Do what matters

When great science isn't enough, how to drive the greatest value

3 value drivers to create compelling clinical data, strengthen scientific collaboration and build operational resilience

Life sciences companies have experienced a wave of innovations since the start of the pandemic – from new treatment modalities, to smart machines, advanced analytics, and digital connectivity.

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What's next: emerging from the disruption

Rising to the challenge, life sciences leaders look ahead to do the impossible again

A multitude of industry-specific and global pressures continue to impact profitability. This includes economic instability leading to increasing costs for labor, raw materials, and transportation. These factors are over and above the persistent price pressures companies already face.

Without pressure there would be no diamonds

Many life sciences leaders faced the pressure created by the pandemic and amazingly met the demand and emerged more digitally savvy than ever before. These same leaders want to get as much value from digital technology, data and artificial intelligence (AI) and the cloud as possible.

As far as what's next, **three value drivers** power an industry tailwind that clears a path for life sciences companies to deliver better treatments faster, in a more affordable, accessible and sustainable way.

Three value drivers clear a path to do the impossible again

1. **Innovation:** Tremendous opportunity exists to modernize research and development methods and reduce time to market. AI applied on massive amounts of data will transform expensive and complex drug discovery processes and increase the hit rate in the search for suitable molecules and save costs.

2. **Digital core:** The integration of data into one cloud platform will double its value. Cloud capabilities will thrive across the enterprise. For example, the cloud enables collaboration hubs where multiple trusted entities can exchange information and learn from each other to solve problems.

3. **Resilience:** The highly sought-after resilient supply chain will become more of a reality. Digital twins and control towers to digitally track and trace end-to-end supply chain will gain adoption. Security remains a priority to prevent potential disruption and protect information.

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Accelerate new discoveries and reduce time to market

The drumbeat on value continues to grow louder meaning drugmakers need to enhance their value proposition.

Using generative models to inspire new ideas, we can help life sciences organizations dramatically accelerate the pace at which they can discover new molecules, materials, drugs, and more.

Innovate, connect and personalize

- **Generative Artificial Intelligence** – Artificial intelligence algorithms that use existing content like text, audio files, or images to create new plausible content is creating new drug discoveries with Microsoft Azure and Open AI.

- **Data Driven Innovation** – Enable researchers with modern tools to query research data quickly. Support therapy decisions, demonstrate post-market efficacy and safety of drugs. With the Healthcare on Azure Cohort Browser, access large data sets, 54 million lives from electronic medical records including longitudinal data up to 12 years, to improve accuracy.

- **Smart Connected Devices and Services** – Rapidly collect digital biomarkers and AI-driven clinical data from connected devices and services for accelerated research and development, enhanced disease management and improved pharmacovigilance

According to Gartner, by 2025, 50% of drug development initiatives will use generative AI

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Grupo Fleury unlocks world of possibilities for employee experiences

Business situation

In recent years, Grupo Fleury, one of the largest and most respected medical organizations in Brazil, has undergone an accelerated process of expansion and the acquisition of new brands to support an integrated, preventive, and hybrid health ecosystem, covering physical and digital offerings.

The highest volume gateway to new business for Grupo Fleury is found in [Microsoft Dynamics 365](#) – the solution that optimized internal communication, simplified management processes and improved team visibility.

Solution

[Grupo Fleury and Avanade](#) chose Dynamics 365 Sales which offers digital sales capabilities coupled with integrated intelligence, providing sellers with adaptive guidance to better serve their customers.

To support the return of face-to-face visits, an app was created for client check-ins, the documentation of meeting minutes and a place to store related meeting information. This was developed using [Microsoft Power Apps](#) – a set of Microsoft smart solutions that dispenses with sophisticated code knowledge. In addition, a B2B relationship web portal was created using Power Apps.

Results

Employees now have visibility to the commercial team and employees are finding the new platform is helping to prevent duplication of work and is enhancing collaboration.

Now, there are plans to fine-tune the solution to support additional needs.

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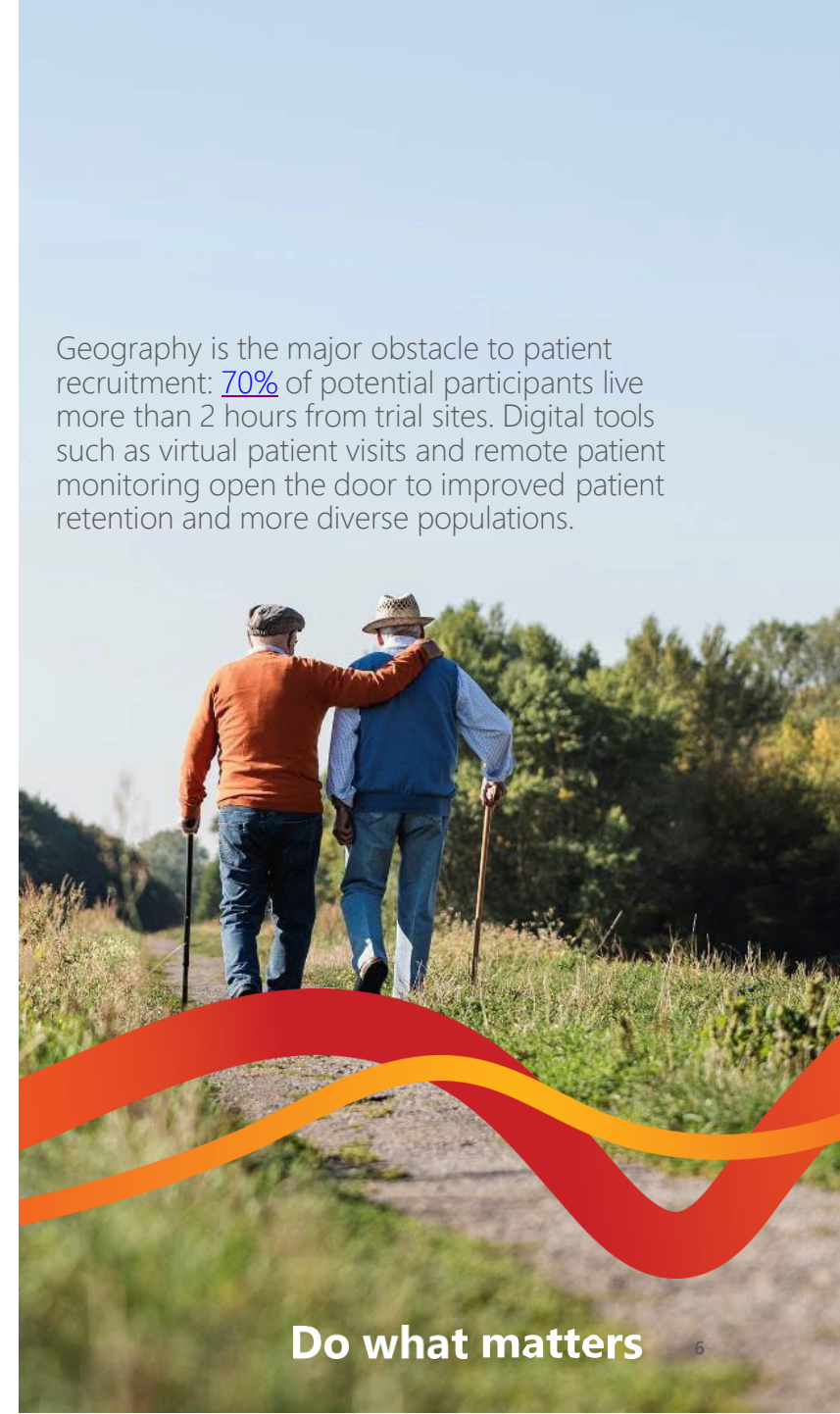# Embark on a new era of collaboration and inclusive clinical research

94% of biopharma executives **say that their organization is pivoting in response to the unprecedented computational power in the cloud. Leaders in life sciences will continue to invest in cloud-based software to accelerate decentralized clinical trials, create collaboration hubs and help reduce the costs of data-rich research and development processes.**

Cloud, data and collaboration

- **One integrated platform** – Microsoft Cloud for Healthcare integrates healthcare applications and systems across Dynamics 365, Microsoft 365, Power Platform and Azure. The Microsoft Cloud delivers a digital native platform required to strengthen an organization's competitive edge and operational performance.

- **Future ready applications** – Life sciences companies can create the data, analytics and technology environments to power new digital applications such as leveraging cloud native services to extract key information from documents and cost-effectively managing large volumes of near-real- time data.

- **Secure collaboration** – Create collaboration hubs to enable secure sharing of public and private research with other qualified researchers and deliver evidence-based therapeutic interventions for faster access to needed medicines and treatment.

Geography is the major obstacle to patient recruitment: 70% of potential participants live more than 2 hours from trial sites. Digital tools such as virtual patient visits and remote patient monitoring open the door to improved patient retention and more diverse populations.

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Fresenius deletes 86% of unused apps before moving to the cloud

Business situation

Fresenius is a global health care group offering high-quality products and services for dialysis, hospitals and outpatient treatment. Its costly, complex IT infrastructure with tens of thousands of unmanaged, offline applications was no longer supported. To enhance the employee experience and complement its broader migration to Microsoft 365, it wanted a user-friendly, collaborative platform. With the help of Avanade, it began sunsetting Lotus Notes and moving to SharePoint and Exchange Online.

Solution

To help ensure applicability and adoption, we consulted 326 IT managers in 161 Fresenius locations in 66 countries. Based on identified priorities, we then helped set up the processes and tools to delete 86% of unused, unmanaged applications before migrating employees to SharePoint and Exchange Online. Our structured delivery approach supported the company's highly regulated environment.

Results

This sunsetting and cloud migration gave Fresenius the modern technology it needs to equip employees with connectivity, mobility and faster support. It provides a better workplace experience that creates sustainable business value. As a result, Fresenius achieved:

• Improved employee engagement and collaboration

• Increased efficiency

• Reduced licensing costs

• Less IT complexity

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Supply chain: From bulk manufacturing to personalized therapies

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- **Supply Chain Platform** – Maximize supply chain data estate investment with an open approach, bringing the best of artificial intelligence, collaboration, low-code, security and software as a service applications in a composable platform.

- **Command Center** – A ready-made command center for supply chain visibility and transformation and part of the Microsoft Supply Chain Platform. A Supply Chain Center works natively with an organization's supply chain data and applications, with built-in collaboration, supply and demand insights, and order management.

- **Digital twins** are a virtual replica of real-world physical objects or processes. Digital twins help track and trace the end-to-end supply chain. They serve as models in several industries and can be used to improve quality and better monitor and predict potential supply chain disruptions.

IDC analysts predicted that by 2023, 75% of life science manufacturers will invest in intelligent supply chain solutions to enable resilience and prevent future disruptions in health emergencies such as COVID-19.

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Ventilator Challenge United Kingdom builds a resilient supply chain

Business situation

As tens of thousands of United Kingdom (UK) residents fell sick at the beginning of the COVID-19 pandemic, many of the most seriously ill required ventilators to help them breathe. With projections that the National Health Service (NHS) could need nearly five times the number of available ventilators, the British government called for a rapid, homegrown solution to make up for the global demand cutting off the supply from overseas.

Thousands of leading organizations from across industries were brought together – branded as the VentilatorChallengeUK Consortium – with a shared goal to manufacture more than 10,000 ventilators in 12 weeks.

Solution

Avanade quickly dispatched a team from across Europe and India to help deliver multiple digital solutions to support the supply chain and ventilator production. We implemented Industry 4.0 technologies, including business applications, data analytics, AI and mixed reality for:

- Rapid supply chain management using Microsoft Dynamics 365
- Ventilator assembly line training with a Microsoft HoloLens 2 mixed/extended reality solution
- Control tower dashboarding using Microsoft Power BI for a single source of truth and production
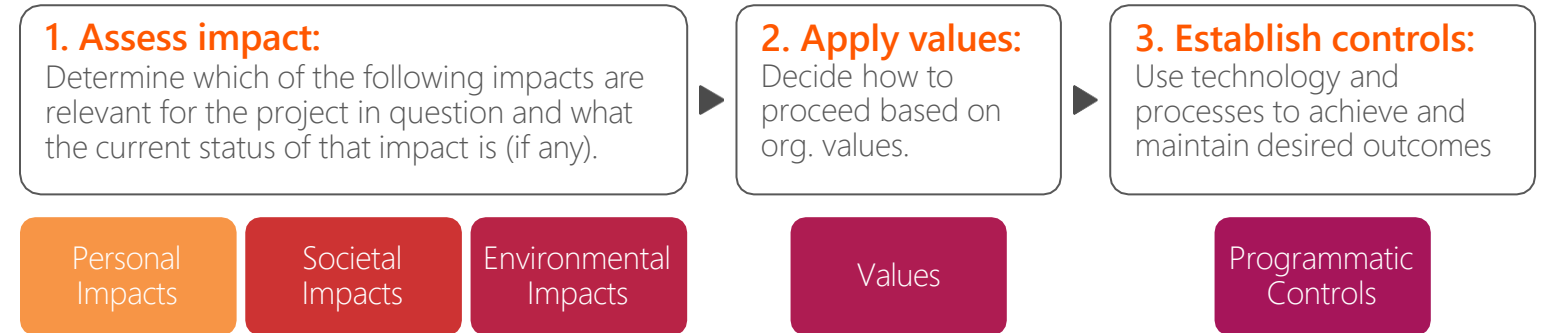
Results

Over the course of the initiative, 15 million parts from 88 global suppliers flowed through the Dynamics 365 supply chain solution, and the Consortium produced 13,437 ventilators. That's 20 years' worth of typical ventilator production in just 12 weeks.

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One of the key considerations with AI including generative AI are around the legal considerations on how the models are trained, respecting the intellectual property (IP) and source attribution, and overall leveraging the technology in an ethical and responsible manner.

Responsible AI frameworks and methodology

Avanade works with clients to use an AI framework and methodology to help organizations use AI more responsibly.

1. Assess impact:
Determine which of the following impacts are relevant for the project in question and what the current status of that impact is (if any).

2. Apply values:
Decide how to proceed based on org. values.

3. Establish controls:
Use technology and processes to achieve and maintain desired outcomes

Personal Impacts

Societal Impacts

Environmental Impacts

Values

Programmatic Controls

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Let's drive value, **together**

Avanade is one of the world's leading implementation partners for Microsoft. Microsoft and OpenAI have trained the next generation of AI models.

How to get started

Inspire

2-hour conversation

Let's talk about the trends impacting our clients in your industry and how we help them make what matters to accelerate growth.

Ideate

4-hour workshop

Our experts will lead a collaborative session with your team to uncover opportunities and converge on key business goals to begin designing a possible journey.

Co-create

6-week commitment

Ready to accelerate your future experiences? Let's bring our experts and your teams together for 6-weeks to co-create breakthrough ideas we can test, plan for and then make real.

BUSINESS CASE | ROADMAP | CONCEPTUAL DESIGNS | PROOF OF VALUE

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What Makes Avanade Unique

Avanade is a recognized leader in delivering Microsoft solutions to health and life sciences organizations. We bring together advisory, technology and experiences within Avanade combined with industry understanding and expertise.

In 2022, we were again named Microsoft Partner of the Year, 17 consecutive awards for excellence in innovation and implementation of customer solutions.

For more than 20 years, we have worked with organizations worldwide developing and implementing solutions. In fact, 90% of life sciences companies in the Fortune 500 are our clients.

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About Avanade

Avanade is the leading provider of innovative digital, cloud and advisory services, industry solutions and design-led experiences across the Microsoft ecosystem. Every day, our 56,000 professionals in 26 countries make a genuine human impact for our clients, their employees and their customers. Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation. Learn more at **www.avanade.com**.

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