

**Owens Corning NYSE:OC**

# **Analyst/Investor Day**

**Wednesday, November 10, 2021 1:30 PM GMT**

# Table of Contents

Call Participants	.....	3
Presentation	.....	4
Question and Answer	.....	16

# Call Participants

## EXECUTIVES

**Amber Wohlfarth**

*Director of Investor Relations*

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

**Frank C. O'Brien-Bernini**

*Chief Sustainability Officer & VP*

**Gunner S. Smith**

*President of Roofing*

**Jose Mendez-Andino**

*Executive VP and Chief Research & Development Officer*

**Kenneth S. Parks**

*Executive VP & CFO*

**Susan Marie Maklari**

*Goldman Sachs Group, Inc.,  
Research Division*

**Marcio A. Sandri**

*President of Composites*

**Paula Russell**

*Executive VP & Chief Human Resources Officer*

**Todd W. Fister**

*President of Insulation*

## ANALYSTS

**Keith Brian Hughes**

*Truist Securities, Inc., Research Division*

**Philip H. Ng**

*Jefferies LLC, Research Division*

**Stephen Kim**

*Evercore ISI Institutional Equities,  
Research Division*

# Presentation

## **Amber Wohlfarth**

*Director of Investor Relations*

Hello, everyone. Welcome to the 2021 Owens Corning Investor Day. I'm Amber Wohlfarth, the Director of Investor Relations at Owens Corning. And on behalf of our team here, we want to thank you for taking the time to join us today for our virtual Investor Day.

First and foremost, we hope you and your families are staying healthy and safe. We certainly wish we could have hosted this event in person at our world headquarters here in Toledo, Ohio. But nonetheless, we are excited to have you with us.

I want to take some time to share with you what you can expect to hear today. We have a full agenda that will be kicked off by our Chair and Chief Executive Officer, Brian Chambers. Brian will spend some time talking about building Owens Corning for the future, and the strategy to get us there. He'll be joined by other members of the leadership team, focusing on our position as a sustainability leader, our ability to grow through innovation and the high-performing teams that are making it all happen. We'll take time for a Q&A session, followed by a short break. We'll then hear from each of our business presidents and our Chief Financial Officer, Ken Parks, before opening up for a second Q&A session. Lastly, we'll finish the morning with closing remarks from Brian. [Operator Instructions]

Before we jump in, I want to offer a couple of reminders.

First, today's remarks will include forward-looking statements, subject to risks and uncertainties that could cause our actual results to differ materially. We undertake no obligation to update these statements beyond what is required under applicable securities laws. For more information on these risks, please refer to Slide 3 of our presentation.

Second, the presentation slides and today's remarks contain non-GAAP financial measures. Explanations and reconciliations of non-GAAP to GAAP measures will be available at the end of the financial deck that will be posted to [owenscorning.com](http://owenscorning.com) during the CFO's portion of this event. Today's slide presentations will be made available on our website at the beginning of each speaker section. Please visit [owenscorning.com](http://owenscorning.com) and refer to the Investors link under the Corporate section of our homepage. Additionally, a transcript and recording of today's presentations will be available on our website for future reference.

Before I hand it over to Brian, I would like to provide a quick glance of Owens Corning. We are a global building and construction materials leader, made up of about 19,000 employees in 33 countries, with over 100 manufacturing sites around the world. Over the last 12 months, we've generated \$8.3 billion of revenue, with approximately 80% of those revenues coming from residential, commercial and other construction materials. We have 3 strong businesses: roofing; insulation; and composites, that each provide differentiated product solutions for our customers. In today's presentations, you'll hear more about all of this as well as our mission, purpose and values, and how they are a part of all we do.

With that, I would like to introduce Brian Chambers, our Chair and Chief Executive Officer. Brian?

## **Brian D. Chambers**

*President, CEO & Chairman of the Board*

Thank you, Amber. Good morning, everyone, and thank you for joining us for our 2021 Investor Day. Even though we're not able to be together in person for this event, I hope the energy of our team and the confidence we have about the future of Owens Corning comes through in this virtual format.

As Amber said, today, you're going to be hearing from several members of our executive committee as we lay out our vision for Owens Corning. As you will see, we are building on the strong performance over the past several years to create new opportunities for the company.

During my time this morning and over the next few hours, we will share with you how we are building Owens Corning for the future by leveraging our unique attributes and strong global market positions to accelerate our growth and strengthen the earnings power of our company. Led by an outstanding new management team, we are leveraging a core set of enterprise capabilities, making strategic investment choices, and operating in a more integrated business model to unlock the full potential of our company that will continue to deliver stronger and more consistent financial results.

We are focused on broadening our sustainability leadership to create unique value for our customers and investors that builds on our nearly 20-year track record of performance in this space. We are increasing our investments to expand our material science expertise and accelerate our innovation within building and construction applications as we strengthen current product and market positions and develop new material solutions. And finally, we are positioning the company to capture new growth opportunities, driven by highly relevant secular trends that will expand our current addressable markets and enable us to redefine where we play and how we win in the market.

Throughout the morning, we will share more about the work we have done in these 4 areas and our priorities as we move forward to uniquely position Owens Corning for success. When I became CEO 2.5 years ago, one of my first priorities was assessing our capabilities, technologies and global market positions. And through that assessment, I saw great opportunities to more fully leverage our enterprise strength, to sharpen our execution and enhance the growth and performance of our company. At the time, I laid out 3 operating priorities to begin unlocking the full potential of Owens Corning.

The first was to accelerate our organic growth through a combination of commercial investments, pricing initiatives, product innovations and customer focus. The work of our commercial teams has been exceptional, driving tremendous organic growth while positioning us for future success.

The second was to drive improved operating efficiencies through a focus on PPM, manufacturing productivity and investments in process innovation, advanced manufacturing and automation. Our operational execution has been outstanding, driving a significant lift in our operating margins. The third priority was to generate strong free cash flow through a focus on working capital, inventory management and capital efficiency. Our work here has resulted in high conversion rates and a demonstrated capability to consistently generate strong operating and free cash flow.

And while we are really pleased with the financial results delivered, we believe there's even greater opportunity going forward. Our confidence is supported by the fact that our performance has been driven by a core set of capabilities that we continue to invest in and develop and several investment choices we have made to improve our near-term financial performance and set us up for long-term success. Across our company and in every region, we differentiate ourselves and build market-leading positions through our commercial strength, manufacturing expertise, high-performing teams, material science innovation and ability to deliver sustainable solutions. I believe these capabilities are really the secret sauce of Owens Corning. And together, they form a durable operating model that drives our success and frames our investment choices.

Following me, you will hear from Frank, Jose and Paula, who will update you on the work and investments we are making in sustainability, innovation and talent development to strengthen our positions and support our growth. And throughout each of the business presentations later this morning, you will hear how these capabilities as well as our commercial strength and manufacturing expertise are creating value for our customers, improving our cost positions and fueling our financial performance.

In addition to building out these core capabilities, we have made several key investment choices to allocate our resources to areas that will continue to generate benefits in the near term as well as better position us for stronger, more consistent financial results as we go forward. I've spoken about most of these over the past 2.5 years through our earnings calls. But these are not just individual actions taken within any one business region or function. They are part of an enterprise focus to accelerate our growth and strengthen the earnings power of the entire company. Throughout the morning, you will see examples of how these investment choices are driving our results.

As we move forward, the combination of core capabilities and key investment choices creates an enduring framework, which we will continue to leverage across all of our product lines and businesses. And while we will not be immune to the business cycles in residential and commercial construction, we believe the changes we have made in our commercial focus, manufacturing networks and cost structures will improve the consistency of our earnings in the future. To succeed, the best strategies and operating plans need to be implemented by a strong, diverse group of senior leaders, who are focused on inspiring and engaging their teams, connecting with and understanding the needs of customers, and committed to performing at a high level and creating value for our stakeholders. This is our team at Owens Corning.

Since becoming CEO, I have reshaped our executive leadership team. In fact, since our last Investor Day in 2017, each role shown here has a new leader, with the exception of Frank, who's been leading our sustainability efforts for nearly 20 years. My focus in building out this new team was to bring some outside and fresh perspectives, while maintaining our valuable market, customer and technology expertise within our business leadership roles. In addition, I wanted to bring more focus to a couple of key areas that I believe are essential to our long-term performance.

Ken and Gina have been great additions to our company, providing new insights and engaging leadership. And later this morning, you will hear from Todd, Marcio and Gunner, who will review the incredible work they have been leading to position our businesses to capture additional growth and deliver more consistent earnings, the 2 areas where I wanted to see more enterprise leverage were innovation and growth, which really go hand in hand. The work by Dan, Jose and their teams have been key drivers of our business performance as we've embedded new growth capabilities and an innovation mindset into our entire company. The common thread through all of this is having diverse, engaged and capable talent. Paul will be up here shortly to discuss how we are investing to build the capabilities and leadership pipeline to ensure our long-term success. Together, we have an amazing team that are delivering fantastic results and positioning us for a great future.

While we continue to focus on building market-leading positions within each of our business segments: roofing, composites and insulation, one of the most unique and highly valuable aspects of our company is how we leverage our material, manufacturing and market knowledge and expertise to drive innovation, improve our cost positions and broaden our market reach for new products. Showcased on the right side of the slide are a few of the many examples of how we are creating value for our customers and our shareholders. We create integrated material solutions, leveraging the power of vertical integration to create products with a cost and performance advantage in the market.

To produce our market-leading duration shingles, we leverage our glass fiber, blast mat and asphalt material science and production capabilities to produce a shingle that is lighter, installs faster and is more durable. We apply our broad manufacturing and technology expertise to leverage our advanced modeling and furnace design capabilities to build glass melting furnaces that are more capital efficient, last longer and operate at lower cost. And we continue to utilize our customer connections and channel knowledge to bring our broad array of building and construction products to market. In fact, 7 of our top 10 customers buy OC products from 2 of our businesses and 2 of those buy products from all 3. Moving forward, we will continue to scale our material, manufacturing and market expertise to further strengthen our businesses and drive future growth.

Another key area where we are uniquely positioned is sustainability. Sustainability at Owens Corning is core to who we are and how we've been operating for decades. Our company was founded on the premise of discovering an innovative, more durable and more energy-efficient products. And you see this in the material solutions and services we provide to our customers today. We have an exceptional track record of performance in terms of our sustainability impact. We currently generate a significant amount of our revenue from sustainable solutions. We've made large reductions in our greenhouse gas emissions, energy intensity and water usage. Our commitment to safety is unconditional. And we continue to collaborate with our customers to help them achieve their sustainability goals. And we've been transparent about our progress for the past 15 years through our annual sustainability report.

I said sustainability is core to who we are and how we operate. And you see this in the mission, purpose and values of our company. We use this as a true north to guide our actions, drive our investment

decisions and ensure we are meeting the needs of our employees, our customers, our communities and our shareholders. Looking forward, we continue to push ourselves to set goals based on what the world needs, not just on what we think we can do. Our 2030 goals do just that by setting ambitious objectives in 5 key areas, which further expand the positive impact of our products and material solutions, significantly reduces the negative impact of our operations and increases our social impact through our commitments to health and safety, communities and inclusion and diversity. We are very proud of the impact we've made over the past 2 decades and are excited about the opportunities in front of us that Frank will discuss in more detail.

Another area where we provide unique value and differentiation is through our innovation. For over 8 decades, our company has been focused on creating new and improved materials and converting applications and markets to these solutions. Today, we continue to deliver significant value through our material science and functional design expertise. And you see this come through in our current product and process innovations. On this slide, you see some of our most recent product launches from across the company that are focused on extending our current product lines or significantly improving our product performance. We are also leaders in bringing new material solutions to market, which significantly improve existing product performance. This material conversion strategy has played out in a number of our product lines, including nonwovens, which provides superior performance to paper; our synthetic underlayments, which is replacing asphalt felt; our composite rebar, which can replace steel; and Flex Duct insulation, which provides a more energy-efficient solution to metal ducts and HVAC applications.

Each of these solutions help to create durable market positions that drive our revenue and earnings performance. This is why we are increasing our R&D investments going forward to further enhance our material science expertise and accelerate our new product innovations. Over the past several years, we've been working to reposition the company to expand our product offering and find new growth opportunities. These past investments have increased our capabilities and strengthened the earnings power of the company.

As we look to the future, we see 4 big secular trends that are not only contributing to our current performance, they are creating significant new opportunities to grow our company over the next decade. We will capitalize on these opportunities by focusing our unique combination of material science knowledge, commercial strength and manufacturing expertise to develop and commercialize additional product and system solutions. The global pandemic has changed how we think about our homes, both in terms of functionality and comfort. The premium put on living spaces will continue to drive investments for new residential housing and renovation in both the U.S. and abroad. Even before the pandemic, we saw how labor shortages were impacting construction practices and construction cycles. Over the past 1.5 years, this trend has accelerated, creating the need for multi-material and prefabricated construction solutions that can drive efficiencies. The demand for sustainable solutions also continues to accelerate as the global need to reduce greenhouse gas emissions, improve energy efficiency and develop more renewable energy sources increases. And we continue to see the need for investments to upgrade and expand infrastructure both in the U.S. and around the world.

These 4 secular trends create new opportunities for our company. And we believe our market and material science expertise is essential to developing the new solutions that are required to address the challenges associated with each of these. Over the past several months, we've carefully evaluated these trends and assessed the capabilities and resources needed to play and win in a much broader way. The conclusion of this work has led to a new strategy for our company that lays out our long-term priorities to significantly expand our current growth potential and leverage the unique enterprise capabilities that I've been discussing. This strategy creates a long-term road map for our investments, consisting of 3 priorities: first, to strengthen our position in core building and construction products; second, to expand our multi-material solutions; and third, to develop more prefabricated solutions.

As we look at the broad building and construction market, we continue to see great potential to strengthen our core market positions and product lines. In each one of our businesses, you will hear about opportunities to grow through product line extensions and new product adjacencies. In addition, we see how the impact of labor shortages, changing construction practices and the need for more cost-effective sustainable solutions are increasing the need to provide more complete solutions. For example,

we continue to see increasing demand for our current multi-material solutions, such as our residential roofing system offering, which combines the shingle with needed components to install the roof, or with our insulation products used in the home to provide different functional needs, such as thermal, acoustic or fire safety, or with our composite products, where we combined our fiber and fabric technologies to provide a more complete solution to wind blade manufacturers.

In addition to more multimaterial systems offerings, we also see the need for more prefabricated construction solutions increasing over the next several years, driven by the need for more sustainable, more cost-effective solutions that reduce the amount of on-site labor and overall construction cycle times. Here, we believe Owens Corning is uniquely positioned to leverage our expertise to develop multifunctional prefabricated solutions that solve for a combination of needs across a wide spectrum, including thermal, fire, structural and moisture. Here, we see the opportunity to leverage the strengths we have in our businesses in new ways to develop more integrated solutions.

As you can see in the chart on the right, these strategic pillars give us the potential to expand our total addressable market to approximately \$200 billion, a fivefold increase versus our current opportunity. And while we see a mix of near-term and longer-term opportunities in these new areas, the development of these applications and work to commercialize new solutions at scale will be a multiyear effort. This expansion will be supported by both organic investments as well as acquisitions to accelerate our product and process knowledge and market development work. Each of these strategic priorities is also supported by investments we have made and we'll continue to make in expanding our technical expertise in functional design and material science as well as leveraging our commercial and market knowledge and manufacturing expertise. Overall, we are very excited about the possibilities this strategy creates for our company going forward to drive additional growth as we bring new building and construction material solutions to the market.

In closing, we are very proud of the work we have done over the past several years to grow our company and strengthen our earnings power. As I hope you see, our financial results have been driven by great commercial and operational execution, specific investment choices and leveraging the unique capabilities of Owens Corning. And while we believe we are a great company and a great investment today, we are focused on building an even better company for the future. We will continue to strengthen and grow our market-leading positions, with a focus on increasing our revenues from select building and construction applications as we invest in new material solutions and continue to pivot our composites business into new areas. We are committed to broadening our sustainability leadership as we make new investments in customer and circular economy solutions. We are investing to accelerate our product and process innovation efforts to develop new product and multimaterial solutions which leverage our material science and manufacturing expertise. Through the execution of our enterprise strategy, we are focused on expanding into new product lines and integrated solutions, which open up new markets and expands our growth potential. And we will continue to utilize our commercial strength, unique product and process technologies and material science innovation to deliver above market growth as we see the opportunity to grow our company to \$10 billion in revenues by 2024.

Our team is focused on building Owens Corning for the future and energized by these new opportunities to grow our company, help our customers win in the market and deliver additional value for our shareholders. I want to thank you all for your time this morning.

With that, I will turn it over to Frank to provide more detail on how we are extending our sustainability leadership. Frank?

**Frank C. O'Brien-Bernini**  
*Chief Sustainability Officer & VP*

Hello. I'm Frank O'Brien-Bernini, Owens Corning's Chief Sustainability Officer. Having served in several roles throughout my 38 years with Owens Corning, I've been leading sustainability since we embarked on this journey. And while Owens Corning has been focused on sustainability for nearly 2 decades, it's a super hot topic today with our customers, our employees, our communities, our suppliers, and yes, our investors, and for good reason.



From the most recent Intergovernmental Panel on Climate Change or the IPCC Report, and what's emerging from the COP26 Climate Summit, their urgency for corporate-led climate action is evident. With an informed view of where we have been and where we are going, I am massively excited to see how deeply sustainability has been integrated into our businesses.

As CSO, I'm often asked, how many people work in Owens Corning's sustainability team? What you will hear throughout the various discussions today is that our sustainability team is the 19,000 employees of Owens Corning. We're focused on managing the risks, and most excitingly, capturing the opportunities. Thanks for spending some time with us today.

As Brian noted, sustainability is core to who we are and how we operate. What you'll hear in my discussion today is, one, as a global leader in sustainability, we have a proven track record of impact over the past 20 years. Two, we have received significant external recognition validating our global leadership. And three, we are creating new growth opportunities for our customers and for Owens Corning. And you might also hear a little pride coming through.

Owens Corning is a global leader in sustainability, with a mission to build a sustainable future through material innovation. In the history of our company, and in fact, in the history of our planet, this is a very exciting place to be. We have an aspiration to be a net positive company. That is a company that's handprint where the positive impacts of its people and products exceeds its footprint or the negative impacts. In fact, this is how our purpose, our people and products make the world a better place becomes real and measurable. We are intent on becoming a more and more net positive company every day, measured by our handprint or the positive impacts that our products deliver through their use, like energy savings and reduced greenhouse gas emissions, minus our footprint or the negative impacts. We'll flesh this out with some additional examples as we move through our discussion.

On the right-hand side of the slide, you'll see our 2030 sustainability aspirations. These are now our third set of long-term goals for which we transparently report progress each year in our comprehensive sustainability report. The most recent of which was our 15th annual report. Let's walk through these. We have an aspiration to double the positive impact of our products. That is handprint expansion, measured through the science of life cycle assessment, cut in half the negative impact of our operations, that is footprint reduction, measured through the global footprint reporting standards. Within this goal and on our path to total decarbonization, we have verified science-based targets or SPTs for Scope 1, 2 and 3 greenhouse gas emissions. That is our entire value chain.

As a reminder, for us, Scope 1 mostly comes from on-site fossil fuel combustion, Scope 2 mostly comes from our purchase electricity, and Scope 3 comes from purchased goods and services. Our Scope 1 and 2 SPT, requiring a 50% reduction, is aligned with the IPCC recommended 1.5 degree C maximum global warming pathway. And our Scope 3 SPT, requiring a 30% reduction, is aligned with the well below 2-degree C pathway. I am both proud of this aspiration and confident that we'll meet it. Further, we aspire to eliminate injuries and improve the quality of life of our employees and their families, advance inclusion and diversity, and have a positive impact on our communities, all with specific targets and metrics. With 2 decades of experience behind us, we know that our aspirations translate to meaningful sustainability and business impact, building confidence in our ability to accomplish our 2030 goals.

In the center of the slide, you can see an illustration of our sustainability journey starting with a focus on safety and community impact, followed by a focus on environmental footprint reduction, and employee and family wellness. Then we added product sustainability or a handprint focus, just as the nascent green building movement was accelerating, as so many of our products provide positive impact on building performance through their use. We've broadened our ambitions, adding inclusion and diversity, and most recently, circular economy and embody carbon, secular trends that are generating high customer and stakeholder interest.

Across the top of the slide, I'll share a few high-impact accomplishments. For example, we've reduced greenhouse gas emissions by 60% since our peak year of 2007, with obvious positive impact on energy cost and embodied carbon of our products. Approximately 60% of our revenue today comes from energy saving and renewable energy products. Our iconic PINK Fiberglas Insulation now contains between 53% and 73% recycled content. And for those beverage drinkers out there, in 2020, we consumed 1.3 billion

pounds of recycled glass. So drink responsibly, and recycle your beverage bottles. They just might have a second life in our insulation, saving precious energy for decades to come.

We're often first to market with specifiable sustainability product attributes, communicated through environmental product declarations, health product declarations, life cycle assessments and other third-party certifications. A significant portion of our manufacturing waste is being diverted into beneficial uses today, with positive revenue and/or cost impact. Fiberglas Insulation, a powerful greenhouse gas abatement approach, saves 12x as much energy in its first year of use as it takes to make it, a simple example of net positive that is a handprint minus footprint.

Our innovation has driven exciting shingle and insulation material efficiencies. That is reducing the amount of input materials needed to make these products that are sold on performance, not weight. This has enabled a synergistic reduction in both Scope 3 greenhouse gas emissions and manufacturing cost. High-performance composites, WindStrand, enables much larger wind turbine blades, doubling blade length in recent years to an astounding 100 to 120 meters, or the length of American football field with the end zones, enabling lower-cost wind energy through larger turbines, that have grown from 2 megawatts just a few years ago to 14-, 15- and 16-megawatt offshore units today.

Along the bottom of the slide are several additional examples of our footprint, handprint and social progress. More details can, of course, be found in our annual sustainability report. I began by saying Owens Corning as a leader in sustainability. This slide contains a few examples of credible recognition that we've received in this space. We hear the Dow Jones Sustainability Index Building Products group leader and have been for the last 8 years, with top scores in their environmental, social and economic dimensions. We are ranked #1 among the 100 Best Corporate Citizens and have been for an unprecedented 3 years in a row.

I share this recognition slide not to brag, but to highlight why external folks, customers, suppliers and others seeking to accelerate their sustainability progress, reach out to Owens Corning as a collaborator. It is this sustainability leadership that creates new growth opportunities. Our deep understanding, often informed by work already underway at Owens Corning, positions us for rapid opportunity capture through collaboration. In fact, we were experiencing an explosive demand for sustainability engagements, up 55% from 2020. We enter these collaborations with a very developed, experienced and advanced point of view of what it takes to win together.

Let's take a walk around the product life cycle graphic here to better understand our levers of impact. Our central theme here is increased circular economy and reduced embodied carbon, linked, of course, to the important discussions around net zero or a decarbonized future. If you look at Owens Corning in aggregate, half of our greenhouse gas emissions come from manufacturing and about the other half come from everything else that you see in this graphic. Let's start with raw materials. We prefer to source our raw materials from recyclable sources, because when we do, they come into our operations with a lower embodied carbon than virgin raw materials. Next, let's go to inbound transportation, where we work hard to source our materials as close as possible to our manufacturing facilities, again, for lower greenhouse gas associated with that transportation.

Owens Corning manufacturing is next here. And we've talked about our aspirations here to reduce our environmental footprint in our own aspirations. And that's where that Scope 1 and 2 comes in that I was talking about earlier. Now we go to outbound transportation. This is where we move our products out to their end-use application, where we like to put our plants as close as possible to our markets and to our customers and ship those products with very efficient trucks. Now we go to product use, which is really the most exciting part of this entire graphic because it's where our products have the most powerful impact on greenhouse gas emissions, increasing renewable energy. So it's through the use of our products where we have very positive impact. And again, that's the handprint that we've talked about.

Then we move to end-of-life disposition. Here is both a challenge and an opportunity for us as we work to find good technologies and business models to deconstruct our products at the end of their life and get those materials back into our own products or into other beneficial uses. And that brings us back to raw materials, and hence, the idea of a life cycle of our products. Now with that context, I'd like to share a few examples of significant market-facing work leading to growth opportunities for insulation

customers seeking lower embodied carbon, a growing trend in building design, Owens Corning was first to market, with certified Natura, a carbon-neutral stone wool; PINK Next Gen Fiberglas, with industry-leading recycled content and made with 100% wind-powered electricity; and FOAMULAR NGX, with an over 80% reduction in embodied carbon.

For composites customers seeking high recycled content and lower embodied carbon, Owens Corning was first to market with a new glass batch formulation and melting platform to produce Sustaina, glass fiber reinforcement, with between a 35% and 100% recycled content depending on the product. For composite wind customers, we are collaborating with high-performance WindStrand fiber and fabrics and circularity to make increasingly larger wind blades and lower-embodied carbon products, all while increasing the total value chain circularity, including initiatives like the ZEBRA design for circularity industry consortium, together with our customer, LM Wind Power.

For circularity economy start-ups and industry consortiums that are seeking expertise and committed technical and business model partners, Owens Corning is routinely sought out for collaboration, with a focus on roofing shingles, wind blades and job site insulation waste. For our customers, seeking to win business through market-leading sustainability, product or application attributes, including registered materials like Armstrong World Industries, or architects that are seeking to convert traditional materials like steel, aluminum and concrete to reduce embodied carbon more durable composites, Owens Corning is a high knowledge, high-impact collaborator.

For customers seeking technical or commercial sustainability help to effectively teach market and sell their products to their customers, like the Home Depot with their ecoactions community, Owens Corning is a sought out place to learn and collaborate. As I said earlier, at this point in the history of our company and the history of the planet, this is a very exciting place to be.

I'll now hand it over to Jose, my partner in developing the technical wizardry or what he prefers to call science, behind much of what I've just discussed.

**Jose Mendez-Andino**

*Executive VP and Chief Research & Development Officer*

Hello, everyone. I am Jose Mendez-Andino, Chief Research and Development Officer for Owens Corning. And I have the pleasure of leading our global R&D organization since April this year, and after 9 years with the company serving in diverse technical and leadership roles. At Owens Corning, we focus on delivering a sustainable future through material innovation, because innovation is critical to creating value to our growth and future.

Today, I'm going to talk about the way we create value for customer, shareholders and the world. You will hear about how we bring together material science, process innovation and customer insights to fuel top and bottom line growth.

By the way, you just heard from Frank O'Brien-Bernini, our Chief Sustainability Officer, referring to my approach to innovation as wizardry. Well, it is not. I just prefer to make science and technology in a slightly different way. Yes, I'm a scientist, with a dual background in chemistry and anthropology, because I believe it is critical for R&D organization to address both the technical and human aspects of innovation. So with that in mind, you will hear how our research teams drive customer center innovation that deliver unique solutions to unmet market needs and brings competitive advantages for Owens Corning. And finally, you will hear how we have demonstrated the ability to innovate systematically across the enterprise, transforming the products we make and how we make them.

Owens Corning is an innovation leader that creates differentiated value with our materials, process and product innovations. We have a global team of over 450 researchers across 11 technology centers around the world, which allows for closer collaborations with customers, operations and suppliers. Our research teams strive to provide better and more sustainable materials to meet the needs of today and to design new functionalities for tomorrow. But how do we do this? Our core competency is materials science, innovations based on strong scientific fundamentals. Materials and process innovations are key to driving

margin enhancements and capital efficiency. You can see some of the areas where we have expanded our industry-leading expertise in a variety of material and process technologies.

We aim to transform materials and processes, from the moment we load raw materials in our plant, to the moment we ship our new products to customers. And our researchers follow the product in its journey all the way to the moment it gets installed, which takes us to the second part of my equation here, where exciting revenue growth opportunities happen. You see the words human center design, and that is key to how we approach innovation. We apply consumer products research and leverage our expansive contractor network to gain real-world understanding of how people use our products. Our disciplined approach uncovers opportunities to deliver better functionality at the right cost. We designed new products and systems that are easy to sell and install because we take into consideration important human factors, such as package handling, ease of installation, ergonomics and aesthetics. From lifting a bundle of shingles to installing fiber glass bats, our innovation approaches are centered in delivering better products for people.

On the next 2 slides, I will exemplify how this powerful combination of science, technology and human insights unlocks productivity and business growth. Let's dig deeper into our proof points. Our fundamental approach to innovations in material science and process technology creates value for shareholders now and in the future. Here, I have a few examples of recent innovations delivering better products for customers while driving margin enhancements and capital efficiency.

In our roofing business, we leverage our asphalt coating expertise and the vertical integration of glass mat to drive competitive advantages across our roofing product platforms. These technical capabilities deliver differentiated features and benefits in our shingles, underlayments and specialty paving products. And it is the same set of capabilities that improve our supply options, manufacturing flexibility and network cost.

In our insulation business, PINK Next Generation Fiberglas is another great example and one that I am very excited about since we just launched it in the market a couple of months ago. Next Generation Fiberglas insulation is a new proprietary combination of fiber, binder and manufacturing technologies. It delivers a superior product for customers while optimizing our network efficiency and capacity utilization. This technology enables more product output within the same manufacturing footprint. Next Generation Fiberglas is simply better and easier for installers to handle. It is both robust and lightweight, which speeds up installation by up to 23%. And it delivers the differentiated benefits that matter most to customers: less dust, better comfort, more sound reduction.

And all this work is protected. We have filed over 15 patents in the U.S. and around the world to protect these material innovation and its product form. Next Generation Fiberglas is the result of our holistic approach to innovation, material, process, product and package, enabling our network to deliver more of a better product. It is a great example of total value creation.

Now let's take a moment to further highlight the importance of innovating more efficient manufacturing processes. We've made and continue to make significant gains in furnace life through technology. Glass furnaces experience drastic temperatures and corrosive conditions that dictate their rebuild cycle, which have a large impact on our annual capital plan. We create value by expanding our glass production and extending furnace life for as long as possible. Our success at boosting furnace performance include innovations in refractory materials and glass chemistry. And working in combination with advanced modeling, better process controls and maintenance protocols, this approach has delivered a 25% increase in furnace life across composites and insulation in the last decade. In summary, these 3 examples clearly show how transformative material and process innovations make Owens Corning an innovation leader.

Now let's turn to the product innovation side of things. Here is where we transform customer insights into new functionality and solutions that promote business growth. Our proof comes in the form of new and refreshed product lines. We also pursue new product certifications and performance claims based on customers' wants and needs. Global markets are demanding new products with lower embodied carbon. And as you heard from Frank, insulation delivers a net positive environmental impact because it saves energy when it's used. And reducing the environmental footprint of our insulation operation further increases that benefit.

Our new FOAMULAR NGX was launched earlier this year. It is extruded polystyrene foam board using premium wall and roof assemblies as well as below grade foundations and slabs. We were first to market with a product that delivers 80% lower-embodied carbon versus our prior version, a product that was already ahead of competition when it comes to greenhouse gas emissions. FOAMULAR NGX is a great product, positioning us to win in the marketplace.

The FOAMULAR example shows how we address global market needs, but we also delivered innovative products addressing regional needs. Our customers are diverse, and we innovate our products to match a wide range of regional requirements. Our strength is in the ability to leverage our customer networks to gain market insights. And we do this by conducting observational and ethnographic research. For example, we conduct studies in the field by observing our independent roofing contractors at work. We combine what we learned with our expertise in glass mat and asphalt technology to deliver market-winning product experiences.

We also deliver complete system solutions catering to diverse regional customers and contractors. And based on this approach, our Duration Series Shingles is a long-running innovation success story, a product franchise that continues to grow. And we are set up to continue doing this because we apply social sciences and data analytics to enhance our understanding of installers. Even during the pandemic, we found new ways to gather new insights. We did this remotely and more effectively than before. Now we are using those insights to continue building highly engineered roofing systems with new functionalities to deliver total protection, ease of install and aesthetics across all our roofing product lines.

Up to this point, I have shown you how we apply our customer-centric innovation approach to lead in our core markets. But we have also demonstrated product innovation capabilities to enter and transform other building and construction materials. For example, in composite, we have introduced PINKBAR, fiber glass rebar with the potential to transform the rebar market. This product line expands our participation in construction materials and building solutions. PINKBAR replaces steel with fiberglass, which means strong and lighter materials with superior corrosion resistance. This revolutionary product is up to 7x lighter, which is better for shipping and labor efficiency. You can get more material on site and more material installed on a single day. Plus, PINKBAR does not corrode, which is value-added when construction materials are exposed to the elements. And this is very important for construction projects in coastal areas.

Overall, these 3 examples of products show you how our human-centered design approach also makes Owens Corning an innovation leader. As those 6 examples show, our innovation model addresses both the technical and human aspects of invention. We have a robust methodology, which leads to a repeatable innovation process. Let me walk you through the steps. First, we define the critical challenge and identify potential solutions. We leverage our customer relationships to uncover the new functionality and key benefits we must provide to win in the marketplace. Then our technology scouting process identifies either existing or new technologies that might provide the best solutions, including technology in adjacent industries.

Next, we apply human center design to develop proprietary Owens Corning Solutions. What will make our products more useful and usable for the installer? What will make our processes and operators more efficient? These are the key questions we answer by applying human center design techniques.

But we also leverage modeling and simulation. Advanced modeling is a key component of our innovation process because it enables shorter innovation cycles, so we can deliver more competitive solutions sooner.

And after doing all these great work, we protect it. Our holistic intellectual property strategies include patents, trade secrets, trademarks and other proprietary elements. Owens Corning has over 2,000 active patents globally, providing us with many competitive advantages.

Finally, when it's time to commercialize our solutions, we have robust systems in place to drive our product launches. Our stage gate innovation process ensures the right level of investment and resourcing, along the product development cycle. The early management pillar of our total productive maintenance program ensure safe and efficient startups of new processes and product launches. Overall, we have a

repeatable innovation management process to ensure that all customer requirements are met and to ensure that our customers are thrilled when receiving Owens Corning Products.

In conclusion, we have built organizational capabilities that systematically deliver material, products and process innovations, driving business growth across the enterprise. Our customer center innovation model uncovers opportunities to win in our markets and enables us to expand our addressable markets. Owens Corning is an innovation leader. We create value for shareholders, customers and the world through material innovation.

Now I will turn it over to my colleague, Paula Russell, to talk about how our people make the difference.

**Paula Russell**

*Executive VP & Chief Human Resources Officer*

Hello, everyone. I'm Paula Russell, the Chief Human Resources Officer at Owens Corning.

As you've already heard today, our mission is to build a sustainable future through material innovation. We believe that our operating model provides us with the road map for delivering value, while it's our people that give us a competitive edge.

At Owens Corning, we've established a culture where high-performing teams are fueling our success, and we have business results to back that up. We develop and retain the industry's best talent by growing exceptional leaders within our company and investing in capabilities to meet our current and future business needs. Finally, we continue to build an inclusive environment and increased diversity because we know it is essential to sustaining high performance and growth.

With an ongoing focus on building teams that are global in scope and human and scale, we're all connected by our values: caring, curious, collaborative and committed, which describes precisely who we are at Owens Corning.

Our teams consistently execute, and I'm proud to say that we've delivered 10 consecutive quarters on our commitments. Commercially, our teams have achieved 17% organic revenue growth or \$1.2 billion in sales since 2019. The recent product launch of our PINK Next Gen Fiberglas, as previously highlighted by Jose, defines what is possible when it comes to the intersection of diverse, capable teams and innovation. The unique combination of human center design thinking, building science, process innovation, product development and sales has resulted in the reinvention of a core product, with several improved features, cementing Owens Corning's leadership position in this category.

Our innovative and diverse teams are also driving bottom line performance. In manufacturing alone, we've realized over \$200 million in productivity since 2019. Throughout our manufacturing network, we've embedded total productive maintenance as a management system that requires the involvement of every manufacturing employee and structured work with a goal to achieve 0 injuries, 0 defects and 0 losses. This supports continuous improvement in productivity and capital-efficient growth. At the same time, we're introducing state-of-the-art technology to create safer plants where employees can make a higher-quality product more efficiently. Our continued investment in advanced manufacturing technology have delivered significant cost savings and laid the groundwork to provide Owens Corning with an advantage in the talent marketplace, offering more attractive jobs to the manufacturing workforce of the future.

Our teams also work in an integrated manner to better serve our customers. For example, our Insulation and Composites teams came together to develop an integrated solution for a key customer account, using innovative combination of fiberglass and non-wovens products. This resulted in a long-term contract with a key customer, the development of technology that advanced our commitment to sustainability and the opportunity to provide similar solutions to other customers. This type of collaboration enables OC to offer multi-material systems into the building and construction markets.

So what prepares our employees to identify and tackle new opportunities such as these to continually learn and develop themselves and grow Owens Corning? Well, we've established best-in-class career development programs at Owens Corning that span from early career across functions and into mid and even senior level leadership development.

Through these custom programs, we nurture the skills and experiences of our workforce to enhance strategic capabilities that are required for OC's successful growth. For example, we just completed a multiyear tailored learning experience designed to develop world-class general managers. This program entailed a high-touch engagement and delivery by our CEO, our entire executive committee and even directors from our Board. Both the job scope and impact of the cohort participants expanded significantly during the program period, providing us with evidence that these individuals are growing into tomorrow's executives. Over the last decade, more than 700 employees have participated in development programs focused on leadership and functional areas like R&D, marketing and manufacturing.

Here too, we have measurable evidence correlating their program completion with expanded responsibilities and impact. Many of these talented individuals fill our succession pipelines. As a matter of fact, 7 of our 9 executive committee members have come through our internal pipeline and completed and/or delivered one or more development programs. Broadly speaking, 85% of our senior leadership roles have been filled internally, which is deliberate and strikes an ideal balance between our internal and external hires. We continue to replenish the pipeline through our flagship development programs. And with a focus on retaining 100% of our top talent, we're pleased that 97% of our highest potential employees stay with Owens Corning, even as they're highly sought after by other companies.

In support of Owens Corning's strategy, we're expanding deeper into capabilities that include circular economy, multi-materials and systems technology. And we're investing even more in strengthening our expertise in building and material science. In fact, we formed 2 new teams in the last year dedicated to our strategic priorities: the prefabricated solutions team and the circular economy team. We reallocated exceptional internal talent and brought in new experts that bring additive skills and perspectives. The diverse makeup of these teams will play an essential role in the solutions needed for the future.

To this point, we believe that diversity is key to unlocking performance and growth. Knowing this, Brian and the senior leadership team began a rapid acceleration about 3 years ago and doubled down on our commitment. We took a comprehensive approach, identifying and executing on opportunities, resolved to create an inclusive culture, ensure our employment practices are unbiased and equitable and improve our diversity representation. Our employee surveys are telling us that we are moving in the right direction. Our employees feel respect and a sense of belonging that is essential for a culture of appreciation, where employees are inspired to be themselves, bring their best, and go above and beyond.

We intend to build an organization rich in diversity that mirrors the communities in which we operate. In fact, our 2030 diversity goals as it relates to the manufacturing industry are ambitious, targeting representation of 35% women globally and 22% racially diverse minorities in the U.S. We've set this tone at the top of our organization, starting with the Board of Directors, which is 60% demographically diverse and brings broad business perspective and diverse skill sets to Owens Corning. We continually monitor the levers that drive diversity representation, such as selection and retention of diverse talent. These insights guide our road map and our initiatives.

We are even starting to generate recognition outside the walls of Owens Corning. We were honored to receive the noteworthy designation on DiversityInc's Top 50 assessment in 2020 and 2021. This is given to a small category of submissions that have the potential to make the top 50 in the future. What makes us really proud is that 2020 was the first year we participated in the survey. And being recognized again this year is in no small part, a result of the accelerated progress in our talent programs, accountability and transparent human capital metrics. We are committed to continuing on this ambitious journey in the way that we lead Owens Corning and evolve our teams to deliver our strategy.

Connecting back to where we started, our mission is to build a sustainable future through material innovation. And it's our people that give us a competitive edge through high-performing teams, cultivating the industry's best talent, and driving an inclusive and diverse culture. And now we'll transition to Amber to begin our Q&A portion of this section.

# Question and Answer

## **Amber Wohlfarth**

*Director of Investor Relations*

Thank you, Paula, and welcome to our first of 2 Q&A sessions this morning.

Before we get started, I want to share that each of our speakers has been vaccinated. And as an extra precaution, we were each tested for COVID earlier this week. For this portion of Q&A, I'll be joined by each of the speakers you just heard from. And over the next 20 minutes, we'll spend time answering questions related to the topics that they just discussed. [Operator Instructions]

And with that, we'll go ahead and get started. So our first question, we'll take from a submission that came in on the webcast. And Frank, maybe I'll have you start us off here. So the first question that came in is, "How is your approach to sustainability impacting your product offering?"

## **Frank C. O'Brien-Bernini**

*Chief Sustainability Officer & VP*

That's great, Amber. I was hoping I would get a question like that. Yes. So maybe I'll talk a little bit about process and then a specific example. From a process standpoint, we set our long-term goals by using a process that a lot of companies use called the materiality assessment, where we reach out to our stakeholders, and in the case of this question, to our customers, and to our specifiers, architects, engineers in the building space. And get a sense for what they need to do their work or what they need to accomplish their sustainability goals. So when we look at what do we do in our product offerings to impact and have a positive impact on our customers, we look at what they're trying to get done.

And what we really get excited about is when we have an opportunity to create products that drive demand that get us to be able to do even more and more and more in our own space of reducing our environmental footprint. So an example would be the NGX -- FOAMULAR NGX that I mentioned in my discussion, where we were out in the market. And we heard that architects and engineers, they are working hard to reduce the embodied carbon of the buildings that they were building, because as energy efficiency gets better and better, the more material impact on buildings is the materials and the construction process. So we knew that NGX would receive great interest in the marketplace. And so we worked Jose's team to reduce the embodied carbon of that product, 80%, as I said. And that has impacted the market in a very exciting way where our customers are really interested. We see the specifications for that growing. So that's an example of how we create scale, market pull that gives us sort of more confidence to make more progress.

## **Amber Wohlfarth**

*Director of Investor Relations*

Great. Thanks, Frank. All right. So our next question, we will actually take from the phone lines. We have Phil Ng from Jefferies calling in.

## **Philip H. Ng**

*Jefferies LLC, Research Division*

Great presentation. I wish I could be there, and appreciate the emphasis on technology and sustainability and investments you're making. I guess my question is just curious, how has the reception been for this Next Gen product? I couldn't help but notice, you guys highlighted a few times. We've heard great things about it. And particularly, the product we've heard can actually achieve in our value with less material and effectively unlock capacity. So any color on how much that can free up potentially and how difficult it would be kind of roll this out more broadly to your footprint? And is this a premium product in terms of how you're pricing it in the marketplace?

## **Brian D. Chambers**

*President, CEO & Chairman of the Board*



Yes. Thanks, Phil. Maybe I'll get started and then I'll ask Jose. Overall, we're really pleased with the rollout and the reception we're getting from our customers on this great product. As you said, it installs faster. It's more comfortable so we're getting great customer response and contract response in terms of its use. And it also gives us, through our process technologies and how we're making it, the ability to get more throughput through our existing footprint, which adds to our capacity expansion opportunities as we go forward to service growth in the market and gives us a very efficient way to continue to bring new products to market. So overall, it's been a home run in terms of customer response as well as the ability to unlock additional capacity in our manufacturing facilities. So it's a great example of our product and process technologies coming to life to create new opportunities for us. So maybe I'll ask Jose if any other comments in terms of the technology and how it's being used.

**Jose Mendez-Andino**

*Executive VP and Chief Research & Development Officer*

No. The technology, we continue to perfect it and continue to improve delivering products. And we should have the ability to roll out this product network-wide at the appropriate time based on market responses and as needed by customers. So we're excited about this product.

**Amber Wohlfarth**

*Director of Investor Relations*

All right. So maybe I'll take the next question that came in on the web from Garik at Loop Capital. Garik asks, "In the \$10 billion revenue goal target for 2024, it assumes about 6% revenue growth per year. How much are you assuming for market growth? How much is pricing? How much is from your new initiatives around growth in construction, increasing prefabs and multimaterials?"

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

Sure. Okay. Thanks, Garik, for the question. Let me start by saying we're really excited about how our strategy is creating new opportunities to fully leverage the power of our company and our core capabilities as well as creating new growth opportunities over the next several years. So our strategy is built, first and foremost, to capitalize on these long-term secular trends that I outlined earlier. And it really has created now an opportunity for us to redefine where we play, how we win in these markets and expand our addressable market kind of 5x to almost \$200 billion. The second thing I'd say around the strategy is that it's fully integrated across the company. So it really leverages our core capabilities, our commercial expertise, our market knowledge, our material science knowledge and a new way to open up new opportunities.

And third, it really creates a long-term roadmap for our investment choices in terms of how we're going to be allocating resources around new product innovation as well as an acquisition. So really, the strategy unlocks these secular trends. And when we talk about then the growth potential that it creates, I think we see opportunities in all 3 businesses to continue to grow inside strengthening our core positions as well as we move into more multi-material systems. So at a high level, I'd say the growth over the next few years will probably be more slanted towards our core positions as we look at new product adjacencies or new product solutions. But we're going to be looking at that through the lens of how can we further increase our multi-material system. So as we think about organic growth, in terms of new products or acquisitions, we're going to look at how they can strengthen our core, but also be part of a more multimaterial system in the near term. And as we think about prefabricated solutions, does it fit in and bring new capabilities or a product that would fit into a more multimaterial system offering for us.

So in terms of shaping between market and above market growth, look, we think that the markets we're in right now are in a very healthy position. We think they're going to continue to provide great opportunities to grow kind of probably pretty similar to rates that we've seen over the last year or 2. And then our growth above that is going to be coming through product innovation, share gains and new products that we expand into in terms of these new strategic areas.

**Amber Wohlfarth**

*Director of Investor Relations*

Copyright © 2021 S&P Global Market Intelligence, a division of S&P Global Inc. All Rights reserved.

Great. We'll take our next question from the phone line. So Stephen Kim is on from Evercore.

**Stephen Kim**

*Evercore ISI Institutional Equities, Research Division*

Yes. I had another question for Jose. You made reference to furnace life increasing over the past decade. I couldn't hear what you said, whether it was 50%, 1-5 or 5-0. And so -- but also, we generally think a furnace like lasting about 10 years. And I was curious, is that different now? Should we be having a different number in mind? And then just to clarify something from -- in your answer to Phil's question. This Next Gen Fiberglas, is this primarily the lower cost coming from greater throughput? Or is it some -- is it actually cheaper to make?

**Jose Mendez-Andino**

*Executive VP and Chief Research & Development Officer*

All right. So let's start with the furnace conversation. Just to clarify. Over the last decade, we have achieved a 25% increase in average life across insulation and composite while maintaining our high throughputs. So that's what we've been able to accomplish, primarily focusing on innovations around material sciences. Both the materials we use to build our furnaces and also the materials we melt within the furnaces. So innovation around refractory materials and also glass composition has allowed us to achieve around 25%, 2-5 percent increase in furnace life while maintaining our throughput levels. And that's a great accomplishment, a trade-off that we've been able to break with science.

In the case of Next Generation Fiberglas, the way it works is a proprietary combinations of both fiber and binder technology. And this combination of fiber on binder allow us to deliver a high-quality material while increasing throughput through the network, and that's the advantage of it. So it delivers all the great benefits for formaldehyde-free, high-thermal performance, high-acoustical performance of our conic product. But also it allows to make more of a good product in the same manufacturing network, and that's where that -- where the main difference is for us.

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

Yes. And Stephen, maybe I'd add. I think that's exactly right in terms of the furnace life. So if you take your example of about 10 years, 25%, so now we're extending that out to kind of 12, 12.5 years. So we see that kind of extension really across all of our glass melting assets. Now they'll vary a little bit depending on the furnish life type of furnace. But we're seeing that kind of average life extension that has been able to accomplish through our modeling and through our design of furnaces. So that's a great capability. And then just to emphasize Jose's comment around, we're really relying on process technologies to increase throughput. So that's what's creating kind of the capacity unlock in terms of the fiber science we use, the binder technology we're using to create additional throughput. And that gives us our capacity increase by -- through this product line.

**Frank C. O'Brien-Bernini**

*Chief Sustainability Officer & VP*

Yes. And I would just add that, that innovation is positively impacting all 3 of our scope 1, 2 and 3 emissions, which is a really exciting when we can connect an innovation like that. It has such a powerful benefit for our customers, for our own manufacturing and then for our emissions profile.

**Amber Wohlfarth**

*Director of Investor Relations*

All right. Great. So we'll take another question that came in via the web. There's several questions around the strategy and expanding markets. So I'll take one here from Mike Rehaut at JPMorgan.

He asks, "With regarding to the \$200 billion of market opportunity, can you review kind of which products that you've introduced or maybe even the products that we have today that will help get you to this larger market opportunity and then any detail on the new market opportunities for each of those product lines?"

**Brian D. Chambers***President, CEO & Chairman of the Board*

Yes. So overall, on this one -- again, I go back to maybe the chart I showed in terms of that expansion of -- from \$40 billion to \$200 billion. And we tried to give a pretty good cut around where that opportunity was being created. So about half of that opportunity is actually created, when we look inside our core product and system offering today, of where we see the opportunity to expand our product lines or get into new product lines in support of these secular trends. So I'll go back to where we see these trends, in terms of premium living spaces, in terms of changing construction practices, more sustainable solutions. We're actually looking inside of all that and say, "Okay, given our current products today, where can we add to those?"

And then where can we add that puts us on this path to providing more multi-material systems or potentially prefabricated solutions over the years to come? So that would open up opportunities in our existing roofing systems, installation systems, and in our glass fiber technology around building materials that are using glass fiber technologies today, but are really at early adoption phases, that we think we can improve the material performance, and then embed them potentially any multi-material system or prefabricated solution, really in and around concentrated on the building envelope in residential and commercial building applications. So we're going to continue to focus in on where we have strength in our current product positions.

But today, for example, I'd say about 40% of our revenues are in these multi-material systems. So these are products that we can improve the performance around through our integrated material solution. So we talk about our shingles as an integrated material solution. We generate the glass. We produce glass fiber, mat and asphalt to combine that into a composite solution. We see this in our ability to take glass nonwovens, put coating on it, attach it to insulation boards for commercial roofing applications. So these are areas that we're looking at where we can expand that integrated material solution or where we can use our products. For example, like our roofing system, where we can combine products that we produce in a new way in a multi-material system that saves job site construction labor, improves efficiency times or creates a more sustainable solutions. So we've got a couple of avenues that we're really focused on that really strengthen our core positions, but increase the amount of solutions we can bring that fit into this multi-material, because ultimately, we believe we're coming into a world that's going to demand and require more integrated material solutions for building and construction applications. And we want to be in the forefront of that as we develop new solutions going forward.

**Amber Wohlfarth***Director of Investor Relations*

Great. All right. So our next question will also be one that came in via the web, and kind of building off of what you just talked about, Brian. So Trevor Allinson at Wolfe Research asks about, "You discussed expanding your addressable markets 5x to \$200 billion. Can you talk about how expanding the size of your addressable market will impact the cyclicity of your business, either positively or negatively? And maybe give some examples of how that will happen."

**Brian D. Chambers***President, CEO & Chairman of the Board*

We've really been working hard as we've looked at our product solutions, and this has been really over the last several years. When you look at the product categories that we've grown into through organic growth, in terms of some of the technologies and some of the innovations Jose talked about, or in some of our recent acquisitions over the last 3 or 4 years, they've all been built to try to create a more sustainable earnings performance for the company. And we believe that we're demonstrating that now in terms of the higher and more sustainable earnings we're generating today.

And when we think about the opportunity in these long-term secular trends, while we're not going to be immune to kind of the construction markets, and there are going to be some cyclicity to those. We do think that the more we're embedding ourselves in terms of positioning in multi-material systems that really tied to these long-term trends, that over time, that's going to reduce the cyclicity we see today.

So for example, when we can build out and increase our product solutions in more multi-material systems and how residential homes are built, or in terms of more sustainable solutions that we think are going to continue to drive increased investments in both homes, commercial buildings. We see just opportunities that, that creates then longer-term trends, that create a more durable and sustainable operating performance for the company. So that's going to be our focus in terms of product categories that really allow us to expand our solution set and gives us more opportunities to participate in that long-term secular growth. And that creates, I think, a more durable, consistent earnings potential for the company.

**Amber Wohlfarth**

*Director of Investor Relations*

All right. So we'll take another question here. Shivani Patel from William Blair has asked about the European Green Deal and just the EU emissions. Are we seeing any impact in Europe from the EU emissions and are the innovation efforts and operational efficiencies in manufacturing, moving at a pace that minimizes carbon emissions enough to avoid any impact from a carbon standpoint? So Frank, maybe if you want to talk about the manufacturing side, and Brian, maybe some of the opportunities from that.

**Frank C. O'Brien-Bernini**

*Chief Sustainability Officer & VP*

Sure. And thanks a lot. Yes. So in my conversation, I talked about the 19,000 employees of Owens Corning being the sustainability team, and our work to mitigate risk and capture opportunity. The EU Green Deal is a great example of that where we have been working, as we said, for decades to reduce the environmental impact of our operations. And we continue to do that through implementation of technologies that reduce the carbon emissions from our facilities and mitigate the sort of the delta between the allocations that are given in the EU Green Deal and our actual operations.

So in our path to decarbonize, we see a great opportunity to reduce our exposure in carbon emissions. On the market side, I know Brian will say a few words, and you'll hear more from Todd Fister this afternoon or in a few hour -- in a few minutes here, I should say, where Todd will talk a little bit about the positive impact that we see or tailwinds in the EU Green deal, particularly around the focus on building energy efficiency improvements.

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

Right. No. I think that's going to be the market opportunity we see as buildings continue to be built or energy efficient or the renovation of those over the next decade. I think there's going to be a lot of opportunities in demand for insulation products and more sustainable building materials solutions that we see in front of us. And as Frank said, Todd will talk about that here later this morning and give some more clarity and color around that.

**Amber Wohlfarth**

*Director of Investor Relations*

All right. So maybe we'll take one more question here. And this question has 2 parts. So I'm going to save the second part for our second session. It's more specific to one of our businesses. But Kathryn Thompson at Thompson Research Group asks how we are going to be impacted by the infrastructure bill? And if we could see any impact to that for the company or any of the businesses.

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

Thank you very much for the question, Kathryn. We think there's going to be a positive impact for the company around the Infrastructure Bill. I would say stepping back though, part of our big secular trend opportunity we see in the U.S., in Europe and around the world is really an increased investment for infrastructure. Roads, bridges, highways, telecom, all of that infrastructure creates opportunities through

the product solutions that we offer today and for the opportunities that we see in front of us that we can innovate and move into new product spaces there.

So it's early days to understand exactly what that impact is going to be in the U.S. But certainly, given our share position, given our product offering, we would expect to see an uplift in sales as we go forward and this gets implemented. However, it's going to depend a little bit on when that gets implemented and the timing of some of those dollars. But anything infrastructure-related in the U.S., Europe or around the world is a positive tailwind for our product offering and our solutions.

**Amber Wohlfarth**

*Director of Investor Relations*

Great. I think that wraps up our first session of Q&A. So we'll take a short break. And then we will come back together at around 10:10 and start the second session of the Investor Day. Thank you.

[Break]

**Marcio A. Sandri**

*President of Composites*

Good morning and good afternoon. I am Marcio Sandri, and I have been President of our Composites business since 2018. I have been with Owens Corning for more than 20 years, working in sales, business development, strategy and marketing, operations and general management. I have worked in Brazil, Mexico, the United States, China and finally back to the United States in 2013. In addition to my experience with Owens Corning, I have held leadership positions in other global industries. Today, I will talk to you about Owens Corning's \$2.3 billion Composites business and its critical role within our enterprise strategy.

I will specifically speak to 3 key points. First, our team has worked to improve the Composites business by focusing on manufacturing productivity, disciplined cost control and investing in innovation to serve our customers. Driven by strong execution, we have delivered results and demonstrated resilience in a dynamic market. Second, we will continue pivoting the Composites business to high-value applications. We will do this by investing in integrated material solutions, and by seeking to expand our business into markets where we see larger and more profitable opportunities. And third, in the final part of my presentation, I will describe the future of our Composite business.

We expect to continue delivering high margins and above-market growth. We will do this by building on secular trends and leveraging our capabilities in support of the enterprise strategy. As I discuss this move towards higher value opportunities, you will see that revenue generation in our Composites business has changed. In 2020, we generated nearly 40% of our revenues in end used markets characterized as building and construction. This was delivered through our nonwovens and our reinforcement product lines. Growth in this segment is linked to macro indicators such as residential and commercial construction, like other business within Owens Corning. And as we further invest in integrated material solutions, we expect building and construction to make up a greater share of our overall revenue. One such investment is the recently announced new mat line that will be installed in Fort Smith, Arkansas.

Renewable energy makes up almost 20% of our global revenue and is primarily linked to global wind energy installations. This is driven by demand for our high-performance glass. We expect that demand to increase as the world uses more and more renewable energy. Furthermore, larger turbines and longer wind blades, sometimes up to 120 meters, are dependent on high-performance composites. Infrastructure covers a range of applications, which use our glass reinforcements. We see a strong market correlation between demand for infrastructure and investments in manufacturing and transportation as well as a trend towards infrastructure renewal, which will be built with more sustainable solutions.

We are well placed to service this growing demand through our global manufacturing network. Today, about 70% of our revenues are in these 3 segments. That speaks volume about our ability to deliver greater value and be more successful. We continue to make investments to expand our position in them, and we expect these segments to grow above the market. As a result of our choices to invest in the growing markets just discussed, we have transformed our financial profile.

We have seen significant growth in Composites results, including a record year-to-date EBIT of \$278 million. This is a direct result of solid execution of our teams, growing revenue by focusing on high-value applications, concentrating efforts on key growth accounts and regional strength, which supports our localized supply chain model. We supply local customers through local supply. As a result, we have generated improved mix and significant price gains. Combined, we have achieved more than \$90 million year-to-date of margin improvement, which more than offsets the impact of inflation.

Our diligent focus on cost reduction has further contributed to stronger margins. EBIT margins are up 360 basis points from 2019. This is largely driven by productivity and cost-out actions throughout our network, including higher plant operating efficiencies, labor optimization and reduced fixed costs. Our commitment to new product development and integrated solutions will drive continued growth in the Composites business.

Other factors favoring the sustainability of mid-teen EBIT margins in our business include favorable market trends, high capacity utilization and increasing logistical cost for those without localized supply chains. We are committed to sustaining profitable growth in the Composites business and Owens Corning. We will continue to pivot our business more towards higher value building and construction applications.

We will increasingly provide customers with composite solutions, enabling material conversion and move beyond simple core reinforcement products.

Our solutions offer enhanced performance in areas such as material durability and productivity during the installation process, which can also deliver a positive environmental impact. A great recent example of the benefit of composites is the Halls River bridge in Florida. The use of Owens Corning composite rebar there will deliver a service life for the bridge expected to exceed 75 years.

Our long history of success in material conversion proves that we know how to do this. For example, we have successfully converted several segments of the building and construction market from paper and other traditional materials to glass-based nonwovens. This proves the inherent benefits of glass reinforcements. They provide fire resistance, mold resistance and bring dimensional stability, make the end materials more durable and environmentally friendly.

Now we are looking at even larger opportunities. Our products help make integrated material solutions that are highly durable, energy efficient and lightweight when compared to other materials, such as steel, wood or concrete. When you look at the conversion to glass in the markets where we are active today, it is in the range of 50% to 60%. So there is still room to grow. And as we continue pivoting into new and emerging applications, the opportunity is even larger. They're broader markets and the conversion to glass is still in its early stages, in many cases, below 20% and sometimes much lower than 20%. Knowing the benefits of composite materials, we will pivot our business by adding new integrated material solutions. We will initially focus on emerging glass-based applications and leverage the fundamental strength of our core glass reinforcement business.

So as we face into these new applications and opportunities, I want to discuss with you how we will execute. The future growth of the Composites business is focused on the delivery of higher-value, higher-margin solutions for our customers. We have made investments and seeing growth in our wind business, our nonwoven business, and more recently, our North American composites rebar business. Jose Mendez-Andino referred to this area today as pink bar, which is the extension of our well-known brand in building and construction.

These investments move us from being simply a provider of key raw materials for composite producers to a provider of integrated material solutions. An example of this is our recent acquisition of vliepa. With this acquisition, our nonwoven segment will deliver coated solutions for gypsum and insulation markets in Europe. These products offer moisture resistance and greater dimension stability. Through these actions, we have created more value for our customers by improving the product performance and delivering productivity benefits during the installation of those products.

As we seek to further position our business to provide new solutions, our goal is to become more of an integrated solutions provider. The best example of this being the roofing business run by my friend,

Gunner Smith. By the way, roofing shingles are a composite part made of asphalt and reinforced with glass fibers. We believe that the power of our brands, and the channels we can share with the roofing and insulation businesses, will deliver higher-value, high-margin solutions.

It will also increase the likelihood of successfully converting markets from traditional materials to glass, which we have done in roofing, and which we are doing in the rebar market. As we continue down this path, we must make choices. One of those choices includes evaluating the future of the dry-use chopped strands product line. We are reviewing strategic alternatives for this product line that would allow us to reallocate resources to the other opportunities that I have described earlier. The decision to explore alternatives for these product assets and product line is consistent with our enterprise strategy.

As we bring this discussion together, we are positioning Composites to leverage the key secular trends mentioned by Brian Chambers, and to benefit from enterprise critical capabilities. Our focus on building and construction offers composite solutions, which can be more sustainable, allows more efficient construction methods to be used, employs Owens Corning's channels and builds on the power of our brand. Secondly, renewable energy is the key to sustainability.

We see increasing participation of wind power in the energy matrix and greater electrification in transportation. Our integrated materials solutions are all based on our leading glass technology. Some examples are our pre-shaped fabrics and protruded parts for wind blades, and our preimpregnated fabrics for trays and covers of vehicle batteries. We will deliver these solutions through partnerships with customers.

Investments in infrastructure are happening and are likely to increase. Owens Corning's localized supply chain, experience in material conversion and leading products such as our high-performance glass will drive our success. Our investment in composites rebar is an example of our commitment to succeed in this market through integrated material solutions. Composites adoption means material substitution, and this will deliver growth above market. Our strategy of integrated material solutions will ultimately result in a business that is less capital intensive and capable of delivering higher margins through the cycle.

Our strategy is already working. We have delivered a strong business in Composites by optimizing our production network, investing in new products and process technologies and focusing on higher value applications. This has driven our resilience in a dynamic market. We have evolved the business through focused actions, which are increasingly aligned to the building and construction space. We continue to pivot the business to higher value applications, while exploring options about the future of a noncore position, which further reinforces this evolution. We are looking for opportunities to expand our building and construction material products and solutions.

In the coming years, we see a positive environment for the Composites business, driven by a good underlining market environment, continued innovation and strong partnerships with customers. We will deliver a more sustainable growing business aligned with our enterprise strategy. Now I will hand it over to my friend, Todd Fister, who will speak of Insulation. Thank you.

**Todd W. Fister**

*President of Insulation*

Hello, I'm Todd Fister, President of the Insulation business. I joined Owens Corning in 2014, and served as Managing Director for European Insulation and Global Phone Glass before being asked to lead the entire Insulation business in July 2019. I'm proud of the progress we have made in improving the performance of our business over the last 2 years and I'm optimistic about the secular trends providing long-term growth. We believe insulation is 1 of the highest return solutions to carbon emissions and climate change. And ultimately, more insulation is required to enable a broad shift to renewable energy. We also believe the current secular trends around ESG and climate change will cause insulation demand to grow at a faster rate than overall building construction growth. At the same time, we've repositioned this business to have higher margins, demonstrated by doubling earnings from 2019 to 2021 consensus.

This combination of secular trends in support of our products, higher expected growth rates than the overall market and a disciplined management team focused on margin expansion, results in significant long-term growth opportunities for investors.

Today, you will hear 3 things. First, we have structurally improved our margins, delivering a 500-basis-point improvement since 2019, at least half of which should be permanent. Second, we've repositioned the business to a higher earnings potential, driven by our operational improvements and our diverse product offering. Third, Insulation can consistently grow above the overall building and construction market. We provide important solutions to solve the world's climate challenges.

We think about Insulation as 2 businesses: North American residential and technical and global insulation. In most of our markets, we hold the #1 or #2 share position, and we have 1 of the broadest portfolios of insulation materials so we can sell the right material for the right job. About 1/3 of our business is in North American residential fiberglass insulation, where we hold the #1 share position and have an iconic product and brand in the broadest supply and distribution network. The other 2/3 of our business is in technical and global Insulation, including North American extruded polystyrene in technical fiberglass, mineral wall and cellular glass products sold in multiple global markets, where we mostly hold a #1 or #2 share position.

These products are used in a diverse and attractive set of end markets. commercial and high-rise buildings, data centers, industrial plants and in residential construction. These technical and global products deliver multifaceted performance, always thermal functionality, but often with 1 or more additional performance factors like moisture, fire, compressive strength, expansion and contraction, Certification as a System or runability through OEM processes.

In each business, we have a unique combination of leading brands, leading market positions and leading solutions that position our Insulation business for continued success. The combination of those factors creates a business with substantial long-term earnings power. Since I took over leading the Insulation business in July 2019, we focused on returning this business to market-leading margins.

We focused on 3 primary levers: productivity, price mix and network optimization. In each case, we have strengthened our management systems, added strong leadership talent and driving clear accountabilities. As you can see on this slide, this has driven a 500-basis-point increase in EBIT margin from 2019 to consensus 2021. At the same time, we have expanded revenue, and therefore, consensus suggests a near doubling of total EBIT since 2019.

In achieving consensus, we will have grown revenue by 18% in total over this period, entirely organic growth as our most recent acquisitions occurred in 2017 and 2018. As you could see on this slide, our revenue CAGR is well above the overall building and construction industry growth. We believe we have gained share since 2019 in most of our largest product lines through commercial execution and innovative products. In 2021, we also have gained price to stay ahead of unusually high inflation. Our earnings have grown at a significantly faster rate than revenue. In addition to gaining price, we have increased our productivity to the range of 2% to 2.5% of COGS over the last 2 years.

It's the opportunity for further productivity. We've reshaped our network through a combination of process technology investments, network optimization choices and capital efficiency initiatives to drive higher throughput, lower cost and improve cash flows. Specifically, we've invested capital to upgrade our packaging lines, reducing labor required in our plants and allowing better density efficiency, a measure of how much material is required to achieve a certain [R] value. We also have invested in fiber technology in other parts of our process to further improve density efficiency and have driven better leverage in our overhead spending, both in manufacturing and in SG&A. We believe at least half of the margin expansion since 2019 is structural.

In other words, we should benefit whether markets are stronger or weaker in the future. At the highest level within Insulation, our focus has been on delivering market-leading margins, but through distinct strategies for the North American residential and global and technical businesses.



Our focus in North American residential has been addressing the underperformance of that business since the 2007 downturn. As you can see on the left-hand side chart, we have delivered significant margin expansion since 2019. We have driven productivity in line with the overall average I shared earlier, and we have executed on price and mix initiatives to reposition our business with customers.

Moreover, we've taken actions to position the network for success in markets like today and in future cycles. For example, our recently announced sale of the Santa Clara land will unlock significant value for shareholders, while resulting in a more flexible network with lower fixed cost that actually will improve customer service, a win-win-win for customers, shareholders and the business. Even with the margin expansion since 2019, we remain below the peak 30% EBITDA margins in the business. So we see upside if markets remain healthy.

Our strategy has been different for the technical and global business. This business generally has more stable margins, and we serve a diverse group of end markets. So the result is a less cyclical business with abundant growth opportunities. As you can see on the right-hand side, we have expanded margins by 300 basis points since 2019, and we have doubled the size of this business since 2006. While our North American residential business will cycle in the future as housing starts rise and fall, we have a diverse portfolio of businesses delivering market-leading margins, which should reduce the outside cyclical effects that North American residential drove in previous downturns. This improving margin story is against the backdrop of increasingly favorable secular trends for insulation that create new opportunities for growth.

Insulation at its simplest keeps cold things cold and hot things hot. More insulation and better insulation results in less energy being lost from a building or process equipment, which results in less carbon being admitted to produce that energy. This is a completely passive effect that lasts more or less forever. Insulation installed once can save energy for decades, with no further investment or maintenance by the building owner. Other climate change technologies like solar, HVAC equipment and electric vehicles cannot make this claim. We see higher future demand for sustainable solutions to meet the challenges of climate change. Buildings account for nearly 40% of carbon emissions. So along with transportation, we will need to see a significant reduction in building carbon emissions to address the climate change challenges.

With its low cost, low maintenance and high impact, it is not surprising that insulation is 1 of the highest-return ways to help address carbon emissions. As Frank shared earlier, Insulation could save 12x the energy used to create it in 1 year, and the next 50, 60, 70 or 100 years, provide continual passive energy savings. Installing insulation consistently generates good returns for building owners, and those returns increase as energy costs increase. This is an incredible product.

If we were launching insulation for the first time in today's world, it would be recognized for what it is, a highly engineered, but low cost and simple solution for carbon emissions and climate change, which is exactly why we believe insulation demand will outpace overall building and construction spending as changes in construction practices result in more energy-efficient buildings, which results in higher insulation take per unit.

A vast majority of buildings in the U.S. and Europe are under insulated, and the adoption of the 2021 IECC code in the U.S. alone would result in 270 million pounds of additional insulation each year. The EU Green deal could result in 35 million incremental buildings being insulated. At 500 pounds of insulation each, that's another 17 billion pounds of insulation demand over time. This same math works for industrial and commercial processes that involve hot or cold liquids and gases. As companies of all kinds seek to decarbonize, insulation is a simple, proven and inexpensive solution. For example, an 8-foot section of uninsulated pipe at a 350-degree Fahrenheit temperature, covered in 2-inch thick pipe insulation, saves the amount of CO<sub>2</sub> a full-size pickup emits over 20,000 miles of driving. Installing just 8 feet of insulation is far cheaper than converting from a gas to electric vehicle or other changes industrial and commercial customers may consider to decarbonize.

The secular trend strongly suggests that insulation will grow above market as a solution to climate change. Even better, our Owens Corning insulation materials are well positioned to win in an expanding insulation market. In fiberglass, we used the highest recycled content in the industry and renewable energy, resulting in a carbon profile that's difficult to beat. We just relaunched our Owens Corning EcoTouch Insulation as PINK NextGen insulation designing the product from the glass fibers up for 23% faster

install times and a product that fills a softest cotton. By year-end, we expect the majority of our product portfolio to be converted to this contractor-preferred product. And soon after 100% of our North America residential fiberglass volume will be PINK NextGen.

In global mineral wool, we have invested in capacity and product innovations to establish Owens Corning as 1 of 2 leading global companies in this product line. In North America, we make a product called slag wall using a waste byproduct of steelmaking and have a strong position in fire safe assemblies for commercial high-rise buildings. In Europe, we have a long history of innovation in the [product] business, launching lighter weight, higher density and higher performing products, to help solve customer problems where thermal and fire performance are important.

We recently launched Natura, our first carbon neutral insulation slab in Europe, an important launch to position us for continued success. We believe a continued focus on innovation will help our mineral wool business gain share from competitors and from competing insulation products, especially in Europe with a renewed focus on mineral wool's superior fire performance. Our XPS business recently launched the FOAMULAR NGX product, a new formulation that results in 80% lower embodied carbon. XPS is a fantastic product with excellent thermal and moisture properties, but architects have historically been reluctant to specify it due to its sustainability profile. Now we have addressed those sustainability concerns and XPS foam insulation can reach its full market potential.

The performance of cellular glass remains unchanged even after decades of use, making it a permanently incombustible and moisture impermeable insulation. An ideal insulation material for long service life buildings and mission-critical facilities and 1 that is highly resilient to changing climate conditions due to its unique fire and moisture properties.

Since the acquisition of Pittsburgh Corning, we have commercialized a new cellular glass product in Europe called T3+, which has better thermal performance than our legacy product. That improved performance has allowed us to reduce the thickness of our product, opening up the number of roofing and other construction projects where foam glass can be used. For foam glass industrial, large oil and gas project spending has remained muted but we are investing in solutions to grow the new markets. For example, foam glass can play an important role in emerging technologies, including hydrogen generation and cryogenic carbon capture and storage systems, where the insulation requirements are very demanding. We are actively partnering with specifiers and owners on these new solutions.

Beyond these core products, we are also making investments in new technologies. We have made a small ownership investment in an innovative aerogel start-up company, which gives us access to a key material used for insulation in electric vehicle batteries and other high-performance applications, playing another key role in a net-zero future.

Many of our products are used as components of multi-material systems, where our insulation materials provide thermal, acoustical, moisture, fire or structural performance. And we continue to innovate new materials to improve the performance of those systems. We have multi-material system innovations underway to make our products lighter, more sustainable and better performing. We also directly sell multi-material systems today.

For example, in home centers, we support our customers with insulation blowing machines used to install loose-fill insulation in attics. We provide insulation solutions for hot and cold water pipes and commercial buildings, insulation, jacket and sealing tapes to ensure quality insulation. In foam glass, we add facers and coatings to our products to allow use in different systems, and we fabricate industrial pipe systems in Europe.

Overall, we see continued opportunity to innovate along multiple paths in our existing core products, with new products, and into multi-material solutions. This combination of innovation and organic growth should result in higher volumes in future years. To meet this demand, we will continue to invest in process technologies and productivity initiatives to unlock new capacity from our existing plants and lines. And we will carefully evaluate new capacity additions in markets where we see the most attractive long-term growth opportunities.

Over the last 2 years, we have significantly expanded margins, while positioning the business to deliver higher earnings with less cyclical. This is a structurally more profitable business, and insulation is perfectly positioned to help the world address the growing needs for sustainable solutions to address climate change. Our purpose as an enterprise is to make the world a better place. We are a company that sells a solution to global warming that serves the major economic regions of the world, and does so with products often made with recycled materials and renewable energy.

Unlike many companies selling climate change solutions, we also have global scale at \$3 billion of revenue, and believe we can deliver market-leading margins along with innovations that position us as a leader in driving net zero solutions. We believe we are exceedingly well positioned to drive profitable growth as we help the world address long-term challenges with high-impact sustainability solutions. Thank you. And next, I will introduce Gunner Smith, President of the Roofing business.

**Gunner S. Smith**  
*President of Roofing*

Hello, everyone. My name is Gunner Smith, and I lead our Roofing business. I appreciate the opportunity to share more about the business and market today. My career in residential steep slope roofing spans close to 25 years, most of that spent directly in customer-facing sales and marketing roles. I've spent most of my professional life face-to-face with distributor and contractor customers. And I believe that's a unique perspective I bring to this role and to Owens Corning. Speaking on behalf of our entire Roofing team, I believe we're well positioned to execute the strategy I'll lay out today, and I'm excited to share it with you.

I'm extremely proud of the way this team has performed in a sold-out market in 2021, especially how we've been able to outpace a highly inflationary environment with disciplined pricing actions. Our outstanding commercial team, which I believe is the best in the industry, and our expertise in manufacturing and supply chain are at the core of that success.

We've made a lot of progress in the Roofing business and have demonstrated strong performance over the last several years. Progress has come in the form of our ability to execute in any market condition, and how we strategically positioned ourselves to grow. Those are the consistent threads that give us the confidence in this business moving forward.

Despite a very difficult market in Q2 of 2020, we set a full year EBIT record last year and are ahead of that pace after 3 quarters this year. Today, I want to share how we're going to accelerate our growth from the strong foundation we've built.

To do that, I'll share 3 key messages during our time together. First, we have market-leading products, advanced manufacturing processes and a leading cost position. Our patented duration portfolio of shingles is a good example of how all 3 of these come together to become significant differentiators for Owens Corning, solidifying our margin performance. Second, we have clear growth opportunities. Through a relentless focus on roofing contractors, we have the opportunity to expand our network and convert contractors at an accelerated rate. We also continue to have above-market components expansion opportunities in our path. Combine these opportunities with our proven product innovation, and we're very excited about the growth this business can deliver. And third, we are investing to increase our supply position through productivity, process innovation and continued capacity expansion initiatives in our industry-leading network.

In addition, we will build targeted inventory levels to manage the growing demand we expect to generate as well as regional surges in demand. To help set the context for the conversation, I want to provide an overview of the North American residential roofing market where we play, and share how we've built a unique leadership position that's sustainable and built to grow.

We sell into a distribution network, and those distributors, in turn, service contractors and do-it-yourselfers. The distribution community is made up of 4 distinct channels. One step which is the large specialized distributors that buy from us and deliver jobs to contractors; 2-step, who sell to lumber yards,

who in turn sell to contractors and homeowners; home centers, who I believe you all know well, and prochains, which are direct buying lumber yards with scale.

We've seen a real shift over the years. And today, one-step distribution services the majority of the market. And you can see the national one-step piece of the pie is quite large. We have a very strong position across all the leaders in this channel. Home centers play a critical role in the distribution of residential roofing products and often serve a unique customer, which makes them very valuable to us. We are the only shingle manufacturer positioned in all 3 of these home center customers. We also have a healthy share and presence in the 2-step and prochain channels, which are largely lumber yard type customers. The point is this: we're well represented in every channel and are partnered with the premier distributors in each market.

I believe our customer portfolio is the most diverse in the market, and our channel strength supports our contractor strategy. We are committed to growing together with this broad distribution network by working closely with them to participate in their digital enhancements, commercial activity and supply chain efficiency. Our market is largely driven by nondiscretionary repair and remodeling work. And as you can see in the lower left corner, this reroof activity typically represents over 80% of the market. This is an important distinction and will be helpful as I talk about our strategy.

As we evaluate the key external drivers to roofing demand, we continue to see a strong environment driven by the age of existing housing stock in North America, homeowners continuing to invest in their living spaces, aesthetics and exterior upgrades and complete roofing systems utilizing more components to improve performance and protect what is most people's largest asset. The key secular trends of increased premium on living spaces and changing construction practices that Brian mentioned earlier, are beneficial to this business and the multi-material system approach we have.

We are in a very healthy cycle due to the number of homes that were built in the early 2000s. Given that robust customer portfolio, and the positive macros that are driving our industry, let's shift to take a closer look at how our roofing business is performing within these conditions. Our business is growing, which you can see as the left side illustrates our top line growth and profitability since 2019. We've grown revenue by outperforming in components and growing the InterWrap business we purchased a few years back. We've been innovative with our shingle product lines, extending and enhancing our industry-leading duration series of shingles. Our strong commercial team has been instrumental in creating an unmatched contractor network that allows us to attract and influence roofing contractors. I'll speak more specifically to that in a few moments.

We're confident in our margin performance as we continue to leverage our vertical integration opportunities, particularly from the performance and productivity enabled by the mat our Composites business provides us and our deep asphalt capabilities to create a leading cost position. In addition, the productivity and capacity we've gained across our plant network is also very beneficial, allowing us to add production to service the customer base we've built. This is critical to our growth heading in 2022 and beyond, and I'll share more detail on that as well.

Sticking with our performance story, we've also seen profitable growth through our multi-material roofing system, as our components portfolio is positioned to deliver future revenue and earnings streams that are as reliable as our shingles. And as detailed on the next slide, we've built an industry-leading contractor network that create sticky and mutually beneficial partnerships. Three big keys to our success moving forward will be roofing contractors, innovative products and our components portfolio.

I want to take a few minutes now and talk about these 3, starting with roofing contractors. Contractors are so important because they drive the repair and remodel transactions with homeowners. We've proven that our ability to attract contractors to help them grow their businesses is how we win, and why we expect to outpace the market going forward. Our contractor network has become the heartbeat of our commercial strategy. As I mentioned, they allow us to pull through sales through our very important distributor partners, creating demand for them, while creating opportunities for us to bolt on high-margin accessory products. The strategic decisions about where and how to invest in our Roofing business are centered around enhancing our pull-through strategy with our contractor base.

If contractors can sell more Owens Corning's Roofing systems, we win by generating demand for our distributor partners. That hypothesis has been proven over time. Contractors are so important because they're a leading influencer in the reroofing transaction. We believe that the vast majority of cases, homeowners chose the brand their contractor recommends. This strategy fuels our product and marketing innovation. We continue to innovate products that have compelling in-home stories. Those stories include things like patented SureNail strip, sustainability enhancements as we've expanded our polymer-modified asphalt offerings, as we've launched more COOL reflective products and as we've recycled more product back into our coated woven underlayments. We've also built a product portfolio that operates as a high-performing system and have created physical and digital selling tools for contractors to easily tell that story, whether they're online or in the home.

These products, selling tools and the overall focus on contractor needs has helped us grow our contractor network by 25% over the last few years to over 22,000 members. And we're retaining those contractors, separating ourselves from the competition. So we see an opportunity to accelerate contractor conversions, and we'll do that through continuing to innovate products and systems that make our brand overwhelmingly attractive to homeowners. We will continue to give them more digital tools as consumers adapt the way they transact with contractors. And we will invest in the capacity and inventory necessary to service this growth.

The second key to our future success is product innovation. And I just shared the importance of products that create value for our customers. We continue to find ways to innovate the products that have the biggest impact on our customers. Today's contractors want unique innovation that translates into a selling story and the performance to back up that story. The duration product line has been a home run in that regard, and we have a very unique patented feature with the SureNail strip. SureNail is a fabric built into the shingle that has several performance characteristics that resonate with contractors and homeowners. It's visible, easy to understand, and it is a great example of the sellable features I'm talking about.

What makes Duration so easy to sell is that we can prove the performance, and we have compelling marketing materials to visually demonstrate our claims. That's been so successful that we're expanding the products to meet customers' needs on sustainability, aesthetics and performance. Things like Duration COOL, our expanding line of reflective products that reduce surface temperatures of the roof, and therefore, reduce energy costs in the home. Polymer-modified asphalts, which we use to produce shingles with enhanced impact resistance in hail markets. We've also found the demand for unique colors continues to expand. In fact, we announced our 2022 Color of the Year, Bourbon, a couple of weeks ago and contractor feedback has been remarkable. This all adds up to a holistic offering that strengthens our market position.

Those of you who saw our Roofing presentation during the Investor Day in 2017, will recall our component strategy was a key growth driver for us, and that remains true today. We're so much more than roofing shingles. Our Components products also play a crucial role in our strategy and have been a big driver of our revenue and earnings performance. Homeowners react favorably to our system selling strategy, a multimaterial approach to roofing a home. And we continue to innovate products and selling tools for contractors to confidently offer a roofing system, which provides outstanding performance.

In essence, we leverage the contractor base to increase our attachment rates, and we're seeing an acceleration of system selling in the marketplace. The key segments you see on the left side are the products that make up the attachment rate referred to on the right. Specifically, we have increased our attachment rate selling components alongside our shingles by 40% since 2016. We have leading cost positions in these categories with room to grow and expand.

Growth from systems is key, but we've also found opportunities to grow beyond Owens Corning's roofs. We sell many of these products under our competitors' asphalt roofs, and we're seeing wins under competitive material roofs such as metal, solar or tile. And perhaps the best news is that the Components portfolio delivers similar margins to our Roofing business. Brian has shared that a key piece of our enterprise strategy is to expand in the multi-material systems. Specifically, with OC products as the control point for these solutions, we can deliver more functionality and a model that our contractors can easily sell to homeowners. In Roofing, we have a great proof point of this with our total protection roofing

system. We leverage the key ingredient, our shingles and our robust audience, roofing contractors, to capture more of the products in their Roofing solution. We continue to extend and enhance our offerings in this space. And this illustration brings the strategy of innovating products and expanding components in a way contractors can confidently sell the system together.

To support our growth, we have to be able to consistently service our distributor partners as we pull more contractors through their stores and branches. We are well positioned with our broad plant network, and we are accelerating our investments to upgrade capacity in these existing sites. This will be what gives us options to manage growing positions in any state or province.

We can also remove existing bottlenecks to improve overall efficiency in our production process by advancing the preventative maintenance discipline we call TPM, total productive maintenance. And when weather events or other conditions drive immediate demand, strategically placed inventory is the fastest way to the market. Through these productivity initiatives and process technology improvements, we will be building and maintaining enhanced inventory levels to meet these demand surges. This creates trust in our reliability with contractors, which gives them the confidence to invest more in the Owens Corning brand.

We've delivered exceptional results in the business, and we are comfortable we can continue that performance. We have market-leading products at a leading cost position, unlocked through vertical integration and our manufacturing and asphalt expertise. We have an innovation engine, producing new products that our customers love selling. We have significant growth opportunities and are focused on converting more contractors through accelerating our proven contractor program and extending and enhancing our multi-material Components portfolio.

To service that growth, we'll accelerate our investments in capacity and inventory.

This strategy continues to create growth opportunities for our business and continues to strengthen our market-leading position. I appreciate your time and your interest in Owens Corning and our roofing business. It's been a pleasure sharing our story with you all today. We've built a great business with a high-margin profile and exciting growth potential. On behalf of myself and the roofing leadership team, we appreciate your confidence and investment in us. Thank you. I will now introduce Ken Parks, our Chief Financial Officer. Ken?

**Kenneth S. Parks**  
*Executive VP & CFO*

Good morning. I'm Ken Parks, Owens Corning's Chief Financial Officer. You've heard from the team this morning about how we continue to transform our enterprise in order to drive growth and sustained mid-teens margins. As a result, we believe Owens Corning has a very compelling investment thesis. And in the next few minutes, I'll take you through each of the fundamental pillars of this thesis. You can see them summarized here. We're expanding our addressable markets and growing through core capabilities. We're executing to improve the level of sustainable operating margins, we're reducing capital intensity, and we're generating strong free cash flow conversion. Simply stated, we're investing to deliver profitable growth and committed to creating value for our shareholders.

As I get started, it's important to take a look at the successful transformation of the company's financial profile that's already been achieved. At current consensus estimates, revenue grows to approximately \$8.4 billion in 2021. That's a 6% CAGR since 2013. Over the same time period, operating margins are expected to expand nearly 800 basis points and are estimated to be nearly 17% for 2021. On average, annual free cash flow conversion has been 116% since 2016, and consensus estimates it at 107% for 2021. From 2013 through the third quarter of 2021, we have generated an impressive \$4.3 billion of free cash flow. Finally, return on capital more than doubled since 2013 to a healthy 17.3% during the most recent 12 months. All of these key performance indicators have shown steady improvement and reflect the company's successful execution against our commitment to build a bigger, more profitable enterprise, generating strong free cash flow.

As Brian said earlier, while we're pleased with our financial results over the past few years, we believe there's even more opportunity going forward. So where do we go from here? First, let's take a look at top line growth. We're targeting revenue to continue growing at a 6% CAGR and to reach approximately \$10 billion by 2024. Our new enterprise strategy builds on the 4 secular trends each presenter discussed this morning and identifies the long-term priorities expected to fuel this next level of growth. The 3 priorities are to strengthen our position in core building and construction products, to expand our multi-material solutions and to develop more prefabricated solutions. As you see on the right, we expect this strategy to give us the opportunity to expand our total addressable market to approximately \$200 billion, that's 5x our addressable market today. The building and construction materials solutions choices needed to address this expanded opportunity will be supported by both organic investments as well as acquisitions.

In addition, it's important to note that we've had many opportunities to continue to grow sales within our current addressable markets. Gunner outlined his target to drive the top line through above-market components growth and expansion of our industry-leading contractor network. Marcio spoke of his focus on continuing to pivot the composites business to higher-value solutions. Todd outlined the opportunity for insulation demand to outpace overall building and construction spend as the world focuses on decarbonization. In addition, as you heard from Frank and Jose, our unique sustainability and innovation capabilities provide top line growth opportunities as we collaborate with our customers to create new solutions. This covers the first pillar of our investment thesis, expanding our addressable markets and growing through core capabilities.

Executing to improve the level of sustainable operating margins is the second pillar of our investment thesis. As you see on the left, maintaining mid-teens operating margins in the range of 14% to 18% while revenues continue to grow, will drive additional enterprise earnings expansion moving forward. The commercial and operational execution initiatives shown on the right are fundamental to higher operating margins and overall profitability. Across all 3 businesses, we'll remain focused on maintaining a positive price/cost mix just as we're doing now in this highly inflationary environment. Also, network optimization activities have improved the structural profitability of our businesses and help in driving ongoing manufacturing productivity in our production facilities.

Manufacturing excellence is a key component of Owens Corning's operating model that Brian discussed earlier. In addition, recent acquisitions have delivered profitable growth and more stable earnings. And finally, operating expense leverage as we continue to grow is targeted to contribute positively to operating margins. As a result of all these factors, we are expecting operating margins to be less cyclical and more consistently in the mid-teens range.

While growing and improving profitability levels, we also expect to reduce the level of capital intensity needed to support our business. Reducing capital intensity is the third pillar of our investment thesis. As you see on the left, we've already made measurable improvements in our CapEx as a percentage of revenue since 2013. Consensus estimates expect this rate to drop again in 2021 to approximately 5.5%. Moving forward, we're targeting to maintain CapEx as a percentage of revenue in the range of 4% and 5%. On the right, you can see some of the key levers that are allowing us to successfully reduce capital intensity. TPM and extended furnace lives, both serve to reduce ongoing maintenance-related CapEx over time. While we benefited from both of these to date, we're confident there are additional benefits to be achieved. We also expect that future acquisitions, along with the development of higher-value solutions will be less capital intensive than our core operations. All of these levers have been highlighted by the team throughout the morning.

The final pillar in our investment thesis is strong free cash flow conversion. As you can see, we've stepped up our free cash flow conversion well above 100% during the last several years. Improved capital efficiency and disciplined working capital management will continue to support strong conversion. We do, however, have a couple of headwinds to consider as we look at near-term conversion. First, our cash tax rate is increasing following the full utilization of our U.S. net operating losses. A portion of that increase is occurring in 2021, but an additional increase is expected after this year. In addition, current inventory levels remain lower than normal following the significant and the sustained acceleration in demand across all 3 of our businesses over the last several quarters. We do anticipate that we will replenish those inventory levels as demand conditions provide us the opportunity to do so.

In addition, you'll recall that Gunner is targeting to increase shingle inventory levels above historical norms in order to be able to meet demand surges. Despite these headwinds, we expect to maintain a free cash flow conversion rate at or above 100% over time. Our strong cash flow generation will allow us to invest in organic growth initiatives and pursue value-accretive acquisitions while maintaining our already solid investment-grade balance sheet. We'll continue to target a leverage ratio between 2 to 3x adjusted EBITDA, a step-up from where we are today as we more actively consider acquisitions supporting our enterprise strategy. We also remain committed to returning approximately 50% of free cash flow to shareholders through dividends and share repurchases over time. As you see on the left, we've consistently met that commitment and in fact, have returned approximately 56% of free cash flow to shareholders through the first 9 months of 2021.

In conclusion, our 2024 financial targets are summarized on this chart. Our confidence in our ability to execute our enterprise strategy provides us with the confidence to clearly articulate our targets for these key performance indicators. We're targeting revenue of \$10 billion by 2024 with mid-teens operating margins. We expect to maintain our already reduced capital intensity to between 4% and 5% of revenue and to generate free cash flow conversion at or above 100% of adjusted net income over time.

We'll make disciplined capital redeployment decisions to grow and further strengthen the enterprise while remaining committed to returning approximately 50% of free cash flow to shareholders over time. While the team is excited about our financial transformation to date, we're even more excited about delivering on these 3-year targets as we build Owens Corning for the future. The initiatives each of our leaders outlined this morning are fully focused on generating this growth and driving this performance with the foundation fully in place to make it happen. I am confident that you can agree with me, this is truly a very compelling investment thesis. Thank you.

And I would like to hand the meeting back over to Amber. Amber?

**Amber Wohlfarth**

*Director of Investor Relations*

Thank you, Ken, and we're now ready to begin our second Q&A session. [Operator Instructions]

Similar to our first session, I'm going to start with a question that came in online and then we'll go from there. So our first question came in, and Todd, I'm going to start with you here, it came in from Collin Verron at Jefferies. He says, Todd spoke about the structural changes within the Insulation business, making the business more profitable through the cycle. What do you think Insulation margins look like through the cycle with these changes? And how do they differ versus your prior view? How should we think about incremental EBIT margins with the changes?

**Todd W. Fister**

*President of Insulation*

Great. Thank you, Amber. So when we look at margins, first of all, we're really proud of the work we've done in the last few years on structurally improving the margins. We've driven a 500 basis point increase in EBIT margins as I shared in my comments. We think about half of that is structural, which means it was driven by really hard productivity projects or network optimization savings that we expect to continue into the future. Historically, this was a business -- Insulation was a business that delivered between 10% and 20% EBIT margins depending on the macro actions we were in, in any given year. Looking forward, we think that still is a good range for the Insulation business, again, depending on the conditions that we're in. But I do think we would expect higher average margins over that period than what we've delivered historically, roughly in the range of the structural margin improvement that we've driven. So I would expect a little north of mid-teens margins going forward when we're in a good economic environment like we're in today.

In terms of incremental margins, we've talked historically about a 50% incremental EBIT margin for our North America residential business. That's still a pretty good number as we think about the future. But I would say our global and technical business, which has grown to be a larger proportion of our overall revenue within Insulation is at a lower rate than that. So going forward, we would not expect necessarily



to be at 50% incremental contribution margins for the entire portfolio, including the technical and global business.

**Amber Wohlfarth**

*Director of Investor Relations*

Great. Thank you. We do have a few callers online -- or on the phone. So we'll take our next call from the phone line of Sue Maklari.

**Susan Marie Maklari**

*Goldman Sachs Group, Inc., Research Division*

My question is on the Composites business. Marcio talked about pivoting to higher-value building and material applications within there. Can you talk about how much of that is driven by your ability to partner with some of your customers as they think about new product introductions and ways of integrating some of these new lines that you are bringing to the market? And how much of it is you actually going to them with some of the new products that you've developed?

**Marcio A. Sandri**

*President of Composites*

Yes. So I mean, let me start by saying why we are going in that direction. Well -- and part of that was said when Brian was doing his presentation and part of that I shared during my presentation. One of the key points of going in that direction is because we understand that, that enlarges very much the addressable market of us. As Brian said, that multiplies by 5 the addressable market of us. And that is similar to Composites -- when that applies to Composites.

So the second reason is that we are building on the capabilities of the enterprise. Composites is a well-known technology that delivers more durable, lightweight and better integrated materials. And when we merge that with the channels and the brand that exists in Insulation and Roofing, we are building on the enterprise capability. And last but not least, it does support the enterprise strategy. So that being the case, we think that we will be looking at those opportunities in building and construction first, but also in renewables and infrastructure.

In the specific of your question, how much of that we'll be partnering with customers and how much of that we'll be doing by ourselves, it will depend a lot in how the opportunities play in the marketplace. If the opportunity is something that is already active, like is the case for windows and doors made of composite, we have very strong relationship with customers, and we are happy with supplying them with product that help them to succeed and increase the penetration of that.

In the case of rebar, we never found large enough customers out there and the conversion was in very early stages. And most of the material that is used in a rebar is a glass fiber that we make. So in that case, we thought it would be better for us to invest all the way and do what we call integrated material solutions and sell rebars in the marketplace. And just completing that based on what I said in the beginning, rebar is sold through some of the channels that Insulation and Roofing uses. And we are launching PINKBAR, which is building on the brand that we are well known for in the building construction market.

**Amber Wohlfarth**

*Director of Investor Relations*

Great. I have a couple of questions here for you, Gunner, that are very similar. Garick at Loop and Adam Baumgarten at Zelman kind of asked similar questions here. So can you maybe give us a little bit more detail on how much capacity you're talking about unlocking through productivity and your inventory initiatives and the upgrades that you've talked about?

**Gunner S. Smith**

*President of Roofing*

Sure. Happy to, and thanks for the question, gentlemen. We're really excited about the opportunity we have to continue to expand applying kind of the demand that we're creating with our contractor strategy. So I think you can tell through my presentation, how excited I am about that. Hopefully, you can see through that. And to unlock that, we have to be able to service that business. So the commercial team is really excited as we continue to kind of create more contractor demand to then have the opportunity to service that through the, I guess, I'll call it, very responsible capacity gains that I talked about and the inventory that I talked about.

So to directly answer the question, over the next 2 or 3 years, we're very responsibly unlocking through the plant network that we currently have, and that will ultimately be roughly equivalent to a line, a single line. So we're excited about that. We've historically put money into and invested in capacity gains, and we continue to do that. So that's an ongoing kind of project for us. But what you're hearing me say is over the next 2 or 3 years, we're really accelerating that. And again, the outcome of that will be about a production line.

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

Maybe I'd add to Gunner's comments on that. I think this is a philosophy in our strategy we're deploying across the entire enterprise. So in each of the businesses, we've been really focused on network optimization, process innovation, automation, advanced manufacturing techniques that we can continue to increase the capacity and throughput of our existing footprint. And that's a really capital-efficient way that we can service this growth that we've been talking about in each of our businesses going forward.

**Amber Wohlfarth**

*Director of Investor Relations*

All right. Great. Well, our next question we will take from the phone. So we have Keith Hughes from Truist on the line.

**Keith Brian Hughes**

*Truist Securities, Inc., Research Division*

Thank you. Can you hear me Amber?

**Amber Wohlfarth**

*Director of Investor Relations*

Yes, we can hear you.

**Keith Brian Hughes**

*Truist Securities, Inc., Research Division*

Okay. Great. A question for Ken, Gunner whoever wants to answer it. You had talked about 14% to 18%, I guess, operating margins with less cyclicity. Now historically, from a year in, year out basis, the cyclicity has been driven by roofing margins, more good lately. I guess the question is, has something changed such that roofing cyclicity would be less in the next several years based on any of the work you've discussed in the presentation?

**Kenneth S. Parks**

*Executive VP & CFO*

Yes. Maybe I'll start, Keith, then Gunner, you can add to that. I think when you think about what we're saying about more sustainable mid-teens margins, it has happened across the business, and Gunner will give you some comments on Roofing. But what I would tell you is what we just talked about a second ago about the structural kind of cost reductions that we've done through both Insulation as well as Composites. And also in the Roofing business, we actually believe that, that, along with ongoing productivity, which is built into all of our business operations, and we've seen the benefit of that over the last couple of years, as well as what you've seen us this year really perform well at, which is consistently driving price to offset inflation. And we have built that kind of dynamic within all of our businesses. So I

think that, combined with the strength of the markets that we expect to see over the next few years, is really allowing us to kind of raise the floor of kind of our operating band of margins and keep us in the mid-teens range. But I'll let Gunner add some specific comments on Roofing.

**Gunner S. Smith**  
*President of Roofing*

Yes. I think a couple of things that are unique ongoing would be really our discipline around price. And we displayed that this year and even last year in offsetting our cost with price. And you've seen that across the enterprise. And in Roofing, it's been very specific to help us with our margin profile for the last several quarters. So I think that's a discipline that we continue to invest in, and you could see -- I would expect to see that to continue to deliver. And then I talked about our components growth and how it's a bigger piece of the overall revenue in Roofing than it was last time we talked about it, probably in 2017, maybe. And that accelerated rate, too, sets us up for long-term success, and we expect that, that will continue to deliver long-term success. All this combined, we've talked about a long-term guide to 20% EBIT margins. I would expect to continue to be able to deliver that.

**Amber Wohlfarth**  
*Director of Investor Relations*

All right. Great. Our next question, Todd, maybe a question for you. Yves Bromehead at Exane BNP Paribas says that -- or asked, could you reiterate the message on the insulation demand potential based on the 2021 IECC in the U.S. and the EU Green Deal and what it represents in terms of growth for you?

**Todd W. Fister**  
*President of Insulation*

Sure, I'd be happy to. So when we look at the U.S. market first, what I shared was we see upside of about 270 million pounds of incremental insulation each year if every state adopts the 2021 IECC codes. When we look at that number, that would represent somewhere in the range of, let's say, 6% of overall demand today for fiberglass insulation in the U.S., maybe a little higher, a little lower. So it's a fairly significant increase, but it's one that will occur over a period of time as states gradually adopt that new code through their normal code adoption process.

What I shared for, for Europe was a statistic from the EU around the potential for 35 million additional homes in Europe to be reinsulated before 2030. So that's roughly a decade worth of homes, and those homes will use a number of insulation materials, some of which we provide, some of which competitors provide. Our best estimates would say on an annual basis, it's probably very similar to the number I shared for the U.S. in terms of average incremental volume just from the incremental renovation activity that we see in Europe over time. It's a little more complicated in Europe because there's a lot that has to happen at the EU member state level to make sure those renovations occur, but it's certainly a goal that the EU has set out as part of the overall Green Deal.

**Amber Wohlfarth**  
*Director of Investor Relations*

Great. All right. So our next question. Maybe for Ken, we have a few questions here around the mid-teens margins for the enterprise of being sustainable as we go forward. So can you maybe help -- the questions are around how we would think about that for each of the businesses? And kind of also the new floor for the business in that kind of mid-teens range?

**Kenneth S. Parks**  
*Executive VP & CFO*

Sure. So think about it this way, and I'll play a little bit on Gunner's comment around the Roofing business. As we said, we believe that as we move through the period that we're talking about, the next 2 or 3 years to set this to get to the revenues of \$10 billion by 2024. What we see is pretty strong markets continuing, they may fluctuate just a little bit. But we do think that we will continue to be able in this environment and with the demand environment that each of the businesses are facing to be able to be

pretty constructive on pricing as we continue to see the inflationary headwinds coming to each one of our businesses. We think that dynamic along with the ones I've already outlined on productivity and network optimization that we've been working on for several years, allows us to operate kind of probably for -- in some of these periods right ahead of us, maybe even above our long-term guide on each one of the businesses.

And our long-term guide on each one of the businesses, I'll restate, is really the same as what we said before. We expect that over time, the Roofing business runs at approximately 20% EBIT margins, better in periods where we have a lot of favorable factors kind of working with us, some tailwinds with us. We say that the Insulation and the Composites business over time run at approximately mid-teens margins. And you can see that this year, with the strength of demand in both of those businesses, based upon our results through the third quarter that we are running slightly ahead of those.

So the combination of our outlook for markets as well as the structural changes and the initiatives that we have in place, we feel confident that we have stepped up over time. You saw in my chart in the presentation, we've gone from kind of 9% EBIT margins to kind 12.5% over the last few years, and now kind of running for this year in the 16% to 17% range. We believe that the dynamics are in place there to help us maintain that. And the long-term targets we would say are the same for each one of the businesses. We happen to be in good places right now with markets and execution to keep us safely in that space. And then as far as the low end of the range, we said 14% to 18% kind of mid-teens, and truly just giving a range because the things that can move against us at times, we might have a softer market at times, we might have a little bit of a mismatch on timing of inflation versus pricing. We certainly are going to watch that very closely. But the reality is, is we feel really confident with the structural changes and the good markets that we have moved that level up and we're going to operate in a tighter band.

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

And maybe I'd add because I think you hit the -- I think as you look at our company and across the enterprise, I think a couple of things in a lens that you could think about are our confidence in being able to move our operating margins up and create a more consistent margin profile. One is around just the structural cost improvements that Todd, Marcio and Gunner have talked about, our manufacturing performance, our network optimization actions. Those kind of move up our structural performance and operating margins in each one of the businesses.

And then I think our ongoing choices in the product solutions that we are innovating and growing in. When you look at that profile of technical insulation products that carry a more consistent margin profile, they're more specified. Marcio's discussion around moving in to higher value end market solutions carry a higher margin profile, more specified. Gunner's comments around expanding Roofing components and expanding that entire product line, again, more in remodeling, renovation but a higher margin profile. So some of it is the structural cost improvements we put in place in all the businesses and across the company. And part of it is we continue to innovate and grow our positions in these higher-margin solutions.

And when we look forward, as part of our strategy to move into more multi-material systems, more prefabricated solutions, those are solutions we believe can carry higher margins, again, more specified, more differentiated. And I think it's that combination of structural changes we've made, current product solutions and future product and material solutions that kind of give us that confidence that we can sustain these higher operating margins as we continue to grow the business.

**Amber Wohlfarth**

*Director of Investor Relations*

Great. We do have another caller on the phone. So Stephen Kim from Evercore.

**Stephen Kim**

*Evercore ISI Institutional Equities, Research Division*

I wanted to just ask two quick ones here on your -- one on your Insulation, you talked about achieving 2% to 2.5% productivity annually over the past few years. Curious whether Next Gen can increase that, at least over the near term?

And then secondly, you talked about having a little more inventory in the roofing business to handle surges, I assume you mean like storm activity and such. But in the past, those surges kind of allowed for surge pricing. And so I'm curious, is -- as to whether you're carrying more inventory is going to come alongside or come hand-in-hand with a change maybe in your pricing structure or if I'm misinterpreting that?

**Amber Wohlfarth**

*Director of Investor Relations*

Todd, do you want to go ahead and start with insulation?

**Todd W. Fister**

*President of Insulation*

Sure. I'd be happy to. And thanks, Stephen, for the question. So the 2% to 2.5% productivity, 2% to 2.5% of COGS each year contemplates projects like PINK Next Gen that would improve the density efficiency for our projects. So I don't necessarily see a near-term bump that would cause that to be a higher number, but it certainly gives me confidence that this is a very realistic number for the Insulation business to achieve in the near term and longer term for the business.

**Gunner S. Smith**

*President of Roofing*

Yes. And then I would say on the inventory to pricing side, clearly, yes, there are surges and the reason we talk about inventory and the demand surges is because that inventory will be placed in kind of regional pockets where we need them and where we've had opportunities with contractors that want to do more with us. So we want to take advantage of that. And as we continue to expand upon that and create more of that demand, we want to be prepared to capitalize on that. We're very disciplined from a price standpoint. And I've talked about that fairly consistently here. I don't see any change to our pricing strategy when it comes to having inventory in our ability to service the market. And that's because we expect to continue to extract the value we give to our contractor community, to the distributor community, the homeowner community. And we're going to continue to invest in increasing that value, and then we have the discipline to extract that value.

**Amber Wohlfarth**

*Director of Investor Relations*

All right. Great. So Marcio, a question came in for you from Mike Rehaut at JPMorgan. He asks, in Composites, can you provide some examples of products emerging in the emerging North American building and construction applications that you talked about? And what some of those opportunities would be for the products?

**Marcio A. Sandri**

*President of Composites*

Yes. Sure, I can. And obviously, when we are looking at those segments and that opportunity is because this is going to go over and above what we have today. But let me answer that question by breaking down those emerging application into 3 levels. The first one, I will call the active level. The ones -- the application that we are already active on, that are in the early stage of conversion to Composites and there is a lot of room for growth. One example or 2 examples in there are windows where the lineals of the windows are made of composites, and doors where the skin of the door, what you see when you're in front of the door is also made of composites. In those applications, we are already involved. We are already active. We are partnering with customers out there. And we are trying to promote the penetration of that so that penetrates faster and at a higher level.

The second level would be the ones in which we are in the early stages of activities. And again, I'll give you 2 examples after your question. One is what we've been talking throughout the morning, which is rebar. This is also in the very early stages of conversion that is work to do in codes and standards, and we are doing all of that, and we are offering the rebars through the channels that we know and with the brand that we know. The other one is nonwoven coatings. We just did an acquisition in Europe to create more capacity and more capabilities in Europe so that we can deliver coated wovens and nonwovens to the gypsum and to the insulation market. So we added a capability to the actual nonwoven that we make, and we get closer to the customer, and we deliver more value, and we can capture higher margins.

And the third level that I said, I would break it down, is the one that we are in early stages of assessment. So in that, we have a very disciplined criteria. We have resources that we have brought internally. We have hired some external resources, and we are investigating. And the examples in that category of the early assessment studies that we are doing, are, for example, wall panels. One way of making wall panels is combining what Todd Fister does in Insulation and put schemes around the insulation, which can be made of nonwoven or some other materials in Composites. So we're looking at that as well, okay? So in that, you have the one that we are active, the one that in early stage of activity and the one that we are just starting to access so that we can increase the opportunities of growth for our business and for Owens Corning.

**Amber Wohlfarth**

*Director of Investor Relations*

Great. All right. Our next question, Ken, is going to come to you from Mike Dahl, RBC. He asks, on CapEx, you talked about moving down to 4% to 5% of sales, at the same time, expanding the total addressable market so significantly, could require some meaningful investments. Can you maybe walk through the incremental investments and how that fits into the capital plans and timing as you go forward?

**Kenneth S. Parks**

*Executive VP & CFO*

Sure. So as we think about CapEx, and you can see what we've done over the last several years where it step down kind of consistently since the 2013 time frame from, call it, 7-ish percent of revenue down to where we're running today like in the 5% of revenue. You heard in the earlier presentation this morning and Jose's commentary around furnace life extensions. And typically, about half of our overall CapEx spend on an annual basis is tied to what we call the broad category of maintenance, including rebuilds. So as we've continued to extend those lives, and you heard 25% extension in furnace lives overall, that kind of frees up opportunity for us to reduce CapEx as we move through time, but also allows us to shift more CapEx into the growth and productivity categories, which supports what we've been talking about up here today, productivity through the businesses in all 3 of the businesses, getting those productivity initiatives in. They're relatively inexpensive from a CapEx perspective, especially as compared to the rebuild portion of maintenance.

Now as we continue to work our way, we've said we're at kind of 5.5% of revenue today. We expect to stay at about a 4% to 5% of revenue as we move through the 2024 time frame. We are not going to be capital constrained. We're going to have the ability to invest in these growth initiatives that you've heard about. In many cases, growth initiatives into new areas, especially if we're talking about moving further down the value chain, those are less relatively capital-intensive activities. So the furnace rebuild activity, the TPM activity is kind of reducing that part of our CapEx budget called maintenance and rebuild. That's allowing us to kind of stay at the level that we're at today, maybe a little bit more improvement on a percentage basis, but also allows us to invest in those additional growth opportunities that you've heard each one of the business leaders talk about as well as Frank and Jose this morning.

**Amber Wohlfarth**

*Director of Investor Relations*

Great. All right. So we have a couple of questions here that maybe I'll combine from Deepa Raghavan at Wells Fargo and Matt Bouley at Barclays. And Brian, maybe you can start us off with this one. So the questions are really both centered around M&A and how we're thinking about that as we go forward.

So maybe if you can talk a little bit about the approach to M&A size? What you're thinking about in that space?

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

Sure, happy to. Yes, as part of our growth strategy, we see a tremendous amount of opportunity to continue to grow organically, but we want to build multiple paths in terms of how we continue to invest and grow the company. So we do expect to be stepping up our acquisitions as we go forward over the next few years. I think we're looking for opportunities that are going to both strengthen our core positions around potentially some new product adjacencies, and also areas where we can build capabilities or add product lines that would help build out this multimaterial system offering that we want to continue to move forward with and potentially put us in a position if we move more into prefabricated solutions to have a more complete solution.

So I think our acquisition criteria is going to be looking around those 3 areas in terms of core products that we can strengthen, new products that we can add that build out our multi-material systems capabilities and then broadly around products or capabilities that we could acquire that would add to our ability to rapidly kind of develop new innovations and expand into these new market opportunities.

So I think around the frame of acquisitions, we can look at what we've done historically is probably a good frame to how we think about it going forward. When you look at the acquisitions we've done over the 2016, 2017, 2018 time frame in terms of size and scale, I think those are kind of the types of acquisitions that we think are available to us as we go forward in terms of building that out. And so I think we would become more active, certainly than the last couple of years. But I think very disciplined in our approach in terms of how it brings value to our company and to our shareholders, and also very disciplined that our acquisitions fit inside of our new strategy in terms of creating additional opportunities to expand our product offering and support where we see these big secular trends creating opportunities for us as a company.

**Kenneth S. Parks**

*Executive VP & CFO*

And I would just add on to that because I think it's important as you think about not only the strategy in the acquisitions themselves, our capacity. So you look at the really strong balance sheet that the company has created over the last several years. Today, we have -- through the end of the third quarter, you heard us announce the numbers a couple of weeks ago, \$2 billion of liquidity available to us through both cash on balance sheet as well as bank borrowing facilities. But in addition to that, we're running today lower than our 2 to 3x EBITDA leverage ratio target that we want to be at. So what that does is it provides us the ability to execute on these strategic acquisitions that Brian has talked about, and yet we will be consistently focused and have the firm ability to maintain our investment-grade balance sheet and stay within our committed metrics, and at the same time, returning 50% of cash flow to shareholders over time as well through share repurchases and dividends.

**Amber Wohlfarth**

*Director of Investor Relations*

And I did just get a quick clarifying question that came in. As you think about the M&A and the goal to get to \$10 billion, the target that we've said \$10 billion in revenue by 2024. Can you maybe, Ken, talk to how much of that comes organically or how much of that may come through M&A?

**Kenneth S. Parks**

*Executive VP & CFO*

Yes. So if you think about -- so we're saying consensus for the company this year is \$8.4 billion of revenue. Brian and I have both said, we're targeting \$10 billion of revenue by 2024 if that happens in 2024. You're talking about \$1.6 billion of top line growth. I think it's fair to say, at this point, we're kind of assuming that, that's going to probably come, call it, relatively equally from acquisitions as well as the

organic growth initiatives that you've heard about today. And those organic growth initiatives and that organic growth output, I think, is going to be -- you're going to see it across all 3 businesses.

**Amber Wohlfarth**

*Director of Investor Relations*

Okay. Great. I think that is probably a good place to wrap up as we talk about the strategy and end in that space. So that will conclude our second Q&A session. And before we leave you, we'd like to hand it over to Brian for some closing remarks.

**Brian D. Chambers**

*President, CEO & Chairman of the Board*

Well, thanks, Amber. We really appreciate you all making time today to allow us to share our story about how we're building Owens Corning into an even stronger and more sustainable building and construction materials leader. We're really excited about these secular trends that we have laid out and built a strategy around to capitalize as we go forward. It really leverages the full power of the company in terms of our core capabilities, our material science expertise, our commercial capabilities. And you've heard today and in this session here now between Marcio and Gunner and Todd, how each business is driving growth and performance consistent with that enterprise strategy and creating new opportunities.

So we're very proud of the work we've done and the results we've generated. But we really believe the best is yet to come. As we build a company that can grow faster, can generate more consistent and higher operating margins, that is more capital efficient and continues to generate strong operating and free cash flow. So we're excited about the opportunities in front of us.

We appreciate your time today that you made this -- that we could share this story with you. And I hope that all of your families remain healthy and safe, and we look forward to talking to you all very soon. Have a great afternoon.



Copyright © 2021 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

These materials have been prepared solely for information purposes based upon information generally available to the public and from sources believed to be reliable. No content (including index data, ratings, credit-related analyses and data, research, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P Global Market Intelligence or its affiliates (collectively, S&P Global). The Content shall not be used for any unlawful or unauthorized purposes. S&P Global and any third-party providers, (collectively S&P Global Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Global Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON "AS IS" BASIS. S&P GLOBAL PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Global Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages. S&P Global Market Intelligence's opinions, quotes and credit-related and other analyses are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Global Market Intelligence may provide index data. Direct investment in an index is not possible. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Global Market Intelligence assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P Global Market Intelligence does not act as a fiduciary or an investment advisor except where registered as such. S&P Global keeps certain activities of its divisions separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions of S&P Global may have information that is not available to other S&P Global divisions. S&P Global has established policies and procedures to maintain the confidentiality of certain nonpublic information received in connection with each analytical process.

S&P Global may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P Global reserves the right to disseminate its opinions and analyses. S&P Global's public ratings and analyses are made available on its Web sites, [www.standardandpoors.com](http://www.standardandpoors.com) (free of charge), and [www.ratingsdirect.com](http://www.ratingsdirect.com) and [www.globalcreditportal.com](http://www.globalcreditportal.com) (subscription), and may be distributed through other means, including via S&P Global publications and third-party redistributors. Additional information about our ratings fees is available at [www.standardandpoors.com/usratingsfees](http://www.standardandpoors.com/usratingsfees).

© 2021 S&P Global Market Intelligence.