



Owens Corning: ‘Pink is the New Green’

As Mike Thaman, CEO of Owens Corning (Ticker symbol: OC), was preparing for the forthcoming Investor Day in November 2013, he felt gratified about how far they had come. His past decade navigating the company out of bankruptcy, first as CFO and then as CEO, had been grueling. Surely, questions about Owens Corning’s re-emergence, along with its future financial strategy, would still be top-of-mind for analysts. Thaman, however, wanted to provide a full assessment of his company’s priorities by also highlighting Owens Corning’s sustainability initiatives: what sustainability meant to the company, and why it was central to the business model.

He also wondered about the new direction the company’s sustainability strategies would take in the future. Rather than be constrained by the traditional approach of environmental footprint reduction (‘how can our operations be less bad for the environment?’), Owens Corning would focus on the more expansive view of whether and how the company could increase its ‘handprint’ (‘can our existence and growth mean more good for the environment, and if so, how?’).

Thaman recalled the questions he had, when he asked his Chief Sustainability Officer (CSO) Frank O’Brien-Bernini, to present the firm’s sustainability strategy to the company’s Board of Directors in 2010. Implementation of Owens Corning’s sustainability strategy was then still in early stages. Would the board think they were rushing into a strategy that might come into conflict with the business goals of the company?

The questions on Thaman’s mind now in 2013 were similar. Are investors and customers aware of the value and the benefits of a sustainability strategy, or would it all simply be dismissed as self-serving and inauthentic? Where should the company draw the line between seen as leading on sustainability versus taking it too far?

Overview of Owens Corning

In 1931, Games Slayter, a consulting engineer who had invented a method for blowing mineral wool insulation into houses, was hired by Owens-Illinois’ Vice President, C. B. Belknap under President William Levis.

In 1932, Dale Kleist, a young researcher who had worked for Slayter, was attempting to form a vacuum-tight seal by welding together glass blocks. When the jet of compressed air struck the stream of molten glass, fine glass fibers were produced – not what he expected. Kleist refined this serendipitous process by using steam (instead of compressed air) to condense the glass fiber resulting in a material thin enough to be used as commercial insulation.

In 1938, Owens Corning was formed in Toledo, Ohio, as a partnership between Corning Glass Works and Owens-Illinois, two of American's leading glassworks companies at the time.

Since then, Owens Corning has been at the forefront of most of the major advances in glass fiber technology. Through the years, the company's innovations have ranged from military applications during World War II and the fiberglass-reinforced Chevrolet Corvette, to the manufacture of materials for Apollo space suits, insulation of the Trans-Alaska pipeline and the fiberglass roof of the Haj Terminal in Saudi Arabia, to name a few.

The company was listed on the New York Stock Exchange in 1952. It began its expansion outside North America by expanding to Japan (1956), Mexico (1956) and Australia (1958). Owens Corning continued to grow rapidly through the 1970s and 1980s as the U.S. housing sector boomed. The company diversified its product offerings by adding roofing products and a wide array of composite products which fueled global growth. (See **Exhibit 1** for an overview of Owens Corning's history.)

Owens Corning Today

By the end of 2013, Owens Corning was expected to have revenues of over \$5 billion, and adjusted operating income of almost \$400 million. In early November 2013, the company's stock was trading at approximately \$36 per share, giving it a market capitalization of \$4.3 billion. (**Exhibit 2** summarizes Owens Corning's audited financials through the third quarter of 2013).

Owens Corning operates in two business segments, Composites and Building Materials. Composites manufactures and sells glass reinforcements in the form of fabrics, mat, veil, and other specialized products. Its products are used in pipes, roofing shingles, sporting goods, computers, telecommunications cables, boats, aircraft, defense, automotive, industrial containers, and wind turbine blades, among other applications. Building Materials is made up of two divisions, Insulation and Roofing. Owens Corning manufactures and sells insulation products as well as shingles and roofing accessories to insulation installers, home centers, lumberyards, retailers, and distributors. (See **Exhibit 3** for segment financials.)

Owens Corning's Current Product-Market Strategy

According to Thaman, "An investment in Owens Corning is an investment in good near-term and long-term macros: US housing, global industrial production, material substitution, and energy efficiency".

The insulation business is cyclical and tied closely to housing starts (remodeling activity does not typically involve extensive use of insulation). It is a capital-intensive business and is highly consolidated, with the top four players accounting for 90% of market share. Owens Corning is the largest maker of insulation (ahead of Johns Manville and CertainTeed), and is the second largest producer of extruded polystyrene insulation (behind Dow Chemical). The company maintains its competitive advantage by fostering energy efficiency collaboration and strong brand recognition with installers and end-users, and by developing close relationships with retailers of insulation products.

At the Investor Day, Thaman planned to lay out five key pillars of Owens Corning's current strategy. These included strategies on cash flows, investment grade balance sheet, acquisitions, safety improvements, and extending the company's sustainability impact.

Building the Sustainability Strategy

Setting Sustainability Goals and Defining Sustainability

The process began in 2004 when Frank O'Brien-Bernini, who was leading the company's R&D division, had begun a quiet campaign to integrate sustainability issues into the business strategy. After all, glass-melting is done at very high temperatures and requires tremendous amounts of energy. With energy costs rapidly escalating, how could Owens Corning reduce its energy consumption?

A team was formed to address this issue under O'Brien-Bernini's leadership. Quickly, the team set aggressive ten-year goals focused on seven specific areas, all related to the natural environment. The first two focused on conserving physical resources – energy and water – in the production of Owens Corning's products. The other five addressed the abatement of noxious by-products from the use of raw materials in Owens Corning's production process, namely, greenhouse gas (GHG) emissions, nitrogen oxide emissions (NOX), volatile organic compounds (VOs), particulate matter, and waste. (See details of Owens Corning's sustainability goals in **Exhibit 4**.)

The next step was to define 'sustainability' in simple terms, so that no one inside the firm could be confused about what it meant. Harking back to the classic definition detailed in the UN's Brundtland Commission Report¹ – and consistent with the one used by firms around the world – Owens Corning defined sustainability as "*meeting the needs of the present without compromising the world we leave to the future*".

Key Initiatives

To achieve its commitment to sustainability, OC implemented a series of market-facing initiatives to complement its footprint reduction initiatives:

- 1. Life Cycle Assessment (LCA):** The LCA process involved breaking down the activities contained in the production and usage of each product and identifying the impact of each activity on the environment. Full 'cradle-to-grave' assessments examined all stages of a product's life, starting with the extraction of raw material inputs, continuing through to processing, manufacturing, distribution, and product usage, and ending with disposal or recycling. Owens Corning planned to conduct LCAs for over 30 of its products by 2014, and committed to making these assessments public by 2015.

¹ On December 1983, Gro Harlem Brundtland, former Prime Minister of Norway, was tasked by the United Nations to chair the World Commission on Environment and Development. Its mission was to re-examine critical environmental and development problems around the world, and to formulate proposals to address them. This widely accepted definition came about as a result of the 1983 Commission's work.

2. Product Innovation: R&D would often work up new ideas that could be introduced into the product line-up, and at times, process innovations would be embedded in the manufacturing facilities. One example of such a product innovation was the reinvention of its best-selling pink insulation product, called EcoTouch™. It uses a bio-based, formaldehyde-free product/manufacturing platform and a minimum of 58% recycled glass content, in addition to meeting stringent certification standards for indoor air quality. (A more complete overview of the EcoTouch is provided later in the case.)

3. Energy Saving Products: The next area of focus was to develop products that would save consumers energy.

Insulation: A typical pound of insulation saves twelve times as much energy in its first year of usage as it does to produce it. That means the energy consumed during manufacturing is saved during the first four to five weeks of product use.

Roofing: The cool shingles made by the Roofing division use a highly reflective granule technology that reflects the sun's rays, helping keep roofs cooler, and reducing the need for air conditioning, particularly in older homes where adding insulation is architecturally impractical.

Composites: Fiberglass-reinforced composites can be light, insulating and resistant to corrosion, impact and heat. They can replace steel, aluminum, and wood in many products. One example is the use of Owens Corning's composite materials in wind turbine blades that allows for longer, lighter and more productive blades that can function at lower wind speeds.

4. Recycling: Owens Corning is one of the largest users of recycled glass in the world, using over one billion pounds annually of curbside consumer containers and pre-consumer recycled glass. Not only does this decrease community landfill waste, but it also lowers energy use when manufacturing insulation. In addition, the company is the first roofing manufacturer to establish a program for recycling shingles (which historically had gone straight to landfills). In 2013, the company recycled approximately 10% of the entire North American shingle waste through the networks it established.

5. Partnering For High-Performance Buildings: Owens Corning took on a leadership role to design better and more efficient buildings, collaborating with the building industry to design, build, and retrofit buildings for improved performance, while adhering to standards such as the LEED program and the National Green Building Standard. The company also published (and distributed via a free mobile app) a comprehensive Residential Builders Guide, detailing design solutions for all performance levels and climate zones, to enable high performance buildings to gain scale (including net-zero energy designs).

Owens Corning's Global Reporting Initiative (GRI)

The Global Reporting Initiative (GRI) is a standardized corporate reporting framework designed to enhance environmental sustainability and corporate social

responsibility transparency by organizations worldwide. It is now widely used by leading firms throughout the world.²

Each year since 2006, Owens Corning has published an annual sustainability report, with information on its efforts to reduce its environmental footprint, as well as how the company supports local communities and ensures a safe work environment for its employees. The company's GRI reporting covers strategy, financial performance, corporate governance, stakeholder engagement, and environmental performance (including materials/energy/water use, biodiversity impacts (emissions, effluents and waste), labor practices, human rights, and corporate social responsibility issues. (A summary of some key components of Owens Corning's 2012 GRI report is shown in **Exhibit 5**.)

Implementing the Strategy

When Thaman and O'Brien-Bernini set out to implement the strategy, they recognized the need to be measured, data-driven, and deliberate. In order to gain credible acceptance from employees and all other stakeholders, they focused the initial efforts in four areas: 'greening' the company's products and processes, getting middle-management buy-in, building sustainability-related concerns into the company's capital budgeting processes, and incorporating sustainability goals into managerial performance evaluation.

'Greening' the Company's Products

Beyond their focus on footprint reduction, one of the first steps was to launch a "Green Beauty Contest". This involved a competition between Owens Corning's products and services, using the green product expectations of their customers (e.g. green building program point structures). The competition focused on three key ideas, in ascending order of desirability:

- 1) *Never get "de-spec'd"*: Make sure that no green building program will disallow one of Owens Corning's products on account of its specifications. For example, the LEED (Leadership in Energy & Environmental Design), a green building certification program that recognizes best-in-class building strategies and practices, may not offer points for insulation containing formaldehyde, so that would have to go.
- 2) *Achieve "as-equal" spec status*: Assure all products have specifications on par with other products in the marketplace. Essentially, don't get passed over and let a competitor win a bid because they have green attributes that Owens Corning does not.

² GRI was founded in Boston in 1997. It has roots in a US non-profit organizations, the Coalition for Environmentally Responsible Economies (CERES), and the Tellus Institute. GRI now partners with the United Nations Environment Program, the United Nations Global Compact, International Finance Corporation, and the International Organization for Standardization's ISO 26000. Globally, in 2013, over 6,000 companies filed some form of GRI report.

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- 3) *Achieve “hard-spec” status*: Because of their performance, durability, safety, brand name, and green attributes, customers will “hard spec” – actively choose, and set as standard – Owens Corning’s product by name over other products.

Getting Middle Management Buy-In

Middle managers were responsible for designing products, managing facilities, making purchasing decisions, and marketing Owens Corning’s products to consumers – in other words, running the daily aspects of the business. According to Thaman, “You have senior managers who have been shaped by a long career, and even though they may not have come to believe in sustainability on their own, I had direct access to them on a regular basis. I was able to get them on board. Then you have younger, early career employees shaped by the world they grew up in before Owens Corning. They got what we were trying to do right away. But middle managers were harder to convince. Plant managers, for instance, would tell us that they have to deliver certain levels of productivity at certain costs and feared another initiative.”

Thaman began to compare sustainability initiatives to the safety initiatives that began to sweep corporate America in the 1970s. Once managers saw that safety not only mattered to themselves and their employees, but also to the company as a whole, they began to embrace the idea wholeheartedly. Thaman focused on making the point that sustainability was essentially a way of working to improve the safety of the natural environment. He also thought that the same type of rigorous and repeatable actions that were used to improve safety should be employed in the case of sustainability. Thaman believed that acting in a sustainable way and making decisions to that end could become habitual within all of Owens Corning’s business units.

Building Sustainability into Capital Budgeting

Once the foundation for sustainability had been laid, the expectation was that sustainability goals would be treated similarly to any other business goal. Capital expenditure, SG&A, and R&D resources would flow toward those projects that had the ability to meet or exceed ‘all-in’ business goals, i.e., goals that included not only financial, but also sustainability metrics.

Initially, the CSO or another member of the senior management team would sit in on budgeting meetings with each division, to ensure that sustainability goals received the same attention as other goals. Over time, divisional managers would be expected to develop the capability to independently manage sustainability goals, without needing as much guidance as they once did.

Owens Corning planned to evaluate sustainability initiatives no differently from any other capital project by 2014. No additional corporate funding would be required to get buy-in.

Building Sustainability into Managerial Performance Evaluation

Early in the implementation process, Owens Corning decided to integrate its sustainability goals into its performance measurement system. As with any other goal, managers were given specific objectives (for example: creating a differentiated product position through a product's green attributes; lowering emissions from a certain process so as to obtain a permit for capacity expansion; or meeting a sustainability goal that had been committed to externally).

Goals related to sustainability were phrased similarly to any other goal, be they financial, operational, or otherwise. After nearly a decade of this approach being embedded in performance measurement, managers now recognize that progressive leadership responsibilities require they demonstrate their ability to perform against 'all-in' objectives. Owens Corning has come to call this the "and" expectation: you are expected to hit your financial goals "and" meet the company's sustainability goals.

As Thaman noted, "if you just don't get it with regard to all of the goals – including sustainability goals – you'll be passed over for key leadership roles at Owens Corning."

Selling it to the Board

By 2010, OC's sustainability efforts were beginning to reach the point where the company felt ready to seek external validation, specifically starting with placement on the Dow Jones Sustainability Index.³ It was at this point that O'Brien-Bernini began to pressure Thaman to take it to the Board.

The discussion with the board began session with an exercise that required each Board member to define what 'sustainability' meant to him or her. As the discussion progressed, the exercise slowly led to the notion of "meeting a customer's present needs, without compromising Owens Corning's ability to meet future customer needs," essentially a variant of the Brundtland definition that Thaman and O'Brien-Bernini had favored right from the outset. Thaman simply asked the board, "Is there anybody here who can't support that?"

The answer was unanimous.

An Example: The Launch of EcoTouch

In January 2011, Owens Corning re-launched the product that put the company on the map, its pink insulation. The replacement was called EcoTouch, and it had the same insulating capacity and acoustical qualities as the older product, and was no more difficult to install than the prior pink insulation that builders were accustomed to. Essentially, an installer would be unable to tell the difference between the old and the new.

³ The Dow Jones Sustainability Indices (DJSI) were launched in 1999 as the first global sustainability benchmarks. They track the stock performance of the world's leading companies in terms of economic, environmental, and social criteria. The indices serve as benchmarks for investors who integrate sustainability considerations into their portfolios, and provide an effective engagement platform for companies who want to adopt sustainable best practices.

Yet, EcoTouch included at least 50% total recycled content, was 100% formaldehyde-free (an important consideration for use in schools to reduce children's exposure to hazardous chemicals), contained more than 99% natural ingredients (materials consisting of minerals and plant-based compounds), and conformed to all major green building certifications, including ENERGY STAR and LEED.

In other words, EcoTouch performed in exactly the same way as the original product, with significantly improved environmental attributes. In launching it, two key decisions had to be made. Should Owens Corning launch a "niche" product alongside the old product, or should they replace the old altogether? And, how should they price it?

The company conducted extensive market testing, including surveys, focus groups, and on-site demonstrations to determine how installers and end-users would perceive the new product. They determined that most product decisions were made by the installer, and that end-users were typically not involved. The installer's first priority was to make sure the product worked effectively, and was easy to install.

To its surprise, the company heard strongly from installers that they would, indeed, place a high priority on 'green' attributes, since these would help them achieve certifications such as LEED and ENERGY STAR. But despite the positive reviews, only 10% would be willing to pay more. These findings led Owens Corning to adopt a launch strategy boldly titled "*Green Without Compromise*". Instead of launching what might be seen as a new niche product, they would replace their entire insulation line with EcoTouch. Moreover, it would be priced at the exactly same level as the product that it replaced.

According to O'Brien-Bernini, "I can say that EcoTouch has been widely embraced by our customers. Some, who stock competitors' products in their warehouses, tell us that their installers crawl over the competitor's products to get to ours...making it hard for them to get rid of the inventory of older product."

The Next Steps: 'Handprints', Not Just 'Footprints'?

Frank O'Brien-Bernini continues to push Owens Corning's corporate sustainability initiatives in a new direction. The new emphasis would be on whether the company can increase its 'handprint,' rather than just reduce its footprint. This would result from asking and answering whether Owens Corning's operations and products create a *net-positive* impact in the built environment. In other words, rather than constrain itself to addressing how Owens Corning can be 'less bad' for the environment, can the company make a proactive case for whether and how its existence and growth could actually mean 'more good'?

Handprinting would involve initiating a data-driven effort to quantify 'net-positive' outcomes of Owens Corning's operations and products. (See **Exhibit 6** for the differences between handprinting and footprinting.)

Implementing Handprinting Strategies

The thought process behind this had started as early as 2011, but it was only recently that Owens Corning set out to create preliminary handprinting targets for its divisions.

Specifically, Insulation would focus on energy efficiency improvements in buildings, Composites on vehicle light-weighting technologies, and Roofing would address end-of-life shingle recycling and recovery to be used for road-paving or other high value applications.

Take the example of insulation. The energy required to make, distribute, and install insulation for a two-story, 2,400 square-foot house is equivalent to that needed to drive an average car across the US from New York to San Francisco, or 3,000 miles. However, over the life of a typical building, the energy saved through the use of Owens Corning's insulation would take the same car to the moon and bring it back, five times over.

Says O'Brien-Bernini: "When we look at the opportunity to have a big impact, I would much rather focus on doubling the energy efficiency of a house, and therefore, on selling more of our products to put into it. The world needs us to be focused more on that than just on reducing the footprint of manufacturing and selling our product. The economic, social, and environmental payoff is much, much greater."

On the one hand, Thaman and O'Brien-Bernini believed that what they were setting out to do – trying to make the case for net positive strategies – was a far-reaching approach that could enhance the direction and impact of corporate environmental strategies. On the other hand, they worried about risks inherent in being seen as making inauthentic claims, opening up the company to criticisms such as 'greenwashing' or attempting to make a virtue out of a necessity.

Exhibit 1: Timeline of Major Events in Owens Corning's History

Year	Event
1938	Owens Corning formed
1952	IPO in NYSE
1956	International expansion to Japan and Mexico
2000	Filed Chapter 11
2002	Baseline year for Owens Corning's first 10 year sustainability goals
2006	Exit from bankruptcy
2011	Sustainability leaders adopt handprinting strategy
2012	First 10 year goals met and 2020 goals externally communicated

Sources: www.owenscorning.com; <https://www.capitaliq.com>; www.bloomberg.com

Exhibit 2: Owens Corning's Key Financials: 2010-13
(US \$ millions, except-per-share amounts)

	<i>2013*</i>	<i>2012</i>	<i>2011</i>	<i>2010</i>
Net sales	4,017	5,172	5,335	4,997
Cost of goods sold	3,284	4,375	4,307	4,047
Selling, general, admin and R&D	452	649	567	744
Earnings before interest and taxes	281	148	461	206
Interest expense	87	114	108	110
Net earnings (loss)	123	(93)	276	933
Total assets	7,727	7,568	7,527	7,158
Long-term debt	2,175	2,076	1,930	1,629
Total equity	3,651	3,538	3,701	3,686

* Through the first three quarters, ending September 30, 2013.

Sources: www.owenscorning.com; SEC filings

Exhibit 3: Financial Performance and Market Share of Owens Corning's Divisions

Owens Corning Division	2012		2011		2010	
	Revenue	Margins*	Revenue	Margins*	Revenue	Margins*
Insulation	\$1,468	-2.6%	\$1,368	-7.1%	\$1,309	-7.8%
Roofing	\$2,014	16.4%	\$2,169	19.8%	\$1,847	21.9%
Composite	\$1,859	4.9%	\$1,976	10.2%	\$1,906	9.2%

* 'Margins' refer to Operating Income as % of Net Sales.

Sources: www.owenscorning.com; SEC filings; Company interviews.

Exhibit 4: Owens Corning's First and Second Ten Year Sustainability Goals
First Ten Years

Sustainability	Global Intensity (2002-12)	
	Goal	Achievement by 2012
Energy	-25%	-30%
Greenhouse Gas	-30%	-34%
Nitrogen Oxides	-25%	-74%
Volatile Organic Compounds	-25%	-33%
Particulate	-20%	-36%
Waste to Landfill	-35%	-35%
Water	-15%	-38%

Second Ten Years

Sustainability	Global Intensity (2010-20)	
	Goal	Progress thru 2012*
Primary Energy	-20%	0%
Greenhouse Gas	-20%	-12%
Particulate Matter 2.5	-15%	-12%
Toxic Air Emissions	-50%	-44%
Waste to Landfill	-70%	-16%
Water	-35%	-9%

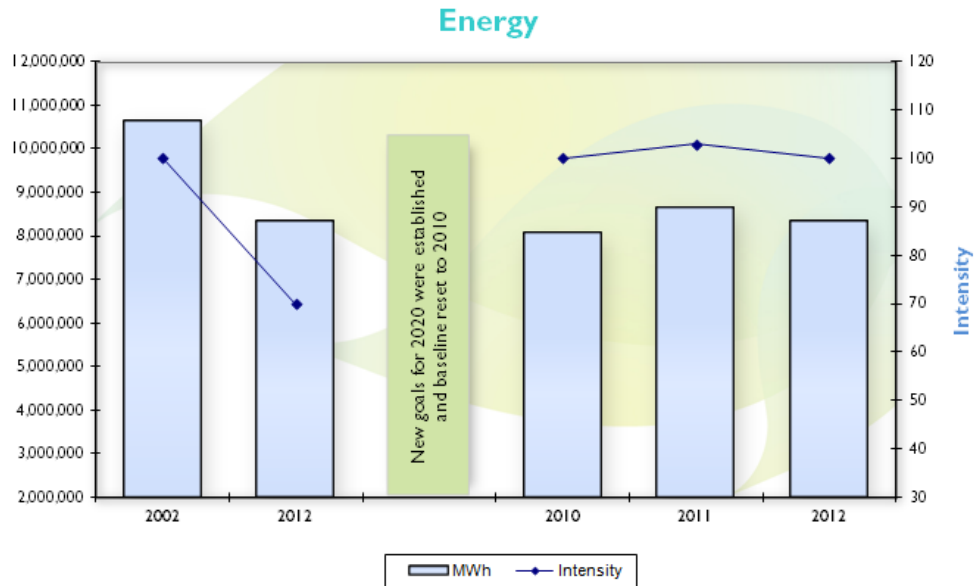
*Estimated

Source: www.owenscorning.com; Owens Corning investment day presentation

Exhibit 5: Summary of Owens Corning's Global Reporting Initiative (GRI) Report*

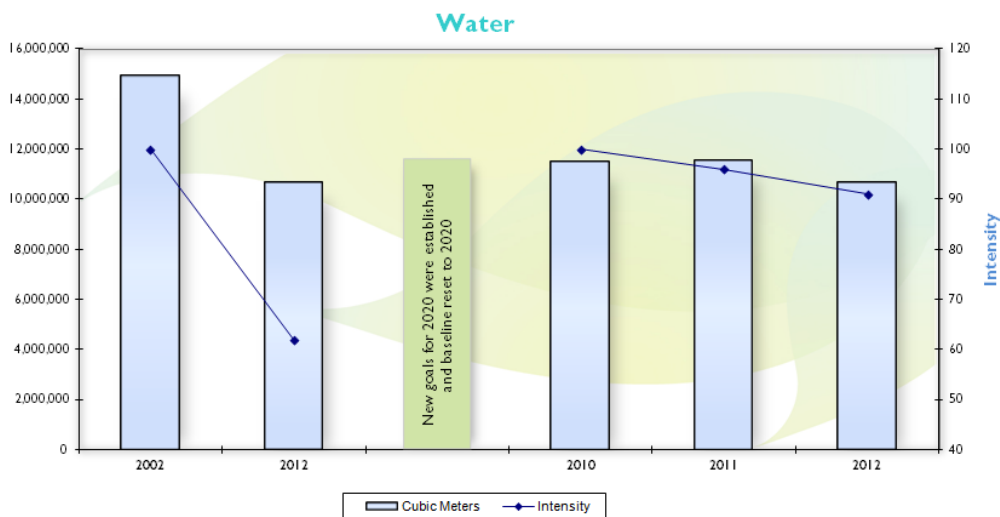
Energy

Owens Corning aims to reduce energy intensity including expansion of fuel cell applications, combined heat and power, and renewables.



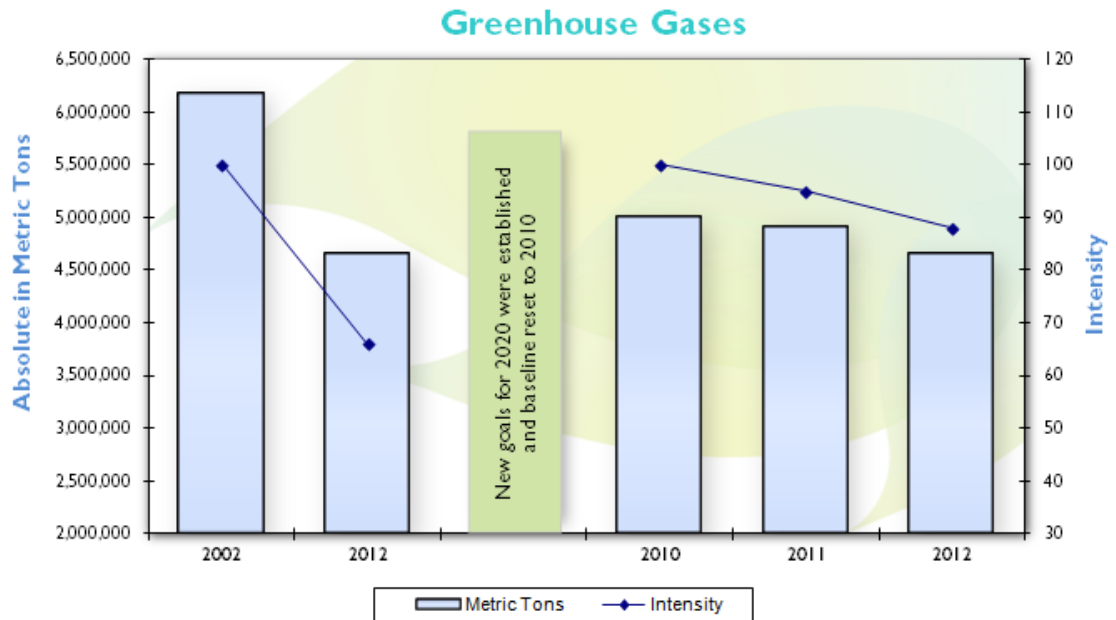
Water

Owens Corning aims to reduce water usage by finding leaks and other unnecessary water usage and fixing them.



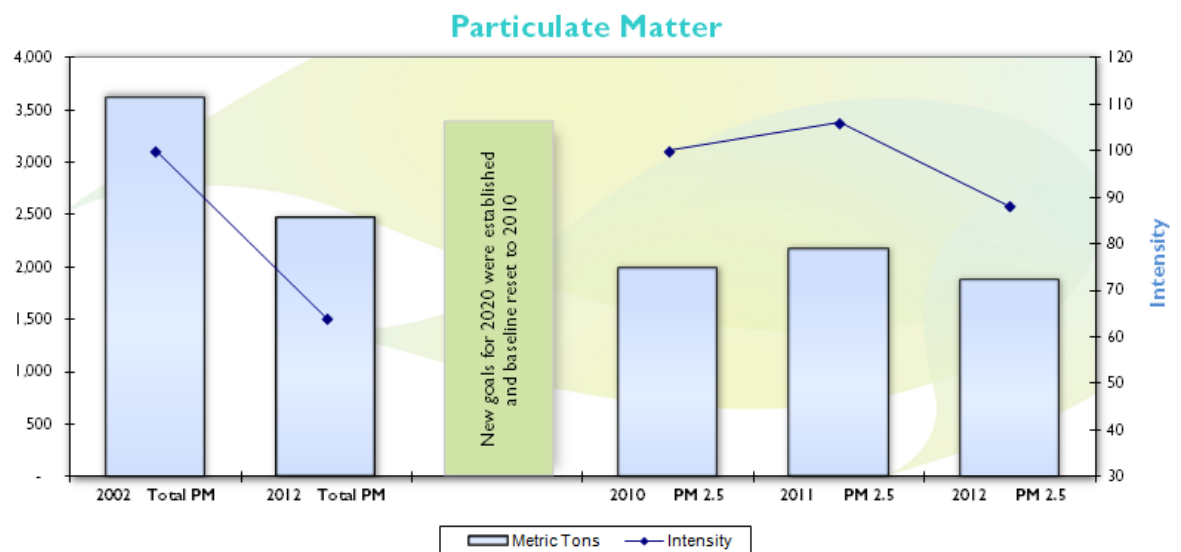
Greenhouse Gases

Owens Corning aims to reduce greenhouse gas intensity via energy efficiency, fuel switching, renewables and lower GHG blowing agents in its foam products.



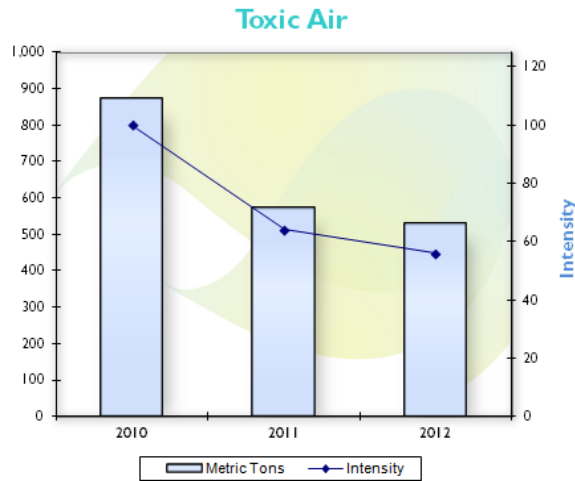
Particulate Matter

Owens Corning aims to reduce particulate matter emission by capturing more synergies between greening products and greening operations.



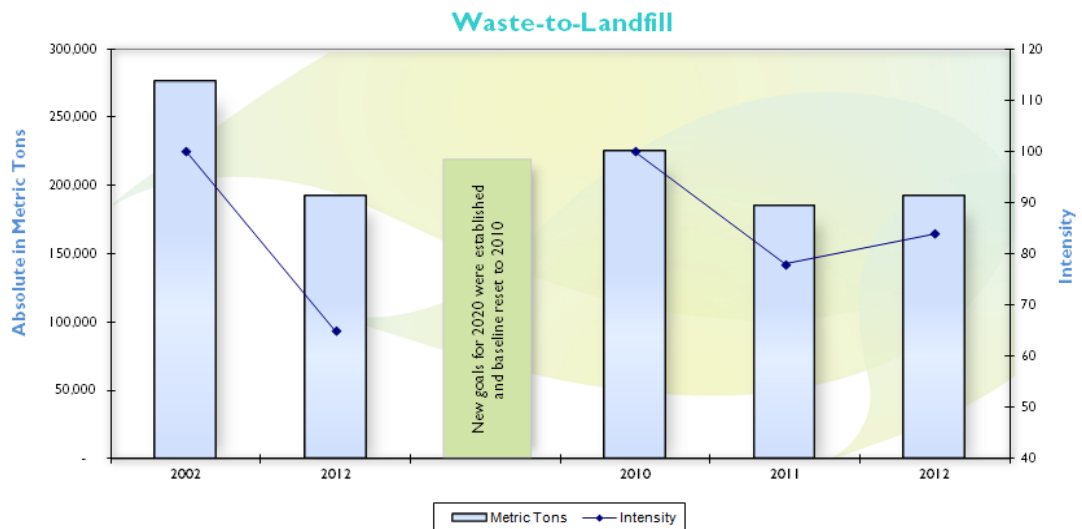
Toxic Air

Owens Corning aims to reduce toxic air emission by improving product design and innovation.



Waste-to-Landfill

Owens Corning aims to reduce waste-to-landfill by reducing the generation of waste in production, increasing recycling, and creative reuse (in collaboration with partners).

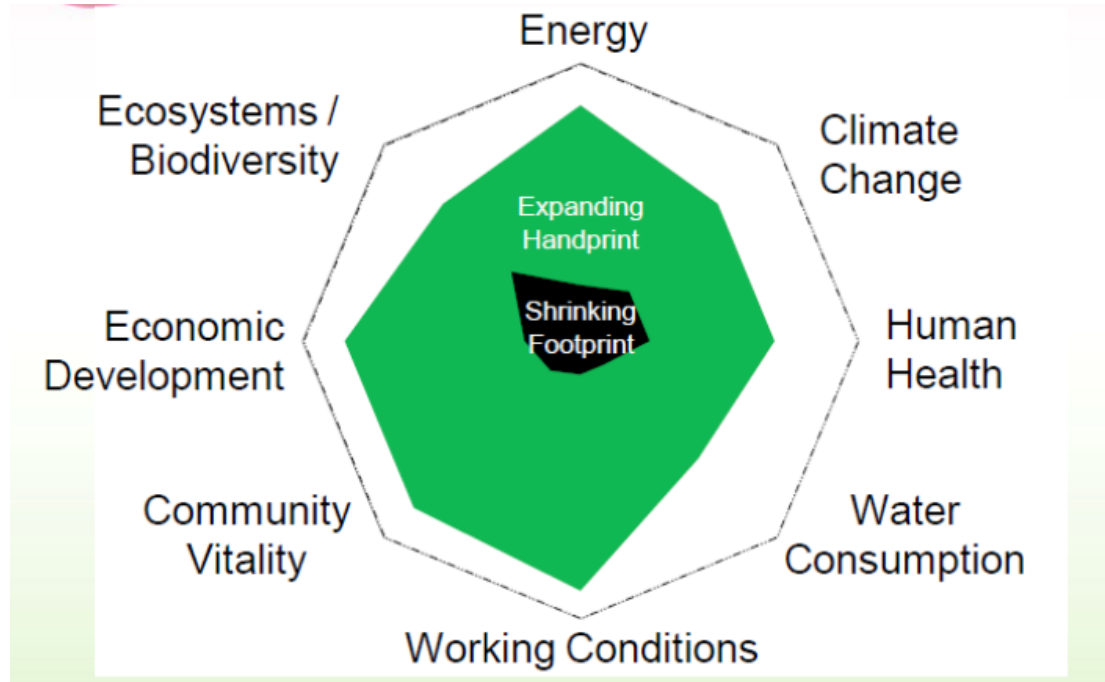


Access the online version here: <http://sustainability.owenscorning.com/contents/global-reporting/>

Note: The Global Reporting Initiative (GRI) is a leading organization in the sustainability field that promotes standardized corporate sustainability reporting worldwide.

Sources: Company website; www.globalreporting.org

Exhibit 6: Concept of Owens Corning's Handprint Strategy



Sources: www.owenscorning.com; Owens Corning investment day presentation; Company interviews