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What is the future for Owens Corning Glass Reinforcements?

An industry pioneer discusses divergent visions in a global industry, consolidation and growth in Asia, doubling market share and tells a composites sustainability story involving circular fibers.

» In the early 1930s, two researchers accidentally discovered that applying a jet of compressed air to a stream of molten glass created the fine glass fibers desired for glass wool insulation. Their subsequent experiments led to continuous glass fibers and textiles. The teams and the companies they worked for grew quickly, and by 1938 were spun off as Owens Corning Fiberglass.

In the decades that followed, the company worked with innovators on everything from the superstructure for the world's first atomic submarine, to one-piece shower stalls, corrosion-resistant pipe and the vertical tail spar of DC-8 jetliners. It opened a textile mill to support production of radar-transparent radomes and antennas in World War II and invested in the first direct-melt furnace in 1951, which lasted just 6 months. But that effort to improve production eventually dropped the cost of glass fiber, making it accessible for thousands of new applications.

"If you read the history, it's been an incredible journey of innovation and risk taking," says Dr. Chris Skinner, vice president of strategic marketing and R&D composites for Owens Corning Glass Reinforcements. "What they did in the 1940s and 50s is completely mindblowing. You saw a business that basically created an industry and then became part of a much bigger corporation."

That corporation operated for nearly 90 years at the intersection of material invention, process development and industrial scale. It helped turn glass fiber into a foundational reinforcement for polymers and then spent decades refining the chemistries, forms and manufacturing methods that enabled SMC, pultrusion, filament winding and noncrimp fabrics. Many of the processes that define today's composites industry were built around Owens Corning glass fiber.

Two visions

However, in 2021, Owens Corning decided to focus on downstream residential and commercial building products in North America and Europe — a strategy that runs opposite to that of Owens Corning Glass Reinforcements.

“Ours is a global business with Asia as the fastest growing market for composites,” notes Marcio Sandri, president of Owens Corning Glass Reinforcements. “And as much as we understand the importance of the building and construction market, it is only one of many segments for us and makes up less than 50% of our revenue. We also do not make composite parts to be sold directly to consumers but instead produce inputs for the industry. Thus, our part of the Composites business was no longer as strong of a strategic fit with Owen Corning’s vision for the future.”

The Glass Reinforcements business is now embarking on a new future following completion of a strategic review that culminated in last year’s announcement of an agreement to sell the division to Praana Group (Mumbai), an India-based industrial holding group with a global footprint and a focus on materials and specialty chemicals. So, what does this mean for Glass Reinforcements? “We will continue to focus on supplying materials and creating growth in the application of composites globally,” says Skinner.

“Chris and I love this industry,” adds Sandri, “and our business has been part of this industry since the beginning. We have been innovators of this industry, and we have also been a good business. We have world-leading products, technology and people. And now we have the opportunity to support our belief in composites in a broader, more exciting way to drive growth — both in this business and the industry as a whole.”

Poised for growth

Sandri points out that the composites industry exists because the technology has more than proven its value. “Our materials have been to the Moon — even with all the technical requirements and environmental challenges — and successfully performed at the bottom of the ocean,” he says. “We have solved these challenges, and composites are used every day around the world in a wide variety of markets and applications. And we have a technology that is prone to innovation and is more sustainable than many other competitive materials, thanks to its durability, high performance and light weight. But we need to tell that story of sustainability much better.”

“We say there are 40,000 applications for composites on the market today,” he continues. “But

composites still comprise just 2% of the global materials market — including steel, aluminum, concrete, unreinforced plastics and other materials. In the 1950s, 2% was the market share for aluminum, but it has now grown to 7%.” How has that happened? Sandri notes decades of work by U.S. and European aluminum companies and parts producers, but also their industry associations. “We want to see composites double to at least 4% of global materials, which will bring growth to a wide range of companies in the industry — but it will also require investment.”

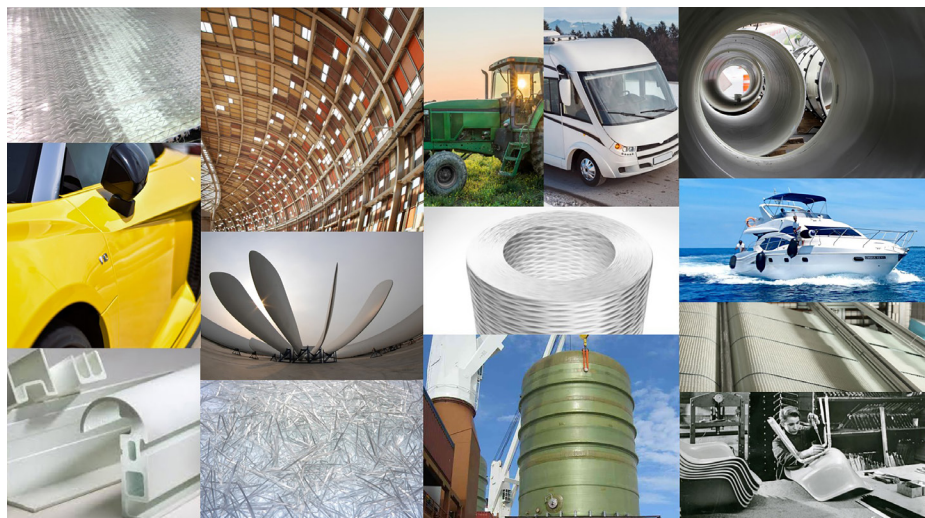
Moving the needle

“Over the years, you’ve seen waves of material conversion, such as reinforced thermoplastic materials in automotive and the evolution in wind turbines,” says Skinner. “These are innovations that drive the market penetration of composites and growth of the industry. But if you look at construction, composites still comprise less than 1% of materials used. We have supported and continue to support, the penetration of composites into such market segments. But others have to do so as well.”

What does that mean, really? “It means we must enable composites to be used in key large-volume and large-scale applications,” says Skinner. “And that requires telling a story about production and being able to meet demand in those types of applications, but also about end-of-life [EOL] options that are truly competitive versus materials like steel and aluminum. I think the composites industry is super competitive and super dynamic. The question is, how does it actually move from a specialty to a mainstream material?”

“Another issue is having a product that’s available and easy to specify and buy,” notes Skinner. “I think that’s the future for quite a large part of the composites industry.” He points to work done by the American Composite Manufacturers Association (ACMA) to develop key standards for composites in many applications. “John »

■ Owens Corning Glass Reinforcement products are used in a wide range of composites applications and markets — many of these composites products and processes were built around Owens Corning glass fiber.





Busel and others have spent decades fighting for these, and they are great achievements. And in conjunction, our business is working to advance GRP further as an easy-to-choose option, where standard product specifications are available for the types of large applications that will really move the needle.”

Collaboration as the industry consolidates

Such large-scale applications will require a broader type of support, says Sandri. “We have to collaborate more as an industry to pick the applications we want to penetrate and then prove and sponsor composites in them. We need key players and alliances, with support from industry associations. This enables a strategic approach that positions composites overall versus aluminum, concrete and steel. It’s about working together for a broader implementation to move composites from 2% to 4% of the global materials market.”

“Let me translate that in a very specific way,” he continues. “One dollar invested in this type of industry growth provides a much better return long-term than one dollar of cost or price reduction. To move the needle, we have to invest in the industry — not just sell at a lower price.”

“We must generate the revenue that allows us to invest in innovation and support the associations, making composites easy to specify and everything else that is needed to succeed long-term,” says Sandri. “This doesn’t happen acting alone — we have to act collectively. But what is happening now with the glass fiber industry is working against that.”

Sandri notes that working collectively must occur alongside healthy competition. “Competition is what has made Owens Corning successful for almost 90 years. We have competition from everywhere that inspires us, makes us excited about tomorrow and keeps us aware of changes — and that benefits the whole industry, as long as it’s fair.”

“We are now facing a situation where there are four large glass fiber producers in the industry, but only one is not in Asia,” says Skinner. “Maybe that’s good for industry or maybe it’s bad, but that

poses a fundamental question about whether the industry will operate in a way that makes it possible to achieve these growth goals.”

“We’ve seen this consolidation in the resin market as well,” notes Sandri. “The industry is maturing, and I’m not concerned with the long-term future of our business. We know this industry and have the capabilities and the capacity and the talents to serve this industry, and we believe we have a bright future.”

“And to that end, Chris and I have been having conversations to create a strong glass fiber association across Asia,” says Sandri. “Our industry needs a forum in which we can discuss the big opportunities and challenges and then invest accordingly. Asia-Pacific is becoming not only the fastest growing market for composites but also where the largest concentration of suppliers and producers are located.”

The goal is an association that serves three objectives. The first is to support the growth of the industry in key applications as explained above. The second is to generate high-quality data that is reliable and available to everyone like what is published in Europe and North America. “Each one of us has different strategies and will make different decisions,” says Sandri, “but good decisions need reliable data that is publicly disclosed. That helps the entire industry.” The third objective is coordination with the other associations in Europe and North America to support the global industry.

“We want to allow these strong associations, including ACMA and the European Composites Industry Association [EuCIA], to work together to defend the industry globally and work for its growth, which also means telling the composites sustainability story better and continuing to advance that sustainability,” notes Sandri. “Our business is doing big things to improve and tell that story, but we have to do that as an industry as well.”

Practicing circularity

And what exactly is Owens Corning Glass Reinforcements doing to improve the sustainability of glass fiber composites? “A couple of years ago, in a meeting that we had about sustainability, we



■ Dry glass fiber waste from customers (top left, clockwise) is used in the L'Ardoise, France, facility's new circular production line, one example of the passionate global team that is advancing glass fiber products — from custom sizings on Advantex single-end rovings in Amarillo, Texas, U.S. to multiaxial fabrics in Zele, Belgium.

decided that our vision was circularity,” says Sandri. “Our first mission was that we would build a furnace that uses 100% recycled product, and that furnace would also be carbon neutral. This was a very challenging goal.”

“All the manufacturing guys that had worked for us for years put their heads in their hands saying this would never work, that it just wasn’t possible,” says Skinner. “But we had decided that you must close the loop with composites. There *must* be circularity. We had to create the capability to produce virgin material from recycled composites and do it in a way that actually makes sense.”

The first step on this journey was commissioned at the Glass Reinforcements facility in L'Ardoise, France in late 2025. “This is a huge development for the industry,” says Skinner. “We’re winding up a 4-month trial running on hydrogen as a zero-emission fuel. There’s still some cost penalty, but the key point is that we’ve demonstrated that we can actually achieve circularity with a low-carbon process. There are many groups discussing sustainability, and that’s a good thing, but I’m very proud we’ve actually put it into production. EuCIA is now playing

a key role in supporting this innovation through the Circular Composite Alliance, which currently has more than 200 member companies.”

Skinner concedes this is just one step in a long journey. “For now, the furnace is using dry fiber waste as circular feedstock, but our vision is to also use fiber recycled from composite parts. To achieve this, we’re also building partnerships and programs to recycle composites.”

One of these is with Gjenkraft, which will use its thermolysis-based process to convert waste and EOL composites into recycled glass fiber that can be now used to produce new glass fiber. Another is a collaboration with SABIC to demonstrate the technical capability of closed-loop recycling for automotive with Audi AG and OPMobility as validation partners. The collaboration aims to advance technology that reclaims both PP and glass fiber from auto parts made with SABIC’s Stamax long glass fiber/PP material. So far, reclaimed materials have been demonstrated in new composite tailgates. Another coalition includes Arkema, Chomarat, Veolia, Composite Recycling and Groupe Beneteau

which have co-developed an industrial loop for using recycled raw materials back into production boats. “So, we are now moving forward to further enable and grow this circularity,” says Skinner, “and that’s going to be super important for us and the whole industry.”

The next chapter

“But, you have to be brave and prepared to invest money,” Skinner continues, “and to do that, you have to have returns in your business. This comes back to the point that we’ve all got to play our role in the industry for it to evolve and grow.”

“We are a business that has an important history and knowledge,” says Sandri. “And it hasn’t just been about selling fiber. We’ve worked directly with producers to co-develop applications and industrialize new manufacturing methods.”

“It’s amazing the number of technologies that were actually invented by this business,” notes Skinner, “or supported by it over the years — be it SMC, pultrusion or now closed-loop recycling. And we’ll continue to do that, because we understand that’s what drives growth in this industry.”

“And we’ve invested in long qualification cycles in marine and automotive, wind and infrastructure,” adds Sandri. “We believe in composites as a technology, and as an industry that for sure has its challenges, but we have great products and technology, world-class people that are passionate about composites and have the desire to make a difference. I know we will be part of its future growth.” **CW**

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