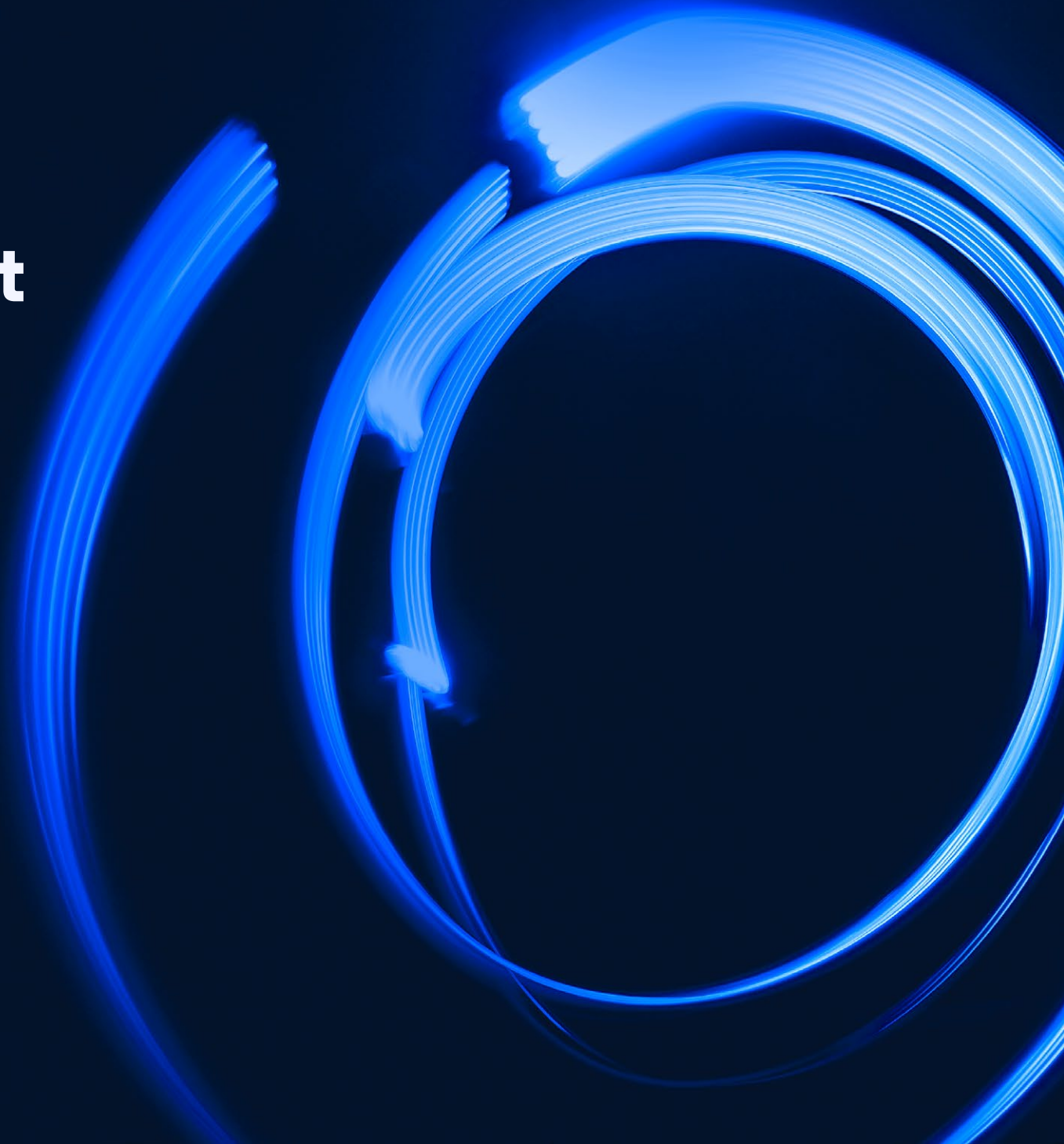




The Hidden Cost of *Legacy Apps*:

How App Modernisation Fuels
Innovation and Growth



Introduction: Driving the Innovation Flywheel

Imagine leading your industry—not by outspending your competitors, but by out-innovating them. What if your tech talent was freed from routine maintenance to focus on breakthrough solutions? This is the power of app modernisation.

But not all apps deserve the same focus. The key is identifying the right apps to modernise—those with the highest potential for real ROI and sustained innovation. Modernising low-priority apps wastes time and delivers minimal value. With Azure AI (Artificial Intelligence), you can infuse intelligence into your apps, automate manual processes, and empower your teams to focus on what matters: creating impact.

In this white paper, we'll demonstrate how strategic app modernisation sharpens your competitive edge, accelerates growth, and drives operational efficiencies. With actionable insights and proven success stories, we'll show you how to make the right choices for your organisation today.



Chapter 1: The Business Case for App Modernisation

Why App Modernisation Isn't Optional

App modernisation isn't just an IT project; it's a strategic business decision. Leading technology teams drive progress with constant innovation. While you might not have their engineering power, **the principle remains the same**. For technology leaders, the question isn't whether to modernise but which applications should be prioritised to maximise value.

Ask yourself: **Can you grow with your current tech stack**, or are you stuck in firefighting mode, unable to innovate?

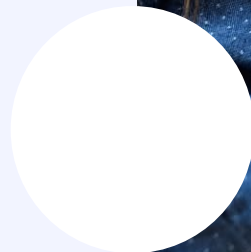
The Hidden Cost of Stagnation

The true cost of outdated systems is hidden in time spent on maintenance rather than innovation. Every pound spent keeping legacy systems alive is a pound that could drive growth.

Unmodernised Apps Are Silent Business Killers

Apps stuck in the past slow growth, stifle innovation, and drain talent. **IT teams stuck maintaining outdated systems can't focus on what matters—creating new, customer-focused solutions**. The result? Technical debt that hurts both morale, momentum and your bottom line..

It's time to **eliminate these barriers** and free your teams to focus on **the future**.



Chapter 2: The Modernisation Process

App modernisation isn't just about moving to the cloud—it's about optimising systems for agility, automation, and fostering a culture of continuous innovation. It enables organisations to address complex infrastructure environments while unlocking engineering potential.

Modernising key applications is essential for creating a self-sustaining innovation cycle. Without this, even top-tier organisations risk their skilled workforce being trapped in maintenance mode.

Balancing Today's IT Realities

Modernisation considers the complexities of hybrid cloud infrastructure environment. While some applications may remain on-premises for performance or cost reasons, others thrive in the cloud. For example, a financial services firm leveraged Azure private AI to modernise risk assessments while adhering to strict security requirements.

Mapping Out Team Time Allocation

The first step in identifying hidden costs is to map how your engineering team spends its time across different activities. Costs are often embedded within existing teams and don't appear as clear line items in procurement or finance reports.

For example, if a highly skilled cloud engineer spends most of their time on manual operational tasks, that's a significant resource with limited business value. **Ensuring your team isn't disproportionately focused on Business-As-Usual tasks is crucial.** Modernising legacy systems frees these engineers to focus on higher-value activities, like developing new product features, optimising costs and building automations.

Freeing Up Talent for Innovation

Outdated systems trap skilled engineering talent in maintenance mode, stifling creativity and growth. **If your technical team spends over 80% of its time on routine tasks, it's time to modernise and reallocate resources.**

Steps for Impact:

- **Map Activities:** Track how time is divided between maintenance, operations, efficiencies and innovation.
- **Quantify Costs:** Assess the true costs of routine tasks and legacy architecture to identify areas to optimise
- **Automate for Growth:** Use tools like Azure AI to automate repetitive work, enabling engineers to focus on strategic initiatives.

By modernising your applications, you not only optimise IT resources but also empower your team to innovate, ensuring your organisation remains agile and competitive in a rapidly evolving landscape.



Chapter 3: App Modernisation in Practice

What does app modernisation really mean? It's a strategic and incremental process. Begin by prioritising apps that directly impact your revenue. These will deliver the highest ROI.

The Road to ROI

Prioritising the right applications accelerates your return on modernisation investments. **Success hinges on making smart app choices to modernise** and quickly getting them to market, or into the hands of your customers.

The Modernisation Process

Modernisation starts with **blueprinting new architecture**, optimising components such as infrastructure, dependencies, and code hygiene.

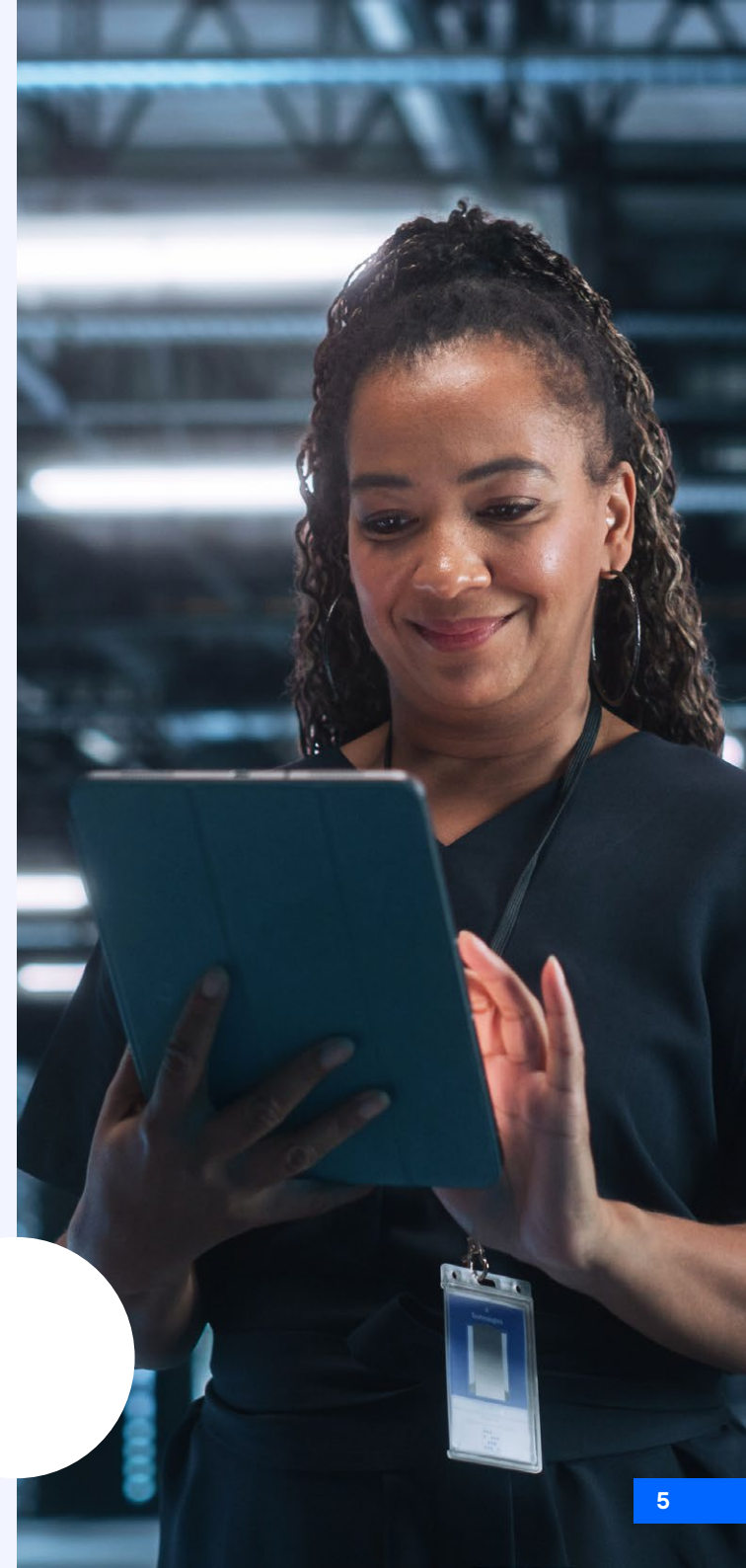
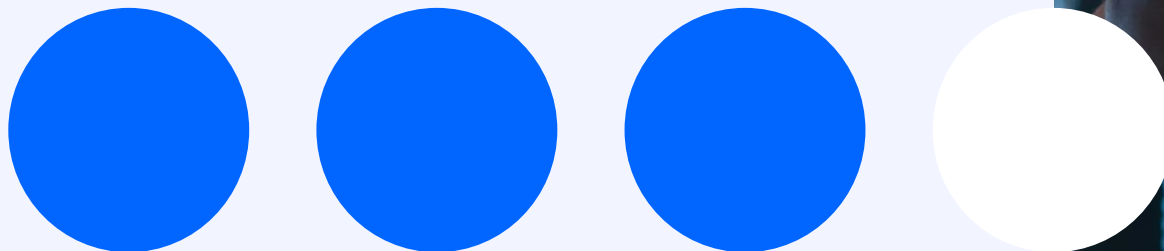
For example:

- Evolvable Architecture: Transition to cloud-native services, which can be loosely coupled, event-driven and stateless, to reduce maintenance and exploit the available automations. This eliminates operational overheads to free up valuable engineering time.

Achieving the Innovation Flywheel

The ultimate goal is to **create an innovation flywheel**, where routine and repetitive manual tasks are automated, allowing teams to focus on driving **customer value**.

For example, a well-known **UK minicab company** transitioned from a legacy on-premises system to the cloud, **containerising their app** to improve system reliability, user experience and free up engineering resources for continuous innovation.



Chapter 4: Modernising Apps with AI: Azure AI Spotlight

AI isn't just a buzzword—it's a tool for transforming how your apps work. With Azure AI, businesses can modernise their apps, automate maintenance, and focus on customer-centric innovation.

AI-Driven Transformation with Azure

Integrating AI into applications is a game changer. Azure's AI capabilities exemplify how cloud-native services can enhance application performance and free up engineering teams to innovate.

Azure AI, including tools like GitHub Copilot, automates operations and maintenance by suggesting real-time improvements to code, identifying bugs, and speeding up resolution times. This **reduces the time spent on code hygiene and break-fix tasks**. Additionally, **Azure AI integrates automated security checks during the build phase of application or infrastructure code**, eliminating manual processes like security handovers.

By identifying vulnerabilities early in the process, **AI streamlines security validation and deployment to production, enabling teams to fix issues immediately and move code into production faster**. This approach significantly improves efficiency and reduces operational overhead, enabling engineering teams to focus on strategic, innovation-driven work while enhancing code delivery velocity.

AI in Action

Many industries, such as e-commerce, use AI to personalise customer experiences, driving higher conversions and customer loyalty. In financial services, Azure AI is helping leading firms to automate compliance checks, freeing up valuable resources for other critical tasks.

Azure Customer Example:

A global mapping and navigation company modernised its app infrastructure with Azure AI, enhancing predictive analytics and customer journey mapping to improve app performance and user experience.

Starting Small

Smaller AI models, though less accurate, offer a cost-effective way to begin modernising, with the flexibility to scale as needed. The key is balancing performance with cost while avoiding unnecessary complexity. Overcomplicating the architecture with too many services can introduce unmanageable complexity, so it's important to carefully select areas for AI integration and ensure each domain is validated before expanding the scope.

This approach reduces risk, lowers costs, and drives tangible benefits without disrupting existing systems.

Integrating Azure AI into modernised applications not only optimises operations but also enables organisations to innovate faster and more effectively, enhancing both productivity and customer satisfaction.



Chapter 5: Getting Started: The Path to Transformation

Getting Started: Leverage App Modernisation for Competitive Advantage

The sooner you begin, the faster you can lead. Here's a practical step-by-step guide to start your journey:

- 1. Start with a Vision:** Align your tech strategy with clear business goals.
Key Takeaway: Modernisation isn't just a tech upgrade—it's a business transformation.
- 2. Assess & Prioritise Your App Portfolio:** Identify legacy apps and focus on high apps that have the highest potential to deliver ROI when modernised.
Key Takeaway: Prioritise apps that deliver immediate business impact.
- 3. Adopt a Cloud-Native Mindset:** Leverage Azure AI to create a culture of rapid innovation. Remember cloud is code & automation that can be continuously re-engineered and improved.
Key Takeaway: Empower teams to innovate fast, using cloud's agility.
- 4. Demonstrate Incremental Wins:** Start small and show proof of concept before scaling.
Key Takeaway: Demonstrate incremental success to build momentum.
- 5. Partner for Faster Transformation:** Work with experts like Telefónica Tech and Microsoft to fast-track your cloud journey.
Key Takeaway: Partnering with experts accelerates your transformation.

The real challenge in app modernisation is shifting from a "keeping the lights on" mindset to one focused on driving **business change and efficiency**. **Strong leadership** and **partner support** are crucial to overcome these barriers.

Benefits of Partnering with Experts

As you begin your app modernisation, consider the cultural shift your teams will need. Moving to cloud-native solutions is complex, and many teams may lack the expertise. Partners like Telefónica Tech can help bridge that gap.

A trusted partner guides you through the transformation, from planning to execution, ensuring a smoother transition. While there may be upfront costs, the long-term benefits—like freeing up developer time and eliminating inefficiencies—make it worthwhile.

Key Takeaway: Partnering with experts accelerates your journey, allowing your team to focus on high-value projects while managing the transformation complexities.

Conclusion: Create a Culture of Relentless Innovation

The best organisations don't view app modernisation as a one-off project. It's a culture. A mindset. A relentless drive to innovate and evolve. That means empowering your teams to constantly ideate, experiment, and build new technologies that move the needle for your business. Let your engineers run with it—pilot new ideas, test new architectures, and if something doesn't work, pivot quickly.

Key Takeaway: The pace of change is relentless. Embrace it. Cultivate an environment where your people feel empowered to innovate, fail fast, and succeed even faster.



Call to Action: Ready to Lead the Way in Innovation?

Ultimately, application modernisation isn't just an IT priority. By eliminating inefficiencies and optimising performance, it reduces costs, lowers carbon footprints, and streamlines operations. More importantly, it empowers the wider business to adopt technology faster, driving long-term value. With AI-driven tooling, it's now possible to pinpoint improvements that deliver tangible benefits for both IT and end users.

Start your app modernisation journey today with Telefónica Tech.

[Start Your Transformation](#)

About Telefónica Tech

Telefónica Tech unlocks the power of integrated technology, combining **expertise in Data & AI, Cyber Security, Cloud, Business Applications, and Modern Workplace**. We bring together the **best people, best tech, and best platforms**, supported by a dynamic partner ecosystem, to **make a real difference** to every business, every day.

