# Get more from low code

Building a center of excellence for citizen developers and software engineers

KPMG
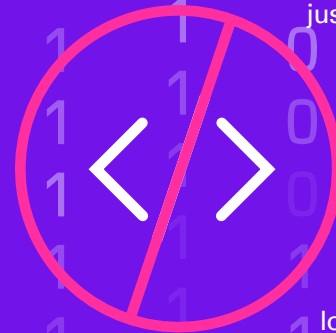
# Ever wonder what happened to the low-code revolution?

# And the citizen developer?

**To truly exploit the technology's power, your organization may need to build a low-code center of excellence—for citizen developers and software engineers.**

Much figurative ink has been spilled over the past decade touting the promise of "low-code" software development platforms. In the popular telling, low code would enable armies of business end-users to develop software applications on their own, quickly, with minimal coding skills, and minimal help from IT.

It hasn't exactly worked out that way—yet.

To be sure, low-code platforms are becoming ubiquitous, and they are delivering real value for organizations. Their building-block approach really does make software development faster and simpler in many cases. As we've written in the past—and still believe—low code is on its way to becoming the unifying fabric of the digital enterprise, filling gaps in existing ERP and software-as-a-service applications and accelerating the modernization of legacy information systems. To date, businesses are just getting started, but do see the vast potential of low code. As a result, it's in the early stages of relieving the demands on IT and making the business a more integral part of the software development process.

There is a path to broader and more effective use of low code for Chief Information Officers who want to realize more of its citizen-developer promise. It begins with creating an in-house low-code center of excellence that can marry the expertise of software engineers and project managers with citizen developers—business users who have the ability to visualize what a new application or enhancement might look like and the desire to help create it.

# Where citizen developers get stuck

**To appreciate the role a low-code center of excellence can play, look at where the low-code movement fails most citizen developers today.**

We can do this by thinking about a software application having three layers of complexity—of looking, metaphorically, like a tiered three-layer cake. The small top layer consists of the user interface—the screens, reports and dialogue boxes end users see—as well as the business rules that shape the application's output. Below that is the middle layer where all the heavy lifting gets done—the data collection and processing required to execute the business rules. Finally, the bottom layer is where the low-code application is integrated with existing back-end information systems.

In the increasingly specialized world of software development there aren't a lot of coders who can build all three layers of that cake to optimal specifications. For citizen developers, it's an even bigger ask. Most wouldn't be able to build the middle layer or bottom layers, and many would struggle with the top layer if they didn't have at least a modicum of coding background or an ability to think visually in terms of screens and flow—if they weren't adept at what we sometimes call "systems thinking." The question for citizen developers isn't binary—can they do it or not—but rather how deep can they go?

Because the answer for most is "not very deep," citizen developers still need a lot of help. Just with the sheer volume of options and capabilities being released by low-code vendors, it is hard for citizen developers to leverage the full capabilities of any given platform. Even where they are able to navigate the low-code landscape, there's still a problem. Without appropriate guardrails, citizen developers risk becoming just another form of shadow IT whose work could compromise enterprise-wide data security and system integrity.
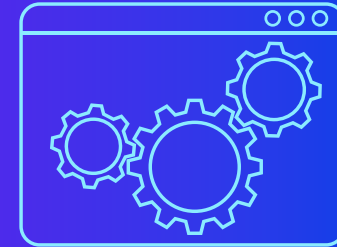
# How a center of excellence can unlock low-code success

**A low-code center of excellence can address the problems inherent in today's low-code landscape. In form, it takes the shape of a small set of people—software architects, engineers, and developers, as well as project managers—who shepherd new low-code software applications from ideation to production.**

This team has three main responsibilities. First, provide base-level training for citizen developers who have an idea for an app but don't yet have the experience or expertise to use low-code tools. Next, establish guardrails for citizen developers—a set of dos and don'ts to make sure those citizen developers aren't doing anything that will compromise the speed, reliability and security of existing IT systems, or violate any regulatory or governance protocols. Finally, build out the middle and base layers of the application.

Beyond enabling citizen developers and providing safeguards against rogue applications, a center of excellence can deliver multiple other benefits. Just by existing, it can encourage broader use of low-code by giving citizen developers somewhere to turn for guidance. It can promote consistency in the use of low code—ensuring, for example, that citizen developers leverage best-practice design elements to make apps scalable, flexible, reusable, and maintainable over time. Its developers can make life easier for citizen developers by providing them with a variety of connectors, reusable objects and mini application samples. The center also can weigh in on whether new projects are suited for a traditional or low-code approach to development.

## This team has three main responsibilities

**1** Provide base-level training for citizen developers

**2** Establish guardrails for citizen developers

**3** Build out the middle and base layers of the application

That said, simply creating a low-code center of excellence will not push the cultural shift many business leaders will want to encourage—one that favors greater enterprise reliance on low-code/no-code platforms rather than unending requests of IT. The center of excellence can promote this cultural shift, though, by pushing out to end users exercises based on real-world use cases that allow them to get their hands dirty exploring the nuts and bolts of the platform and actually configuring low-code applications. These use cases should to be specific to a given business unit. A marketing use case will not be relevant to a supply-chain organization.

What about low code's promise of time savings? It's still there. In the center of excellence, software developers accustomed to writing code from scratch can still benefit from working with low-code platforms, allowing them to complete complex projects efficiently and deliver value quickly.

Citizen developers can benefit, too. At first blush, it may seem that taking on a software development project would exacerbate the time constraints busy end-users already wrestle with. In fact, it's just the opposite. Before low-code, an employee with an idea for a new software application would have to write laborious process documents, journey maps, or business requirement documents to educate developers on what they hoped to accomplish. Even then, they risked seeing some of those requirements lost in translation. With a low-code approach, by contrast, a citizen developer can show the pros what they want the finished application to look like and keep expectations in synch from day one.

Once a low-code center of excellence is up and running, it can generate ongoing traction by publishing a list of out-of-the-box integrations for each low-code platform, as well as new plug-ins of integrations recently developed in-house. It should be easy for new users to check the library of available integrations for reuse and so reduce reliance on IT. Additionally, each plug-in should be supported with documentation specifying the extent of its functionality and instructions for its use.



Once a low-code center of excellence is up and running, it can generate ongoing traction by publishing a list of out-of-box integrations for each low-code platform.

# Accelerate your low-code capabilities: What KPMG can do

KPMG is deeply involved in helping companies define and implement their digital transformation strategies—and in helping them leverage low-code development platforms to make those strategies come to life. We're actively working with organizations to create centers of excellence that will guide their use of low-code platforms moving forward. Among other things, we're helping them identify the types of positions to be filled, create strategies for working with the business, and understand the types of skills they should be looking for in citizen developers.

To learn more about how we can help your organization could get everything low code can deliver, please contact:

**Gary Plotkin**
Principal
Modern Delivery
KPMG in the U.S.
gplotkin@kpmg.com

**Kirsten Hill**
Principal
Modern Delivery
KPMG in the U.S.
kehill@kpmg.com

kpmg.com/socialmedia