

Building a Net Positive Company: Driving Sustainability across the Value Chain

Owens Corning is a leading producer of residential and commercial building materials including insulation and roofing, and fiberglass composites for products such as automotive parts, commercial wind turbines, and consumer electronics. Founded in 1938, the company's global operations span North and South America, Europe and the Asia-Pacific.

Sustainability is at the heart of our business, from the products we make to the way we make them. We use our deep expertise in materials, manufacturing, and building science to develop products and systems that save energy and improve comfort in commercial and residential buildings. Our glass reinforcements business helps us make thousands of products lighter, stronger, and more durable.

We reduce the company's environmental footprint by delivering energy efficiency and durable material solutions at scale, supporting local communities, and ensuring safe work environments. Furthermore, we constantly set goals to measure, reduce, and report our footprint. At the same time, we are committed to the goal of expanding our handprint around the globe, offering solutions for some of the world's most pressing issues such as climate change, energy consumption, infrastructure development, and safe, healthy and efficient homes. Backed by the science of climate change, we are taking aggressive actions in our operations to reduce our environmental impact, well in advance of public policy.

In keeping with our philosophy, we are committed to objectively identifying material issues and evaluating the level of impact across our value chain. As part of our sustainability process, we conducted an extensive materiality assessment that covers the entire spectrum of operational, environmental, economic, and social impact created by our organization. This report provides a snapshot of our materiality assessment journey and highlights the results of our new materiality matrix for 2015-16.

Nurturing the lives of those impacted by our business – this is the fundamental value that helps us find opportunity in every issue, and in turn improve our business operations. Our mission is to make the world a better place by becoming a net positive company through social responsibility, innovation, collaboration, and sustainability across operations, products, and supply chain

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Materiality Assessment 2015-16: Benchmarking against the Global Reporting Initiative (GRI)

We conducted a comprehensive materiality assessment exercise benchmarked against the most recent, fourth generation of Global Reporting Initiative (GRI) guidelines – GRI-G4 that emphasize stakeholders as the primary driver for materiality. Through this initiative, we aim to report the positive and negative impact of all our business operations on the economy, environment, and society.

At Owens Corning, we are focused on creating robust business and reporting strategies that align effectively with the needs and priorities of our company and stakeholders. We do this by investing substantial time and effort in understanding, prioritizing, and addressing material issues, as well as reporting on them effectively. In order to stay in lockstep with the changing business context, stakeholder requirements, and emerging trends, we regularly review and update our material aspects.

GRI's G4 guidelines define material issues (or material aspects) as *“those that reflect the organization’s significant economic, environmental and social impacts; or that substantively influence the assessments and decisions of stakeholders.”*

Moving in Tandem with the Evolving Business Landscape: Materiality Refresh

In late 2013, Owens Corning partnered with a consulting group to create a materiality matrix based on the input gathered from over 80 internal and external stakeholders through interviews and an electronic survey. While our external stakeholders included builders, contractors, customers, investors, non-government organizations (NGOs) and suppliers, our internal stakeholders comprised a broad expanse of our employees. The study was based on best practices published by the Sustainability Accounting Standards Board (SASB), CDP (formally known as the Carbon Disclosure Project), Global Reporting Initiative (GRI), and the World Business Council for Sustainable Development (WBCSD) Vision 2050. The materiality assessment exercise helped us define 22 medium-to-high criticality materiality topics, which were categorized into four areas – *increasing handprint, decreasing footprint, product responsibility, and social responsibility*. Finally, our key leadership team worked together to review and prioritize the efforts of the company, and strengthen our sustainability strategy based on the identified material aspects.

To ensure the continued relevancy of our materiality assessment reporting process, we partnered with Tata Consultancy Services (TCS). TCS helped reassess our material issues by collecting internal and external perspectives on our most critical issues through an intensive four-step process spanning a year (April 2015 and March 2016).

Choosing our Sustainability Priorities: Approach to Materiality Assessment: G4-24, G4-25, G4-26

We adopted a structured approach to materiality assessment by identifying a broad umbrella of relevant issues, and prioritizing them based on the changing business needs, stakeholder feedback, and emerging trends. Some of the distinctive features of our materiality assessment process are highlighted here.

Engaging with Stakeholders

We believe that stakeholder engagement processes empower us to refine our strategies and identify additional opportunities for collaboration. The stakeholder engagement exercises conducted as part of materiality assessment reflect our cherished values of transparency and accountability in business operations. It provided us with an opportunity to gather feedback from our stakeholders on material issues that matter the most to them, and collaborate with them to address the issues and maximize performance.

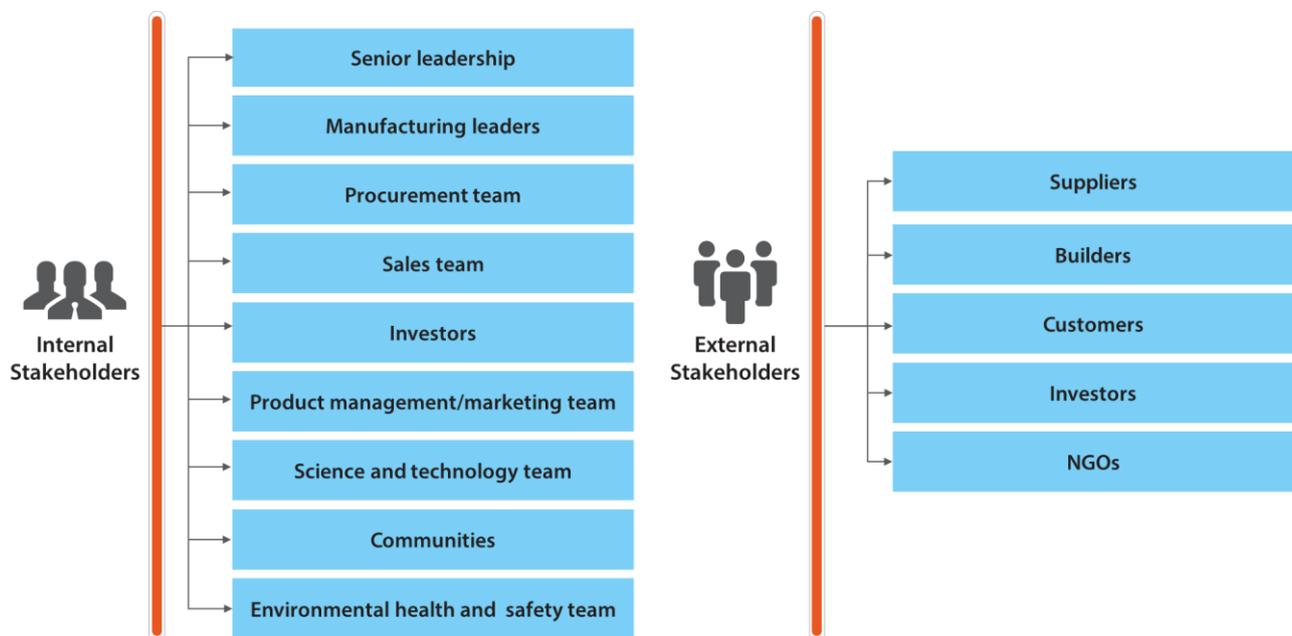


Figure 1: Stakeholders engaged during the materiality assessment process

As part of our first materiality study initiated in 2013, we began identifying relevant stakeholders. A value chain map helped us determine the stakeholders who are the most relevant to us. Based on the results of the map, we interviewed both **internal** and **external stakeholders** (Figure 1). We further expanded on those initial interviews by asking additional questions and incorporating additional stakeholders. The results of these interviews have been used in our transition to G4 for our 2016 report. A chart listing all the Stakeholders interviewed is included in Appendix 2.

Key Stakeholder Voices:

“

We have appreciated over the years, your ability to work with supply strategy sourcing dynamic technology so that we can continue to drive down the globalized cost of wind energy

– Composites Customer

”

“

“We recognize that it is not merely sufficient to reduce our footprint on the planet, but must also expand our handprint through our strategies and actions.”

– Vice President, Sustainability

”

“

“Safety goals are embedded in the organization. Public targets are communicated”

– Director of Environmental, Health and Safety

”

“

“It is important for us to understand the oversight of issues and risks at the board level (how are these risks managed, and who is accountable).”

– Investor

”

“

“Waste to landfill will be the biggest challenge. By 2020, Owens Corning wants to reduce waste to landfill intensity by 70%. Being able to achieve that is dependent on waste glass from the production process. We’re trying to find alternate uses for waste glass.”

– Environmental, Health and Safety Leader

”

Arriving at the Materiality Matrix: G4-19, G4-27

Our materiality matrix is aligned with our key business and operational risks. It influences and shapes our sustainability strategy, defines our approach to sustainability reporting, and works as an effective tool to manage our sustainability agenda. The following four steps (illustrated in Figure 2) helped us arrive at the materiality matrix for 2016.

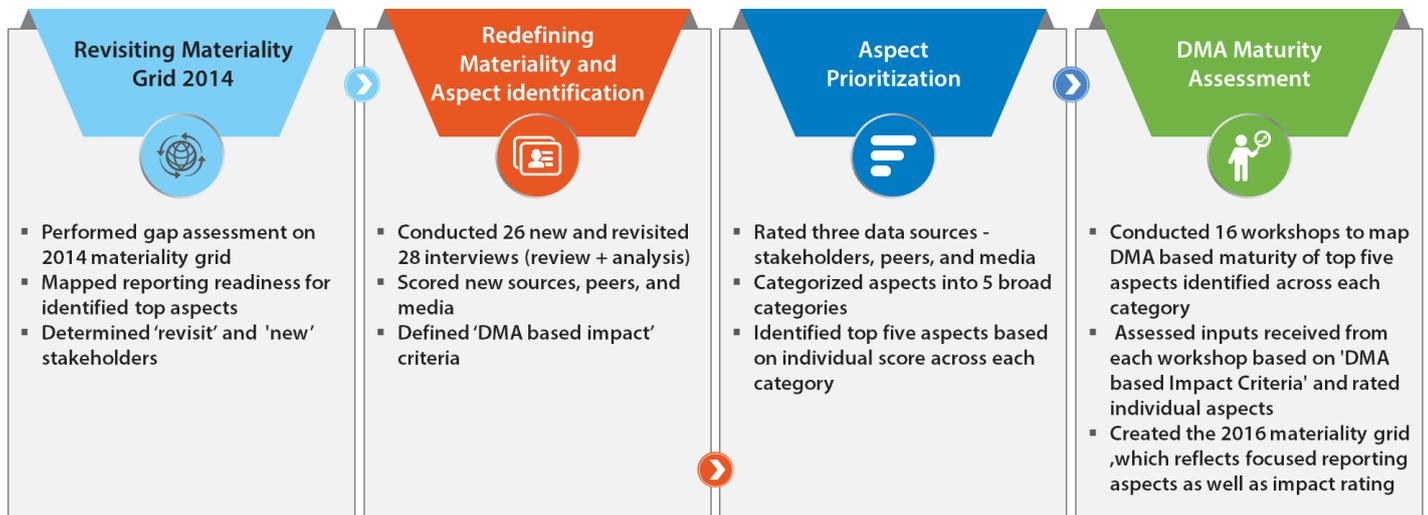


Figure 2: Four-step materiality assessment process: A snapshot

Step 1: Revisiting Materiality Grid 2014

We kick started our materiality assessment by analyzing the materiality matrix for the previous year and identifying the gaps in the same. We identified two major gaps through the analysis:

- A few aspects classified as high priority were in fact not relevant to the company's operations anymore
- A comprehensive impact assessment was not conducted to assess how we can improve the performance of each aspect

Step 2: Redefining Materiality and Aspect Identification

In this step, we revisited and retraced the materiality matrix. Along with existing data gathered from the interviews conducted in the previous year, we identified and engaged with a new set of stakeholders to arrive at a revised list of material aspects.

We based the aspect identification process on a three-pillar analysis as depicted in Figure 3.



Figure 3. Three-pillar analysis for aspect identification

Step 3: Narrowing Down the Top 16 Aspects

Some of the major processes in this step included aspect prioritization, threshold definition, identification of 16 top material aspects, and review and classification of the top 16 aspects into four key themes.

Aspect Prioritization

We employed the following methodologies to choose the scoring criteria for each pillar and prioritize the different aspects gathered from interviews, and peer and media analyses.

Repetition-based score for stakeholder feedback and interviews: We scored each aspect based on the number of times it was repeated across all interviews.

Weightage average for peer review and best practice norms: Each aspect was scored based on a weighted average of the peer's weightage factor (based on type of competitor) and aspect importance score (very high, high, medium, and low) in the peer's materiality grid. A higher weightage factor was assigned to peers who had the same product line as our company than those competing in the Dow Jones Sustainability Index.

Perception-based score for media analysis: We rated media aspects based on perception to depict the strength of positive and negative sentiments expressed by stakeholders over the study's duration.

Definition of the Threshold

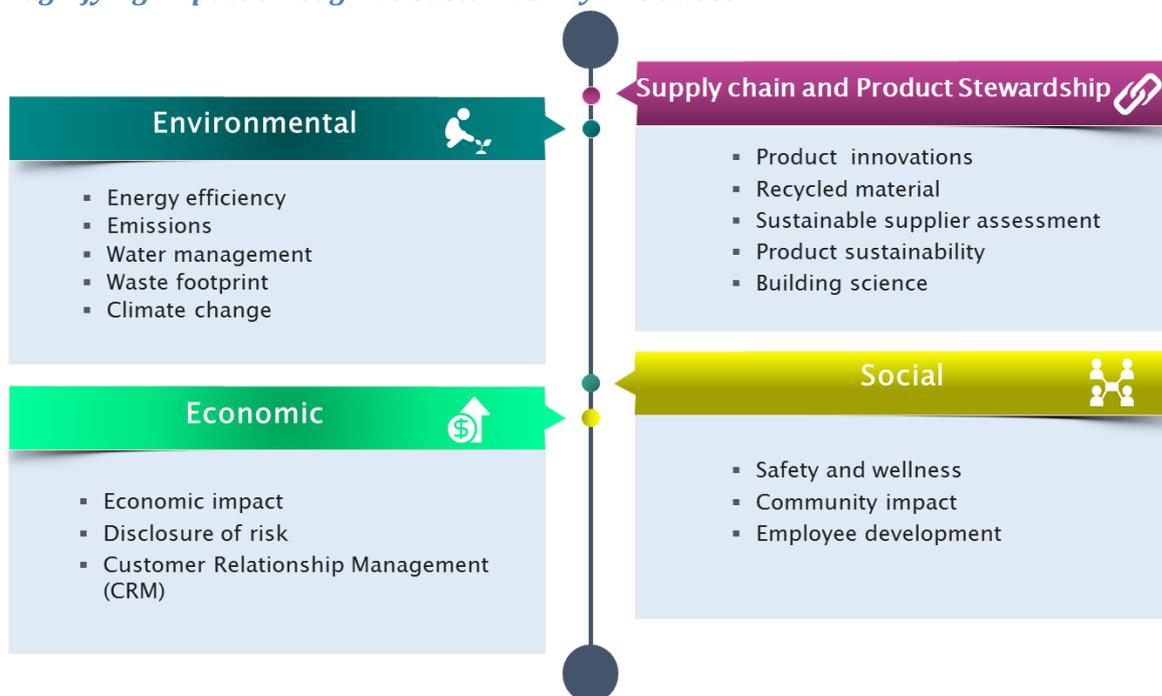
We consolidated and normalized the scores derived for each aspect from all three analyses to create a list of 56 aspects. These aspects were further split into four broad categories –environmental, supply chain

and product stewardship, economic, and social. Following this, we selected the top aspects above a threshold score from each category, arriving at 16 aspects to consider for further analysis.

Review and Classification of Important Material Issues

The 16 material aspects were classified into four key themes or issues shown in Figure 4. For further details on the material aspects included in the old and new grids and their priority, please refer to Appendix 1.

Magnifying Impact through 16 Sustainability Initiatives



At Owens Corning, we believe that responsible business operations can go hand in hand with high performance and profitability. It is this strong belief that helps us make sustainability one of our company values.

Figure 4. Four key themes or issues under which the 16 identified material aspects were classified

In this section, we take a look at some of our top initiatives across the 16 material aspects classified under four key themes – environmental, supply chain and product stewardship, economic, and social. These initiatives enable us to find answers to these critical questions: *How do we responsibly manage the impacts of our operations? What is the life span of a new innovation? How do we communicate with credibility? How do we nurture a handprint mindset within our company?*

- 1. Energy efficiency:** We constantly strive to decrease our dependence on fossil fuels by leveraging alternative and renewable sources. We are focused on nurturing a portfolio of projects to reduce energy costs and usage, backed by our renewable energy sourcing

strategies. By 2020, we aim to reduce our primary energy intensity (energy used per unit of product) by 20%.

2. **Emissions:** One of our primary targets is to reduce greenhouse gas intensity by 50% and toxic air emissions intensity by 75% from our 2010 baseline figures. Apart from these, we are also working to reduce fine particulate matter released into air.
3. **Water management:** Our water conservation and risk mitigation programs driven by plant-level efforts and engagement help reduce our water footprint. A deep understanding of water use, quality, and preservation enable us to achieve our water management goals.
4. **Waste management:** By 2020, we aim to reduce the amount of waste to landfill (WTL) intensity (i.e., WTL disposed per unit of product) by 70%. Our efforts are also focused on responsibly managing waste and the destination for waste depending on the quality or type. We continue to develop mechanisms that produce less waste in our processes.
5. **Climate change:** Our products and policies are driven by our overarching aim to safeguard, sustain, and improve the environment. We keenly focus on accelerating energy efficiency improvements, renewable energy deployment, and greenhouse gas (GHG) emission reductions to reduce the impact of our operations and activities on global climate change.
6. **Product innovation:** Since Owens Corning was founded in 1938, the company has continued to grow as a market-leading innovator of glass fiber technology. Our product portfolio has advanced over the years, reflecting our customers' growing needs for quality, value, and performance.
7. **Recycled material:** We are one of the largest users of recycled glass for insulation products. Our process recycling focuses on recycling used material or byproducts in the production process. Additionally, we have established a program for contractors and homeowners to recycle shingles and after tear-off as part of our end-of-life products recycling.
8. **Supply chain sustainability:** As part of our supply chain initiatives, we have made significant progress in cleansing spend data and implementing governance processes, and measuring risk and supplier information by leveraging external data resources. We have developed new spend analytics dashboards and reports using SAP business intelligence tools traceability, transparency, and to assist in the measuring the impact of suppliers. This helps us measure progress of our suppliers, foresee risks and identify opportunities for partnerships to improve social, environmental and economic results.
9. **Product sustainability:** We have been successful in ensuring a total lifecycle sustainability net-improvement for 61% of new products and 50% of new applications for our products.

Furthermore, our team has created a comprehensive and user-friendly sustainability mapping tool. We have also expanded our positive impact by embracing new product designs that use less material.

- 10. Economic impact:** Our product mapping efforts have a deep impact on the economy. We constantly assess market conditions, and the impact of our products on the industry as well as the society. We are dedicated to being economically healthy having minimal environmental impact while leaving a positive stamp on our local communities.
- 11. Disclosure of risk:** We have a transparent policy for effective disclosure of identified risks and issues that impact our organization through stakeholder engagements and other communication. Our risk committee reviews the Owens Corning Risk Register and based on the findings, it identifies and implements the mitigation actions through the various business units.
- 12. Customer Relationship Management (CRM):** We have sound practices, strategies, and technologies in place to manage and analyze customer interactions and data throughout the customer lifecycle. This enables us to strengthen business relationships with customers, and improve customer retention.
- 13. Building science:** Through sustained partnerships with customers, specifiers, architects, and builders, we hope to drive net-zero energy building capabilities, thereby achieving no net carbon releases. We also aim to expand our building science expertise to educate the building industry, engineers, contractors, and homeowners on safe and efficient building materials.
- 14. Safety and wellness:** We promote the health and wellbeing of employees by providing safe working conditions, flexible work arrangements, and more. We constantly promote preventive care, healthy mind, physical activity, nutrition, and a tobacco-free life.
- 15. Community impact:** As part of our economic and community development initiatives, we have established baseline measures for community vitality of the regions in developing countries where our facilities operate. Furthermore, our charitable partnerships and product donations enable us to provide safe and efficient housing for those in need.
- 16. Employee development:** We are focused on attracting and retaining a workforce that enables us to better meet our customers' needs and market trends. We also work towards fostering greater diversity in our global workplace.

Step 4: Maturity and Impact Assessment

An integral part of the G4 guidelines is the Disclosure of Management Approach (DMA), according to which organizations need to explain how they manage the social, economic, and environmental impacts of their material aspects.

We conducted a DMA maturity assessment to analyze how we are currently managing the impact of each of the top 16 aspects identified and our readiness to report on these aspects in public forums. We analyzed our current goals, policies, and evaluation mechanism at the aspect level by conducting 16 workshops involving senior leadership. Based on the existing system and processes in place, we scored each aspect on a five-point scale using the scoring criteria defined by TCS.

DMA Maturity Assessment	1	2	3	4	5
Impact	No awareness on impact	Identified areas where organization makes an impact	Categorized the impact	Defined the process for rating the severity of impact	Communicated the impact to relevant stakeholders
Organization's approach	No defined policy and goals in place	Defined policy to manage impact of issues	Defined policy, and established goals and specific programs	Established multi-disciplinary team with designated responsibilities	Communicated the impact to relevant stakeholder
Monitoring mechanism	No defined metric for performance measurement	Established internal monitoring and external measurement system	Established internal and external monitoring mechanism	Ensured a system for frequent review of performance results at corporate level	Reported performance results on public platforms



Lowest
Highest

The Results: Our New Materiality Matrix

We plotted the material issues and their ratings arrived through DMA maturity assessment on a materiality matrix. The internal stakeholders are represented on the X-Axis, the external stakeholders on the Y-Axis, and the impact of material issues on the Z-Axis (the size of the bubble indicates our maturity with reference to these aspects)

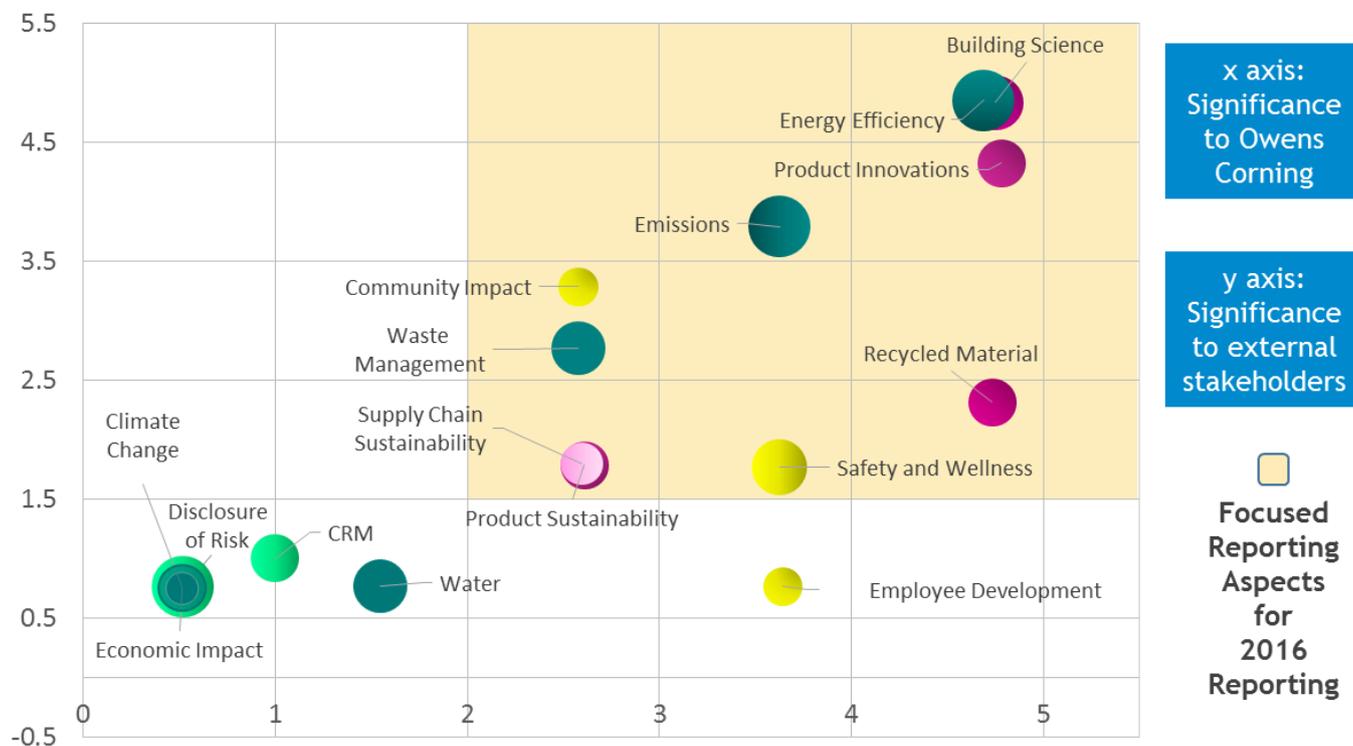


Figure 5. Materiality grid for 2016

Creating a Roadmap for a Better Future

At Owens Corning, materiality assessment is not just an isolated process performed as part of financial reporting and compliance management. Instead, it is the first and critical step towards fulfilling our organization's overarching sustainability agenda. Materiality assessment helps us build a strong and trusted brand, and communicate our core values and principles to our global stakeholders. But above all, it effectively **informs and influences our strategic planning, operational and risk management, and capital investment decisions**, thus helping us provide greater value to all our stakeholders. This exercise helps us narrow down our focus to those tangible issues that have the most critical impact on society as well as our business.

By centering our sustainability reporting on the key material issues, we are able to make our reports more relevant and credible, ultimately educating the markets and society about larger sustainability issues. With a dedicated and holistic approach to the initiative, we are now well positioned to evaluate if an identified material issue is a risk that we need to mitigate or an opportunity that we can pursue. We are thus able to drive strategic business and financial planning that will help grow our business in a sustainable ecosystem without straining valuable resources. By analyzing the rich data, we have collated on stakeholder perspectives, we are able to make responsible investment decisions and confidently meet our sustainability goals.

About the Report

Owens Corning is committed to providing transparency in reporting the long-term impact of its business activities on the society and the planet. We have made significant effort to adopt industry best practices and provide content that is valuable and useful to our key stakeholders.

Reporting Period and Format

We carried out our materiality assessment process between 2015 and 2016. Our overarching goal was to place the strategic concerns of our key stakeholders at the core of our materiality assessment process. Therefore, we adopted a stakeholder format of reporting. We also followed the GRI-G4 reporting guidelines that provide an effective framework for a global multi-stakeholder engagement process.

Aspect Boundaries: G4-18, G4-20, G4-21, G4-22, G4-23

Owens Corning has elected to respond to all the material aspects as per GRI G4.0 guidelines in 2016 Sustainability report. The boundary of all these aspects covers our global operations including Asia-Pacific, Europe, Latin America, Canada and United States.

Internal boundary includes Owens Corning's plants and offices that are owned and leased.

External boundary includes supplier locations, communities and customer locations where Owens Corning has control.

There are no significant changes from the last reporting period in the scope and boundary of material aspects, however few aspects have been replaced by new aspects in materiality grid 2016.

There has been no material restatements of information provided in the earlier report.

Consulting Partner

We engaged Tata Consultancy Services (TCS) to perform our materiality assessment in line with our core business and operational risks. We chose TCS after an extensive selection process, based on its capabilities to fulfil our requirements. The company helped us conduct a series of interviews and workshops across our internal and external stakeholders. They supported us in determining the key challenges, issues, and areas of opportunity with respect to materiality. TCS' trusted experience enabled us to take an objective and comprehensive approach to our assessment as well as reporting strategy.

Appendix

1. A Comparative Analysis of New and Old Grids

Aspects removed from the old grid

- Construction safety
- Environmental remediation
- Extended producer responsibility
- Transparency

Aspects added to the new grid

- Disclosure of risk
- Economic impact
- CRM
- Waste footprint

Aspects combined and modified in the new grid

- Supply chain modified to Supply Chain Sustainability
- Shingles and recycled glass combined to form recycled material
- Building science and partnership for high performance building combined to form building science
- Volunteerism included as part of community impact
- Workforce development included as part of employee development
- EPD and product certifications combined to form product sustainability

Changes in the priority assigned to the aspects

- Product sustainability, water, and supply chain sustainability have been deprioritized from high priority
- Community impact acquires top priority
- Waste footprint, and safety and wellness have been added to the high priority list
- Energy, product innovations, building science, and emissions retain their position in the grid

Appendix 2

Stakeholder's interview chart

Interviews 2016

S. No.	Designation 	Stakeholder Type 
1	Chief Sustainability Officer	Internal
2	VP, EHS	Internal
3	President, Roofing & Asphalt	Internal
4	VP, External Affairs	Internal
5	Director of Corporate Communication and Community Relations and President of the OC Foundation	Internal
6	Director, Environment & Safety, Roofing & Asphalt	Internal
7	VP, Operations Roofing & Asphalt	Internal
8	Director, Environment & Safety	Internal
9	VP & General Manager, Composite Solutions	Internal
10	SVP, Human Resources	Internal
11	Director, Innovation	Internal
12	Chief Procurement Officer	Internal
13	Chief Executive Officer	Customer
14	Professor	NGO
15	Project Manager	Customer
16	Merchandising Manager	Customer
17	Manager	Customer
18	Executive Director	NGO
19	Vice Chair-Marketing/Communications Community Volunteer	NGO
20	Procurement & Construction Service Manager	NGO
21	Sr.Business Development Manager	Supplier
22	Business Development Manager	Supplier
23	Vice President Technical Services	Supplier
24	Exec VP: Industry Strategy & Growth	Supplier
25	Marketing Manager	Supplier
26	Line Manager	Investor

Interviews 2014

S. No.	Designation 	Stakeholder Type 
1	Chief Sustainability Officer	Internal
2	VP, EHS	Internal
3	Chief Innovation Officer	Internal
4	VP, External Affairs	Internal
5	Director of Corporate Communication & Community Relations	Internal
6	Manufacturing Leader	Internal
7	Product Mgmt/Mktg	Internal
8	SVP, Human Resources	Internal
9	VP of Distribution Sales	Internal
10	VP of Residential Insulation	Internal
11	Operations Vice President GRS	Internal
12	CFO	Internal
13	CEO	Internal
14	Sales Lead	Internal
15	Innovation Director Building Materials	Internal
16	Lead Marketing for the Building Materials	Internal
17	VP of Composites	Internal
18	Chief Procurement Officer	Internal
19	Senior Business Development Manager	Supplier
20	VP	Supplier
21	Manager	NGO
22	CEO, Home Builder	Builder
23	Residential Roofing Contractor	Contractor
24	Contractor	Contractor
25	Shareholder	Investor
26	National Account Manager	Supplier
27	VP of Supply Chain	Customer
28	Sr Mgr Environmental Team	Customer