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eBook

Power Apps Adoption Strategy: When, Where, and How to Start_
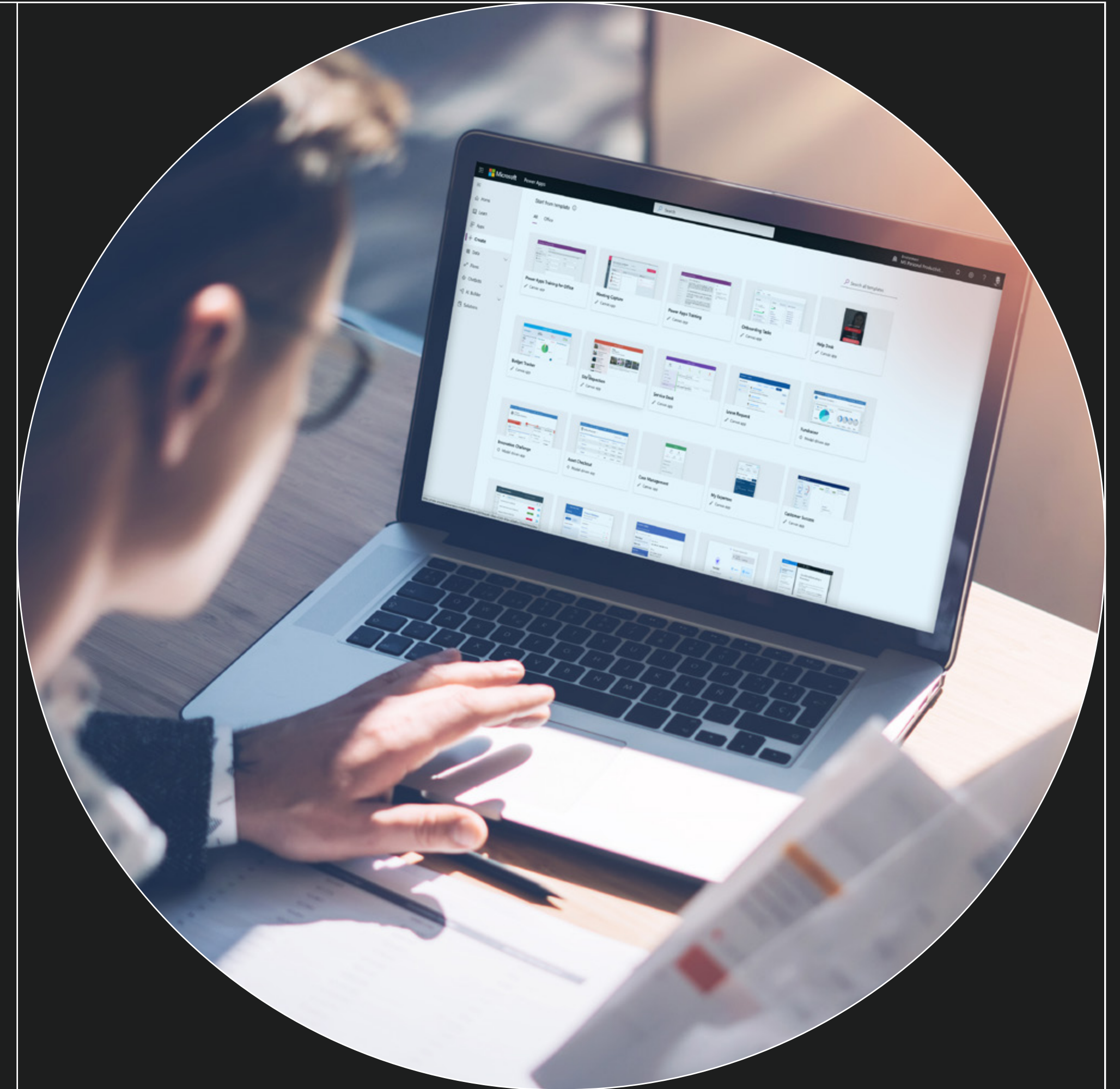
Table of Contents_
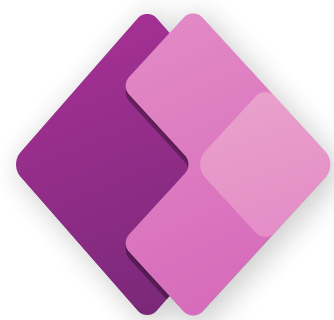
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What Is Power Apps?_

Microsoft Power Platform

The low-code platform that spans Office 365, Azure, Dynamics 365, and standalone applications

Power Apps
Application development

Power Automate
Process automation
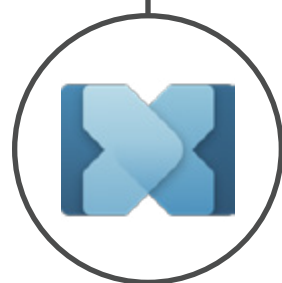
Power BI
Business analytics
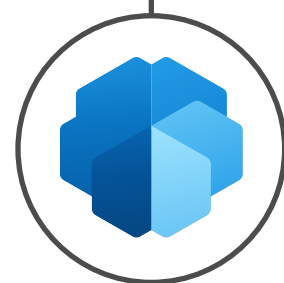
Power Virtual Agents
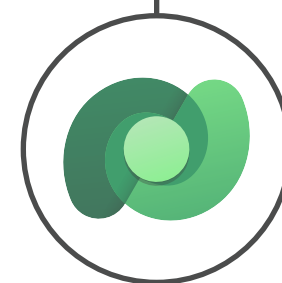Intelligent bots

Power Pages
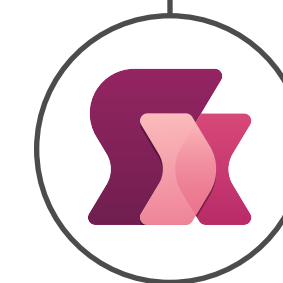External websites

Data connectors

AI Builder

Dataverse

Power Fx

Managed Environments

Power Platform is a suite of low-code tools for building apps, workflows, AI bots, and data analytics solutions. One of its key offerings is Power Apps.

Power Apps is a low-code, enterprise-ready app development environment that business users and professional developers alike can use to build custom internal applications.

Power Apps helps reduce the backlog of IT projects by providing every user with accessible technologies for automating menial work: document management, data processing, appointment bookings, procurement requests, and more.

Although the brand name may sound new, Power Platform originates from technologies Microsoft has been developing since the 2010s. Power Apps, released in 2015, democratized access to traditionally expensive and complex enterprise-grade technologies for business administration (Dynamics, Dataverse, and SharePoint among others). What's new is the front-end layer of graphical tools and premade software components, which make coding tasks accessible to non-professional developers.

With our Power Platform, we are enabling anyone with a big idea and the passion to make a difference to maximize their impact and transform their organization for the better.

Satya Nadella, CEO of Microsoft

Power Platform Evolution Timeline

		Low-Code App Development Tools
	Cloud Dataverse	Core Commercial Microsoft Systems
Microsoft Dynamics		

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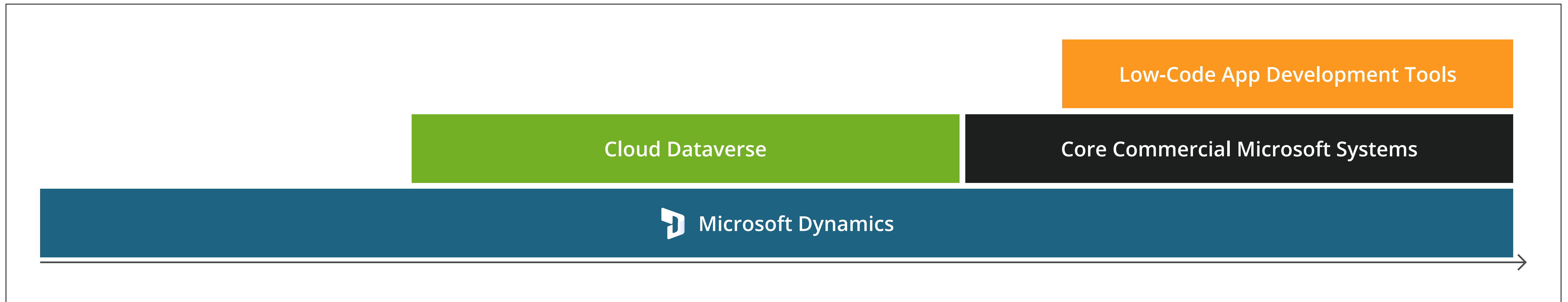
What's Inside the Power
Apps Toolkit?_

One Power Apps license provides access to a set of diverse capabilities for citizen-driven and professional app development.

Creator Kit

A collection of pre-made components, code snippets, references, and other utilities for low-code app development. Creator Kit simplifies the process of designing new products to a PowerPoint-like experience of dragging and arranging visual elements.

Component Framework

Full-feature framework for developing APIs and custom code snippets, optimized for performance and reusability. With the component framework, professional developers can seamlessly create and distribute new Power Apps functionality to the entire organization. Customize users' experience for working with dashboards, forms, or canvas app screens, plus expose extra data and product capabilities to citizen developers.

Fluent UI

Microsoft's official design system and UX framework for creating cross-platform applications. Develop your own apps using the same components Microsoft does in its products — with accessibility, internationalization, and performance included.

Microsoft Dataverse

Formerly known as Common Data Service (CDS), Dataverse is a cloud-based data storage and management service that allows Power Apps to store and retrieve data from various sources, including Microsoft Dynamics 365, SharePoint, and other connected databases.

Azure Services

Include advanced features in Power Apps by integrating various Azure services — from Azure functions for custom logic development to Azure Cognitive Services to benefit from Microsoft's innovation in computer vision, generative AI, and advanced analytics services. Microsoft provides an ever-expanding set of native APIs, SDKs, and services that integrate with Power Apps.

Power Apps amplifies connectivity, convenience, and efficiency of your workforce

Because Power Apps (and its parent — Power Platform) uses the same core technologies as other Microsoft products, the company rapidly scaled its capabilities across different environments: Dynamics 365, Office 365, and SharePoint among others. Users can now **create automated workflows and custom mobile products** for most of Microsoft's business products, as well as work with data from third-party systems via custom and premade connectors.

Power Apps brings continuity to process execution. Instead of doing manual data copy-pasting, accessing multiple systems, and constantly switching between products for this or that, your teams can **execute an end-to-end process automatically from one interface.** Power Apps also reduces the complexity of interacting with software systems. Instead of exposing all the data and features to certain employee groups, you can provide them with quick, on-the-go access to the essential features they need to do their work.
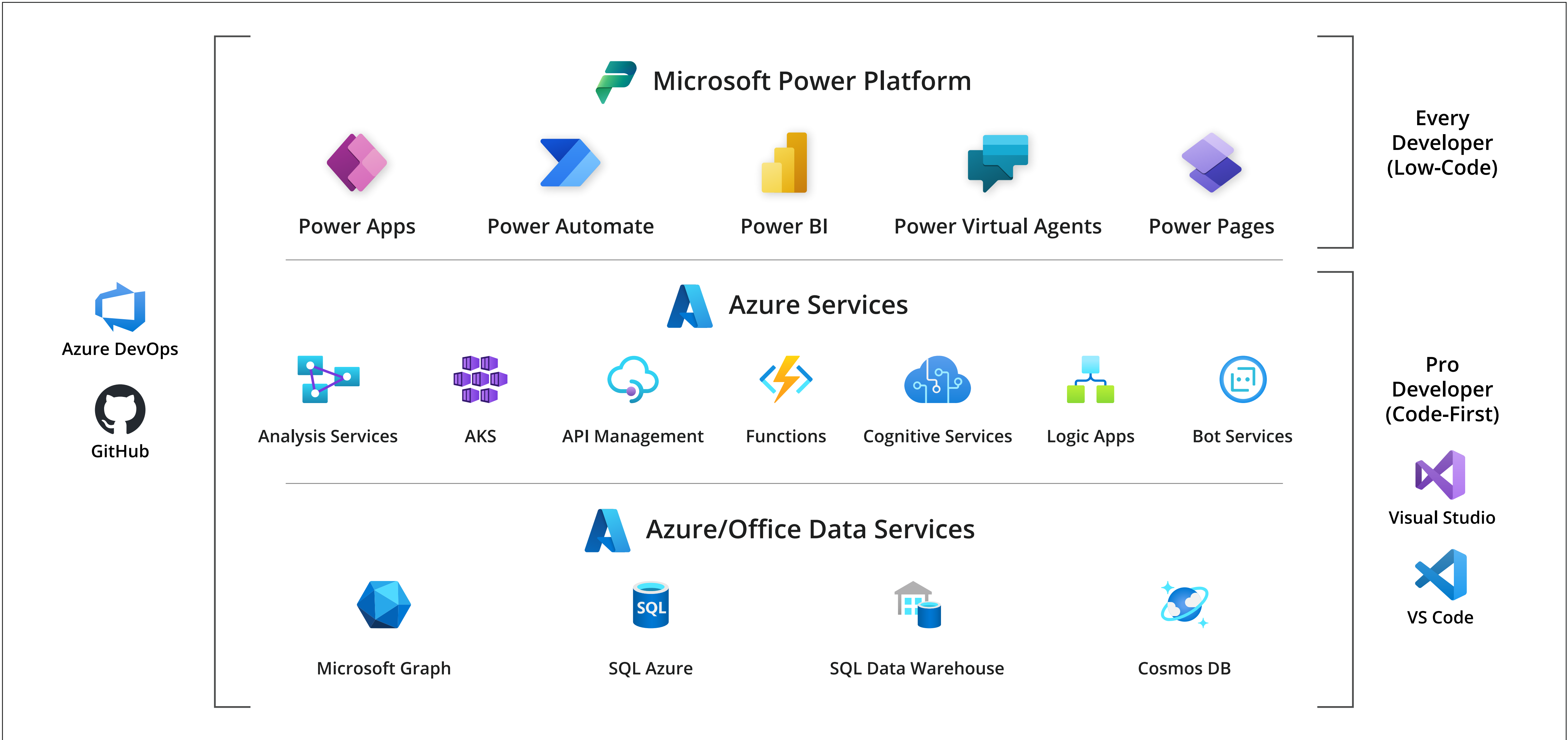
At the same time, Power Platform integrates with professional developer tools like Azure Services and Visual Studio. In this way, developers can **create new software products faster by mixing low-code and code-first services**, using their preferred languages and tools in the existing development environment. Pro developers can provide new UX components for business users to leverage in visual building environments, expose extra data sources, codify custom business logic, and execute centralized application lifecycle management to automate common build and deployment tasks of your applications. The combination of low-code and code-first approaches makes the average cost per application developed with Power Apps 45% lower compared to traditional app development[1].

> **Power Platform is the extensibility model for Microsoft 365, it's the extensibility model for Dynamics 365, and by the way, it can integrate with Salesforce, it can integrate with Workday, it can integrate with SAP.**
>
> Satya Nadella, CEO of Microsoft

[1] The Total Economic Impact™ Of Power Apps

Microsoft Power Platform

Every Developer (Low-Code)

Power Apps
Power Automate
Power BI
Power Virtual Agents
Power Pages

Azure DevOps

GitHub

Azure Services

Analysis Services
AKS
API Management
Functions
Cognitive Services
Logic Apps
Bot Services

Pro Developer (Code-First)

Visual Studio

VS Code

Azure/Office Data Services

Microsoft Graph
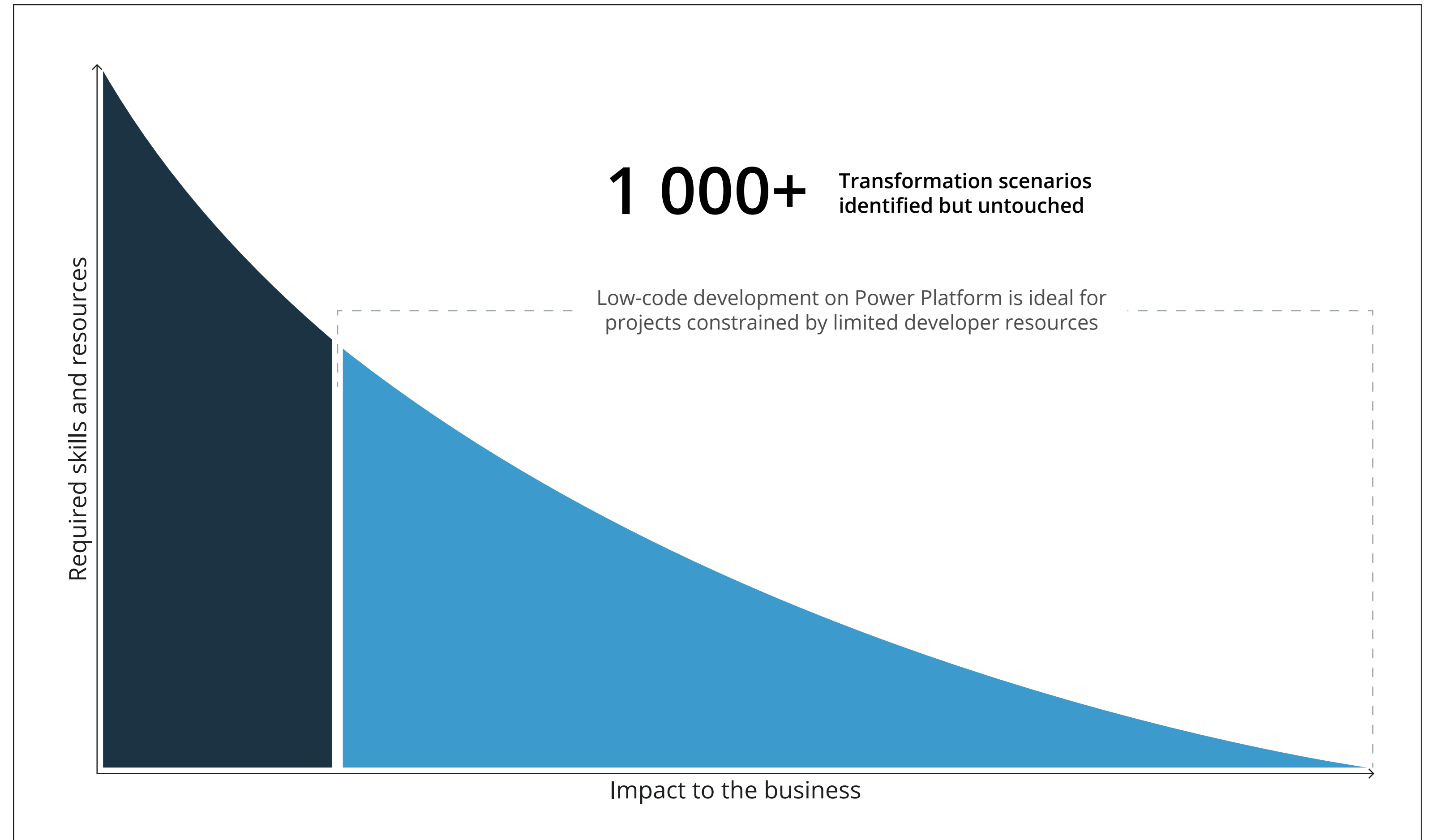SQL Azure
SQL Data Warehouse
Cosmos DB

Power Apps brings speed, effectiveness, and agility to app development_

By combining low-code and code-first capabilities, Power Apps helps organizations automate a wider range of operational processes at faster speeds and lower cost.

- Business users (citizen developers) can build apps quickly using a variety of out-of-the-box UI components, premade automation scripts, and custom business rules.

- Power Apps gives access to 350+ data sources out of the box, to business software such as SAP, ServiceNow, Workday, and Salesforce among others. Custom connectors can be created for exposing extra data sources.

1 000+
Transformation scenarios identified but untouched

Low-code development on Power Platform is ideal for projects constrained by limited developer resources

Required skills and resources

Impact to the business

The Total Economic Impact of Power Apps[2]

+140%

Improvement in ROI over 3 years

-45%

Reduction in app development costs

+3.2 **hours per week**

In employee productivity gains

6 **months**

Average payback period

○ Pro developers can extend low-code apps with more sophisticated features using familiar programming tools and custom client-side components. They can create a database of standardized, reusable components and vetted data sources, which business users can plug into any number of apps. Resurface data from legacy systems by creating UI and API-based connectors through Power Automate. Infuse advanced automation capabilities into your business products by embedding Microsoft Cognitive Services into Power Apps.

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When to Select Power Platform?_

Most companies fit in the 80/20 rule: 20% of business processes create 80% of the total brand value. These are often automated.

Yet, the remaining 20% of unautomated, low-value tasks end up requiring 80% of the workforce's time and effort every day.

Digital transformation efforts are underway, with almost every organization making steady progress in digitalization and new software adoption. Although 70% of companies are piloting automation in one or more business functions, **less than 20% of companies have already scaled automation** technologies across multiple parts of the business[3].

The two most common reasons for that are the costs and complexity of scaled automation. Few business processes today are canonical, meaning off-the-shelf business solutions cannot fully cover end-users' needs. The changing shape of internal and external collaboration, as well as business models at large, also leave users frustrated with the available digital solutions, often implemented decades ago. Combined, these result in several "circles of hell" business users have to navigate every day to complete tasks on their agenda.

Process Hell

Companies transitioned from vertical hierarchies to flatter organizational structures. With collaboration now happening on more levels and data flowing in every direction, companies feel increasingly constrained by linear legacy processes. Newly assembled

cross-functional teams deal with unstructured processes requiring switching between multiple apps and communication mediums. Ongoing data dispersion creates information asymmetry with different units (even in the same department) lacking the full business context and acumen to perform their work. Such a silo reduces operational efficiencies, delays project execution, and ultimately erodes profits.

Moreover, processes are now spilling over the corporate perimeter, with the average company now having 27 partners, while **the most successful digital ecosystems have about 40 partners from up to 5 different industries[4]**.

To achieve greater synergies, organizations require a unified environment for managing joint ventures, strategic cooperation, shared compliance, and an array of B2C deals.

Collaboration Hell

New democratized leadership styles and a greater focus on effective delegation require new collaboration environments and leaner processes for decision-making. However, what starts as a virtuous cycle of increased

[3] Mckinsey: Your questions about automation, answered.

[4] BCG: What does a successful digital ecosystem look like?

collaboration soon turns vicious. Executives now spend most of their time in meetings, with **71% citing these meetings as unproductive and inefficient** and 65% saying that these keep them from completing more important work[5].

At the lower levels, collaboration also often lacks efficiency. Studies have found that 20% to 35% of value-added collaborations come from only 3% to 5% of employees[6]. These "extra milers", however, eventually get overtaxed with assistant requests, which hinders their personal productivity. Worse, their contribution often ends up being overlooked as they're silently helping various units, departments, or even companies. As a result, such employees are more likely to quit.

The flip side of this coin is non-existent collaboration, where departments operate as metaphorical islands and maintain limited interactions and data exchanges with other units. Siloed communication hinders the speed of decision-making and creates tensions whenever new collaboration paradigms get introduced from the top levels. For instance, over 40% of organizations named "clash with the company culture" as the leading cause of unsuccessful Agile methodology adoption[7].

The Hell of Excel

Many organizations have grown too dependent on spreadsheets. Yet having data dispersed across multiple Excel documents, instead of a centralized database, limits its visibility, accessibility, and value. When critical business data rests across numerous spreadsheets, employees require more effort to locate, standardize, and analyze the available data, often working with incomplete and/or outdated datasets. Sporadic data storage and sharing also creates extra security risks as Excel docs can be easily exposed to unauthorized users or third parties.

The Hell of Post-M&A

Mergers & acquisitions (M&A) enable companies to obtain competencies and technologies faster to maintain a competitive edge on the market. However, successful deal signing marks the beginning of real work. When done poorly, subsequent technology portfolio and process integration can substantially diminish the value of the recent acquisition. Poorly performed post-M&A integrations result in 4X-5X more IT applications in the portfolio; 2X-3X higher ongoing IT infrastructure

maintenance costs, and a 10X increase in the costs and complexities for further M&A activity or addition of new business applications[8].

Ineffective post-M&A integrations result in 2X-3X higher ongoing IT infrastructure maintenance

In other words, organizations often end up caught between a rock and a hard place: they need to refactor costly enterprise systems to accommodate new technology while avoiding excessive IT portfolio fragmentation and data silos. Teams on both sides of the M&A deal have to deal with duplicate data, inconsistent toolkits, and limited access to corporate results.

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5 Microsoft: Stop the Meeting Madness
6 HBR: Collaborative Overload

7 Digital AI: The 16th State of Agile Report

8 Bain: Mastering Process and Systems Integration After a Merger

The Hell of Legacy Systems

Heritage brands carry the "baggage" of decades-old technology. Despite originating in the late 1950s, COBOL programming language is still used for 80% of in-person transactions in the banking industry[9] and continues to power numerous enterprise applications in healthcare, automotive, education, and government sectors among others. Although relatively robust in performance, COBOL-based systems lack modern functionality and performance characteristics. Moreover, they're challenging (if not impossible) to integrate with newer business systems and applications.

Legacy systems, custom codebases, a different range of databases, and limited API interfaces eventually result in a spaghetti architecture — the case when technical infrastructure becomes so intricate that its effective management and oversight become extremely hard. Today, **60% of executives described their current IT landscape as complex**, and three-quarters of this group says it was so complex as to be unmanageable[10].

[9] Reuters: COBOL Blues
[10] Roland Berger: The Digital Dilemma

Power Apps helps build new simpler links within your organization to reduce the complexities of creating flexible, replicable, end-to-end workflows, representative of the company's structures and new target business model. Simple digital products can replace pointless meetings and endless email chains by promoting streamlined data collection and distribution, briefing people on the latest events to facilitate change management. Internal apps can help build closer ties between team members and departments without hindering employees' personal productivity.

Thanks to its non-invasive nature, Power Apps can be deployed to resurface data from legacy systems and re-package it into more convenient interfaces to break down silos and bring end-to-end execution to processes, previously shared by multiple business systems to achieve IT portfolio harmonization and cost-effectiveness.

Devil's Advocate: When Power Apps Is Not the Right Solution

Although Power Apps is a scalable, multi-purpose platform, it cannot be the answer to every business problem or selected use case. The adoption is unlikely to bring measurable ROI when:

○ Your company doesn't use Microsoft-based business products for most of its operational needs. In this case, you should explore vendor-agnostic robotic process automation (RPA) solutions, which can be deployed across different software vendors.

○ You want to deploy customer-facing applications. Power Apps supports internal application development, meaning the developed apps cannot be distributed to users without a corporate Power Apps license and organizational credentials. If you want to create apps for external usage, consider Microsoft Power Pages instead.

○ You want to implement complex process automation scenarios, requiring multiple data sources, steps, and collaborators for effective execution, as well as capabilities, not currently proposed by Microsoft. In this case, custom application development makes more sense.

Where Does Power Apps Bring the Most Value?_

From agriculture to telecom, the Power Platform is now being used by 7.5 million developers from every industry[11]. By design, Power Apps was envisioned as a product every company could use to develop capabilities not present in the off-the-shelf software. With Power Apps, your teams can create interfaces that best suit their needs and build effective solutions to perform a vast array of business tasks, spanning from low-level administrative support to advanced inventory management and logistics tasks.

" Everyone, no matter their technology expertise, can use Power Platform to have a tremendous impact. It seamlessly brings together the best of both worlds of rapid application development. A rapid application development platform, built from the ground up, to tightly integrate with pro dev capabilities of Azure.
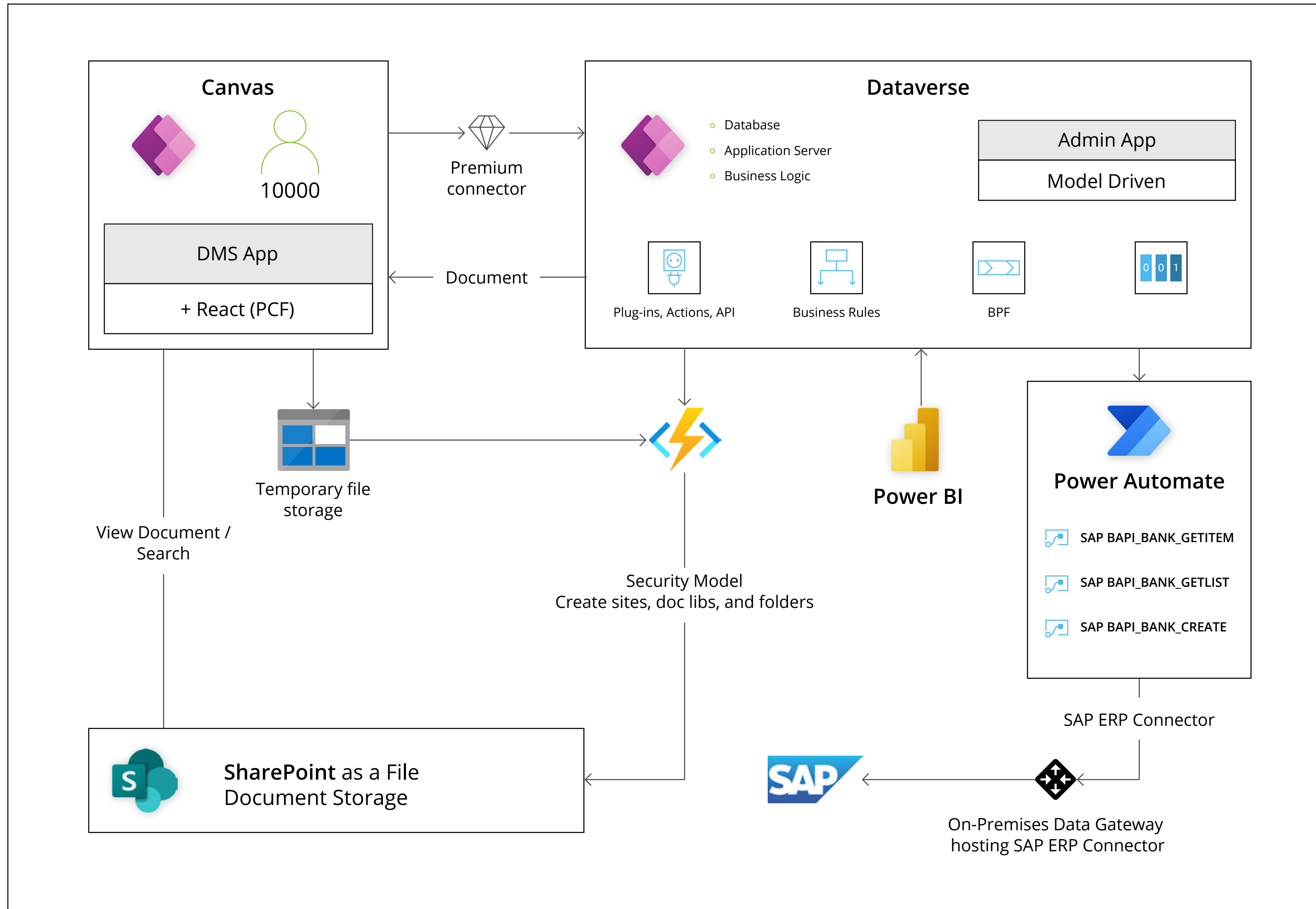
Satya Nadella, CEO of Microsoft

[11] Microsoft: Thank You To the Power Apps Community.

Architecture Overview

Document Management Systems

Microsoft offers plenty of document management solutions — SharePoint Online, Microsoft Teams, OneDrive, and Microsoft Dynamics 365 Business Central. On top of these, many businesses also rely on third-party solutions from SAP, Salesforce, Adobe, and other vendors. With Power Apps, you can build an automated system for managing digital files across systems, replacing manual report downloads or approval requests with automation. Streamline document processing and elevate user experience by bringing the right data in front of the right people from multiple interfaces — web, mobile, and Teams.

Example: DMS that automatically uploads SharePoint documents to SAP and allows easy follow-ups on approvals and deadline management.

HR Applications

Elevate your employee experience by providing them with a convenient suite of workplace tools to connect with colleagues, manage their schedules, and access corporate news. From recruiting and new employee onboarding to payroll calculations and expense management, global HR teams use Power Apps to create delightful employee experiences and unlock extra productivity.

With Power Apps, you can also securely link your external workforce with your organization by providing them with personalized communication tools and access to essential data.
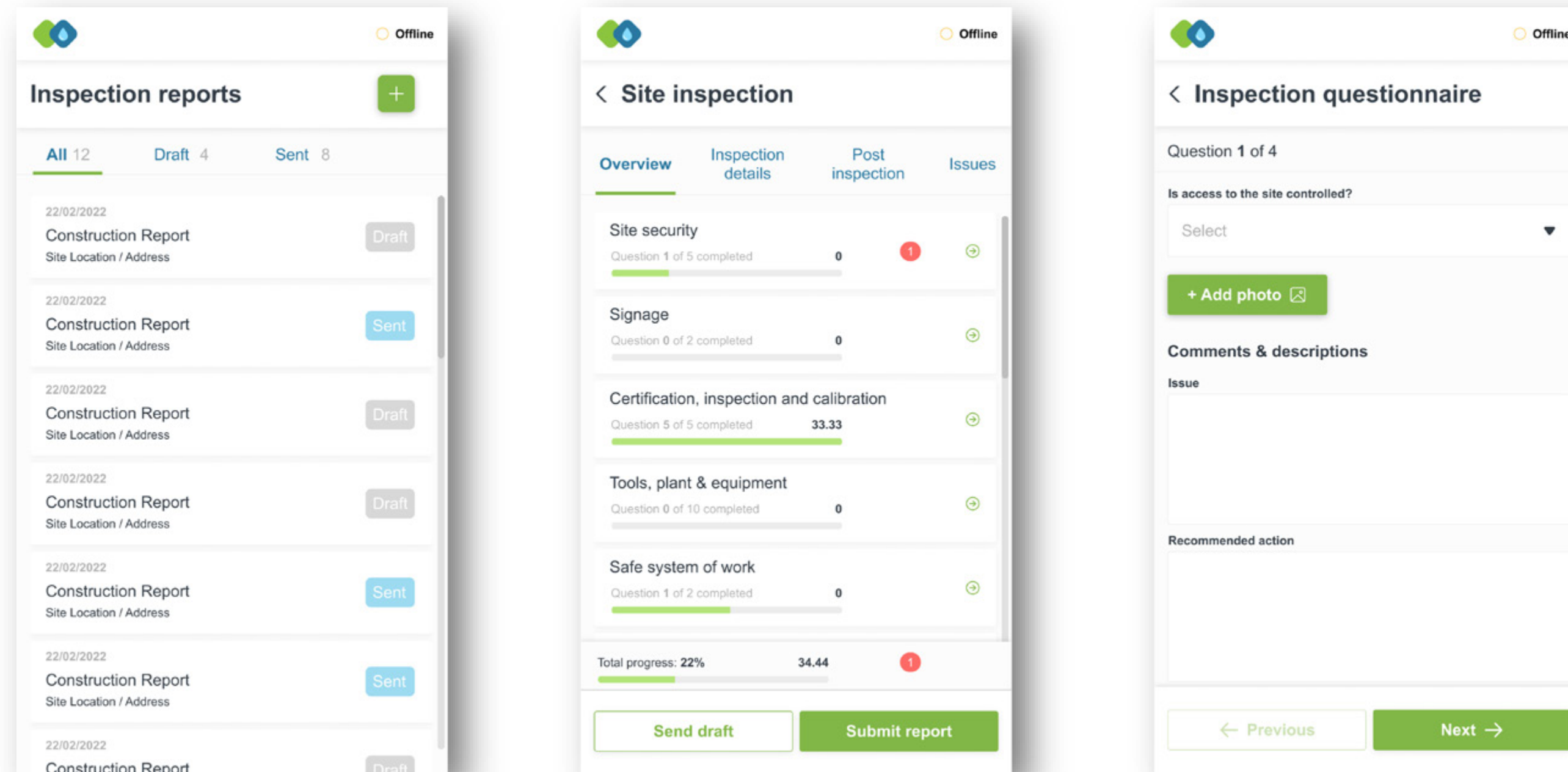
Example: Personalized OKR tree visualization accessible within Microsoft Teams.

Architecture Overview
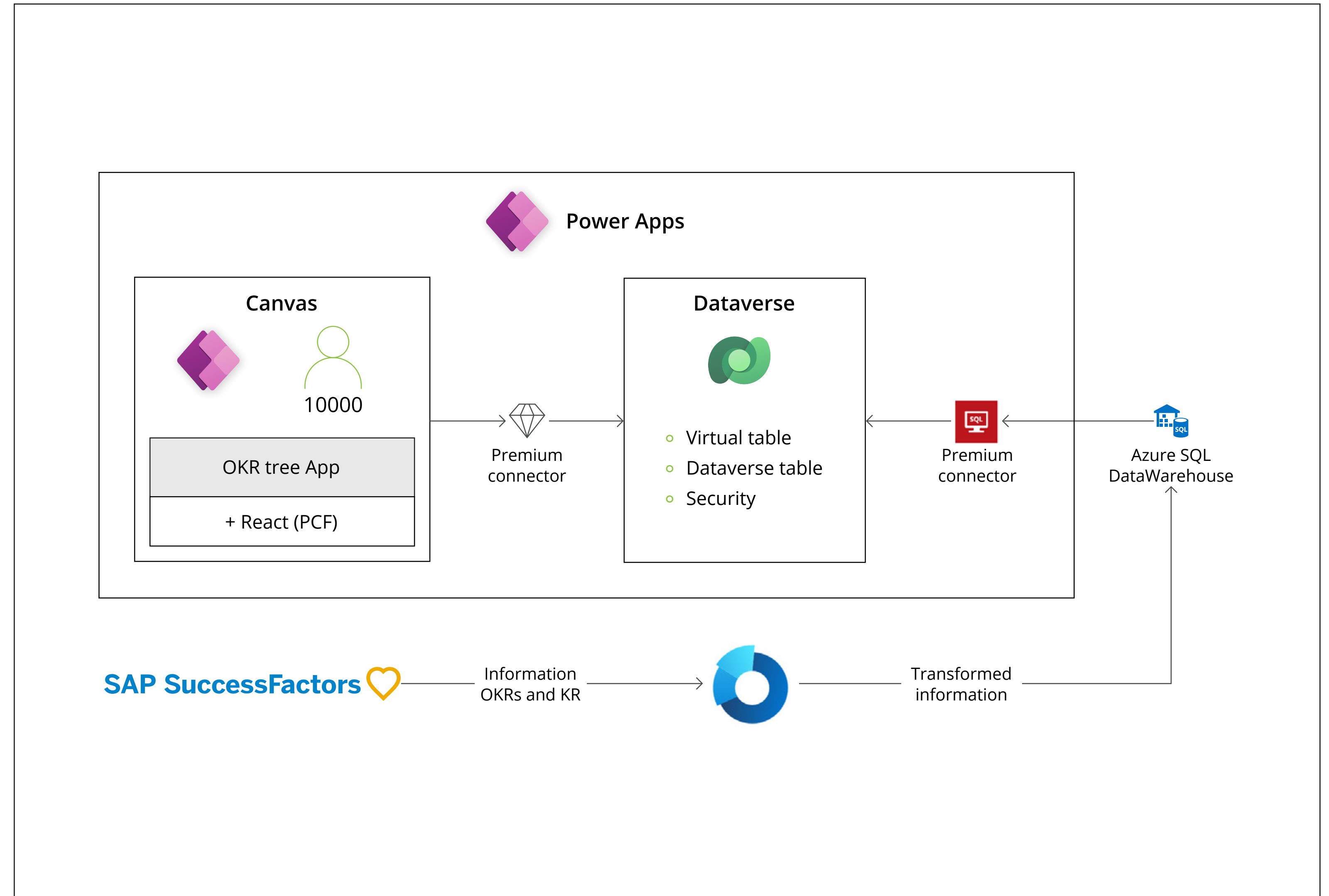
Solution Interface

Data Collection Tools

Rapidly create simple apps for collecting and analyzing data. Employee surveys, customer feedback, status updates, and corporate voting — Power Apps can be used to eliminate endless email chains and redundant phone calls. Moreover, you can further easily analyze the connected data via Power BI dashboards to immediately translate the obtained insights into action.

Example: Tablet app for collecting customer feedback in-store and auto-sharing data with Power BI.

Inventory Management

Low inventory visibility creates ample operational issues downstream — from delayed replenishment to suboptimal assortment selection and unexplainable inventory shrink. Power Apps can bring extra connectivity to inventory management operations by supplying associates with digital tools for doing inventory counts, communicating stock levels, and sharing valuable insights on product performance across categories. Automate processing of inventory data and dynamically update sales analytics in Dynamics 365 with convenient mobile products for frontline workers.

Example: A mobile app with barcode scanning features for scanning inventory and automatic record updates.

Digital Workplace Solutions

Almost 70% of high-growth organizations have enabled productivity-anywhere workforce models[12], enabling workers to effectively perform their duties from any location. Flexible access to corporate data and workplace tools is the prerequisite for maintaining an effective hybrid workforce — an operating model 39% of global knowledge workers will be practicing by the end of 2023[13].
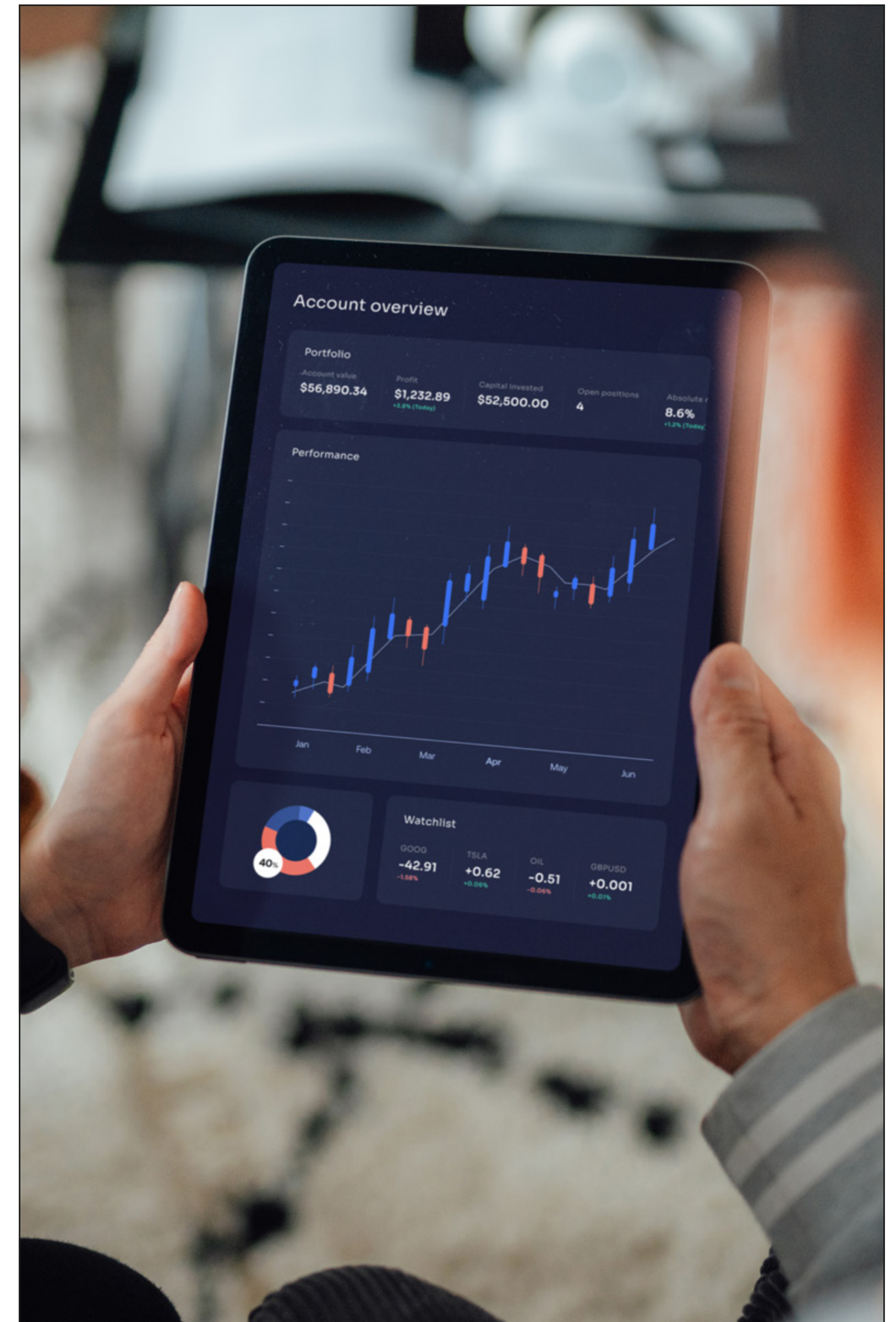
Functional teams, working both autonomously and jointly, in the same location and across different time zones, require digital-first tools for dynamic collaboration, async access to real-time data, and personal productivity management. Power Apps offers a low-cost, streamlined method for creating custom products that your people need to do their best work anywhere.

Examples of digital workplace solutions:

- Knowledge management system
- Schedule management app
- On-site availability tracker
- Mobile onboarding application
- Online training tool
- KPI reporting dashboard
- Shift scheduling and management
- Field worker app
- Time tracking and reporting
- Task management

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Who Already Benefits from Power Apps?_

Every business process can be made more efficient with Power Apps. With low-code technology, every employee can transform their problem (e.g., a lengthy process for collecting feedback on proposals) into an elegant solution (e.g., a business app for automatic feedback collection and response reminders). See how Infopulse clients gain an operational edge with Power Platform.

Simplified grain balance calculations

MHP agro-conglomerate rapidly secured extra operational insights and productivity gains with a new business app for grain balance calculations. Employees can now perform over 100+ calculation scenarios, using fresh data from ERP, and monitor 30+ metrics, covering grain production, procurement, sales, transportation, as well as nutrient and damage control from convenient interfaces.

Meeting booking app

Kernel Holding made meetings more effective with a custom iPad app. Every member of its 11K workforce now has easy access to current meeting room statuses and streamlined room booking experience using Microsoft Exchange and Outlook. The app helps avoid booking conflicts and saves the workforce dozens of hours monthly for more productive tasks.

Back-office process automation

We're helping an agriculture leader roll out a series of Power Apps for improving product catalog & order management, as well as creating new mobile solutions for field workers.

Data collection app for field workers

A European professional service provider streamlined its field audit process with a Power Apps solution. The auditors now have anytime access to key data from a mobile app, featuring a custom-built questionnaire with advanced structure and business rules, connected to an on-premises legacy system for easy data access. Field workers can quickly access multiple questionnaire models, tailored to the specific customer and inspection requirements, plus benefit from error-free data entry.
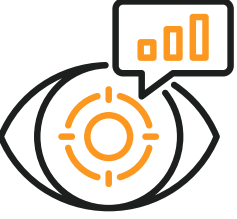
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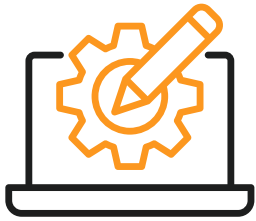# **How** to Prepare for Power Apps Adoption_

Power Apps has a low adoption barrier, offering the possibility to architect the first MVP business apps in the span of several days. However, the flip side of accessibility is the risks of suboptimal platform usage and subsequent high licensing costs (i.e., the creation of redundant or low-value business apps by novice citizen developers). To gain tangible ROI from Power Apps, we recommend formalizing a strong business case for adoption.

Considerations

Future vision Depict 2-3 years program	**Manage Portfolio** Collect the actual and possible projects, estimate project impacts in target technology setup. Compare costs between different approaches	**Digital Strategy** Areas of automation, key platforms, key values (Cloud/Security/Transparency)
Enterprise Capabilities Strategy Insource/outsource, citizen developers	**Understand Technology** Be competent in technology understand components, pros and cons. Understand when it's good and when it's bad, what are costs and benefits	**Understand Design** Understand possible architectures, user experience, quality (non-functional), scale

Key Considerations

Every successful IT project tackles a clear set of business needs, objectives, and target outcomes. Power Apps can solve a broad range of operational issues. Your aim is to record these as formalized programs with a fixed time span, budget, and timeline.

When evaluating different use cases, consider:

○ Areas of automation/adoption

○ Desired adoption impacts

○ Underlying technology

○ Possible architectures

○ Scalability/reusability potential

To **make cost estimates** for different projects factor in user licenses (Office 365, Power Apps, Power BI, Portals) and Azure services consumption (integration, custom business logical development). Microsoft offers a range of Power Apps licensing options, varying from a limited nested license (included with Microsoft Office 365 and Dynamics 365) to a pay-as-you-go pricing model.

Design Approaches

Microsoft supports a wide selection of app development options, ranging from simple SharePoint portals to "hybrid" business apps, meshing together low-code and code-first features. Each approach comes with certain advantages and shortcomings. SharePoint portals are the easiest to set up. Yet the feature range and UI flexibility are restricted, limiting the use cases to internal wiki pages, employee portals, and corporate knowledge systems.

Canvas apps, visually built in Power Apps, support more complex use cases and offer a better web and mobile user experience. Using premade UI components and an Excel-like formula language, citizen developers can build simple products for their day-to-day tasks (e.g., surveys, task management, internal polling, etc.). The downside is that Canvas apps can only leverage data from SharePoint. The upside is lower licensing costs.

Model-driven apps enable access to more advanced functionality and allow users to implement custom backend logic. Users can connect data from multiple predefined data sources, using pre-made connectors or custom APIs to enable real-time data sync. Such a deployment scenario, however, requires a separate Power Apps license, either per user or per app.

In 2023, Microsoft also extended Power Apps support to Teams, allowing the development of custom apps and workflows in Teams by using Power Apps and Power Automate. For example, you can create new workflows for segmenting contact lists and scheduling internal communication updates to different user groups, load training assets directly to a user's Team space; or even build an intelligent chatbot using the Power Virtual Agents service. A Microsoft 365 subscription should cover the simpler use cases, though extra fees may apply for more advanced customization.

	SharePoint App	Power Apps (limited)	Power Apps (full)	Teams App	Custom Development App
Opportunities	○ Classic approach for corporate sites	○ Web or Mobile ○ Low-Code or No-Code ○ Fast way to deliver ○ Better support	○ Web or Mobile UI ○ Low-Code or No-Code ○ Security ○ Backend logic ○ All connectors ○ Fastest way to deliver ○ Better support	○ Modern communication platform ○ Hybrid approach	○ Any design ○ Any technology ○ No licensing
Challenges	○ UI flexibility ○ Custom Development ○ Performance ○ Office 365 license	○ Limited connectors ○ SharePoint data source ○ Office 365 license	○ Power Apps license (per user/per app)	○ Office 365 license ○ Support depends on developers	○ More efforts ○ More project and operational risks ○ Support depends on developers

From an Idea to a Power App, with Infopulse_

An official Microsoft Partner, Infopulse helps organizations establish a Power Apps competence center to build business applications and automate processes in-house.

○ **One week** to build an MVP app, demonstrating the value and capabilities of Power Apps

○ **One month** to a custom Power Apps solution that automates one business process for your business.

○ **One partner** you can rely on for both low-code and code-first app development projects.

Discover our flexible Power Apps Service packages

Choose your option

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