probability of it occurring again.
On average we receive about 300 calls to our Ethics & Compliance Helpline each year. In the years surrounding 2014, this average was 170. We believe that the increased volume of reports reflects employees’ increased awareness of reporting channels, including the Helpline, which are available for them to speak up. We attribute the increased awareness to ongoing training and communications efforts. Approximately one-third of the complaints are found to have merit.

O-I prohibits retaliation against an employee who in good faith seeks help or reports actual or suspected violations of law, regulations, the Code of Conduct, or company policies.

The Board of Directors receives a summary of Helpline activity at every board meeting. The summary includes various information relating to the volume of reports, the countries from which reports have been received, the types of issues raised, and the actions taken for the reports found to have merit. Complaints typically fall into two major categories — accounting and financial-related, or human resources-related. In 2020, O-I’s Ethics and Compliance Helpline received 49 reports raising allegations of harassment and 20 reports raising allegations of discrimination. O-I investigated each of these reports. For those reports that were substantiated, in whole or in part, appropriate corrective action has been taken.

We attribute the increased awareness to ongoing training and communications efforts.
**ENTERPRISE RISK**

**OUR VISION**

The Board recognizes that an important part of its responsibilities is to evaluate the company’s exposure to risk and to monitor the steps management has taken to assess and control risk.

The Board primarily oversees risks through its committees, particularly through the Risk Oversight Committee and the Audit Committee. The committees report to the Board on matters of particular importance or concern, including any significant areas of risk O-I faces. In addition, the Board meets with regional presidents on a rotating basis to review risk exposure with respect to O-I’s strategic plans and objectives in order to improve long-term organizational performance.

The Risk Oversight Committee reviews and submits for Board approval O-I’s Risk Management Philosophy, Risk Management Policy, and Statement of Risk Appetite, as developed by management. It evaluates management’s processes designed to identify, assess, manage, monitor, and report O-I’s significant enterprise risks. The Risk Oversight Committee also evaluates and discusses with management significant enterprise risks and opportunities including steps management is taking to assess and manage such risks and opportunities. It reviews O-I’s disclosure of enterprise risks in all filings with the SEC (including the Annual Report on Form 10-K).

Together with the Audit Committee, the Risk Oversight Committee reviews, assesses, and discusses with the General Counsel, the Chief Financial Officer, and the independent registered public accounting firm, any significant risks or exposures, the steps management has taken to minimize such risks or exposures, and O-I’s underlying policies with respect to risk assessment and risk management.

In addition, the Board meets with regional presidents on a rotating basis to review risk exposure with respect to O-I’s strategic plans and objectives in order to improve long-term organizational performance.

When changes to its executive incentive plans are made, the Compensation and Talent Development Committee conducts an enterprise risk assessment of its compensation programs and policies from legal, human resources, auditing, and risk management perspectives.
ENTERPRISE RISK

TRANSFORMING TODAY

In our annual 10-K, O-I identifies risk factors that could have an adverse effect on our businesses and the execution of our strategic plan and objectives.

In pursuit of our vision to be the most sustainable supplier of the most sustainable packaging, sustainability-related risks represent a significant portion of our risk assessment.

Through 2020 we managed environmental risks, maintaining awareness of costs for operations to comply with environmental legal requirements. We continue to monitor and manage sustainability-related risks including those posed by potential regulatory changes or requirements, especially around recycled content use and emissions. For details on risks that impact O-I’s sustainability journey, please refer to our most recent 10-K.

Ethical risks, including risks of human rights violations, such as child labor or forced labor are managed through our Ethics and Compliance policies and procedures, detailed in the previous section. We perform periodic reviews and third-party strategic assessments of our security program, including a comprehensive questionnaire of the third party’s cybersecurity-related information. An ongoing assessment of third-party service providers is performed. Third parties are chosen on the risk-based approach incorporating Enterprise Risk Management, internal and external auditors, and IT Management.

O-I IT performs periodic reviews of its cybersecurity risks. This information is considered in the design of the security roadmap and shared with the Board's Risk Oversight Committee quarterly. During the year-end review process, risks with higher impact to O-I are evaluated and incorporated into the Enterprise Risk Management.

FORMING FOR OUR FUTURE

At O-I, we recognize the increasing stakeholder expectations for transparency of climate-change-related risk reporting and disclosure, particularly as it relates to our SBTi emissions targets. As the global reporting requirements and universe of available frameworks continue to change and evolve, we will continue to evaluate the options and develop processes to implement a framework best suited for the Company and its industry. (See Energy & Emissions for more information.)
OUR ENVIRONMENT
O-I is committed to reducing our impact on the environment and climate and has ambitious goals for 2030. Our transformational vision has a holistic approach, including targets for improvement in energy use, emissions, materials procurement, waste, and water. To bridge our ambitions with action, our Environment, Health and Safety (EHS) teams lead our execution strategy and help put our strategy into action through our environmental management systems.
O-I’s Environmental Management Structure

Our EHS teams are essential to the implementation of our ambitious 2030 goals.

To ensure that EHS is embedded in every aspect of what we do, O-I has a global leader, the Vice President of Global Environment, Health and Safety (VP of EHS), who reports to the Senior Vice President & Chief Technology & Supply Chain Officer. The VP of EHS is tasked with driving strategy for EHS as well as regular reporting on the status of EHS initiatives and progress.

Reporting to the VP of EHS are three directors with responsibilities relating to each aspect of EHS: Global Safety, Industrial Hygiene, and Environmental Affairs. See our section on Health & Safety for more details about those specific initiatives. Each of the directors works with the VP of EHS and O-I leadership to develop and implement company strategy as it relates to environmental management. An EHS Lead is assigned to each of the nine country groups to bridge company strategy with local needs and regulations. Each plant has a facility-level EHS Manager who works with the local leadership team to execute global, country group, and facility goals. Everyone in the EHS hierarchy works together to effectively implement the aspects of the EHS mission across the company.

O-I’s EHS Policy defines our objectives to meet or exceed applicable environmental laws and regulations along with working to minimize the environmental impact of our operations and optimize the use of natural resources. Our manufacturing plants implement personnel training initiatives for environmental regulatory compliance programs such as hazardous waste, stormwater, oil, and hazardous chemical materials. We have completed nearly 6,000 environmental Walks & Talks in the last three years.
ENVIRONMENTAL MANAGEMENT

OUR ENVIRONMENTAL MANAGEMENT SYSTEMS
Our environmental management systems (EMS) provide a baseline and plan for improving our environmental performance, with specific and measurable targets set for the following programs:

- Resources management and waste reduction
- Emissions risk management
- Emissions compliance
- Emissions reduction management, including greenhouse gas emissions
- Renewable energy
- Water safety, conservation, and risk management

ISO standard 14001 is used as a tool for translating our EHS mission into action in our facilities. The standard provides a framework for continuous improvement of resource efficiency, waste reduction, and costs over time in an organized, reportable fashion. O-I uses the standard to bring global uniformity to how we measure and reduce our consumption and waste as well as how we report environmental performance over time. ISO 14001 also integrates awareness of environmental risks as well as schemes for risk planning. About 50% of O-I plant locations are ISO 14001 certified, and 100% of our locations have active, comprehensive environmental management programs in place.

We have policies and operating procedures to ensure compliance with applicable environmental laws and regulations and with the permits issued pursuant to these laws. Part of the compliance procedures include known pathways for reporting problems or concerns, including but not limited to a company-wide, anonymous Ethics and Compliance Helpline. Learn more about the Helpline in Ethics & Compliance. We encourage our teams to identify opportunities to improve O-I’s environmental performance including, for example, opportunities to reduce waste, improve recycling, and lower water consumption.

We believe in striving to attain a sustainable balance with the planet and the communities in which we operate. Although there is an element of legal compliance necessarily embedded in our approach, our 100+ years of experience making the most sustainable packaging while also coexisting with the communities where we operate demonstrates our commitment to sustainability goals that are above and beyond legal compliance.

We endeavor to make environmental stewardship integral to corporate culture. Consideration of the environment and climate is a key aspect of our strategy, operations, capital decisions, and enterprise risk management.

We openly communicate our performance with all stakeholders. Every employee is expected to comply with these policies and is empowered to share operational knowledge and best practices as we elevate sustainability within our culture. O-I believes that we all share the responsibility of making the most sustainable packaging material even more sustainable.
COMMITTING TO CLIMATE CHANGE MITIGATION

Our environmental goals and policies are informed by our changing climate and the challenges we all face to do our part to minimize impact.

As climate change becomes an increasingly high focus for the global community, at O-I, we are constantly reexamining our strategy and improving our roadmap.

In late 2019, our drive for continuous improvement caused us to seek target validation from the Science-Based Target initiative for our GHG emission reduction targets and roadmap. We are proud that O-I was the first glass packaging maker to apply for and receive approval.

As our manufacturing process relies largely on natural gas and electricity for power, we know that finding low-carbon solutions will require innovation, new ideas, and disruptive thinking to reach our goals. Reinventing glass melting with our proprietary MAGMA technology is one step in this process. But we have not stopped there. We are committed to discovering and exploring pathways in the glass-making industry that will lead to reduced water usage and lower-carbon outputs, including the use of emissions recapture, electrification of processes, bio-based and alternative lower-carbon fuels, renewable energy, and improvements to our processes that reduce emissions. Our EHS Management System plays a critical role in making the everyday, practical improvements to our processes that add up over time. As the global community works to make alternative, lower-carbon fuels and energy generation commercially viable, and implement new technologies that unlock the lower-carbon future, we will do our part to transform the glass-making process to take advantage of those advancements.

Glass is exactly the type of packaging that fits into the global vision of a healthy, safe, earth-friendly, sustainable future.

We are excited about a lower-carbon future because glass fits perfectly into it. As a permanent material—made of natural ingredients, 100% recyclable forever, and won’t harm us, the earth, or the oceans—glass is exactly the type of packaging that fits into the global vision of a healthy, safe, earth-friendly, sustainable future.
ENERGY & EMISSIONS

OUR VISION

Not only do we believe in creating sustainable packaging for the food and beverage industry, we also are committed to being the most sustainable rigid packaging manufacturer. We are working to reduce our climate impact by prioritizing innovative projects for energy-efficient melting, transforming our manufacturing systems to be the best-in-class, increasing the percentage of cullet used in our processes, and sourcing renewable energy.

A key pillar of this ambition is to reduce greenhouse gas (GHG) emissions 25% by 2030 with an interim goal of 10% by 2025.

SUSTAINABILITY GOAL

REDUCE CARBON EMISSIONS BY 25% BY 2030 FROM BASE YEAR 2017

SUSTAINABILITY GOAL

REACH 40% RENEWABLE ENERGY USE BY 2030 and reduce total energy consumption by 9%. Renewable energy is a pillar in our strategy to lower carbon emissions.
OUR PROCESS / OUR ENVIRONMENT / ENERGY & EMISSIONS

ENERGY & EMISSIONS

Our emissions goals have been evaluated and approved by the Science-Based Targets initiative (SBTi), and we were the first glass packaging maker to receive SBTi approval for our targets. SBTi is an independent collaboration between CDP, World Resources Institute, The World Wide Fund for Nature, and the United Nations Global Compact. SBTi approval is an independent assessment and confirmation that a company’s carbon reduction strategies and goals are scientifically based and align with objectives of the 2015 Paris Climate Agreement.

Meeting our emissions target will require working on two aspects of the energy equation: reducing overall energy demand and supplying energy needs with renewable and lower-carbon sources.

O-I has established a roadmap to reduce total energy consumption by 9% and to meet, at minimum, 40% of energy consumption with renewable energy sources by 2030. At O-I, addressing energy reduction is the key to decarbonization. Our strategy details the steps we have taken and our plan for future decarbonization.

“SBTi approval is one of many important steps O-I is taking to shape a healthier world. We are committed to improving our processes and our products to ensure we are responsibly doing our part in the food and beverage packaging industry, for our customers, our employees, and our shareholders.”

JIM NORDMEYER (HE/HIM)
VP, Global Sustainability
ENERGY & EMISSIONS

TRANSFORMING TODAY

Though our climate change strategy considers resource efficiency for materials, water, and waste, it is highly focused on energy efficiency and low carbon energy sources to reduce emissions as our primary environmental impact.

Glass melting in our manufacturing process relies largely on natural gas and electricity for power and therefore is our main source of CO₂ emissions. Over 80% of our direct CO₂ emissions come from fuel consumption and electricity usage in the glass-making process.

Pursuant to our sustainability goals, we have developed a strategy toward lower-carbon glass manufacturing to help address climate change. Grounded in the SBTi, we have set challenging but achievable goals for energy efficiency technology advancement, sourcing of renewable energy, and emissions reduction. We are leveraging product and process innovations to transform our operations toward lower-carbon outcomes. This includes driving lower carbon solutions like cleaner alternative fuels, waste heat use, and increased cullet usage in the place of more energy-intensive raw materials. Our MAGMA (Modular Advanced Glass Manufacturing Asset) and GOAT (Gas-Oxy Advanced Technology) innovations, Total System Cost (TSC), and Operations Integrated System (OIS) programs will also help facilitate processes that will contribute towards us meeting our energy and emissions sustainability goals.

SCOPE 1 AND 2 EMISSIONS (tons of CO₂)

2017 2018 2019 2020

Third-party verified data. For more information view our latest CDP report to be published at the end of the year.
ENERGY & EMISSIONS

ENERGY MANAGEMENT SYSTEMS
Elevating sustainability throughout O-I has been a catalyst for energy action, bringing different teams together to collaborate on our global sustainability goals. We have built a Global Energy Team to oversee our initiatives to reduce energy and emissions. The team is led by our Director of Global Engineering – Melting, as melting is the heart of O-I’s energy use. This team brings together our internal stakeholders who have a material connection to energy and energy reduction, namely Engineering, Manufacturing, R&D, Procurement, EHS, Finance, Facilities, and Sustainability. This Global Energy Team is working together to identify synergies and opportunities.

This cross-functional team meets weekly to address and prioritize energy issues in a way that keeps energy stakeholders working collaboratively and towards achieving unified, global goals.

The Global Energy Team has developed an Energy Management System as the foundation on which all our emissions and energy reduction initiatives are built. Our system follows the principles of ISO 50001 as a standardized methodology for continuous improvement on energy efficiency and to decrease GHG emissions. ISO 50001 focuses on establishing, implementing, maintaining, and improving an energy management system. Its purpose is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance, including energy efficiency, energy use, and consumption. Thirteen of our plants in Europe are ISO 5001 certified, and many others are using the framework to establish consistent management and improvement.

Energy Efficiency and Technology Transformation
The melting of sand, soda ash, limestone, and cullet into molten glass is a process that relies heavily on natural gas and electricity for power. To make the most sustainable packaging material with an increasingly sustainable process, we have established a strategy toward lower-carbon glass manufacturing. The first priority is creating efficiencies in our melting and refining processes, which make up almost 85% of our energy use. Examples of these processes include innovative reuse of furnace waste heat, use of gas-oxy furnaces, preheating of ingredients, and use of more efficient electrically powered equipment. O-I’s goal to reduce total energy consumption by 9% would save over 560 MJ per MT produced, would result in fewer emissions, and ultimately save energy costs.

Furnaces use the vast majority of energy consumed by our plants. Analyses show that the energy consumption of most furnaces varies by 15% or more at any given tonnage. Our operators work to fine-tune furnace settings to optimize energy usage and minimize emissions.

560+ MJ PER MT PRODUCED WOULD BE SAVED WITH O-I’S 9% ENERGY USE REDUCTION GOAL
ENERGY & EMISSIONS

Energy Efficiency and Technology Transformation, cont.

Our furnaces are the heart of our melting practice, and they can remain in service for an average of 14 years. It is important to make sure that our legacy furnaces operate at their peak performance through proper planning and maintenance. We want to ensure an optimal mixture of gases takes place to achieve the most efficient combustion, since any unreacted gas results in productivity loss and increased emissions. We are making progress on our program to track and meter every furnace so that our energy accounting fulfills the benchmark for each furnace across all locations.

We have implemented innovative measures to make our legacy furnaces more resilient, particularly in the face of climate change. Full production backup power is in place in several furnaces across Europe and Latin America. Globally, many furnaces feature hot hold backup systems to keep furnaces from going cold, causing losses in energy efficiency and possible furnace damage.

In addition to monitoring and maintaining our existing assets for energy efficiency, we are developing and implementing new technologies, and creating best practices for the environmental impact that will disrupt the glass manufacturing industry.

We are developing and implementing new technologies, and creating best practices for the environmental impact that will disrupt the glass manufacturing industry.
Energy Efficiency and Technology Transformation, cont.

**TSC Impact on Energy**

Our approach to managing our emissions impact is part of our holistic approach to sustainability. When it comes to process innovation and improvements, we focus on more than just finding short-term ways to achieve a reduction or a cost saving.

We look for sustainable improvements—and by that we mean improvements designed to optimize as many parts of our process as possible for the long term.

To systematically instill this culture and process, we developed the TSC program. Learn more in About O-I.

Through our TSC initiatives, encouraging plants to share information across operations reduces repetition, saves time, and allows our teams to direct more effort toward resource optimization and cost savings. Among these optimization priorities, employee-created energy savings can be found throughout all plant activity. The TSC team has established our Energy Playbook as a central location for all plants to share energy-specific success stories, compile best practices, and record lessons learned so actions and projects can be replicated by other plants.

Since the implementation of TSC in 2017, our employees have taken the initiative to seek out innovative ways to reduce costs, energy use, and emissions. Plants work collaboratively, sharing their ideas and best practices to capitalize on existing and future programs. Our people lead performance improvements, working to optimize our processes for the long haul.

In 2020, over 80 projects specifically focused on reducing energy consumption were implemented, eliminating about 21,000 metric tons of CO₂ emissions. These projects focused on efficiency improvement and energy reduction in our furnaces, compressed air and vacuums, gas systems, variable speed drive fans and motors, energy efficiency partnerships, lighting, and energy meters and monitoring systems. Overall in 2020, TSC accounted for nearly 400 projects relating to energy use, purchase, consumption, management, systems, and the like.

**21,000**

TONS OF CO₂ EMISSIONS ELIMINATED THROUGH TSC PROJECTS IMPLEMENTED IN 2020

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**TSC TOTAL ENERGY-RELATED PROJECTS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>129</td>
</tr>
<tr>
<td>2018</td>
<td>261</td>
</tr>
<tr>
<td>2019</td>
<td>480</td>
</tr>
<tr>
<td>2020</td>
<td>387</td>
</tr>
</tbody>
</table>
Increasing Cullet Use
Cullet is a fundamental piece of our emission reduction journey for two reasons. Compared to raw materials, cullet melts at a lower temperature, requiring less energy, which in turn lowers emissions. Additionally, using cullet has the added emissions-reduction benefit of avoiding the CO₂ release that occurs from the chemical reaction of melting virgin batch ingredients. Increasing cullet in the melt by 10% reduces CO₂ emissions by approximately 5%.

As a circular material, melting cullet reduces the overall energy intensity in our products.

To learn more about how we promote circularity and reduce waste see Raw Materials & Waste. See Recycling to learn more about how O-I is working to increase cullet availability.

Systems Advancements- GOAT
The journey to sustainability is grounded in innovation. Moving forward in our low carbon journey, we are consistently evolving our furnace technology, which keeps us at the forefront of energy efficiency and challenges us to pursue further innovation.

O-I is transforming its plants into world-class examples of sustainable glass manufacturing by investing in technology. The gas-oxygen advancement technology (GOAT) process is a combination of several technologies that collectively make our most efficient melting process to date. In terms of efficiency and emissions, GOAT furnaces are our most efficient traditional furnace technology. We start with gas-oxygen (gas-oxy) burners, making

CO₂ EMISSIONS WITH A GOAT FURNACE

high-quality waste heat and virtually eliminating (70%) NOx (nitrogen oxide) emissions at their source. Gas-oxy furnaces burn cleaner than conventional furnaces, as air is replaced with oxygen in the combustion mix, created efficiently onsite.

The GOAT approach goes beyond gas-oxy furnace technology; it also includes cullet pre-heating. This system creates added energy savings by capturing exhaust heat from the furnaces and reusing it to raise the temperature of incoming cullet, avoiding waste heat. Post-use heat can be recirculated from other processes for preheat, directing usable energy from what would otherwise be a waste stream and increasing overall efficiency. In this way pre-heated cullet requires even less energy from the furnace, saving up to one-fifth of the overall fuels required at this stage of processing.

The energy needed to achieve melt in a GOAT furnace is lower by 30%, and consequently CO₂ emissions are cut by 40%. Thirteen furnaces have already been outfitted with this technology, with 36 more furnaces earmarked for deployment between 2022 and 2030, at a rate of four furnaces per year.

O-I’s plant in Villotta, Italy, is a case study in how we are transforming our processes to create more sustainable glass manufacturing. In addition to the GOAT technology mentioned above, the Villotta plant also uses an Organic Rankine Cycle (ORC), which is an electric generator that further transforms waste heat into useful energy to power systems within the facility.

GOAT PROGRESS

13 FURNACES ALREADY OUTFITTED

36 FURNACES EARMARKED FOR DEPLOYMENT BETWEEN 2022 AND 2030
Energy Efficiency and Technology Transformation, cont.

O-I’s proprietary technology, MAGMA, is an innovation that will enable a more flexible, modular, standardized glass production line and allow for rapid mobile capacity expansion in smaller increments. We are currently operating a prototype and our first manufacturing line in Holzminden, Germany. MAGMA is expected to improve our overall glass sustainability profile, including energy impact and lightweighting. For more sustainability innovations at this plant see the Villotta highlight.

Designing for Efficiency
In addition to GOAT advancements, O-I’s proprietary technology, MAGMA, is an innovation that will enable a more flexible, modular, standardized glass production line and allow for rapid mobile capacity expansion in smaller increments. We are currently operating a prototype and our first manufacturing line in Holzminden, Germany. MAGMA is expected to improve our overall glass sustainability profile, including energy impact and lightweighting. For more on MAGMA see Innovation.

We can make energy-efficient products by starting with design. O-I has been successfully reducing the amount of glass it takes to make containers – a process we call “lightweighting” – while maintaining the high level of performance we’re known for.

The lighter-weight containers save material and are more efficient in terms of energy to produce and ship. The continual evolution of lighter-weight containers creates significant savings over millions of containers produced. For more see Innovation.

LED Lighting Projects
Efficiency projects are considered across every part of our business. LED lighting saves a significant amount of energy over time. It also has additional benefits over more traditional incandescent lighting, like longer service life and improved visibility. We have been progressively transitioning factories in North America to LED lighting with 15 plants either complete or underway. These projects save at least 50% energy over conventional lighting. The scale of the projects has an impact on CO₂ emissions over time equivalent to taking thousands of cars off the road each year. Of those, we have installed, the average energy savings was 63%.

63% AVERAGE ENERGY SAVINGS WITH LED LIGHTING PROJECTS
Renewable Energy Program
Another important initiative on our path to lower-carbon processes is to increase our utilization of renewable energy to 40% of our total load by 2030. To deliver on the renewable energy plan, a core team with representatives from Legal, Treasury, Energy Procurement, Finance, and Sustainability functions, along with the Global Energy Team, has been mobilized and is already actively working across our global operations.

O-I invests in Renewable Energy Certificates (RECs) to procure renewable energy for operations. RECs are a way for O-I to meet our targets while supporting grid-connected renewable projects. As the renewable energy transition continues to unfold worldwide, there are compounding benefits for the O-I product chain.

Electrical power is vital to operations as it relies on a continuous energy supply to sustain production without causing potential damage to furnace assets. We believe that by investing in renewable electricity we will not only lower carbon impacts but create resiliency in our systems to the stresses from climate events or other risks such as the availability of electricity. We can use our investment power to bolster resiliency for our communities prioritizing locations based on risk and improvement opportunity assessments.

By investing in grid-connected energy projects, we will see an even bigger carbon reduction impact per dollar.

As of 2020, O-I has purchased renewable energy certificates covering 13% of our global electricity consumption and our target is to increase this to 23% as of 2021.

As of 2020, O-I has purchased renewable energy certificates covering 13% of our global electricity consumption and our target is to increase this to 23% as of 2021.

Our North American region is on target to meet 25% of the power supply with renewable energy sources by the end of 2021. More opportunities have also been identified for the European markets in 2021. While we’ve laid out a path to our renewable energy goals based on our best market predictions, we will pursue the options that reduce our normalized energy costs and meet our ambitious goals.
The O-I Glass plant in Zipaquirá, Colombia, received special recognition from a group of international organizations for its progress in energy-efficient manufacturing.
EMISSIONS REDUCTION JOURNEY

Various factors require O-I to manage emissions. O-I strives to comply with all regulatory agency mandates, such as those requiring reduced furnace emissions or air pollution control equipment. We are committed to fulfilling our role of leadership in sustainability.

As our manufacturing process relies largely on natural gas and electricity for power, we recognize the risks related to emissions. We work to manage the risk posed to our company due to climate change, as well as those our emissions pose to the planet and our communities.

Our emissions management programs include adherence to air permits, creating and following set procedures and processes, and operating and maintaining abatement equipment. We allocate capital and operations funding to manage our emissions. O-I considers future regulatory impacts in our decision making.

GHG Emissions Reporting

Around the world, governments have enacted, or are considering, legal requirements restricting or imposing costs associated with GHG emissions from manufacturing facilities like ours. We are committed to reducing emissions to manage this risk, fulfill our obligations to our stakeholders, and operate according to our values of integrity and accountability. Since 2010, O-I has disclosed GHG emissions and our management of carbon and climate change risks through CDP Climate Change. (See more in Our Sustainability Approach.) This is part of our SBTi communication on progress. CDP focuses on investors, companies, and cities taking action to build a truly sustainable economy by measuring and understanding their environmental impact. In 2020, we were proud of achieving a B rating for Climate Change, demonstrating progress over the past few years.

O-I prepares our scope 1 and 2 emissions inventory annually in accordance with the GHG Protocol Corporate Accounting Standard. The GHG Protocol is a partnership between the World Resources Institute and the World Business Council for Sustainable Development. The scope 1 and 2 emissions inventory is verified by limited assurance through a third party in accordance with the International Standard for GHG verifications ISO 14064-3, ensuring that the calculations are in accordance with the GHG Protocol requirements.

Emissions Trading Schemes

Some countries utilize an Emissions Trading Scheme (ETS) to regulate their carbon market in an attempt to mitigate climate change. It is a market-based approach for reducing emissions. The ETS establishes emission prices and allowance allocations for the different sectors of the economy. On an annual basis, these sectors must calculate their emissions by submitting an emissions inventory to a central government authority. Based on the annual emissions, companies can buy or sell emission credits. Currently, most plants in Europe and several in North America are under a trading system, and we comply with all applicable regulatory requirements.

Air Pollutants

Emissions such as NOx (nitrogen oxides), SOx (sulfur oxide), and PM (particulate matter) are inherent to the glass manufacturing process. The high temperatures in our furnaces destroy most volatile organic compounds (VOCs) that are generated, so our process does not produce significant VOCs. We continually assess our emissions of air pollutants to determine options to reduce them and protect our communities and planet.

As part of the commitment to environmental sustainability and to improve global air quality, O-I follows national, state, and local specific regulations at all manufacturing facilities, reporting to governmental agencies or externally when required. We strive to meet and exceed air quality standards according to furnace type and local regulations.
ENERGY & EMISSIONS

Air Pollutants, cont.
O-I understands the need for reducing NOx emissions as part of our environmental and sustainability initiatives. Our strategy for abatement depends on plant, local, and national regulations, and our approach to abatement varies across the regulatory landscape. O-I has partnered with a number of companies that specialize in advanced burner technologies and invested in a number of technologies including low NOx burners, oxy-boost, auxiliary injection systems, and oxygen-enriched air staging. Other emissions abatement systems include: scrubbers, baghouses, electrostatic precipitators, and ceramic candle filters. Many facilities have continuous emission monitors. In fact, we have emission control procedures in place at all of our glass manufacturing locations and have, or will be installed by the end of 2022, NOx reducing process equipment or NOx air pollution control equipment at 80% of our locations worldwide. We will continue to review additional emission control measures to achieve our 2030 goals.

The major source of NOx emissions from glass melting activities is the exhaust gases from the glass furnace. There are several techniques to reduce the emission of NOx in the air. One of these is the DeNOx system, which is a selective catalytic reduction system installed downstream and complementing other existing emissions controls. DeNOx incorporates selective catalytic reduction using ammonia; NOx compounds are converted into nitrogen and water. O-I is actively investing in and deploying DeNOx systems in our facilities. We are in the process of deploying eight systems into various facilities over the next three years.

Emissions Compliance
Our policies require tracking and reporting of environmental parameters to meet all regulatory requirements. Compliance with emission limits and regulations, particularly around air pollutants (e.g. NOx and SOx), are a critical component relating to emission reductions. We monitor notice of violations (NOVs) as part of the emissions initiative to track continuous improvement initiatives. In 2020, O-I saw a 12% decrease in air NOVs.

The Global EHS team establishes and oversees the process for compliance of our facilities with local, national, and regional emissions requirements. Permit limits are defined for each applicable environmental parameter, including but not limited to the following: NOx, SOx, CO, CO2, O2, HCl, HF, particulate, opacity, tonnage, electric boost usage, and gas flow. These environmental parameters are posted in the applicable locations for quick and accurate reference. In each facility, we have individuals with the specific responsibility to monitor and adjust furnace operational parameters to operate within permit limits and to supply information for operational and reporting requirements.

12% LESS
AIR NOVs IN 2020

REDUCTION OF NOx IN SEVILLE
Since December of 2020, a new DeNOx system is reducing NOx emissions at our Seville, Spain facility. The installation of the DeNOx system was a 2-year project, completed during the challenges posed by the COVID-19 pandemic, including the availability of contractors to travel and delays in equipment deliveries. We are proud of our team’s effort to remain focused on sustainability goals, during the most challenging times, while also making sure health and safety of our team remained the first and foremost priority.
ENERGY & EMISSIONS

FORMING FOR OUR FUTURE

Our Global Energy Team will continue to develop forward-looking initiatives to reduce energy use and emissions. Some of these initiatives include developing company-wide standards and procedures as well as establishing an “Energy Manager” role at each plant. We have REC procurement planned in the Netherlands, Poland, Brazil, and Colombia that will bring us closer to our 2030 goal of 40% overall renewable energy supply. Additionally, our short-term initiatives include plans to install eleven GOAT systems in the next few years and eight DeNOx systems with five more installations planned by the end of 2021.

O-I is working toward ENERGY STAR certification in our facilities in the United States, and certified our first plant in 2021.

ENERGY STAR is a program backed by the U.S. government that signifies products made with energy-efficient processes. Elevating our ambitions, and the engineering team is working to expand the reach of the ENERGY STAR benefits and impacts by aligning our global footprint with the best practices recommended by the ENERGY STAR Scale.

Managing Risk

Although we cannot predict climate-related regulations, requirements that might be engaged by various governments, or the impact of climate events on our business, we strive to monitor the present and emerging risks related to emissions. We are committed to developing a process to enable us to manage the associated regulatory, reputational, and market risks. As the risks posed by climate change, and associated governmental responses and requirements emerge, we are committed to increasing the rigor of our governance and process to best manage and report on, as appropriate, how those risks affect our business. In addition to monitoring and evaluating legal requirements and our processes, our emissions risk-management strategy includes developing different carbon-pricing models to evaluate emissions-related risks and mitigation solutions based on various inputs.

Aligned with our 2021 efforts to manage climate and emissions risk, O-I will work to continue developing technology to transform our processes, improve energy efficiency, and create resiliency. Our innovations will support the transition to a lower-carbon, energy-efficient economic system. We will continue to innovate and deploy technology to mitigate emerging risks and create value for our stakeholders.
Enel X is one of the largest energy demand response suppliers in the United States. O-I Waco has been named Enel X Texas’ MVP for the plant’s contribution to supporting a stronger, more resilient, more sustainable energy grid through the supplier’s energy demand response program.

The program leans on manufacturing partners to commit to reducing their energy use in order to divert energy to the community when needed. O-I’s Waco plant developed a specific demand response standard operation procedure (SOP) and followed through to train employees to implement it.

Waco is one of six O-I plants in the U.S. to work with Enel X as part of the program to reduce energy and divert it to communities when needed.
O-I is reinventing the future of glass manufacturing through innovation, creating a better planet through our products and our processes.

We are committed to reducing the natural resources we use and the waste we generate. Glass is made from four natural ingredients: sand, limestone, soda ash, and recycled glass or “cullet.” O-I is taking a holistic approach to increase recycled content across our global network. We have set a goal of increasing recycled content to a 50% average by 2030, with a target of 2% year-on-year improvement from the 2017 baseline. Globally, our glass products currently contain an average of 38% cullet by tons packed. In Europe, we have produced containers made of up to 100% recycled glass.

Our long-term roadmap to increasing recycled content involves focusing on cullet and the recycling ecosystems around our facilities and solving for increased local collection, processing, and use opportunities. This strategy involves creating end-to-end sourcing plans and locally partnering with processors and our customers to find collaborative opportunities to use more recycled content.

Increasing recycled content in our glass containers grows demand for end-of-life containers. A study by McKinsey & Company found consumers want rigid packaging to be recyclable or to include higher levels of recycled content. Recycled glass is always part of our recipe. The more recycled content that is used, the greater the decrease in energy consumption, thus alleviating the strain on equipment and prolonging furnace life. The energy reduction translates to reducing emissions. These factors make using recycled glass profitable in the long run, lowering manufacturing costs and benefiting the environment.

Every 10% of recycled glass used in production leads to a 5% reduction in carbon emissions and a 3% reduction in energy use.

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RAW MATERIALS & WASTE

Glass is infinitely recyclable without loss of purity or quality, making it a permanent material that can continue to offset the need for raw materials as often as it is recycled. Accenture found that 83% of consumers believe it is important or extremely important for companies to design products that are meant to be reused or recycled. By increasing recycled content, O-I continues to design out waste to make glass production a circular process. Our production process does not produce “glass waste” as any glass that does not make it into the final product is recycled and returned the melter. These practices reduce pollution and minimize the need to use raw materials, lessening the strain on the earth’s finite natural resources. Every ton of glass recycled saves 1.16 tons of raw materials for future generations.

Every ton of glass recycled saves 1.16 tons of raw materials for future generations.

SUSTAINABILITY GOAL

DRIVE TOWARDS A "ZERO WASTE" ORGANIZATION

Reduce the amount of natural resources used, reduce the generation of waste by reuse and recycling more.

The O-I sustainable waste management initiative aims to reduce the amount of natural resources used, eliminate the generation of waste, and increase recycling as we drive towards being a “Zero Waste” organization.

Though the raw materials we use are readily available, O-I recognizes that natural resources are finite and world demand is increasing. Supply chains disruptions present business interruption and other risks. The world has limited landfill waste capacity. Increasing our cullet usage, decreasing our use of raw materials, managing efficient use of materials, and minimizing waste allows us to lessen our impact on natural resources and mitigate these and other risks.

“Every year O-I prevents more than five million tons of glass from going to landfills by keeping it in the circular economy making us a net negative contributor to landfills.”

JIM NORDMEYER (HE/HIM)
VP, Global Sustainability

4 More than Half of Consumers Would Pay More for Sustainable Products Designed to Be Reused or Recycled, Accenture, 2019
MANAGING AND ELIMINATING WASTE GENERATION

O-I’s industrial activities generate non-hazardous wastes, which are usually recycled or disposed of. Typical non-hazardous wastes (or byproducts that can be reused) include general plant refuse, metal, cardboard, paper, plastic, wood, cullet, and certain refractory wastes. Our industrial activities also generate hazardous wastes, which because of their physical, chemical, or other characteristics can be hazardous to people, property, or the environment if improperly managed.

Proper management of waste reduces health risks, improves safety, reduces environmental impact, improves our sustainability initiatives, and reduces costs. Our global waste goal is driven by following the O-I Waste Management Fundamental, which establishes global measurements, benchmarks best-in-class practices, promotes using less and recycling more, and follows our waste management hierarchy of:

1. Prevention
2. Minimization
3. Re-use
4. Recycle
5. Energy Recovery
6. Disposal

The Waste Management Fundamental establishes procedures that help reduce our impact on the environment and related costs, as well as minimum expectations for our waste management process: inventory, characterization, waste determination, minimization, collection, handling and storage, shipment, disposal, internal audits, training, and records.

Waste is assessed and tracked through a written inventory. Currently, all regions track waste in various databases. In Europe, waste data is tracked throughout the year in an integrated internet-based system. As we look to continuously improve, we are working to integrate all regions into this system.
RAW MATERIALS & WASTE

Through waste characterization we look to define the properties, characteristics, and constituents of each waste, applying waste coding for recycling or disposal. We identify hazardous and non-hazardous wastes in the waste determination process.

Minimization is also assessed. Each plant estimates the portions of their existing waste generation practices as they relate to the waste management hierarchy: minimization, re-use, recycle, energy recovery, or disposal. The plants set site-specific waste management targets per the hierarchy and review them annually. Plants maintain a written waste minimization plan that identifies the waste management targets and the methods used to reduce, eliminate, or prevent waste at its source.

O-I works to ensure appropriate waste collection, handling, and storage through regulatory compliance, maintaining standard operating procedures, and conducting job hazard analysis to manage wastes safely.

Through identification, labeling, and an audit process, we look to avoid mixing different types of wastes, in particular, non-hazardous with hazardous waste. This leads to proper waste separation and collection, which maintains workplace safety.

When waste is transported for disposal, our process seeks to address whether carriers of waste and waste processors have all required permits and shipments are documented correctly.

Plants set site-specific waste management targets per the hierarchy and review them annually.

Local EHS Managers perform internal audits of the waste management program. The results are shared with facility managers to communicate corrective and preventative actions. All persons leading or participating in waste management must complete classroom or on-the-job training to become familiar with the waste management and emergency procedures for the waste handled at the facility. All documents relating to waste management and all associated procedures are retained for a minimum of three years, or per applicable local regulations, in a location that is accessible by all relevant personnel.
RAW MATERIALS & WASTE

Waste Management Leadership Structure
The EHS Center of Excellence Team develops, maintains, communicates, and provides guidance on waste. It also conducts global EHS audits on the waste management process, its implementation, and the results at plants across O-I. Country Group Teams ensure O-I plants have implemented a waste management process and hold them accountable for an effective program. The process must be consistent with the Global Waste Management Fundamental, regional guidance, and with any local applicable EHS legal and regulatory requirements. Country Group Teams give procedural guidance, provide coaching or mentoring of plant and EHS staff, and ongoing monitoring of waste management expectations (implementation, process, and results).

Each O-I plant EHS Manager or EHS Leader works with the local EHS Leadership Team to assign a Project Champion.

The Project Champion facilitates the development of the local documented waste management program and its implementation. They monitor program effectiveness and facilitate continuous improvement when needed.

Project Champions also develop and implement a plant-specific waste management procedure incorporating any “more stringent” regional or local requirements. The plant Facility Manager is responsible for the communication, implementation, and execution of this procedure at their location. The Facility Manager ensures the waste management process involves the plant EHS Manager, the front-line leaders, and all relevant employees. Plant EHS staff are responsible for ensuring that all plant-specific procedures relating to waste management comply with local legislation, environmental permits, ISO14001 standards (where applicable), and the minimum requirements identified in the Global Waste Management Fundamental.
The Packaging of Packaging

O-I recognizes that if we manufacture the world’s most sustainable packaging, we must also ensure that the glass itself is packaged sustainably when delivered to our customers. We have found several opportunities to meaningfully reduce the environmental impact of our packaging.

Together with our customers, we understand that wood is a precious and limited resource. Therefore, we treat wooden pallets used for our goods as returnable packaging.

All across the world we either use our own pool or participate in national or industrial pallet pooling systems. Through partnerships with customers, we have been able to repurpose and reuse pallets in small closed-loop systems to reduce scrap and minimize new wood pallet purchases.

For cardboard packaging, we follow two parallel paths in close cooperation with our customers. In Europe, we limit consumption of cardboard packaging and mainly use products made from recycled paper fibers. Our European cardboard composition is 71% recycled paper. We are looking for more sustainable alternatives to cardboard pads and sheets to the plastic layer pads (made from recycled polypropylene) to work in a returnable scheme, as we do with pallets. From 2016 to 2020 Europe increased returnable packaging usage from 60% to 70%. In the Americas, we use premium quality cardboard packaging, giving customers the opportunity to reclaim it, which extends the product life, reduces waste, and minimizes the environmental impact.

In order to increase the number of times fiberboard tier sheets can be reused, our Americas business unit has created an initiative to optimize the reuse of tier sheets. To date, over a quarter-million sheets have been reused, which offsets the need to purchase new sheets. Additionally, to reduce the amount of new fiber going into tier sheets, we worked with a supplier in North America to reduce the basis weight of tier sheets. By implementing a new, lighter-weight tier sheet, we reduced our annual paper consumption by over 900 metric tons annually5.

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5 How Much Paper Does One Tree Produce? Sierra Club
To deliver our products to customers, we use film packaging to assure products are clean and safe when it reaches customer warehouses. Particularly for the bulk deliveries, we cannot avoid using a thin plastic stretch or shrink film to secure the load. Being conscious about the environment, we have run several development projects to improve this area. The two main pillars are: substantial plastic film downgauging (reducing thickness and thus the amount of plastic that we use and provide to the market) and developing films with recycled content (mainly in Europe). We have already conducted tests and downgauged with success as well as requested vendors provide film with recycled polyethylene content.

In North America, we worked with our stretch film supplier and an external third-party lab to identify how to get the most out of our stretch film, while minimizing the amount of film needed on each load and maximizing stability.

Our stretch film supplier worked with each of our facilities to adjust settings on our wrappers that resulted in a reduction of nearly 65 metric tons\(^6\) of film used annually. Additionally, internal scrap from all global packaging materials, as well as the returnable packaging at the end-of-life is fully collected and further sustainably recycled by specialized partners.

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\(900+\) **TONS**

OF ANNUAL PAPER CONSUMPTION
REDUCED IN THE AMERICAS

\(=\)

about **10,000** to **20,000** trees saved per year

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**65 TONS**

OF ANNUAL PLASTIC FILM USAGE
REDUCED IN NORTH AMERICA

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\(=\)

over **200** cubic yards of landfill space saved per year

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\(^6\) Plastic Film, Waste360
**BETTER USE OF RAW MATERIALS**

In order to improve O-I’s use of raw materials and reduce waste, in 2020 we introduced four initiatives: managing glass consumption, reducing raw materials inventory, reducing raw materials and logistics cost, and minimizing raw materials waste. We worked to manage glass composition based on the best Total System Cost, minimizing raw material use and increasing cullet. We drove increased cullet use and reduction in raw materials use by improving a cullet optimization tool and cullet levels considering batch cost, energy, emissions, and quality impact. We also focused on defining targets for soda ash reduction in both North America and Europe.

O-I drove raw materials inventory reduction based on a best Total System Cost approach to minimize obsolescence, the working capital invested, and scrap from raw material aging. We focused on increasing internal cullet use in North America. The Total System Cost approach was also applied to raw materials and logistics cost reduction, which included the adoption of new suppliers, and explored new ideas for distance and cost impact mapping and optimization. This includes identifying transportation options (truck or train) where possible to reduce emissions.

We minimized raw materials waste through upgrades and process optimizations, including internal cullet utilization and a waste batch program. We focused on specific batches, color change transition waste reduction (identifying areas in process of loss or waste) and reducing scrap from raw material aging.

Aiming to create a zero-waste process, any reusable internal cullet, or any reusable glass that does not make it into the final product, is recycled back into the furnace.

O-I is working to address even the smallest wastes, glass fines (small particulates), to improve utilization.

In Europe, several plants are using sodium sulfate, a byproduct from the rayon and methionine industries, as a fining agent. This is just one example of our ability to utilize wastes from other industries to pursue our sustainability goals. Some plants in Europe are also reusing the dust from the filter as a byproduct rather than disposing of it as waste. Twenty-two European plants (65%) recycle the majority of the dust, eight (23%) partially recycle, and four (12%) plants do not recycle depending on compatibility with market, quality, and regulatory requirements.

To reduce the amount of raw materials used in O-I’s production process, our focus has largely been on increasing the amount of cullet in our supply.
EMISSIONS REDUCTIONS THROUGH LOGISTICS OPTIMIZATION - SAND

FEATURE STORY

In North America, we recently shifted the mode of sand transportation for the Los Angeles plant away from 100% truck.

The hybrid model now transports sand by rail from Overton, Nevada to Los Angeles, California until the last few miles when they are offloaded onto trucks for final delivery. About 100 tons of sand can be hauled per railcar, whereas only 25 tons can be hauled per truck. This converted over 800,000 truck miles to rail and reduced CO₂ emissions by 750 metric tons.
RAW MATERIALS & WASTE

INCREASING CULLET RATE
Efficient supplier-client coordination, as well as customers’ focus on the circular economy, helps to drive cullet availability. This leads to successes like those in the Andean region where the recovery of returnable containers represents about 30% of our glass collection. With the collaboration of selected suppliers, we are investing our time, effort, and capital on enhancing the treatment of the cullet to enable a higher usage in our furnaces. (See Recycling for more information on O-I’s investment in cullet processing.)

We recycle returns from customers including obsolete containers or end-of-life returnable containers. We have developed partnerships with many of our customers in Europe to close the loop on glass. In 2020, O-I launched an initiative to set up a centralized cullet processing location in the Netherlands through a third party. This will allow O-I to source high-quality and non-contaminated cullet from customers, not only securing our product’s sustainability but ensuring its quality. The project has the potential market for approximately 35,000 tons of high-quality and non-contaminated cullet annually, and a projected cost savings of €10 ($11.94) per ton. We are currently exploring opportunities to expand closed-loop systems, particularly in North America.

O-I is increasing cullet availability via efficient, plant-centric, and cost-effective recycling programs and systems.

In addition to container glass, we are developing recycling of industrial cullet from flat glass (buildings and automotive) and end-of-life-solar panels and auto windshields. O-I is targeting all North American facilities as the region is responsible for a large portion of our production and cullet availability is unevenly distributed within our plants (globally and in North America) due to differences in local regulations. This is particularly true in the southeast United States where we have focused our efforts. Our ultimate goal is to increase cullet usage in the long term across the globe. We must address the following challenges: economics, legislation, collection (volume & quality), treatment capacity and capability, and limitations to our ability to receive and use the maximum amount of cullet possible while continuing to meet the final container specifications.

ANNUAL POST-CONSUMER CULLET %
BY TONS MELTED

RAW MATERIALS & WASTE

Cross-functional teams composed of experts from Procurement, Manufacturing, Quality, Glass Science, Sales, and Governmental Affairs work in each geography on advancing our understanding of evolving markets, needs, and cost. The teams are supported by senior leaders’ sponsorship and are developing strategic options.

We participate in private organizations and associations that seek to bring the manufacturing industry together to promote glass, recycling, and secure the cullet pipeline. To learn more about how O-I is working collaboratively to promote glass recycling and collection see Recycling.

KEY RECYCLING PROMOTION PARTNERSHIPS

**FEVE**
In Europe, we are partnering with all key stakeholders in the supply chain to increase the quantity and quality of glass collected on the market.

**FRIENDS OF GLASS**
Friends of Glass provides education on the sustainability of glass and promotes recycling. O-I played a key role in connecting FEVE with GPI to initiate collaboration bringing this awareness campaign to the United States.

**GLASS PACKAGING INSTITUTE (GPI)**
The trade association represents the North American glass container industry promoting glass as the optimal packaging choice, advancing environmental and recycling policies, advocating industry standards, and educating packaging professionals.

**GLASS RECYCLING COALITION (GRC)**
In the U.S., GRC brings together organizations to make glass recycling work: glass manufacturers, haulers, processors, materials recovery facilities, capital markets, end markets, and brands.

**ABIVIDRO (BRAZIL)**
Glass industry associations bring together glass industries and supporting recycling.

**CEMPRE**
Through CEMPRE we support recycling policies in Latin America, Colombia, and Peru.
A recently completed project to increase the amount of cullet at O-I’s Brampton, Ontario, plant received support from a natural gas supplier.

In 2020, O-I Glass invested in upgrading the cullet material handling system. The upgraded system allowed Brampton to increase cullet usage, which positively impacted the plant’s energy use. The energy-efficient upgrades earned a grant from the natural gas supplier, which covered half the cost of the project.
Moving into 2021 and beyond, O-I has developed sustainability plans to continue increasing cullet rate, decreasing the use of raw materials, and reducing waste. We will move these initiatives forward by defining metrics, establishing baselines, setting goals, and creating tracking mechanisms. Our roadmap will lay out initiatives, actions, and plans to execute and achieve goals.

Reducing Waste and Increasing Cullet
Our current waste management approach includes conducting waste inventories. Though track waste individually, we are working to bring the entirety of our global waste tracking into this integrated system.

We plan to reduce our raw material waste by improving conditions of our batch houses and recycling any residue, instead of disposing of it. This will require resources for analysis and testing, as well as batch house maintenance and upgrades.

In our drive to increase cullet usage, we will evaluate the market’s appetite for nearly 100% recycled containers (>95% cullet rate) with subsequent visual or appearance variations such as color. O-I holds the patent on the 100% recyclable bottle awarded in 2016, building off patented work done in 2013.

We will build capabilities for enabling data-driven decision making and continuous improvement for cullet use rate and quality. In 2021, we’ll expand the use of data to drive decision making for the proper ratio of raw materials and cullet. This information will be used to maximize the overall cullet rate while minimizing overall cost, as well as provide input to build business cases for capital investment requirements. The approach to cullet rate needs to be holistic and long-term, considering raw materials and cullet prices, as well as savings on raw materials, energy, and emissions. We are in the process of refining the methodology for metrics and developing enhanced reporting.

We will pursue opportunities from supply (sourcing) and demand (technical limits), executing quick wins to build the foundation for long-term opportunities. O-I is investigating solutions to technical limits such as dusting or fines from cullet that present EHS and materials use challenges. Our objective is to use all cullet fines to improve cullet utilization, which allows us to increase cullet availability and reduce treatment cullet losses that are landfilled by our suppliers.
On the three- to five-year horizon, we will keep populating the supply opportunity pipeline with inputs from our strategic sourcing process and industry coordination.

Maintaining prioritization of opportunities, O-I will build business cases for capital investment and execute accordingly. This initiative will be piloted in North America, where production is high, but cullet availability is low compared to other regions due to differences in local regulations.

The increase of the recycled content in our finished products will require a coordinated and collective effort by several our stakeholders such as country group leadership, Manufacturing, Sales, Glass Science, Sustainability, Government Affairs, and Procurement. In order to reach the transformational long-term company objective, we will need to dramatically improve our ability to manage supply, demand, regulation, cost, and quality, we will need to develop long-term strategies. The priority for execution is North America. We are looking to expand customer partnerships in North America to create closed-loop systems, to reclaim shipped containers, in order to produce cullet and create new glass containers.

Industrial cullet may present an opportunity to increase cullet availability. We will map availability and cost to qualify sources. This could include glass products such as fiber, flat, tableware, or solar panels. We can leverage a current relationship with a U.S.-based solar company for the recycling of solar panels. This initiative can begin in North America, improving process speed, and continue in Europe, starting with Germany, as well as Southeast Asia.
Decreasing Raw Materials Use
As part of our initiatives to reduce raw material use and increase recycled content of all kinds, O-I has launched several initiatives to incorporate material alternatives. For example, by replacing some limestone with slag, which is a byproduct of steel production, we find new ways to increase recycled content and create the opportunity to reduce energy consumption and emissions by 3 to 5%. Slag is already used in several facilities in Europe and one facility in the United States where availability, cost, and location transportation are favorable.

Reusing concrete, ceramic, and porcelain as alternatives for limestone, alumina sources, and sand are opportunities for us to replace raw materials and increase our recycled content. Our aspirational initiative is to explore ways to reuse sand that is waste for one industry but can be substituted for virgin sand in our process to make new containers. A pilot project is being conducted in North America linked to a foundry to reclaim and reuse an estimated 80 kilotons of sand per year that otherwise would be landfilled.

Raw Materials Management
To make better use of our inputs and reduce waste, we plan to continue the four initiatives we launched in 2020, into 2021 and 2022. Composition will be managed through investment in soda ash reduction and expanding our focus beyond North America and Europe to the wider Americas. O-I will assess imported materials compared to local material replacements to reduce transportation impact. Our roadmap for success includes developing and implementing a monitoring system and alerts to keep composition within targets.

We will also implement a monitoring system and develop key metrics, targets, and policies to reduce raw materials inventory. Raw materials waste reduction will be achieved through inventory optimization, replicating transition best practices, and training users on risks and costs.

The implementation of a raw materials logistics monitoring system will facilitate decision making, enhance governance, and consider supplier process impacts as part of our roadmap to reduce raw materials and logistics costs.
The Marsala, Italy plant is working with a cullet company on the island of Sicily striving to collect and use all its cullet. This allows the plant to run up to 90% cullet for the production of new containers. The majority of the cullet used in the production process comes from local cullet collection. Sources of sulfate and calcium carbonate additionally come only from Sicilian sites to enhance the circularity of this Sicilian bottle.
WATER

OUR VISION

At O-I, we recognize that water is a precious resource and its availability is a growing concern globally.

The United Nations recognizes access to clean water and sanitation as a human right—because both play a key role in the basic health and prosperity of each one of us.

In our operations, we primarily use water for cooling manufacturing processes and maintaining our plant equipment at a safe operating temperature. We aim to be good stewards of water and to foster sustainable and equitable management of freshwater resources. By building a culture of employee awareness, we seek to use our water resources responsibly, lead by example, and create the balance needed for sustainable support of the communities where we operate.

SUSTAINABILITY GOAL

REDUCE WATER USE BY 25%

with special and immediate attention to sites of highest water stress

The water management and stress risks are different in each of our plants. O-I evaluates water stress using the Aqueduct™ tool from the World Resources Institute (WRI). In 2020, 35% of O-I plants (excluding divested plants in Australia and New Zealand) were in water-stressed areas classified as “high” or “extremely high” baseline stress. Through water use management and monitoring, we strive to combine risk and impact to understand how to prioritize our actions. By 2030, our goal is to reduce overall water use by 25% with focus and actions concentrated in higher-stress locations. Water efficiency and conservation is monitored as part of our environmental management systems, and about half of our locations are certified under ISO 14001.

35% OF O-I PLANTS WERE IN WATER-STRESSED AREAS IN 2020

(excluding divested plants in Australia and New Zealand)
Our water use management consists of policies and procedures that have been developed by an interdisciplinary team that involves EHS, engineering, manufacturing, and R&D, among others. These policies are part of O-I’s Global Manufacturing Fundamentals (GMF), a multi-lingual program that compiles standardized specifications, requirements, work instructions, and training materials for use by everyone. To help ensure efficient and stable operations, our plant equipment is regularly inspected, including mandatory preventative maintenance on the water systems.

The Global EHS function leads the teams that regularly review our water conservation processes. Water is one of the regular topics in monthly multi-disciplinary meetings we use to leverage our global knowledge to drive continuous improvement.

Bringing different teams together helps us to monitor and identify potential risks and opportunities, accelerating necessary measures and prioritizing focus.

**TRACKING AND REPORTING**

O-I’s overall water performance is reported annually in the CDP Water report. We were proud to achieve a B rating in 2020, showing continuous progress over time. The O-I water program includes monitoring, risk management, wastewater management, and stormwater management. About once per year, O-I screens for shifts on water risks using the WRI Aqueduct tool. Aqueduct™ is an open-source data platform that helps us understand and locate risks from water stress, seasonal variability, pollution, and access. In 2020, 25 plants were in high and extremely high water distressed areas; 24% were in Latin America, 20% in Americas North, and 56% in Europe. Water risk assessment is also part of our Cradle to Cradle (C2C) and ISO 14044 life cycle analysis certifications.

Each O-I plant tracks water consumption and works to maintain compliance with local applicable regulations. The number of water sources and providers that we utilize worldwide requires a diverse array of strategies for controlling, metering, and reporting data. O-I is making moves to improve our monitoring systems and standardize our data collection as part of a comprehensive approach to water stewardship. Meeting our conservation goals is a vital piece of our sustainability journey and we are taking a collaborative approach across several functions, facilitating the sharing of best practices across the company.

Meeting our conservation goals is a vital piece of our sustainability journey and we are taking a collaborative approach across several functions...
WATER

O-I PLANTS IN WATER-STRESSED AREAS

Extremely High Water Stress
High Water Stress

This data excludes AZN plants divested in mid-2020.
O-I has identified Jakarta as a high water stress area. Since 2018, the Jakarta plant has used two medium tanks (1,500 liters capacity) for rainwater used to water the garden and grass area at the plant. Water spilled from rainwater gutters is collected in reservoirs then pumped when needed. In future projects, the plant plans to use this collected water to support recycle tanks (backups) and hydrant tanks. This creates a cost saving and conserves water, specifically reducing city water usage.

Having a similar effect, the plant additionally began using recycled water for cullet washing in 2020. The incoming water comes from the local wastewater treatment plant to wash the cullet, avoiding contamination and improving cullet quality before it enters the furnace. Without this initiative, the plant would typically use water from the city, as much as 50 to 70 m$^3$ every day. By using recycled water, there is no longer a need to use city water; saving between 18,000 and 26,000 m$^3$ of water annually. As a continuation of this project, testing by internal and external labs has been conducted on processed water coming from a sewage treatment plant and was found to be viable for cullet washing in accordance with O-I’s standards and legal requirements.

Plants like Jakarta, Indonesia manage water as a finite resource, utilizing rainwater collection and water recycling.
Our conservation initiatives are focused on water recycling and reuse whenever possible, which reduces the pressure on natural resources. Our hot glass rejects process utilizes a water recirculation system to minimize water consumption. This system generally includes a solids and oil/water separator that allows the water to be cycled back to the beginning of the process within the same system. Periodic water replenishment of the system is needed to compensate for evaporative losses, but this recuperative practice is an effective option to reduce over 64,000 m$^3$ of process water use per day. All our locations use this recirculating loop system.

**Cooling Process Water**

We also reuse water to cool manufacturing equipment in both open and closed-loop water systems. Up to 2% of water evaporates during the cooling phase for both the open and closed-loop systems. This consists of process water itself and a cooling water loop located on the tower. As water is evaporation is part of the process, the conductivity of the water becomes too high and water is “blown down.” Makeup water is then automatically added to the cooling system to achieve the proper conductivity again. These systems help to conserve water consumption.

**TREATMENT AND DISCHARGE**

The Plant Manager and EHS Manager at each of our locations are responsible for our plants’ compliance with national, state, and local regulations, and permits regarding water withdrawal and wastewater discharge. Wastewater that is not reused within the plant is discharged in accordance with our permit requirements. Discharge wastewater exiting our plants is monitored and periodically sampled and tested as required by the local laws and regulations.

**STORMWATER RUNOFF**

At O-I, the primary method of protecting stormwater runoff is to prevent contamination from occurring. This has been emphasized through the design of containment systems, employee training, and regular inspections. In the U.S., we follow the U.S. Environmental Protection Agency (EPA) Stormwater Pollution Prevention Plan (SWPPP) guidance at our manufacturing facilities and in other geographies we comply with local regulations. Following the SWPPP provides the roadmap to compliance with industrial stormwater permits. Stormwater outfalls are frequently inspected and sampled for compliance and periodically visually evaluated for the presence of non-stormwater discharges that are covered by local regulations. O-I strives to comply with all national, state, and local regulations regarding stormwater.

Our Spill Prevention, Control, and Countermeasures Plan (SPCC) addresses the management of oil materials and the prevention of off-site releases. While we are working towards having an SPCC plan in all facilities, for most that do now, the plan addresses spills that could occur at the facility level and establishes procedures and equipment required to prevent, control and provide adequate countermeasures to avoid such spills for each of our plants. These plants have a designated spill coordinator responsible for forming a spill response team and providing training.

Our SWPPP and SPCC plans provide plants with the roadmap to compliance. Stormwater outfalls are periodically recorded, sampled, and visually evaluated for the presence of non-stormwater discharges that are covered by local regulations. In 2020, we did not incur any water supply violations.
FORMING FOR OUR FUTURE

Moving forward, we will continue to improve sustainable management of water use, identify water management risks and opportunities, and contribute to increasing long-term water security. In addition to standards for water recycling, we believe improved monitoring and data collection systems will allow us to define benchmarks from which to set more ambitious goals for conserving water. O-I is prioritizing a culture of water stewardship throughout the organization. Initiatives to promote conservation through water literacy and a more visible focus on environmental awareness, will help reinforce our commitments and create company-wide alignment around the goals of improved efficiency and conservation.
ALLOA TOTAL WATER CONSERVATION

FEATURE STORY

Over the course of 2020, our plant in Alloa, Scotland reduced water consumption by 40%. To reach this dramatic reduction, the Alloa team took a systematic approach to implement the conservation program, beginning with workshops to build a foundation of shared water awareness among all employees.

The workshops detailed high-level water usage and pricing information to help illustrate the full picture as a starting point. We worked with a water vendor to build a dashboard to give reliable, timely data on water usage, and monthly trends were featured as part of daily production meetings. At the same time, a campaign for identifying and labeling all pipework conveying water through the plant was carried out to ensure no crossover between close systems and discharge systems and to remove any superfluous equipment. Finally, areas of lower efficiency were identified and prioritized for recalibration and streamlining.

Maintenance and a positive change management approach has continued this success. Daily checks on key junctions of the system were implemented – once in the day shift and once in the night – and any issues are immediately rectified or raised at the morning production meeting. A regular maintenance schedule was introduced for pumps and pipework to optimize performance and halt any issues in early stages.

The team established three usage milestones and corresponding goals at the program’s launch. In less than one year, the team not only met all of the milestones and goals, it raised aspirations, milestones, and goals for even further reductions.

With water usage down by almost half, we are proud of the Alloa plant’s program, its achievements, and are looking forward to replicating its successes in other locations.
At O-I, sustainability is about achieving a balance in our operations and the products we make with the current and future needs of our communities, the planet, and our collective prosperity.

We are committed to achieving balance together by transforming what we do.

Developing sustainable procurement is about acknowledging the broader impact that our purchasing decisions have on our people, the environment, and our overall sustainability performance. We are transforming today by inviting our suppliers to join our sustainability journey.

O-I’s Global Procurement Policy defines Procurement’s authority, engagement, methods, transactions, and documentation requirements for procuring goods and services on behalf of O-I. Our procurement aim is to gain supplier alignment with our sustainability goals and to obtain goods and services that meet performance, quality, and service level expectations from approved suppliers at the best overall value and total cost.

Our Procurement Team’s Guiding Principles include:

- Procure goods and services at the best total cost.
- Understand and respond to our customers’ business needs and challenges.
- Seek, establish, and maintain supplier relationships that deliver O-I’s objectives.
- Improve our business processes to facilitate our effectiveness and efficiency. Remain open, competitive, and fair in our business practices.
- Retain the integrity and confidentiality of information.
- Develop and foster a dynamic, proactive, and committed relationship with stakeholders, incorporating stakeholders in the Strategic Sourcing Process.
- Ethics, professionalism, commitment, and quality are the four pillars underpinning Procurement’s commitment to excellence.

Our fundamental values guide our behavior. We are committed to the core values of integrity, respect, trust, and the pursuit of excellence in all of our relationships throughout the supply chain.

O-I seeks to foster relationships with suppliers who share similar values. At O-I, we expect our suppliers to conduct their business in compliance with laws and in accordance with our high ethical standards. With production locations around the globe, we place great importance on the relationships we maintain with all our suppliers. O-I’s global supply chain includes a variety of local, regional, and global suppliers who provide a wide range of products and services.
We have created Supplier Guiding Principles that emphasize suppliers’ compliance with all applicable laws and regulations including labor, environmental, workplace health and safety, and anti-corruption. This includes suppliers’ compliance with all applicable laws prohibiting human trafficking and modern slavery.

O-I applies the Principles to all suppliers with whom O-I, our affiliates, and business units worldwide have a contractual/business relationship, including contractors, and suppliers of products and services. The Principles lay out supplier legal, compliance, and expected standards on many topics including:

- Minimum age for employment
- Forced labor
- Child labor
- Human trafficking/modern slavery
- Abuse and harassment
- Discrimination
- Freedom of association
- Work hours, work week, and payment of wages

The Principles also establish expectations around workplace health and safety, environmental practices, sustainability, anti-corruption and bribery, conflicts of interest, gifts, antitrust and competition law, protecting confidential information, trade compliance, business records, and communications.

Suppliers are asked to certify their compliance with the Principles at O-I’s request, and to authorize O-I and its designated agents (including any third parties) to engage in monitoring activities, including on-site inspections based upon reasonable notice.

Upholding O-I’s value of integrity, O-I provides suppliers an outlet to report illegal or otherwise improper conduct by contacting the relevant O-I manager, the Ethics & Compliance Office, or use O-I’s Ethics and Compliance Helpline. See more in Ethics & Compliance.
Conflicts Minerals
Per our Conflict Minerals policy, O-I does not purchase conflict minerals directly for the manufacturing of our products. O-I purchases materials and products through an extensive supply chain and we rely on direct suppliers to provide information to the extent that conflict minerals are contained in components and materials supplied to the company. Our expectation that suppliers provide necessary information for O-I to comply with our conflict minerals reporting obligations is a component of the Supplier Guiding Principles.

O-I is taking steps to determine the origin and status of any conflict minerals that may be necessary to our products’ functionality or production. We publish an annual report on conflict minerals on our website. Based on our assessment, we believe that certain products manufactured or contracted to manufacture as part of the machine business contain necessary conflict minerals. O-I does and will continue to work closely with our supply chain partners and will look to identify, reduce and, where appropriate, eliminate the use of conflict minerals in our products that may support human rights violations, armed conflict, or violence.

Compliance
We ask our suppliers to adhere to and conduct their business in accordance with the Supplier Guiding Principles. We encourage a continuous improvement approach by our suppliers to achieve compliance with the Principles including ongoing risk assessments performed by suppliers and the implementation of appropriate actions to mitigate identified risks. See Supplier Screening below for more information on Compliance.

Non-compliance
When O-I becomes aware of any actions or conditions not in compliance with the Supplier Guiding Principles, such actions or conditions will be reviewed and appropriate corrective measures will be implemented. Additionally, we expect a supplier to promptly report any non-compliance that could have a significant effect on our business.

In situations involving non-compliance, O-I and our suppliers will develop ways to correct the non-compliance including a commitment from the supplier to correct the non-compliance within an appropriate timeframe. If there is no commitment from the supplier or a lack of corrective measures, O-I will consider taking appropriate action, which may include ceasing to do business with the supplier.
OTHER DUE DILIGENCE

O-I’s Global Code of Business Conduct and Ethics applies not just to employees, but everyone O-I conducts business with worldwide, including suppliers. It states that O-I complies, and expects supplier compliance, with various laws intended to protect human rights including laws prohibiting child labor, forced labor, and human trafficking. O-I provides periodic training to all employees on our Code of Conduct and bribery.

The Code of Conduct stipulates that O-I deals fairly and honestly with our suppliers. This means that O-I’s relationships with suppliers are based on the Supplier and Procurement Guiding Principles, price, quality, service, and reputation, among other factors. Employees dealing with suppliers must maintain their objectivity and independent judgment. Specifically, employees are prohibited from accepting or soliciting any personal benefit from a supplier or potential supplier that might compromise an objective assessment of the supplier’s products and prices.

Based on the International Labor Organization’s latest Global Estimates reports, O-I has identified countries or regions of the world with higher risk of injustices or human rights violations. Such fundamental human rights include freedom of association and collective bargaining and freedom from modern slavery, child labor, or forced labor.

SUPPLIER SCREENING

In the past, O-I has used a sustainability questionnaire, verifying particular suppliers’ compliance to meet regional requirements and laws. We have additionally worked with a business intelligence service provider that has compiled a database that can be used to screen suppliers against sanctions lists published by various governmental jurisdictions.

In 2020, we enhanced our supplier screening process by launching an initiative to monitor, verify, and improve suppliers’ sustainability performance. O-I uses a third-party, EcoVadis, to guide supplier assessment against four sustainability criteria:

- Environment
- Labor and human rights
- Ethics
- Sustainable procurement

Targeting continuous improvement, suppliers are required to develop action plans for growth opportunities. Our suppliers will have access to a confidential questionnaire, their scorecard, and tools for benchmarking their sustainability performance and improving their practices. EcoVadis will also aid us in monitoring our supply chain.

We hold our suppliers to the high standards of ethics and compliance established in the Code of Conduct.

We hold our suppliers to the high standards of ethics and compliance established in the Code of Conduct.
OUR SUPPLY CHAIN

chain, facilitating O-I’s ability to take action in case of supplier sustainability-related issues. This will help us to quickly identify and address any eventual, current, or future criticality.

SUSTAINABLE PROCUREMENT TRAINING
O-I seeks to foster relationships with suppliers who share similar values to ours. We are in the early stages of launching a sustainable procurement training program for our buyers. We are on track to cover 100% of our procurement staff by the end of 2021.

The sustainable procurement training introduces five key areas in sustainability: respect for human rights, labor standards, health and safety, environmental impact, and business ethics. It presents sustainability as an ethical and risk imperative, specifically stressing action to address climate risk.

The training delineates a five-step Sustainability Improvement Process to: identify risks, assess the risks, prioritize suppliers, evaluate suppliers, and make improvements. In the first two stages, the process involves assessing risk based on the product category and the supplier’s business criticality, not on specific supplier risks. In the risk assessment step, we use two categories: product category risk and business criticality. Product category risk includes country risk, environmental risk, and health and safety risk. Business criticality includes business impact and spend. The purpose of assessing business criticality is to focus improvement on suppliers that are a combination between the riskiest suppliers and those suppliers that are most critical to the business.

PROCUREMENT ORGANIZATION
O-I’s supply chain activities are conducted by the Global Procurement Team led by the Procurement Leadership Team (PLT). The PLT is headed by the Chief Procurement Officer. Processes and capabilities are managed by the Procurement Center of Excellence Leader and supported by Global Sourcing Leaders (Corporate Services, R&D, Energy, Batch Material, Capital Expenditure, and Molds) and the Regional Category Leaders (Europe, Latin America, and North America). The Regional Category Leaders have direct responsibility for Regional Sourcing Managers in the areas of Raw Materials, Cullet, Energy, Packaging, and Logistics. Regional Category Leaders also have functional responsibility over the country group Procurement Leaders.
OUR SUPPLY CHAIN

PROCUREMENT ORGANIZATION, CONT.
O-I has organized Procurement and assigned sourcing responsibilities based on market structure (local, regional, or global) and the nature of the need (common or specific). Nearly 90% of our total suppliers are local. We define local markets as country-based. Most glass customers and suppliers are within 300 miles (500km) of production plants.

For each selected market, we assess the business criticality and market difficulty, incorporating varying expectations of value drivers into our portfolio analysis. For each selected market, we also assess the perception of our business by each of our current and prospective suppliers (supplier’s view) in terms of the relative value and attractiveness of our business. By combining the portfolio analysis and the supplier’s view, we map and manage our supplier relationships according to an increasing level of collaboration.

Elevating sustainability throughout the company, we are enhancing our procurement process to make it more robust, collaborative, and embed it in risk management and value creation with full deployment by 2025.

STRATEGIC SOURCING PROCESS
We cover all markets in all geographies through a Strategic Sourcing Process (SSP) over a three-year rolling plan that we call the Strategic Sourcing Roadmap. The SSP is a robust five-step approach consisting of scoping, category analysis, strategy definition, execution and results validation, and impact monitoring. Each project has a Sourcing Leader with a cross-functional core team. Each phase ends with a gate review with relevant procurement leaders and stakeholders. Engagement from stakeholders is required within each gate, however, stakeholder and management validation is incorporated into scoping and strategy definition.

As part of the category analysis step, we develop external (markets, suppliers, regulations, cost drivers) and internal (needs definition, sourcing history) analysis, generating options to maximize value and reduce risks for strategy definition. Incorporated into the category analysis step, we have launched sustainable supplier scrutiny with focus on markets with the highest business criticality such as materials (including cullet) and energy. Our objective is to cover all of our spend by 2025.

By combining the portfolio analysis and the supplier’s view, we map and manage our supplier relationships according to an increasing level of collaboration.

<table>
<thead>
<tr>
<th>% of Local Suppliers</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>85%</td>
<td>84%</td>
<td>84%</td>
<td>86%</td>
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</tbody>
</table>
Sustainable procurement is a significant part of O-I’s goals and aspirations. We are aware of the importance of sustainable procurement and focused on making all purchases with the least possible impact on the environment while leveraging local communities.

Although we have received no refusals from suppliers to follow the O-I Supplier Guiding Principles, we are launching initiatives that increasingly will drive sustainability deeper into our supply chain.

During the course of 2021, sustainable procurement training will be rolled out fully. We will start embedding sustainable procurement concepts, tools, and practices into the SSP by assessing sustainability performance of suppliers as part of our external data gathering and analysis. Our direct suppliers, making up nearly 60% of our spend, will be the priority for the rollout of our sustainable procurement approach. These suppliers provide Raw Materials, Energy, Packaging, Transport & Logistics, and Moulds. As an outcome of the three-year Strategic Sourcing Roadmap, we plan to include sustainable procurement clauses in most of our supply contracts by 2024. Suppliers’ sustainability performance will become part of our supplier selection criteria and supplier development program, with full deployment by 2025.

To support this effort, we have partnered with a specialized sustainability ratings organization, EcoVadis, which will provide us with expertise and online tools. EcoVadis will equip us to better monitor our supplier’s environmental and social performance and facilitate our supplier assessment. We will screen our suppliers against the EcoVadis monitoring database, covering over 70,000 suppliers. This will help us determine our supply chain sustainability performance baseline. Together we will be able to identify the highest risk suppliers and implement appropriate corrective actions even before we start the cooperation. Based on this risk analysis (high risk and business impact), we will invite additional selected suppliers of energy, raw materials, refractories, moulds, and packaging to go through assessment using the EcoVadis web platform. Our objective to assess 60% of our critical spend in 2021 and 80% by 2023.
INNOVATION

For more than 100 years, O-I has been innovating and transforming the glass packaging industry.

In 1903, Michael J. Owens developed the Automatic Bottle Machine, which was considered the most important invention in glass in more than 2,000 years. Innovation is in our DNA, and we continue to reimagine how we approach every part of our business, from our glass-making technology and processes, to our customer approach, to how we support our people. We seek to transform the ordinary into the extraordinary. Just a century after Owens’ invention, O-I is again innovating with our groundbreaking MAGMA technology, which will again change the glass packaging industry. With this and other advancements pioneered in our dedicated R&D Innovation Center, O-I is taking transformative steps forward in our processes, products, and our interconnected relationships with our stakeholders. Our drive to invent, transform, and constantly raise the bar for glass manufacturing is what sets O-I apart. This is why innovation is found in everything we do, creating value for our stakeholders.

...O-I is again innovating with our groundbreaking MAGMA technology, which will again change the glass packaging industry.

CREATING A CIRCULAR ECONOMY ON THE PERRYSBURG CAMPUS

We love the circularity of glass and look for ways to maximize this potential. Our North America team decided to fully utilize this unique glass benefit by creating a returnable, refillable water bottle system for our Global Headquarters Campus. Tapping the skills of our New Product Design team, we created a unique bottle for the purpose and then manufactured it in our Innovation Center. Our team then combined the bottle with a system that includes a purification system, a special dishwasher, capping equipment, and 100% recyclable caps. We installed dedicated refrigerators to hold up to 250 bottles. Volunteers wash, refill, re-cap and reload into the refrigerator, creating an ideal circularity for our bottled water—and a step toward our zero-waste aspiration.

ANNUAL SPEND ON RESEARCH, DEVELOPMENT, AND ENGINEERING (IN MILLION USD)

$75M 2020 SPEND IN RESEARCH, DEVELOPMENT, & ENGINEERING

2017 2018 2019 2020
INNOVATION

OUR UNIQUE INNOVATION CENTER

In 2013, O-I opened the one-of-a-kind Innovation Center dedicated to improving and transforming glass container manufacturing. This state-of-the-art facility brings together research and development, product design, engineering, and commercial expertise under one roof. Covering over 2,000 square meters in a separate facility on the campus of our Global Headquarters in Perrysburg, Ohio, the Innovation Center features a prototype MAGMA melter and a small traditional furnace (about a tenth of the full-scale) with two production lines. This smaller-scale configuration allows us to trial new processes and prototype new product designs without interrupting our production the factory lines. The Innovation Center is where we continue to test and refine this breakthrough technology.

The Innovation Center unlocks the constraints of our commercial plants. It can take risks no plant can take, advancing rapid innovation.

MANUFACTURING PROCESSES

The Innovation Center is more than just an R&D facility where we invent and trial new technology and processes. It is also a facility that gives us the ability to troubleshoot production issues occurring in commercial operations, evaluate and improve on product quality, or even test new raw materials. Our Innovation Center tools enable us to evaluate new material sources to quantify performance, confirm specifications, and identify any functional risks prior to commercial use. Recently, the Innovation Center explored the possible use of some raw material alternatives that have the potential to enhance the sustainability of our products. This proof-of-concept testing is a critical step to help establish commercial viability of these potential new materials. The Innovation Center will continue to be a valuable and versatile resource that allows us to be agile in testing, piloting, and developing ways to become the most sustainable manufacturer of the most sustainable product.

PRODUCT INNOVATION

The Innovation Center also enables us to engage our customers with better speed and flexibility, particularly when it comes to sampling new designs or short runs. With an extremely flexible forming machine configuration, the facility can produce test runs for most of the products in our manufacturing portfolio and efficiently create prototypes for more custom designs.

TRAINING

As we continue to invest in our people, the Innovation Center also provides a unique environment for training. Despite its smaller scale, the facility replicates most of the key processes present in our commercial operations. Without the commercial pressures of a traditional plant, the Innovation Center can induce controlled operational issues and allow practical, hands-on experience to resolve them in a safe, controlled environment without negatively impacting production.
DISCOVERING MATERIAL ALTERNATIVES

The Innovation Center enables us to run trials of new materials, prove viability, and solve material issues before they reach production. This ability to explore possibilities outside of the commercial production environment facilitates experiments and the opportunity to trial new materials. In pursuit of our goals of zero waste and 50% average recycled content by 2030, O-I is exploring alternative sources of cullet beyond post-consumer container glass, such as industrial cullet, to increase cullet availability. With each source, O-I works to develop creative solutions to varying challenges in transforming products, which have reached the end of their useful life, into reliable, high-quality cullet. Partnerships with other manufacturers, where we collect their end-of-life or unusable glass and transform it into high-quality cullet to be used for our containers, is one way we are working to achieve sustainability balance together.

For example, solar panels are a significant growth industry, and solar panel manufacturers want to ensure retired or broken panels have more sustainable end-of-life than going to a landfill. We want to do our part to eliminate waste and create circularity by providing an end market for glass. Knowing the composition of solar panel glass is similar to other industrial glass, and that we have had success turning that glass into useable cullet, we were optimistic about the prospect.

Working with a solar panel manufacturer, we conducted a series of trials in our Innovation Center’s pilot furnace. While our trials confirmed our hypothesis that solar panel glass could be a viable cullet source—and demonstrated it was ideal for flint glass manufacturing—we also encountered a challenge. Our experiments found issues created by the small quantity of copper found in the glass. By collaborating with our partner, we overcame this challenge together by using an innovative reclamation technology. We believe future volumes of glass from retired solar panels could yield millions of tons of the highly desired flint cullet, helping create recyclability for solar panel glass.
INNOVATION

PROCESS INNOVATION

MAGMA

The opening of the Innovation Center in 2013 also marked a key milestone and kicked off our journey to develop our MAGMA melter—aligned with our vision to re-imagine and transform the industry. The opening of the Innovation Center unlocked our ability to design, construct, and test our first prototype MAGMA melter.

The MAGMA melter, and its footprint, are significantly smaller than a legacy glass furnace. A smaller system size and alternative materials used in its construction allow the MAGMA melter to reduce waste and construction materials needed. The melter also improves upon the reparability over legacy technologies. Because the on-off technology eliminates the requirement to continuously operate around the clock, MAGMA is a step-change improvement in the resiliency of the asset and the overall efficiency of the process—whether for color changes, quality adjustment, or to respond to an unexpected process interruption.

...MAGMA is a step-change improvement in the resiliency of the asset and the overall efficiency of the process...

After we opened the Innovation Center, we constructed and tested our first MAGMA prototype over the next several years. It produced its first glass sample in 2015. Over the next two years, we tested and verified key MAGMA advancements, and to complement the new melting technology, our dedicated team & R&D experts developed and tested post-melting technologies. By 2017, the development work progressed to the point where we began constructing our MAGMA pilot production line in our Streator, Illinois plant. That line produced its first glass in October 2018 and by mid-2019, we were making and selling limited quantities of stock containers.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Innovation Center opens</td>
</tr>
<tr>
<td>2015</td>
<td>Magma prototype produces first glass sample</td>
</tr>
<tr>
<td>2017</td>
<td>Pilot production line begins in Streator, IL</td>
</tr>
<tr>
<td>2018</td>
<td>October: first glass produced in Streator, IL</td>
</tr>
<tr>
<td>2019</td>
<td>Mid-year: making &amp; selling limited quantities</td>
</tr>
<tr>
<td>2021</td>
<td>First full-scale line in Holzminden, Germany</td>
</tr>
</tbody>
</table>

MAGMA

Our vision to re-imagine and transform the industry
MAGMA, CONT.

From the early days of our vision, passion, and dedication to progressing the glass container industry with the opening of the O-I Innovation Center in 2013, we have made paradigm-shifting progress in glass-making with MAGMA—including industry-leading technology and sustainability advancements. With the March 2021 start-up of our first full-scale MAGMA production line in our Holzminden, Germany plant, we have advanced MAGMA from a transformative vision into operational reality in eight years.

Developments like MAGMA demonstrate O-I’s ability to create transformative innovations to disrupt existing technology and the industry. MAGMA also builds on O-I’s history and heritage of innovation. It is an example of what we can achieve when we imagine the impossible and challenge the status quo each and every day. It is key to how we will become the most innovative, sustainable, and chosen maker of brand-building rigid packaging.
OUR PRODUCT / INNOVATION

INNOVATION

RIGHT- AND LIGHT-WEIGHTING

Our vision to be the most sustainable maker of rigid packaging compels us to identify and create customer-centric solutions that align with our stakeholder sustainability aspirations. With no compromise on aesthetics or functionality, we strive to “right weight” or optimize our containers.

One of our ongoing initiatives is to find ways to consistently create lighter-weight glass packaging and to do so in a way that does not compromise our high standards for strength and quality. Both right-weighting and light-weighting further enhance the sustainability of the glass package by reducing the amounts of raw materials needed, energy consumption, emissions, and transportation impacts. While O-I and the industry as a whole have made strides in recent decades, more progress is needed and we will continue to innovate our way to the best solutions.

LIGHT WEIGHT SLIM STUBBY

Bringing sustainability to all parts of our container design is important to O-I and our stakeholders. Our new “Slim Stubby” bottle is a great example of how we are doing just that. This innovative bottle combines the tradition of the nostalgic stubby design with sustainability. The new Slim Stubby is 14% lighter weight—that translates to an equivalent 14% CO₂ reduction. The new bottle is the same diameter as the original, which facilitates compatibility with existing filling lines and has better cube efficiency with associated logistics savings (10% more units/pallet).

14% CO₂ REDUCTION WITH NEW DESIGN

10% MORE UNITS PER PALLET WITH IMPROVED CUBE EFFICIENCY
INNOVATION

PRODUCT INNOVATION
DRINKTAINER™

The Drinktainer™ is a category-defining new design and part of our new Catalyst Collection. It is a distinctive design that features a wide opening, which combines the convenience of a glass bottle with the sensory experience of a drinking glass. Drinktainer™ is a total package solution that disrupts the shelf and meets consumers’ preferred consumption experience. It is a container that provides the ultimate beverage-consuming experience. The Drinktainer™ technology unlocks deeper flavor, freshness, aroma, and more.

Beer connoisseurs prefer beer from a drinking glass. When glasses aren’t an option, they believe beer from a glass bottle tastes far better than drinking from a can. We challenged our packaging designers to create a container design with a new level of function that captures the flavor benefits of glass with the sensory experience that comes from consuming a beverage from a drinking glass. Drinktainer™ was the result. It removes the sensory barriers from traditional glass bottles to deliver the ultimate consumption experience, unlocking the beverage’s aromatic potential straight from the packaging — no extra drinking glass needed. And we believe this Drinktainer™ enhanced experience is by no means limited to beer!

O-I : EXPRESSIONS

Not all labels are created equal. In our search for a decorating technique that capitalizes on the latest technology, enhances sustainability, and provides distinctive brand-building characteristics, we created a decorating system called O-I : EXPRESSIONS. This system uses sustainable organic inks and O-I’s innovative decorating technology to transform a bottle into a customizable, multi-dimensional work of art. O-I : EXPRESSIONS enables us to quickly customize smaller volumes of products, add distinctive art and design, create limited editions, and include personalized or promotional branding. With no label waste and limitless design options, O-I : EXPRESSIONS allows us to empower brands to respond to trends faster, customize and go to market faster, and even enhance the sustainability profile of the world’s most sustainable rigid packaging.
INNOVATION

We are proud of our award-winning innovation. In 2020, O-I : EXPRESSIONS received the “Silver Nut,” a prestigious packaging innovation award as part of the De Gouden Noot (The Golden Nut) contest. O-I : EXPRESSIONS also won the 2019 Ameristar Design Excellence Award, which recognizes the package best integrating bottle structure and graphic design. It claimed a gold award for engineering innovation from the Starpack Industry Awards, and Best Glass Bottle at the World Beverage Innovation Awards at Brau Beviale, the most important capital goods exhibition for the beverage sector worldwide. O-I : EXPRESSIONS was additionally awarded the Oscar de l’Emballage in France for the “Promising Launch.”

AWARD-WINNING INNOVATION

• DE GOUDEN NOOT: 2020 SILVER
• 2019 AMERISTAR DESIGN EXCELLENCE AWARD
• STARPACK INDUSTRY AWARDS
• WORLD BEVERAGE INNOVATION AWARDS
• OSCAR DE L’EMBALLAGE
INNOVATION

HELIX™

The ritual of uncorking a good bottle of wine and the “pop” heard as the cork is released are beloved parts of the wine-drinking experience.

Our Helix™ innovation adds a unique twist to this timeless uncorking ritual. This distinctive closure combines all the benefits of cork and glass – quality, sustainability, and premium image – with user-friendly, re-sealable convenience. It is designed to be twisted off by hand—no corkscrew required. The bottle can be re-corked with the same convenience.

Biodegradable and recyclable, cork is 100% renewable and hand-harvested from trees that are never felled. It also has a hidden sustainability secret. Unlike manufactured closures, cork naturally absorbs CO₂—up to 112g of CO₂ per closure—burnishing further the sustainability credentials of any glass packaging that uses cork.

Helix™ is predominantly aimed at the popular premium and fast turnaround still wine segments. The concept can be easily implemented by wineries, requiring only minor adjustments to existing filling line equipment. Consumer research carried out in France, the United Kingdom, China, and the United States demonstrated an overwhelmingly positive response to Helix™ in all markets. Respondents described it as smart, aesthetic, convivial, interesting, and surprising.
BENEFITS OF GLASS

Glass has endured the test of time for millennia, yet it has never been so modern and relevant. It is a trusted and proven packaging for sustainability, health, taste, and brand-building.

Glass is made from four natural ingredients: sand, limestone, soda ash and recycled glass. Glass is odorless and flavorless. It does not interact with the contents it holds and preserves the taste of the foods and beverages it protects. Glass will not harm the earth or the oceans. Not surprisingly, this explains why glass is the ideal packaging choice for consumers, retailers, and the planet.

Glass has an element of magic to it. It’s beautiful and iconic and ignites an array of senses, from sight to sound to touch. Glass transforms brands into icons by conveying a brand’s essence to emotionally connect with consumers to form long-lasting bonds. No other food or beverage packaging can transform the ordinary into the extraordinary like glass. There’s the distinctive sound of celebration only glass can make when people toast with glass bottles. See our catalog to view our packaging solutions.
We believe glass is the best packaging choice for the planet. Glass is reusable and 100% recyclable, infinitely, without loss in quality or purity, meaning a recycled glass container can become new glass over and over again. A glass container can go from the recycling bin back to the store in as little as 30 days.

As a renewable material, once glass is created, it can be reheated and formed into another container. Using recycled glass to make new glass containers, our manufacturing process requires fewer raw materials and less energy.

O-I is proud of the role we play in creating a better planet through our products and our processes.

Recycled glass is always part of the recipe for glass, and the more we use, the greater the decrease in energy used in the furnace and associated CO₂ emissions.

Energy consumption drops about 3% for every 10% cullet used in the manufacturing process; every 10% of cullet used reduces emissions by about 5%. Recycled glass can be substituted for up to 100% of raw materials. Increased use of recycled glass drives demand for glass recycling, which is why we supported cullet purchases in 2020 with funds from our Green Bond. We are also collaborating with recycling associations, local governments, recyclers, haulers, and others to find disruptive ways to increase glass recycling and the volume of quality glass available to us as feedstock.

Refillable glass containers are the “gold standard” for sustainability and circularity. Returnable refillable glass containers have been in use since the glass container was first made over 3000 years ago. Depending on specifications, refillables can be commercially reused at least 25 times, oftentimes more before having to be recycled into a new container.
Historically O-I has collaborated with customers and renewable material advocacy organizations to facilitate return and refilling.

Over 6% of O-I’s annual production services the refillable markets in Canada, Mexico, South America, and parts of Europe in the beer, carbonated soft drink, and water markets.

In 2018, O-I partnered with the Oregon Beverage Recycling Cooperative (OBRC) and Oregon-based Double Mountain Brewery & Cidery to design a returnable, refillable beer bottle for breweries throughout Oregon.

The soft drink brand Vita Cola rolled out the O-I made .33-liter reusable glass bottle in April, using nostalgia and glass’s endless recyclability to appeal to today’s younger consumers. We also recently partnered with Boomerang Water to create a durable, on-the-go, refillable glass water bottle.

See the full story in Recycling.
BENEFITS OF GLASS

HEALTH & TASTE
Consumer trends show that people are increasingly drawn to foods and beverages that support a healthier lifestyle and are taking a proactive approach to health and wellness. According to a study published by Friends of Glass, six out of 10 glass lovers in Europe said health was an important factor in them choosing products in glass packaging.

It is easy to understand why brands and consumers choose glass for health benefits.

Glass is the only food contact material that the U.S. Food and Drug Administration (FDA) deems “Generally Recognized as Safe.”

The globally recognized Cradle to Cradle Certified™ program, which measures products based on safety and sustainability, scored O-I’s glass containers platinum, the highest rating on its scale, in the material health category. The certification demonstrates O-I’s commitment to creating products that consumers, customers, and investors can feel good about.

When taste matters, glass wins. Consumers agree—food and beverages taste best in glass. Glass is odorless and flavorless, made of pure and natural ingredients from the earth. Glass is nonporous, impermeable, and provides UV protection, so it preserves the valuable food and beverages it holds. Its natural composition means glass packaging is considered virtually inert, which means it doesn’t absorb or interact with the food and beverages inside. When you eat or drink something packaged in glass, you’re experiencing the pure taste of that food or drink, as the producer intended. What goes into glass is what comes out—nothing more. Glass is simply the clear, healthy choice for food and beverage packaging.

When you eat or drink something packaged in glass, you’re experiencing the pure taste of that food or drink, as the producer intended.
BENEFITS OF GLASS

THE BENEFITS OF GLASS AND CONSUMERS

FRIENDS OF GLASS

We love glass and we love when everyone shares our passion. Friends of Glass is a community that supports all things in glass packaging. Originally founded by the European Container Glass Federation (FEVE), Friends of Glass encourages consumers to become glass advocates for health, taste, and the planet.

According to recent research in 13 European countries, nine in 10 shoppers would recommend glass over any other packaging.

TOP REASONS WHY CONSUMERS BUY MORE GLASS

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Benefit</th>
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</thead>
<tbody>
<tr>
<td>42%</td>
<td>It can be recycled more than other packaging</td>
</tr>
<tr>
<td>33%</td>
<td>It’s better at preventing food contamination and preserving your health</td>
</tr>
<tr>
<td>31%</td>
<td>It gives a strong health safety feeling</td>
</tr>
<tr>
<td>30%</td>
<td>It causes less littering of containers into the environment (e.g.</td>
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<tr>
<td></td>
<td>marine life, ocean life)</td>
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</table>

More than 10,000 consumers responded to the survey commissioned by Friends of Glass and the European Container Glass Federation (FEVE). Survey results say people choose glass because it’s recyclable, prevents food contamination, leads to less littering, and makes people feel a stronger sense of health and safety.

GLASS HALLMARK

In a collaborative sustainability initiative from the glass industry, O-I worked with FEVE along with glass designers, customers, and consumers to co-create a recognizable symbol of glass’ health and sustainability. This new glass hallmark design is moulded into glass containers. It serves as a visual tool for brands and retailers to better communicate health and environmental credentials of glass to consumers, backed by growing consumer preference for products in glass packaging.

FEVE and InSites FEVE – the European Container Glass Federation on Twitter: “What’s driving purchasing behaviour in favour of glass? According to @InSites research, recyclability, food contamination, feelings of health safety and reduction in littering are all key drivers among consumers. #GlassHallmark https://t.co/CkBy18EbDu” / Twitter
BENEFITS OF GLASS

ENDLESS OCEAN CAMPAIGN

As a member of **Friends of Glass**, O-I supported a campaign to build custom pop-up checkouts in selected European supermarkets highlighting concerns around packaging waste flow back to the ocean. Whenever a glass-packaged item was scanned, unsuspecting shoppers across Europe found themselves **face-to-face** with a pod of dolphins who thanked them for choosing glass. Buying glass is an easy way to make an ocean-friendly purchasing decision every day; purchasing just one more glass container per week in place of other materials will have a positive impact on the health of the planet. Glass is endlessly and easily recycled. It is always safe for consumers, our marine ecosystem, and the environment, no matter how many times it is recycled.

FULFILLING CONSUMER PREFERENCES

According to a **survey** of 10,000 consumers by McKinsey & Company, “Consumers are becoming acutely aware of the packaging sector’s environmental footprint,” as well as more aware of food safety and hygiene of packaging in the wake of COVID-19. The environmental and health benefits of glass fulfills their desires. McKinsey & Company’s survey identified country-based consumer opinion of the most sustainable packaging materials. Glass was highly ranked in the United States, India, and among surveyed European countries.

SURVEY OF CONSUMER VIEWS ON SUSTAINABILITY OF PACKAGING SUBSTRATES

How sustainable do you think glass bottles and jars are?

Packaging substrates ranked by number of respondents who indicated “extremely” or “very” strong.

- **Italy**
- **France**
- **United States**
- **India**
- **Germany**
- **United Kingdom**

At O-I we know that glass is never trash, which is why it is an ideal package for the circular economy.

Glass is 100% recyclable, infinitely. It can be recycled endlessly without loss in quality or purity, making it a permanent material. Glass containers already enjoy a very high circularity rate. About 80% of glass containers that are recycled go back into making new glass—and can do so in as little as 30 days. With high circularity in containers now, and the potential for much more, it is easy to see why we are passionate and excited about the role glass can play in all of our global, circular economy and climate-change ambitions. The innate circularity of glass and the low-carbon potential it unlocks for the circular economy is unrivaled by practically all other packaging.

Unlike most other packaging manufacturers who buy their raw material and convert it into containers, we make the raw material—glass—before we transform it into a container. And we know how much of each ingredient, including recycled glass, we are melting into our recipe. This fact sets O-I apart from other packaging makers because we do not need “mass balance” or other complicated formulas from suppliers to tell us how much recycled content is in the raw material we are using. Globally, in 2020, our glass products contained an average of 38% cullet by tons packed, and 35% of our furnace footprint was averaging at least 50% recycled content. We are committed to improving the markets for recycled glass, improving glass recycling, and using more recycled glass in our processes.

About 80% of glass containers that are recycled go back into making new glass—and can do so in as little as 30 days.

Through our efforts to improve recycling and increase recycled content, we are working not only to reduce raw material use, but also to make strides toward our zero-waste goal, by recapturing internal cullet from our manufacturing process. This also provides opportunities for our communities to meet their waste and recycling goals.

Improving recycling is vital to offset the demand for natural resources, reduce emissions, and leverage the recyclability and circularity of glass. Every ton of glass recycled saves 1.16 tons of raw materials for future generations. Recycling glass requires 10-12% less energy than producing new glass from virgin materials. These savings increase with the rate of recycled glass used in production. Every 10% of recycled glass reduces carbon emissions by 5%.
To unlock the full benefit and circularity of glass, we are actively investing to improve recycling in North America and other key markets. One pillar of our vision is to re-balance the dialogue about the recyclability, circularity, and benefits of glass with a robust glass advocacy campaign. In addition to education and awareness, along with industry partners, we are also studying and making targeted investments in the recycling value chain to create new, disruptive, and effective solutions that will change the status quo.

To make real change, our vision requires industry thought leadership and building a coalition to create a transformative, innovative, and collaborative recycling program. In the near term, our roadmap is focused on the recycling ecosystems around our factories and to make targeted investments to find scalable solutions. Toward this end, we are proactively collaborating with customers, associations, suppliers, and local leaders to achieve 100% availability of glass recycling in the communities where we operate. We seek to improve and stimulate the markets for collection and processing of post-consumer glass.

In developing our vision for recycling, we ground our efforts in three principles: to be holistically sustainable, collaborative, and impactful.

We strive for sustainability by building for long-term strength and resiliency, which includes removing inefficiencies and designing an ecosystem for both recovery and reuse in the manufacturing process. We organize to act collaboratively, developing positive external and internal relationships, pooling available resources, and seeking stakeholder buy-in.

We drive for an impact that disrupts the current paradigm, dispels recycling myths, and leads to a positive recycling dialogue. Changing recycling for the better is living the behavior we believe will make our vision a reality: achieving balance together by transforming what we do.

Achieving balance together by transforming what we do

ENSURE WE ESTABLISH AND MAINTAIN GLASS RECYCLING AT 100% OF THE LOCATIONS WHERE WE OPERATE
RECYCLING

TRANSFORMING TODAY

At O-I, we see tremendous opportunity to positively impact the planet and communities where we operate.

We have several targeted initiatives aimed at growing and improving glass recycling—from providing community grants, to purchasing infrastructure, and promoting best practices for improving environmental and economic impacts. The more recycled glass O-I can use in the manufacturing process, the better it is for the planet. That’s why it’s important for us to continue to educate people about recycling glass and how local recycling measures are so valuable for creating a circular economy.

GLASS RECYCLING PROCESS

Making glass containers involves complex processing. Recycling them is very simple. For most consumers, recycling a glass container is as simple as placing it in the recycling bin at home or a local drop-off. No sorting, no separating, no worries if it’s broken. Glass is the only packaging material that is 100% recyclable, infinitely.

Once collected in a single stream collection process, glass is taken to a local materials recovery facility (MRF). In the event of sourced separated glass (like at a drop-off or redemption center), recycled glass bypasses the local materials recovery facility and goes directly to the glass processing plant. At the MRF, glass is further broken and quickly separated from other recyclables. Fortunately, glass containers are easy to separate from other recyclables. Glass is typically the first to be processed as it is among the easiest to separate without the need for manual sorting or high-energy processes.

The separated glass is then sent to a processing plant for cleaning (removing metals, ceramics, and plastics) and automatic color separation by optical technology. Once cleaned and separated, the glass is ready to offset the need for raw materials to make new, sustainable containers that can be recycled again at the end of their use.

Consistent with the approach of other glass recycling processors, we operate through multi-year supply contracts ensuring there is an end market for curbside glass recycling. Beyond procuring cullet from private and public processors, O-I operates glass recycling processing plants, such as Glass to Glass in Oregon, U.S. and O-I PROMAPI in Mexico. Both are dedicated to the recovery and recycling of local glass containers. We are also involved in cullet processing in Italy with one of the newest and most technologically advanced glass cullet treatment plants in the country. In the last three years, O-I invested approximately $6 million (USD) in glass recycling processing facilities around the world.
RECYCLING

In Europe and South America, O-I partners with many of our customers to collect cullet, creating closed-loop systems. These closed-loop systems focus on bringing products (end-of-life or obsolete) back to O-I so they can be recycled to create new glass. This reduces waste, increases recycled content in our products, facilitates more sustainable packaging, and reduces climate impact for both O-I and our customers. We are exploring how to expand these partnerships and focusing on North America particularly.

We have created partnerships with customers, associations, suppliers, and communities to drive recycling, reduce consumer waste, and conserve resources.

Changes and development within recycling systems require multi-stakeholder engagement. Likewise, effective recycling systems require collaborative work—from collection, to separation, to processing. O-I leverages partnerships with local, national, and international associations that facilitate this collaboration through existing relationships with stakeholders and open dialogue.

WORKING TOGETHER

O-I participates in associations specifically focused on recycling, joining with other public and private companies to collectively communicate with governments, garnering support for recycling policies and proposing cultural change. While we are globally active in many organizations, here are a few key examples of how we are collaborating and partnering with others to promote and improve recycling:

In North America, we belong to the Glass Packaging Institute (“GPI”) and have leadership roles in the organization. GPI promotes the use of glass and glass recycling. In 2020, GPI sponsored a study of glass recycling in key markets in the United States and has announced the vision of using the study to help bring glass recycling rates in the United States to 50% by 2030.

Also in North America, we support the Glass Recycling Foundation, which works to overcome barriers to glass recycling, and The Glass Recycling Coalition, which brings together glass manufacturers, haulers, processors, materials recovery facilities, capital markets, end markets, and brands, to develop effective glass recycling.

Our Chief Sustainability and Corporate Affairs Officer is on the board of the Container Recycling Institute, which advocates for industry standards, higher recycling rates, and quality material availability for end-market use.

50% BY 2030: GLASS RECYCLING RATES GOAL IN THE UNITED STATES
As a member of FEVE (the European Container Glass Federation), O-I takes part in glass education, advocating for sustainable packaging, and closing the glass loop. We also promote FEVE’s Friends of Glass awareness campaign, which unites a community of people from Europe and beyond who are convinced that glass is an ideal packaging material because of its unique environmental, economic, and health benefits. In a joint initiative with FEVE and FERVER (the European Federation of Glass Recyclers), O-I has joined the Close the Glass Loop recycling campaign (read more below). We know that glass recycling can be very local, so in Europe we are also a member of British Glass and glass associations in Italy, France, and elsewhere.

We also actively collaborate through glass associations in South America. In the Andean region, which includes Colombia and Peru, O-I is a member of CEMPRE. In Brazil, we work together through ABIVIDRO. Both of these industry groups are the voice of glass in South America.

These organizations, like FEVE, British Glass, and GPI, are working to raise awareness and increase glass recycling in the various localities.

GLASS RECYCLING SUPPORTS THE LOCAL ECONOMY
One key myth about glass recycling is that China’s decision to reject imported plastics and other recyclables has had a negative impact on glass. Unlike plastics and some other recyclables that do rely on export markets to set values, the end market for recycled glass is primarily local. Most glass customers and suppliers are within 300 miles (500km) of production plants. Glass captured from curbside recycling in one community is often processed and delivered to glass manufacturers in the same area to create new glass packaging for that community. As such, glass is typically a domestic and local source of raw materials for local and domestic glassmakers. There is high demand for clean recycled glass.

In addition to the circularity potential for glass and the positive impact recycling glass has in relation to climate change, GPI also notes that recycling 1,000 tons of glass supports eight jobs.

According to the Institute of Scrap Recycling Industries, the glass recycling industry’s total positive economic impact in the United States is $634 million. Recycling glass makes sense environmentally and economically—and is one of the easiest ways to help fight climate change and create economic opportunity at the same time.
**PROMOTING LOCAL RECYCLING**

**Pittsburgh and Western Pennsylvania Recycling**

O-I empowers our communities to become part of the circular economy. We are keenly focused on increasing the amount of glass recycled in North America. When waste haulers serving the Pittsburgh metro area stopped accepting glass in curbside recycling bins at the beginning of 2019, the Pennsylvania Resource Council (PRC) came up with a solution: “pop-up” glass recycling bins that travel to different communities.

**O-I empowers our communities to become part of the circular economy.**

O-I continues to make a financial contribution to support the PRCs work to organize and promote the events. Recycled glass collected at the Pittsburgh-area PRC pop-up events is used at O-I plants across the eastern U.S. to manufacture new glass containers. Some locations were so well-attended, the pop-up bins transitioned to permanent ones. Early PRC pop-up glass recycling events collected 100 tons a month. The PRC pop-ups, along with the permanent locations, are collecting upwards of 250 tons of glass a week. Not only is the pop-up glass recycling program collecting nearly as much recycled glass as curbside previously did, but it’s getting a better yield to our plants because these traveling bin drop-off sites only accept glass containers – there’s no contamination from other materials.

O-I’s financial support also provides PRC the opportunity and flexibility to educate local government officials on the importance of glass recycling, explore new and expanded avenues for increased glass recovery, and support communities in looking to establish permanent drop-off sites. O-I support for drop-off sites aided the community, improved local recycling, and enhanced our supply of furnace-ready cullet. The program has been successful. So much so that its reach has expanded into other Western Pennsylvania communities, such as Erie.

O-I has partnered in Erie County with the local government, a glass processor, and the Glass Recycling Foundation—working to support pilot projects to overcome barriers to glass recycling. We are collaborating to drive recycling through a system of community drop-off boxes (funded by O-I), material aggregation, and glass processing.

**O-I’s Connection to Brewery’s Glass Recycling Program**

Historically, Crabtree Brewing Company and the surrounding community did not have access to glass recycling. Thanks to a little ingenuity, some recycling education, and a long friendship between a brewer and a second-generation O-I glassmaker, the Colorado craft brewery launched a glass recycling program from scratch, inviting anyone to drop-off their glass containers at the brewery.

Crabtree’s glass recycling program was instantly a success. It attracted so many community members who wanted to recycle glass, the capacity outgrew the collection bin—twice.

Crabtree and O-I partnered to increase the capacity of the program, and we are both excited for the program’s potential for growth.
GLASS RECYCLING ADVOCACY

Thought Leadership
We believe that progress comes at the intersection of great ideas and action. This is why our company leaders regularly engage in public forums intended to explore ideas and encourage such progress. In 2020 and early 2021, our sustainability leaders were interviewed or provided content on recycling, among others, for the Wall Street Journal, Financial Times, Fast Company, Toledo Blade, Philadelphia Enquirer, and television stations in Cleveland, Ohio and Washington, DC. Our Chief Sustainability Officer delivered a TEDx-style presentation on recycling sponsored by a non-profit focused on the Great Lakes Region, appeared on a panel sponsored by the United States Chamber of Commerce Foundation, and will speak on the glass sustainability narrative in November 2021 at the annual Glass Problems Conference.

At O-I, we know that ideas are built from collaboration.

Just as we know our people and their ideas are the foundation for our own innovations and transformation, we need a community of ideas to bring about change in the way we globally manage waste and recycling. We intend to do our part to drive and encourage thought leadership in this critical area.

Global Recycling Day
March 18 is designated as Global Recycling Day. Though we believe in recycling every day, the celebration allows O-I to reflect on recycling and spread awareness. This year, in honor of Global Recycling Day, O-I launched a podcast, with inaugural episode titled, “Every Day is Recycle Day.” Our Global VP of Sustainability, Jim Nordmeyer, sat down to talk all things glass recycling and dispel some of its myths. “It’s important that we look at ourselves and we look at what we do every day and the things that we can individually do to increase the longevity of our planet,” stated Nordmeyer.

“Why I Recycle” Social Media Campaign
O-I works to educate consumers about the value and potential of recycling. Leveraging our social networks can have a vast impact in promoting glass recycling and spreading our message to millions of people. As glass lovers, our O-I family is passionate about glass recycling and we have a lot to say about it. Knowing that there is no substitute for passion and sincerity, we decided to allow our enthusiasm to speak for itself, so we launched a social media campaign in 2020 called #WhyIRecycle. We invited our employees to tell their recycling stories in their own words to share with our followers. We also invited our industry partners to contribute and share their stories and support. The engagement on our social platforms exceeded our expectations and have us even more excited about our next campaign around this topic.

"Recycling is important to me because it impacts our environment which ultimately affects how we will live in the future. Recycling helps decrease the rate at which we deplete our natural resources. I recycle glass because it reduces the amount of waste we dispose in landfills, it can be reused, and it helps to reduce the amount of pollutants released in the air when it is reproduced. Recycling is choosing to invest in a better environment. I choose to recycle now for a better environment tomorrow."

NOLEENA B.  
Plant Controller
Winston-Salem, North Carolina

"As human beings, we share the Earth with nature and animals. We are responsible for caring and protecting resources. Everything we consume and dispose affects the environment. That is why I recycle, to minimize the environmental impact I generate."

CAROLINA T.  
Marketing Coordinator  
Colombia
RECYCLING

EU “Close the Glass Loop” Campaign
Through FEVE, O-I is proud to participate in Close the Glass Loop. Launched in 2020, this industry-wide campaign seeks to push glass recycling to new heights in the European Union. Glass is Europe’s most recycled food and beverage packaging material, and the EU currently has a strong 76% glass collection rate. The campaign is significant because it seeks to push this rate to 90% by 2030 and has broad support across the glass packaging ecosystem. The Close the Glass Loop action plan makes structural recommendations that address current glass recycling challenges in the EU. The campaign includes initiatives to work closely with municipalities to expand source-separated glass collection and improve glass collection in large and tourist-heavy areas. Randy Burns, O-I’s Chief Sustainability Officer, believes the EU recycling rates and the plans to strengthen infrastructure prove that glass recycling is not just economically feasible, but can have very high participation rates. “The United States can look to the current EU rate of glass recycling and Close the Glass Loop as straightforward proof that should dispel the myth that glass recycling is ‘too hard’ or not economic. The EU seems to have many potential lessons for the U.S. or any country or region looking to improve recycling.”

INNOVATIVE RECYCLING PARTNERSHIPS
Glass Recycling Pilot Program in Brazil
O-I and Heineken have joined forces to support a new glass recycling pilot program in Brazil. “We are thrilled to work with Heineken on an innovative project like this,” said Morgana Correa, O-I’s Sustainability Leader for Brazil. The pilot program encourages collection of bottles by enticing consumers to recycle through convenience and a reward system. The program, “Volte Sempre,” is piloting in Belo Horizonte, the capital of Minas Gerais, Brazil. When empty, consumers take their glass bottles to one of nine “reverse-vending” type machines located at convenient places around town: supermarkets, bars, and multi-family housing complexes. By placing the machines in locations consumers are likely to visit often, the program seeks to make recycling as easy as possible.

When the empty is put into machine, it issues the consumer a credit through an app. The consumer can then redeem the credit when they purchase another Heineken product. The machine also crushes the glass so it can be returned to O-I to be used in new glass containers. This system keeps the glass clean, captures it all for reuse, and bypasses the contamination and product loss that occurs in co-mingled curbside collection. The separation of the glass and direct transport to O-I means that every bottle that stays in the manufacturing loop is supporting a low-waste, circular economy. The Volte Sempre glass recycling project could be scalable to more cities and locations if the pilot period proves the concept and attracts sufficiently high consumer participation. O-I’s participation in the Volte Sempre recycling project is one way we demonstrate our commitment to innovative solutions and collaboration with our customers and stakeholders to find sustainability balance together.
Boomerang’s Durable, Refillable Glass Water Bottle Breaks Convention

Driven by the common desire to provide sustainable solutions, O-I has partnered with Boomerang Water to create Boomerang’s refillable and incredibly durable glass water bottle.

The North Carolina-based company is on a mission to rid the world of single-use plastic bottles and reshape bottled water through innovation. Boomerang Water is an on-site, small-batch bottling water company providing water for commercial venues like hotels and college campuses—and even for families at home. Each Boomerang system sanitizes, fills, and caps glass bottles of ultra-purified water at the source for distribution, and accepts their empty bottles back into the system, eliminating the need for shipping or waste.

O-I was tasked by Boomerang with building a better water bottle, “as easy and convenient as on-the-go plastic, but made of higher quality materials to ensure ultra-purity and sustainability for our eco-conscious consumer,” said co-founder Jason Dibble. He also cites health and wellness benefits as another reason Boomerang loves glass bottles. “The glass prevents microplastics and toxins from leaching into the water so it’s healthier than our competition, and they’re infinitely reusable in our closed-loop system, so every bottle returned reduces carbon emissions by 90% and keeps plastic bottles out of the ocean.” We love Boomerang’s passion for glass and are proud to be part of their vision!

As consumers and customers become more aware of their environmental footprint, there has been a growth in demand for refillable bottles. Refillable glass bottles (RGB) offer the most sustainable and economical rigid packaging option. In as few as five turns, RGBs offer the lowest environmental impact of any other packaging. Throughout its lifetime, returnable, refillable glass bottles can offer CO₂ emission savings up to 66 times less, per container, than aluminum. For customers, cost per filling is reduced over the life cycle of the bottle, offering significant cost savings.
Our near-term aspirations for recycling are focused in an area with large challenges, needs, and opportunities: North America. While we work towards robust recycling ecosystems everywhere we operate, improving recycling and access to cullet for our North American facilities is needed in the short term and has a considerable potential benefit for all stakeholders. In 2021, we are looking to pilot two types of collaborative collection and processing initiatives. One is our Glass4Good program. It is both an opportunity to provide glass recycling where it might not be available, but also a way for O-I to give back to communities by helping encourage glass recycling. This initiative includes exploring public-private partnerships to overcome barriers to glass recycling and get glass back into the circular economy. Another initiative looks to create zero-waste, closed-loop-type systems, where discarded or broken glass at nearby customer filling locations can be returned directly to O-I for near circularity of the containers.

Our longer-term aspirations involve partnering with our stakeholders to raise recycling rates in the U.S. to 50%.

Our pilot programs are intended to be incubators with the potential to unlock scalable solutions, incrementally solving the complex challenge presented by the U.S. recycling system. However, O-I, nor any individual glassmaker or manufacturer of containers, can change the recycling habits and systems that locally serve millions of individuals and the communities. We will need the help of many, and almost certainly policymakers, to find solutions that move us toward climate-friendly, circular solutions.

We will need the help of many, and almost certainly policymakers, to find solutions that move us toward climate-friendly, circular solutions.

To do this, we must all collectively understand the problem we are trying to solve. It is not just a problem of diverting glass, plastic, paper, metal, or other materials from landfills or preventing waste. Rather, to improve recycling and create circularity, we must design our disposal, collection, sorting, and redistribution to work together—to solve for both collection and for transforming these materials into cullet for remanufacturing. The entire value chain must be part of the solution. At O-I, we are committed to doing our part when and where we can to bring about positive change to glass recycling in particular.
SINGLE-STREAM RECYCLING, EXTENDED PRODUCER RESPONSIBILITY, AND DEPOSIT RETURN SYSTEMS

Around the world, our communities are being confronted with how to collect, and then actually recycle, the complex myriad of materials that individuals and businesses handle every day.

In some places, like in much of Europe, the objective is to further increase the recovery rate in recycling systems that already are some of the best in the world. In other regions, simply establishing organized recycling collection is the objective. While in North America, many communities are encountering the obvious limitations of long-standing single-stream recycling systems and are searching for efficient and economic alternatives.

CHALLENGES FOR SINGLE-STREAM RECYCLING

The diversity and quantity of items consumers and businesses discard is growing and becoming more complex. When single-stream gained popularity 20 years ago, would-be recyclers were tossing only newspapers, cardboard, and beverage containers into the “blue bin.” That’s not the case in 2021. Today, recyclers are comingling dozens of different grades of plastics (recyclable and unrecyclable), papers, cardboard, metals, food containers, and an array of amalgamations of all these things. To complicate matters, education about what can or cannot go into the “blue bin” has not kept up with the explosion in materials, is not consistent from place to place, and the public discourse is confusing.

Against this trend, when the “system” encourages consumers to treat recyclables just like garbage (throw everything into one container), there are efficiency and economic consequences that follow. One is for the consumer to err on the side of the item being recyclable—even when it is not. This “wishcycling” occurs when consumers, accidentally, or otherwise, discard unrecyclable materials into the recycling bin. Even if consumers understand what can and cannot “go into the bin,” it is a practical and economic reality that single-stream recycling has challenging limits and cannot replicate the value-preserving and efficiency-adding step of not comingling everything in the first place.
Putting aside contamination, after comingling hundreds of different substrates, expecting mechanical systems to efficiently discombobulate dozens upon dozens of dissimilar materials, preserve the pre-comingled value, and then output a desirable and economically viable stream of the original inputs is unrealistic. Rejection of the output from the U.S. single-stream recycling system by other countries exemplifies this point.

The lack of uniform standards for what is recyclable, differing qualities of sorting equipment, and a mix of public and private solutions to collecting and processing recyclables, among other complexities, further compounds the inefficiencies and value-destroying effect of the comingling-discombobulation method of recycling.

To address these and other recycling challenges, national, state, and local governments around the world have implemented, or are considering, more targeted systems for recovery and reuse of discarded materials. Two of the more common proposed solutions for food and beverage containers are Extended Producer Responsibility—or EPR—and Deposit Return Systems—or DRS. We believe that both approaches can be effective at increasing recycling, reuse, and circularity, and should be implemented where appropriate. Since almost every EPR or DRS proposal or system is different and would function within varying geographic differences in collection and processing, whether we support or oppose any given EPR or DRS proposal is a case-by-case determination and depends on the structure and effects of the system.

**OUR GENERAL POLICY ON RECYCLING**

Unlike other food and beverage containers and the complexity about what is (or is not) recyclable among them, glass is simply glass. It is already 100% recyclable and endlessly recyclable —meaning recycling will not degrade the material or its quality. Unlike most of the other materials, these qualities of glass make it one of a handful of permanent materials. As a permanent material, glass should always be recycled—and along with the other permanent materials, should be a priority among the materials our systems preserve for reuse. As such, a permanent material like glass should never be subordinated in the recycling “food chain” to other materials that are not 100% recyclable, are
harder to recycle, and can only be recycled a few times. Permanent materials stand alone as the key to creating a truly circular economy for packaging.

We support all recycling schemes directed at increasing collection and actual recycling of the collected material. We do not support those that fail to prioritize recovery and reuse, redistribute responsibility for recovery or recycling challenges problems to other materials, disadvantage glass, favor one material over another (pick winners and losers), or threaten to disrupt or complicate established and effective recycling systems—particularly as to glass.

**EPR**

In general, EPR systems impose the responsibility on “producers of things” to collect and dispose of their products or product packaging at the end of its life. Typically, EPR systems use a combination of regulations and fees that cause producers to create and fund end-of-life collection and processing programs. In general, we support EPR programs when they have as their purpose to increase collection and reuse of recycled materials, are needed to do so, and likely will have such an effect—as opposed to a system that shifts funding for existing programs, redistibutes the cost of controlling a specific waste issue, or displaces effective existing systems.

In general, we support EPR programs when they have as their purpose to increase collection and reuse of recycled materials

Most EPR systems require (or encourage) the formation of an industry-wide stewardship organization to assume responsibility for the end-of-life issues. These organizations, often called a “PRO,” which is short for Producer Responsibility Organization, arrange for collection of the “thing” and its recycling or reuse. The PRO is usually a not-for-profit organization and is funded by the fees required of each producer-member. We support EPR systems that have not-for-profit PROs with adequate legal safeguards over governance and meaningful protections against fee-avoidance and “free riding.”

The fee structure of EPR systems vary. Some are per-unit or volume-based. Others are calculated by product types, weight, or based on the end-of-life value. Regardless, the fee structure of any EPR system is critical because economics shape consumer and value-chain behavior. A fee that operates as a penalty could cause decision-making that creates economic advantages to some and disadvantages to others. The effectiveness of the
fee structure also depends on many independent factors that can have the same winner-loser effect. For these reasons, we support EPR systems that are structured to encourage collection and reuse evenly and without prejudice to any particular material.

We do not support EPR systems with fee structures that are disguised as alternative funding for single-stream recycling or the diversion of plastic waste, that disadvantage highly recyclable or permanent materials, or that allow PROs to adjust fees in a way that creates competitive advantages or disadvantages for certain materials.

Some EPR systems also benefit from, or have in their regulations, fees and other incentives that encourage the whole value chain towards recovery and reuse and can penalize for the opposite. Examples of these regulations would be mandatory quality metrics for processors of recycled materials, bans or penalties for disposal or landfilling of covered materials, economic or tax incentives for using recycled materials, and higher fees for garbage disposal than for recycling and reuse.

We support EPR systems that address all the stakeholders in the value chain or that are proposed in areas where the value-chain incentives for circularity already exist. EPR systems that focus only on fee-generation mechanisms, are not more holistic, and fail to account for "everything else" that is necessary for effective recovery are programs or proposals we likely would not support.

EPR is a complex topic and in various stages of maturity across many geographies. We support EPR where the intent and effect increase recycling and reuse and will not disrupt or displace efficient existing programs with high recovery and reuse rates.

**DRS**

DRS generally involve a system where a consumer pays a per-container deposit at the time of purchase and redeems the deposit when the container is returned to a redemption location. DRS often have free standing redemption centers, rely on retailers to serve as redemption locations, and increasingly are using "reverse vending machines" to automate the return-redemption process. The economic incentives for collection and return cause consumers to treat end-of-use "deposit" materials differently than other end-of-use materials—making DRS very effective at encouraging recycling.

We support the use of DRS when existing recycling systems are single-stream or have materially lower rates than those expected from DRS.
We are less supportive of DRS in locations where there is dual-stream collection for glass or beverage containers, where DRS has the potential to confuse consumers and complicate well-functioning EPR or other effective recycling programs (especially for glass), or where recycling rates (especially for glass or permanent materials) are already high.

Some DRS—especially in the U.S.—were not created with an eye toward recycling rates or to produce a feedstock stream of recycled materials. As a result, some have complex administration systems for handling the deposits and redeemed containers. Most systems are run by a state government. Some also cover only a portion of beverage containers, for example, excluding wine, spirits, or non-carbonated beverages. Many DRS, especially in the U.S., allow the government to keep unredeemed deposits instead of using them to improve the DRS or other recycling systems. When DRS is appropriate, we generally support it, even if administered by a government. We prefer, however, a DRS—whether created by state law or through private agreement—administered by a privately-owned, non-profit stewardship organization.

At O-I, we understand there is not a single, easy, solution to collection, processing, and reuse of glass and other materials.

We believe that supporting ideas that are proven to work, even if adopting them in the near term requires adjustment, will help all of us find the sustainability balance we all seek and need.
DIVERSITY AND INCLUSION

OUR VISION

Recognizing that O-I is better when our workforce resembles the communities around us, one of our core values is diversity.

Our expanded strategic initiatives include an elevated focus on ensuring we create both a diverse and inclusive workplace environment. Our Diversity and Inclusion Strategy outlines our vision for the future and sets objectives to guide our progress, engaging employees in creating that future by driving momentum on a global and local level.

...we define diversity as what we have... we see inclusion as what we do.

We define diversity as what we have. The collective mixture of differences and similarities includes individual and organizational characteristics, values, beliefs, experiences, backgrounds, preferences, and behaviors. These are both visible and invisible. We see inclusion as what we do. Intentionally creating a work environment in which all individuals are treated fairly and respectfully, have equal access to opportunities and resources, and can contribute fully to the organization’s success.

O-I’s Diversity and Inclusion (D&I) philosophy is already embedded in aspects of the company. Employees’ opinions and multiple perspectives are valued as part of our efforts to keep our workforce consistently engaged. Make What Matters is our employer value proposition, describing a welcoming atmosphere where all employees can feel good about the work they do for our company, our customers, and our planet. Our policies adhere to all legal and regulatory requirements and ensure a working environment where our people can feel safe, supported, and protected. As an equal opportunity employer, O-I prohibits discrimination, harassment, and workplace violence, and provides our people the opportunity to share any violations through a secure Ethics and Compliance Helpline.
While we have built a foundation to incorporate diversity and inclusion throughout our operations, O-I has a culture of continuous improvement. As part of O-I’s transformational journey, one of our goals is to create an environment where employees can bring their "whole selves" to work, to share new ideas and innovate, and in turn, enhance their overall experience and overall well-being and performance of the company.

**CEO ACTION PLEDGE**

Andres Lopez, our CEO, has taken the [CEO Action for Diversity & Inclusion](https://www.ceoaction.com) pledge. Recognizing that change starts at the executive level, more than 1,600 CEOs of the world’s leading companies and business organizations are leveraging their individual and collective voices to advance diversity and inclusion in the workplace.

The pledge emphasizes O-I’s commitment to diversity and inclusion as a business and moral imperative. For success, this needs to start at the executive level. Lopez’s pledge has reinforced the launch our D&I Roadmap, creating a path towards diversity at all levels.
DIVERSITY AND INCLUSION

D&I ROADMAP

We have created a D&I Roadmap to provide a path for continued momentum towards an even stronger culture. In 2020, we launched five elements of the Roadmap, each of which are discussed below. They align with our growth plans and our broader sustainability aspirations. We intend to continue, expand, and add to this Roadmap as our program matures.

1. Executive D&I Council

Our newly created Executive D&I Council, which meets quarterly, is accountable for executing the enterprise D&I framework, setting key metrics, and providing the appropriate resources and support to reach our desired outcomes. The Council is comprised of O-I’s Global Leadership Team and members of the People and Culture Leadership Team. It is working to define the company’s D&I Strategy by setting long- and short-term objectives for workforce diversity. Our success measures, identified by the D&I Council, include employee segregated data (gender, race, age, category), hours of training on diversity and inclusion, and gender equality. It will establish and oversee programs, policies, and initiatives.

2. Employee Resource Groups (ERGs)

To promote a culture of D&I, we encourage our employees to create and govern ERGs. Sponsored and supported by a member of the Council, these “grassroots-style,” employee-created groups promote discussion and understanding around shared characteristics, life experiences, and common interests. ERGs provide a unique environment for thought leadership, professional development, networking, volunteerism, and supporting recruiting and employee retention.
DIVERSITY AND INCLUSION

D&I ROADMAP, CONT.

**3 Visibility of Demographic Metrics**

O-I is committed to increasing the visibility of key demographic data. Additionally, we will monitor our performance against appropriate objectives, marketplace benchmarks, and best practices.

### DEMOGRAPHIC

<table>
<thead>
<tr>
<th></th>
<th>TOTAL U.S. 2020 (Manufacturing Industry)</th>
<th>TOTAL U.S. 2020 (Glass &amp; Glass Production)</th>
<th>TOTAL O-I 2020 (US)</th>
<th>TOTAL O-I 2019 (US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOMEN</td>
<td>46.8%</td>
<td>22.9%</td>
<td>21.50%</td>
<td>23%</td>
</tr>
<tr>
<td>BLACK OR AFRICAN-AMERICAN</td>
<td>12.1%</td>
<td>10.6%</td>
<td>8.80%</td>
<td>12%</td>
</tr>
<tr>
<td>HISPANIC</td>
<td>17.6%</td>
<td>21.8%</td>
<td>12.13%</td>
<td>12%</td>
</tr>
<tr>
<td>ASIAN</td>
<td>6.4%</td>
<td>4.3%</td>
<td>3.35%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: [United States Bureau of Labor Statistics](#)
As part of our journey to advance diversity and inclusion across the company, O-I actively participated for the first time in the Human Rights Campaign’s 2021 Corporate Equality Index (CEI). CEI is the nation’s foremost benchmarking survey and report measuring tool for corporate policies and practices related to lesbian, gay, bisexual, transgender, and queer (LGBTQ+) workplace equality. CEI rates companies on detailed criteria falling under four central pillars: non-discrimination policies across business entities, equitable benefits for LGBTQ+ workers and their families, supporting an inclusive culture, and corporate social responsibility. With our base reporting year and score of 50, we have identified development opportunities to guide our efforts towards improving our performance each year.

“We recognize we have work to do in this space,” said Kate Murawa (she/her), VP, Global Talent, Learning and Culture. “Now we have a better understanding of where we need to focus our efforts with our programs and policies for our LGBTQ+ colleagues.”

KATE MURAWA (SHE/HER)
VP, Global Talent, Learning and Culture
UNBOTTLED PRIDE – LGBTQ+ ERG

Just like our products – created with their unique identity, origin, culture, and the distinctive foods and beverages that are packaged inside them—our employees have unique characteristics we want to recognize and celebrate as we further our diversity and inclusion journey. Enter our North American LGBTQ+ Employee Resource Group (ERG), Unbottled Pride.

“We saw an opportunity to harness our pride in O-I’s diverse products to help further our own diversity and inclusion journey,” said Alan Schroeder (he/him), GMIS Manager and President of Unbottled Pride. “We came together and created Unbottled Pride and are excited to be change-makers not only within O-I but within our community.”

It’s important that our ERGs are meaningful and relevant for employees, so they are created and led by employees. “Unbottled Pride is an example of that kind of grassroots effort that started with just one conversation,” said Kate Murawa (she/her), Vice President of Global Talent, Learning and Culture. “Throughout the process, the group has developed a strategic vision and a set of aligned goals. Their process has become an example other ERGs can follow.” Unbottled Pride also developed a strategic vision supported by O-I’s Global Leadership Team and are actively guiding other groups as they work to create ERGs.

Unbottled Pride is just one example of O-I employees coming together, being the change they want to see, and showing how we Make What Matters!
DIVERSITY AND INCLUSION

D&I ROADMAP, CONT.

4. Fast-Tracking Gender Diversity
We seek to attract and retain individuals of every gender. To pursue this commitment, we strive to increase female representation by sourcing high-caliber female talent and creating robust development and retention plans for current female employees. To advance this goal, we have implemented a process to ensure diverse slates of candidates considered for new and open roles. We are also creating a mentorship program to pair employees with leaders both within our company and externally, to develop key talent. Targeted learning and development plans for key female leaders are also underway.

5. D&I Roadmap

<table>
<thead>
<tr>
<th>GLOBAL FEMALE % OF</th>
<th>2020</th>
<th>2019</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL EMPLOYMENT</td>
<td>17%</td>
<td>19%</td>
<td>-2%</td>
</tr>
<tr>
<td>HIRES</td>
<td>25%</td>
<td>18%</td>
<td>7%</td>
</tr>
<tr>
<td>PROMOTIONS</td>
<td>20%</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>TURNOVER</td>
<td>26%</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>GLOBAL LEADERSHIP</td>
<td>11%</td>
<td>12%</td>
<td>-1%</td>
</tr>
</tbody>
</table>

*This data was not captured in 2019.
DIVERSITY AND INCLUSION

D&I ROADMAP, CONT.

STEP Ahead Award Winners

The Manufacturing Institute, a workforce development and education organization, launched the STEP Women’s Initiative to support women in science, technology, engineering and to help encourage and inspire careers in the industry.

Each year the Institute hosts the STEP Ahead Awards to celebrate and recognize the accomplishments of excellence in female leadership in manufacturing where companies select leaders for national recognition. In 2020, the Manufacturing Institute saw a record number of submissions. Out of about 1,000 nominees, we had nine individuals nominated and two candidates for consideration for the National Manufacturing Award.

9 INDIVIDUALS NOMINATED

2 CANDIDATES FOR CONSIDERATION

Casse Rose, Recipient of the 2019 National Women in Manufacturing STEP Ahead Award.

D&I ROADMAP

1. EXECUTIVE D&I COUNCIL
   establishes and oversees programs and policies, accountable for executing D&I framework, and sets key metrics

2. EMPLOYEE RESOURCE GROUPS
   grassroots groups for discussion and growth

3. VISIBILITY OF DEMOGRAPHIC METRICS
   sharing and monitoring performance

4. FAST-TRACKING GENDER DIVERSITY
   robust development and retention plans for current female employees

5. D&I SPECIFIC LEARNING & DEVELOPMENT
   providing unconscious bias education
DIVERSITY AND INCLUSION

D&I ROADMAP, CONT.

5. D&I Specific Learning and Development
One of the most foundational and important ways we are working to promote diversity and bolster a culture of D&I is by providing unconscious bias education. Through our internal education platform, “O-I University,” we are designing learning plans and training for all leaders.

Our growth and education program is grounded in the 70-20-10 model, which focuses 70% of training on collaboration leadership discussions, 20% on learning from others in the organization, and 10% on formal educational courses and training.

PERSONALIZED D&I LEARNING ON O-I UNIVERSITY

- ALL EMPLOYEES: UNDERSTANDING UNCONSCIOUS BIAS
- ALL EMPLOYEES: FIGHTING GENDER BIAS AT WORK
- MALE EMPLOYEES: BECOMING A MALE ALLY AT WORK
- TALENT ACQUISITION AND PEOPLE & CULTURE: DIVERSITY RECRUITING

D&I ROADMAP

1. EXECUTIVE D&I COUNCIL
   establishes and oversees programs and policies, accountable for executing D&I framework, and sets key metrics

2. EMPLOYEE RESOURCE GROUPS
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5. D&I SPECIFIC LEARNING & DEVELOPMENT
   providing unconscious bias education
DIVERSITY AND INCLUSION

D&I IN TALENT ACQUISITION
At O-I we know our best resource is our people. Recruiting and retaining top talent is critical to our performance, growth, and future sustainability as an enterprise.

We are striving for best practices across the D&I continuum in our recruiting and have established some foundational goals and practices.

For early-career roles, we will aim to recruit a minimum of 40% females per country/country group. For all recruitment activity our goal is to:

• Include a minimum of two female candidates on the interview slate for each role where gender balance is not currently being met. This applies to both external and internal appointments.
• Include at least one female interviewer for all interviews.
• Proactively develop diverse talent pools.

COMMITMENT TO EQUAL EMPLOYMENT OPPORTUNITY
At O-I we have policies in all regions that provide for equal opportunity employment. Throughout our operations, the vast majority of employees are local to the country in which they work. Our goal is to not only adhere to all legal and regulatory requirements, but to ensure employees feel safe and confident that they will be supported and protected from discrimination, harassment or workplace violence. As an equal opportunity employer, O-I prohibits discrimination and harassment against any employee, applicant, contractor, intern, or volunteer on the basis of such protected categories as race, color; sex (including pregnancy, childbirth, or related medical conditions); gender; gender identity or expression, sexual orientation, national origin, ethnicity, mental or physical disability, genetic information, ancestry, age, religion, veteran or military status, or any other classification protected by law. O-I is committed to equal opportunity in all aspects of the employment relationship including, but not limited to, recruiting, hiring, training, promotion, compensation, transfer; layoff, recall, and all other terms, conditions, and privileges of employment.

O-I does not discriminate against individuals with disabilities in connection with employment. As detailed in O-I’s Disability Accommodation Policy, reasonable accommodations are provided to qualified individuals with disabilities for them to be able to perform their essential job functions, so long as the accommodations do not impose an undue hardship on the company.

Employees are encouraged to speak up if they see behavior that does not adhere to O-I’s values. Our whistleblower and remediation procedures incorporate an Ethics and Compliance Helpline that offers a secure method for employees to ask questions and file violation reports online or over the phone.
FORMING FOR OUR FUTURE

Moving into 2021 and beyond, O-I is continuing the initiatives we launched in 2020. We have begun developing local goals specific to country groups and functional teams that will be rolled up into enterprise targets.

Through 2021 and 2022 we plan to improve organizational performance core objectives that incorporate D&I further into O-I’s culture. We have begun implementing our enterprise D&I strategy across all parts of our employee experience. We will continue to foster a culture of employee wellbeing and an environment where development opportunities exist for everyone. We are focused on increasing all aspects of D&I across our management team, which includes taking steps to increase the representation of women in senior leadership roles compared to the base of 28% women in 2017.

As we take intentional steps to formalize the company’s D&I strategy, we will increase focus on diversity among our successors and talent selections. Aligned with our D&I Strategy, we are enhancing each of our people processes to include guidance, examples, and practical applications to improve our D&I. For example, within talent acquisition, targeted external hiring will take place where internal succession plans are not sufficient to meet our D&I goals. Candidate slate and interviewer goals of at least two diverse participants will be in place. Additional education about bias in performance management will continue to be developed and perfected. This will include practical examples and “watch-outs” for leaders.
EMPLOYEE EXPERIENCE

OUR VISION
To be the leading producer of glass packaging worldwide we need passion, commitment, and innovation interwoven in our business by our people. Our vision for creating an excellent employee experience is built upon our values, behaviors, and our people system. With our “People Leading Performance” at the center of our strategy, we will drive innovations that will continue to enhance the sustainability of glass packaging and the industry.

O-I VALUES AND BEHAVIORS
For our company, values and behaviors are the foundation for bringing our strategic vision and goals to life.


We are “One Team,” developed and engaged at every level, built on collaborative relationships, authentic communication, and accountability. We operate as “One Enterprise,” prioritizing boundaryless leadership and sound decision making. We operate with “One Plan,” delivering customer-centric results.

SUSTAINABILITY GOAL
CONTINUE TO BUILD A DIVERSE & INCLUSIVE ENVIRONMENT
where people feel welcomed and inspired to create a better future for themselves, each other; O-I, and the planet.

O-I’S PEOPLE SYSTEM
People Leading Performance is at the heart of our strategy. Over the past several years, we have created and implemented an interconnected People System that focuses on three key pillars to create our performance-based organization: 1) Organizational Effectiveness, 2) Culture, and 3) Talent.

Organizational Effectiveness is focused on continuously improving both the efficiency (cost) and effectiveness (simplicity, speed, outcome focus, incentive, etc.) of our organizational design and ways of working to drive performance. Our Culture pillar focuses on continuously improving the formal and informal ways we enable performance through engaging our people. The Talent pillar means ensuring we have the right people, with the right capabilities, in the right roles, at the right time. The result of these efforts, combined with our values and behaviors, will advance our ambition to be a simple, agile, and performance-based organization energized by diverse, engaged employees.

THREE KEY Pillars

- ORGANIZATIONAL EFFECTIVENESS
- CULTURE
- TALENT
EMPLOYEE EXPERIENCE

TRANSFORMING TODAY

PRIORITIZING PEOPLE & CULTURE
We have long anchored the company’s strategy around people. It’s our people who “Make What Matters.” That is why we changed the name of our people-focused function from “Human Resources” to “People & Culture.”

Developing our people and building a culture is a strategic decision with a systematic set of tools and processes, not a label for an administrative-like management system.

“The right title sets the tone for what current and future employees expect of you,” said Pablo Vercelli, VP, and Co-Leader, People & Culture. O-I will continue to build teams focused on providing innovative, quality products and focus on creating a culture of learning, development, diversity, and inclusion.

“The key levers of our agenda remain the same. We are still firmly focused on enabling the ongoing performance through our three pillars of Organizational Effectiveness, Culture, and Talent,” said James Dalton, VP, and Co-Leader, People & Culture. “We are looking forward to deploying systems and tools that enable each individual, in every department, to forward the company’s vision and goal in a meaningful way.”
EMPLOYEE EXPERIENCE

Despite the challenges in 2020, we continued to develop and deploy tools to help reach our goals. Some examples include:

- Increasing learning and development opportunities in our Leadership and Functional development programs, powered through our online learning platform: O-I University.
- Building on the results of our My Voice Matters annual employee engagement survey.
- Expanding our My Workplace Matters plant initiative to all country groups.
- Deploying a new enterprise operating model to enhance organizational effectiveness.
- Designing a Connected Work program, which we are organizing based on our experience and employee feedback from our changed working patterns in 2020.

### 2020 Workforce

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>MALE</th>
<th>FEMALE</th>
<th>FULL-TIME</th>
<th>PART-TIME</th>
<th>SALARIED</th>
<th>HOURLY</th>
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<tbody>
<tr>
<td>CORPORATE</td>
<td>483</td>
<td>335</td>
<td>148</td>
<td>5,428</td>
<td>24</td>
<td>1,394</td>
<td>4,058</td>
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<tr>
<td>NORTH AMERICA</td>
<td>4,969</td>
<td>3,948</td>
<td>1,021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EUROPE</td>
<td>7,960</td>
<td>7,205</td>
<td>755</td>
<td>7,634</td>
<td>326</td>
<td>1,540</td>
<td>6,420</td>
</tr>
<tr>
<td>LATIN AMERICA</td>
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<td>8,430</td>
<td>1,998</td>
<td>10,427</td>
<td>1</td>
<td>1,980</td>
<td>8,448</td>
</tr>
<tr>
<td>ASIA</td>
<td>822</td>
<td>605</td>
<td>217</td>
<td>822</td>
<td>-</td>
<td>235</td>
<td>587</td>
</tr>
<tr>
<td>GLOBAL</td>
<td>24,662</td>
<td>20,523</td>
<td>4,139</td>
<td>24,311</td>
<td>351</td>
<td>5,149</td>
<td>19,513</td>
</tr>
</tbody>
</table>
Virtual Career Day
In Italy we took part in the first Virtual Career Day in collaboration with the well-respected University Politecnico of Milan. In the past, the job fair routinely took place as an in-person event at the university’s premises, but became virtual in the midst of the pandemic. Starting in June 2020, we held virtual events focused on engineering through Microsoft Teams as a stand-in for face-to-face discussions. Participating companies set up their own chat rooms to present themselves to the students, who additionally were able to book confidential one-on-one interviews with company representatives.

Our response to the innovative event helped demonstrate industry leadership, attracting new talent by presenting the company’s values and expertise to the next generation of engineers.

Representatives from O-I introduced the company and its operations to more than 200 total participants while explaining the glass manufacturing process and talking about the many career possibilities for engineers in our plants. Students showed a strong interest in our O-I Graduate Program, which has now been in place in our European plants for the last two years. We answered questions from the graduates regarding career opportunities, highlighting our people-centric approach. The global nature of our operations proved to be a strong selling point for the company, particularly given a number of the graduates had an international background.

Many students took the opportunity to book a confidential personal interview with O-I where they were able to register their interest to join the company. Participants that wished to have more in-depth conversation were able to arrange follow-up appointments with People & Culture.

This series was an excellent opportunity to present O-I as an attractive employer. Students asked many questions about sustainability topics, which provided a great opportunity to expand on the sustainability benefits of glass, our ongoing sustainability initiatives, and O-I’s ambition to further reduce our carbon footprint. On top of connecting with students and other prospects, the series provided external visibility and reinforced our reputation with academia, businesses, and the local community.
Onboarding Process

We know how important first impressions are to new hires. O-I is intentional in ensuring all new employees have an engaging and enjoyable experience as they join O-I through our onboarding process.

This helps our new employees be as efficient, effective, and energized as they can be from the moment they accept an offer.

Before they start, employees are added to our onboarding system, which triggers auto-alerts to key departments for support. We share a personalized company welcome, our company mission and values, and “Make What Matters” materials.

From the start, employees can be proud of their work and proud to be part of O-I.

In the earliest days of employment we will review, together, the onboarding plan in the new hire portal and discuss our culture, mission, policies, and benefits. We also help the employee get the lay of the land (e.g. facility tour; voicemail, introduction to peers). Finally, we may announce the new employee’s arrival in email and on our internal social networks.

It is also typical that throughout week one, the employee meets periodically with their team and leaders to review a first-week agenda progress and questions. They will set job scope and performance expectations, discuss company resources, and train on networks. This includes ensuring access to tools, inclusion on email distribution lists, etc. Together they will review a ramp-up plan, initial projects, and using the onboarding system for tracking.

Within an employee’s first months, we make sure to allow for customer, plant, and product experiences, as appropriate to the employee’s role.

Employees are given the opportunity to learn more about internal special interest or social groups. We introduce them to key business partners and leaders, make time for one-on-one sessions and peer feedback, and allow for job shadowing or Q&As with peers. It is important to assess the employee’s progress, performance, and initial experience so we monitor metrics in the onboarding program and survey the new hire.

Prior to and during the pandemic O-I has worked to virtualize many of these elements to welcome new employees entering an online workplace.
DEVELOPING TALENT

Our success and performance are directly related to the collective success and performance of every employee. We are all successful only when we consistently deliver on the expected value to all stakeholders. To ensure our performance-based organization is energized by engaged employees, we make strategic investments into developing employees and the talent pipeline.

Strategic Talent Management

The Strategic Talent Management system is integrated across the entire employee experience from talent attraction and recruitment, to learning and development, engagement, and career planning. One aspect of the system is the annual succession planning and talent review process, including each of the data inputs for a strategic, outcomes-based review.

To drive stability and growth within the organization and manage talent in a proactive, strategic, and measurable way, we have created a consistent, annual process where our leadership teams review and validate our talent needs against the pipeline of talent within the organization. This provides us with a realistic view of talent and potential within the organization, validated succession plans, and action plans that enable leaders to develop, coach, or manage the performance of our employees.

Succession planning and talent reviews are conducted for all leadership teams including at plant-level and above. In a number of our factories, we have implemented strategic workforce planning to help anticipate customer needs aligned with talent plans to proactively avoid disruptions in production. The process also includes regular talent check-ins where each leader shares progress updates on development plans, succession updates, and actions to improve diversity.

We are all successful only when we consistently deliver on the expected value to all stakeholders.
We have made great improvements in strategic succession planning. Over the past three years, 100% of the appointments to the Global Leadership Team (GLT) have been in line with a stated internal succession plan. We have more in-depth and open conversations to ensure cross-functional and cross-regional sharing of talent to meet business needs. Our succession plans are more realistic. As part of the data inputs, leaders are asked to have career conversations with their team members to validate mobility, overall aspirations, and future interests in order to represent the full picture. We have limited duplication in succession plans, giving us a more accurate representation of the available pipeline. Our process now includes monthly check-ins with the GLT to provide a progress update on action plans, development status, changes in succession plans, actions toward diversity, and an overall talent health check for their area of the business.

We have also developed the necessary tools and coaching for leaders and their People & Culture partners to facilitate the succession planning and talent review process.

Our potential model measures the current progress and growth of an employee based on their engagement, the extent to which the employee demonstrates commitment to the organization’s goals, seeks out new challenges, and is willing to do more than required, and desires to invest themselves with the organization for the long term. Talent profiles are reference materials built from the talent review and succession plan data that, over time, provide an entire profile on each employee including employment history (within and outside of O-I), performance and potential ratings, the employee’s stated career aspirations, developmental needs, and mobility. These profiles are available to all leadership teams and can be referenced to identify cross-functional talent leaders they may not otherwise be familiar with to include in potential succession plans.

**TALENT PROFILES**

| EMPLOYMENT HISTORY |
| PERFORMANCE & POTENTIAL RATINGS |
| STATED CAREER ASPIRATIONS |
| DEVELOPMENTAL NEEDS |
| MOBILITY |

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**EMPLOYEE EXPERIENCE**

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O-I University

Listening to our employees’ feedback we discovered a hunger for more ways to learn and grow.

In 2020, the Global Talent Team was excited to announce O-I University, our online learning platform that connects employees to thousands of courses ranging from leadership development, functional academies and personal development.

Courses and curricula are designed from O-I content and our partnership with LinkedIn Learning. O-I University serves as the online training resource that empowers our employees to get the training and skills they crave. Our learning content is modern and built for today’s world. The online platform offers customizable development for our employees. They can access the learning they want, when they want, individually or with their team. At a time when much of our workforce was dispersed or virtual, this platform’s flexibility is ideal. We provide content mapping to guide the user experience and focus on materials most relevant to their position and career aspirations.

O-I University will focus on guiding employee development in the following three key areas.

1. Leadership Excellence includes Leadership @O-I, Be Brilliant (a leadership fundamentals program), and Leading for Strategic Impact.
3. Personal Excellence offers Coaching for Success, Empowering Team Performance, and Building Employee Engagement.

Education Assistance Program

O-I offers financial assistance to employees who wish to improve their job effectiveness and personal competence through voluntary participation in outside educational courses, training, or licensing. The purpose of our Education Assistance Program is to enable employees to improve their skills and abilities within their current job or to prepare for another reasonably attainable position within the company. Program shape and format vary by region and local needs.
O-I HUNGARY PARTNERS WITH GOVERNMENT TO CERTIFY GLASS EDUCATION

In September 2020, the first-ever group of students for the Glass Manufacturing adult education in Hungary started their program. It consists of approximately 30% classroom training with the whole group, and 70% hands-on classes, in smaller groups. In an interactive classroom set-up, students learn about the full glass manufacturing process, starting with raw materials and ending with palletization, with a specific focus on forming and quality control. Practical education takes place both on demonstration machines installed at the plant, and on the running production lines during a full shift. The complete program totals 240 hours of training and is held at our plant in Orosháza, Hungary. It concludes with a state-approved exam, which, upon success, qualifies the student as a certified glass maker.

In Hungary, like in many other countries, there are no schools to receive education about the glass industry. Therefore, for over a year, the O-I team in Hungary worked closely with the government’s “vocational education center,” the governmental branch specialized in adult education, to change this. Together, they set up a certification program that is registered in the government list of professional education programs, recognizing the importance of glass-making education.

30% CLASSROOM TRAINING WITH THE WHOLE GROUP
70% HANDS-ON CLASSES IN SMALLER GROUPS
240 HOURS OF TRAINING TOTAL
MANAGING PERFORMANCE: PERFORMANCE CONNECTION

To empower each employee to own and manage their contributions to the enterprise, we leverage Performance Connection, our performance management system.

This collaborative process is anchored in our values and behaviors and is designed so that all employees, together with their leaders, can fully contribute and recognize the link between their objectives and our company’s mission.

The Performance Connection system is broken into four steps: Plan, Engage, Evaluate, and Reward. Plan occurs in the first part of the calendar year (Jan. to Feb.) where employees collaborate with their leader(s) to identify organizational, behavior, engagement, and development objectives. Engage occurs throughout the performance cycle year and includes tracking objective and development progress through formal and informal check-in discussions, and updating or realigning objectives as needed. In the last part of the calendar year (Nov. to Dec.) employees and leaders Evaluate achievement of results through behaviors and development actions. Rewards and recognition are awarded at the beginning of the following year including incentives tied directly to performance, behavior, and development results, or non-monetary rewards.

ENGAGING EMPLOYEES: MY VOICE MATTERS

As an ongoing commitment to the continuous improvement of our culture, in 2020 we engaged in our second annual “My Voice Matters” survey. Developed by an industry leader in employee engagement, this survey is an effective tool to help identify our areas of strength and opportunities for improvement. With a global participation rate of 80% (about 20,000 employees), a 1% increase from 2019, our annual survey has provided a broad-based view of key drivers for our employee engagement.

Our results and areas of opportunity align with our learning and development strategy that will provide employees with greater opportunities for learning. We can also improve by talking with employees about their progress, providing them with ongoing recognition, and showing that we care about them.
EMPLEE EXPERIENCE

TOTAL REWARDS

Competitive Pay
O-I strives to maintain a compensation structure that is internally equitable and externally competitive to attract and retain qualified talent. We strive to compensate our employees in accordance with all applicable regulations. We equip employees with the tools they need to bring their whole selves to work, focus on innovation, and lead change.

For the vast majority of positions at O-I, we exceed wage requirements for the job and the region. O-I’s salary structure is determined by job type and a salary range based on individual experience, qualifications, and job performance.

We understand that recognizing and rewarding performance stimulates that performance, energizes our people’s commitment to O-I’s goals, and helps us retain top talent. Special recognition awards can be provided to employees for exceptional cost savings or revenue-producing projects or projects leading to highly efficient processes. These projects are submitted by the employee’s manager and considered instances where an employee has gone well above and beyond their normal duties and responsibilities. Special recognition awards are intended for employees below manager-level who are not part of the Short-term Incentive (STI) Plan. Manager-level employees and above are offered STIs, or performance-based bonuses, depending on local market prevalence. The Director-level and above are offered long-term incentive awards including performance share units and restricted stock units according to market prevalence. Additionally, all salaried employees who received at least a “Successful” performance rating, are eligible for annual merit increases of their salaries based on performance reviews.

AMERICA’S 52ND BEST LARGE EMPLOYER 2021

We recently ranked 52 out of 500 in Forbes’ list of America’s Best Large Employers 2021. To generate this list, 50,000 Americans working for businesses with at least 1,000 employees were surveyed. These surveys allowed respondents to anonymously share their opinions on elements such as how likely they’d be to recommend their employer to others. They were asked to nominate organizations other than their employer and identify organizations they would not recommend to others. The most frequently recommended were ranked accordingly in the final list of 500.
Benefits
We also offer competitive benefits that serve to attract and retain talent. O-I offers our employees comprehensive benefits tailored to their country of residence. Benefits vary from country to country, aligned with the manufacturing market, but generally include health care assistance, including medical, vision, dental, life, and disability insurance. We offer additional benefits when possible. Benefits like our retirement savings plans and adoption assistance aid our people in planning for the future.

Paid time off including sick days, short-term disability, company holidays, and some flexible work schedules allow our employees the balance they need. We help our employees manage life challenges by offering voluntary benefits programs and support, such as smoking cessation and healthy lifestyle promotion, educational reimbursement, employee assistance programs (counseling and crisis hotline). O-I values diversity and inclusion so benefits coverage extends to same-gender spouses.

As a material example of O-I’s benefits, we provide employees in the United States with a 401(k) plan, retirement planning tools and personal financial planning education that offers employees an excellent opportunity to save for retirement. To date, over 76% of 401(k) plan participants are on track to replace at least 70% of their pre-retirement income when they retire, exceeding industry benchmarks for employee retirement readiness.

Employee Wellness
O-I’s Perform Well-Being Program is continuously evolving so that we can meet employees where they are in their wellness journey. We aim to meet employees’ healthcare needs and those of their families. O-I provides employees and their dependents benefits, resources, and tools so that they have the opportunity to bring their best selves to work, stay well at home, and progress to a healthy and happy retirement.

O-I is a global organization with wellness programs that differ by region or country. As the United States hosts our corporate headquarters, its wellness program serves as a material example of our practices. In the United States, O-I focuses benefits on preventive care for employees and their dependents, and incentivizes those who utilize it. Over the last couple of years, our employee population has exceeded industry benchmarks for receiving preventive care services.

Year to year, O-I maintains awareness of industry healthcare benefit trends and our benefit partners report on what services our employees are seeking. We vet benefit programs so that we are sure to offer our employees benefits and programs that will be most useful and engaging to our employees. We have added a concierge-level customer service team to our employee medical benefits to give our employees a simpler experience when navigating their health care.

The Perform Well-Being Program provides comprehensive well-being services to deliver our employees with integrated online accessibility, multifaceted offerings, and rewards to incentivize engagement.

Physical, personal and financial well-being programs are available through Perform so a person can work on well-being goals that are important to them, track their progress, and engage others. The rewards program has also evolved to a more holistic approach. This has increased engagement in the well-being program.

The Perform online portal includes a Benefit Hub for a simple, one-stop for employees to access all of their benefits and benefit partners’ websites, resources, and tools. Since 2018, the Benefit Hub has made accessing benefits and well-being programs simpler, faster, and more effective. Adding the Benefit Hub increased online engagement and engagement continues to grow as employees realize the ease of accessing the Perform portal via their mobile devices.

Moving forward we would like to increase hourly engagement in the Perform Well-Being Program, increase benefit knowledge and retirement readiness in our hourly population, and increase employee and spouse engagement in the Employee Assistance Program.
**Leave Policies**

It is the policy of O-I to comply with all local laws and regulations surrounding employee leave. For example, in the United States, our Family and Medical Leave Act (FMLA) policy provides a summary of employee benefits and rights under the federal act. To be eligible, employees must have completed at least 12 months of service and worked at least 1,250 hours. Individuals on leave for active military service may be entitled to credit for time worked under certain circumstances. In some cases, personal circumstances require an absence from work over paid vacation time.

When justified, O-I may grant an unpaid leave of absence to employees for reasons that are not related to the FMLA, military leave, or disability.

Personal leave may be approved at the discretion of an employee’s manager/supervisor as well as People & Culture. Personal leaves are limited to a maximum of 60 calendar days.
In addition to the improvement areas identified by the My Voice Matters survey, the O-I Leadership Team has identified, with external validation, performance goals focusing on all three pillars of our People System: 1) Organizational Effectiveness, 2) Culture, and 3) Talent. Within each pillar, we have identified core objectives for 2021 and 2022.

**TO BOLSTER ORGANIZATIONAL EFFECTIVENESS WE WILL:**

- Continue to drive the next wave of opportunities through the enterprise operating model work streams and country group labor plans.
- We will improve the speed and agility of moving from decision-making to action-taking at all levels.
- Implement and continuously improve the performance-based ways of working through a blend of virtual and office-based work.
- Continue to upgrade and modernize the employee experience through streamlining and automating all “hire to retire” processes.

**TO ENHANCE CULTURE WE WILL:**

- Drive the capabilities of all leaders to energize, empower and inspire their teams to high performance.
- Continue our journey with executing and implementing actions from our “My Voice Matters” survey in partnership with Gallup.
- Implement our enterprise Diversity and Inclusion strategy. (See more in Diversity & Inclusion.)

**TO SUPPORT OUR TALENT WE WILL:**

- Develop our internal talent through capability building focused on technical skills and people leadership.
- Selectively and strategically attract external talent to join us and continue to enhance our talent pool.
- Solidify succession plans for all leaders.
- Promote leadership development and awareness with intentional cross-functional movement on career paths ensuring high-potential, high-performing talent will have the necessary business experience as they move into more senior roles.
- Implement lineage charts to identify and plan for the next moves and illustrate where any overlap or gaps will be.
HEALTH & SAFETY

OUR VISION

At O-I, we “Make What Matters”— and we do it safely. Safety is an O-I core value, and we believe everyone should finish each and every day injury and incident free. Driving toward our zero-injury ambitions, we have set a goal to improve our Total Recordable Incident Rate (TRIR) 50% by 2030 and an interim goal of a 35% improvement in O-I’s three-year rolling average TRIR by 2025. We drive our ambitions with a global Environment, Health and Safety (“EHS”) function that sets and oversees EHS policies, procedures, and metrics. This section details our Health and Safety practices. Click to learn about O-I’s Environmental Management.

Our EHS mission is to empower our people and engage our communities to achieve zero incidents. The Global EHS team is charged with providing leadership in support of the team’s vision and mission.

Through leading practices, we implement global, sustainable, innovative, and collaborative solutions. We enable learning, recognize achievements, and continuously improve.

SUSTAINABILITY GOAL

50% IMPROVEMENT OF OUR TOTAL RECORDABLE INCIDENT RATE (TRIR)

by 2030 as part of our journey toward zero injuries.

Our EHS Policy supports O-I’s journey to zero injuries and zero EHS noncompliance incidents by providing clear requirements for all employees around EHS. Our commitment to EHS is integral to our Global Code of Conduct and is captured in our sustainability goals. At O-I, all of us are accountable to act in a manner that advances us on our journey to zero incidents and seeks to minimize our impact on the environment—including compliance with applicable EHS laws and regulations.

O-I’s EHS policies require all employees, contractors, and visitors to comply with all of our EHS rules. We partner with employees to identify and control workplace hazards and ensure adequate training. We work to meet or exceed applicable laws and regulations, minimize the environmental impact of operations, and optimize use of natural resources. In our strategic decision-making, operational activities, and capital decisions we look to integrate EHS considerations.

35% IMPROVEMENT INTERIM GOAL BY 2025
Each facility, through its management team, must implement a safety program that meets applicable laws and government regulations and includes required and appropriate training for employees. Employees are responsible for following the training that they receive and for taking other appropriate precautions to protect themselves and their co-workers including immediately reporting accidents, injuries, and unsafe practices or conditions.

At O-I we have five EHS Principles that guide our practices. These principles describe how we will deliver a zero EHS incidents workplace. They drive our culture, strategic planning, EHS processes, talent management, and metrics.

### O-I’S FIVE EHS PRINCIPLES:

1. **All incidents are preventable.** We focus on root causes to find solutions to solve current issues and prevent a repeat incident anywhere in the world.

2. **Everyone is responsible for preventing EHS incidents.** While employees in different roles have different responsibilities, all employees are expected to help us reach zero EHS incidents.

3. **We identify and reduce risk before it results in an incident, and identify sustainable solutions through risk reduction.**

4. **We take a proactive no-blame approach.** When there is an incident, leadership and the global EHS team are committed to solve the problem, share the solution globally, and avoid laying blame for the past.

5. **Never put production ahead of health and safety.** O-I leadership is committed to creating a culture where employees are not required to decide between a health-and-safety or production decision. We are creating a culture where those situations are openly discussed, alternative actions are assessed, and economic considerations do not automatically come before EHS.
Our EHS culture has been a key factor carrying us through the COVID-19 situation. Building upon this culture, the EHS team, supported by the People & Culture team, is taking the next step—introducing O-I CARES (“Collective Active Role for Employee Safety”). O-I is broadening its EHS culture to one of actively caring.

The program is focused on creating practices and corresponding messaging to reinforce our commitment to employee health, safety, and wellbeing.

We plan to launch a number of new initiatives to deepen our EHS knowledge, awareness, and skills through advanced training and leveraging platforms. We want O-I CARES to be highly integrated and linked with the company’s overall business strategy, finding cross-functional synergies between all our programs aiming at employees’ well-being.
HEALTH & SAFETY

TRANSFORMING TODAY

We put our commitment into action by incorporating health and safety into our day-to-day practices and conversations, and utilize technology wherever possible to ensure a safe workplace for our people.

Like everything else we do, O-I strives to bring innovation into our EHS practices to continuously improve health and safety performance in the workplace.

O-I has invested heavily in software systems that help us track our work and progress in supporting the health and safety of our employees, partners, customers, and communities. We have built, and continue to build, a culture of open communication and reporting, leveraging this technology and driven by education, detailing positive expected behaviors, and positive incentives rather than intimidation.

Our EHS practices are guided by an EHS Leadership Model including a yearly EHS Business Plan, Global Manufacturing Fundamentals (our global standardized manufacturing approach), best practices, EHS Compliance and Management System audits, and other practices that allow for open communication, managing high-level hazards and risks, and implementation of protocols or controls to decrease possible incidents and their severity.

To continue building a safety-conscious work environment and remind all our people about the importance of EHS, O-I implemented the practice of “EHS Share.” At the beginning of every O-I meeting, one participant takes a few minutes to share a story and call-to-action about the potential EHS risks in our day-to-day work. By taking a few brief moments to reflect on the potential risks impacting our daily lives, every part of the O-I family better understands what we all need to do to ensure every day is injury and incident free.
O-I GOLDEN RULES

O-I created six “Golden Rules,” and an easy-to-read graphic illustration, to provide clear, simple, and consistent risk-avoidance guidelines for everyone—regardless of their role at O-I.

We created the Golden Rules to prevent fatalities, serious injuries, environmental events, and to ensure effective risk management. And they serve as the foundation for all of our training programs, job hazard analyses, and safe operating procedures.

GOLDEN RULES

O-I Training Programs and Safe Operating Procedures (SOPs) serve as an enabling foundation for these Golden Rules. Always comply with training and SOPs, and conduct job hazard analyses (JHAs) before beginning any non-routine tasks.

PPE
Always wear the appropriate personal protective equipment (PPE) for the job or task as required.

LOCKOUT-TAGOUT
Ensure machines are fully locked and/or tagged out prior to maintenance or repair work. Always follow control requirements to stop equipment and isolate energy if the potential for stored (or active) energy exists.

WORKING AT HEIGHTS
Always use and observe applicable fall protection measures. If no other fall protection measures are in place, utilize 100% tie-off at all times when working at heights > 4 ft.

MACHINERY OPERATIONS
Do not operate or unjam equipment or machinery without proper tools, training, safety devices or safeguarding controls in place.

VEHICLE OPERATIONS
When operating a vehicle, always wear your seat belt and never use a mobile device.

STOP WORK AUTHORITY
All employees are authorized to stop work whenever they are uncertain about the safety of a work activity.
The group is called the Nudge Team, inspired by the research of a Nobel prize-winning economist who’s concept in behavioral economics and sciences proposes using positive reinforcement and indirect suggestions to influence behaviors and actions.

The Nudge Team at O-I Jakarta creates various programs that reinforce the idea that a safety-first mindset on the plant floor is directly linked to workers going home safe to their families after every shift. One tactic is placing stickers and signs at strategic areas on the shop floor that read: “I choose to work safely, my family is waiting at home.” Another is creating a safety champion competition among employees.

A recent initiative is the “Come Home Safe” essay contest for employees’ children. More than 80 kids submitted essays about why they want their parents to return home safe from work. Finalists were invited to read theirs on camera. The team recorded the readings and showed the videos to the parents, capturing emotional reminders of what safety is truly about: going home safe. The Nudge Team essay contest exemplifies the caring approach to safety that O-I is formalizing in our all-new O-I CARES program.
HEALTH & SAFETY

WALKS & TALKS PROGRAM
Since its inception in 2013, the EHS Walks & Talks program has engaged employees at all levels of the company to initiate impromptu safety discussions in a specific work area or department. As part of these discussions, employees can raise concerns and help resolve issues. We have now introduced Walks & Talks into each of our country groups and enhanced them by partnering with a leading firm, specializing in safety behavioral psychology, to bring innovation to our EHS programs.

We applied this innovative behavior-based thinking to our Walks & Talks Program by identifying groups of positive, safety-oriented behaviors that we seek to make common practices. The program works by rewarding and recognizing standardization of the intended behaviors and provides constructive feedback mechanisms to address shortcomings. The program is based on an open dialogue concept that reinforces EHS leadership, ownership, and accountability at all levels of the organization.

Due to COVID-19 and social distancing requirements, we had a slight reduction (14%) in the amount of Walks & Talks. However, we continued to strategically work through this, conducting Walks & Talks while maintaining our enhanced safety measures. We were still able to perform 49,425 Walks & Talks throughout all our country groups. We expect to have full implementation with our enhanced program during 2021.

49,000+

WALKS & TALKS

KEY METRICS
To ensure forward momentum toward a zero-incident workplace, O-I has defined key metrics to track performance. In addition to tracking TRIR, we have implemented added metrics: Near Misses, Serious Incident Potential (SI-P), and Serious Incident Actual (SI-A). These metrics consider the severity of incidents and allow us to track, identify, and improve risks to our people’s health, safety, and life. Tracking the severity of incidents along with the TRIR allows us to accurately interpret how current behaviors affect EHS in our workplace so we might identify risks and opportunities and create or change practices to meet company-wide goals. Tracking these “leading indicators” rather than “lagging indicators” has allowed O-I to gain a better understanding of EHS risk and stop an incident before it happens. This is yet another illustration of our ability to leverage communication and collaboration with our people and innovative ideas and practices to transform how we operate to become a healthier, safer workplace.

ENABLON SYSTEM FOR EHS PERFORMANCE MANAGEMENT
To drive EHS performance management in 72 plants in 20 countries across 25,000 employees, O-I has deployed a state-of-the-art EHS digital solution. Available in 13 languages and accessible in every plant, administrative and shop floor employees have direct access to report and update EHS information. This platform allows O-I to track key data across all EHS metrics. In 2017, O-I earned an “Excellence Award for EHS Performance Management” from the system provider for effectively using it to drive EHS performance.
HEALTH & SAFETY

KEY METRICS, CONT.
In 2020, in addition to the 30% decrease in TRIR, O-I had a 27% decrease in SI-Ps and a 14% decrease in SI-As. These incident reductions are driven by a serious commitment to recognizing and controlling high-risk activities. We will continue to assess practices and innovate ways to continue our journey to zero incidents.

EHS BUSINESS PLANS
Our EHS ambitions are guided by EHS Business Plans (“EHSBPs”). Each year, the Global EHS leaders and plant-level EHS leaders collaborate to identify key priorities to reduce EHS risks and incidents. The global team sets several initiatives to be carried out company-wide.

Each plant is required to expand on the global goals and tailor initiatives to the plant’s areas of focus. Together, these initiatives form the EHSBP for each plant.

Plant managers are held accountable to the EHSBP. A portion of their performance review and corresponding compensation is determined by their completion of the plan and the success of leading indicators. We have found there is generally a correlation between those plants that meet their EHSBP requirements and a reduction of injuries. In this way, O-I pays for performance and ties positive incentives to improving EHS in our workplace.

EHS LEADERSHIP
Each of our 72 plants has an EHS Leadership Team (EHSLT). The EHSLT functions as a collaborative team made up of the facility’s EHS Manager and the employees’ union or work council representatives. These collaborative teams also appoint employee “Champions” for each of the initiatives in the EHSBP.

Each EHSLT meets monthly to develop, approve, and execute the EHSBP and the annual EHS Training Plan for the facility. The team monitors and reports on EHS performance and compliance, communicates information as needed to key stakeholders, and provides direction or resources to drive progress against the objectives.

Our EHS global leadership structure integrates strategy, operational, and plant-level needs. Global EHS Directors provide guidance and act as subject matter experts. Country Group Managers align EHS and Operational needs to implement EHS strategy and guide reasonable action plans.

EHS Directors and Country Group Managers regularly assess plant EHS performance. When a metric or leading indicators suggest emerging challenges, leadership holds monthly meetings with the affected facilities. In collaboration with the local EHS leaders, the teams develop specific plans to address gaps and provide solutions.
HEALTH & SAFETY

EHS LEADERSHIP, CONT.
Three functional Round Table teams, one for each of Environment, Health, and Safety, consist of a global team chaired by our EHS Directors, global EHS representation, and Operations leaders such as Plant and Regional Managers. The Round Tables are working groups that develop policies, checklists, and tools to support O-I’s operations and plants. The EHS representatives can be Country Group Managers, Regional Managers, and/or plant level EHS Managers.

- VP of Global EHS
- Dir. of Global Environmental Affairs
- Dir. Industrial Hygiene & Environmental Affairs
- Global Safety Director
- Country Group Leaders
- Plant-Level EHS Manager
- Establishes EHS strategy and oversight
- Subject matter experts formulating EHS goals and strategy
- Bridges global goals and strategy to regional functional needs
- Executes global goals and strategy
HEALTH & SAFETY

The Global Leadership Team Safety Steering Committee meets at least monthly to review, address, and lead company-wide safety commitments. This team includes the CEO as well as all Senior Operational and Functional Leaders.

EHS AWARDS - BEST IN CLASS AND MOST IMPROVED
O-I has an annual tradition of presenting an award to our highest performing and most improved plants for EHS performance. Each year, the top three performers in each category are recognized company-wide and the winners are presented with an award by the members of the Global Leadership Team and the Board of Directors.

To earn these awards, the winning teams and plants undergo a 360-degree audit of their EHS practices and results. The top performers are identified by criteria, which include performance against EHSBPs, implementation of EHS training, positive performance of key metrics, and year-on-year TRIR improvement. In 2020 the best performing plant was Jaroslaw, Poland and the most improved was Recife, Brazil.

O-I SUSTAINABILITY 2021 • OUR PEOPLE

OCCUPATIONAL HEALTH AND INDUSTRIAL HYGIENE
As part of O-I’s commitment to health and safety, we offer Occupational Health and Industrial Hygiene programs to proactively protect our people, not only from injury but from long-term health risks. The Director of Industrial Hygiene and Environmental Affairs conducts global audits, works with the global Country Group Leaders to facilitate required standard implementation, and collaborates with the EHS Round Table to develop global fundamentals guiding maintenance of employee health.

Incorporated into the EHSBP, every region is required to complete an Industrial Hygiene Assessment and a Sampling Plan. The Sampling Plan requires plans to examine all industrial chemicals so that O-I is aware of employee health risks and the measures needed to protect them, not only in the present but up to three years in the future. Occupational Health and Industrial Hygiene has developed a global database, collecting over 6,000 samples in order to perceive global trends. As the database grows and more long-term data is collected, we will be able to better understand potential health impacts and act accordingly. This database is being added to Enablon system to allow for greater functionality.

O-I complies with all applicable laws and regulations. For Occupational Health and Industrial Hygiene, global limits are set based on the regions with the most robust regulatory landscape. In this way, all our locations meet compliance requirements, but over half our locations have programs that far exceed regional compliance.
HEALTH & SAFETY

OCCUPATIONAL HEALTH AND INDUSTRIAL HYGIENE, CONT.

The details of our programs vary according to local markets and regulations but generally include medical surveillance, hearing conservation, and chemical management. In recent years the EHS Round Table has developed three new global fundamentals—Respirable Crystalline Silica, Respiratory Protection, and Mould Shop Ventilation. Two more are currently being developed: Noise Control and Heat Stress.

Each global fundamental incorporates varying elements of requirements for monitoring and testing, appropriate response procedures, equipment requirements, and guidance for employee training.

Medical Surveillance

Mandatory health checks are conducted at all O-I manufacturing locations across the company in accordance with the local governmental requirements. Additionally, there are programs in place when an employee is exposed to criterion levels of chemicals and physical agents. The three most common programs are noise (audiograms), medical approval to wear respirators, and respirable silica surveillances.

Hearing Conservation

O-I has a global written procedure that provides guidance to plants and contains the following elements: noise exposure evaluation, employee training, signage/posting, audiometric testing, employee counseling, hearing protection, documentation/recordkeeping, and audiometer calibration. The implementation of these elements varies by location and varies based on local and country-specific requirements and is documented in the plant program. A compliance audit is scheduled every three years in which the elements of a hearing conservation program are reviewed with recommendations made for any needed improvements.

Chemical Management

Our global procedure provides guidance to plants relative to the safe and proper use of hazardous and nonhazardous chemicals and materials, and to comply with local, applicable regulations addressing the disposal of these chemicals. The procedure establishes requirements for the control of risks associated with all chemicals (i.e., hazardous and non-hazardous). A compliance audit is scheduled every three years to review the chemical management plan and make any necessary improvement recommendations.
O-I has partnered with the University of Toledo’s Center for Successful Aging to study EHS issues in manufacturing workers as they age.

The research is aimed at identifying and managing risks for workers as they age and also increasing intergenerational collaboration between newer and longer-tenured employees. O-I is excited to participate in this innovative examination on the dynamics of aging in the manufacturing workforce.
O-I values, and is committed to, building sustainable communities in which we live and work. We aim to maintain a corporate culture where sustainability and social good are integrated into O-I’s DNA.

Our people are encouraged to give back and be actively involved in the improvement of their communities. The financial support provided by our company and the O-I Charities Foundation, and the voluntary charitable leadership offered by thousands of O-I employees around the world, demonstrate this commitment. O-I supports nonprofit organizations on a corporate level, as well as through our employees. O-I is active in the areas of education, arts and culture, environment, and the basic needs of our local communities. We are proud to make a difference in the lives of others.

The O-I Charities Foundation was established in 1937 and donates more than $1.5 million (USD) annually to charities and non-profit organizations in North America, along with numerous grant programs. Through our robust Employee Matching Gift Program, which matches donations dollar-for-dollar and provides a 2:1 match for educational gifts, the Foundation amplifies employee giving and provides longer-term investments in areas where the company can support broad movements for social change. O-I seeks to maximize the impact of our giving, volunteerism, and partnerships in the community while upholding our commitment to value creation.

Our community relations activities seek to develop collective prosperity by enhancing company culture, promoting O-I’s attraction to employees, supporting employee retention, increasing employee productivity and happiness, improving O-I’s brand perception, and offering opportunities for professional development. In the U.S., employees are encouraged to volunteer and receive 16 hours of paid volunteer time.

The community engagement efforts of our employees serve as a testament to the sound character, values, and spirit of generosity upheld by our global workforce. Our relationships with our communities are critical to us, and we are proud of the philanthropic endeavors and achievements of our 25,000 employees.

2:1 match for educational gifts & dollar-for-dollar donations
We strive to be an active and contributing member of every community where O-I employees live and work.

As global citizens, we are immensely proud of the efforts of our people, and the company as a whole, to support health, safety, education, arts and culture, social good, and the environment in order to make our communities more sustainable.

In 2020, O-I Charities Foundation gave $680,000 to more than 30 nonprofits. The Foundation also matched another $790,000 in gifts from our employees to over 160 organizations.

Though O-I and our employees remained committed to supporting our communities during the pandemic, COVID-19 presented certain barriers to our usual giving, which can explain the decrease from 2019 to 2020. Financial uncertainty likely impeded employee giving and in-turn, matching gifts. In addition, events were cancelled, the annual United Way giving campaign went virtual, and many of the programs O-I has supported in the past were closed, such as schools, libraries, community centers.

Even through this difficult time, we maintained our support for our communities. We look for activities that lift the human spirit, provide community support, and contribute to O-I’s visibility. Through employees and plants in North America, we provided about $900,000 independent of Foundation giving in support of community-based causes.

Our work includes supporting parks in our communities, national conservation organizations, and recycling education initiatives. We pride ourselves on long-standing relationships with like-minded organizations. O-I has promoted glass and recycling initiatives in partnership with communities and associations around the world; see Recycling.
COMMUNITIES

SUPPORTING WORTHY CAUSES, CONT.
In 2020, we partnered with Ohio-area non-profits to support community efforts around the U.S. census. We donated more than 200 laptops, providing additional resources to organizations facilitating census counts. We donated $55,000 to alleviate Australian brushfires and remain committed to supporting the Red Cross and their disaster relief efforts, donating more than $10,000 in the United States last year.

2020 GIVING FOCUS AREAS

Our Foundation supported 12 high schools and funded scholarships at 17 colleges and universities in the United States totaling $221,000. The Foundation’s emphasis on education is targeted to the areas of science, engineering, marketing, and package design. O-I gave $12,500 to Coca-Cola Scholars, a program that invests in exceptional high school students.

The Foundation donated over $200,000 for art education, programming, and sustainability. It supports visual and performing arts organizations, museums, public broadcasting, historic preservation societies, and other cultural organizations, particularly in Northwest Ohio.

Our Commitment to the Glass City

The Toledo, Ohio area is O-I’s birthplace and home of our global headquarters.

Toledo is known as “the Glass City” because of its long history of glass manufacturing by companies like O-I. Bettering the Toledo community is a constant element in our initiatives on social engagement. For over three decades, O-I has been a supporter of the Toledo Zoo, pledging $1 million over 10 years to support education programs and exhibits. We are currently the title sponsor of the newly renovated aquarium, featuring a 90,000-gallon reef exhibit, which helps raise awareness over protecting these endangered ecosystems.

Our Commitment to the Glass City

$1,000,000
PLEDGED OVER 10 YEARS TO SUPPORT THE TOLEDO ZOO’S EDUCATION PROGRAMS AND EXHIBITS

The alliance of art and industry is strong in the Glass City. Exposure to Arts and Culture creates vital and robust communities and O-I has promoted such organizations for over 50 years. We value our strong relationship with the Toledo Alliance for the Performing Arts, which includes the Toledo Symphony and the Toledo Ballet, as well as the Toledo Museum of Art and the local Arts Commission. In 2020, the O-I Charities Foundation provided over $200,000 in support of glass-blowing demonstrations, educational programming, virtual performances, and more, providing socially distanced opportunities and entertainment for the community during a challenging year.
Stone Brewing Bottles
“Black is Beautiful” Beer in O-I Glass

In 2020, O-I supported the Black is Beautiful beer project.

Founded by Weathered Souls Brewing in Texas, the product invited breweries to help fight racial inequality by donating proceeds from the sales of a designated Black is Beautiful beer. Our craft brewing customer, California-based Stone Brewing, was among the 900-plus breweries who joined in the project.

O-I set aside glass bottles to support craft breweries who wanted to bottle their Black is Beautiful beer. Using donated bottles is one less expense for a brewery, essentially allowing them to give more proceeds to their chosen organization. Stone Brewing released their version of Black is Beautiful in September, an imperial stout with added layers of oak and bourbon barrel sweetness. They donated to the NAACP Legal Defense and Education Fund, Inc (LDF).

Supporting STEM Education
At the end of 2019, O-I kicked off a very special event in Brazil, “There Will Be Girls In Science,” encouraging young women to consider careers in the STEM fields. The event was held at the University of São Paulo School of Arts, Sciences, and Humanities. It featured several lectures and activities hosted by a group of science teachers. The setting allowed young women, aged 14 to 17, to hear about and experience multiple areas of science, providing exposure to the broad array of science-based career options.

O-I values participating in these events because of the role they play in achieving gender equity and empowering all women at every age.

O-I additionally supports education through the Ceramic and Glass Industry Foundation, which is working to advance STEM programming. We granted $15,000 to support programming that introduces students to glass and ceramic science.
CREATING SUSTAINABLE COMMUNITIES THROUGH THE UNITED WAY CAMPAIGN

O-I is a strong supporter of United Way, a global nonprofit with 1,800 community-based organizations that seek to help individuals and families achieve their potential through education, income stability, and healthy lives.

O-I’s core values and philanthropic aspirations align strongly with United Way’s global mission and its efforts to mobilize local communities.

At our global headquarters in Ohio, O-I has been among the largest contributors to the local United Way campaign for many years. The United Way of Greater Toledo serves Lucas, Wood, and Ottawa Counties. In those communities, the needs are homelessness, addiction, unemployment resources, early childhood education, literacy, financial literacy, and health and wellness. In 2020, our U.S. corporate employees generously donated $236,803 (58% participation), which O-I matched dollar-for-dollar.

O-I employees additionally supported United Way Brazil in 2020 with $40,000 (USD) in giving and United Way Peru with $16,000 (USD). Since 2012, O-I Brazil partnered with United Way to invest in education programs focusing on early childhood development. O-I has also supported programs in Brazil that encourage the development and strengthening of socio-emotional skills of young adults.
SUPPORT AND SOLIDARITY IN THE FACE OF A PANDEMIC

2020 was a particularly challenging year globally. The COVID-19 crisis made clear the value and need for community and social engagement.

O-I invested both time and financial support to provide COVID-19 and disaster relief. We donated $50,000 for two COVID-19 relief funds. We provided additional support to the Red Cross for antibody testing, including blood drives with 1,290 units collected, and product donations for hand sanitizer.

Despite the challenges posed by volunteering during a pandemic, our employee commitments and willingness to do so remained strong.

Victory Over COVID-19 Through Vaccination

In January 2021, O-I’s Charitable Foundation donated $50,000 to the Victory Over COVID-19 Through Vaccination (VProject). The VProject was an area-wide initiative to educate, motivate, and vaccinate the entire Northwest Ohio corridor to slow the spread of the COVID-19 virus. To accomplish this, leaders from industry, government, non-profit, health care, education, and religious organizations united in an unprecedented effort to effectively mobilize the community. In addition to financial contributions, O-I employees are actively volunteering in leadership and other roles to support every aspect of the VProject.
O-I Works with Local Partner to Produce Reusable PPE During COVID-19

O-I collaborated with a local industrial automation company to make reusable face shields for members of the Northwest Ohio medical community at the beginning of the COVID-19 health crisis, when PPE supplies were critically low.

We used our 3D printing capabilities to make the frames for the shields in a nearly zero-waste manufacturing process and our partner supplied the face shields.

While the company’s global campus was closed to office workers because of COVID-19, we created an innovative approach to overcome the staffing challenges to manufacture the frames. We combined the need for essential employees to help secure and maintain our facilities with the personnel needed to operate the 3D printers. Security staff timed their rounds so they could be in O-I’s Glass and Science Materials Lab to remove completed print jobs and start new ones.

O-I’s Seville Plant Joins Forces with Red Cross to Help Families in Need

To support our Seville, Spain plant’s community, our employees joined forces with the Red Cross. The partnership organized an effort—with the plant providing a donation location—to collect and distribute food and basic necessities. As part of the program, O-I donated PPE to the Red Cross workers. While conceived only as a week-long focused effort, the campaign was extended and embraced by others in the community, including a local artisan, Pandería Artesana Obando.

In the end, the Red Cross was able to distribute over one ton of food and other goods to local families in need.

Wingles Plant Chooses Solidarity in Times of COVID-19

Employees at the Wingles plant in France took the initiative to support the staff of the hospital in the nearby city of Lens. They donated 500 salad-sandwich meals to the hospital employees. As part of the effort, the plant employees enlisted others in the community to help, including Intermarché Wingles, a local business that prepared and delivered the meals. Inspired by the initiative, Intermarché supplemented the meals with desserts. An open letter from all O-I Wingles employees accompanied these meals, expressing support and gratitude to the hospital staff for their dedication and courage. The team also donated materials to a hospital center located in Béthune, enabling the production of 1,400 medical gowns. The employees also collected t-shirts, which the hospital converted into medical caps.
Lapel Plant Donates Glass Bottles for Hand Sanitizer

Deemed an essential business, plants in the northern United States were operational during the duration of the COVID-19 pandemic. Our Lapel plant in Indiana used its production capacity to donate bottles to a local distiller, Oakley Brothers Distillery, for the production of hand sanitizer.

San Domenico Employees Use Solidarity Fund to Donate to Hospital Fighting COVID-19

For years, employees at the San Domenico plant near Naples, Italy collected money every month in a solidarity fund to support the local community and colleagues in need.

During the pandemic, they unanimously agreed to deploy part of the solidarity fund to support medical staff of the Cotugno hospital, a well-known specialized infectious disease facility in Naples.

It became the subject of international media coverage in April 2020 because it had no positive cases of COVID-19 among its staff—even though it was only treating COVID-19 patients. San Domenico employees were eager to recognize the hospital’s tremendous efforts, give back to the community, and send a tangible signal of support.
COMMUNITIES

FORMING FOR OUR FUTURE

O-I aims to build and maintain strong relationships with the global communities in which we operate, creating a positive impact, promoting sustainability, and long-term prosperity. We strive to inspire employee pride and engagement through our community involvement. We have developed objectives to guide how we expand and integrate community involvement more deeply into the company’s practices.

To reinforce our presence in our local communities and support our employees’ continued desire to give back, we plan to expand our volunteer opportunities and create innovative programs to engage friends and families of our employees.

As global citizens, we strive to increase O-I’s impact in our communities around the world. We aim to identify and create partnerships with international organizations. We will work toward having organized volunteer programs in place at all of our global facilities.

While the O-I Charities Foundation has historically focused on North America, our community engagement strategy for the next 10 years involves creating global philanthropic programs to provide similar support outside of North America. These volunteer opportunities and foundation giving will align with our sustainability purpose and UNSDG goals. Part of our roadmap to bring our vision to life is to improve and create global metrics for volunteer hours, donations, grants, and non-profit group engagement.

Working towards our global sustainability goals, we have the ambition to ensure we establish and maintain glass recycling in 100% of the locations where we operate. Our ambition also includes finding innovative ways to tie increases in glass recycling rates to direct community benefit through our Glass4Good initiative.

As global citizens, we strive to increase O-I’s impact in our communities around the world.
Glass4Good
Glass4Good is a community-based recycling program that incentivizes recycling by generating local charitable donations for recycled glass. This program works towards six of our 10 global sustainability goals. We are currently developing pilot programs in several of our U.S. plant locations.

Collecting the community’s glass will provide additional streams of cullet for use in our facilities, which improves the sustainability of production through increased recycled content. Increased recycled content in our manufacturing process helps us work towards our zero-waste goal and reduces the need for raw material mining. It also decreases the energy required in the process, lowers CO₂ emissions, as well as reduces material transportation and processing impacts.

The weight of the recycled content collected from communities is converted to a dollar amount, which is distributed to organizations or charities of choice, ensuring the impact stays local. Our pilot projects will provide proof of concept and establish best practices, enabling us to scale the program for more widespread deployment.
The O-I Green Team is an ongoing initiative that is comprised of employees who have volunteered to inform and educate employees on programs and initiatives that will promote a more environmentally-friendly campus and community engagement.

The team works to inspire our people to “Act Responsible” and “Think Sustainable.” We are exploring how to replicate this grassroots initiative globally.

The Green Team has provided green recycle bins to employees for collecting and transporting glass containers to campus for proper recycling. It has engaged in promoting and participating in four Adopt-A-Highway clean-ups per year and in an annual Clean Your Streams clean-up. Promoting the value of sustainability and recyclability of glass containers, the team volunteered at the Toledo Zoo’s Party for the Planet for Earth Day. It has held “recycle drives” on the O-I campus for clothing, electronic recycling, hazardous household materials, and more.

In the future, the team will continue to promote building sustainable communities, within O-I and beyond.
HUMAN RIGHTS

OUR VISION

O-I is committed to protecting human rights for all our people, meaning all those we impact, people within our workplaces, communities, and supply chain.

As part of our holistic approach to sustainability, we strive to maintain a safe workplace, build sustainable communities, and provide effective, accountable, and transparent governance.

Our written Code of Conduct, policies, and procedures form the foundation for our human rights protection. O-I recognizes human rights definitions and observes their protection under the United Nations’ Universal Declaration of Human Rights, the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights at Work and its follow-up. The company’s goals and activities surrounding human rights link with our commitment to relevant UN SDGs.

O-I’s Global Code of Business Conduct and Ethics (“Code of Conduct”) applies to all employees worldwide regardless of their role or seniority, and our suppliers. This compliance includes all laws intended to protect human rights, as well as the employment laws in every country in which O-I operates. We do not use child labor or forced labor. We do not allow physical punishment or abuse. We comply with all applicable laws prohibiting human trafficking. O-I uses the Code of Conduct to educate and hold our employees responsible to act lawfully and in an ethical manner. Employees who violate the Code of Conduct are subject to appropriate discipline, up to and including dismissal. O-I respects the freedom of individual employees to join, or refrain from joining, legally authorized associations or organizations, and to engage in collective bargaining. Such employment rights require O-I to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For more information, refer to our most recent 10-K.
HUMAN RIGHTS

TRANSFORMING TODAY

O-I values integrity and accountability. Within the company, we promote human rights by communicating and training employees on expected behavior we want to see from our people and those behaviors we will not tolerate.

We ensure employees are aware of and have informative examples of unacceptable behaviors including any form of harassment, discrimination, or retaliation against someone who has made a complaint. We encourage employees to take personal responsibility, embrace our value of integrity, and help maintain the culture we want at O-I. Through training and educational programs, we provide examples of positive behaviors such as speaking up about unethical behavior and finding ways to be inclusive, getting to know colleagues as individuals rather than as stereotypes, and taking others’ points of view.

We encourage employees to take personal responsibility, embrace our value of integrity, and help maintain the culture we want at O-I.
HUMAN RIGHTS

We are elevating our ambitions by launching a Diversity & Inclusion roadmap and reporting for the first time in the Human Rights Campaign’s 2021 Corporate Equality Index. See details in the Diversity & Inclusion section.

O-I strives to provide a safe and healthy workplace and environment, continuously assessing and improving Environment, Health and Safety practices.

To see our latest actions in this area see Health & Safety. In certain locations, we employ security personnel at our plants and offices to maintain the safety of our people, monitor risk situations, and notify the proper authorities if necessary.

Our Chief Ethics and Compliance Officer is responsible for the implementation, evaluation, updating, and promotion of our ethics and compliance policies and practices to remain current and effective. Our management-level Ethics and Compliance Committee provides advice to the Chief Ethics and Compliance Officer regarding ethics and compliance policies and practices. The Committee helps to ensure cross-functional coordination for risk assessment and mitigation. It is responsible for participating in an annual ethics and compliance risk assessment and evaluation process as well as analyses of potential new risks. The Committee also reviews reports and measures regarding the effectiveness of the Ethics and Compliance Program and determines any actions to be taken. To learn more see Ethics & Compliance.

O-I provides ongoing education and awareness to ensure our integrity is upheld company-wide. Each salaried employee is required to complete online compliance training relating to the Code of Conduct, anti-corruption, and respect in the workplace on an annual basis. The content of the training is refreshed every year and covers a variety of topics. In a prior year, the training included the risks of modern slavery in supply chains (see more on modern slavery below). Our awareness initiatives and training will be key to ensuring that all our employees understand and follow the standards of ethics and compliance as expected. We will continue to utilize internal monitoring and reporting to seek to avoid discrimination, corruption, violence, or conflict.

Our awareness initiatives and training will be key to ensuring that all our employees understand and follow the standards of ethics and compliance as expected.

O-I does not tolerate workplace violence. Violent behavior, threats of violence, and other prohibited behavior will not be tolerated on O-I premises or at O-I sponsored-events, whether by or against O-I employees. Individuals who violate this policy are subject to appropriate disciplinary action, up to and including dismissal.
All O-I employees, especially managers, are expected to be diligent in looking for indications that unethical or illegal conduct is being considered or has occurred.

Employees are expected to speak up so that management is aware of and can appropriately address any situations that seem to be in conflict with the law, O-I’s Code of Conduct, or O-I’s other policies.

Employees are encouraged to raise legal or ethical concerns through various reporting channels such as their supervisor, another member of management, People & Culture, or O-I’s Ethics and Compliance Helpline. “If you see something wrong, do something right,” are our watchwords to promote trust and respect in the workplace.

The Ethics and Compliance Helpline, a telephone and internet-based resource, can be used by employees worldwide as well as O-I’s external stakeholders to report legal or ethical concerns, including suspected violations of human rights. The Helpline is available in multiple languages. Helpline users may choose to make their report anonymously. Reports are investigated in a timely, confidential, and professional manner, without retaliation. If an investigation verifies any wrongdoing, management will take appropriate corrective action. O-I has a strict non-retaliation whistleblower policy prohibiting retaliation against anyone making a report in good faith.

Beyond our internal operations, we are committed to also taking account of the wellbeing of the people our operations impact. We see human rights as a basic and critical need. O-I continuously updates policies and training to stay attentive to, and address, possible impacts to human rights.

RISK SCREENING
Based on ILO’s fundamental conventions and declarations, O-I has screened for human rights risks that could be posed in our operations, including the supply chain. The latest Global Estimates reports have identified areas of the world where the risk of injustices, such as modern slavery, child or forced labor are higher. We are resolved to consider these risks with the utmost seriousness and invest our efforts in encouraging our value chain, including suppliers, to uphold our high standards of ethics and compliance.
HUMAN RIGHTS

DUE DILIGENCE IN THE SUPPLY CHAIN
O-I expects its suppliers to adhere to the same standards of business conduct that we follow. O-I’s Supplier Guiding Principles are distributed to suppliers to build awareness and reinforce O-I’s expectations that its suppliers will conduct their business in compliance with applicable laws and regulations and in accordance with O-I’s ethical standards. Such laws and regulations include child and forced labor, environmental, workplace health and safety, anti-corruption, and laws prohibiting human trafficking and modern slavery.

In addition to training on O-I’s Code of Conduct, we have launched a sustainable procurement training program to cover 100% of our procurement personnel by end of 2021.

As defined by U.S. law, conflict minerals are cassiterite, columbite-tantalite, gold, and wolframite, and their derivatives tin, tantalum, and tungsten, which have originated in the Democratic Republic of Congo or an adjoining country. In accordance with the Supplier Guiding Principles and Conflict Minerals Policy, we expect that our suppliers will support efforts to eradicate the use of conflict minerals that directly or indirectly finance or benefit armed groups in the Democratic Republic of Congo or adjoining countries. O-I has taken steps within its supply chain to determine the origin and status of any Conflict Minerals that may be necessary to its products’ functionality or production, see Our Supply Chain. These steps include performing due diligence with its supply chain partners as described in O-I’s Conflict Minerals Report. Based on O-I’s due diligence to date, we believe that there are no conflict minerals that are necessary to any product that O-I manufactures or contracts to manufacture as part of its glass container business.

UK Modern Slavery Act Disclosure Statement
In compliance with the 2015 UK Modern Slavery Act, O-I has posted on its website the UK Modern Slavery Act Disclosure Statement, which is updated annually. The Statement is made on behalf of several O-I entities with operations in the UK that are subject to the Act.

The UK Modern Slavery Act 2015 defines “modern slavery” as including the offenses of “slavery, servitude and forced or compulsory labor” as well as “human trafficking.” As a part of the O-I global organization, the UK entities are committed to meeting O-I’s standards of ethical conduct and compliance with applicable laws. This includes compliance with laws prohibiting human trafficking and slavery. The UK entities’ expectation is that their suppliers will also conduct themselves in this manner.
HUMAN RIGHTS

CYBERSECURITY
O-I’s commitment to the protection of our people’s human rights extends to their privacy and information security.

As the prevalence of cyberattacks continues to increase, O-I works to upgrade and maintain our security measures to detect and prevent breaches.

Our policies and practices aim to protect information assets across the enterprise. The Information Security Policy establishes requirements to ensure that appropriate measures are implemented to protect these assets and describes expectations and user responsibilities regarding information security at O-I. We maintain a cybersecurity awareness program providing mandatory recurrent online training, targeted security training to higher-risk employees, and ad-hoc training on particular subjects such as phishing, password management, or home wireless networks. We continuously communicate security best practices to O-I employees, providing them security tips on how to protect themselves, O-I data and systems, as well as security alerts on arising threats. Privacy and data security of our employees, customers, and partners is also protected by our O-I Records Management Policy, Conflict of Interest Policy, and Whistleblower Policy.

O-I maintains a three-year cybersecurity roadmap, which is supported by annual self-assessments of the O-I security program. The assessment is based on the ISO 27002 standard and defines key areas of interest, driving initiatives to be undertaken to mitigate the gaps identified.

Audits of control procedures to prevent information security breaches are performed through external and internal audits of critical financial systems and major projects. These controls focus on user access, change management, security operations, and IT operations. The goal is to identify threats and vulnerabilities, then respond appropriately to mitigate risks using well-established processes.

O-I has consistent tools and protocols to protect third-party data from unauthorized access or disclosure. Access is managed with a role-based approach and approved by appropriate owners prior to access being granted. There are procedures in place to make sure access is provided to personnel on a need-to-know basis, based on the role in the organization. Password complexity is managed with authentication and authorization to support consistent management. Access to USB storage devices is blocked by default, with an exception subject to approval by an appropriate IT Regional Operations Manager; for a limited period of time.
HUMAN RIGHTS

CYBERSECURITY, CONT.
To support confidentiality of stakeholder information, appropriate clauses are embedded in contracts and we educate employees so that they understand obligations related to protection of stakeholders' data. Employees are also trained on protecting confidential information, including the stakeholders' information. Training covers appropriate behaviors while performing business activities, like protecting information, anti-bribery, and ethics in business. We also offer training on General Data Protection Regulation delivered to the O-I employees by Legal, People & Culture, and IT. In 2020, we were aware of no complaints received concerning breaches of our customer privacy.

O-I IT’s security incident response consists of formal procedure supported by investigation tools (both purchased and built in-house) to automate identification, recording, and management of identified security incidents. A security incident response management plan has been established to provide a quick, effective and orderly response to incidents that could impact O-I’s regular business operations. The Incident Response Team (IRT), under the direction of the O-I Legal Department, guides the response to significant cyber incidents, providing overall guidance and management to mitigate potential damage to the organization. Security incidents are appropriately escalated depending on the high impact to the organization. Responses may include O-I’s Core Crisis Team, and/or external security retainer services.

[Image of two individuals in a control room]
O-I's first sustainability report was published in 2014, which followed the Global Reporting Initiative (GRI) standards. In 2018, we published an update. This report, expanded, updated, and more comprehensive, is O-I’s third sustainability report. Going forward, and as part of our sustainability journey, we will provide an annual sustainability report.

This report has been prepared in accordance with the GRI Standards: core option. Areas of the GRI, SASB and TCFD Reporting Standards, that are discussed in this report, have been identified in the indexes below. There were some significant changes in our scope since 2018 – we idled four plants, and acquired one plant in Mexico. We divested the five plants in Australia and New Zealand in the middle of 2020. These ANZ plants are not included in the total of 72, but the annual data presented in this report includes their impact through July, when they were divested. From our first materiality assessment conducted in 2014, we have identified additional material topics (see Our Sustainability Approach).

Since our last report, O-I has gone through some significant sustainability transformations, which have not been fully communicated in a consolidated manner until now. In this way, this report provides a summary of activities in the years 2018 to 2020. However, the performance indicator data represents O-I’s fiscal year 2020. Previous years’ data, when available, are also provided to illustrate our progress. Our base year is 2017, unless noted otherwise. This report covers the organization’s significant operations – the 72 plants owned by O-I of which we have full operational control. Joint ventures and offices impacts are out of the reporting scope. Company-wide emissions and water data excludes two of our facilities as they manufacture extremely high-quality glass containers and tableware.

Our global presence and regional differences can present challenges for data collection, and at times we set limitations and assumptions. The data presented in this report has been collected from different internal databases. For accuracy and completeness, the data was reviewed and verified by the business functions responsible for maintaining internal reporting systems.

If you have any questions or comments about this report, please contact our team: Olsustainability@o-i.com.

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This report contains “forward-looking” statements related to O-I Glass, Inc. (“O-I”) within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and Section 27A of the Securities Act of 1933 and include statements based on management’s current assumptions and expectations, including statements regarding O-I’s sustainability vision, strategies, targets, goals, commitments and programs.

Forward-looking statements reflect O-I’s current expectations and projections about future events at the time, and thus involve uncertainty and risk.

The words “believe,” “expect,” “anticipate,” “will,” “could,” “would,” “should,” “may,” “plan,” “estimate,” “intend,” “predict,” “potential,” “continue,” and the negatives of these words and other similar expressions generally identify forward-looking statements. It is possible that O-I’s future performance may differ from expectations due to a variety of factors including, but not limited to the following: (1) O-I’s ability to achieve the strategic plans, goals and commitments set forth in this report and unexpected delays, difficulties, and expenses in executing against such plans, goals and commitments, (2) the impact of the COVID-19 pandemic and the various governmental, industry and consumer actions related thereto, (3) risks related to the Chapter 11 bankruptcy proceeding involving O-I’s subsidiary, Paddock Enterprises, LLC (“Paddock”), and the confirmation or consummation of a plan of reorganization, (4) O-I’s ability to manage its cost structure, including its success in implementing restructuring or other plans aimed at improving O-I’s operating efficiency and working capital management, achieving cost savings, and remaining well-positioned to address Paddock’s legacy liabilities, (5) O-I’s ability to acquire or divest businesses, acquire and expand plants, integrate operations of acquired businesses and achieve expected benefits from acquisitions, divestitures or expansions, (6) O-I’s ability to improve its glass melting technology, known as the MAGMA program, (7) changes in capital availability or cost, including interest rate
fluctuations and the ability of O-I to refinance debt on favorable terms, (8) the general political, economic and competitive conditions in markets and countries where O-I has operations, including uncertainties related to Brexit, economic and social conditions, disruptions in the supply chain, competitive pricing pressures, inflation or deflation, changes in tax rates and laws, natural disasters, and weather, (9) consumer preferences for alternative forms of packaging, (10) cost and availability of raw materials, labor, energy and transportation, (11) consolidation among competitors and customers, (12) unanticipated expenditures with respect to data privacy, environmental, safety and health laws, (13) unanticipated operational disruptions, including higher capital spending, (14) O-I’s ability to further develop its sales, marketing and product development capabilities, (15) the ability of O-I and the third parties on which it relies for information technology system support to prevent and detect security breaches related to cybersecurity and data privacy, and the other risk factors discussed in O-I’s Annual Report on Form 10-K for the year ended December 31, 2020 and any subsequently filed Annual Report on Form 10-K, Quarterly Reports on Form 10-Q or O-I’s other filings with the Securities and Exchange Commission. It is not possible to foresee or identify all such factors. Any forward-looking statements in this report are based on certain assumptions and analyses made by O-I in light of its experience and perception of historical trends, current conditions, expected future developments, and other factors it believes are appropriate in the circumstances.

Forward-looking statements are not a guarantee of future performance and actual results or developments may differ materially from expectations.

While O-I continually reviews trends and uncertainties affecting O-I’s results or operations and financial condition, O-I does not assume any obligation to update or supplement any particular forward-looking statements contained in this report.