

Accelerate Agile Development with Mendix

INTRODUCTION

Learn how Mendix's low-code platform aligns to the principles of Agile and how its capabilities can help you accelerate your Agile practices.

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This symbol represents the Mendix platform's Agile tools.

Click ☐ for more info on each capability.

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You've heard that before.

Two decades ago, you were likely to hear "We do Agile" emit from the cubicle partitions of R&D or IT. The original idea behind the now-pervasive software development methodology was for application development teams to gain and grow the ability to produce more, develop faster, and better meet customer needs. In other words: Agile helps you deliver outcomes.

But "doing Agile" has spread and is evolving. It's grown beyond the boundaries of IT cubicles and into the open floor plans of different departments. Your sales team is adopting (and adapting) Agile. You've overheard your colleagues in Marketing say, "We do Agile."

Agile's evolution isn't just a question of where and who is doing it, but how it's being done, too. The methodology has evolved to include the operations side of app delivery. This is better known as DevOps. There are different flavors of Agile, too. Scrum, Kanban, SAFe, Extreme Programming are all different types of Agile frameworks.

Agile is the norm now, but it's not enough. In fact, in the Forrester report "The Agile Enterprise Emphasizes Practice over Process", the authors state that "Agile practices are now mainstream, but to drive true business differentiation companies must extend Agile approaches into strategic portfolio decision making."

There's more to the methodology than just saying "We do Agile." Delivering outcomes is more than just a process. It's the combination of the people using the process, the platform they're using, and the outcomes they're delivering.

With Mendix, you, your teams, and your departments do more than just "Do Agile." You amplify Agile processes and work toward better ways of developing software and -- most importantly -- delivering outcomes.

Process, not progress

"We do Agile" is becoming a cliché, and that sentiment is watering down the main values of the methodology as stated in the "Agile Manifesto":

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- · Responding to change over following a plan

Instituting the Agile process at a high level, according to "The State of Agile", means that you're "enabling greater adaptability to market conditions." In other words, you're delivering the right software to the right customers at the right time. However, the level of competency that companies have around Agile is low.

Only 18% of those "doing Agile" feel like they're doing it at a high level. 74% are still maturing or experimenting.

No matter where Agile is done and which framework is used, simply getting to the point where you're "doing Agile" is not enough. Those who adopt Agile for the sake of being able to say "We're doing Agile" are in danger of, as Forrester puts it, replacing one dogma for another, whereby once they were rigidly abiding by the rules of Waterfall, they're now strictly adhering to Agile processes. This is not in the spirit of Agile.

Progress, not (just) process

A tool or process is nothing if you're using it improperly or not using it at all. The teams at your company who build applications, the people who use them, and the way they interact with each other are more powerful than any technology stack, trendy agile framework, or a low-code platform. Rigid reliance on a single approach or way of working renders any tool or process into an impediment rather than a solution. And the result of this inflexibility is stagnant, uninspired work.

Just "doing Agile" is not the goal. Process alone will not get you the outcomes you desire. "Process" is just one of what we at Mendix have dubbed the 4 P's: People, Portfolio, Process, and Platform. These are the core tenants of succeeding at delivering business value.

The 4 P's

People

The people involved in building and delivering value. This includes executives who provide buy-in, the end user who is providing feedback on the software you're delivering, and all the developers, business analysts, product owners, and Scrum masters in between.

Portfolio

The body of work produced and delivered by your team. All in service of meeting the needs of the customers or users that the product was built for in the first place.

Process

The approach to developing and iterating on products.
Read: Agile.

Platform

The tool with which you use to develop and deliver your products.

You need to activate the right people to start building working software that your customers desire. And you do that with the right process and platform. You need a platform that aligns with the values of Agile, not process itself.

That's why at Mendix, we designed our low-code development platform with the values of the Agile Manifesto, and the Scrum Framework in particular at its core.

The Mendix and Agile philosophies fit together hand-in-glove. Throughout this book, you'll see how the Mendix platform aligns to Agile and helps you achieve what you want to do: produce more, develop faster, and better meet customer needs.

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Strip away the labels, the ceremonies, and the roles. With Mendix and Agile, the results aren't you just saying, "Oh yeah, we do Agile." The results are you, delivering outcomes.



Building software together



Like the authors of the Agile Manifesto, we too believe there is a better way of developing software, and that's by bridging the gap between the business and IT and empowering those who know the users best with the tools to help solve problems. We built Mendix to align with the core principles stated in the Agile Manifesto, all in the service of uncovering better ways of developing software.

The Mendix platform is specifically tailored for working in Agile by supporting you through the entire application lifecycle. You'll see this line of thinking employed within the Developer Portal, a key component to the Mendix platform along with Mendix Studio and Mendix Studio Pro where developers can collaborate, deploy, and manage their apps. They key activities in the Developer Portal are:

Capture Gather and prioritize user stories that will help you identify the right

problems to solve at the right time.

Develop Put those committed user stories to action and start to build.

Deploy Release your application into your users' hands.

Iterate Aggregate user feedback and iterate to enhance their experience,

which is then captured all over again.

At every stage, you'll employ the 4 P's to help you develop faster, deploy more freely, iterate quicker, and deliver more business value.

Capture

Mendix and Agile work so well together because both the platform and the methodology value collaboration and delivering functional software quickly and often. Above all else, the people and the means by which they collaborate are at the core of succeeding with Agile. At Mendix, we recognize this and have built features that put people and collaboration at the forefront.

Mendix's approach to Agile is based on the Scrum framework. In Scrum, you start by creating a product backlog. This backlog is a list of user stories to which the team will commit. The capture stage is absolutely crucial to the aspect of delivering value, because it's where team members collaborate with themselves to define what's most important to the users.

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At Mendix, we believe in the value of business-IT collaboration. When developing applications for internal users, you need to treat them like you would the customers the Agile Manifesto suggests. Give them a seat at the table and collaborate with them. That's the only way you're going to truly get business value out of the apps you're developing using Agile.

In the Scrum Agile framework, it's important to have small, cross-functional teams. That way you achieve greater focus and higher productivity. Within small teams, team members can more effectively communicate with each other, transferring knowledge to one another much faster.

The right work

Mendix allows you to set up and manage your teams right within the Mendix Developer Portal. Team members can communicate to each other within the portal. Because Mendix is aligned to Scrum, the roles you can assign team members include: Scrum Master, Business Engineer (or developer), End Users, and Product Owner. These roles are essential in making sure that the right work is getting done on time.

What does "right work" mean? When you "do Agile" you should be concentrating on the customer (user). Who are your customers? What are you trying to do for them? Mendix and Agile work so well together because both the platform and the methodology value collaboration and delivering functional software quickly and often. Your customer could be a field service engineer, contracted out to do work for your company. Your customer could be an insurance client that needs a mobile app to file a claim quickly. Your customer could be Marvin down the hall in Finance who needs a better way of tracking invoices.

The value of using Agile is to help you to ask "why?" The answer to that question is your business value. Business requirements (user stories) drive business value. The only real way to get the answers to "why" is through engaging with your customer.

With Agile and value-driven approaches you have a timebox for your Sprint (for example, two weeks) and a certain number of people working on a team. Setting and prioritizing user stories is a team effort which is why collaboration is of the utmost importance during the capturing phase.

Once those stories are captured, ranked, and assigned, you run those in a sprint.

Customer collaboration is a core value of the Agile Manifesto and Mendix. When you collaborate with the customer, you are going beyond "doing Agile" and actually listening to users' valuable feedback with the intention of incorporating that in the next iteration of the product you're developing. Within the Mendix Platform you can capture feedback from users directly in the application.



In the "Stories" section in the Developer Portal, you can create a new story, edit current stories, and add story points, labels, and a description. You can attach these user stories directly to the application's corresponding features.



Develop

With its visual modeling, the Mendix platform was specifically designed to close the Business/IT chasm. Collaboration doesn't stop at the Capture stage. Agile is collaboration throughout the entire application lifecycle. Planning for an application that adheres to business strategy is how you gain true business value. And you want that business value fast.

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Right from the Planning section of the Developer Portal you can begin modeling your app in either Mendix Studio or Studio Pro. Both environments provide seamless, bi-directional collaboration so that development teams can converge on the right work more quickly.



Under "Planning" in the Developer Portal, you can use a Scrum board where you or team members can set the story state to reflect current progress. You can also track your work with a burndown chart, charting the progress of the implementation of business requirements.



Sprint faster

In Agile, visual modeling gives you the ability to build better apps faster.

Take sprints, for example. Even if you're "doing Agile" well, the problem of too many processes or misused tools can still crop up. Two-week sprints are definitely a faster way of working than what happens with methodologies like Waterfall. But sticking to two-week sprints is adhering to process for process's sake.

Despite it being a tool itself, the Mendix platform is one that "embodies individuals and interactions over processes and tools." ⁱⁱⁱ At the end of a sprint in Scrum, you review your traditionally developed work with stakeholders, most of whom might not know code. What's easy for developers to read and review, could be difficult for a business user to visualize with limited programming experience. The issue here is that by the time you start frontend work, backend features you agreed to beforehand are now visible and might not be what the business user actually wants or needs anymore.

Visual modeling gives you the ability to do more and build better apps faster.

The visual and collaborative nature of Mendix Studio and Studio Pro allows stakeholders to immediately see their requirements being put into action. Instead of trying to visualize rows and rows of code, that's abstracted away and business users can actually see their app in action. Because visual models are easier to understand, they facilitate frequent, ongoing collaboration between IT and the business, enabling the business to contribute directly to the project. You're now ensuring frequent feedback loops to get outcomes faster.

Strictly following Agile processes can slow down what would otherwise be a quick bug fix or an easy feature to create. With the Mendix Platform, you can address bug fixes or build features while collaborating with your team members in real time.

Don't wait around for a whole sprint to do something you know you can do in five minutes with visual development and the collaborative tools in the Mendix Platform.



What's all the buzz? Get real-time updates with Buzz, a capability that lets you share and view updates to the apps and see your team members' activities around projects both within the Developer Portal and in Mendix Studio and Studio Pro.

It just works

It's obvious, but delivering working software...well, it works. To us, "working software" is software that delivers on its intended purpose; i.e., it's creating business value. The faster you deliver applications, the faster you're responding to market changes, or making someone's job more efficient, or delighting an end user and making them a customer for life. That's why you're "doing Agile."

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One aspect of Agile that we see preventing people from quickly creating business value is documentation. There is value in documenting your work. Understanding the requirements, stakeholder alignment, and clarity on product functionality are all crucial to making sure you are creating repeatable ways of doing things well.

Where documenting becomes detrimental is when it becomes the work rather than a recording of the work. Documentation should not be the desired outcome. Mendix provides a range of tools aligned to Scrum-based development that help manage documentation, so you can do what you have always set out to do: Deliver business value.



With the Mendix SDK (Software Development Kit), you can generate documentation from your app models, so that you have the most up-to-date documentation. Most importantly, with this feature you don't have to do manual documentation; it's updated automatically so you can focus on creating working software.

Deploy

Another key aspect of working software? Actually delivering it.

Whether you're deploying in the Mendix Cloud or elsewhere, Mendix gives you tools that support continuous integration/continuous deployment (CI/CD). The platform's APIs enable integration with external tools to build a delivery pipeline using products like Jenkins and Visual Studio Team Services that are coupled with container technologies and QA services. That's an Agile process that's fully operational. What this allows you to do is not just develop working software, but actually deliver it and continuously iterate on it.

Ultimately, what you get with the Mendix Platform is the ability to change your mind. No matter which development methodology you use or which Agile framework you put into action if you don't have the freedom and flexibility to go back and iterate on what you've delivered, then you're not truly getting full value out of the process. Using the full-throttle collaboration capabilities and visual nature of the Mendix Platform gives you the freedom to deploy whenever, wherever with one click.

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Iterate

"Doing Agile" means you've empowered your employees to collaborate and build products that align to business strategies. The only thing is, users' needs change. Then strategies change. Thus, plans change. Agile processes allow you to be responsive to those constant changes. Rather than building out a six-month plan and not changing until you get to the end, you can pivot 3 weeks in after the requirements or scope inevitably change. And then you can pivot again, and again. Working agilely in Mendix enables your team to evolve along with the project's objectives.

Ask any high-performing athlete: Pivoting on a dime is hard. But that's what today's business landscape looks like. Constant pivoting. With Agile, you have the process in place to do that. With Mendix, you have the platform that people can use to easily change too.

The Developer Portal directly attaches commits to the application models with a reference to the user stories. This enables teams to perform a user story audit and go back and check commits to understand the reasoning behind any changes.

Why is this important to delivering working software?

The more easily you can track progress and pivot on changing business requirements, the faster you're delivering working software.



The Mendix Feedback Widget gives users the ability to provide direct feedback within the project so that developers or business engineers can respond in real-time.

Measure and move

Another way of gathering feedback to help you pivot more accurately is metrics. Getting data on how your applications are performing and seeing those trends is incredibly informative to how you plan your next course of action. This is what Jeff Sutherland, author of "Scrum: The Art of Doing Twice the Work in Half the Time," had in mind when he defined the Scrum methodology. "Observe, Orient, Decide, and Act" prompts you to gather your surroundings, get your bearings, and quickly decide what the next course of action is.^{iv}

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When you incorporate a tool that is used across the whole organization—not just IT, not just the business—changes in strategies are more easily communicated. Everyone on both sides of the business can adjust user stories and track changes to those user stories within Mendix. With Mendix, you're able to see the successes (or failures) of your plans. You can see how many changes were made to user stories to meet or adjust to plans.

That's less time spent aligning on strategy and more time being in lock-step and changing together. When trying to scale up Agile, getting everyone in the organization aligned is critical.



Within the Developer Portal, you have a number of analytical tools at your disposal to gauge the performance of your applications, their status, and the status of the platform. All in one place.



Uncover better ways of developing

Adopt Agile methodologies correctly and you increase productivity, reduce costs through accelerated product delivery, and achieve better alignment on business strategies across the organization. In other words, you're uncovering what the authors of the Agile Manifesto and the founders of Mendix have always desired for businesses: a better way of developing.

By pairing Agile with the Mendix Platform, you get a process and a platform that support the entire application lifecycle, from planning to operations. With Agile and Mendix, you're enhancing an already iterative process to develop applications that meet users' ever-evolving needs, match the demands of your organization, and result in the very thing that Agile was meant to help you deliver: Outcomes.

Ready to go? Try out the Mendix platform







About Mendix

Mendix is the fastest and easiest platform to build and continuously improve mobile and web applications at scale. Recognized as a market leader by leading analysts, we help our customers digitally transform their organizations and industries by building, managing, and improving apps at unprecedented speed and scale. More than 4,000 forward-thinking enterprises, including SUEZ, Philips and North Carolina State University use our platform to build business applications to delight their customers and improve operational efficiency.

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