

# Transforming the pharma lifecycle with the cloud

From research and drug development to manufacturing, marketing, and sales, pharmaceutical organizations are streamlining operations and growing profits with digital technology. Here's how you can use the cloud to fast-track innovation, drive efficiency, and create stronger relationships with healthcare providers and patients.



Drug discovery and development



Manufacturing and distribution



Sales and marketing

## 1 Accelerate R&D innovation

- Pharma companies are under pressure to develop new drugs, but the process takes enormous amounts of time and money.
- R&D costs are increasing rapidly, intensifying the problem.



Microsoft AI can sift through decades of lab data and identify molecules with the most promising characteristics, shortening development time and reducing costs.

By working with Microsoft AI tools, Novartis hopes to shorten the drug discovery process from years to weeks or even days.



8.5 percent

R&D costs have increased by about 8.5 percent per year over the past decade.<sup>1</sup>



The way I see it, one needs to embed AI-based tools – small engines of AI – into every aspect of an organization's operation, so a person who is not necessarily a data scientist can have higher-quality, faster decision making."

Shahram Ebadollahi  
Chief Data and AI officer,  
Novartis

## 2 Build operational agility

- Pharma companies need to streamline their factory operations to scale new therapies ahead of competitors.
- Fragmented on-premises IT processes make that difficult.



Microsoft Azure unifies analytics at scale, providing timely insights to decision-makers across your organization.

With Microsoft's help, AmerisourceBergen transformed from a siloed data environment to a fully formed analytics platform in just nine months. New self-service analytics give business groups the ability to bring information into a unified data layer with the details they need to make better, quicker decisions.

## 3 Create more resilient supply chains

- In the complex and intricate pharma supply chain, one system going down for one second can have a major adverse impact on finances.
- Nevertheless, executives lack visibility into supplier risks.



Microsoft tools improve visibility and resilience.

Johnson & Johnson and Microsoft have been partnering together on the company's digital manufacturing transformation and smart manufacturing.



25 percent

of supply chain executives lack visibility into supplier risks.<sup>2</sup>



We can look at thousands and thousands of data points per second and make decisions where people in the past would wait until something happened. Now, we can say this is going to happen."

Steve Wrenn  
Senior Vice President and Group CIO of  
Global Supply Chain, Johnson & Johnson

## 4 Empower next-gen commercial engagement

- Commercial sales teams get better results when they work together to create precisely-targeted engagements.
- To be effective, they need an in-depth understanding of highly complex products and services.



Microsoft gives teams the skills and collaboration tools they need to create high-ROI interactions.

Thermo Fisher greatly enhanced staff training with immersive learning tools, including digital twins and HoloLens 2.

During the COVID-19 health crisis, the majority of GlaxoSmithKline's 140,000-strong global workforce moved to remote working overnight. Effective collaboration technology became critical to the company's operations.

## 5 Enhance the patient and provider experience

- Patients expect personalized help and user-friendly technology throughout their healthcare journey.
- When clinicians are overwhelmed, AI-based engagement tools can help.



Microsoft has sophisticated but easy-to-use AI tools that save providers time and give patients the help they need.

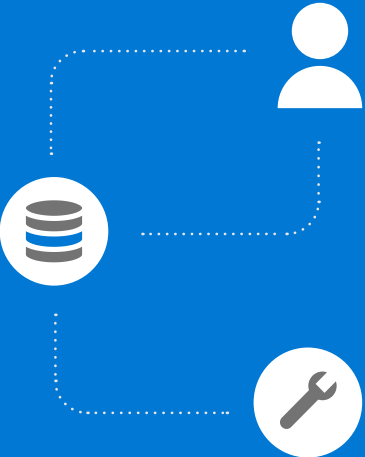
Evolv uses VR and motion capture through Microsoft Azure Kinect DK combined with gamified exercises to complement traditional rehabilitation programs.



Building with Azure Kinect DK guarantees our customers both precision and reliability when tracking and analyzing a patient's movements, with the knowledge that they're getting the equivalent of a gold standard motion capture system at a fraction of the price."

David Fried  
Chief Executive Officer,  
Evolv

<sup>1</sup> "Research and Development Spending to Bring a Single Cancer Drug to Market and Revenues After Approval," JAMA Internal Medicine, 2017.  
<sup>2</sup> "Four ways pharma companies can make their supply chains more resilient," McKinsey & Company, 2021.



Microsoft has one of the largest partner ecosystems related to healthcare, featuring technology solutions specifically developed for the life sciences sector. No matter where your pharma business is in its transformation journey, we can help bring your people, data, and processes together to achieve breakthrough results that make the world a healthier place for everyone.

[Learn more about how Microsoft is empowering life sciences organizations >](#)

Here are some of the Microsoft tools you can use to power your pharma transformation:



Power BI



Microsoft Teams



Microsoft Surface



Microsoft Security



Microsoft 365



Power Apps



Microsoft Azure



Microsoft Dynamics 365



HoloLens 2