

A close-up photograph of a glass manufacturing process. Several glowing, cylindrical glass tubes are being processed by machinery. The tubes are bright yellow-orange, indicating they are hot. The machinery is dark and industrial, with various components visible. The background is dark, making the glowing tubes stand out.

# Transforming Glass

2011





## Facts & Figures

YEAR END 2010

**\$6.6 billion** in net sales

**81 plants** in 21 countries

**Joint ventures\*** in China, Italy, Malaysia, the United States and Vietnam

**24,000+** employees worldwide

**1,900+** worldwide patents

**49,000+** customers in 86 countries

**10,000** products

**600+** new products launched in 2010

**Worldwide headquarters** in Perrysburg, Ohio, USA

\*Reflects operations in which O-I holds 50-percent ownership.

Bo He, Ph.D., a research scientist in O-I's Glass & Materials Science Lab, is part of a team testing and refining manufacturing and product concepts before they are deployed globally.

## Technology and Manufacturing Capabilities Set O-I Apart

Already the unmatched leader in glass container manufacturing, O-I is expanding its capabilities and further building its competitive advantage through unparalleled investment in glass packaging research and development. These investments hold the promise of yielding new technologies to fuel O-I's product innovation engine.

O-I's proprietary know-how inspires the development of breakthrough manufacturing processes and equipment that will redefine glassmaking, changing the way glass is melted, formed and decorated. Future evolutions could lead to manufacturing plants with more flexible footprints and new ways to reduce emissions and energy use.

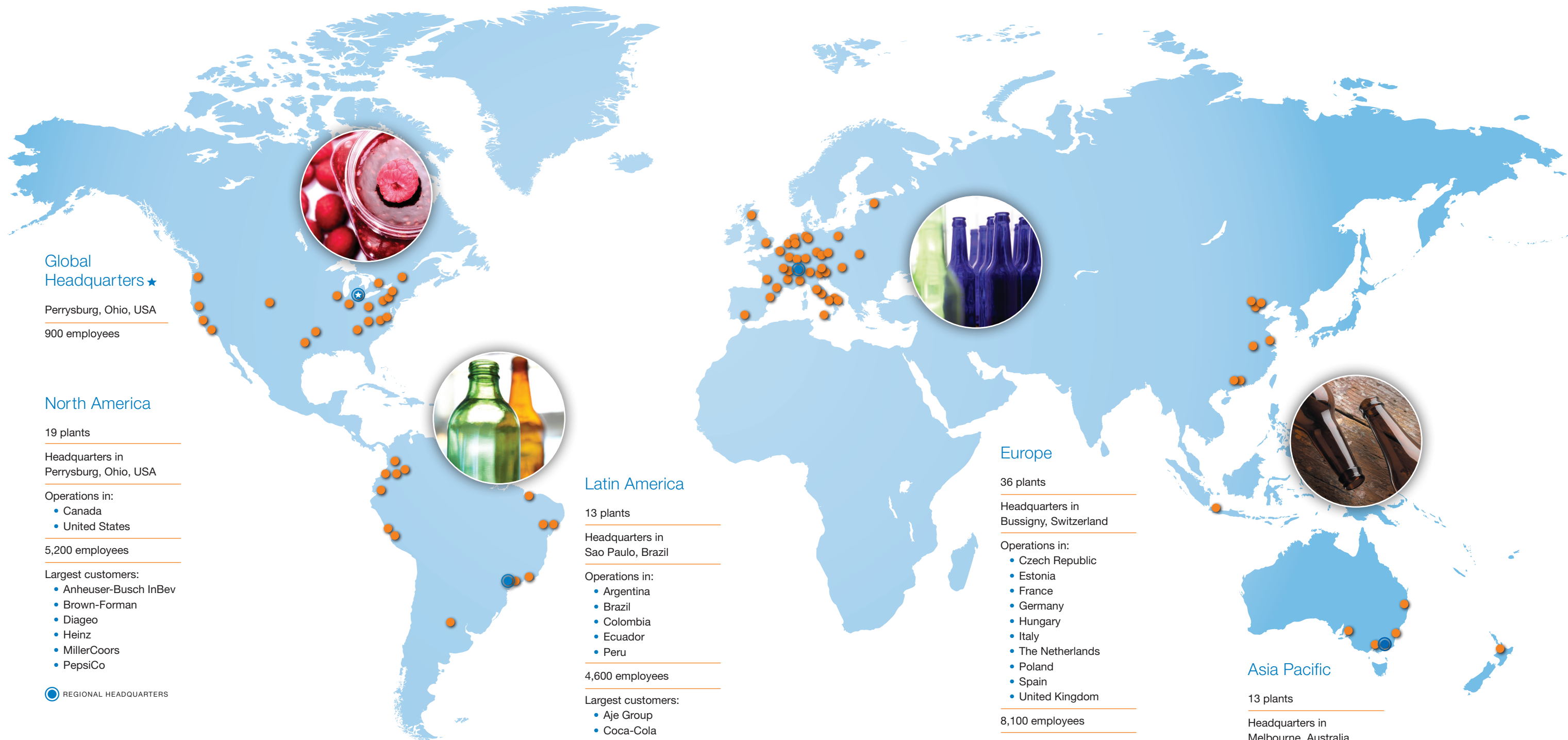
O-I technology — the heart of the company's manufacturing capabilities — is key to advancing such innovations and transforming new product ideas into glass packaging solutions.



Top: The Lean+Green® wine bottles manufactured at O-I's Adelaide, Australia, plant have won five national awards, including the prestigious Australian International Design Award.

Middle: Rich Crawford, O-I senior vice president and chief technology and operations officer (right), describes how a unique metallic coating helped to differentiate a customer's spirits bottle on store shelves.

Bottom: Carol Click, Ph.D., leads glass melting research at O-I's research and development center in Perrysburg, Ohio, USA.



## Unmatched Global Footprint

As the world's leading glass container manufacturer, O-I's global footprint spans 21 countries. The preferred partner for many of the world's leading food and beverage brands, O-I holds market leadership positions in each of its four operating regions: Asia Pacific, Europe, Latin America and North America.

## Growing Opportunities

The time is right for glass to shine. In both mature and emerging markets, multiple dynamics are converging to expand the glass packaging industry. O-I is well positioned to leverage these trends.

Population growth and a burgeoning middle class with increased buying power in the emerging markets of Latin America and Asia are boosting demand for packaging materials. As that demand surges, glass enjoys a particular advantage tied, in part, to the popularity of returnable, refillable bottles. In the mature European and North American markets, there is renewed interest in the unique, brand-building attributes that glass delivers.

O-I is responding to favorable conditions with investments in product innovation, sustainability and marketing. Initiatives in these areas, combined with the company's commitment to organic and acquisition-based growth in emerging markets, position O-I to deliver sustainable growth year over year.

### Acquisitions Drive Profitability

O-I is committed to profitable growth through strategic acquisitions in fast-growing emerging markets, including Argentina, Brazil, China and Mexico, where glass already is a preferred packaging material. Acquiring existing plants also enables the company to quickly penetrate new markets, further expand its customer base and leverage its global footprint to enhance services for current customers.

Acquisitions complement organic growth strategies as key growth drivers for the company.

In 2010, O-I:

- Implemented a robust acquisition process.
- Made more acquisitions than in any other year in the past decade.
- Acquired and integrated 10 new plants across Latin America and Asia Pacific.
- Cemented O-I's position as Brazil's largest glass container manufacturer, while becoming China's second-largest producer.

Top: New Zealand Prime Minister John Key and O-I CEO Al Stroucken commemorate the opening of a new furnace at the company's Auckland, New Zealand, plant in December 2010.

Middle: Emilio Llosa, O-I's sales and marketing director for Peru, leads a tour of the company's Lurin, Peru, plant.

Bottom: In Studio 2600 – a new collaboration space for O-I's product innovation teams – engineers, designers and marketers brainstorm new product ideas. The name of the space is derived from the temperature at which glass melts.



#### ADDING VALUE WITH glass smart™

A streamlined, global business-development approach, *glass smart* is the centerpiece of O-I's organic growth strategy. Driven by the desire to provide superior results for customers' brands, *glass smart* combines deep customer engagement with rigorous research to produce an intricate understanding of customer, channel and consumer needs, trends and economic drivers.

Based on that knowledge, O-I supplies existing and potential customers with insights and product ideas designed to invigorate existing categories or create entirely new business opportunities. *glass smart* aligns O-I business development processes worldwide, providing the company and its customers with unique advantages that deliver sustainable, profitable growth.



Employees at O-I's Tianjin, China, mould shop show their team spirit. In 2010, O-I became the second-largest glass container maker in China.



### O-I EMERGES AS A LEADER IN FAST-GROWING CHINA

As the newly minted second-largest glass container manufacturer in China, O-I is poised to take advantage of growth opportunities in the world's largest emerging market. China's glass packaging industry comprises about 14 million tonnes and is growing annually at double-digit rates.

In 2010, O-I acquired three plants in China, more than doubling its capacity in this key market from 440,000 tonnes to nearly 1 million tonnes. The company further expanded its reach in the country through a new joint venture. The China acquisitions support the company's strategy of expanding in markets with strong growth and long-term earnings potential.

The newly acquired plants also strengthen O-I's ability to move beyond premium products and expand into fast-growing mass markets, including the Chinese beer segment. By 2015, China's domestic beer segment – the largest in the world – is expected to reach more than twice the size of the U.S. beer market, the world's second-largest.



Left: Independent research indicates more than 90 percent of consumers across the globe prefer food products packaged in glass.

Right: Andrew Sauber recycles used glass containers at a company-sponsored recycling center. O-I's LCA showed that the impact of transporting finished glass containers is less than 5 percent of their total carbon footprint and is more than offset by the use of recycled glass during production.

### Glass is Life™

For more than 3,000 years, people have used glass to hold food and drink – life's very fundamentals. Yet, for some time, glass has lacked a champion to voice its strengths. As the global industry leader, O-I is speaking up with a new "Glass is Life™" campaign, designed to emphasize that glass is integral to an authentic brand experience. Six pillars, identified through consumer research, provide the campaign platform:

- TASTE** Glass protects flavor and preserves the taste the maker intended.
- SUSTAINABILITY** Glass is endlessly recyclable and has one of the lowest carbon footprints of any packaging material.
- QUALITY** Glass communicates a premium quality that gives brands a sense of beauty and differentiation on the store shelf.
- HEALTH** Glass is naturally safe and does not alter the flavor and quality of food and drinks.
- VERSATILITY** Glass extends brand life into the home by providing utility long after its contents are consumed.
- TRANSPARENCY** Glass lets consumers clearly see what's inside.

Those benefits get noticed. Research shows consumers worldwide prefer glass packaging – especially for non-alcoholic beverages, beer, condiments, preserved foods and wine – and consider it a premium option. Glass is a superior brand differentiator – just what you'd expect from one of the world's most naturally desirable packaging materials.

For more information or a copy of O-I's Life Cycle Assessment for glass packaging, visit [www.o-i.com](http://www.o-i.com).

### LIFE CYCLE ASSESSMENT: GLASS IS GREENER

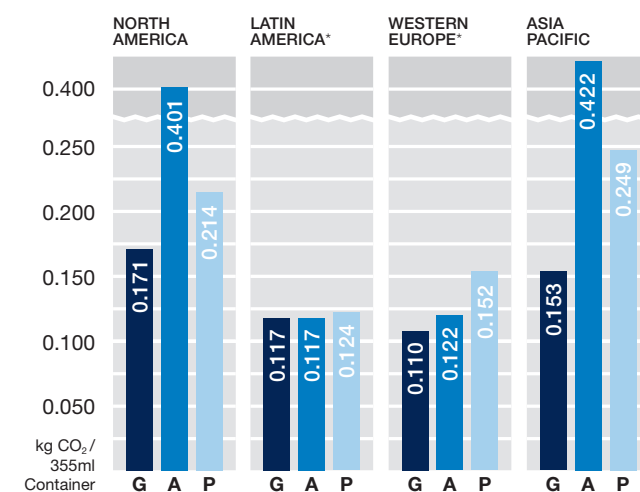
In 2010, O-I released the results of a cradle-to-cradle study that measured the carbon emissions generated by every aspect of the glass life cycle. O-I's Life Cycle Assessment (LCA), one of the packaging industry's first complete analyses, showed returnable, refillable glass containers have a smaller carbon footprint than aluminum and PET plastic. In addition, single-use glass containers produce lower carbon emissions than other packaging materials in North America, Western Europe and Asia Pacific, and are equivalent to aluminum in Latin America.

These findings disprove long-held assertions that heavier packaging materials – like glass containers – have overall larger carbon footprints because they require more fuel to transport.

## Clearly Superior

Besides their natural beauty, glass containers preserve product freshness and protect flavor better than any other type of packaging. And glass, made from readily available, natural resources, is one of the world's most sustainable packaging materials.

Carbon Footprint of Glass vs. Other Packaging Materials



G=Single-Use Glass A=Aluminum P=PET Plastic  
 \*Carbon footprint of a returnable, refillable bottle is 0.006 KgCO<sub>2</sub>e.



Recycled glass plays a vital role in reducing the carbon footprint of glass containers. Using recycled glass lowers production costs, emissions and energy usage. O-I is working to increase the amount of post-consumer recycled material in its bottles and jars from an average of 34 percent to at least 60 percent by 2017.

## Sustainability is Good Business

### O-I Goals

Building on the knowledge gained by its complete Life Cycle Assessment of glass packaging, O-I launched aggressive 10-year goals that move the company toward becoming the world's most sustainable glass packaging manufacturer. Using 2007 as its baseline, O-I seeks to:

- Eliminate workplace accidents.
- Lower energy consumption by 50 percent.
- Reduce carbon dioxide-equivalent (CO<sub>2</sub>e) emissions by 65 percent.
- Increase the amount of post-consumer recycled glass used to make new glass from an average of approximately 34 percent to 60 percent.

### Effecting Change

O-I recognizes that success on the path to achieving its four sustainability goals by 2017 hinges on technological advancements, whether the company acquires them or develops new methodologies in-house through research and development.

A steering committee led by CEO Al Stroucken shepherds the company's sustainability efforts, which are executed by interdisciplinary teams. In addition, the company designated energy managers in each plant to emphasize the importance of sustainability on the production floor.

To gain fresh thinking, O-I is partnering with outside experts, including research firms, academia and non-governmental organizations. The company will replicate viable initiatives to further reduce its carbon footprint and operating expenses.

### Environmental, Economic and Human Benefits

In striking a balance between the interconnected "triple bottom line" principles of people, planet and profits, O-I's focus on sustainability will create benefits for its stakeholders. The company will maximize shareholder value through better use of financial and natural capital, more marketable products and considerable cost savings.

Customers will benefit from greener glass packaging and a pass-along carbon footprint reduction. Employees can expect a continuing focus on workplace safety. And, consumers can enjoy the purity and taste sustainable glass packaging delivers.



Top: Deborah Hockman, Ph.D., O-I's vice president of global environment, health and safety, leads the company's efforts to achieve the goal of an accident-free workplace.

Bottom: Researchers Elizabeth Lashaway and Brett Hixson discuss glass coatings research work in the company's research and development center.



O-I's Bezier, France, plant – already an O-I sustainability leader – will play a role in the larger green energy movement. In 2010, solar panels were installed on the roofs of the plant's warehouses. O-I expects the panels, which cover four buildings and a total surface area of 10,000 square meters, to produce 1.7 gigawatt-hours of electricity annually for area businesses – enough energy to power a 2,300-resident community for a full year.

Top: Bernice Lovata scrutinizes beer bottles made at the company's Windsor, Colorado, USA, plant. O-I uses both human and automated processes to inspect the millions of bottles produced each day.

Middle: Consumers rate glass as superior to other materials on five key factors: purity, safety, quality, versatility and recyclability.

Bottom: Designer Colin Murach uses a state-of-the-art electronic sketch pad to develop new glass container designs. Murach is part of a team of designers across the globe helping customers enhance their brands through glass.



## PREFERRED PARTNER

Some of the world's most recognizable food and beverage brands choose O-I as their preferred packaging partner. The company provides superior glass packaging through unparalleled manufacturing capabilities, a focus on quality, customer collaboration and market knowledge.

Customers look to O-I for impactful packaging solutions that differentiate their brands on retail shelves, elevate the stature of their products and enhance consumer experiences – and O-I delivers.

O-I's success is intertwined with its customers' success. To that end, O-I works to engage and delight customers on the shared journey toward ongoing growth.



# Building Customers' Brands

## Quality Equals Credibility at O-I

Customers expect quality when they buy from O-I and, for more than 100 years, the company has maintained a commitment to consistently deliver high-quality glass containers. To strengthen this competitive advantage, the company is intensifying its focus on quality and investing in additional proprietary technologies. O-I is refining broad-based inspection processes and expanding employee training initiatives to prevent conditions that could compromise quality.

Because quality is synonymous with credibility at O-I, it will continue to be a focus for the company.

## Glass is Hot in Latin America

Driven by O-I marketing that positions glass as the preferred packaging material, and by eco-friendly consumers who request it, Latin American food and beverage producers increasingly choose glass over alternative packaging.

In 2010:

- Peruvian companies Gandules, one of the country's most important agribusiness firms, and DanPer Trujillo, a major preserved-food producer, reintroduced jalapenos and red peppers in O-I glass.
- Ecuador's largest processed dairy foods company, Toni, moved its flavored coffees from Tetra Pak into O-I glass.
- Brazil's third-largest preserved-food producer, Fugini, began using O-I glass packaging for corn and peas. Glass now holds a nearly 13 percent share in Brazil's preserved-food industry.



The Vortex® bottle is one of the first products to emerge from a reinvigorated innovation pipeline at O-I that marries the company's longstanding expertise in engineering with growing capabilities in glass science research and package design.



## O-I INNOVATION PAYS OFF FOR MILLER LITE

As U.S. beer sales slumped in 2010, O-I delivered a solution to help MillerCoors differentiate its Miller Lite brand and drive sales.

In a twist on the cliché, O-I thought outside the box by looking inside the bottle for an opportunity to further distinguish the original light beer. The breakthrough result was Vortex®, a 12-ounce beer bottle with spiraling grooves on the interior of the bottle's neck.

The long-neck Vortex bottle, created with O-I's proprietary internal embossing technology, is achieving what MillerCoors and O-I intended: brand differentiation on the shelf and an enhanced customer experience. The brewer credits the Vortex bottle with a significant improvement in Miller Lite's bottle sales.

O-I's 24,000 employees are a key competitive advantage for the company. O-I is investing significantly in leadership and organizational development programs that help create dynamic leaders and engaged employees.

Pictured, left to right: Chris Martinez, Heriberto Cardona, Chen Xi, Sandi Ball, Sandra Wesolowski, Brian Crouse, Kim Ridder, Curt Jeffan, Sherita Gary.



Front Cover: The moment when glass is transformed into a bottle at O-I's Windsor, Colorado, USA, plant.

Back Cover: An optical scanner uses laser technology to inspect a beer bottle. Each glass container made at O-I's 81 plants undergoes rigorous automated and human inspection.

## 2010 Financial Highlights

U.S. dollars in millions, except per-share amounts.

	2010	2009	2008
Net sales	6,633	6,652	7,540
Segment operating profit	964	891	1,047
Earnings from continuing operations attributable to the company <sup>1</sup>	258	110	175
Net earnings (loss) attributable to the company	(47)	162	258
Diluted earnings per share <sup>2</sup>			
Earnings from continuing operations <sup>1</sup>	1.55	0.65	1.03
Net earnings (loss)	(0.28)	0.95	1.52
Free cash flow <sup>3</sup>	100	322	320
Net debt <sup>4</sup>	3,638	2,853	3,109
Gross profit %	20.4%	20.1%	20.5%

<sup>1</sup> Continuing operations excludes Venezuelan operations.

<sup>2</sup> The net effect of asbestos-related charges and other items management considered not representative of ongoing operations was a decrease of \$1.05 per share in 2010, \$1.96 per share in 2009 and \$2.32 per share in 2008.

<sup>3</sup> Free cash flow is defined as cash provided by continuing operating activities less capital expenditures for continuing operations.

<sup>4</sup> Net debt is defined as total debt less cash.

### O-I VENEZUELA OPERATIONS

In October 2010, O-I's two plants in Venezuela were expropriated by the Venezuelan government. This action was sudden and unexpected. O-I has reclassified the Venezuelan operations as discontinued for all periods presented and has written off the assets. The type or amount of compensation O-I may receive from the Venezuelan government is uncertain and will be recorded as a gain from discontinued operations when it is received.

## Company Leadership

O-I's leadership team is committed to achieving the company's strategic priorities and strengthening its position as the world's leading glass container company.

(left to right)

**Ed Snyder**  
Senior Vice President  
Chief Process Improvement Officer

**Jim Baehren**  
Senior Vice President  
Strategic Planning and General Counsel

**Rich Crawford**  
Senior Vice President  
Chief Technology and Operations Officer

**Jose Lorente**  
President  
O-I Europe

**Al Stroucken**  
Chairman and Chief Executive Officer

**Ed White**  
Senior Vice President  
Chief Financial Officer

**Andres Lopez**  
President  
O-I Latin America

**Steve Malia**  
Senior Vice President  
Chief Human Resources Officer

**Erasmus Schutzer**  
Vice President  
Chief Marketing Officer

**Greg Ridder**  
President  
O-I Asia Pacific

**Miguel Escobar**  
President  
O-I North America







## Our Legacy

Innovation has characterized O-I since the company's inception. Glass pioneer Michael J. Owens founded the company in 1903, when he invented the automatic bottle-making machine. In 1929, Owens Bottle Company merged with Illinois Glass Company to form Owens-Illinois, Inc.

As the industry leader for more than 100 years, O-I has formed glass into effective and distinctive containers for some of the world's best-known consumer brands. Today, building on Michael Owens' heritage, O-I is redefining the future of glassmaking through a continued commitment to innovation, technology and sound environmental practices.