



What visionary CIOs do differently

8 leaders share how their IT teams
build better businesses



How are some of the world's leading enterprises moving their digital transformations forward?

Despite ongoing budgetary pressures and developer shortages across all industries, savvy CIOs are maintaining their digital momentum by embracing new tools and workflows.

To learn more about how trailblazing CIOs are turning their IT teams into a competitive advantage, we interviewed eight seasoned IT leaders who are challenging the status quo. Read on to discover their candid views about the future of application development and how tools like low-code and generative AI fit into their transformative vision.



Barbara Gottardi

Founder and CEO, Finbridge Global



You cannot achieve digital transformation by making the Tech team an order taker. That's why proper digital transformation requires a complete cultural and organizational change. You need to bring people on the journey with you.

Barbara Gottardi on digital transformation

What's the biggest misconception about digital transformation?

You cannot achieve digital transformation by making the Tech team an order taker. That's why proper digital transformation requires a complete cultural and organizational change. You need to bring people on the journey with you. Transformation is most successful when leaders put their egos aside and focus their organizations squarely on their customers. Get the right people around the table from the beginning, and align vision and goals. Include technology and key functions in the initial conversations so everyone understands what you are trying to do and how they fit into the business plan and success. Try not to over-engineer some of the processes because—while they might make sense on paper—they can actually create complexity very quickly. If you are starting something new, be clear on what an MVP is; it's a real, meaningful viable product. Unfortunately, MVPs sometimes become a shopping list, which makes it really hard to deliver and quickly derails projects.

How can IT teams be more agile and responsive?

Agile has become a fashion at times, but we have to be careful not to misuse it. In the financial industry, core banking systems and certain back-office functions still need a waterfall approach because they need a plan from beginning to end, and you can't break down the functionality. Agile does not mean you don't plan the full

project, and it does not mean you don't estimate costs. But unlike waterfall—where planning happens at the beginning of the project—it does mean you break down the decision-making process into chunks and focus on continuous development to test customers' behaviors and expectations. So, with an Agile methodology, planning happens throughout project delivery.

Agile only works when Business and Tech are joined at the hips and work together. The Tech team must understand the Business vision and vice versa—the Business must include the Tech team from the beginning. The only way for a successful digital business is when goals are aligned and everyone works together to deliver them. This will also make prioritization a much easier task.

What are the best use cases for low-code platforms within digital transformation?

There are quite a few use cases where low-code is underutilized. It does very much depend on the product and the industry. If you're trying to test the market, build a feature-rich application, and put features out there to test customer behavior, then I think low-code is the solution for you. It lets you develop features faster and more affordably while also giving you the flexibility to change those quickly. The key is to be aware of the pros and cons from inception and build a microservices architecture that will allow you to leverage low-code where and when you need it.



Dominic Cugini

Chief Transformation Officer, KeyBank



It's a win-win for the business and our clients.
We're keeping the human in the loop with generative AI while simultaneously helping our caseworkers expand from completing 10 cases a day to 15, 20, or maybe 30 eventually.

Dominic Cugini on AI use cases

What were the first use cases you chose for generative AI?

At KeyBank, we saw—and continue to see—the middle-to-back office as the prime territory for generative AI. Our first project was automating the Suspicious Activity Report (SAR) process. Now, using generative AI, we can take all of the documentation that a caseworker needs, put it together, and write the case up. All a caseworker has to do is inspect and review the SAR report, and it's done. It's a win-win for the business and our clients. We're keeping the human in the loop with generative AI while simultaneously helping our caseworkers expand from completing 10 cases a day to 15, 20, or maybe 30 eventually.



How do you see generative AI and low-code working together in the future?

Low-code is already allowing our IT team to shorten delivery time frames from 18 months to 6-9 months. It's also helping us close the gap between business and IT through closer collaboration and communication. The concept of combining low-code with generative AI brings exciting possibilities. I could envision a scenario where prompting engineers use generative AI to develop code that our developers would then insert into our applications. This could help us design better, test more efficiently, and modify applications even faster. But it will still require technical rigor, due diligence, and skilled developers who understand the full software development lifecycle.

Do you foresee a time when you'll use generative AI for front-end use cases?

I can see two potential use cases. One is using conversational AI to create chatbots that fully automate processes like bill pay for our clients. The other is in straight-through processing so we could fund loans in minutes rather than hours or days. But neither of these use cases can happen until we get to the point where we can trust generative AI models to answer customer queries responsibly.



Douglas Mealing

Divisional CTO of Cengage Work, Cengage Group



Companies will begin to realize the folly of building complicated solutions using traditional development approaches like Java or .NET. Instead, I foresee a future where everyone will always start with low-code for custom development.

Douglas Mealing on application development

What roadblocks are keeping companies from full digital transformation, and how can CIOs overcome them?

Companies are struggling to deliver on their transformation efforts because their existing systems are complex and lack integration capabilities. But at the same time, there is still a lot of FUD (fear, uncertainty, and doubt) about low-code. Using low-code tools is scary to a lot of engineering teams, and the resistance to using them is very real. I faced this pain point when I brought low-code tools like OutSystems into Cengage. But once we started our first projects, the FUD quickly dissipated as we successfully delivered.

How do you see application development evolving over the next five years at Cengage and overall?

Companies will begin to realize the folly of building complicated solutions using traditional development approaches like Java or .NET. While there is still a place for these tools for highly customized applications, they won't be necessary for most businesses. Instead, I foresee a future where everyone will always start with low-code for custom development. Our vision at Cengage is to have the majority—if not all—of our custom development using low-code tools. This will reduce our maintenance costs significantly and allow us to enhance our applications much faster. It also will help us deliver more features with fewer resources while allowing our engineering resources to find far more satisfaction in their work.

What's the greatest future opportunity for digital transformation leaders?

AI will absolutely drive innovation. We're using it in limited ways right now at Cengage, but I expect that to expand significantly over time. The AI tools within OutSystems—especially Morpheus—will allow engineers to build custom solutions extremely fast. What I've seen from the live demos is that Morpheus will accelerate delivery faster than the business can generate new ideas. I see this opening doors for a lot of businesses to shift into using AI tools and driving greater business value.





Frank Schmid

Chief Technology Officer, Gen Re



AI will change how we code and what we code. AI will not only make individual coders more productive, but will also increase the emphasis on higher-level skills like design thinking.

Frank Schmid on generative AI

What challenges is generative AI ready to solve now, and what is yet to come?

Our customers at Gen Re are other insurers, not consumers, and we exist in a highly regulated industry. So, right now, all the use cases we're exploring are internal, and our primary focus is on using AI to streamline workflows and achieve efficiency gains. I can see a future where AI serves as a powerful decision-support tool, but we may never use it to automate decision-making entirely. For example, in underwriting, we aim to leverage AI to extract and classify information from email submissions so we can automate and accelerate the workflow leading up to the underwriting decision. But humans would still be responsible for reviewing the data and making the ultimate underwriting determinations.

How will generative AI change the work developers do every day?

AI will change how we code and what we code. And it will go beyond just the task of coding, reaching into workflow design and the entire application landscape. AI will not only make individual coders more productive, but will also increase the emphasis on higher-level skills like design thinking. To achieve the highest productivity gains, we will need to rethink and potentially redesign our workflows to accommodate AI. This points to the importance of composability of the workflow orchestration engine.

Using a low-code platform, our developers can reuse code across multiple apps and build highly modular workflows. Low-code also enables reversibility, which allows us to move faster and with less regret.

What is your primary focus for generative AI over the next year?

We already are cloud-based and have a modern data architecture, so we have those two foundational elements for the productive use of AI already in place. Now, we are building our core competence. We created a small team that understands how to engineer AI systems. Even though we may not build all the AI components ourselves, maintaining this core competence will help our team make the best use of external resources in building AI components and incorporating them into workflows. This competence will also help us maintain optionality within this fast-moving space.





Ingo Paas

*Chief Innovation Officer and Chief Digital Officer, Green Cargo
Author, Digital Composable Enterprises*

Composable enterprises embrace ambidexterity—balancing the need for exploiting the technology and resources they already have with exploring and innovating new technologies. True composability means fully augmenting disruptive technologies and ensuring resilience in the enterprise attempt of exploration and exploitation simultaneously.

Ingo Paas on composable enterprises

What did you do differently to achieve digital transformation?

When I joined Green Cargo in 2019, my directive was to transform by replacing and modernizing a 45-year-old mainframe system and SAP platform. But I soon realized that the IT team wasn't set up to develop any business value and that we lacked digital or agile development capabilities. So, upon reflection, I recommended that we develop an evolutionary strategy with incremental execution. It included investing in foundational technology to support digital composability and agile development to bring scalability, agility, innovation, and digital resilience to Green Cargo. The ultimate goal was to build a digital composable enterprise, including transforming traditional ERP and mainframe into a digital and intelligent platform architecture from the core of our business.

Which technology was foundational to your digital composable enterprise transformation strategy?

We hit pause on single-problem solutions that raised the risk of downstream technical debt. Instead, we sought platforms that could deliver continual business value. For us, that was the OutSystems low-code platform combined with other digital foundational platforms. With low-code, we can build processes and enterprise applications from the core of our business that we cannot buy or reasonably build from scratch and do so in ways that provide reusable components that can help us scale into our digital future. Now, for the first time in 50 years, we can build applications in business logic that we

never thought possible. We made the agile mainframe possible—going from four releases a year to more than 300. Low-code was a core technology and platform to enable our transformation and significantly increase our autonomy in digital development.

In addition to choosing foundational platforms, what other core elements can help leaders create a digital composable enterprise?

Achieving this vision requires large cultural shifts, leadership buy-in, a risk-aware approach, and an environment where iterative innovation leads the way. Composable enterprises embrace ambidexterity—balancing the need for exploiting the technology and resources they already have with exploring and innovating new technologies. To manage this balance, you must evolve your use of technology by creating an environment in which you can try out something relatively quickly.

True composability means fully augmenting disruptive technologies and ensuring resilience in the enterprise attempt of exploration and exploitation simultaneously. Composable digital businesses transform adaptive technologies. They apply balanced investment strategies securing both tactical and strategic ROI (return on investments) in balance with sustainable TCO (total cost of ownership). Composable enterprises find it much easier to scale their digital investments without creating a pile of digital legacy, continuously reconfiguring and reusing their investments at scale.



Marco Navega

IT Director, Zurich Portugal



The role of IT leaders has significantly evolved, moving beyond merely supporting business goals to becoming an integral part of defining and shaping the overall business strategy. It's their responsibility to create a safe-to-fail environment to foster a culture of innovation and learning.

Marco Navega on IT leadership

How can IT teams be more efficient in the future, and how can IT leaders make that happen?

The role of IT leaders has significantly evolved, moving beyond merely supporting business goals to becoming an integral part of defining and shaping the overall business strategy. It's their responsibility to create a safe-to-fail environment to foster a culture of innovation and learning. To achieve this, IT and business leaders need to establish an agile way of working that stresses collaboration, communication, feedback, automation, and continuous improvement. At Zurich Portugal, we have implemented this approach and used technologies such as cloud, AI, and low-code, as they allow fast testing, adaptation, and learning to set up an efficient and innovative environment.

What current and future use cases will AI help support in your industry?

We already see AI-powered solutions at every step of the insurance value chain—from the hyper-personalization of products (pay-how-you-drive) to the generation of recommendations (cross and upsell), from computer vision at the time of subscription (self-service pre-inspection) to natural language interpretation in customer service, among many others.

At Zurich, we've established an integrated governance mechanism—AI Assurance Framework—to assure the deployment of solutions using artificial intelligence (AI) and machine learning (ML) in line with the OECD AI Principles' definition of AI. All our current and future use

cases comply with it. A clear example aimed at operational efficiency is a chatbot we created based on the GPT engine for internal use where the data never leaves the Zurich premise.

How do you see application development evolving over the next five years at Zurich Portugal?

Application development will continue to expand exponentially in the upcoming years as more of our capabilities and services are migrated to a digital format. As long as the strength of generative AI is combined with low-code, we will keep using it as our preferred development platform. This way, we can speed up time-to-market, empower more junior developers, handle fast change and iteration, and ultimately build a community of citizen developers.

We will also keep exploring and creating new AI use cases—either by ourselves or with the help of our partners—to offer distinctive and convenient products, services, and experiences to our employees, customers, and business partners. In the co-creation space, we host the largest global open innovation program for startups in the insurance sector. The Zurich Innovation Championship is an annual program that invites startups and entrepreneurs with innovative ideas to work with us in creating attractive products or services. With over 8,000 submissions received to date and ongoing collaborations with over 50 startups, it has helped us to drive innovation forward.



Patrick Cheong

Head of Software Engineering, PETRONAS Digital



Agile is a way of working, and it's vitally important. But in an era defined by globalization, it's equally important for IT teams to remain flexible so they can accommodate rapidly changing business environments.

Patrick Cheong on Agile

What's the biggest thing leaders should do to help their IT teams become more agile?

I believe that leaders should embrace agile—with both a big “A” and a small “a.” Agile is a way of working, and it's vitally important. But in an era defined by globalization, it's equally important for IT teams to remain flexible so they can accommodate rapidly changing business environments. Think about the way Amazon has transformed. What started as an online bookstore is now a conglomerate that includes AWS, one of the world's leading cloud providers. They achieved this by embracing a startup mindset. Accordingly, enterprise IT leaders today should put the right frameworks and guardrails in place so they, too, can pivot quickly and smartly.

Why isn't a one-size-fits-all approach to digital transformation feasible?

Digital transformation is driven—first and foremost—by industry type. I spent years in the telecom industry, and in that world, technology is the business. So, telcos had to rapidly transform from physical switching to soft switching to network switching just to keep up with their competitors. By contrast, PETRONAS—where I currently work—is an energy company. While technology isn't as central to the business as in telecommunications, it is a key business efficiency enabler, from supply chain

to trading. Our digital transformation is improving our essential and support systems, including our refinery management, plant management, and asset integrity management systems.

How will generative AI change the face of technology over the next two years?

I had the opportunity to see the new OutSystems AI capabilities in action at the ONE conference in Lisbon recently, and it's powerful. It's easy to see how that type of generative AI-powered experience will define the future. Going forward, I believe that technology will be driven by other technology and that humans will be the guides. Many enterprises are moving into generative AI with a sense of FUD—fear, uncertainty, and doubt. They don't want to get left behind. But you really need to pick where you want to get in that space so you can succeed with AI.





Stijn Stabel

Chief Technology Officer, Carrefour



Once IT started to go faster using low-code, they realized they had to push the business to go faster, too. This was never the case previously because IT used to be the holdup. It's like upgrading your car's engine to go from 100 km/h to 200 km/h. Once you do that, you have to upgrade the tires, too.

Stijn Stabel on low-code

What's the most disruptive thing you've done to accelerate innovation faster than your peers?

There's no single common denominator that will take you to 10x acceleration. Instead, you need to explore all your opportunities and find which ones will be best for your company. At Carrefour, we invested in intentionally changing our culture, taking IT from being “the geeks in the basement” to a true business partner. Communication has been the key to making this happen. We communicate what our plans are, why we're doing it, what we're implementing, and why we have to disrupt operations to do it. Additionally, we've moved everything to microservices and the cloud and accelerated our time-to-market by using OutSystems for application development.

How has low-code helped create digital transformation at Carrefour?

Our CEO says that digital transformation is one of the top things that keeps him up at night. In order to give him a good night's sleep and achieve a successful transformation, we needed to become more agile. Low-code helped us do just that. We first used OutSystems to retool an old application we had originally built 20 years ago for ordering materials in our stores. Before low-code, we thought the new app would take 200 days to develop. With low-code, we launched it in 40 days.

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What's the single greatest opportunity for digital transformation at Carrefour?

We're striving to seamlessly integrate all of those edge technologies—from systems of record to central data lakes and low-code applications—which help us achieve value in our daily operations. Out of all this data, we strive to create personalized, predictive customer experiences that are core to our business. Achieving complete insight on all our data points will give us 360-degree insights we can use not only to optimize operations and streamline our supply chain, but also to enable sustainable growth, maintain a competitive advantage, and boost shareholder value.



Take your digital transformation from vision to reality

If you're ready to embrace the future of application development, follow the lead of these visionary CIOs. An important first step is to evaluate which emerging technologies will help you accelerate your digital momentum.

Many leaders are making low-code platforms a foundational part of their digital transformations. The OutSystems low-code platform is unique in its ability to help teams build mission-critical software, increase agility, and gain a competitive advantage.



To learn why, check out these additional resources:

- [Discover what](#) business initiatives your C-suite peers are accomplishing (and how) with OutSystems.
- [Find out](#) how 8 top global IT teams build complex, game-changing apps with OutSystems.
- [Learn more](#) about how OutSystems can help you drive your digital transformation forward.