

Low Code Value Handbook

Find your value.

ake this yours.

This handbook belongs to:

*Transform IT from a cost center to a **value creator** by following Mendix's framework to define, calculate and articulate the business value you create with low-code development.*

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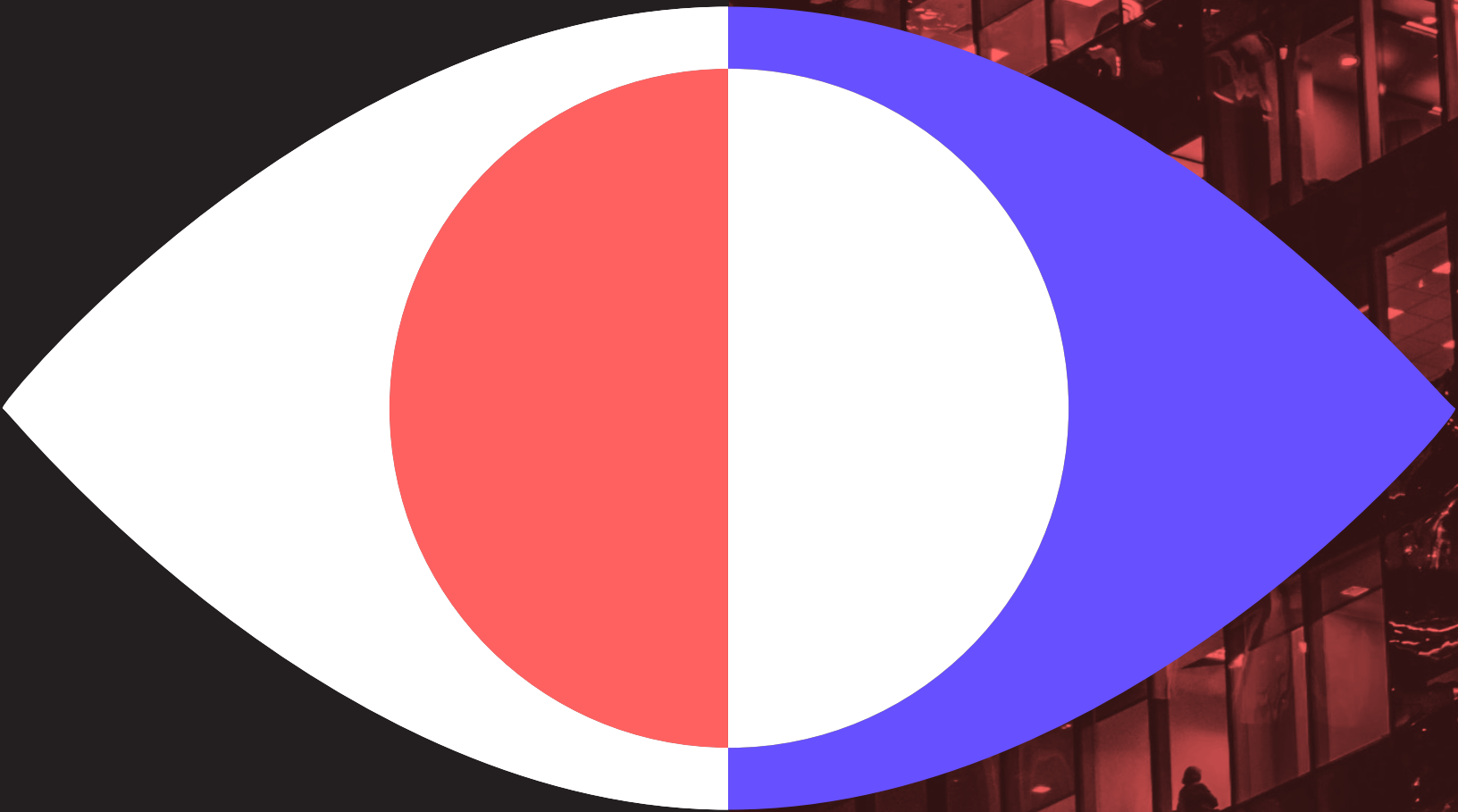
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PART I

Value: Perception and Reality

When it comes to how IT is perceived, **you are no longer a cost center.** This isn't news. The notion of IT no longer being just a cost center has been around for decades. It's only just starting to get noticed by the business. In fact, according to [Dimensional Research's 2019 "Digital Disconnect" survey](#), 70% of businesses agree that IT is a value producer.ⁱ

It's no wonder why IT is now perceived this way. Just look at the output. Software solutions are helping businesses realize new worlds of profits by allowing them to enter new markets or release new products faster; develop novel, innovative ways to engage with customers; and increase operational efficiencies.

Your software solutions are value-delivery mechanisms, which makes the people building these portfolios of applications the value-producing, life-blood-pumping heart of the business.

If only perception were reality

Of that majority who believe IT to be a value creator, 74% report a huge pipeline of unmet requests for software. Compounding that problem, 61% say that IT is delivering on less than half of their ideas.ⁱⁱ

The traditional application development process is clotting up the application pipeline and blocking value. This often puts additional strain on an already brittle maintenance process. Resources are bled out. Expectations aren't met. Application quality dips. And IT is no longer supplying value to the organization.

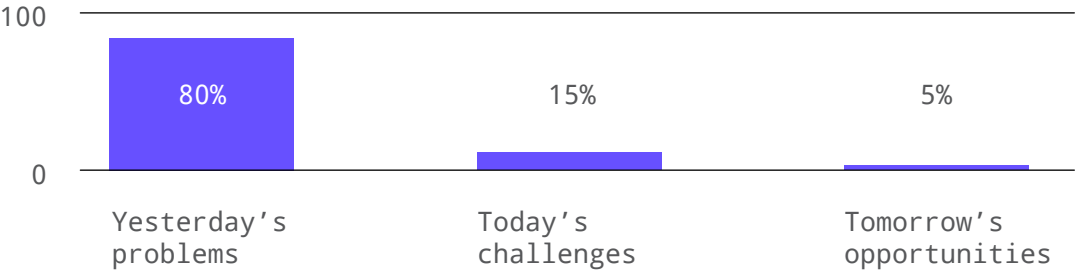
At Mendix, we know this scenario all too well. Based on 15 years of experience, we've seen that businesses the world over are devoting too much time to yesterday's problems, not nearly enough time on today's challenges, and little to no time on tomorrow's opportunities.

“IT was viewed as a manager of the past.”

Frans Temmerman | CIO, Securex



Traditional Development
IT Consumption



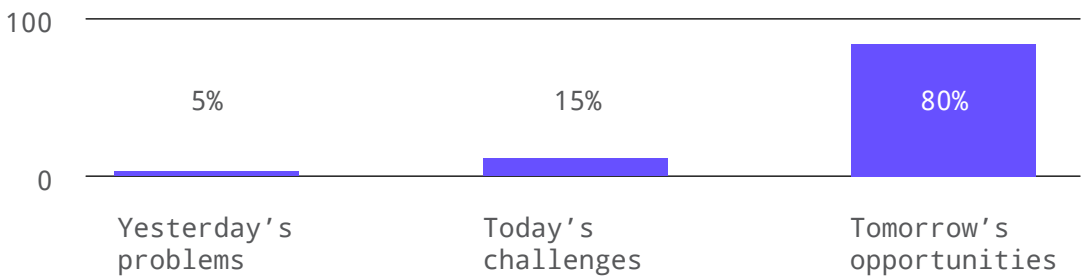
This is changing with low-code development. Low code is fast becoming the [preferred method of software development in IT](#), according to the Gartner's 2019 Magic Quadrant for Low Code Application Platforms: "By 2024, low-code application development will be responsible for more than 65% of application development activity." ⁱⁱⁱ

With Mendix's low-code development platform, you can breathe new life into your application development process and create value at unprecedented rates.

Mendix was founded on the principle of closing the gap between IT and the business. Through a close alignment to the Agile development methodology, connected integrated development environments, and a plethora of deployment options, Mendix allows you to manage the entire application lifecycle in a whole new way.

“IT and business units are collaborating and working faster. We’re changing the way you’re working.”

Frans Temmerman | CIO, Securex



When you change the way you develop software, you change the way your company works. With Mendix, you lead the initiative on getting business stakeholders and IT in lock-step to identify and solve your organization’s most pressing problems and create the right opportunities with software.

You empower your entire organization to build the value-driving solutions it needs. You can get those solutions to market sooner, build more, and do it more efficiently. You turn your organization into one that’s ready for anything. You make business and IT beat as one heart and turn that perception into reality.

So, if IT isn’t a cost center anymore, what is it? The answer is simple.

You are a value creator.

Let’s make some value

Modernizing your application development process and making sure IT is creating value is easier said than done. To help, we’ve developed a framework to help you measure and articulate to your organization the value you create when you use the Mendix low-code platform.

PART II

Value Achieved

Business value embraces intangible assets as well as the economical facts. There's zero consensus on the true definition of business value – it can be quantifiable and subjective. What we can tell you is that Mendix customers have delivered value in many different ways.

Measurable Impact

The applications you create produce myriad types of business value. This type of value is measurable in number of ways: hours shaved off of a process, customer loyalty increased, developer productivity gains, SLA uptime increased. Here are some of the business value results you can achieve building with low code.



Addressable Market

These are results that increase the addressable market of a company's products or services. PostNL, a parcel delivery and postal service company in the Netherlands, leveraged Mendix to build a mission-critical system that helped deliver 250 million parcels in one year, a 20% increase from the year before. The application is used by 4.5 million users.

Operational Efficiency

Business value is often measured in time saved or costs reduced. Zurich Insurance used Mendix to modernize their policy writing system for their acts of terror coverage. The app reduced policy update time by 90%, and drove over £280K of operational efficiency savings per year.

Infrastructure Impact

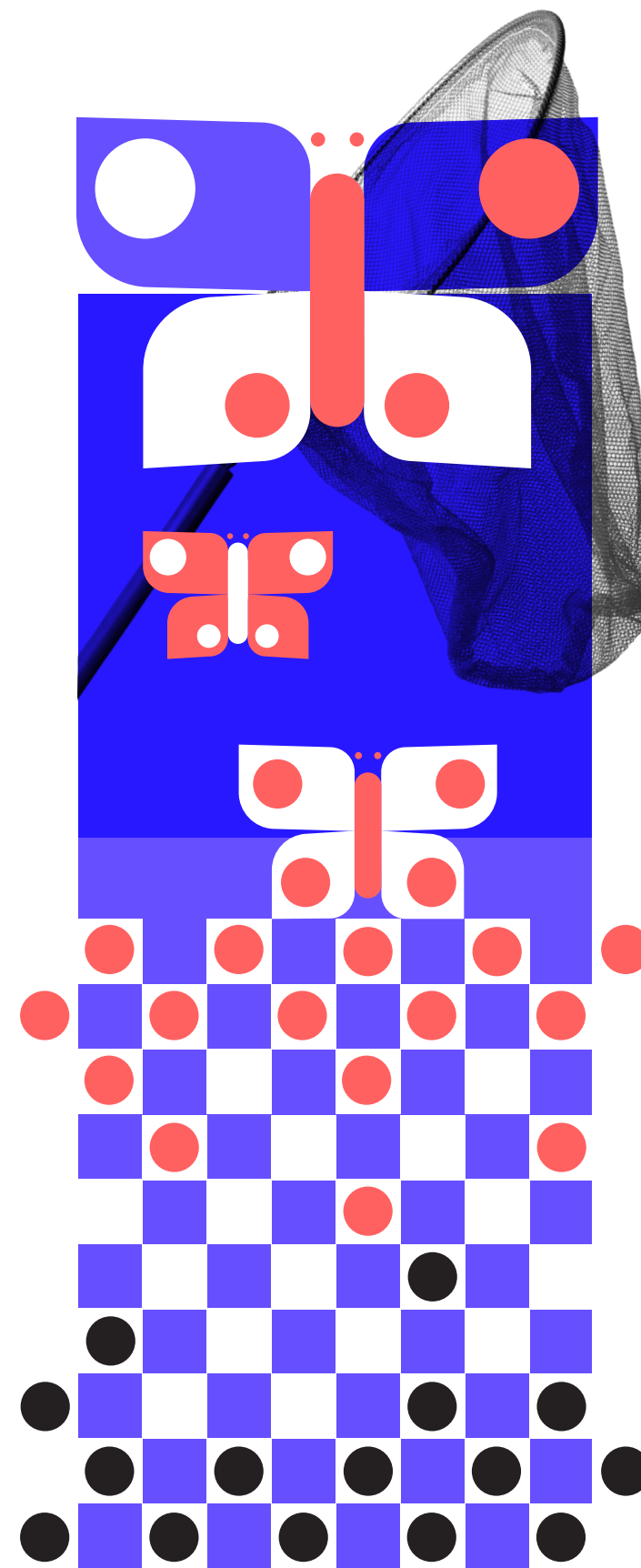
Often, organizations are paying more money than they should for customized software. North Carolina State University was quoted by a commercial-off-the-shelf (COTS) software vendor at \$3-10M to build a non-credit course registration system. With Mendix, NC State built that system, REPORTER, with a six-figure investment in just six months, creating other value opportunities too.

Risk Mitigation

Risk mitigation is often based around governance that help reduces risk through standardizations. With Mendix, developing from one platform with the option of using prebuilt, reusable components helps you ensure data integrity and security across all solutions. With deployment options like private, public, and hybrid cloud that match today's and tomorrow's needs, you don't have to worry about lock-in.

“REPORTER started off as addressing a very specific need around compliance and our outreach reporting, and the system has since become a full-blown enterprise application”

Jack Foster,
IT Director at NC State



Customer Retention

Customer retention comes from good customer experiences. Knowsley Council, the local government responsible for UK borough, Knowsley, used low code to better understand the needs of its users and shift from costly phone and in-person customer service transactions to more cost-effective online services. They increased online transactions from 2% to 50% in just three years and improved the livelihoods of many of its community members.

Competitive Capability

A company's success often hinges on how it stacks up against its competitors. Saga Healthcare was looking to enter the well-established home healthcare markets. They first looked to outsource development of this system, but were quoted three years development time. Using Mendix, Saga developed a caregiver home scheduling system in just six months, allowing them to enter and disrupt an entirely new market two and half years earlier than expected.

“We wanted a bleeding-edge technology that would create competitive advantages for Saga.”

John Cahill,
Managing Director of Operations
Saga Healthcare

Intangibles

When it comes to Mendix, you can measure business value in revenue realized, productivity gained, and hours saved. In some instances, however, value can't be directly measured.

That doesn't mean you're not making an impact.

Quite the contrary. IT is in a vital position when it comes to an organization's culture and success. "Culture can be an accelerator of digital transformation," says Elise Olding, Research Vice President at Gartner in an early 2019 Gartner article^{iv}. Gartner states that by 2021 CIOs will be as responsible for cultural change as chief HR officers. CIOs, according to Olding, "have the means to reinforce a desired culture through their technology choices."

“Sometimes I consider myself a Chief Improvisation Officer because our board of directors are quite rightly demanding that they have a kit to move their ideas to market very quickly.”

Matt Rogers | CIO, Suez

The technology you choose has massive implications on how your organization develops software solutions and how your end users – stakeholders and customers -- consume them.

Changing the Way You Do Things

Rather than spending time figuring out how technology can change processes or systems at your organization, focus on how you can change your entire organization. Mendix enables you to evolve your application development process to a faster, more agile way of working, which in turn **allows you to turn your organization into a flexible, change-ready one.**

In their McKinsey article, "Managing change and release," authors Berhausen and Hannon state that by adopting practices from the Agile methodology, an automotive company was able to ensure quick decision making.^v Accelerating decision making means you can deliver solutions faster, which means that your organization and end users are getting the tools they need to do their jobs.

Infused with an Agile development methodology mindset, the Mendix Platform brings more cross-functional teams into the software development process. Integrating the end user into the development lifecycle means you're building solutions that the business want. This is important, as Isaac Sacolick points out in his article "3 ways CIOs can change the CEO's perception of IT from cost center to strategic" because for CIOs to be perceived as strategic, "it requires championing customer experience improvements." ^{vi}

Mendix allows you to bridge the gap between IT and business stakeholders. This sparks a domino effect of positive change: features will be created faster, applications will be launched sooner, and you'll start to see and understand the potential value of better-built applications. When you're closer to the user, you're better able to improve the customer experience.

This is one example of where the intangible feeds into the quantifiable. Customer loyalty and retention increases when you enhance customer engagement by better defining requirements with the people that are closest to the customer.

With low code, perception and reality are starting to converge. At the center of this is you, creating the means to develop and foster all of this value.

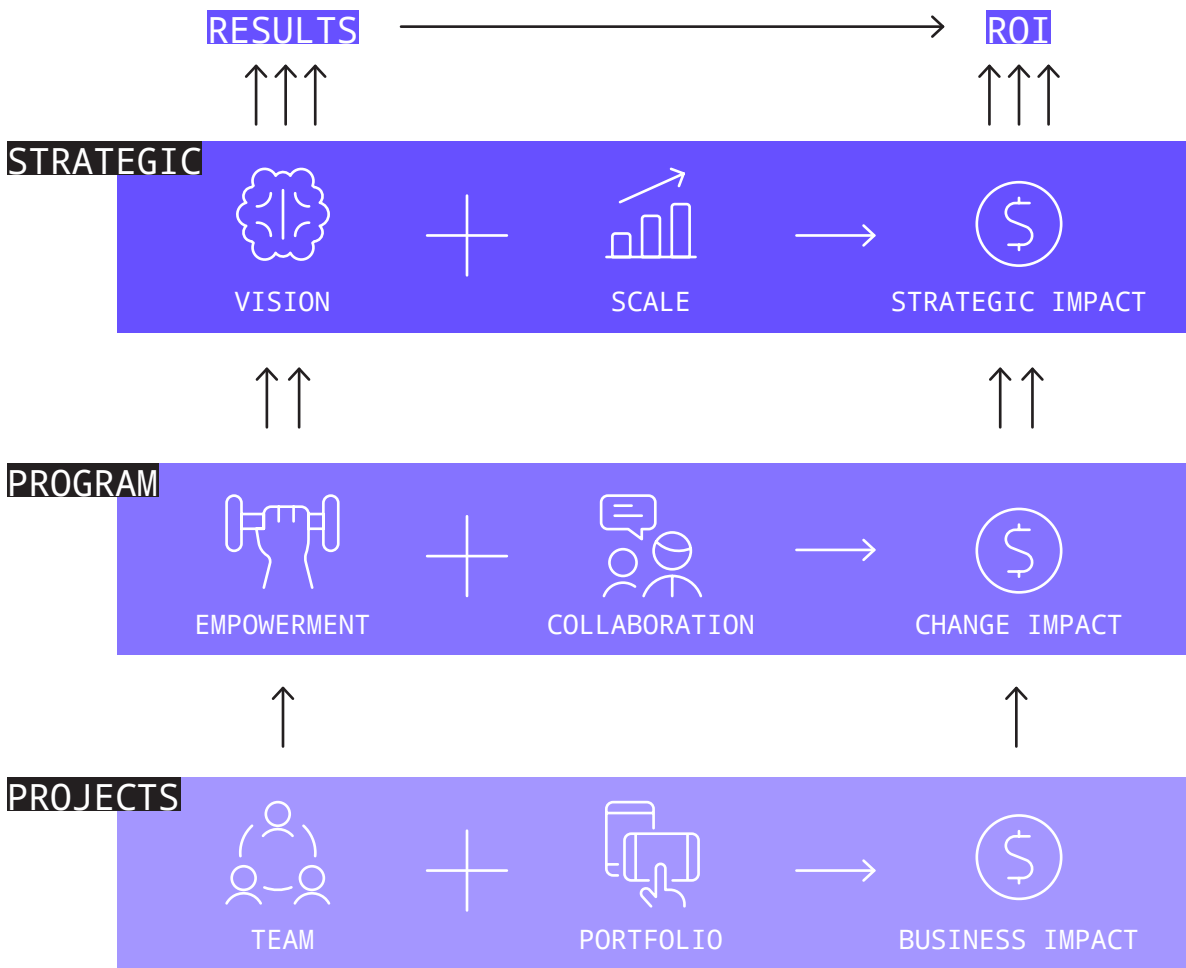


“It’s not just another tool. It’s another way of working.”

Gerrie de Jonge | CIO, PostNL

Tie it All Together

So what does the value of developing applications with Mendix, both quantifiable and intangible, look like when you map it out?



You drive value at every level of your organization.

The importance of aligning value at every stage of developing with Mendix is to help you show and prove value at every stage. The teams who are creating your portfolio of applications provide business impact. They're empowered by managers at the program level, where you see the organization become change-read. The business impact and change impact all feed into the strategic level impact, where a vision of a new way of working at scale yields ROI.

Communication of value at every level is vital. When you show people that developing with Mendix is working, you eliminate doubt and reluctance and prove that you can create more opportunities and solve more problems.

PART III

Measuring Value

Before you can communicate value, you need to measure it first. Measurement starts with a business case.

Creating a business case defines the solution you’re going to build and the business value it will create. Knowing this, you can determine the ROI of going to market sooner. To demonstrate this, we’re going to dive into a hypothetical scenario.

Jackie Smith, VP of application development at InterTech, has identified a software problem. End users are manually entering vehicle data (e.g., vehicle information, testing results, billing info) in a system used by car dealerships and they don’t have ready access when they need it. Compounding the issue, the development team needs a long lead time to implement any changes in the system. Jackie fills out this business case intake form to understand her problem.

BUSINESS CASE INTAKE: DEALER PORTAL

Current situation:

Our current system through which end users input vehicle data is limited. End users are spending too many hours manually inputting data like vehicle information, transportation and billing information, testing results, and complaints. They don’t have ready access. To make any changes, the development team needs a long lead time to implement any changes.

Description of the idea (“we believe”):

We believe that a new application, Dealer Portal, will automate the manual administrative processes and provide dealers better access to information.

It will solve:

Automatic data retrieval will provide real-time insights for dealers and reduce manual data search and entry efforts.

Affected KPIs:

- operational efficiency improvements and additional sales this year:
- a) hours reduced by 75% = 50k/ mo
 - b) increase up-selling opportunities by 5% = 150k/mo

Enabled by:

We will use Mendix to develop a customer portal, (Dealer Portal), and an automatic data retrieval function.

Using this form Jackie concludes that her new solution, Dealer Portal, will achieve:

Cost savings: 50K/ month

Revenue: 150K/ month

Total Business value: 200K/ month

Now that Jackie knows what she wants to build, it’s time to build it and measure how fast it will arrive in the market, its effect on InterTech IT’s backlog, and on IT productivity.

Project Funding

When you’re budgeting for a Mendix project, traditional funding processes aren’t always going to line up with the speed at which you can develop.

Traditional IT project funding is typically done on annual cycles, which works well with waterfall projects with fully defined requirements, timelines, and resources. But detailing a full body of work is the antithesis of working with Mendix (and Agile in general). Make funding as flexible as possible.

To do this, Jackie and her team could use modern, people-focused budget planning options that are evidenced-based or team-based to gain enterprise-level funding.

Increase Your Time to Market Speed

For your organization, and companies the world over, speed is always of the essence. Getting your product to the market more quickly is not only common sense, it's also a quantitative recipe for success. This notion is backed up in *Practical Project Management* where author Harvey Levine cites that when a new product is created for a new market, the first to market will “likely garner 50% of the total market” as well as set the pricing for the rest of the players. Those other players in that market? Left to divvy up the remaining 50%, but on the first company's terms.^{vii}

On the other side of that coin, delays in time to market can negatively impact your return on the investment you made for the scheduled work. Delaying a project doesn't delay your ROI proportionately. According to Levine, delays can have a compounding negative affect.

With this in mind, shorter application development cycles make a lot of sense. The faster you develop and iterate an application, the faster it's released to market, the faster you become that big player grabbing that 50%. When it comes to value, measuring an increase in time-to-market speed is vital.

Using Mendix's **digital execution best practices**, you can develop a solution at least four times faster than traditional development. Through 1-click deployment, model-driven development, built-in collaboration tools, reusable components, and integrated application lifecycle management, Mendix allows you to deliver products to market sooner.

Speeding up time to market at InterTech

We've established that Jackie's Dealer Portal has a business impact of 200k per month. Now, with or without low code, Jackie and her team of developers can build this application.

Using Java or .NET, this application would take Jackie and team four months to develop.

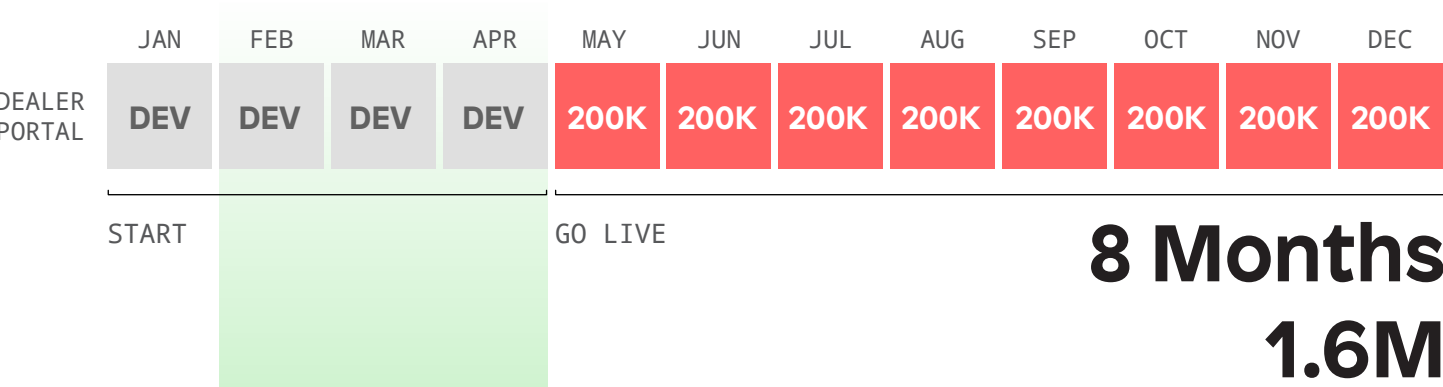
If work began in January, InterTech would start receiving 200k per month in May. Over the remainder of the year, InterTech has received a total of 1.6M from Dealer Portal. That's a good deal of business impact from one application.

Let's take a look at it through a Mendix lens. Through model-driven development and an Agile way of working, Jackie and team can build Dealer Portal at least four times faster, and go live in one month.

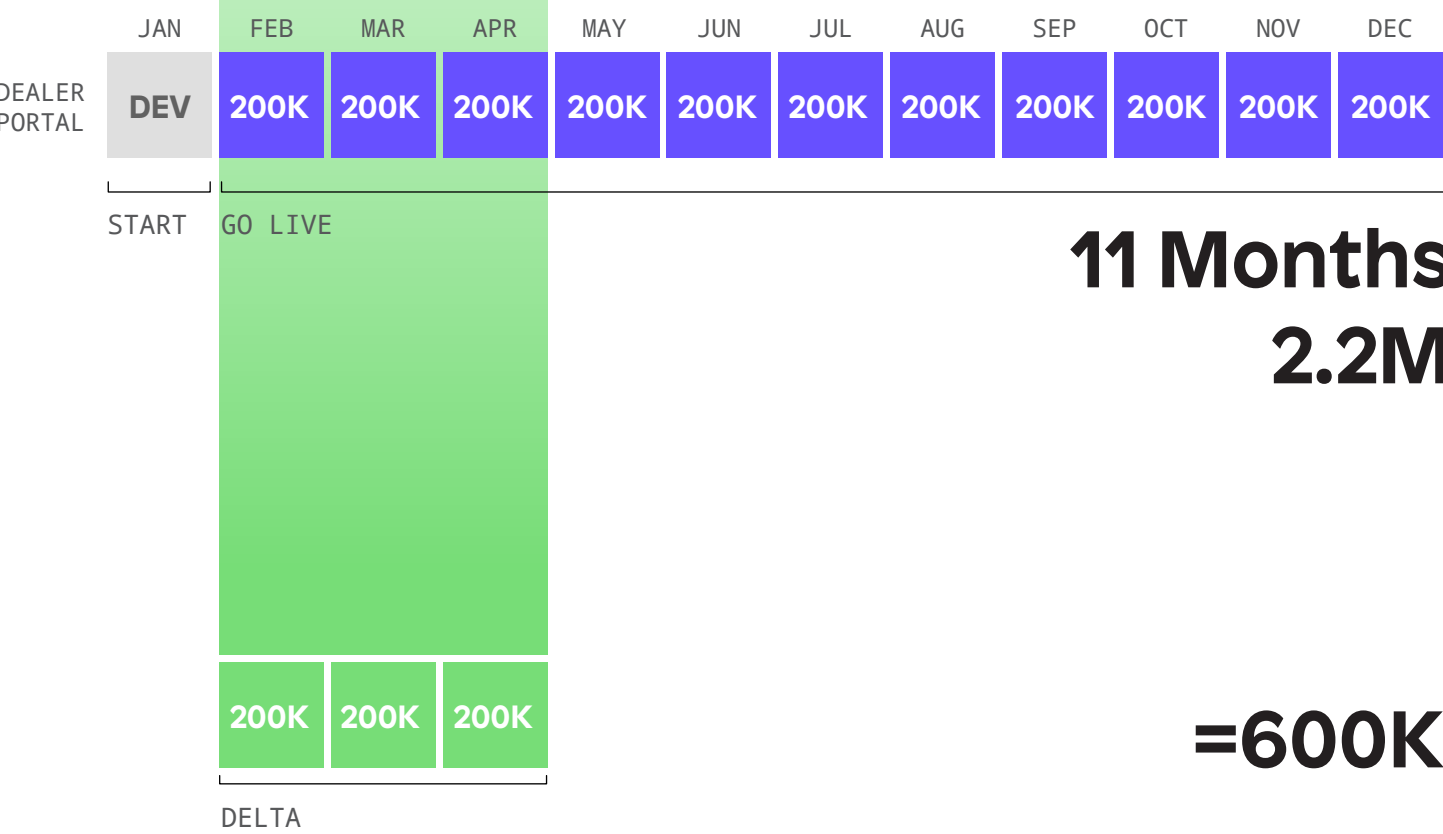
The business impact of the application is still achieving 200k per month in this scenario. The difference? Three more months of value. Because InterTech went to market sooner, they're realizing 2.2M versus 1.6M. That's 600k in added value.

Seeing this extra business value over the calendar year is a great thing for Jackie. But getting a solution to market more quickly is just the tip of the value iceberg.

TRADITIONAL APP DEVELOPMENT



RAPID APP DEVELOPMENT



But Jackie and her team have a backlog of solutions they need to build. To more efficiently manage expense reports, InterTech needs a new approval workflow application for work expenses. Jackie fills out her business case form for this new app.

Expense Workflow - Total business value 150k/ month

Traditionally, this solution would take eight months to build and go live in November. With Mendix it takes one, and Jackie is able to go live in March. That's another 900k in added value.

TRADITIONAL APP DEVELOPMENT

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEALER PORTAL	DEV	DEV	DEV	DEV	200K	200K	200K	200K	200K	200K	200K	200K
EXPENSE WORKFLOW					DEV	DEV	DEV	DEV	150K	150K	150K	150K

RAPID APP DEVELOPMENT

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEALER PORTAL	DEV	200K	200K	200K	200K	200K	200K	200K	200K	200K	200K	200K
EXPENSE WORKFLOW		DEV	150K	150K	150K	150K	150K	150K	150K	150K	150K	150K
			150K	150K	150K	150K	150K	150K				
			DELTA									

= 900K

= 900K

Low Code Value: 1.5M



CUSTOMER STORY:
WASTE NOT WANT NOT

Suez, the largest waste management company on earth, used Mendix to create, in just three months' time, a fully integrated eCommerce portal that allows fully transparent, self-servicing pricing for waste management. Just three months into its launch, the portal delivered £500K in additional business, at 20% of the customer acquisition cost.

[Read more about Suez](#)



Accelerate App Velocity – More Apps Faster

It's simple. If the process of developing an application is faster, you have the ability to build more.

We call this application velocity.

InterTech builds faster, builds more

The Finance team at InterTech has requested an upgrade of their invoice tracker which was previously built on Lotus Notes.

Jackie once again fills out her business case form for the invoice tracker application and determines its value:

Invoice Tracker – Total business value 100k/ month

We've established that if Jackie develops with traditional methods, time-to-market is slower. But the effects of developing traditionally also impact the InterTech IT team's ability to work on the Invoice Tracker because the other applications have taken longer to develop. The application will take another four months of development, not going live until the next calendar year. The longer development cycle delays that application's value until the following year as well.

On the other hand, moving to low-code development allows Jackie and her team to achieve true app velocity. Because Jackie and team were able to go live with Dealer Portal in February and the expense workflow application in March, they can address Finance's request for a new invoice tracker, which will take another one month to develop and go live in April.

That's nine months, or 900k, in added value that a traditional development team wouldn't have had time to create.

This is application velocity.

TRADITIONAL APP DEVELOPMENT

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEALER PORTAL	DEV	DEV	DEV	DEV	200K	200K	200K	200K	200K	200K	200K	200K
EXPENSE WORKFLOW					DEV	DEV	DEV	DEV	150K	150K	150K	150K
INVOICE TRACKER									DEV	DEV	DEV	DEV

RAPID APP DEVELOPMENT

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
DEALER PORTAL	DEV	200K	200K	200K	200K	200K	200K	200K	200K	200K	200K	200K
EXPENSE WORKFLOW		DEV	150K	150K	150K	150K	150K	150K	150K	150K	150K	150K
INVOICE TRACKER			DEV	100K	100K	100K	100K	100K	100K	100K	100K	100K

1.5M + 900k =
Low Code Value:
2.4M

NC STATE UNIVERSITY

HIGH VALUE IN
HIGHER ED

After delivering a non-credit course registration application in just six months versus a quoted five years, NC State University developers were able to build a lab management solution that cut administration time by 2/3rds and delivers \$1M in new revenue per year.

[Read more about NCSU](#)

Improve IT Productivity

With Mendix, the value isn't just a matter of applications' compounded business impact. Using Mendix also helps you improve IT productivity overall, reducing hours devoted to maintenance, better dedicating development hours, getting more return on your costs per hour, and revitalizing your infrastructure to make it more efficient. All of which help you deliver more value.

Improving IT Productivity at InterTech

At InterTech, they have a vision of building six solutions in year one. Jackie's aware that the average developer day rate is 300 at InterTech. So, to accomplish their goal with traditional methods it would take for Jackie and team:

600 developer days – 3 applications
Total: 180k spent

Conservatively, developing with Mendix is at least four times faster. So now Jackie and team can take:

150 developer days – 3 applications
Total: 45k spent

With Mendix, InterTech achieves 135k in total cost savings. Jackie and the development team have been able to produce more solutions in less time, saving more.

4X	300	135,000
FASTER AND COST EFFECTIVE	DAY RATE	TOTAL BENEFITS

Infrastructure Impact

Because Mendix has overlapping functionality with a number of technologies (robotics process automation, mobile development, cloud, business process management, AI), Jackie is finding benefits beyond developer productivity.

InterTech suffers from platform fatigue. With Mendix, Jackie has reduced spend on other COTS software and platforms that InterTech has invested in over the years. By simplifying integration and ongoing maintenance costs as well as cutting reliance on third-party services, Jackie's could see a cost avoidance of at least 1.5M.

Watch the Value Grow

Because Jackie can measure these numbers and articulate those figures, she can now better validate and advocate the value of this new way of doing things.

In total, by using the Mendix low-code platform, Jackie has realized 2,035,000 in value in one year. She's also armed her organization with a new way of creating opportunities and solving problems.

1,500,000

TIME TO
MARKET VALUE

900,000

APP VELOCITY
VALUE

135,000

APP PRODUCTION
COST REDUCTION

2,535,000

LOW CODE VALUE
YEAR ONE

PART IV

Prove It

Now that you know the how and why of the value of low code, here's what's next.

- ☒ Calculate time-to-market value
- ☒ Measure your application velocity
- ☒ Gauge IT productivity
- ☐ Lead the charge on a new way of working

Like Jackie and her InterTech IT team, there are countless IT departments that want to focus on the opportunities of tomorrow but are stuck doing yesterday's work. Solutions are taking too long to build; stakeholders don't like how IT is handling their requests. The result is that businesses aren't addressing challenges fast enough. The potential value is there, but it takes too long to find it.

When it comes to development, the value of low code is clear: You increase IT productivity by getting more solutions to market faster.

Not only that, you also impact the way your organization functions. People's jobs are easier. Processes run smoother. Customers are happier with the modern experiences you're providing.

It's up to you. You know you can create value.

Now you can prove it.

Go make it.



Ready to talk low code value? [Schedule a call](#) with us today.



Watch low-code value in action in this [video series](#).



See how other [Mendix customers are creating value](#) and driving results.

¹ “Digital Disconnect: A Study of Business and IT Alignment in 2019”, Dimensional Research, 9/2019. <https://www.mendix.com/resources/digital-disconnect-a-study-of-business-and-it-alignment-in-2019/>

² *ibid*

³ “Gartner’s Magic Quadrant for Enterprise Low-Code Application Platforms”, Gartner, 8/8/2019. <https://www.gartner.com/en/documents/3956079/magic-quadrant-for-enterprise-low-code-application-platf>

⁴ “Gartner Predicts by 2021, CIOs Will Be as Responsible for Culture Change as Chief HR Officers.” Gartner Predicts by 2021, CIOs Will Be as Responsible for Culture Change as Chief HR Officers, February 11, 2019. <https://www.gartner.com/en/newsroom/press-releases/2019-02-11-gartner-predicts-by-2021--cios-will-be-as-responsible>.

⁵ Berhausen, Nico, and Eric Hannon. “McKinsey & Company.” McKinsey & Company (blog), March 2018. <https://www.mckinsey.com/business-functions/operations/our-insights/managing-change-and-release>.

⁶ Sacolick, Isaac. “CIO.” CIO, June 2018. <https://www.cio.com/article/3284288/3-ways-cios-can-change-the-ceos-perception-of-it-from-cost-center-to-strategic.html>.

⁷ Levine, Harvey. Practical Project Management. Hoboken, NJ: Wiley, 2002.

