

Building new apps quickly, while staying fully in control

How the public sector can safely
embrace low code app development



Contents



A world of apps and opportunity

It's been 10 years since we first heard the phrase “software is eating the world”, with the prediction that major industries “from movies to agriculture to national defense” would increasingly be delivered as online services.¹

A decade later, there's no debate about it. Digital tools and apps have become the foundation of how organisations operate. They enable employees to work productively, and they help meet the rapidly changing expectations of customers and citizens.

From slow and legacy processes » To fast and lean apps

Organisations know that modern digital apps are good for productivity and user satisfaction. It's a huge driver of the digital transformation movement that all sectors are tackling.

The goal is to replace old, clunky processes with simple, mobile-friendly apps. And the impetus has never been as strong.

Pandemic restrictions have highlighted the need to make more services digital. Citizens have been unable to access essential services in the normal way, and employees have had to adapt to new ways of working remotely.

Apps have become central to the rapid digitisation of how we all live, work and interact over the last 18 months – and it's a trend that shows no sign of slowing down.

By 2023, over 500 million digital apps and services will be developed and deployed... the same number of apps developed in the last 40 years²

1. Marc Andreessen, [Why Software Is Eating the World](#), August 2011

2. IDC FutureScape, [Worldwide IT Industry 2020 Predictions](#), October 2019

Delivering on the demand with low code

Now that online service delivery is expected by default, the big challenge for many organisations is how to practically deliver all the apps that people want.

In 2015, Gartner estimated that demand for apps was growing five times faster than the capacity of IT teams to build them.³

Gartner

What's more, 86% of organisations find it hard to recruit technical talent.⁴

indeed[®]

3. gartner.com/smarterwithgartner/how-to-deliver-enterprise-mobile-apps-faster/

4. indeed.com/lead/impact-of-tech-talent-shortage

IT backlogs – unblocked

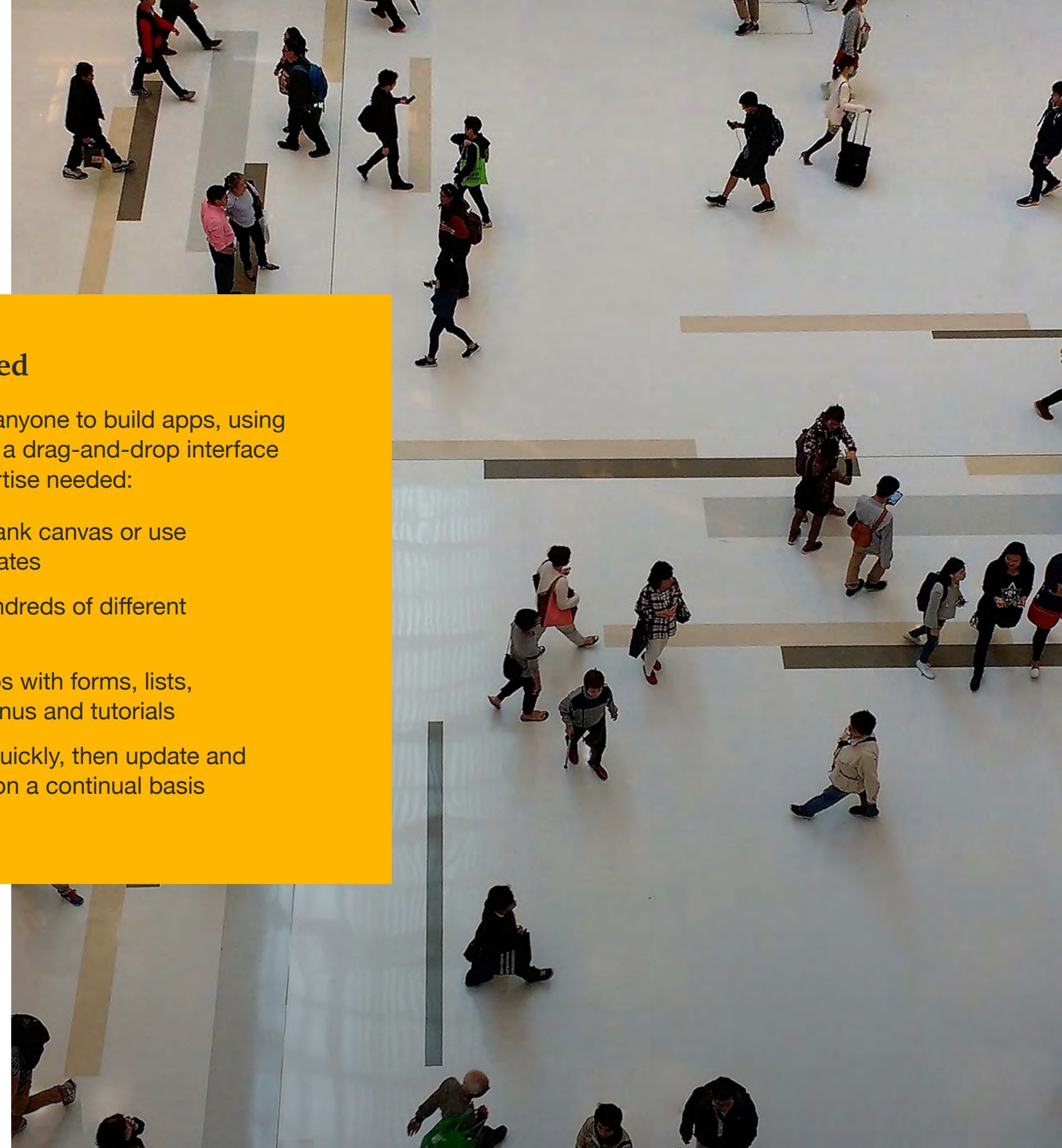
To meet this supply and demand challenge, there has been a big rise in the use of low code application platforms (LCAPs) – which allow apps to be developed by anyone, not just professional IT developers.

There are many of these solutions now available, and appetite is growing. For example, in the enterprise space, Gartner predicts that 50% of medium to large organisations will have an LCAP in place by 2023.⁵

LCAP explained

A simple way for anyone to build apps, using intuitive tools and a drag-and-drop interface – no coding expertise needed:

- Design on a blank canvas or use pre-built templates
- Connect to hundreds of different data sources
- Customise apps with forms, lists, drop-down menus and tutorials
- Launch apps quickly, then update and improve them on a continual basis





Innovation – at speed

Low code app development allows organisations to be far more agile and responsive to changing customer and citizen expectations.

Individual departments can develop their own apps, at their own speed, without being reliant on IT budget and resources. In fact, it can help bring IT and service delivery teams closer together, where they work in partnership to enable rapid innovation.

Importantly, by creating apps on a recognised industry platform – like the Microsoft Power Platform – you also benefit from regular updates and new developments. This helps cut in-house development costs, as you can leverage the ongoing research and investment that goes into the platform itself.

Health warning!

There are huge benefits of low code apps – but don't let them get out of control

When you implement an LCAP for your organisation, you can quickly launch hundreds of apps to digitise more of your services and processes. Passionate, creative and innovative people will spot new opportunities to simplify how they work and to serve citizens in smarter ways.

However, there are potential downsides. As many sectors have discovered with trends like Shadow IT and BYOD, giving people more freedom over how they use technology can create entirely new burdens for the IT department.

The low code pay off



Users

We have the freedom to innovate and create new apps ourselves!

As a team, we're collaborating more and spending less time on manual processes.

Which means we're delivering better services to citizens.



IT

Yes, our backlog of development jobs has shrunk.

But now we're faced with:

- More apps to upgrade and maintain
- New security risks to understand and mitigate against
- Additional processes to integrate with established systems
- More user training and support requirements
- Inconsistent ways of working across the organisation
- Apps that weren't created in line with our IT strategy and KPIs

PwC and Microsoft

Helping users create low code apps...

PwC has partnered with Microsoft to help public sector organisations in the Middle East embrace the potential of low code app development.

We see Microsoft's Power Platform as the smart choice for organisations who want to quickly launch apps that:

- Look and feel familiar to anyone who already uses products from the Microsoft ecosystem
- Connect to hundreds of existing data sources, including third-party systems like SAP
- Work with new and emerging capabilities as soon as Microsoft releases them, such as AI Builder

Additionally, Microsoft now has a physical data centre presence in the Middle East – making the Power Platform an even more reliable and viable option for the region's public sector.

while keeping your IT landscape under control

Along with the right technical solution, PwC will also help you put the right governance structure in place too.

This means that any app created by your user community will be done so in a structured way – in line with agreed standards and controls.

We'll look at everything from security and compliance to user adoption and citizen outcomes.

Our goal is to ensure that your creative ideas are transformed into robust and workable apps, and that you also have a framework for monitoring and improving their performance over time.

Power Platform an even more reliable and viable option for the region's public sector.



Everyone's platform for low code transformation

With Power Platform, everyone is empowered to build scalable digital solutions with familiar Microsoft tools – regardless of their technical skills.



Get started quickly

Go from identifying an operational problem with data-driven analysis to imagining, building and launching your own solution with powerful yet intuitive tools.



Work with familiar tools

Create seamless applications, workflow automations, dashboards and other capabilities using easy-to-use low code tools that feel just like using PowerPoint and Excel.



Launch across the organisation

Build time-saving workflows into everything from individual tasks to large-scale systems, and quickly launch intelligent solutions thanks to built-in AI capabilities.



Power Apps

- Use Power Apps to rapidly create web and mobile experiences using a drag-and-drop interface
- Build once and deploy apps in one click across iOS, Android, Windows and the web
- Customise every detail of an app to optimise for specific tasks, roles and industries
- Enable pro developers to create reusable components they can share with citizen developers
- Connect to data using pre-built or custom connectors



Power Automate

- Expand and improve business processes with integrated RPA workflows
- Send automatic reminders for past due tasks
- Move business data between systems on a schedule
- Connect to over 370 other data sources or any publicly available API
- Create a flow once and enable makers to use it across the Power Platform



Power BI

- Enable everyone to create real-time dashboards and interactive reports using low-code tools and pre-built formats
- Empower end-users to explore and personalise visuals based on their unique needs
- Add dynamic, interactive narratives to reports with the flexibility to edit language and format



Power Virtual Agents

- Create powerful chatbots, without the need for code or AI expertise
- Integrate chatbots with the products and services you use every day
- Look up records, personalise conversations, hand off conversations to live agents and call APIs
- Choose from hundreds of pre-built connectors, build custom Power Automate workflows and create complex scenarios with Microsoft Bot Framework
- Monitor and improve your chatbot's performance using AI and data-driven insights



Data connectors

- Built-in connectivity to 350+ cloud services, content services, databases, APIs, etc.
- Seamless hybrid connectivity to on-premises systems via the on-premises data gateway.
- Develop and register custom connectors as a building block for citizen developers.
- Connect data silos by using multiple data sources in a single application.
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AI Builder

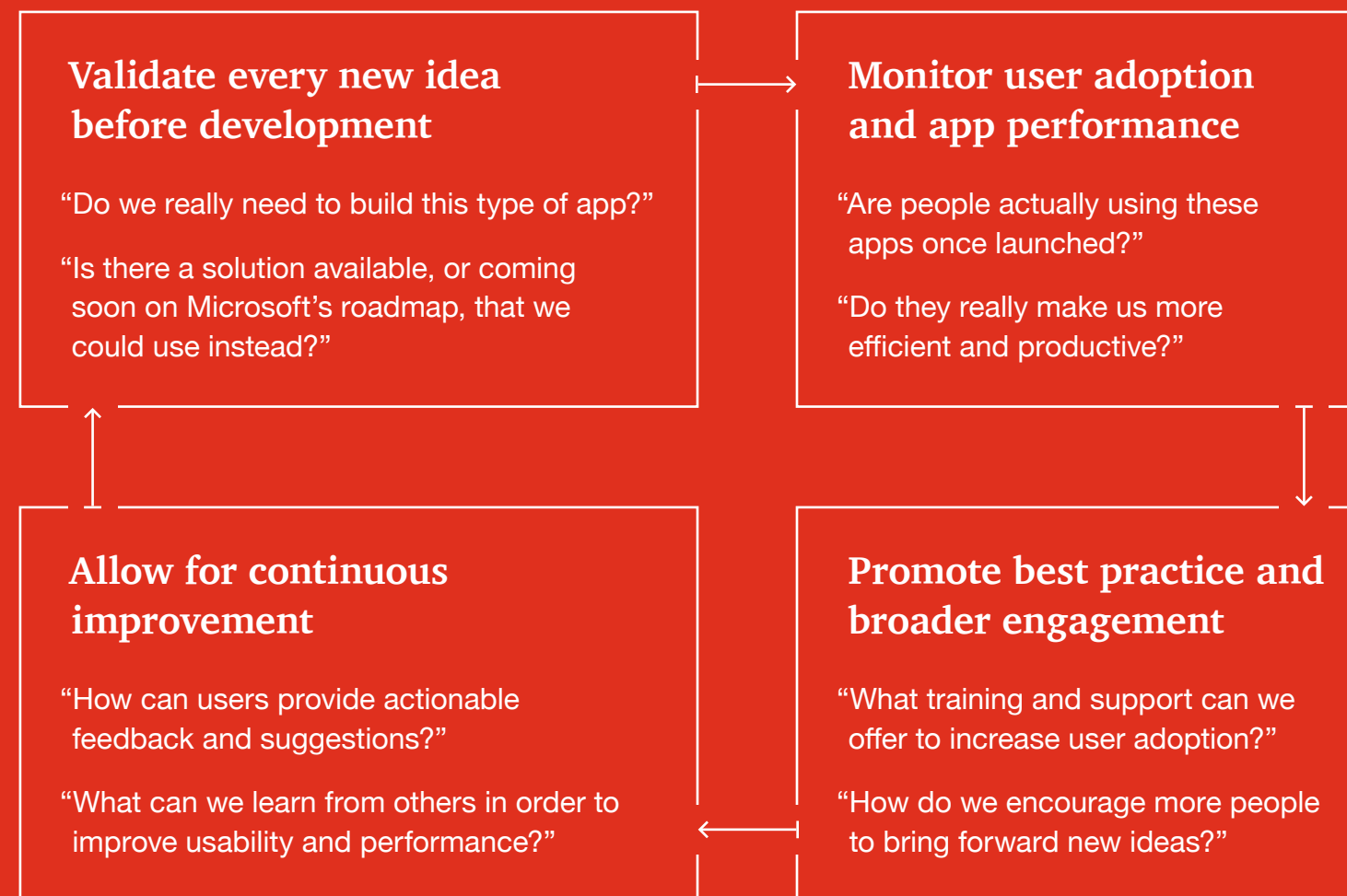
- Use the power of Azure AI to create low code AI solutions on the Power Platform
- Automate tasks and predict outcomes without having to involve data scientists
- Access data from Azure Data Lakes thanks to native integration with Common Data Service
- Leverage predictions directly from Common Data Service across your Power Platform solutions

A dedicated partner on your low code journey

PwC will help you put the right arrangements in place around the Power Platform, so your low code landscape works effectively from day one – and long into the future.

Getting the most out of low code transformation requires good governance and guardrails to avoid app overload.

PwC has worked with many organisations, across different industries, to establish an agreed approach – which we think of as an “idea loop”. It’s all about asking the right questions at every step of the journey, and putting the fundamentals in place for lasting success.



Whatever your starting point...

If you’re completely new to low code, we can help get you started with a pilot project to showcase what’s possible.

From there, we can establish a framework for future expansion – advising on the right type of governance, monitoring, training and improvement processes for your specific goals.

Or maybe you’ve started using the Power Platform already, and now want to put a governance layer in place to formalise how apps are developed in the future.

We can help you take a step back to review your progress to date, improve on what you’ve built already, and advise on the best approach to unlocking more low code opportunities.

Our Centre of Excellence (CoE)

The PwC Center of Excellence (CoE) is a collection of best practices and methodologies designed to help you get the most out of your Power Platform investment.

Our CoE drives innovation and improvement, bringing together like-minded people to share knowledge and success. Through a few simple steps, you can run projects and ideas by experts to identify areas for improvement, add value, and ensure you remain on track with your business goals.

Working with PwC’s Center of Excellence



Ensure balance between people, processes, and technology



Build applications in a managed, secure, and compliant way



Measure success and identify areas for improvement



Help define roles and responsibilities for all stakeholders



Increase user adoption and engagement



Align newly introduced applications with your existing IT landscape



Empower users to deliver quality applications



Build applications based on best practice and industry standards

Why work with us

PwC has successfully delivered over

300 projects in the region

and over 1700 globally with Microsoft since 2015

PwC named:

Leader, IDC Marketscape, worldwide cloud professional services – 2020

Leader: Forrester Wave Microsoft Dynamics 365 Services 2019 report

Major player: Worldwide Microsoft Implementation Services 2019 in the IDC MarketScape

50+ PwC

solution offerings built on Microsoft technology

PwC employs 5000

Microsoft certified experts resources globally with over 250 based out of the Middle East

500,000+

organisations are using the Microsoft Power Platform every month

Microsoft is a “leader” in low-code development platforms

according to Forrester and Gartner

Microsoft is continually improving the Power Platform – for example, releasing

383 new features between Oct 2019 and October 2020

Microsoft Power Apps can

reduce the average cost of app development by 74%

PwC in action: COVID-19 vaccinations

Vaccine management has been the top healthcare priority across the globe in 2021.

With entire populations to coordinate, it's been the biggest vaccination programme in history. It's a complicated process. One that requires more coordination, project management and analysis than governments and healthcare systems can manage.

Which is where PwC and Microsoft come in – with vaccine management looked after by PwC and tech background support controlled by Microsoft.

Working together, they've been able to get vaccine programmes up and running quickly in a number of countries; keeping a record of who has been vaccinated and making sure patients are seen safely.

Real-time reporting and better monitoring has allowed for faster response times. Programmes have been able to quickly adapt to new variants and any changing circumstances.

Utilising Microsoft's familiar tools, and combining them with simple integration points, has also meant that there has been minimal need for upskilling teams. A vital asset when health care services are working around the clock to keep people safe.



Building the Profitability Estimator and Tracker

PwC used the Power Platform to build our complex Profitability Estimator and Tracker. Designed to replace a macro-based Excel sheet, it has drastically reduced the number of steps required to price new projects and track quotes through internal systems.

The new microsite portal allows colleagues and customers to collaborate across estimates and requires no software-specific expertise.

Building the Profitability Estimator and Tracker

The new Profitability Estimator and Tracker is based on an existing Microsoft Dataverse framework, allowing PwC to:

- Build and deploy the new platform based on out-of-the-box common tables, extended attributes, semantic meanings, and an open ecosystem.
- Scale applications based on demand, to improve efficiency and reduce costs.
- Use built-in business logic and rules to identify and resolve duplicated or conflicting data.
- Rely on a trusted platform – with advanced encryption, rich access control, and deep integration with Azure Active Directory.

Power Platforms low code development process means it can be supported by non-developers. Saving time and money, and freeing skilled resource for other tasks.

Ready to build new apps, with speed and control, on the Power Platform?

Contact your local PwC or Microsoft contacts to take the next step and arrange a personalized 'App in a Day' session.

Throughout the day, we'll get you to build an app tailored to your business needs – so you can see how it works in real-time. We will work with you to take you through the Power Platform, holding a few training sessions on the fundamentals.

Or, if you're already got the platform in place, we can help you implement the right framework for sustainable low code app development that will deliver maximum value from your investment.

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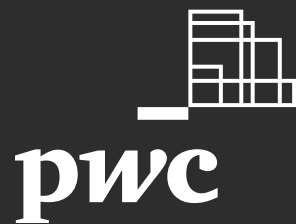
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About PwC

At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 155 countries with over 284,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

Established in the Middle East for 40 years, PwC has 22 offices across 12 countries in the region with around 6,000 people. (www.pwc.com/me).

PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.

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