



Image courtesy of Katerra

# Changing the game: A conversation with Katerra’s Michael Marks

As Katerra strives to digitally disrupt the construction industry and “productize” the way we build, CEO Michael Marks discusses lessons learned and aspirations.



**Michael Marks**

CEO and founder  
Katerra

Katerra has made the news with its unorthodox approach to construction and backing from investment firms. Believing that the construction industry was long overdue for disruption, co-founder and CEO Michael Marks set about integrating tech, design, manufacturing, and construction to make building projects faster and less expensive. With a focus on selling products as well as end-to-end services, the company is challenging convention while also finding its way in a historically under-digitized industry.

**McKinsey:** *As the former CEO and then chairman of Flextronics, you are bridging Silicon Valley and the construction industry. Until quite recently, that was an unlikely pairing. What has surprised you as you've gained ground in construction?*

**Michael Marks:** I've been surprised by how long things take. It's a two-year cycle from an initial bid on a project to completion. Coming from an electronics background, where the cycle is measured in hours, the construction project duration is something that's hard to get used to. And there are several influencing factors when it comes to the length of projects, including the fact that there are many unknowns in construction—weather, for one, and land use. Forecasting in this business is much more difficult than what I've experienced in the past, so the uncertainties also contribute to how long things take.

Coming from outside the industry has its own challenges. In the beginning, we didn't have enough people who knew how to build—and those who did thought differently than we did. We each needed to navigate a fundamentally new way of doing things. So we acquired some general contractors, which gave us local knowledge of pre-established processes and expertise. We then bridged the gaps between traditional construction and our mind-

set and approach, focusing on highly efficient mass production using our own supply chain and manufacturing.

The future of construction and our approach to it require a bifurcated skill set. We still need carpenters, electricians, plumbers, and the traditional skills and roles, but because we're also approaching construction as a product, we have to train those people specifically for that approach. That whole process alone takes two to three years.

Of course, as an experienced entrepreneur, I know that no business ends up looking the way you thought it would when you started, and we're going through that now. The good news is we have all the tools we need in place, and we're now concentrating on execution and bringing Katerra to a strong competitive position.

**McKinsey:** *You mentioned a few acquisitions; can you expand on how M&A has informed Katerra's strategy?*

**Marks:** I think of acquisition as acquiring talent. We have a significant pipeline, so clearly we need people to do this work. We can't do that one person at a time, so we're building our talent through acquisitions and truly integrating these companies into Katerra. We now have more than 7,500 employees globally, up from 2,800 a year ago. One of the challenges in acquisitions—in any company or industry—is that they can be disruptive as you attempt to meld the cultures of a handful of companies. Our approach is to make sure senior people at these companies are on board with our approach and vision before we make any acquisitions. We want crews and team members to be energized by the integration. We've found some top talent gems that way—moves that we wish we'd made a year earlier.

Once we've made the acquisition, additional moves support our strategy, operations, and business model. Given the low levels of digitalization and IT spending in construction, most companies' IT, finance, and HR systems are lagging behind. We're addressing that in two ways. First, there are the basics of getting people on Katerra's email system and having robust servers and security systems. Second, is launching our software platform, which links every stage of a project and the building supply chain. That's a bigger project and something really new in the industry, and it's one of the things I'm most excited about.

**McKinsey:** *In addition to addressing those legacy systems, what else is top of mind when it comes to priorities?*

**Marks:** One is the widening trade-skills gap. There's already a huge shortage, something like 200,000 people—it's a real problem.<sup>1</sup> And with low numbers of young people coming into the industry, that gap will widen. That's true across the whole country and globally. Union workers are aging out and construction is experiencing a union shrinkage. This creates a larger industry void, because workers traditionally acquired skills through union apprenticeship programs. We have to do our part to keep attracting people to the industry and training them, or there will be no people to do this work. We have recently created our own apprenticeship program that responds directly to our process and business model,<sup>2</sup> including the integration of new tools and technologies.

**McKinsey:** *As you implement these initiatives, how do you see Katerra's business model—as both a company executing projects in the field and a product company—taking shape?*

**Marks:** Katerra is going to have two different ways of going to market. One is the more standard side of the general contracting business, but the

difference is that we have our own manufacturing and supply chain. We will get walls, windows, kitchens, bathrooms, and cabinets from our own factory. We will use those prefabricated pieces in the standard business, which will increase margins and create more value, but it will still look like a traditional build on the outside. And in that go-to-market approach we may perform some of the work ourselves and just use regular subcontractors, which the industry is used to.

The other part of the business is the product side, for which we're managing the products all the way from design to manufacturing. Instead of using subcontractors in this area, we're training people to do that. As I mentioned before, we have very complex, completed walls and floors that come from the factory—with built-in mechanical, electrical, and plumbing engineering. So, much of the high value-add is getting everything done in the factory and through an assembly process in the field.

Those are the two different paths, and they complement each other. Interestingly enough, we are rapidly increasing our sales of materials to other general contractors.

**McKinsey:** *Overall, the interest in "productizing" construction is growing. What's your take on the conversation?*

**Marks:** People are definitely reacting—and not just to us. Prefab building is getting more and more attention, primarily from hospitality and healthcare because those buildings are very reproducible. More companies are turning their attention to disrupting this industry and there's more discussion about our approach—and that's a good thing.

People are asking about competition. I come from electronics—a highly competitive industry and a \$1.3 trillion market—and construction is six times the market size. Competition is good for the industry:

suppliers will begin to change the way they design things, and there will be more support for the workforce. The more people who are engaged, the more the industry will change. And that's good for everybody. In an \$8 trillion market, there's plenty of room for innovation.

This is a never-ending process, and the industry is poised to evolve. Soon enough we'll be putting up buildings in a month, or a week, and at way lower cost because we're going to just keep engineering these processes. The factory will get more efficient and we'll automate certain factory tasks. Just think about cell phones—the iPhone is ten years old, and it does all kinds of things that nobody ever imagined when the first one came out. Innovation is relentless, and there are new capabilities every year—and that's exactly what's going to happen with buildings. ■

---

<sup>1</sup> Procore Technologies, "Making up for the construction labor shortage with technology," *Construction Dive*, June 5, 2019, [constructiondive.com](https://www.constructiondive.com).

<sup>2</sup> "Kattera Launches Apprenticeship Program," *Professional Builder*, June 25, 2019, [probuilder.com](https://www.probuilder.com).

Copyright © 2019 McKinsey & Company.  
All rights reserved.