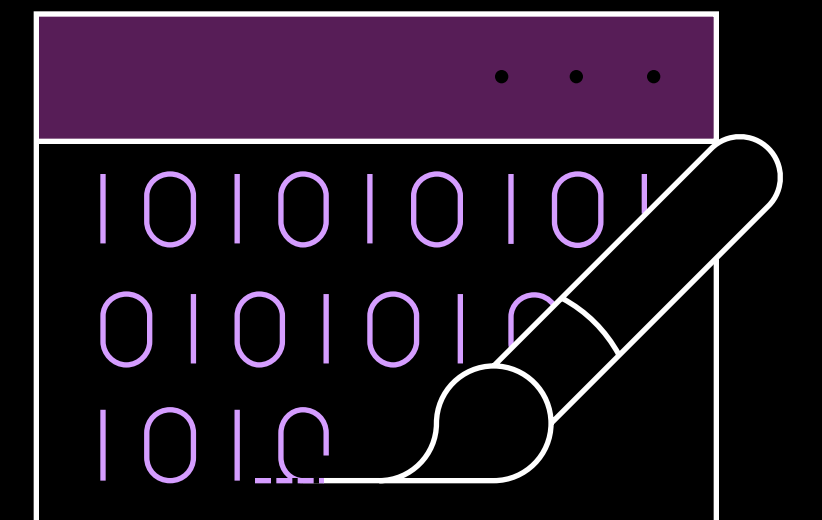Microsoft Power Platform

The Creator's Manual

The innovator's guide to low-code

This how-to guide will take you from building and deploying your first app, to scaling solutions throughout your organization with a robust governance and adoption strategy. There are no limits, with Microsoft Power Apps you can innovate at the speed of your creativity.

Welcome Creator!

Power Apps is a journey.
It's your journey.

This manual will guide you through the journey, or rather adventure, of learning about and leveraging Microsoft Power Apps, to implement a digital culture in your organization. It goes beyond looking at technology features. Here you can explore how to have more impact across your organization by starting with your knowledge of how your company gets stuff done and then understanding how to take advantage of modern tools and practices. IT pros, citizen developers, pro developers, every role and department within your organization has a part to play in turning bright ideas into brilliant apps and embracing a digital culture across your organization.

You are already an expert in your business. Power Apps gives you the tools to act on that expertise and solve business problems.

By breaking down the process into Ready, Set and Go phases this guide will take you step by step through building your first app on Power Apps, to establishing and scaling your first team, and then scaling teams within your organization as you develop a Center of Excellence.

This is not intended to be a technical manual, but rather a guide, that in conjunction with the CoE Starter Kit (aka.ms/coestarterkit) and the detailed kit on planning your first Power Apps solution (https://docs.microsoft.com/powerapps/guidance/planning/introduction), will help you be successful with this technology and help a digital culture thrive throughout your organization.

Ready

YOUR DIGITAL CULTURE

Set

Go

Your Digital Culture

Digital transformation is not just a buzzword. It is a way to empower every person to achieve more.
It is about creating a digital culture within your teams and organization.

37% of organizations are still using paper to manage critical business processes

65% of organizations report an app development backlog

69% of organizations say that accelerating digital innovation & transformation is the number 1 reason they embraced low code application development

Forrester, Q1 Digital Process Automation Survey (for process improvement efforts 2 years from now); Dresner Advisory Services,
The State of Business Intelligence, 2018 (critical responses only).

More than 500 million apps are going to be created in the next five years. That's more than all the apps than have been created in the last 40 years.

That scale of application development means that we need to think differently about how we build apps. Most organizations say that accelerating digital innovation and transformation is the number one reason they embrace low code application development. Microsoft Power Apps, a low code application development platform, empowers everyone with a foundation for application development that is scalable, secure and compliant. Low code application development empowers everyone to take part in digital culture with the agility to respond to changing business needs.

Your Digital Culture — Ready — Set — Go

Digital transformation is powered by people

For modern businesses to compete and progress with their digital transformation journey, we need more developers. Just as the traditional approach to building applications is evolving, so is the type of skills developers have! Some developers predominantly use code supplemented with tools to build apps, and some developers use low code tools and epic problem-solving skills together with specialized knowledge of the business to build solutions. When the coding expertise of pro developers meets the domain expertise from the business, the result is greater innovation and more problems solved. In fact, Gartner predicts that by 2023, there will be four times as many "citizen developers" compared to pro developers in enterprises.

This new group of problem solvers are needed to handle an increase in software, application, and database development required for the modern enterprise to support growing business demands. So, what exactly is a Citizen Developer and a Pro Developer?
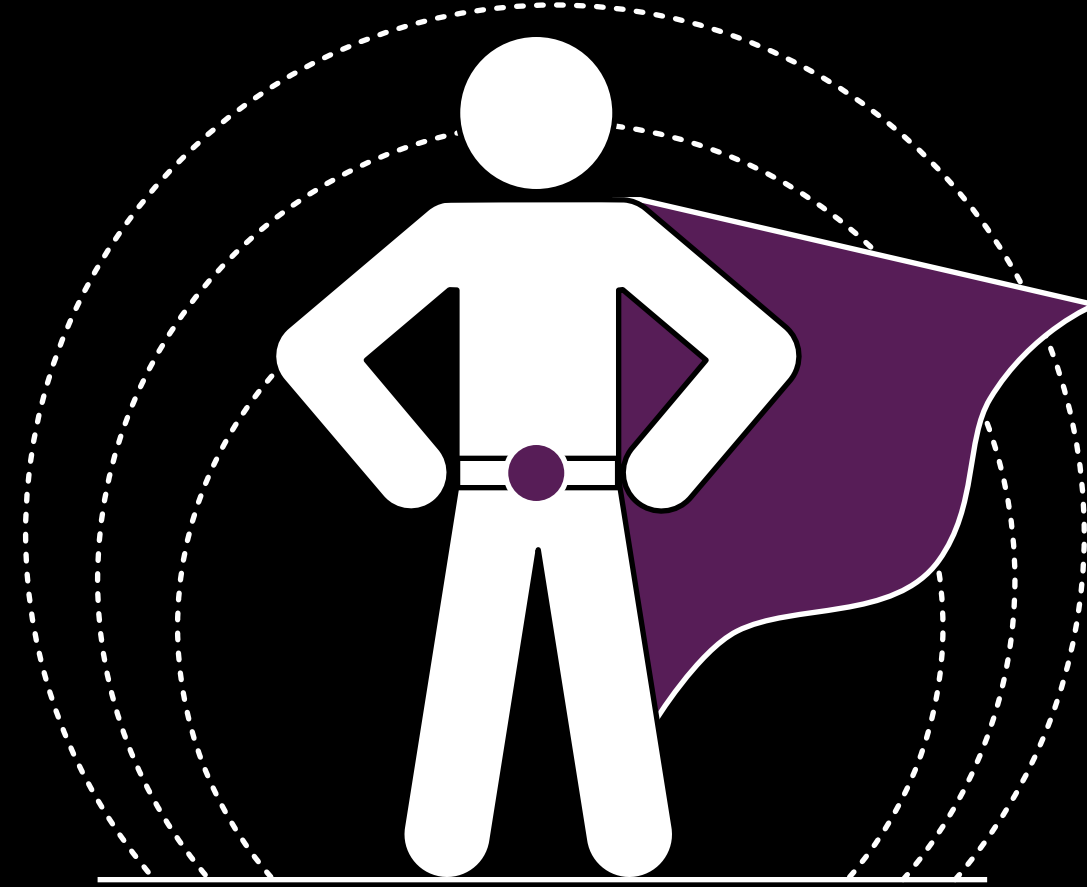
Citizen Developer

According to Gartner "A citizen developer is a user who creates new business applications for consumption by others using development and runtime environments sanctioned by corporate IT". Citizen Developers may not be familiar with coding language, but are problem solvers who leverage low code tools, like Power Apps, to develop and build web and mobile applications for their organization, in some cases in partnership with pro developers.
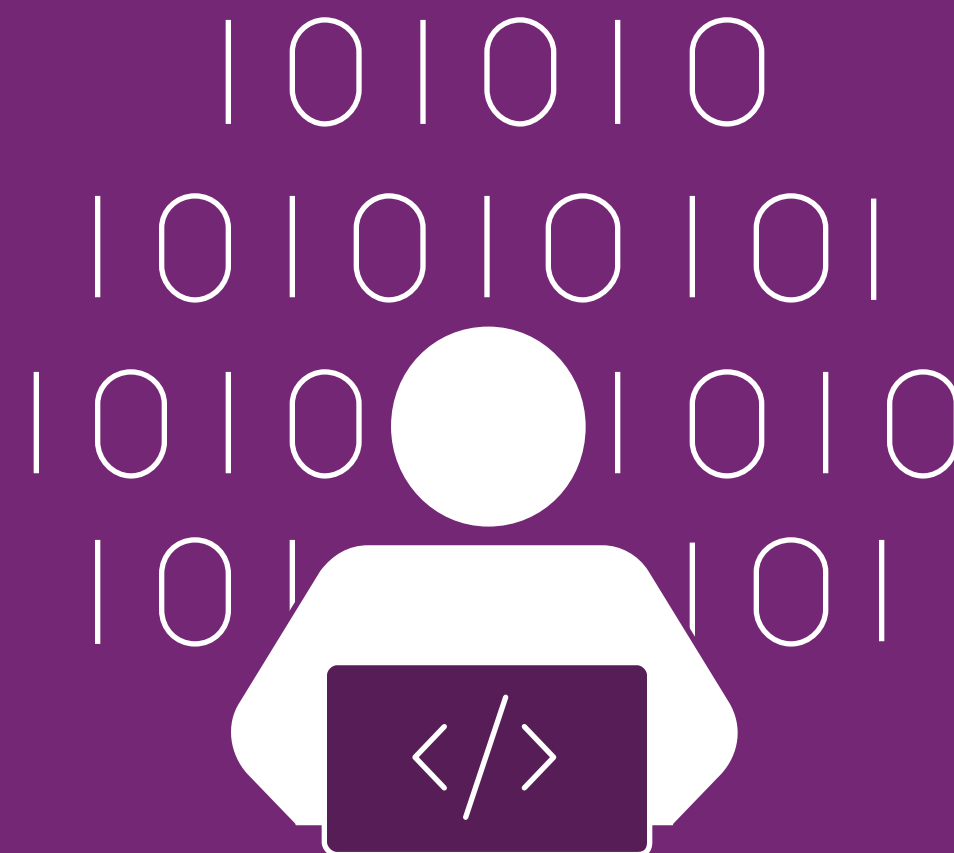
Pro Developer

A pro developer is someone who can extend the platform to carry out unique scenarios that implement proprietary processes and techniques owned by the organization, usually through coding using various programming languages. They may develop custom connectors or reusable components that citizen developers can use, or interfaces that are needed to serve a distinctive requirement of the organization.

Your Digital Culture   Ready   Set   Go

The Power Platform

While Power Apps is the focus of this guide, understanding the broader Power Platform family that Power Apps belongs to will be useful.

01

Power Apps

enables everyone to start building and launching apps right away using pre-built templates, drag-and-drop simplicity, and quick deployment—then roll out continuous improvements.

02

Power Automate

helps everyone build time-saving workflows, with a no-code guided experience. Automate everything from individual tasks to large-scale systems with seamless integration to data sources using hundreds of prebuilt connectors.

03

Power BI

empowers everyone to find and share actionable insights, reporting, dashboards, charts and visualizations so that everyone involved can interpret the data and make informed decisions.

04

Power Virtual Agents

enables everyone to create powerful chatbots that interact with people to create personal experiences allowing people to get to the information they need quickly—without the need for developers or data scientists—by using a guided, no-code graphical interface.

Your Digital Culture   Ready   Set   Go
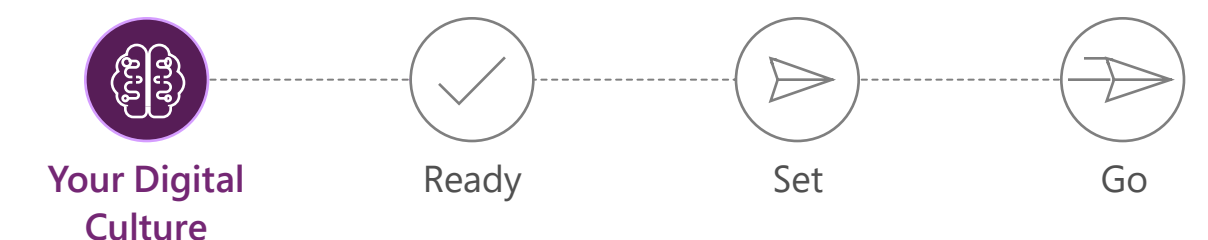
The Power Platform

05

Connectors

to on premise data sources facilitate seamless integration with the most common web services and 1st and 3rd party systems, including Salesforce, Oracle, Workday, Twitter, Cosmos DB, SAP and Service Now.

06

Common Data Service

is a one-of-a-kind fully-managed data platform of computing and storage technologies that enables scalability, resilience and data integrity with built-in-security, business logic and rules.

07

AI Builder

allows you to build AI models quickly and without code, enabling anyone who wants to uncover patterns in their data to inform decision-making or drive productivity.

08

Portals

enables anyone to build no code responsive websites with customizable portal templates and themes that give internal and external users secure access to your data either anonymously or through commercial authentication.
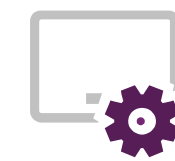
Your Digital Culture

Ready

Set

Go

What can you make with Power Apps?

Making is

...enabling

the creators of digital transformation with the tools to empower change.

...replacing

paper-based systems, with their digital equivalent.

...creating

digital experiences that delight customers and employees.

...building

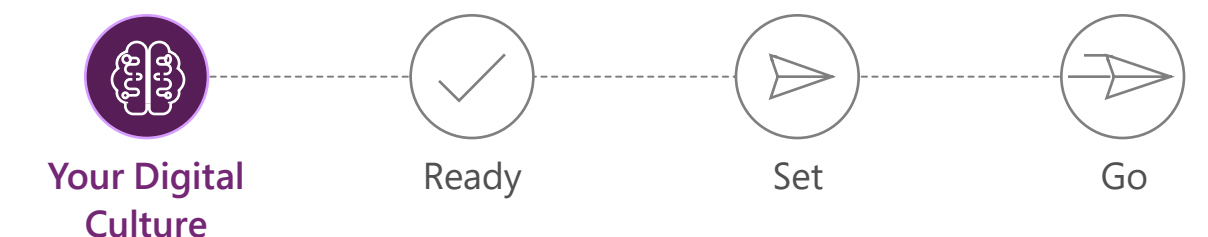intelligent systems, that understand patterns and provides insights.

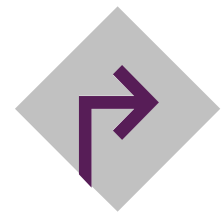### ...owning

your digital transformation.

...re-defining

the jobs of the future.

Your Digital Culture   Ready   Set   Go

What will you make with Power Apps?

Whatever your goal, this guide will take you step by step through the phases from building your first low code application to establishing a thriving Center of Excellence that manages your entire low code application portfolio, empowering a digital culture across your organization.

This guide breaks your low code journey (or we'd like to say adventure!) into 3 core phases– READY, SET, GO! You won't want to jump ahead!

Making, can be a solo activity, but its best when it's done with a team! As we take you through these stages, we'll help you think about how you identify and bring the (dream) team together. Your team will start small, it might just start with you and that's ok, but it will grow as you progress through these phases.

Your Digital Culture   Ready   Set   Go
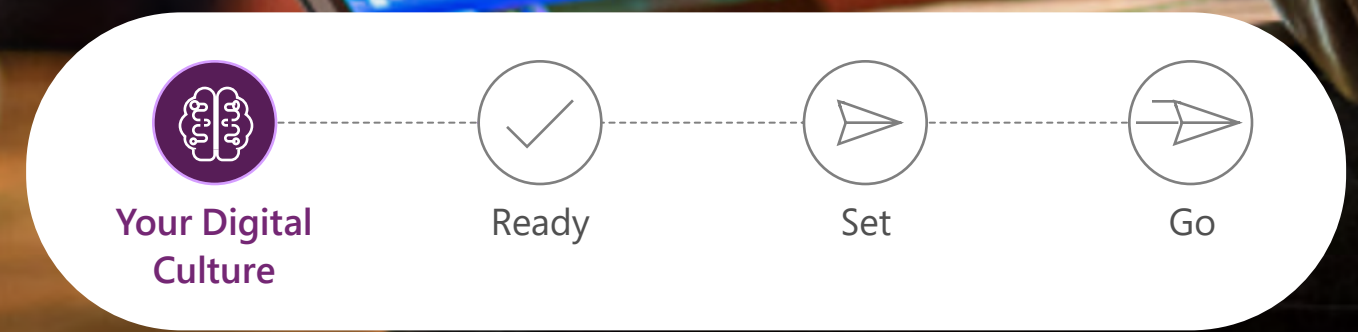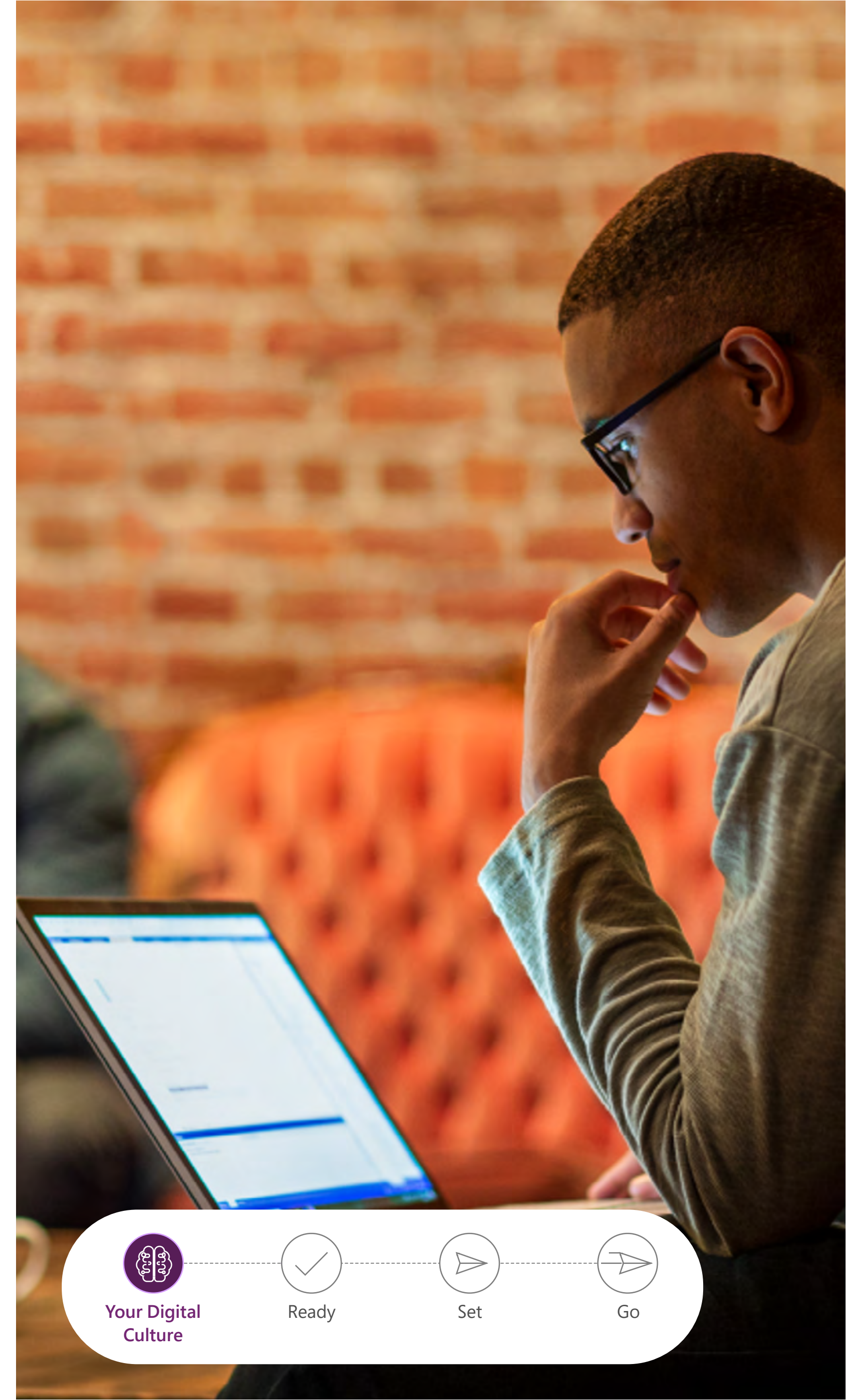
Ready

Your first few apps

Power Apps enables everyone to build applications. In the Ready phase you will learn how to gather an initial team and select a use case that is simple but also professional grade, and one that will positively impact your organization by using out of the box functionality, that will help you demonstrate the value of this technology and ROI from this type of rapid application development. For example, if your organization has checklists to complete, either in a spreadsheet or paper on a clipboard, this could be rapidly built as a Power Apps solution and the data captured over time could be used to inform future decision making by uncovering patterns in the data.

Set

Mission Critical

Once you have had success creating initial solutions with Power Apps, the Set phase is all about taking your digital culture to the next level. With Power Apps, organizations can build mission-critical applications that can use data residing in back-office systems or external data sets from outside of the organization. These solutions tend to need more complex permissions and data strategies. You'll learn about the expanded expertise you might need at this stage, and key governance processes you will need to begin establishing a Center of Excellence.

Go

End to end platform and app Modernization

Over time as organizations evolve, they add applications to carry out discrete tasks. Every new application comes with an overhead of training, support, updates, as well as the need to adhere to changing security, privacy, and compliance requirements. Many organizations, when considering a low code platform, do so because they want to rationalize their software applications on a platform basis. In the Go phase, you'll learn how organizations can leverage Power Apps to prioritize which applications to migrate to take advantage of a platform that delivers a standardized experience for staff while achieving best in class security, privacy and compliance. You'll learn how a low code platform, like Power Apps, can be leveraged to not just solve one problem or automate one process, but enhance and modernize hundreds of processes across your organization at scale.

Your Digital Culture   Ready   Set   Go
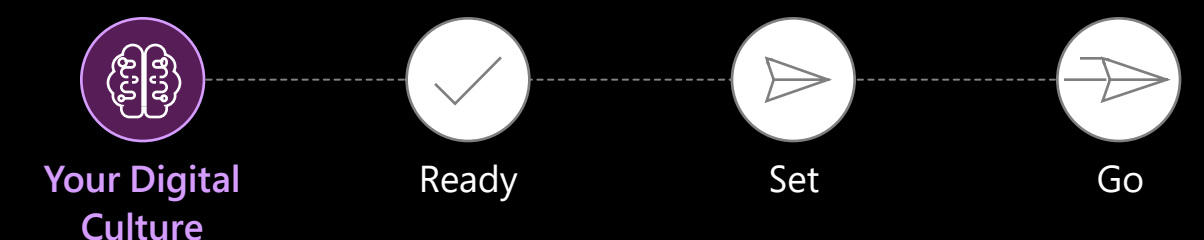
How is each phase structured?

There are 4 stages to each phase

People

Identify who you need on your team and assemble your dream team. Expand your team to help you scale impact and ensure everyone has a clear vision of the digital culture the organization is moving toward.

Project

Look at the parts of the business you work in that will have the highest impact if you could digitize them. As much as possible, you want the first app you build to have a wow factor. Regularly review your projects to assess what is driving your successful projects and what best practice can be replicated across your other app development teams.

Platform

What parts of the platform do you want to learn about and leverage? Build on your Power Apps knowledge and skills as you progress through the phases.

Process

This is the most important stage. As you grow, make sure you have admin and security governance processes in place. Drive creativity but do it with IT in control. Ensure you have a robust enterprise structure in place before scaling.

Your Digital Culture   Ready   Set   Go
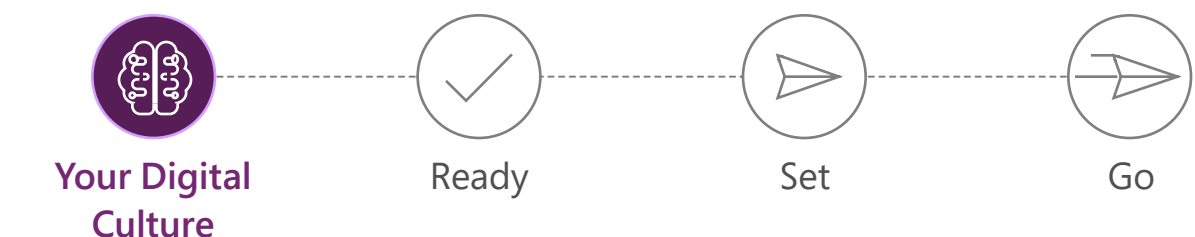
Ready

To start, you want to get the right foundations in place and build your first Power Apps solutions! In this phase you will begin by identifying champions in your organization who will be key players in your Ready team. Once assembled, you will work together to ideate and assess project ideas that meet initial app requirements of delivering organizational impact, while not requiring a complicated solution that causes you stumble at the first hurdle. Instead you will focus on creating a 'minimum viable product' and establishing the process and platform governance that will set you up for long term success.

You are at the beginning of a world of possibilities. At the end of this phase, you will have everything you need to make an app that has high impact to your organization, proving the value of low code application development.

Your Digital Culture   Ready   Set   Go
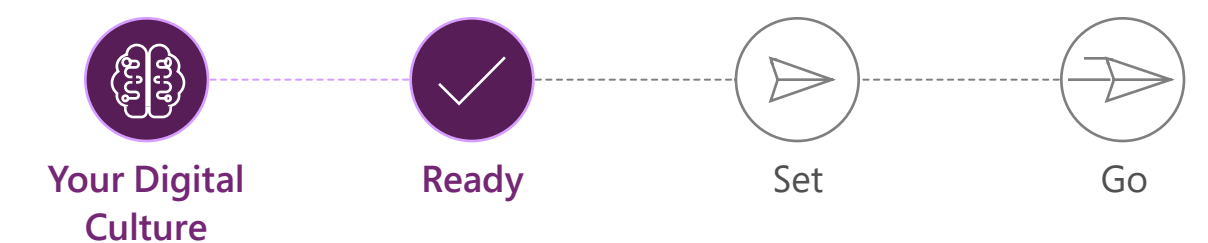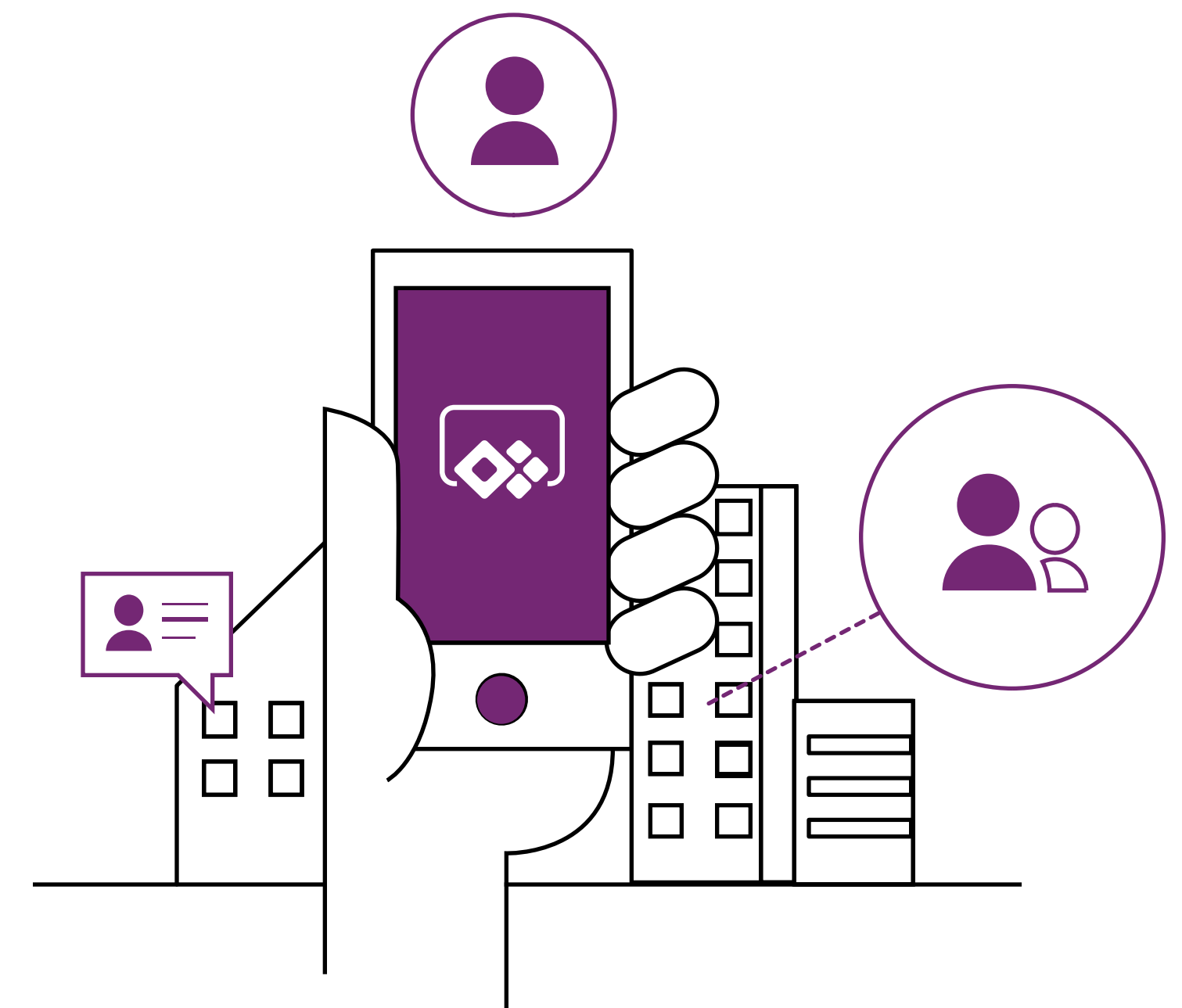
People

It is time to assemble your dream team for your first app. Select people who will work well together, but also come from different roles and competencies with various skills and experiences. Having a balance of people with knowledge of the business and customers and people from IT is a good place to start! Individuals who are proactive, enjoy learning new skills and problem solvers are who you are looking for! As a minimum, in the Ready phase, you probably want to have at least two people in your team, someone from the business and someone from IT. You might want to bring in professional developers, people with specialized knowledge of a process or task, as well as people who may have design and creative skills to help with the user interface design of your apps, but you don't have to in phase 1.
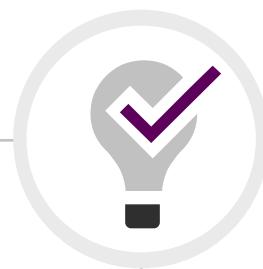
Tip for identifying your champions

If you have Microsoft 365 in your organization, it is possible some individuals have already discovered Power Apps just like you have. Check analytics in the Power Platform Admin Center (PPAC) or install the admin components of the CoE Starter Kit as this will show you everyone in your organization who may be building or using Power Apps already and you can reach out to them directly.

Your Digital Culture   Ready   Set   Go
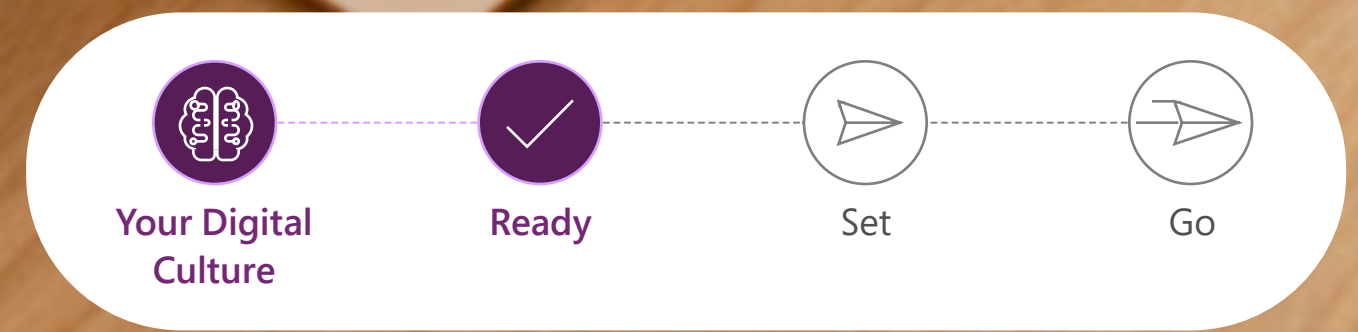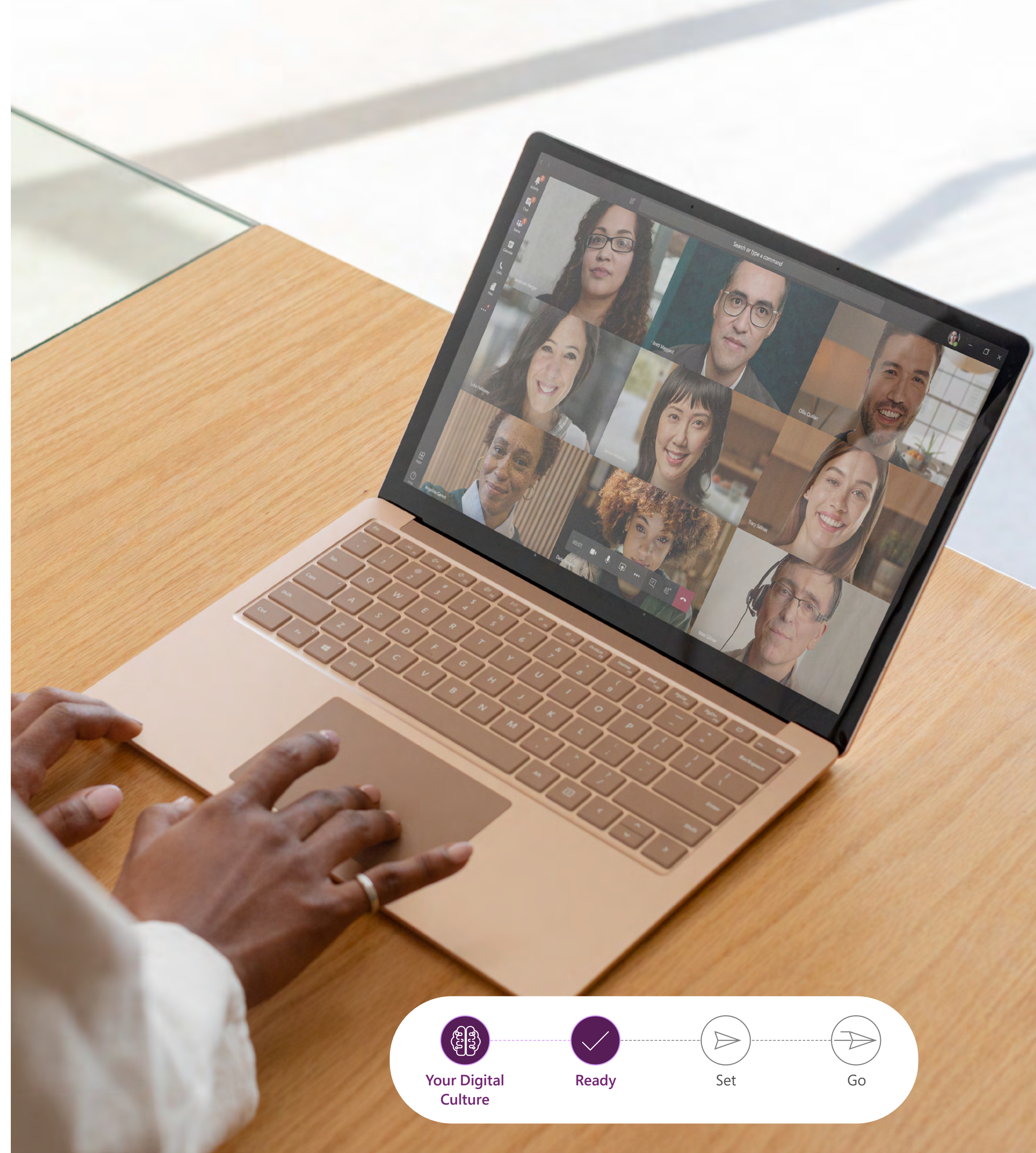
Training

App in a Day Training

Microsoft has created an App in a Day training course. This is a great for team members, whatever their role, who want to extend their skills to learn how to create apps with Power Apps. Once you have people in your team that have attended one of the in person or virtual App in a Day events, you could adapt the course materials to align with your organization and run them internally. Remember, everyone in your organization is an expert in something. Teaching them to build Power Apps helps them harness their skills into solutions that benefit the organization.

Once you have identified your team, if some of them are new to Power Apps, you will want to get them powered up! To get your new team skilled up, consider the following training courses. You can find more links to training in the resources section at the end of this guide and at aka.ms/mylearn

There are many training resources available, from the training days already mentioned to online resources such as forums, documentation, and eLearning. Additionally, there are community events such as user groups, conferences, and happy hours to connect and share ideas outside your organization with like-minded people. https://powerusers.microsoft.com

Take a look

at our App in a Day training to get started today. appinadayka.ms/

Your Digital Culture

Ready

Set

Go
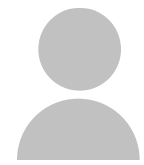
Training

Admin in a Day Training

Microsoft has created the Admin in a Day training course specifically for IT Pros. It allows them to learn the skills needed to implement digital guardrails, standards, governance, privacy and security on Power Apps. Once team members have been trained, they can transfer these skills to others inside your organization.

As you assemble your team, discuss the vision for what you want to achieve and review the tools that are available and how they can be used in the app making process. At this point, you are looking to get quick wins that will help you validate your ideas.

You may want to go over case studies from other organizations that have started their own app development teams. Microsoft has a range of case studies if you need one. Consider showcasing apps built by different teams or organizations to give your team perspective of what is possible with low code app development.

Take a look
at our Admin in a Day training to get started today. aka.ms/admininaday

Your Digital Culture   Ready   Set   Go
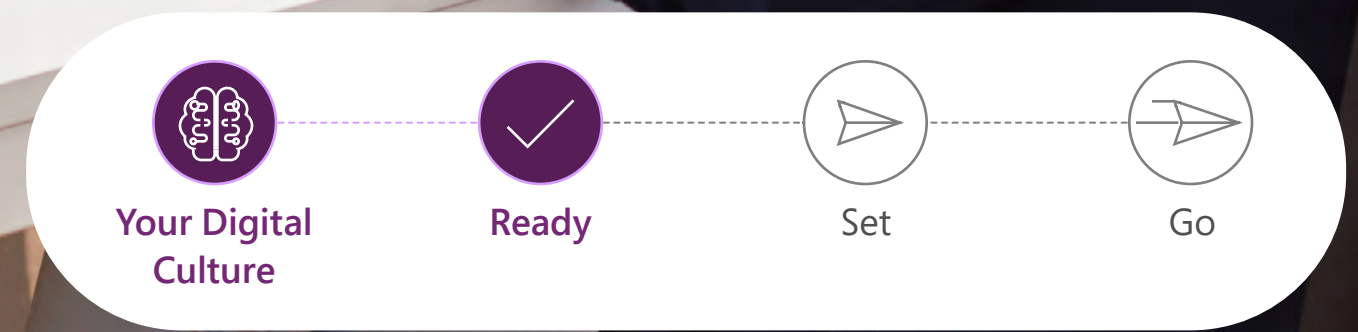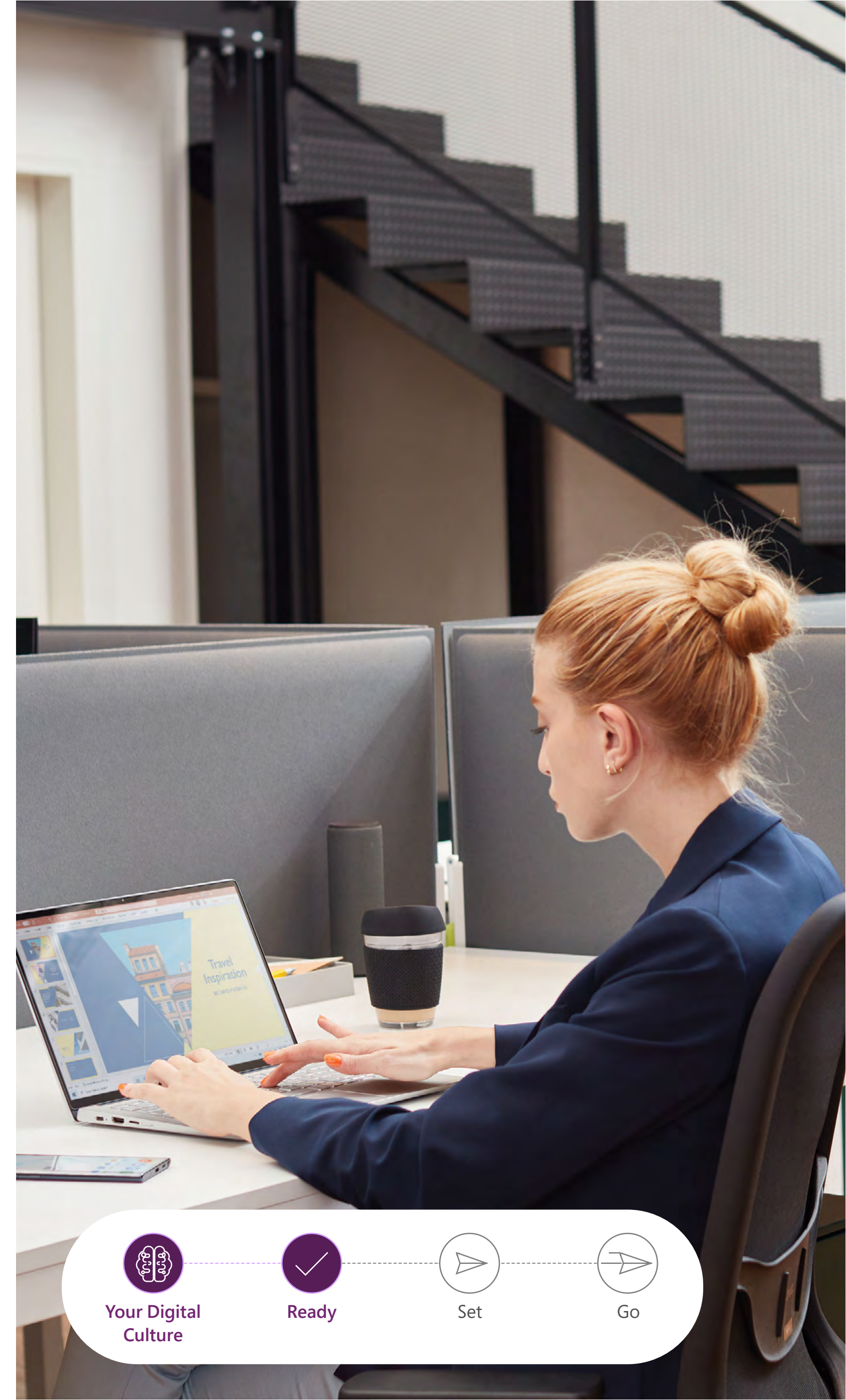
Sponsorship

As you create apps and start involving more people from across your organization, you are going to need to get buy-in from various stakeholders.

Citizen developers will come from all parts of your organization and will not traditionally sit in IT. As these people have "**day jobs**", they will report to people that will need to buy-in to the transformation you are bringing using Power Apps. You may need to empower people from time-to-time to take time from the "**day jobs**" to be involved in the app making process. Consider how you will get executive buy-in, reporting line manager buy-in and individual buy-in. An effective way to gain buy-

in is to highlight the positive impact the project could have for different stakeholders. For example, you might show an executive projections for cost reductions, a reporting line manager might be more motivated by the time that solution may save, and an individual may be excited by the learning opportunity.

Culture change can take time, and it is important to address people's concerns and how it may impact their part of the organization both in the short term and the long term.

Your Digital Culture

Ready

Set

Go

Sponsorship

Your first project needs an executive sponsor who understands the vision and benefit of developing a digital culture in your organization and will help you scale your success to future projects.

Who's on your dream team?

_____

_____

_____

_____

Who do you need to get buy-in from to be a sponsor and what do these sponsors care about?

_____

_____

_____

_____

_____

Your Digital Culture | Ready | Set | Go

Project
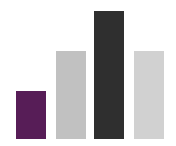
When considering your digital transformation journey, you need to look at the parts of the business you work in that will have the highest impact if you could digitize them, automate them and ultimately reduce the time and effort involved, not just for yourself but also for your work colleagues. As much as possible, you want the first app you build to have a wow factor.
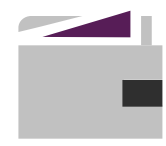
As we talked about, for executive sponsorship, being able to demonstrate cost savings and productivity gains is super important. Keep track of the before and after time and effort and try to measure and track any cost savings!

Product owner

Citizen developer

Specialized skills

Creative design skills

Executive sponsor

Pro developer

Your Digital Culture

Ready

Set

Go
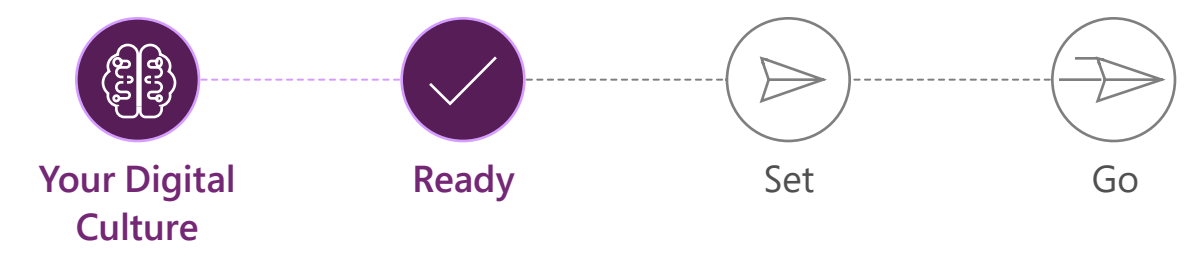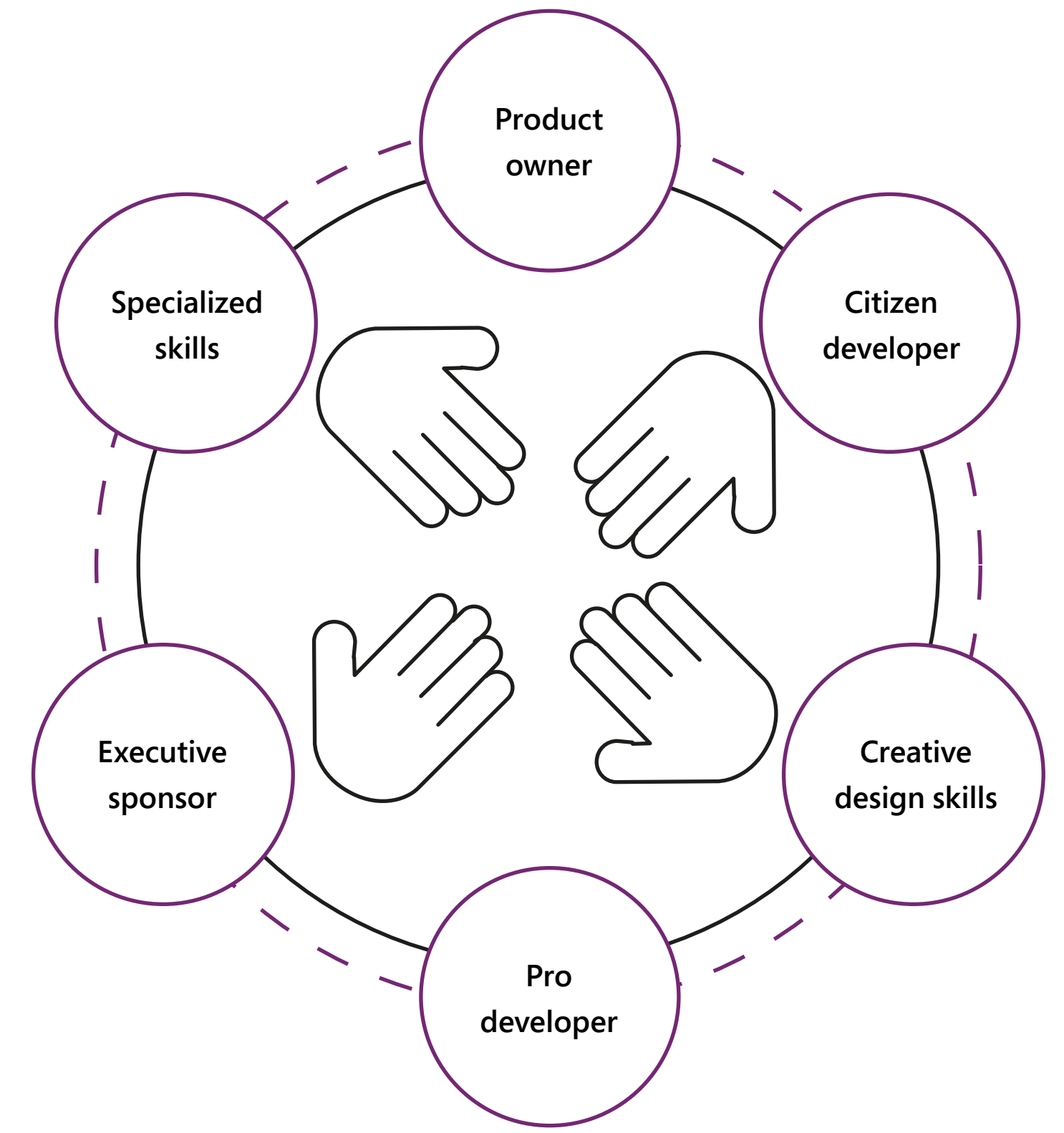
Ideation

Once you have got your team assembled, we recommend running an ideation session to identify which project you should start with. Consider the apps that are small enough to be built in less than a month but that have a high positive impact on people in your company and your end users. This session should involve subject matter experts (SMEs) from across the organization, developers, and members of your leadership team, including an executive sponsor, to identify as many possible use cases. This executive sponsor will be key to scaling the success of the first project. It is recommended to start with a project that will deliver value to the business, but one that is not the most complicated on the list from your ideation session. You will learn a lot on the first project and having a running list of ideas will ensure you maintain momentum after the first project is delivered.

Start with an idea that can be iterated on. It is important to first have a clear understanding of the organizational process that you are looking to improve. For example, moving paper HR forms to digital or digitizing an inspection process for health and safety. Below are some critical questions to consider when choosing your first project:

• What is the current process?
• What procedures are necessary for privacy or compliance reasons?
• What approval processes or escalations need to be considered?
• Look at any business process that is done repeatedly. If it could be automated, will it save time, make people more productive, and remove mundane work from people's day to day jobs?
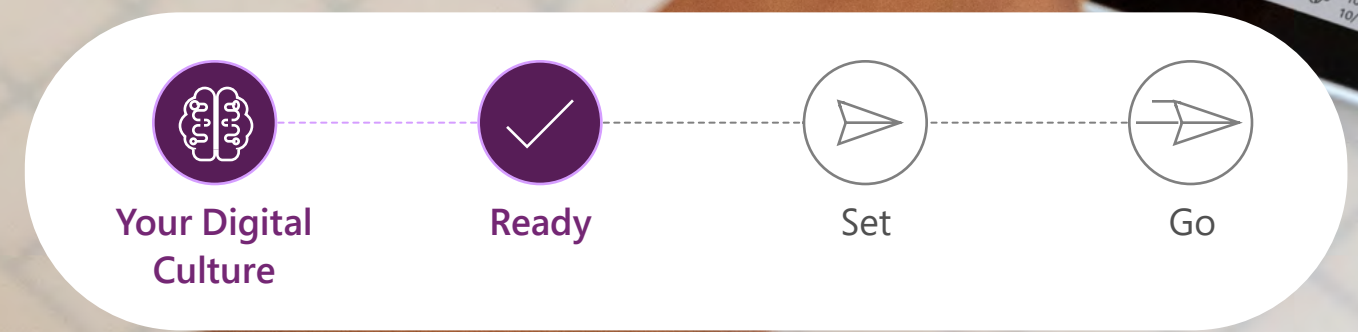
# Ideation

Create a list of your ideas of processes to digitize or make more efficient, this will be the start of your backlog. While you will ultimately settle on one idea to begin with, once you have created that first app this backlog of ideas will form a roadmap of what to do next.

Top 5 ideas and their organizational impact.

Your Digital
Culture   Ready   Set   Go

Minimum Viable Product
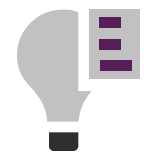
So, you've settled on an idea for your first app, what next?

There is a concept when designing new things where rather than aiming for perfection right away, you set out to first create a Minimum Viable Product (MVP). The idea is to define the minimum requirements to solve the problem and focus first on delivering just that.

Let's use the concept of transportation as an example. Walking, simply putting one foot in front of the other, is the original transportation option. However, you have been tasked with producing a way get from A to B that is faster and safer in various weather conditions. In the ideation phase, you would brainstorm how to achieve a more consistent, repeatable outcome with less effort. As we start to

ask 'what if' questions, ideas will start to evolve. One idea is the catalyst of another. An MVP might simply be a board with four wheels, which answers the faster part of the brief. Your next evolution may be a handle for steering. With each improvement, you move towards a more efficient and safer product that provides greater utility.

We want to take the same approach to create apps. Look across your organization for a process or procedure that when it is digitized you will save time, provide better results and can be easily repeated. This is the starting point of your MVP and first app.

HAVI is a great example of a simple process that once automated can have a massive impact. HAVI is a global logistics organization working with some of the world's largest brands. With nearly 10,000 employees across the globe, many of whom are freelancers with very short-term contracts, they needed a better way to manage these contracts and move from relying on error-prone manual entries to a more modern, automated process. They decided to build a custom app to automate the entire registration process. The app allows new hires to complete paperwork online and then automatically uploads it to HAVI's backend HR system.

From there, follow-up actions are automatically assigned to the other departments—like Payroll and IT—and it is all coordinated through Teams. Not only has this slashed HAVI's document processing times, it has helped ensure that every new employee has what they need on their first day of work—from access badges to software licenses to compensation—and what used to take 4-5 hours (or more) to complete, is now done in under 40 minutes.

Your Digital Culture — Ready — Set — Go

Platform
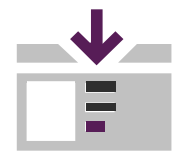
In phase one, you want to keep it simple! Build on your Power Apps knowledge and skills as you progress through these phases. Depending on the nature of your first app, you should plan to build it utilizing mostly canvas based components, or even build the solution from one of our pre-built templates which can be found in Power Apps. With 350+ prebuilt connectors, the world is your oyster, but many organizations start with 1st party non-premium connectors that are included with Microsoft 365 to get going (like Microsoft Teams), as this will make the guardrails that you need to put in place easier while you get familiar with the technology and build your skills.

For example, most organizations wouldn't connect to external social media connectors, such as Twitter or Facebook, until robust data and security policies have been put in place to ensure that company data is not accidentally leaked externally.

The same goes for your "**backend**"–where your data for your application will be stored. Many first app builders will use a SharePoint list to store their data for their first solution as a Minimum Viable Product. As you get more advanced, and so do your apps, you will want to leverage the low code data platform that comes with Power Apps.

When using a platform like Power Apps, you need to consider how to model your data so that it can be easily used for design, reporting, machine readability and reusability. You will want to consider the architecture of your data, what relationships exist in your data, and more. When designing your new data collection, consider the data lifecycle–input, output, reporting, and integration.

Your Digital Culture

Ready

Set

Go
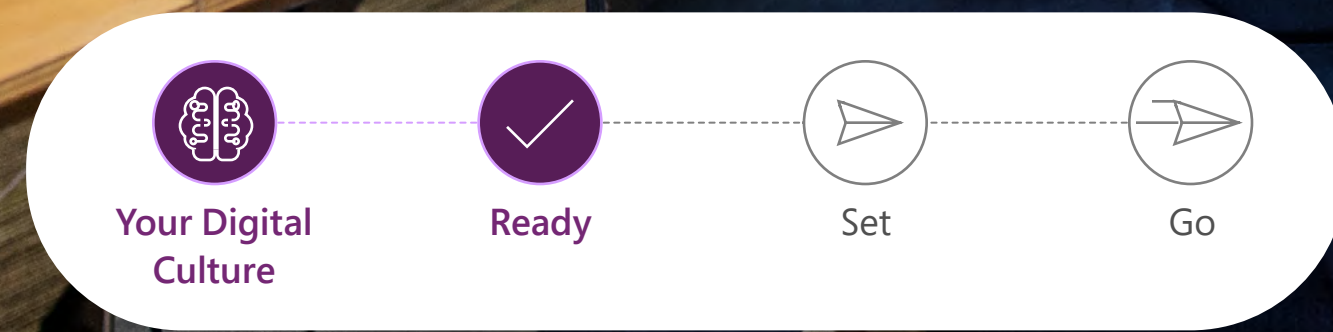
Platform

For example, if you were creating an app for a your HR team for onboarding new employees, you may have an entity that has a list of all the onboarding steps that new employees need to complete and another entity that has all the documents and the details of what an employee needs to complete at each step. You would then map a relationship between the steps and the documents. Part of excellent app development is choosing the right experience based on how people will work with the information. Will people work with the data on mobile devices, desktops, outside your network or in remote locations? Will other systems need access to the data?

At this point, you will want to decide on the experience you want to create and the best way to model this information for reuse. It can be helpful if you have someone on your team that has worked with relationships in Excel or other databases to help design how the data will work on the platform. Power Apps includes a rich interface designer for creating experiences and many data connectors to connect to another system to exchange data. Email is a crucial communication channel used in many organizations, and the apps you create can take advantage of this using the synchronization between Power Apps and Microsoft Outlook.
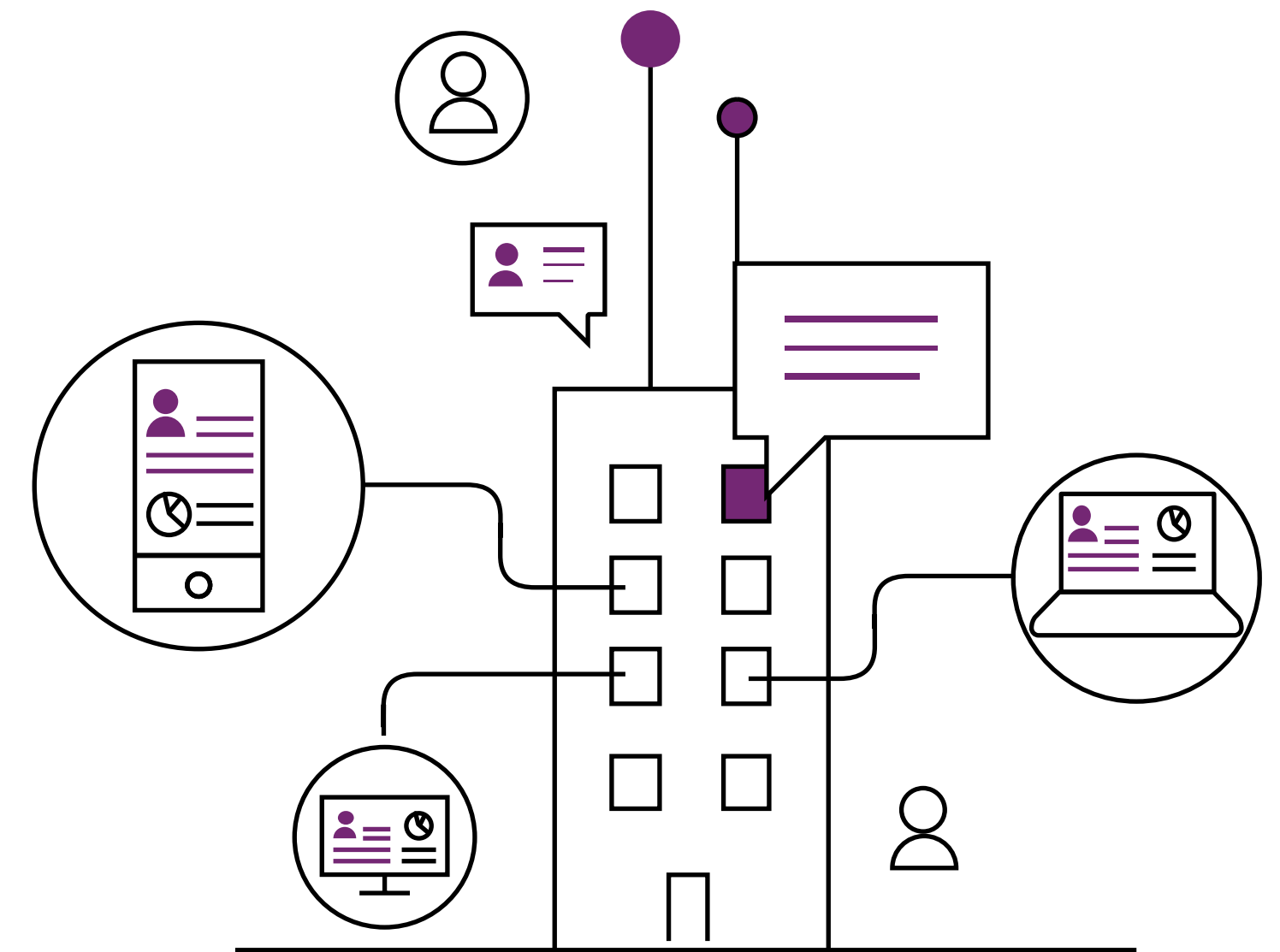
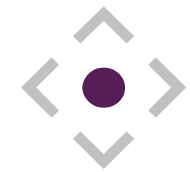## Tip
If not head over to Microsoft MyLearn

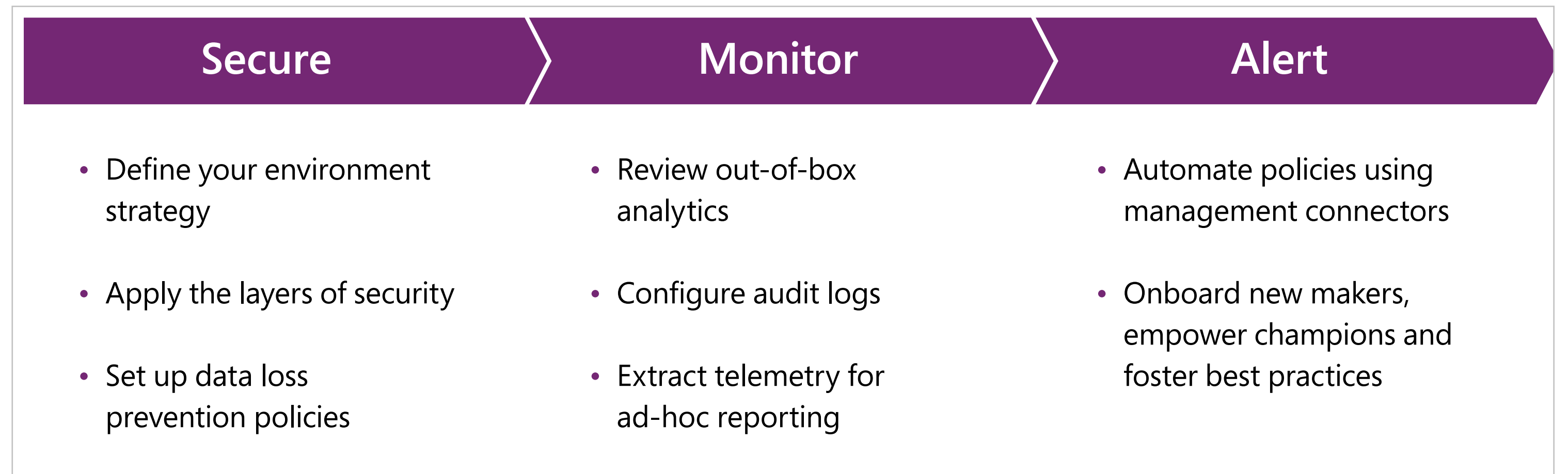Your Digital Culture   Ready   Set   Go

Process

To start with, focus on delivering an app that brings a lot of value to the organization without needing an overly complicated build. This is especially important while your teams are developing their skills working with Power Apps. As their skills evolve, so can the sophistication of your apps.

Look for quick wins and processes that have been a source of frustration that you can solve in a short amount of time.

To foster trust across the organization, it is important to implement digital guardrails so that people working with organization data follow patterns that prevent data leakage, as well as meeting corporate guidelines for design, usability, and supportability.

As with many IT initiatives, setting up digital guardrails and governance is not a single step. It requires focus on multiple aspects:

Secure	Monitor	Alert
• Define your environment strategy	• Review out-of-box analytics	• Automate policies using management connectors
• Apply the layers of security	• Configure audit logs	• Onboard new makers, empower champions and foster best practices
• Set up data loss prevention policies	• Extract telemetry for ad-hoc reporting	

Your Digital Culture · Ready · Set · Go

Digital Guardrails

These aspects are the core concept of how to think about governance and how to practically apply it.

Secure–you can also think about this as your setup. This is where you think about your environment strategy, your data loss prevention policies and your layers of security.

Monitor–once your environments are up and running and your users are building content and resources, you want to have the ability to go and monitor how the system is being used, who is creating what resources and who is using them. Capabilities in the Admin Center as well as Office 365 Audit Log support you with those activities.

Then we look at **alerting**–once your development gets more sophisticated and you have built up your policies, you can automate these policies, set up alerts or be notified when certain conditions are met, meaning you don't have to go to a dashboard and monitor, but can still react to certain behavior.

Your Digital Culture   Ready   Set   Go
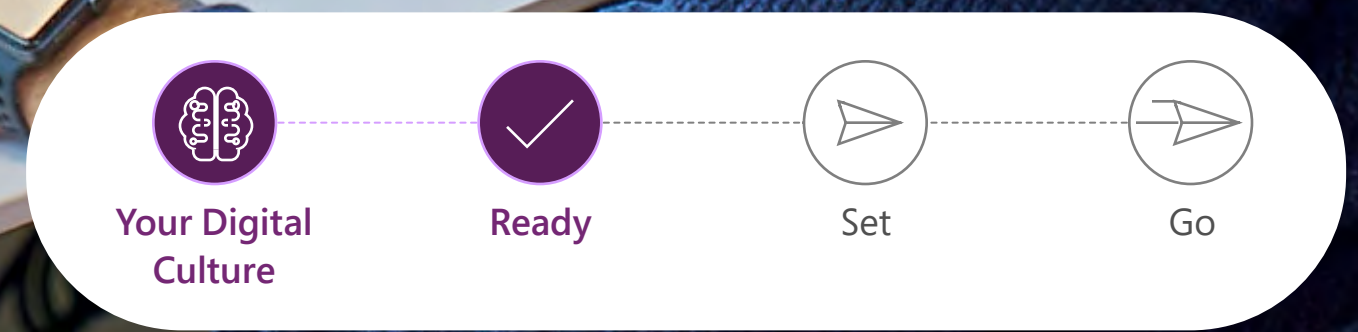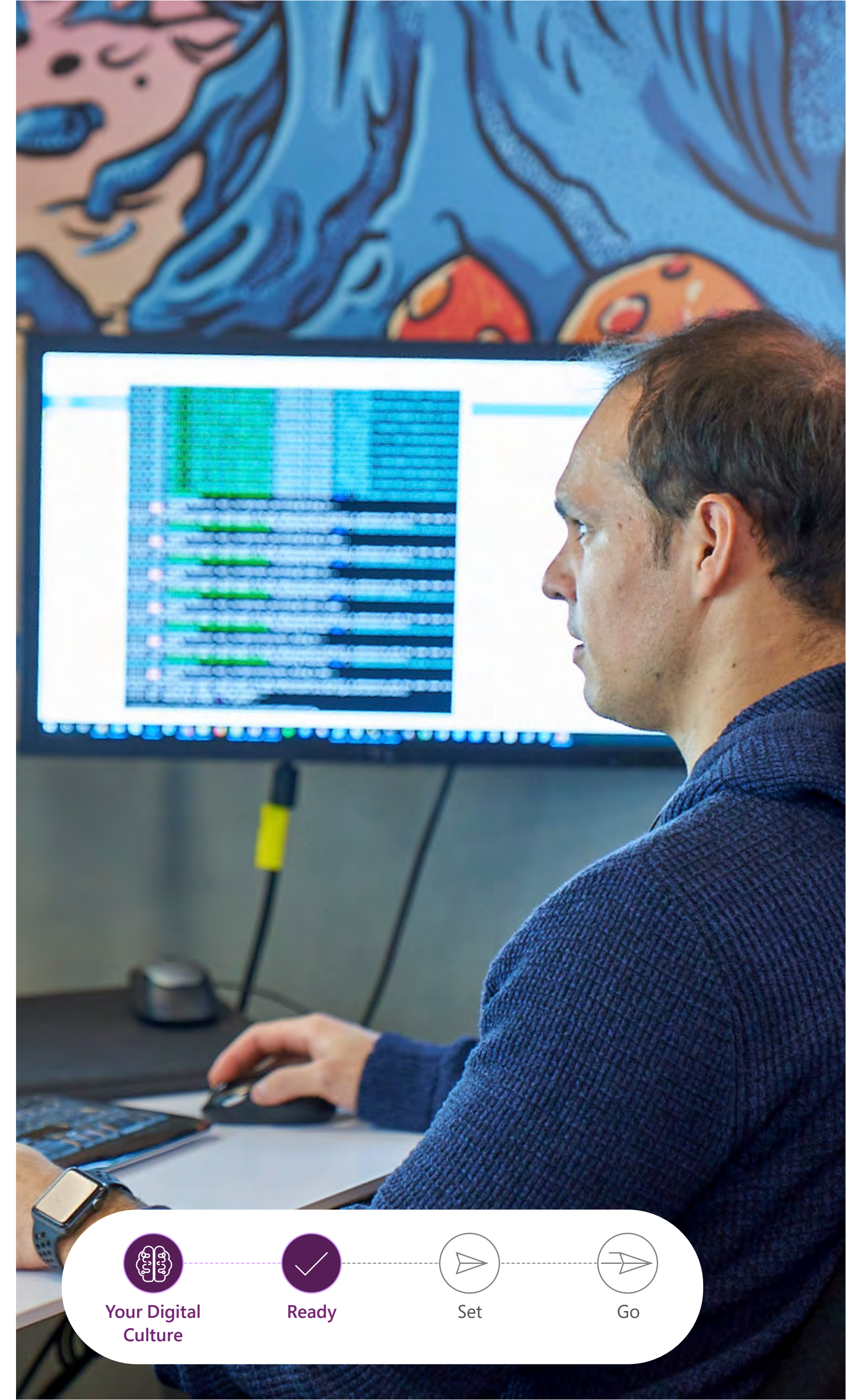
Digital Guardrails

It is also critical here to think about your end goal—you want to set up digital guardrails to empower your makers, to enable subject matter experts and to unlock digital transformation opportunities.

It's crucial to involve the IT Pros on your team in setting up your organization's digital guardrails. IT professionals are necessary to manage and maintain the apps that are built. They oversee corporate guidelines and requirements such as security, privacy, data integrity and compliance. They provide ongoing support for the apps that are built to ensure their integrity is in line with the organization's goals and objectives.

Driving Adoption with Teams

Once you have built your app and have ensured that foundational processes are in place for privacy, security and governance, it's time to share your solution with your end users, the individuals in your company who will be using and benefitting from the app. Depending on your end users, you may need to drive awareness and promote your solution, or give them training on how to use the app on their device. A great way to gain broad distribution of a solution and make the app easy to locate and use, is to pin the application within Microsoft Teams. Canvas apps can be embedded as a tab in Teams channels or conversations. These apps can also be published to Teams to make them discoverable in the Teams app store and can be added to the left-hand Teams app bar by either tenant Admins or individual users. By placing these apps in context of where users are already working (e.g., a channel devoted to a specific project or business department) and/or where users can always easily access them (i.e. the Teams app bar), the app creator can drive awareness and adoption of their solutions. Regardless of where or how these apps are added to Microsoft Teams, they will retain the access permissions established in the Power Apps studio.

Your Digital Culture · Ready · Set · Go

Digital Guardrails

Teams Admins also play a critical role in driving adoption of these solutions. Admins can establish granular policies to dictate which apps their users are permitted to find and install, including custom apps uploaded from Power Apps. In the Teams Admin Center, they can set permissions policies under "**Teams apps**". Additionally, Teams Admins must establish setup policies that enable custom apps to be uploaded, and they have the option to pin specific apps to the Teams app bar for their entire organizations–which can be very helpful to drive adoption.

- For additional details on administering Power Apps in Teams, see the "Power Apps+Teams" whitepaper at aka.ms/powerappsteams_whitepaper.

You can track usage of your apps within the Power Platform Admin Center, and remember to also start tracking the time, cost and productivity savings from your solution to demonstrate its value.

Your Digital Culture

Ready

Set

Go
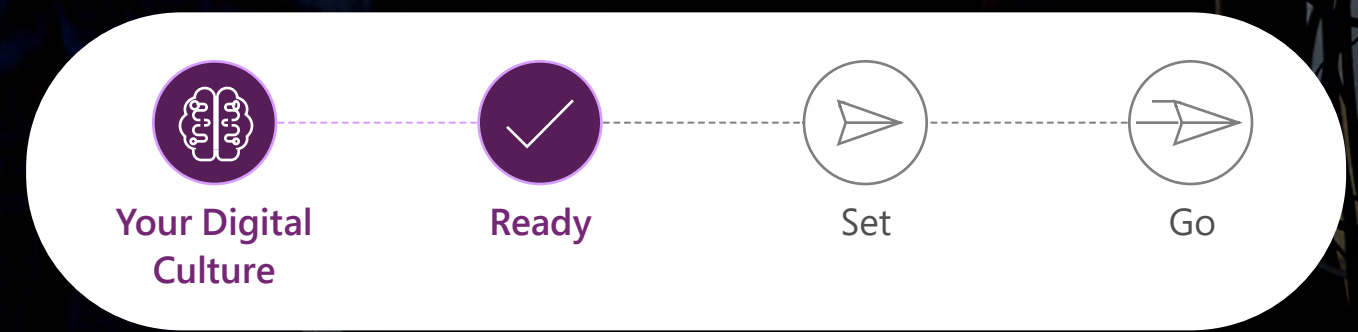
Ready Checklist

- [✓] Identify your champions and future Citizen Developers
- [✓] Assemble your team, securing the sponsorship of key stakeholders
- [✓] Brainstorm ideas of app you can create that would add value to the organization
- [✓] Select your first project and setup your team for your first app
- [✓] Focus on creating a functioning MVP
- [✓] Consider the digital guardrails that should be put in place to avoid data leakage
- [✓] Identify data that may be needed from internal systems–cloud or on-premises
- [✓] Finalize the device you will be using and have one available to test
- [✓] Share and promote the app to drive usage and measure the impact
- [✓] Celebrate and reflect on your progress

This is the start of a journey. The first app will create learning for all involved. Depending on the level of digital literacy of the individuals, this may be a quick process or one that involves more start-up learning on the part of the team members. One person with the desire to create positive change can assemble a team of change agents and champions to develop the next big idea for your organization.

Reflect! What did you learn and what might you have done differently?
Share with us via Twitter **@MSPowerApps** as we would love to hear from you!

Your Digital Culture — Ready — Set — Go

Set

It's now time to scale up what you are doing and expand on your earlier wins. You can start to tackle more complicated mission critical solutions by leveraging elements of Power Apps, such as 3rd party data connectors, model driven functionality, pro dev integration and tools and the built-in low code data platform. At this point, you will want to build on your foundations and guardrails and establish a Center of Excellence. Your Center of Excellence may start with just you or it may begin with a small team of like-minded change agents. As people start to see what is possible, you are sure to see the growth that leads to opportunities.

A Center of Excellence (CoE) is a coordinating function which ensures that change initiatives are delivered consistently and through standard processes. A CoE, led by IT, will manage low code solutions across the organization, and through detailed in product telemetry and governance processes, will eliminate any Shadow IT, which is IT projects and apps that are built or managed in the shadows, i.e. that IT are not aware of and therefore can't manage and maintain, ensuring appropriate data and security policies are applied.

Establishing a Microsoft Power Platform CoE means investing in and nurturing organic growth while maintaining governance and control. A CoE is designed to drive innovation and improvement, and through its central function can break down geographic and organizational silos to bring together like-minded people with similar business goals to share knowledge and success, experiment and encourage each other, and provide standards, consistency and governance to the organization.

In summary, a CoE can be a powerful way for an organization to align around business goals rather than individual department metrics.[1]

As you and your organization learn from making apps and more people get involved, more departments, more teams, more challenging business processes can be tackled with apps, automation, intelligence and insights transforming the way you do business.

[1] Stephen Jenner and Craig Kilfordc, in Management of Portfolios.

Your Digital Culture · Ready · Set · Go
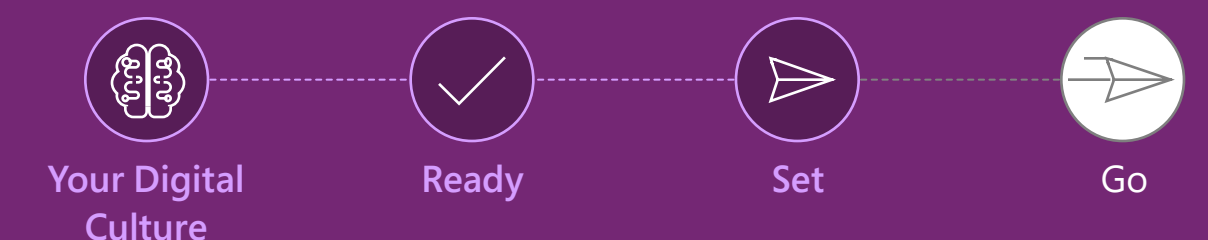
People

As your CoE grows, you may need to expand your team to help you scale impact. Seek out senior leadership in your organization who will sponsor the growth of your team. You will need architects who understand the applications and data you already have within your company, so that they can provide guidance in connecting that to the wider goals of the organization. Whereas citizen developers and pro developers focus on individual apps, the role of the architect is to assist in ensuring that individual app creation fits into the broader organizational digital objectives. The architect ensures the right digital assets are used, and organizational outcomes are achieved.

As you create more complex apps with a larger team of creators, you may need to include trained project managers who have project management experience related to application development. Where increased integrations and perhaps bespoke connectors are needed, you'll need to find individuals who have the skills, or the willingness to learn, to deliver on these more complex projects.

Establish product owners as you build more apps and as more people get involved in the app development process. It's important to have an owner for each app product. Depending on the solutions you build, you will also want to expand your team of citizen developers and those with specialized knowledge.

Your Digital
Culture

Ready

Set

Go
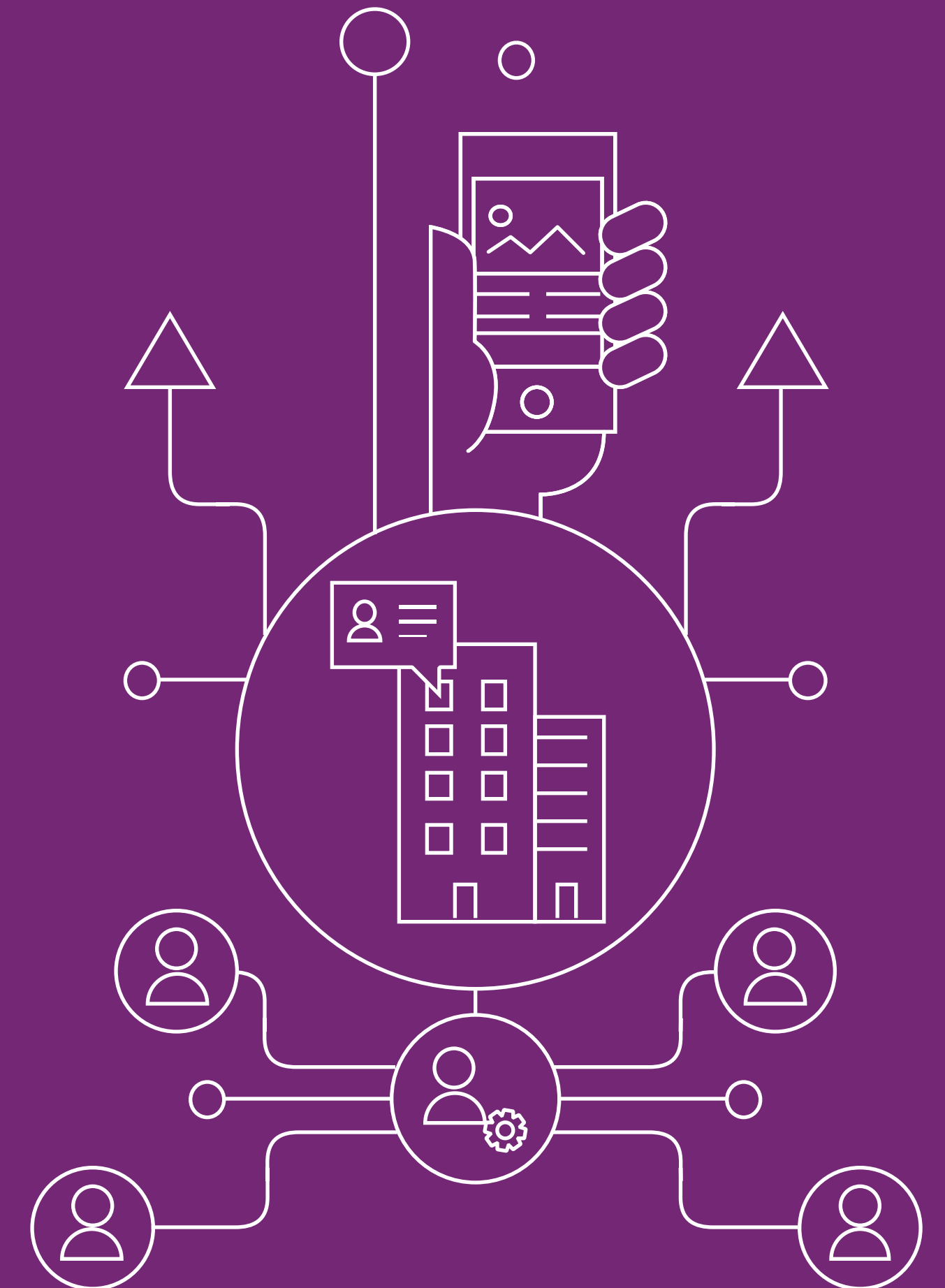
Ideas to scale involvement across your organization

Lunch & Learn

A great way to spread the word inside your organization is to run regular lunch and learn sessions. This is an opportunity for individuals to come together to share what they have learned about creating apps and automating processes. Sometimes people don't want to or can't set aside a full day to learn something they know very little about. Often it just takes igniting the spark for leaders within the organization to rise-up and inspire others. Hosting lunch and learn and show and tell sessions is another great way to form and nurture a Power Apps community. It provides an environment for teams to share resources, guidelines, and procedures. Lunch and learns should be fun and occur regularly. As more people across the organization become interested, they will have a place to see if this is something they want to get involved with and a path for them to start skilling up on Power Apps.

App Showcase

If you want to create a serious buzz in your organization and inspire more people to join your Power Apps community, an app showcase is where you do it. Teams meet to demo what they have built, show problems that they have solved and demonstrate the impact they have created on the organization by the apps they have made. It is an opportunity for other teams and makers to come together with their creations and learn from each other.

How could Power Apps impact their teams and enable the digital culture to spread and impact all parts of the organization?

Hackathon

A hackathon is a fun way to engage lots of people within your organization around a digital culture of change. The key objective is to develop sample apps and cultivate ideas to drive digital transformation. Teams come together, at the line of business or at the global scale, from different roles and departments to compete and create apps that address an organizational need. Each team should be resourced with Power Apps and Office 365. The more variety of skills and roles represented, the better. One or more facilitator should be involved to organize the hackathon, define the teams and the rules for the hackathon.

Successful hackathons often include the following: team colors, prizes, food, music, laughter, competition.

Your Digital Culture — Ready — Set — Go

Ideas to scale involvement across your organization

Technology and IT internships

Some organizations that have truly embraced a digital culture, have instituted what we would call "digital internships". Employees within the business, whether that be in sales, facilities, HR or management, spend 3-6 months within IT completing a digital internship. This is a big commitment of time and learning on both sides, but it can have fantastic impact. The intern has detailed knowledge of the business, customers or their department and function, and while in IT, they learn about digital transformation, Power Apps and a CoE. IT and the intern, as a part of the Power Apps community, jointly collaborate on digitizing processes within the realm of the digital intern's business. This fosters greater understanding and collaboration between IT and the business and leads to innovative and creative problem solving.

How are you going to scale within your organization?

Your Digital Culture   Ready   Set   Go

Sponsorship

As you look to establish your CoE and scale app creation across your organization, gaining the sponsorship support of your leadership team is going to be critical. Management and leadership play a key role in facilitating change in digital culture when they understand that doing so can have material impact on the success of their organization by enabling faster time to market and more robust security. When they lead with a growth mindset, empowering individuals to be involved in app development projects that are not part of their original role or job description, the CoE is more likely to be successful. Enabling individuals to contribute as citizen developers leads to an increase in productivity, efficiency and insights resulting in digital transformation.

To gain buy-in from your leadership team, demonstrate the impact from your apps built in the Ready phase, share other customer success stories from the Powerapps.com website with them, or direct them to the Total Economic Impact report of Power Apps, conducted by Forrester, which outlines the time, cost and productivity savings of Power Apps.

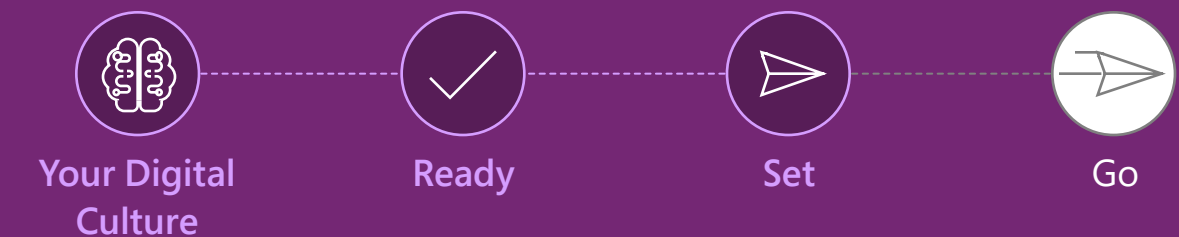Your Digital Culture

Ready

Set

Go

Community

At the heart of growth is a community, a place for people to collaborate, share ideas and discover new ways to apply technology to achieve more. Some organizations have called the individuals that make up this community **Power Rangers** or **Power Champs**. It is a safe place to ask questions, to share tacit knowledge and to expand skillsets. Organizations that experience massive adoptions create a digital culture that fosters an environment of ongoing learning as well as provides tools such as forums, regular events and speaking opportunities. They make sure that every person in the organization can come together at regular intervals to socialize, share their knowledge and explore new possibilities. Leaders who want to create a digital culture will put a framework in place for the community inside their organization to break down geographic and organizational silos.
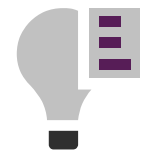
Set team

Product Owner

Project Manager

App in a Day Trainer

Citizen Developers

Microsoft Certified Team Members

Pro Developers

Specific Skills*

*Integration, Connectors, Specific Interface, creative

Your Digital Culture

Ready

Set

Go

Project

As your CoE begins to form, you will often return to that initial backlog of app ideas. At this point, as you expand the team, it is a good idea to keep adding to that backlog by regularly running ideation sessions. As a Ready team you will have already built apps that solve for straightforward challenges, such as digitizing paper processes, but as you build out your CoE during this phase you'll want to deliver more mission critical applications. At this stage, aim to develop line of business (LOB) solutions that have an exponentially greater positive impact on your organization's staff, customers, and profit. A LOB solution is one that would be described as vital within your organization.

Microsoft Power Apps lets organizations make applications that meet their specific needs; these applications can be referred to as Line of Business (LOB) applications. Applications empower employees to do more and address the day-to-day requirements of the organization by applying the intellectual property of how your organization functions. Microsoft has designed the platform in a way that allows you to spend the minimum amount of time to get the maximum value from the effort you put into making apps. Microsoft has built the foundations of your app creation, by designing a secure, scalable, and trustworthy platform for app creation at scale.

Trustworthy

Scalable

Secure

Your Digital Culture

Ready

Set

Go
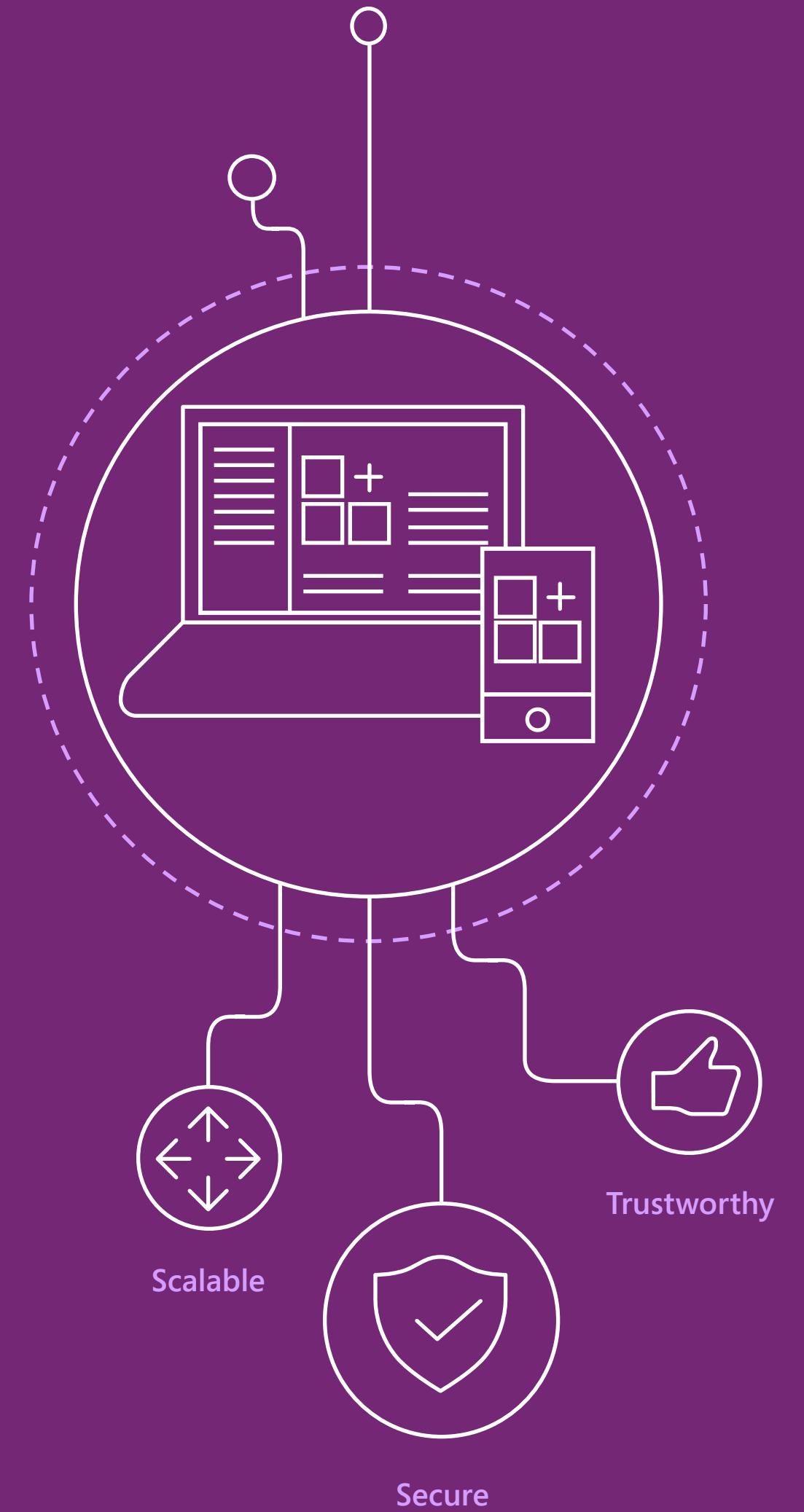
Project

Examples of LOB solutions would be a Sales solution, such as Dynamics 365 for Sales, or a sophisticated Finance solution, such as Dynamics 365 for Finance, but there are thousands of other off the shelf LOB solutions like these. These solutions automate and digitize lengthy and complex processes making it more efficient, and easier to surface and act on the data and insights. For example, a Sales solution digitizes, automates and streamlines identifying, managing and closing sales opportunities.

Northwell Health, New York's largest healthcare provider, is a great example of a line of business solution that was built when there wasn't an off the shelf solution that met their needs. With the new practical and financial realities of the modern healthcare system, Northwell Health needed to streamline processes and operations across the organization while prioritizing data privacy and security. To achieve this, they created an app to provide one consistent view of data that gives physicians, nurses and administrators visibility into the tasks that each team needs to complete—everything from fulfilling a request for an extra blanket to making sure the patient gets a needed x-ray. The success of the app and the implementation of the Common Data Service for Power Apps have set the stage for more exciting app developments at Northwell.

Map your line of business solution ideas on a matrix based on their potential impact and complexity. This map will help you prioritize which line of business solutions to invest in.

Define
Set up goals and expected outcomes.

Insights
Review how the power platform is performing

Compliance
Administration leads to governance capabilities like auditing and compliance.

Accelerate
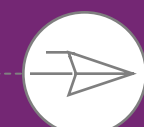Nurture allows for the ability to accelerate and grow adoption.

Your Digital Culture

Ready

Set

Go

Project

Once you have identified your line of business solutions, you can focus on how you will design these apps. When designing these apps, there are a number of elements to consider.

In creating a digital culture, people need the right app for the specific work they are doing; they need to have apps that create an experience that allow them to perform at their optimum. This means the right app for the environment they are working in, that considers the device they are using and the methods they can use to interact with the app.

Questions to ask are:

1. What end-user experience should you make?
2. What device will be used for this experience? (desktop, tablet, phone, interactive screen)
3. Will access be from inside the corporate network or outside the corporate network?
4. What level of compliance is needed?
5. Have accessibility requirements been met?

Automation is key to creating a digital culture. No one likes copying and pasting data across applications. No one likes keying data into multiple software applications because the data is not shared. No one likes doing tedious, mundane work when it comes to data capture, moving data around within software applications, or doing repeatable work that requires zero thinking. All processes that require little to no human decision making should be considered for automation.

Questions to ask are:

1. What apps need to share information, and how can this be automated?
2. What process do we have that we can automate?
3. What procedures or steps could be partially or fully automated?
4. What legacy applications could we connect to and gain more value from the data these applications store?
5. What checks or approvals could be automated?

To create a data-driven culture, you need a low code platform that has insights and analyses built into its core.

Questions to ask are:

1. What visualizations do we need to make sense of the data quickly?
2. What is the best format to represent this information, based on role?
3. What format should be used so that the information can be used practically? This may include dashboards, reports, or real-time notification of trends.

Your Digital Culture · Ready · Set · Go

Platform

At the Set phase of your use of Power Apps, the sophisticated built in data platform, premium connectors and pro developer integration is what will allow your teams to expand your app development use cases to cover more complex solutions.

Built in managed data platform

At the core of the platform is a fully managed intelligent data platform, made of compute and a range of data storage technologies, with built in business logic, business rules and security. Apps built using the Power Apps data platform access data via an API which is an application program interface. It is enterprise scalable, secure and comes with a range of tools that allow you to manage your data, report on your data and gain insights. Data is stored within a set of entities. An entity is a set of records used to store data, like how a table stores data within a database. The built-in managed data platform includes a base set of standard entities that cover typical scenarios, but you can also create custom entities specific to your organization and populate them with data. App makers can then use Power Apps to build rich applications using this data. This data platform enables you to build model driven components for your app, which forms the foundation of your complex line of business solutions.

Your Digital Culture   Ready   Set   Go
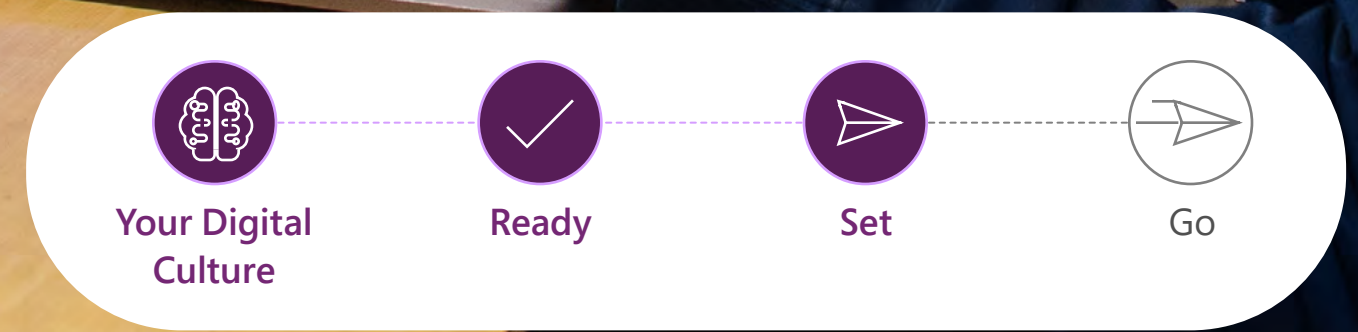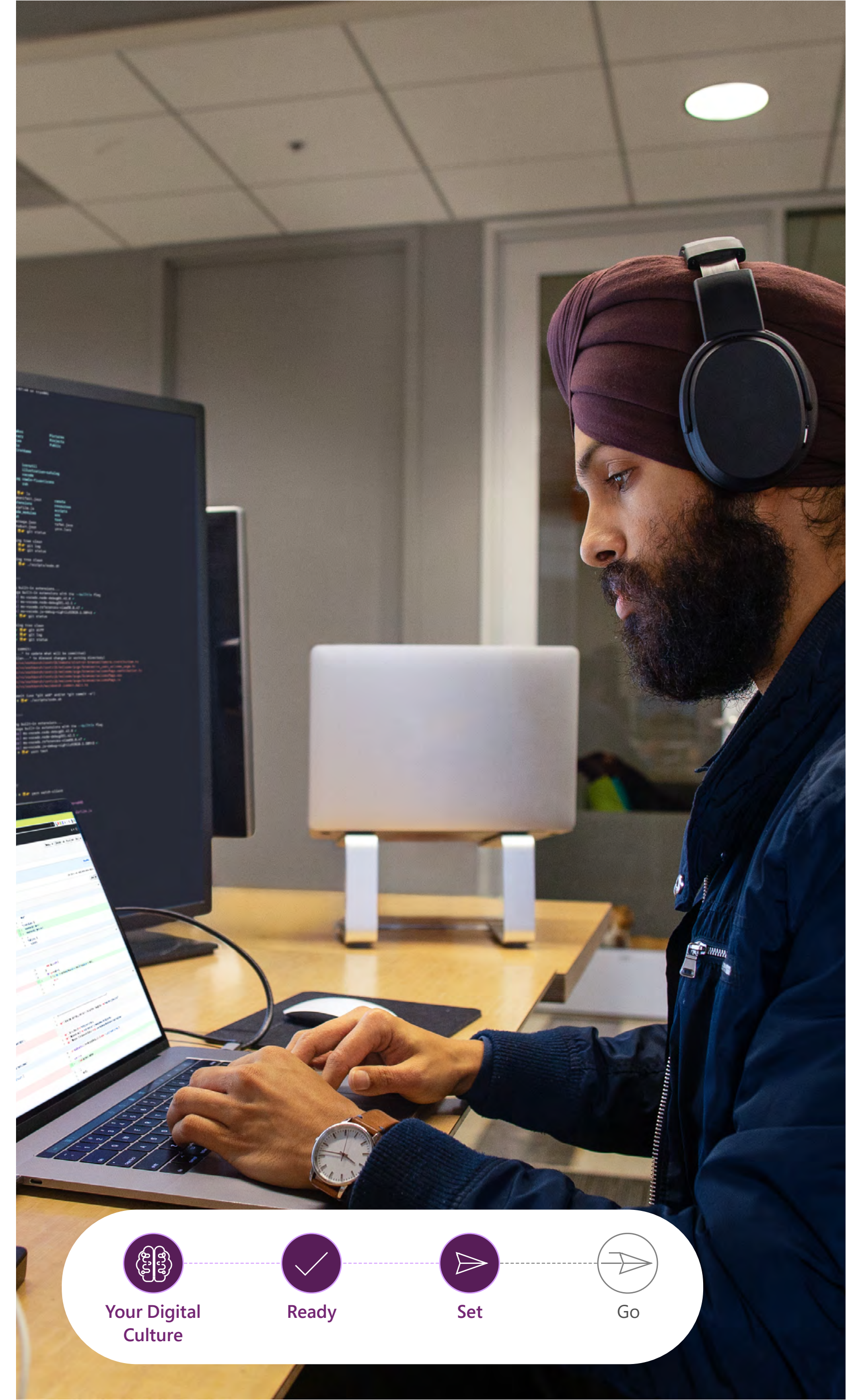
Platform

The ability for Power Apps to integrate with professional developer tools like Azure and Visual Studio is becoming more important for our customer's success as their implementations continue to grow. To continue to accelerate the growing trend of low-code and code-first "**fusion**" projects, Power Apps, Azure and Visual Studio are designed to work seamlessly together. This allows professional developers to effortlessly mix and match low-code platforms, like Power Apps, with code-first capabilities, like Azure Kubernetes Services or Azure API Management. Solutions that blend low-code and code-first platforms empower developers to solve digital problems quickly and with their preferred tools and languages in their existing development environment.

Empower business users with custom UX controls built by pro developers

With Power Apps, citizen developers can quickly start building apps through a wide array of out-of-the-box UI components using low-code techniques. These apps can continue to grow in sophistication, and developers can use familiar tools like Visual Studio Code to extend these applications with custom client-side components. The Power Apps Component Framework (PCF) provides the flexibility for developers to create any UX component to support a fully customized app experience. Components are reusable and solution aware, thus easily sharable and can plug right into any number of Power Apps. These custom controls can be built from scratch in JavaScript and Typescript or leverage common development frameworks like React.

Easily take advantage of existing data sources and business logic

Power Apps provides access to more than 350+ data sources out-of-the-box, to systems like SAP, ServiceNow, Workday, and Salesforce. However, if access to a data source where no built-in connectivity is available is needed, customers can easily develop custom connectors and leverage Azure Functions or Azure API Management to unlock access to any external data source. Native integration with Azure API Management allows for seamless distribution of custom connectors to dedicated Power Apps environments for easy discovery and consumption.

Your Digital Culture   Ready   Set   Go

Platform

The Power Apps data platform is easy to manage, easy to secure, easy to integrate, and easy to import. It includes rich metadata and contains logic and validation. You can use productivity tools like Microsoft Excel to access and work with your data.

If you've ever had to bring data from multiple systems and applications together, you know what an expensive and time-consuming task that can be. Without being able to share and understand the same data easily, each application or data integration project requires a custom implementation.

The industry standard Common Data Model simplifies this process by providing a shared data language for business and analytical applications to use. The Common Data Model metadata system makes it possible for data and its meaning to be shared across applications and business processes such as Microsoft Power Apps, Power BI, Dynamics 365, and Azure.

If needed, you can also enable external access with Power Apps portals. Empower anyone—either inside or outside your organization—to interact with your data using portals. If you need to provide access to customers or stakeholders that are not employed by your organization, Power Apps portals will allow you to do this.

Your Digital Culture   Ready   Set   Go
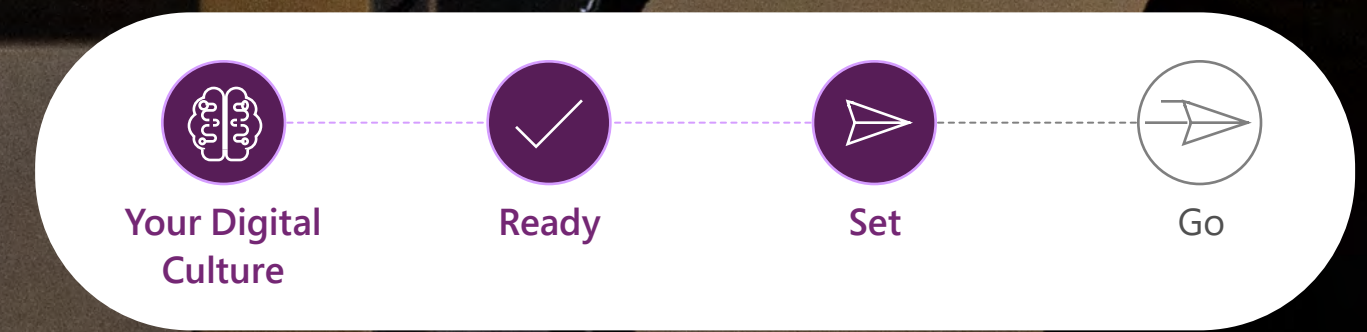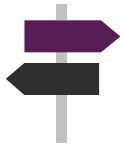
Processes

At this point in your journey to creating a digital culture, you will have implemented systems that allow you to scale within your organization. Where apps replace existing internal processes, it's important to run a robust change management process to help staff adjust to the changes and ensure the solutions are not only deployed but also being utilized.

IT pros should have set up the tools allowing for monitoring of the apps that are being built and ensuring the correct authentications are in place. They would also oversee the governance of any connectors employed as part of the solution to meet your organizational security requirements.

One of the key principles of administering the Power Platform is having full visibility into how your organization is using Power Apps. Insights into your adoption will help you govern and secure the platform, identify patterns and enable you to nurture your makers to accelerate adoption.

The Admin Analytics that are part of the Power Platform Admin Center provide you with environment-level analytics based on your usage for the past 28 days.

As an administrator you should:

- ☑ Watch overall adoption by monitoring insights into how much the apps are being used and when

- ☑ Check out app launches in terms of being used in browser or via mobile player version and on which platforms. Following your device strategy, you could ensure users are using the latest player edition

- ☑ Regularly monitor overall service performance to ensure user run-time experience when interacting with the platform services

Your Digital Culture   Ready   Set   Go

Processes

Additional to the out-of-the-box capabilities, Management and Admin Connectors offer the ability to use the platform's own tools to manage and monitor your Power Apps adoption. Part of the rich connector eco-system are admin specific connectors that allow you to further monitor your inventory and usage, as well as establish and automate your admin processes.

IT pros should also provide the following resources and train makers on how to use these tools to build better apps as you scale:

- Monitor–debug apps
- Power Apps test framework–UI automation and testing
- Solutions Checker–app validation
- App Checker–app accessibility and formula checking

IT pros should build dashboards to monitor apps created inside the organization, including the following:

- Environments
- Apps per environment
- Role details–maker, date created, description, who is sharing the app, connectors (APIs) used and permissions
- Number of apps created
- App volume over time
- Number of connectors used

Your Digital Culture

Ready

Set

Go

Processes

Support systems for the apps, including training and knowledge bases, should be implemented. End-user training for the apps being made should be designed and implemented. You should start to see a change in the way people look at streamlining how they work, how to use apps to improve their jobs and create a better working experience. Think about the progression of your makers, and be sure to offer beginner, intermediate and advanced training—this could be through leveraging content from the fantastic external community and curating link lists with blog posts and YouTube videos, as well as hosting internal training events to run App in a day, Advanced App in a day or App in an hour. Many organizations use either a SharePoint Hub site or Teams to share resources, best practices and learnings with their makers. Additional to training resources, be sure to also share your success stories–highlight app makers and their stories, as well as the business value they have added through their apps to inspire other makers to do the same.

Using the Power Platform Admin center IT pros can monitor and provide guidance to app makers; they can support the apps that are published for use by other people in the organization. As mentioned in the Ready phase, IT pros can also implement data loss prevention (DLP) policies to control what connectors are available for app makers.

You or your Admin will want to use the insights you get through monitoring your usage to drive action–such as identifying critical, orphaned or unused resources.
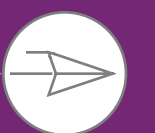
Your Digital
Culture

Ready

Set

Go

Processes

Some typical assessments an admin would perform would be:

Identify overshared apps

- Resources shared and used by the entire organization might need a stronger support model or be moved to a dedicated environment
- Sometimes apps are shared with the entire organization or a large number of individual users—if the app is for a dedicated department, job role, or group of people, you can help the maker by setting up an AD group to share their app with. Otherwise (a) your entire org will see the app even if it's not relevant to them in the Power Apps mobile player or on make.powerapps.com and (b) if the user does not have access to the underlying data source but only to the app, they will receive an error message upon trying to launch the app which can cause an increase in support tickets and confusion
- Apps shared with a large number of individual users pose a different risk—if the app is for a specific job role or department, should an end user move departments or job roles they would still see the app if it is shared with them and would be able to access the information. Therefore, it would also be recommended to share the app with an AD group that is tied to a movers/leavers process instead.

Identify suspended flows

- Flows will be suspended due to using a combination of connectors that conflict with the company data loss prevention policies or billing restrictions.
- Find those flows and work with the maker to identify if the flow is still needed, and if so, what policy violation they've encountered. Educate the maker, modify the DLP policy or create an environment that permits the connector combination for scenarios that are useful and secure.

Your Digital Culture · Ready · Set · Go
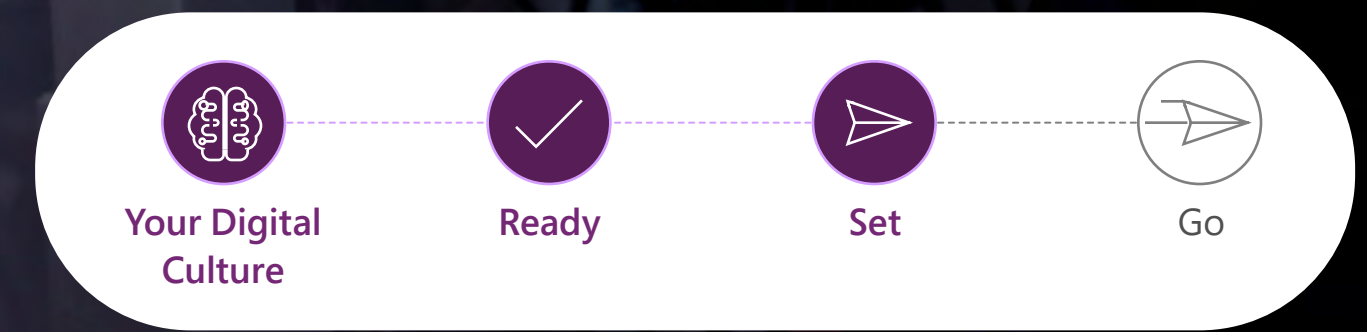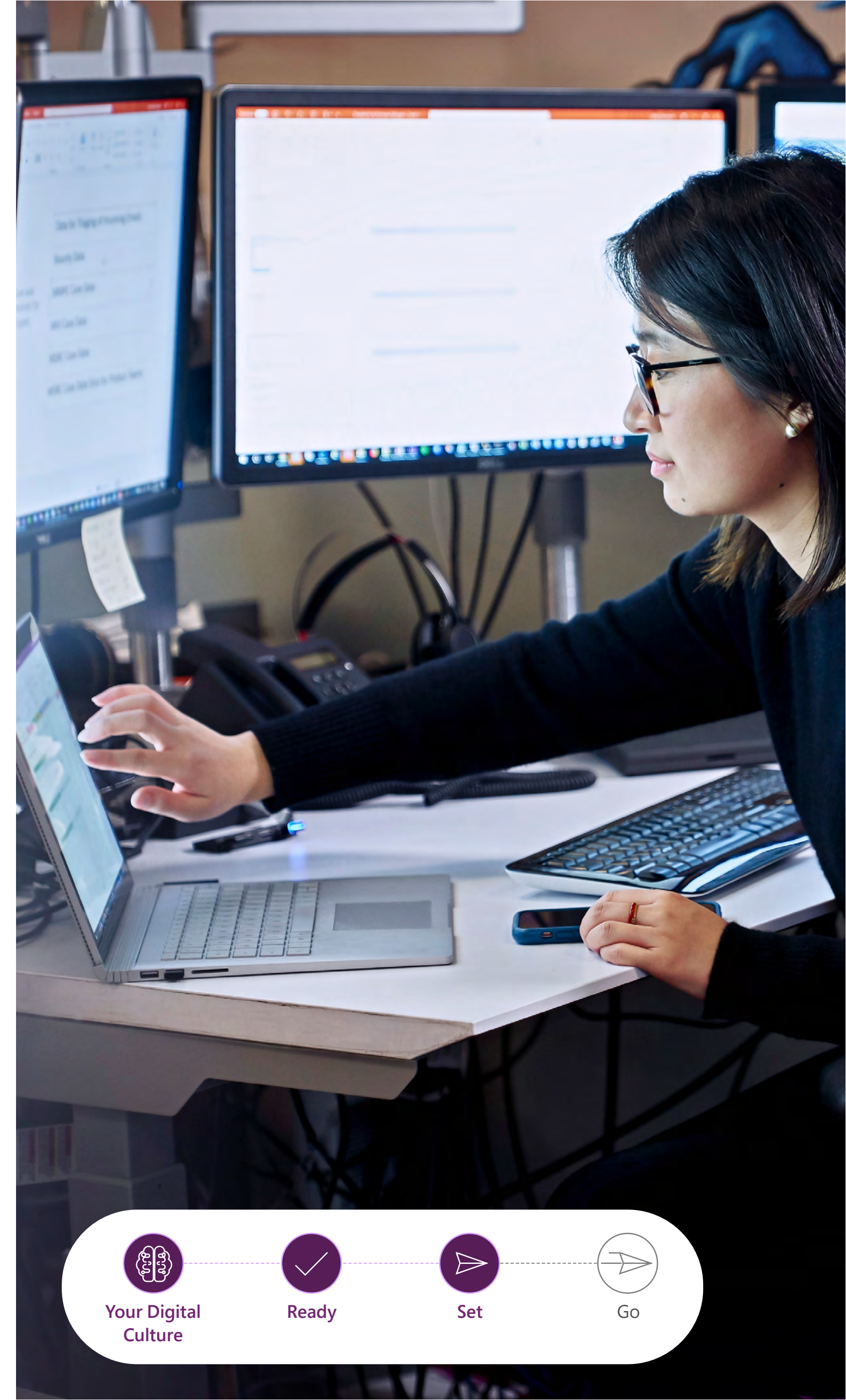
Processes

Identify orphaned apps or flows

- Orphaned apps, where the app owner has left the org, will still work for end users but changes or bug fixes can only be made by an owner. It is therefore important to identify orphaned apps and find a new owner for them or work on a retirement plan for those apps.
- Orphaned flows, where the flow owner has left the org, will stop working. It is therefore important to identify orphaned flows, check if they are still needed and find a new owner.

Implicitly shared connectors

- Some connectors, like the SQL Connector used with SQL Server Authentication are shared implicitly with users.
- Identify apps using the SQL Server Connector, ensure the end users is aware of the risk and help them mitigate it by enabling AAD Authentication for SQL or moving the resource to a new environment with restricted maker access.

An admin will also want to clean up unused resources and remove or archive them from their tenant. One of the reasons for this is that unused resources that are still shared with users would still be accessible through the maker portal or mobile apps and lead to an untidy and unorganized user experience. There's a variety of factors to take into consideration when looking at deleting resources; such as when was the app last used or modified, does the app include a non-production word such as demo or test in the name or has it likely been created from a template and never been modified since.

Communication is key to success; it doesn't matter how great your work is unless you are sharing that work across the organization in a way that generates positive buzz. Be mindful of the dynamics between functions and have clear processes for change management and scaled learning. Stay focused on delivering value to your organization, showcasing your success, and inspiring the next generation of citizen developers.

Your Digital Culture   **Ready**   **Set**   Go
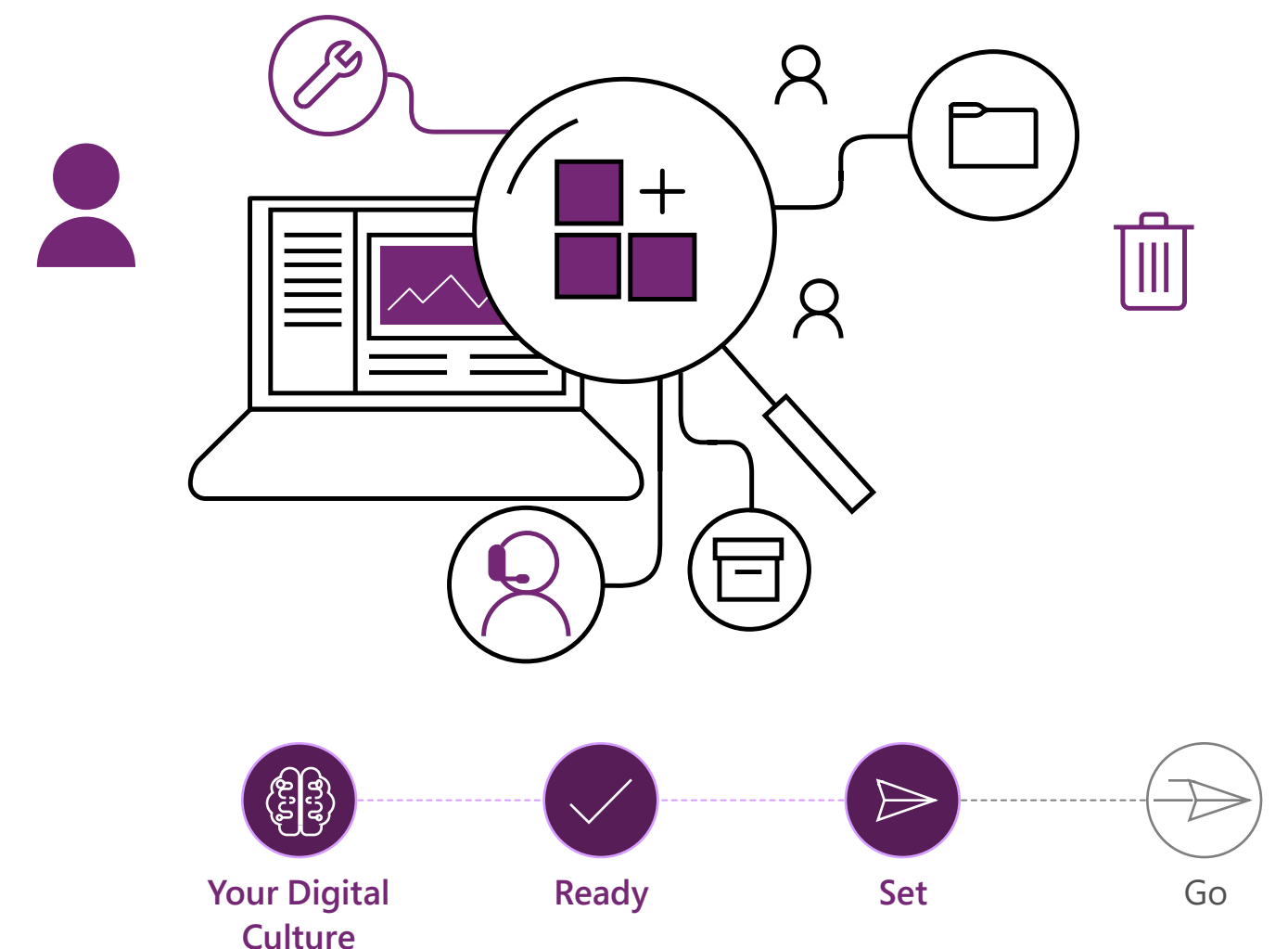
Set Checks

1. Meet regularly as a community of likeminded people to foster informal discussion and ideation.
2. Run regular lunch-and-learn sessions to foster community, sharing of ideas and learnings.
3. Identify and expand your app creation team—consider including architects, specialist project managers, and people skilled in integration and connectors.
4. Apply the project framework to your app development process.
5. Collaborate with solution architects in the app creation process to lead strategic insights concerning data, systems, and governance.
6. Work with IT to ensure systems have been configured for data loss prevention and that the right governance is in place.
7. Take management on the journey, ensuring their sponsorship of your Center of Excellence.
8. Map and measure the impact of your LOB solutions.
9. Undertake typical admin assessments and drive action.
10. Celebrate as a community and reflect on how far you have come and how your team has grown. **#Teamworkmakesthedreamwork**

3.6
You're all Set

At this point, the systems you put in place will lead to scale and repeatability as well as opening opportunities for more and more people to get involved. The success of your complex line of business apps will demonstrate the significant impact low code development platforms can have. For the individuals involved in building the CoE and your Admins, you will start to see a change in people's self-confidence. People who would not have considered themselves technologists start to realize that they can create apps even complex ones; they can automate the repeatable parts of their roles and those of others. They see the data that their organizations work with has meaning and patterns and insights that can be used to inform decisions. At this point, you'll see digital culture emerging in your organization that will open new opportunities, new possibilities, and new directions.

It's that time again–Reflect! What did you learn and what might you have done differently?

Share with us via Twitter **@MSPowerApps** as we would love to hear from you!

Your Digital Culture   Ready   Set   Go

Go

Thriving Digital Culture

At this point, you can achieve massive organization-wide change. You need to seek out problems that you can solve, not only at scale but also at speed.

One of our customers once said "We needed to really enable the portfolio and not solve just one business problem. Our business problem became how do we build a thousand apps at scale, not how do we build one app?" Up to now, you've been learning to solve individual business problems. Be that from digitizing a paper process to streamlining a complex process in a sophisticated line of business solution. Now, we start to gravitate from "solution" to platform. It is at this platform phase that organizations truly understand the impact and business value a platform like this can add to an organization once embraced at scale.

At this point, you will want to consider how you will scale your app maker production. The Go phase will help you learn how to take your fledgling Center of Excellence to the next level, turning it into the heart of a thriving digital culture so you don't just support and manage one app, but thousands of apps. You will also understand the platform capabilities to create thousands of apps that solve a myriad of business challenges, in a sustainable and secure way.

Lastly, we look at how you can start to build on your digital culture, with a data digital culture, and find and leverage insights in and across your app portfolio.

Your Digital Culture   Ready   Set   Go
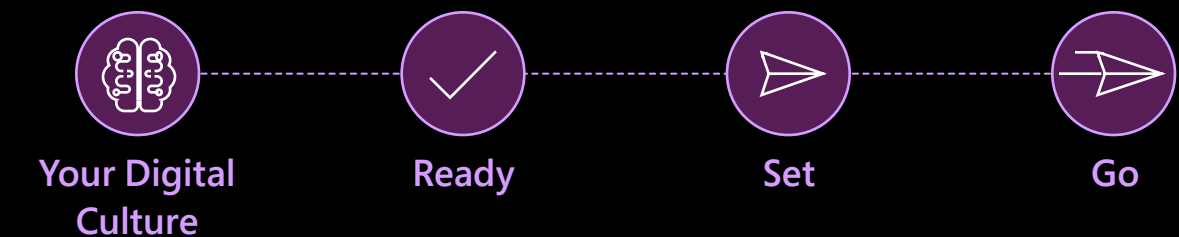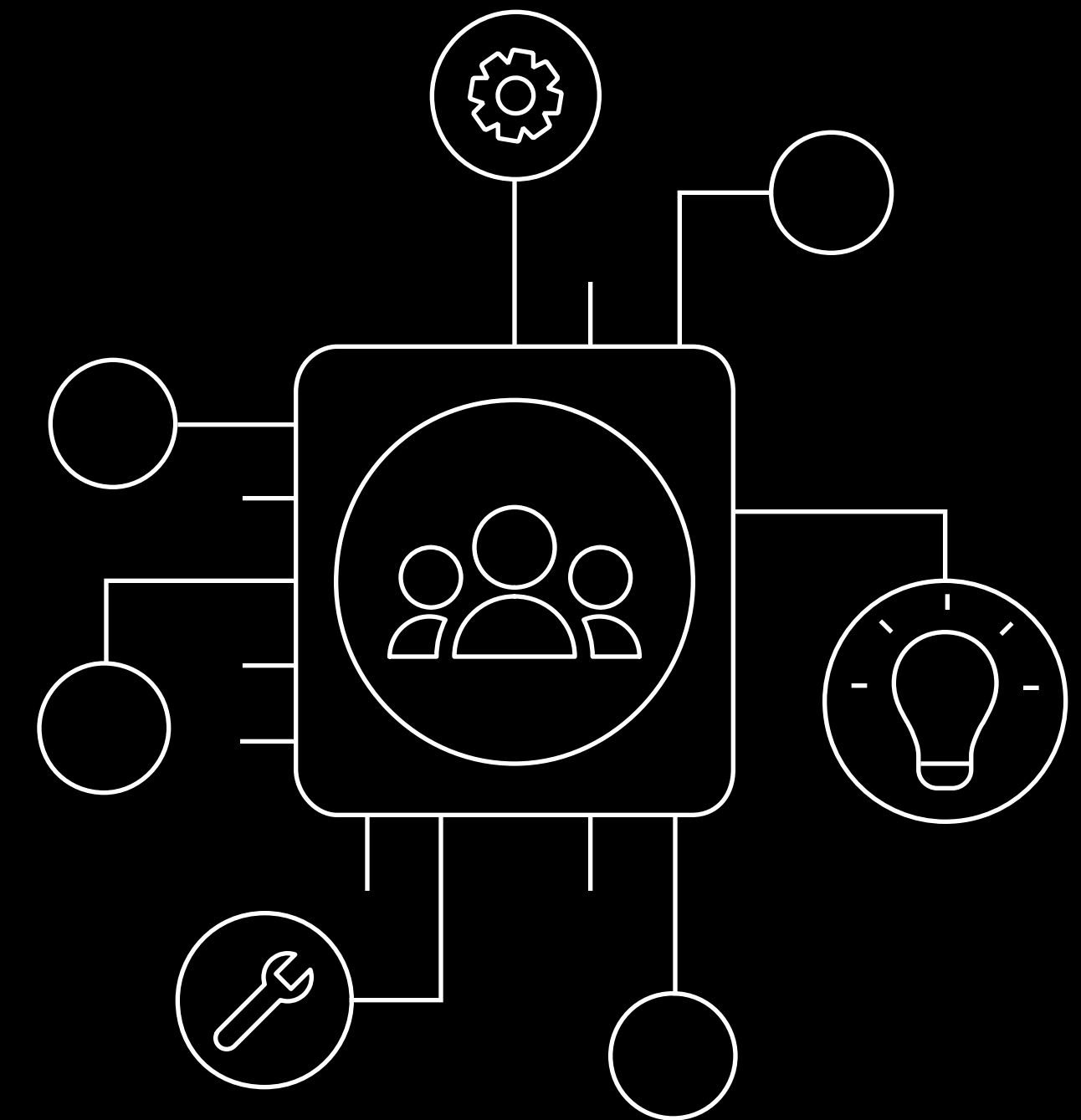
People

Rapid app development can only happen at the speed that operations, such as IT, can support the apps created. For this to work, all teams need to have a clear vision of the digital culture the organization is moving toward and be aligned on the model. To get the maximum value form the apps created, they need reliable support, governance and maintainability, regardless of which model you adapt. As technology evolves, updates will need to be made on the apps to keep them current. Having not only an awareness of change, but a plan is a key to successful apps

Your Digital Culture

Ready

Set

Go
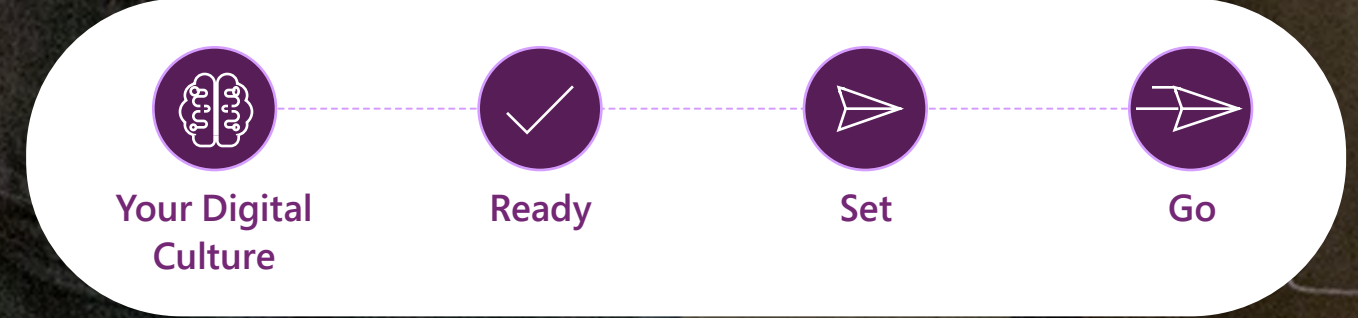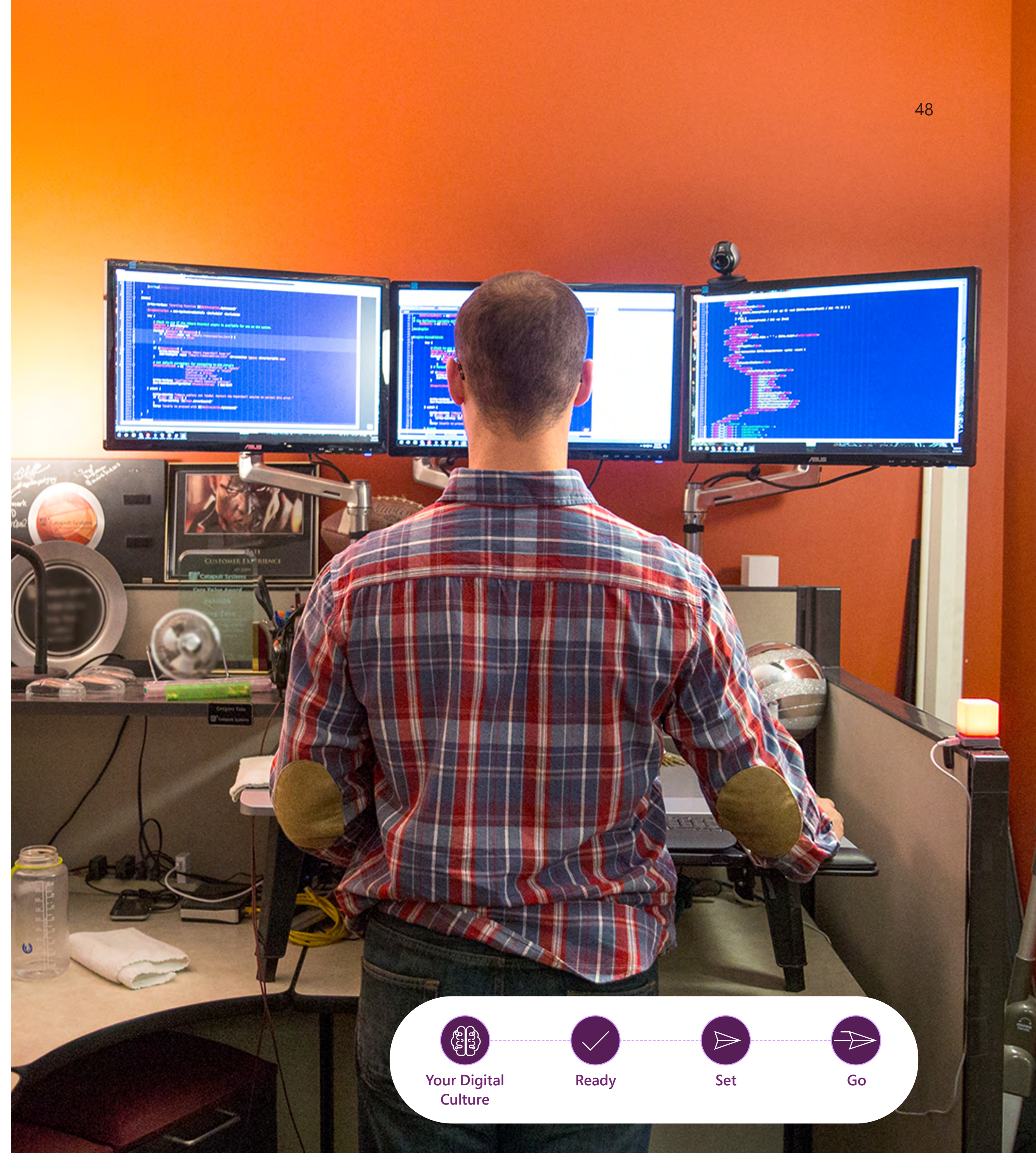
Skills Development

👥25

Growing your pool of talented people should be front and center at this point in your journey. You will have observed that the citizen developers of yesterday become the technologists of tomorrow. As their appetite to learn grows, they will become the leaders and trainers of your future citizen developers. Some may go on to specialize in specific areas on Power Apps, learning excellent technical skills that enable more advanced problem solving across your organization. Across the whole team, talent gaps need to be identified and filled. Formal training programs should be implemented. You need to identify what skills are required to solve the challenges your organization is facing.
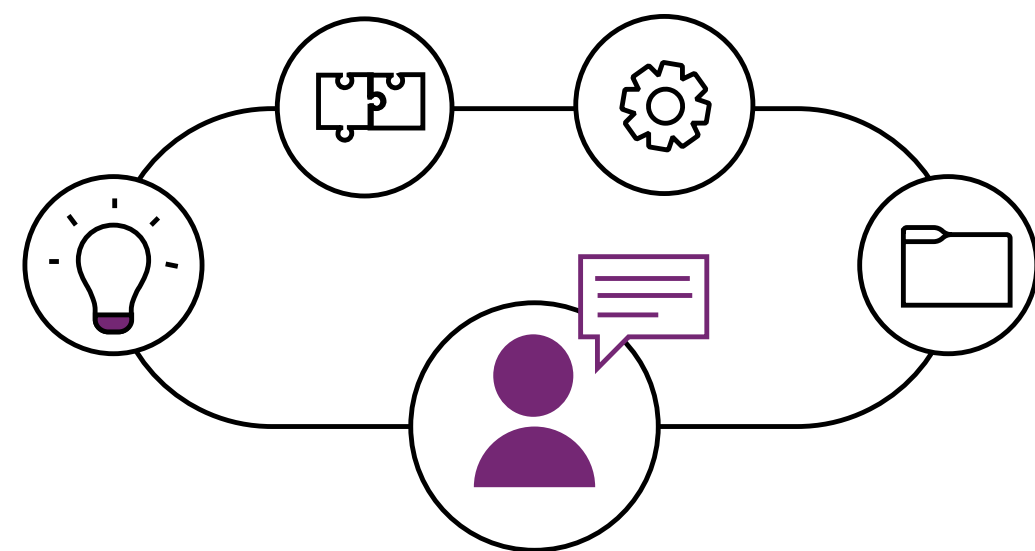
Look for people with skills and strengths in the following roles:

Citizen Developers: continue to bring their day to day experience of how their job is done and provide the right tools and training so they can create apps to drive value

Pro Developers: will design advanced interfaces using PCF as well as building complex relationships or integrations with other applications, when the out-of-the-box limits have been reached, and the app needs to be extended

Trainers: are necessary to train others on how to use the apps that are built and made available across the organization, as well as providing training on how to build apps

Change Management Owner: critical for organization-wide adoption of changes to software, systems and procedure that impact people

Program Owners: will own multi projects, they will have a strategic view of organizational priorities and will focus on outcomes and engagement of everyone involved in app making

Product Owners: will own specific apps, they will be focused on user experiences that delight and apps that create tangible value for all stakeholders.

Architects: will understand the strategy that the organization wants to achieve as well as using the best technology to achieve organizational outcomes. They will understand the big picture from a technology perspective and will provide guidance and technical leadership

QA & Testing: needs to be part of scaling app creation; quality and reliability will be expected.

IT Pros and Admins: lead the governance, compliance and supportability of apps across the organization.

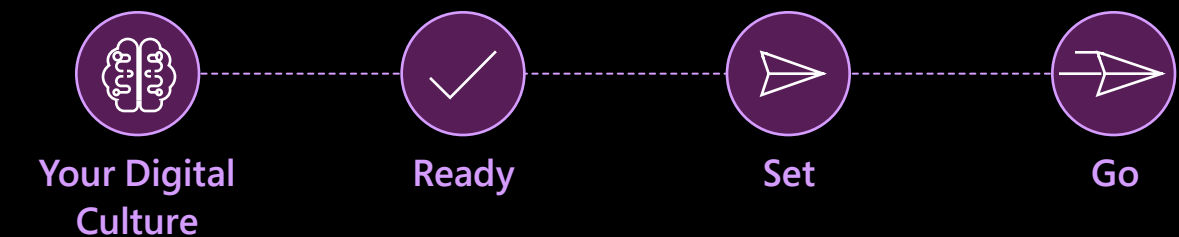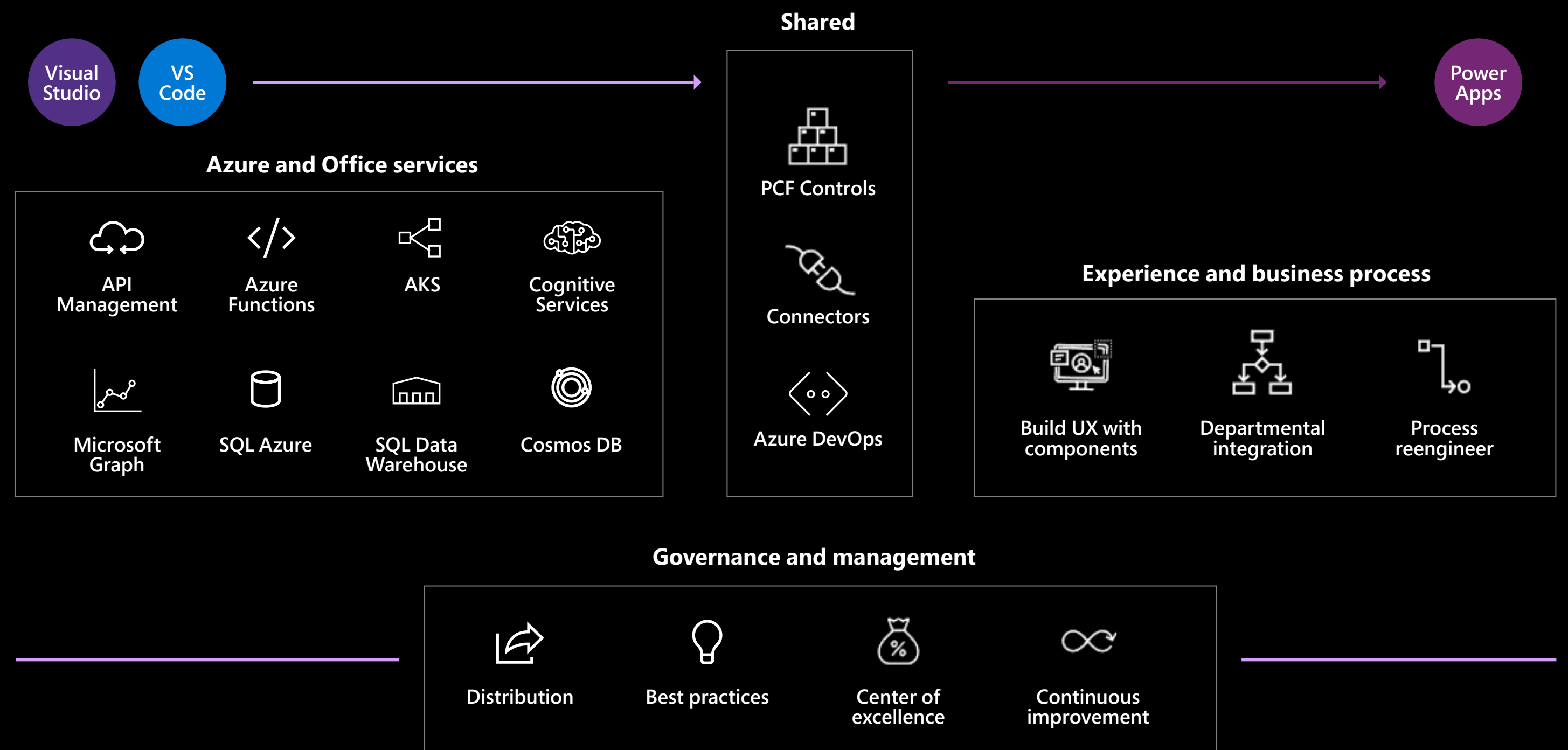Your Digital Culture   Ready   Set   Go

Go Team

Stability and maintaining momentum are a risk that you need to be aware of at this point. There is a need for robust governance that allows adherence without being burdensome. It's a juggling act that needs to be managed. Many people come to the table with strengths and skills to contribute to the app creation journey and are positive about what can be achieved. Some people may feel vulnerable and worry that their current role is evolving, and the way things have always been done no longer applies. You should be aware of these factors. If handled well, they will allow you to accelerate your growth, just as the alternative is possible if not handled correctly.

Pro Developer
(Code First)

Every Developer
(Low Code)

Shared

Visual Studio

VS Code

Power Apps

PCF Controls

Azure and Office services

API Management

Azure Functions

AKS

Cognitive Services

Connectors

Experience and business process

Build UX with components

Departmental integration

Process reengineer

Microsoft Graph

SQL Azure

SQL Data Warehouse

Cosmos DB

Azure DevOps

Governance and management

Distribution

Best practices

Center of excellence

Continuous improvement

Your Digital Culture

Ready

Set

Go

Project

You will most likely have a long list of new apps you want to build by now. Regularly review your projects to assess what is driving your successful projects and what best practice can be replicated across your other app development teams.

What lessons can be learned and applied for the not so successful app projects?

Are there efficiencies that can be realized, are there patterns that lead to high value and impact?

If you have been celebrating your new app launches across the organization, you will have created interest and buzz in other teams that want apps designed for their part of the organization. Your list of app projects will have grown considerably, and you will need to continue sorting your project backlog on several factors.

- Business impact
- Time to value
- Resources available

Now you already know how to build simple productivity driven apps and complex line of business solutions. This is the time to review all your legacy apps and software and determine which solutions you can modernize and replace with Power Apps. Power Apps can now become an integral part of your integration, API management and infrastructure strategy. This is a great opportunity to streamline your portfolio and save on costs.

Whether you need to provide access to new or existing data that lives in the cloud or on premises, you can leverage Azure Functions and Azure API Management to create custom connectors to unlock access to any external data source. Native integration with Azure API Management allows you to seamlessly push these custom connectors to dedicated Power Platform environments for easy discovery and consumption in Power Apps. Customers can realize quick value by leveraging existing systems of record and APIs by simply publishing them as Power Platform connectors for Power Apps developers to leverage in their solutions. This will allow customers to utilize their microservices strategy and data estate to simply build UX answering the age-old question about what solutions include and how the experience will be built out.

Your Digital Culture   Ready   Set   Go

Platform

Intelligent systems are becoming part of life; we expect more from apps and software than ever before. We demand more from our data. As the amount of data we create and produce increases, we need better ways to understand the patterns that the data reveals. We need better tools to allow us to focus on the things we should be focusing on to create the change we need to see in our organization, to future proof ourselves and take advantage of the new opportunities it can uncover. In Ready and Set you learned about the core elements of Power Apps, and now you can explore ways to harness insights and act on them within your solutions and drive a data digital culture throughout your organization.

Your Digital Culture   Ready   Set   Go
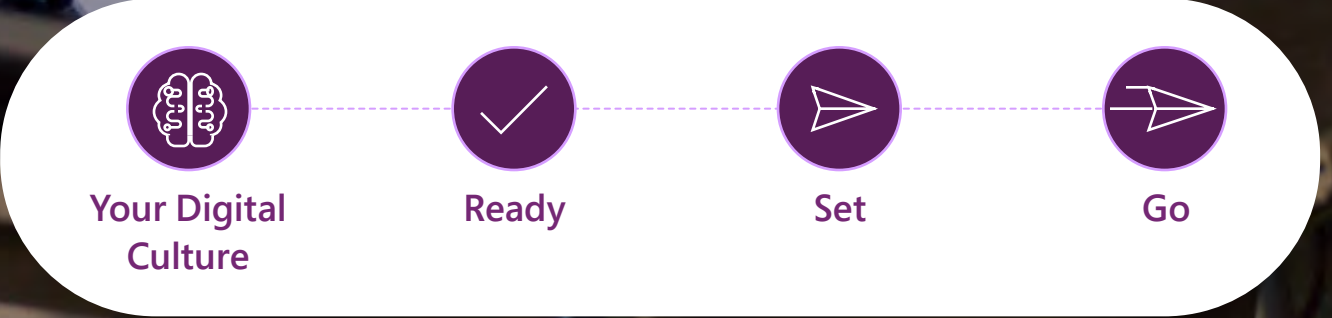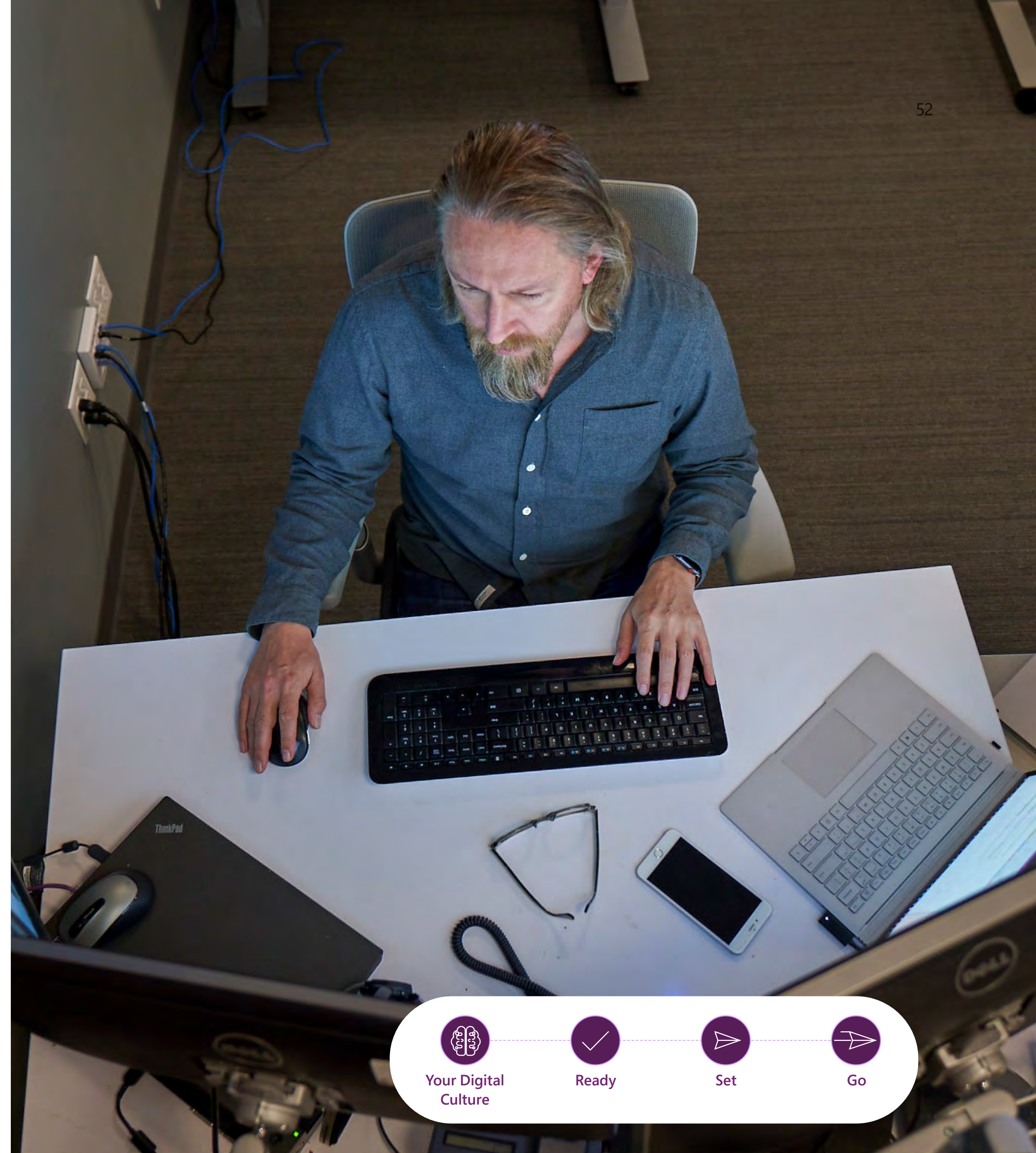
AI Builder

Bring AI to your apps with AI Builder. Enhance your apps and business processes with AI that is easy to build into apps and configure within Power Apps. AI builder allows everyone to get up and running quickly with artificial intelligence. The starting point with AI in the past was a Data Science degree, not anymore. Now it's possible to use the data you already have, select an AI model, tailor the model to your needs and begin training the AI model on your data. From there, you are ready to start using your AI model insights in your apps.

Here are a few examples of AI Models that can be leveraged:

Binary classification uses historical data to predict whether new data falls into one of two categories.

Text classification tags any snippet of text based on the historical data you provide.

Object detection lets you count, locate, and identify selected objects within any image.

Form processing identifies the structure of your documents based on examples you provide to extract text from any matching form.

Sentiment analysis can detect positive or negative sentiment in textual content.

Key phrase extraction identifies main points in a text document.

Language detection identifies the language of a piece of text.

Text recognition extracts text from images.
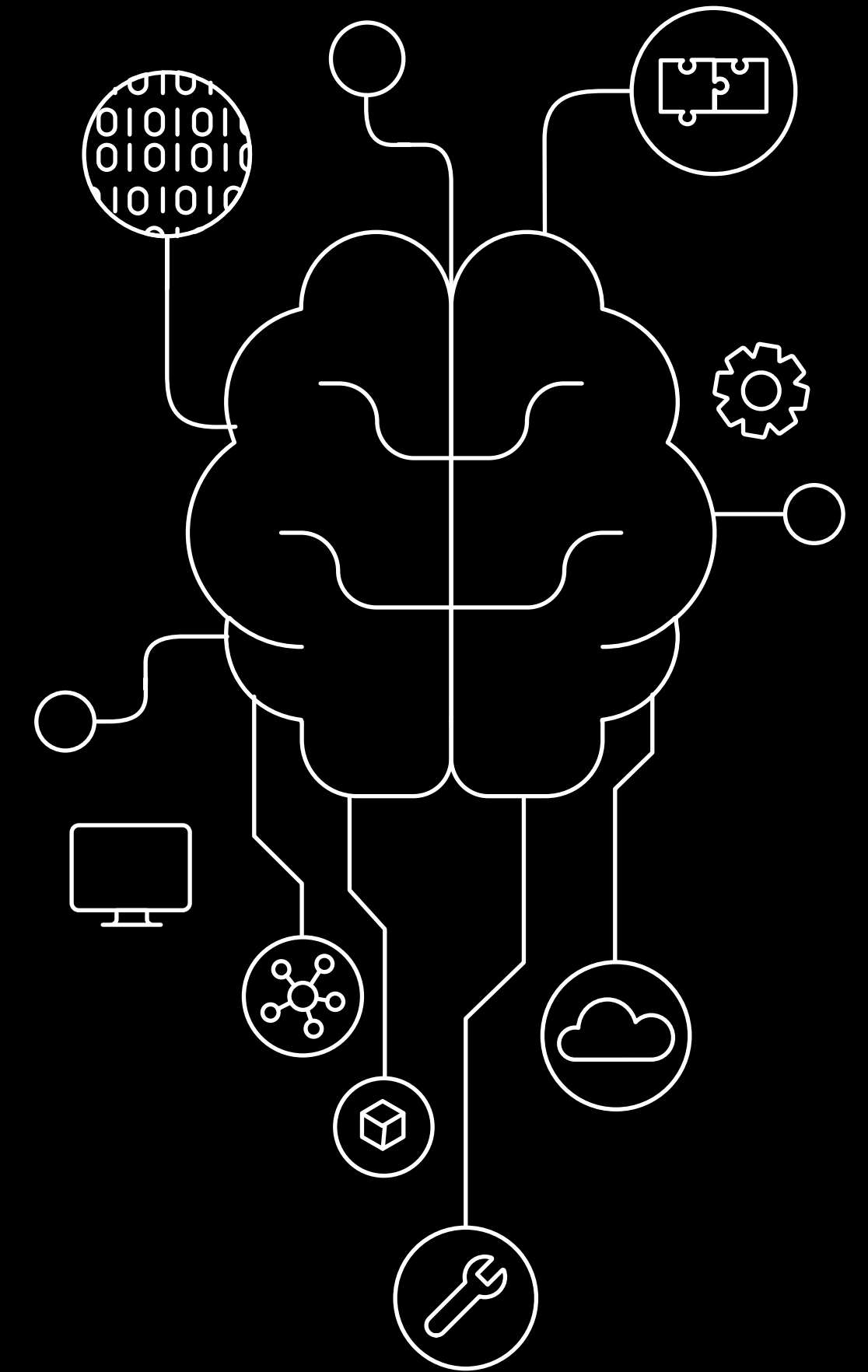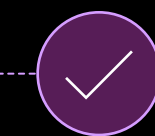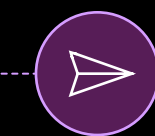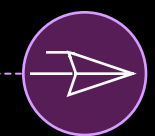
Your Digital Culture   Ready   Set   Go

Cognitive Services

To take the next step in your AI journey, you can extend what is provided in AI Builder by using Azure Cognitive Services. Cognitive Services bring AI within reach of every developer, without requiring machine-learning expertise. All it takes is an API call to embed the ability to see, hear, speak, search, understand, and accelerate decision-making into your apps.

Machine Learning

If you want to go further with AI, you can advance to machine learning. Azure Machine Learning provides enterprise-grade machine learning service to build and deploy models faster. Empower developers and data scientists with a wide range of productive experiences for building, training, and deploying machine learning models faster. Innovate on a secure, trusted platform, designed for responsible AI.

Your Digital Culture

Ready

Set

Go
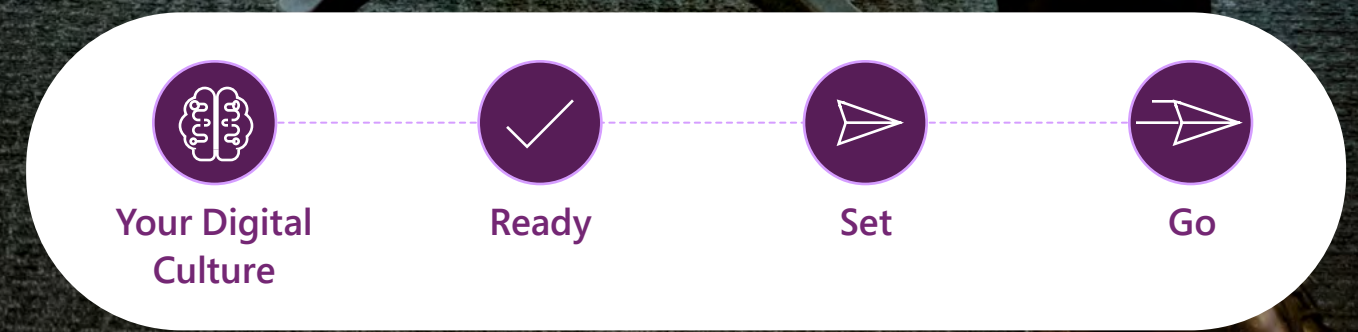
Processes

At this point, your app delivery velocity should have stabilized, and have a level of predictability based on past experiences that should influence your decisions.

When it comes to what type of process you can improve on or automate you should now be familiar with the more than 350+ that allow you to connect to microservices. That way you will know where you need to create your own connectors to extract value from existing data sets via application programming interfaces (APIs).

In some situations where legacy software is still in use but does not have APIs, you could consider how to enhance your process by using Power Automate Robotic Process Automation (RPA). Data can be extracted or updated using UI flows, saving staff hours and hours of time—keeping data in-sync across back-office systems—not to mention eliminating human error in these repeatable processes, leading to better data quality.

Depending on the size of your organization, you may want to formalize your governance approach by implementing a structured model. You should consider the following ways to structure your team and decide what is the best fit for your situation and organization. There are a few models to choose from, or you may find that a mix and match approach works best for you.

Your Digital Culture

Ready

Set

Go
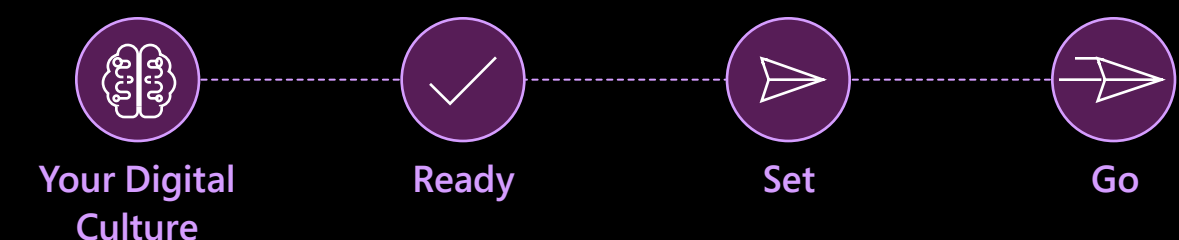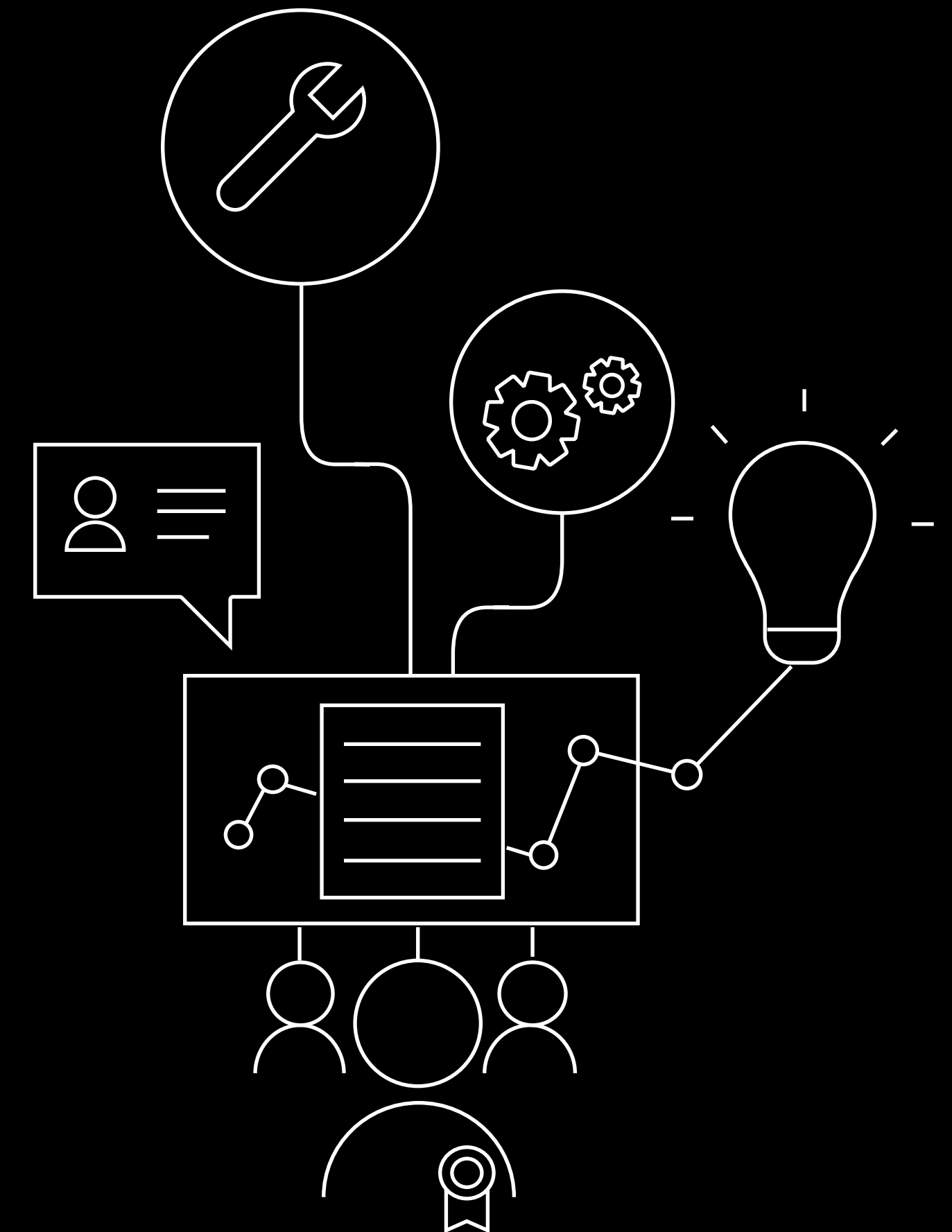
# Starting the digital transformation: De-centralized Model

⚙️
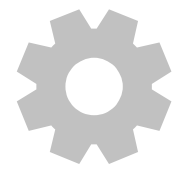
Begin the digital transformation by solving single needs quickly through low-code for immediate value in departments, or lines of business. Most likely, based on the Office seeded plans, many departmental solutions will be built across a customer's organization allowing multiple solutions to be built simultaneously using data sources in Office like SharePoint and Excel. As the number of these solutions grow, typically IT teams will begin to engage and start to apply some high-level governance to ensure corporate compliance. These may include things like DLP governance, connectors management, and license management to ensure users and developers can safely build and release solutions with minimal intervention from IT, while keeping the data estate safe and compliant. This is a great self-service option.

Your Digital Culture   Ready   Set   Go
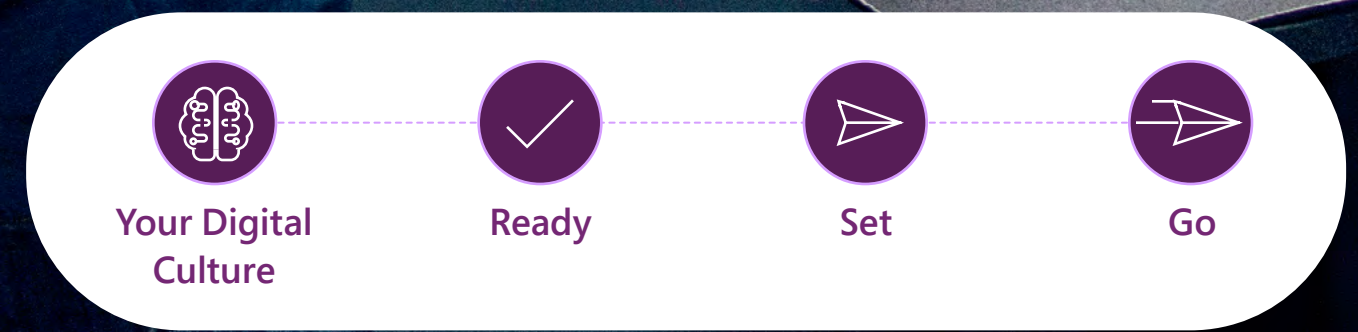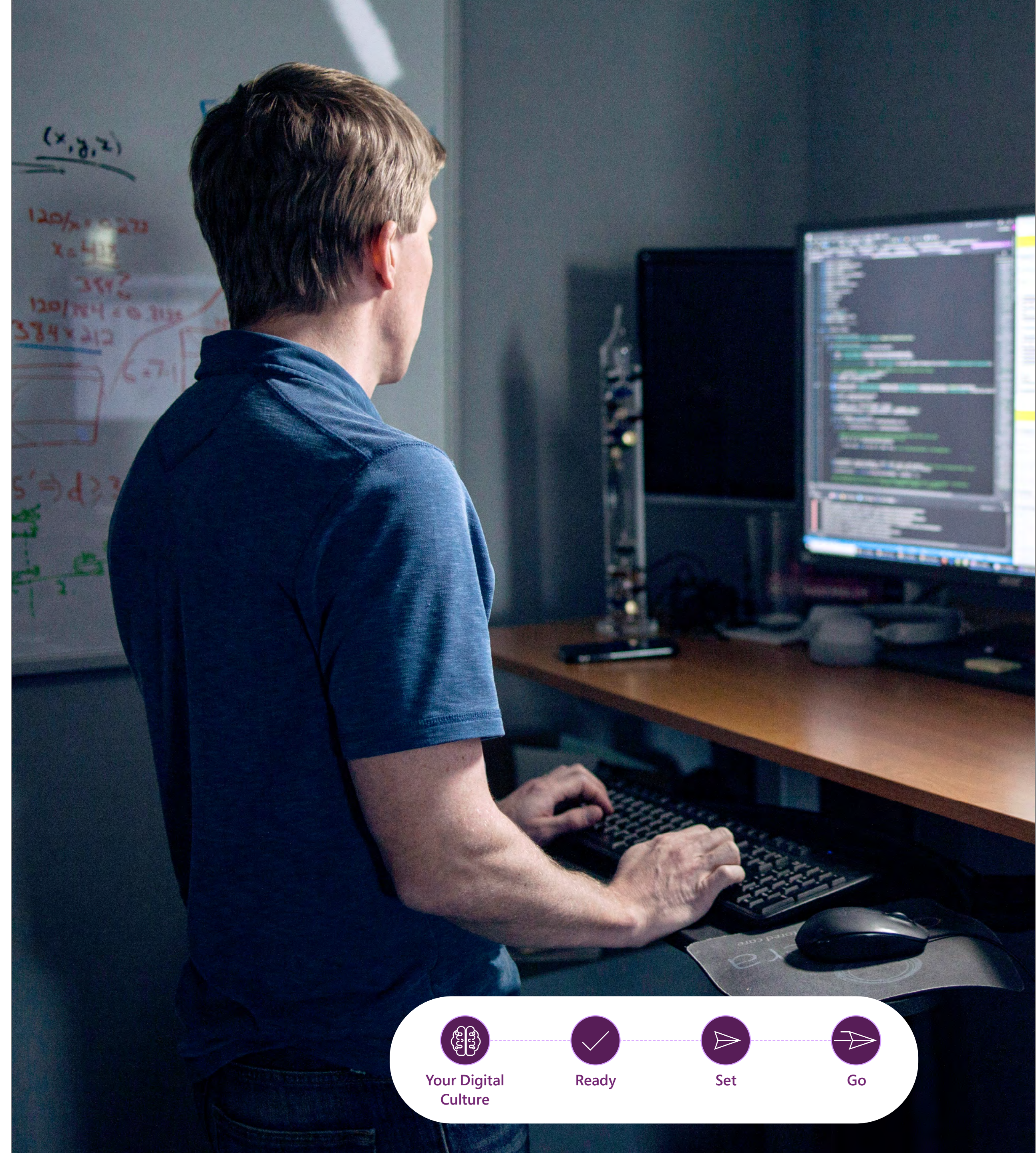
Growing the digital transformation: Matrixed Model

↗

While continuing to grow the numbers of departments and lines of business included, customers can begin to undertake more transformation with a set of CoE analysts and developers that cover the organization's needs holistically to drive long-term value throughout the organization. This will include some level of IT oversight since often those intra-departmental solutions include shared datasets from systems that require CRUD data. That is usually the tipping point for an IT team to be called in to help a team of analysts and low-code developers form rules of engagement across departments. This team should also consider the notion of a Center of Excellence to manage their data estate and deploy solutions with guidelines for everyone. This works well for self-service and small cells to deliver options quickly with little IT engagement.

Your Digital Culture   Ready   Set   Go
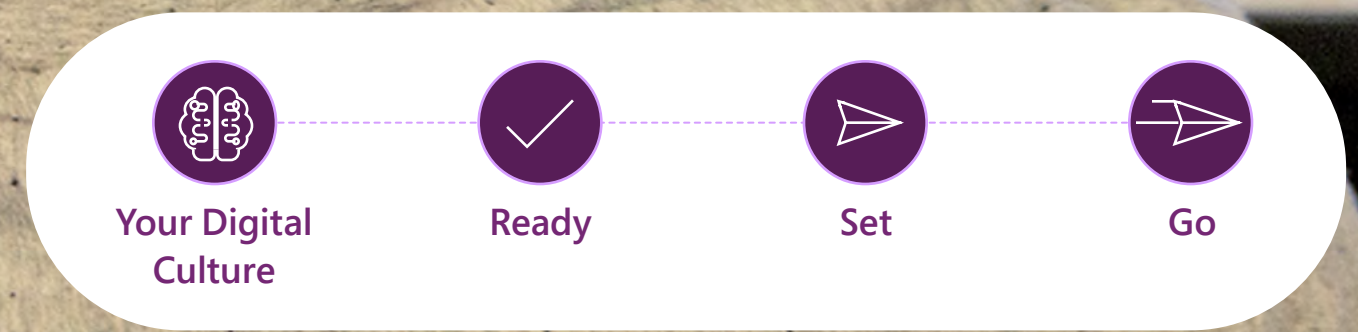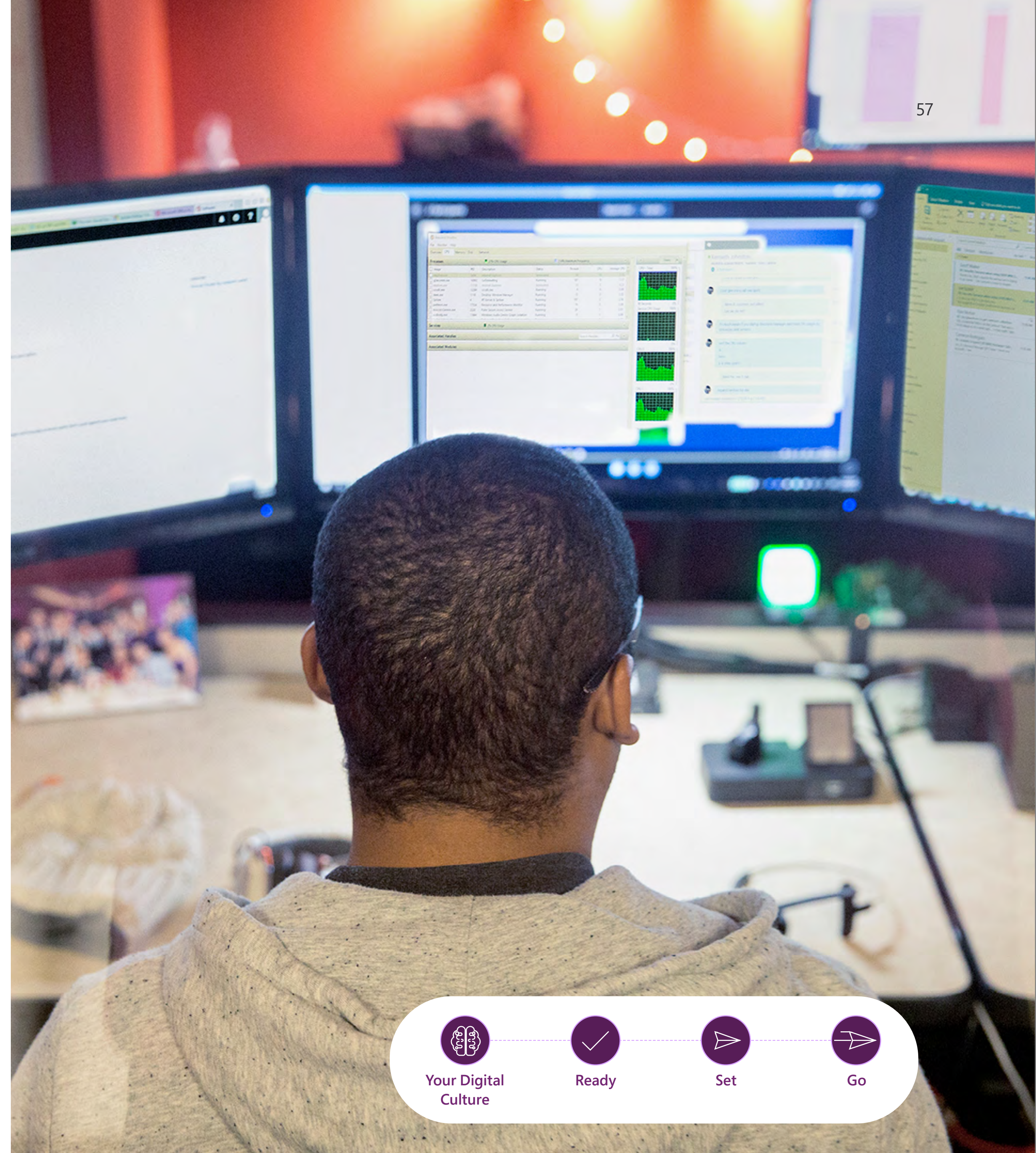
Creating a Center of Excellence: Centralized Model

Once the organization has reached the need to create a Center of Excellence, there will be many things to consider. In this model, you create central teams of product owners comprised of business analysts and business owners, citizen developers that own the low-code delivery of departmental solutions from around the organizations business units, professional developers owning code-first solutions working in tandem with the business to deliver in a shared model, architects that own the middle tier and services, and IT owners that own the licensing and systems in which everyone operates. With this model, you create a central team that can pick up development of apps based on organizational properties. Additionally, as they would have foundational expertise in Power Apps, your team will include members who specialize in specific parts of the Power Platform such as Power Automate, Power BI, and the Power Apps Component Framework, or they could specialize in third party integration and artificial intelligence.

The Center of Excellence model is the most effective way to drive change across your organization and is the best to deliver any type of application. Here is a digital briefing from Schlumberger depicting this type of model having grown through both de-centralized and matrixed models. Let's visualize it on the next page.

Your Digital Culture — Ready — Set — Go
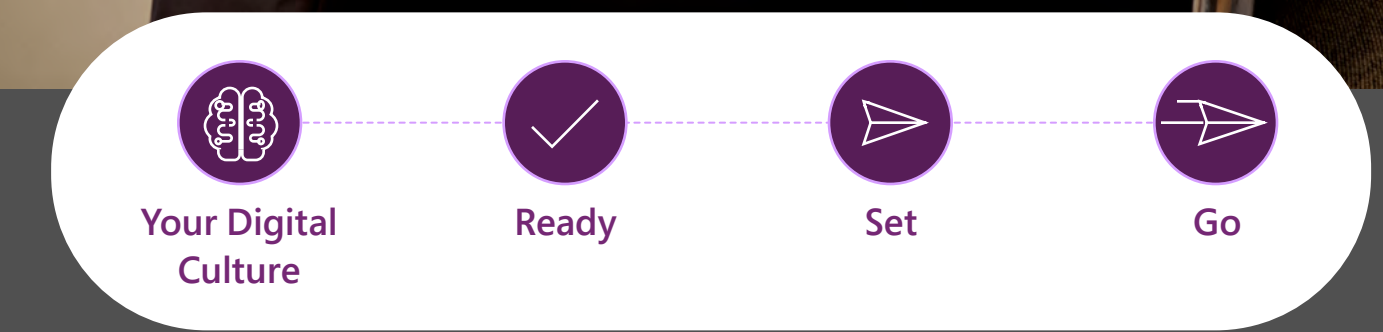
Creating a Center of Excellence: Centralized Model

Type of Application delivery	Delivery model type	Build Time of the application	Lifetime of the application	Examples	IT Engagement
Self-Service	Any	1-2 weeks	6-12 months	Small, departmental or LOB solution.	Decentralized IT
Small teams	Matrixed/ Centralized	3-6 months	6-24 months	Small teams working to deliver medium solutions or multi-dept solutions.	
Multi department or large LOB solutions	Matrixed/ Centralized	3-6 months	6-24 months	Large matrixed teams working to deliver medium and large solutions or intra-dept solutions.	
Large scale product delivery	Centralized	1-2 years	5-7 years	Large product deliveries across an enterprise leveraging a mixture of low-code and code-first Power Apps solutions along with vendor and 1st party solutions.	Centralized IT
Large enterprise vendor delivery	Centralized	7 years	10-15 years	Surround strategy for a 3rd party system of record and support framework. E.g. SAP implementation and surrounding it with a mixture of low-code and code-first solutions in Power Apps and other 1st and 3rd party integrations.	

Your Digital Culture   Ready   Set   Go

# Creating a Center of Excellence: Centralized Model

How will people find these great apps that you are creating?

App discoverability is essential when you are at the Go stage. Not everyone can be at every app launch party; maybe new people have joined since the apps where created, how will they find the apps you have built?

One way to solve this problem is to build an internal app marketplace for people to find apps and access training on how to use them. Develop a plan for how you will make the apps you create discoverable by the right teams, roles and people across your organization.
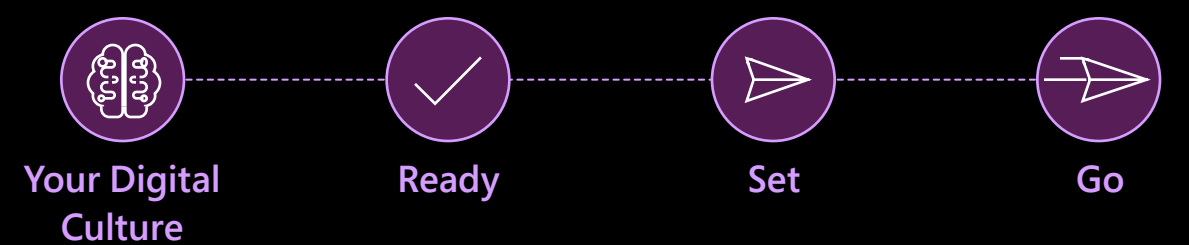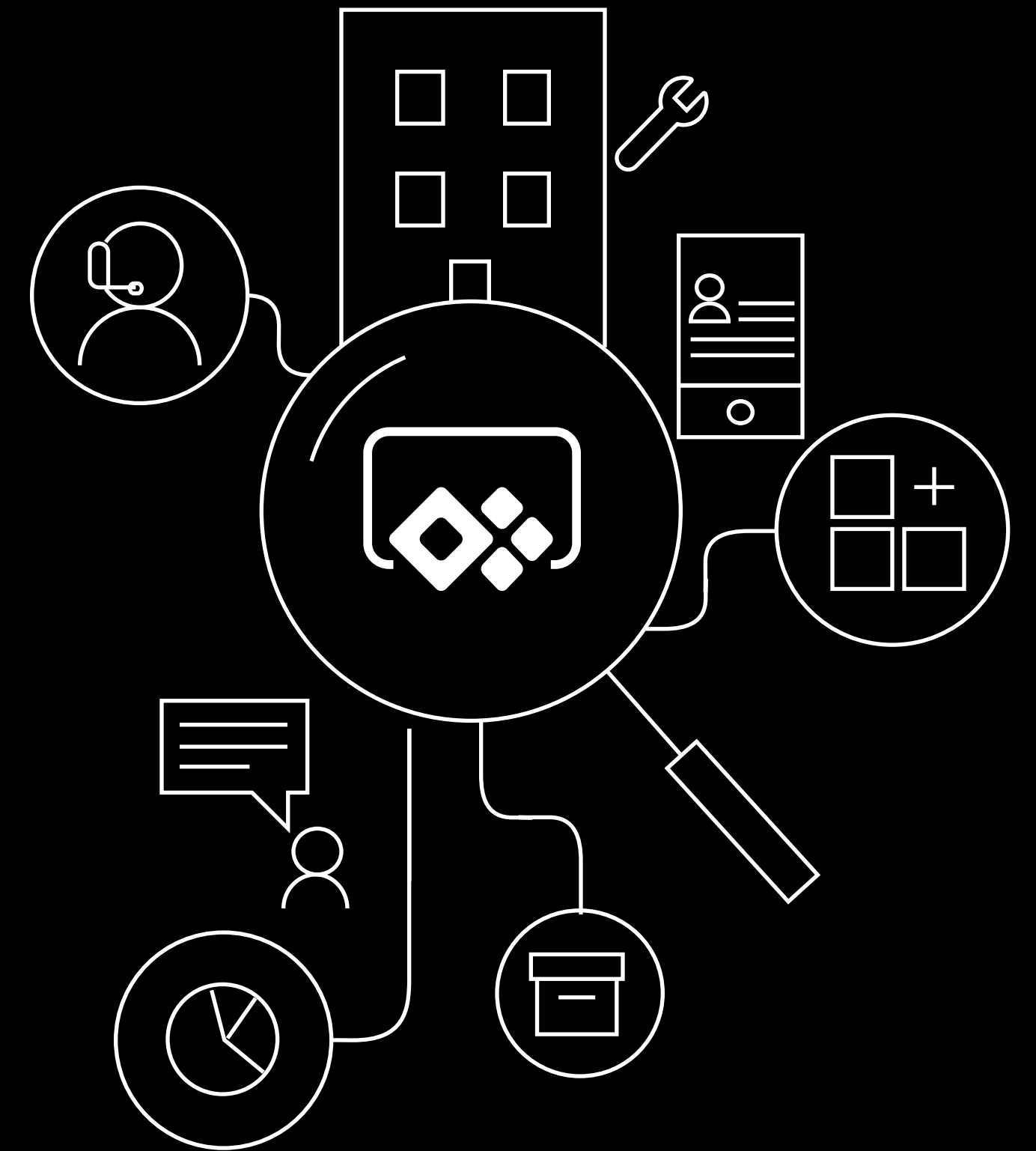
Digital Guardrails
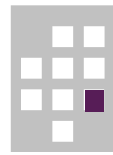
A Center of Excellence developing thousands of apps at scale will require more robust guardrails than at earlier stages. Initially, your focus was on setting up and securing the platform through establishing an environment strategy, setting up DLP policies and ensuring appropriate security roles are assigned. As you scale, you will look at automating some manual tasks and driving actions based on insights you gather from your adoption.

Here's a few things you will be looking at;

- Automate the creation of environments for developers by building a request and approval process for them to follow
- Implement Application Lifecycle Management by using the Azure DevOps Build Tools
- Automate the clean-up of unused environments, apps and flows
- Identify critical and production applications based on usage, and promote them to appropriate staged environments (development/test/production) to ensure changes made in development do not break end-users in production
- Establish an automated process for makers to provide more information about their apps, such as business justification, impact of an outage and risk assessment to allow you to get a better picture of what your makers are building
- Continue to measure the business value your makers and apps add to showcase the impact Power Apps is adding to your organization
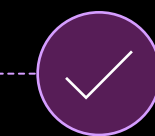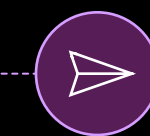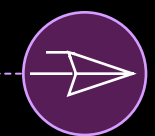
Your Digital Culture   Ready   Set   Go

Go Checks

☑ Celebrate your wins visibly to inspire people across your organization to get involved.

☑ Decide on the model that suits your business needs.

☑ Map out the skills and gaps of your team and plan for growth.

☑ Regularly review project impact, you can learn more from failures than successes.

☑ Develop a plan for how the apps you create will be discovered.

☑ Learn about artificial intelligence and AI Builder.

☑ Scope opportunities to expand your impact with Machine Learning.

☑ Case study your successes, record videos, see if you can make it go viral inside your organization.
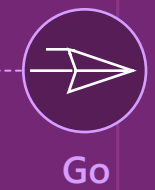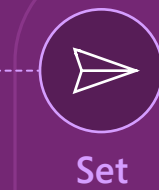
You're good to Go

You are now a mature app creation team; you are agents of positive change in your organization. By this point, the many people that have been involved in the various apps you have created will hardly recognize how far they have come. They may have started out in roles within your organization that were not involved in building software; now they are leading teams building apps. Like many, they have become technologists. They have developed skills that will enhance their careers for years to come. They may have developed their skills so much that the value they bring to the organization means they are rewarded more than they thought was possible. That's the beauty of Power Apps, it allows people to embrace a digital culture and build amazing apps that create massive impact, and in the process find that they have learned skills to set them up for a future in app making.

Your Digital Culture

Ready

Set

Go
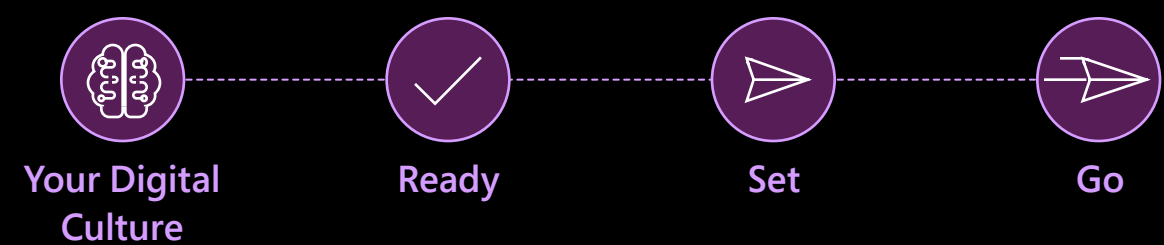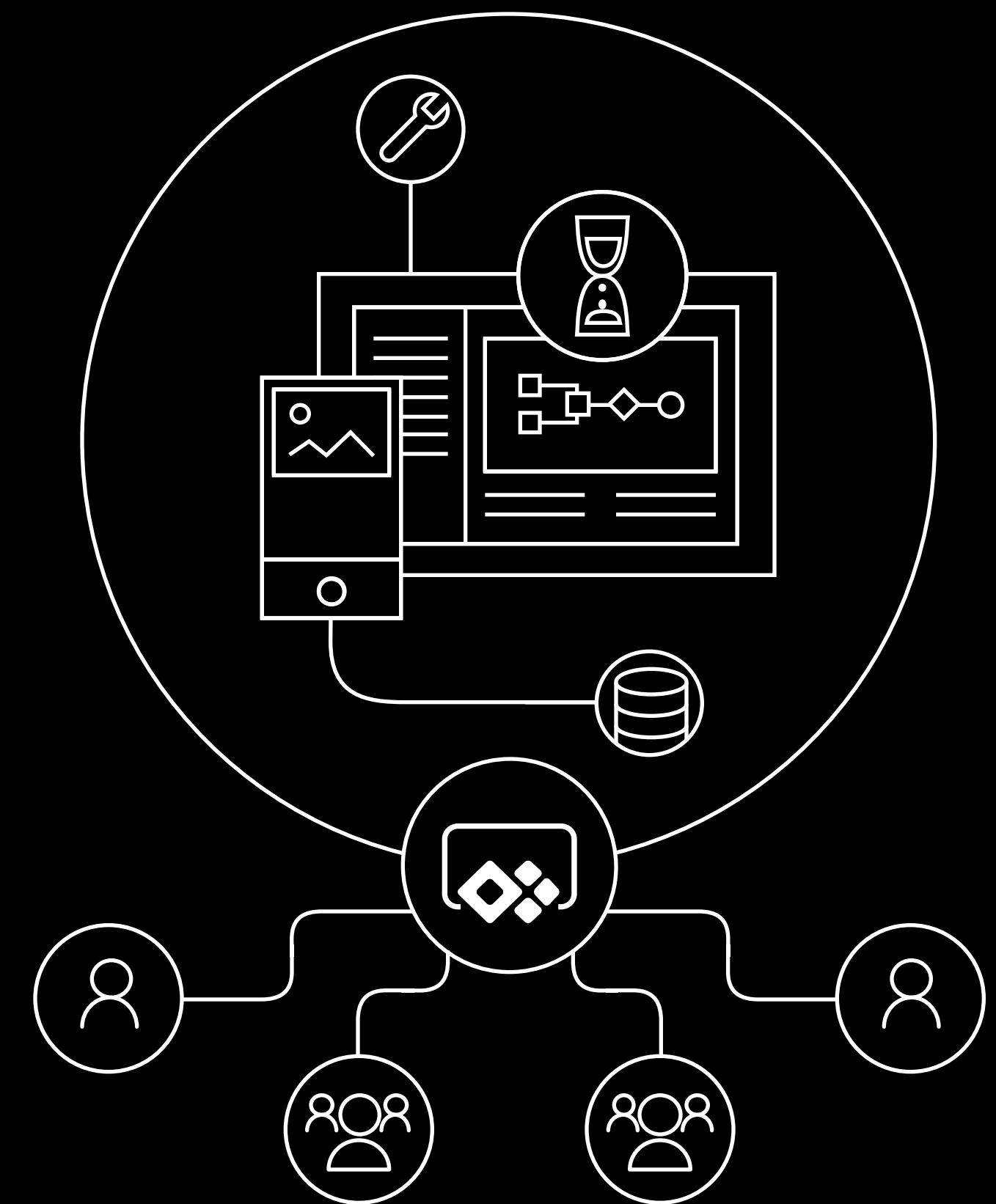
You're good to go

Powerapps.com

Congratulations on working through the innovators guide to low code and bringing innovation, change and a digital culture to your organization!

Microsoft