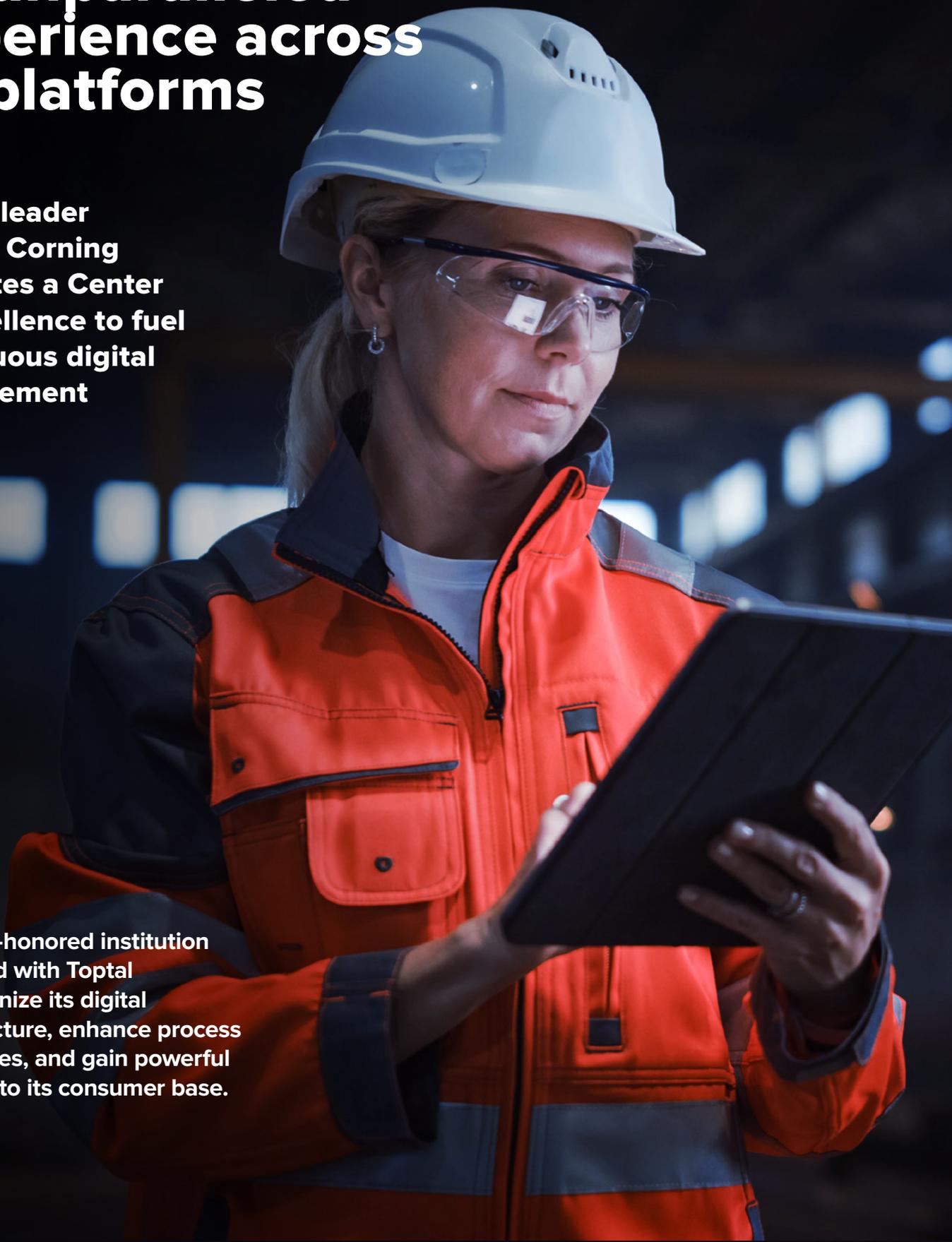


Remodeling digital properties to create an unparalleled experience across all platforms

Global leader Owens Corning institutes a Center of Excellence to fuel continuous digital improvement



The time-honored institution partnered with Toptal to modernize its digital infrastructure, enhance process efficiencies, and gain powerful insight into its consumer base.



With the launch of its Center of Excellence, Owens Corning set out to overhaul existing digital properties, and create efficient and modern practices across the organization. It wanted to augment its team with subject matter experts who could help the company execute the transformation.

The Client

Owens Corning is a global building and industrial materials leader. Owens Corning provides innovative products and sustainable solutions that address energy efficiency, product safety, renewable energy, durable infrastructure, and labor productivity.

The Challenge

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The Team

Toptal Developers
Toptal Designers

The Result

Collaborating with Owens Corning on a wide range of projects, the Toptal team has helped the company transform its digital presence, create significant resource efficiencies, and acquire unprecedented consumer learnings.

Building on a solid foundation

Founded in 1935, and a constant presence on the Fortune 500 since the list began in 1955, Owens Corning is a name that many of its global consumers equate with high-quality building materials and old-fashioned values. The company employs more than 19,000 people in 33 countries and has consistently focused on providing a broad range of innovative and

sustainable solutions for global building and industrial materials.

Like many organizations established prior to the information age, the digital team at Owens Corning was faced with challenges related to modernization and integration of legacy systems. They knew it was vitally important to take the exemplary in-person customer service and brand experience that Owens Corning clientele expected and replicate it in the company's digital interactions. With that mission in mind, Owens Corning executive leaders created the digital Center of Excellence.



The transformational mindset



Eric Heisler, Digital Development Leader at Owens Corning, brought an extensive background in digital transformation to the CoE team when he joined in early 2020. He had an immediate understanding of his team's remit. "It became clear that senior leadership wanted to really transform the way that Owens Corning does business," he says. "And one of the main pillars is 'How do we be disruptive to the process in a good way?'"

"We're really trying to transform the way we do our jobs."

– Eric Heisler
Digital Development Leader
at Owens Corning

The CoE isn't focused just on digital transformation. Heisler adds, "We're looking for ways ... throughout the organization. How can we do things faster, safer, and more automated in manufacturing?" Owens Corning was ahead of the curve when it came to remote workers as well. "We have a team of digital workers," Heisler says. "What are those things that a digital worker needs? That's what I really enjoy about being here: We're really trying to transform the way we do our jobs."

A sum greater than two parts

While Owens Corning has a robust digital team, the company knew it would benefit from the expert support of technical specialists.

“The Toptal relationship was already established when I took over the development team,” says Heisler. “I have a fantastic team of both internal and external resources. Toptal has provided a wonderful group of developers.”

“Toptal is where we’ve always looked to augment our team with really good resources,” he says. His team has combined seamlessly with the Toptal additions. “On the

team I am building, it doesn’t matter if you are a full-time employee or a contractor. You will be treated like one of the team.” He remembers when two developers from Toptal finished their engagements at Owens Corning: “There were tears shed, not just because of their talent on the team but because they really became part of the team.”

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Toptal Developer Jonathan Weekes couldn’t agree more. “I’ve not felt like a contractor. I’ve felt at home with them,” he says. “Working in our group has been really, really

fun. I don’t feel like I’m coming to work. You know, I feel like I’m coming to actually make something with them, which is really nice.”



Cutting development time from weeks to hours

While the CoE was tackling myriad initiatives in parallel, the first for which it leveraged Toptal support was the Page Builder project. The objective was to develop a content management system that would enable both Owens Corning internal employees and Owens Corning partners and distributors to create a branded landing page or website featuring approved Owens Corning assets, such as the iconic Pink Panther.

“Prior to launching Page Builder it would take an average of 71 days to create a landing page,” says Rebecca Mathew, User Experience Team Leader at Owens Corning. The delays caused by the back and forth between developers, designers, the marketing team, and end users had created a lengthy process that lacked efficiency. Since the introduction of Page Builder, the multi-month process has been reduced to a couple of hours or less. “Less computer-savvy users can now drag and drop the components we developed and customize their own landing page in a matter of hours,” says Heisler. Now developers spend their time on more valuable work, concurs Mathew. “We give a stakeholder a

login, which allows them to self-serve, and helps our developers to use their time more efficiently,” she says.

“For right now it’s a means to make landing pages,” says Weekes, whose role on the Page Builder initiative included using React to create a smooth UI and Postgres to write a lightning-fast query. “It’s not just their digital web presence but the way they build that presence, as well,” Weekes says. “We’ve got plans to turn this into a development environment where you can basically create every page within it, like blogs and other types of pages. This approach will give them componentization. It will give them accessibility in the same place for web development.”

Customer portal upgrade

Another integral goal in the CoE remit was to overhaul the customer portal. Having just undergone a successful brand revamp, Owens Corning wanted a fast and dynamic portal to match its new modern look. “We wanted to create a much better user experience and a better layout,” says Piotr Palka, a Toptal Senior Software Engineer who specializes in full-stack development. “It is important for the company because this is the portal where all the Owens Corning clients can look in and see their orders, their documents associated with orders, invoices, and price lists. It’s the one place where they log in and they can track everything.”

Taking over the project from a previous agency team was a challenge that Palka and his team rose to meet: “We rebuilt the whole front end, from the classical old architecture where wherever you click, the whole page is reloaded and it takes ages, to a modern, single page application where the app loads only once, using concurrent instead of sequential processing. We made it much more user-friendly and added features like progress bars to elevate their experience.”

Palka and his peers did much more than modernize the app. To improve performance, he enhanced database interactions.

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– Piotr Palka
Toptal Senior Software Engineer

“We optimized a lot of queries on the database, from hundreds of lines of queries to just a few lines,” he says. “We also streamlined integration with the SAP system, which cut down on the time of refreshes from hours to minutes. We’ve made huge improvements and we are working on making more.”

Keeping with the transformational standard set by the CoE, Palka went on to write documentation, set up automated testing, rebuild and refactor unreliable code, and devise a monitoring system that would create a feedback loop and deliver insights to the team. “I didn’t just want to work on features,” he says. “I wanted to improve every part of the process to make sure that it’s secure, reliable, documented, and tested.”

Palka appreciates the skill level of his peers from the Toptal development team. “You can see when someone comes from Toptal,” he says. “It’s more like a big picture and looking at everything. Not just implementing what is written in the story but also thinking about architecture, about the future, about how it’s tested. You can see that people from Toptal have experience and really care about it.”



Exploring a vast customer base

User experience is the thread that binds every project undertaken by the Center of Excellence. “We’re working to understand who our direct customers are more clearly,” says Rebecca Mathew. “We want to understand who our customers are at the human level. What do they need? What role do they play in their company?”

The initial need for deeper customer insight was uncovered during the customer portal revamp. “We needed an understanding of who was currently using the system and what we could do to give them a better experience,” she says. “You start to think about language features and other aspects that might prevent us from reaching certain segments.”

Mathew contacted her Toptal account team, who enlisted Judit Casacuberta, a UX designer, university professor, and research expert. “What we want to do is understand the clients and why they behave in certain ways,” she says. For a large enterprise organization like Owens Corning, Casacuberta uses a project-based approach. “You go piece by piece,” she says. “You are not trying to solve everything. You approach a small problem and then you build out different insights or findings that you can learn from. You start with a small project or a small customer segment and then you can build a background of knowledge that they can use across the organization.”

The approach proved highly successful. “The customer portal was the first touch point,” says Mathew. “Now we’re taking a more omni-channel perspective across email, across calls, across everything.”

What started as a project internal to the Center of Excellence has quickly gained leadership support. “Our leadership is onboard,” she says. “Now we’re socializing the idea, and it’s getting business alignment and growing energy.”

Because Owens Corning’s client base varies from large retailers like Home Depot to individual consumers, its research needs were extensive. As the team added members, Casacuberta took on a mentorship role. “We have a

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– Rebecca Mathew
User Experience
Team Leader at OC

couple of folks on our team who are early in their career,” Mathew says. “Judit’s mentorship has made the whole organization better.” Taking the time to help uplevel the team made a big impression on Mathew. “Judit is empowering other people to get work done too,” she says. “That’s really valuable for us because we’re a small team and we have to flex a lot. So the more that we can help each other grow, the better it makes our whole team.”



Full steam ahead

Bolstered by the successful completion of initial projects, the Center of Excellence is gaining traction throughout Owens Corning. “Digital should be at the forefront of your business plan,” Heisler says. “Everything’s going that direction. When leaders saw what could be accomplished through digital transformation, it started to spread through the organization. Now, how do we get more of a digital focus on different business processes?”

Owens Corning is excited about its continued partnership with Toptal. “Toptal has brought some really solid developers to the table,” he says. “What we’ve learned is that we really don’t have to vet technical skill. The relationship with Toptal from the beginning has really paid

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It’s clear that they are. Weekes says, “They gave me space and time to think. They can sense the way you need to be managed, and they do it.” Palka concurs, “I really enjoy working with them and I like the structure we have. We have a small team, so I have an impact. They like my suggestions, and they let me implement them. I see that they appreciate this work.”



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