How SAP S/4HANA Private Cloud Can Futureproof Biopharma Companies



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# Seizing the Future of Biopharma

As companies navigate the post-pandemic landscape of the biopharmaceutical industry, market expansions, supply chain disruptions, and a recalibration of pricing structures all present complex challenges moving forward. Leaders in life sciences organizations are now called upon to leverage innovation, adaptability, and technological insight to meet these challenges head-on and set the direction for the industry's future. Digitalization, telehealth, and the agility of R&D and supply chains have become the cornerstones of the current operational paradigm. These shifts require a reevaluation of how technology investments can drive sustainable growth. The times call for a heightened responsibility towards environmental, social, and governance (ESG) principles, as stakeholders increasingly measure corporate value not just in financial terms but in societal impact. Biopharma leaders are thus tasked with a complex balancing act: driving growth and innovation while adhering to evolving regulations and fulfilling their ESG commitments.

In light of these challenges, technological investments have become more than an operational necessity; they represent strategic levers to future-proof businesses. Let's explore the current market conditions, the regulatory shifts, the technological frontiers shaping the future of biopharma, and how prioritizing strategic technological investments, especially in an ERP like SAP S/4HANA Private Cloud, can turn these challenges into stepping stones for success.

## **State of the Biopharma Industry**

#### Market Dynamics and Economic Pressures

The life sciences sector is experiencing a renaissance of growth spurred by a surge in biopharma innovation. Expansion into emerging markets and the advent of novel therapeutics are driving growth, while supply chain volatility looms large, requiring an agile response to maintain continuity.

A <u>recent study by McKinsey</u> demonstrated how the global nature of pharma supply chains puts them at risk of shortages during local conflicts and natural disasters. Supply chains that once spanned the globe are now being reconfigured as companies seek resilience in the face of persistent volatility.

Post-pandemic inflationary pressures are another concern, with the Consumer Price Index (CPI) for medical care services in the United States climbing by 5.1% from August 2020 to August 2021.



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#### Tightening Regulations and Sustainable Initiatives

From increased scrutiny on the use of Real-World Data (RWD) to revisions in clinical trial directives, the landscape in biopharma is shifting quickly. Seven key regulatory shifts are particularly noteworthy: Medical Devices Regulation and In Vitro Devices Regulation (<u>MDR & IVDR</u>) in Europe, UK's <u>MHRA post-Brexit</u> changes, changing <u>FDA guidance</u>, heightened focus on data integrity, digital health regulations, scrutiny on medical software, and global harmonization efforts. These changes underscore the need for robust, flexible data management and analytics capabilities to stay ahead of compliance requirements.

Additionally, sustainability and ESG considerations are transitioning from compliance checkboxes to central operational strategies within life sciences. Biopharma companies are proactively setting ambitious sustainability goals, aiming to reduce their considerable environmental footprint, which includes significant emissions from supply chain activities and substantial plastic waste generation.

Progress in this arena is evidenced by initiatives to optimize energy use, enhance manufacturing efficiency, and develop smart factories.

# Genomics and Immuno-Oncology

The biopharma industry is at the cusp of a revolution with advancements in genomics and immuno-oncology. Genomics, in particular, has seen a steep reduction in the cost of sequencing, with the price of sequencing a human genome plummeting from approximately \$100 million in 2001 to nearly \$600 today. This is fueling personalized medicine, with the potential to tailor treatments to individual genetic profiles. The Immuno-oncology landscape is also rapidly expanding, with a surge in investment and clinical trials aiming to harness the immune system to fight cancer. This democratization of genomics data propels personalized medicine forward; the global immuno-oncology market is expected to reach \$126.9 billion by 2026, highlighting the significant investment and interest in this area.

It is important to note that these advancements require sophisticated data analysis tools capable of handling the complexity of genomic data and supporting the intricate processes involved in IO drug development.



Amid all these dynamic changes and complex challenges, companies in biopharma need to, first and foremost, understand what to prioritize and where they should be investing their time, effort, and technology budget.

Let's explore three critical business needs that leaders should be focusing on.

#### **Chapter 2**

### **Prioritizing Business Needs**

Reevaluating and realigning business priorities is vital for organizations in the biopharmaceutical industry. As companies emerge into a post-pandemic world, leaders must sift through the noise to focus on what truly drives value and resilience.

One of the most important decisions many leaders face is where to allocate their technology investments. Prioritizing these investments effectively can mean the difference between staying ahead of the curve and falling behind. A McKinsey report indicates that more than 70% of biopharma companies are stuck in "pilot purgatory" while trying to scale digital and analytics transformations, so prioritizing is clearly a challenge.



#### Let's look at some general pragmatic steps that will help prioritize business needs for technology investments:

- 1. Evaluate Infrastructure & Skillsets: Audit existing systems and determine the capacity for new technology integration.
- 2. Align with Strategic Goals: Choose technologies that advance the company's long-term objectives and offer a competitive edge.
- 3. Conduct a Needs Analysis: Engage cross-functional stakeholders to pinpoint where technology can impact most.
- 4. Utilize Benchmarks: Reference industry benchmarks to identify impactful technologies.
- 5. Pilot and Scale: Test new technologies on a small scale before broader implementation.
- 6. Opt for Flexibility: Invest in adaptable and scalable solutions.
- 7. Monitor Impact: Use KPIs to measure the success and guide the continuous evolution of technology use.
- 8. Risk and Compliance: Evaluate new technologies for risk and ensure regulatory compliance.
- 9. Continuous Improvement: Foster a culture that embraces ongoing technological learning and adaptation.
- 10. Partner Strategically: Collaborate with technology providers for insights and expertise.

With that in mind, the current climate shows that companies in the biopharmaceutical sector should consider prioritizing digital transformation, supply chain solutions, and compliance management, as these areas are the most impacted by the industry's changing trends.

Let's dive into each one.

## Digital Transformation: The Catalyst for Innovation

The digital wave sweeping across industries has not spared biopharma. It represents an opportunity to redefine innovation, streamline operations, and bring therapies to market faster, all while maintaining the integrity and compliance that this field demands. This imperative goes beyond adopting new technologies—it's about fostering a culture that leverages digital insights to drive decision-making.

- Acceleration of R&D: Advanced analytics tools are cutting down the barriers to drug development, providing predictive insights that help identify viable drug candidates with greater accuracy and speed.
- Enhanced Patient Engagement: Patient centricity and patient empowerment are key. Modern digital tools provide new ways to engage, educate, and monitor patients while delivering the best possible experiences.
- Data Integration: Centralizing diverse data streams is pivotal for biopharma companies to gain a holistic view of their operations and research. Integrated data platforms enable real-time analysis and insights, facilitating breakthroughs in personalized medicine and operational efficiency.
- Industry 4.0 Enablement: Industry 4.0 quips biopharma firms with intelligent technologies like IoT, AI, and robotics, transforming manufacturing and supply chain management. This enablement leads to higher levels of automation, precision, and scalability, propelling them towards a future of digital excellence and robust growth.

## Insights

- A <u>recent study</u> found that 72% of pharmaceutical executives surveyed believe digital transformation is critical to achieving R&D imperatives, yet most companies do not approach it strategically.
- Digital and advanced analytics use cases have led to a <u>30 to 50 percent reduction</u> in deviations, a 25 to 40 percent increase in plant capacity, a 15 to 20 percent reduction in lead times, and a 30 to 50 percent increase in forecasting accuracy.

#### Supply Chain Resilience: A Strategic Imperative

Recent disruptions have spotlighted the critical nature of supply chain resilience. Transparent, adaptable, and responsive supply networks are vital for mitigating risks ranging from raw material shortages to geopolitical tensions. Enterprise technologies that enable real-time tracking and predictive modeling are key to this strategic imperative.

- **Risk Management:** With the right enterprise technology, companies can predict and prepare for supply chain disruptions before they occur, maintaining the continuity of operations and patient care.
- **Cost-Efficiency:** Efficient supply chain management is pivotal in controlling costs without compromising quality.
- Agility in Operations: Cloud ERP technology enhances the ability to pivot and adapt to changing market conditions, allowing quicker response to demand fluctuations and supply interruptions.
- **Collaboration Enhancement:** Cloud-based systems facilitate better collaboration with suppliers and partners, ensuring synchronized and streamlined processes across the entire supply network.

# Insights

- Research from <u>Bain & Company</u> shows that 40% of active pharmaceutical ingredient manufacturing sites are located in India or China, creating vulnerability to disruption.
- Another <u>Bain study</u> demonstrated that investments in supply chain resilience can improve plant output by 15% to 25% and customer satisfaction by 20% to 30%.

#### Robust Regulatory Strategy: Ensuring Compliance and Competitiveness

With regulations continuously evolving, a proactive and robust regulatory strategy is crucial. It's not just about compliance but also about leveraging regulatory intelligence for competitive advantage. Companies must integrate regulatory considerations into every stage of the product lifecycle, from conception to market and beyond. In biopharma, regulatory compliance is as much about ensuring market access as it is about patient safety. A forward-looking regulatory strategy is a pillar of sustainable growth, leveraging regulatory insights to navigate and shape the market landscape.

- **Regulatory Intelligence:** Harnessing the power of regulatory intelligence tools can transform compliance from a reactive task to a proactive strategic function. Leveraging cloud technology allows for real-time updates on regulatory changes, enabling companies to stay ahead of compliance and incorporate new regulations swiftly into their workflows.
- **Compliance as a Competitive Edge:** By exceeding compliance standards, companies can differentiate themselves, earning the trust of patients and practitioners.
- Streamlined Processes: Cloud ERP systems centralize and automate compliance tasks, reducing the risk of errors and ensuring that regulatory requirements are consistently met across all operations.

# Insights

- The 2023 Global Biopharma Resilience Index shows that while 66% of pharma leaders are satisfied with the speed of drug approvals, only 59% are satisfied with the structure for consultation between regulators and other stakeholders.
- In the same study, 45% of biopharma executives said that government policy is pursuing inconsistent goals, highlighting the need for agility.

### Patient Centricity Through Technology: Outcomes-Focused Healthcare

A patient-centric approach is paramount for future success. Technologies facilitating patient engagement and real-world evidence collection can lead to more effective and personalized treatment pathways, significantly impacting patient outcomes and satisfaction. At the heart of the biopharma industry's purpose is the patient. By leveraging technology to put patients at the center of the healthcare ecosystem, companies can achieve not only better outcomes but also enhanced market positioning.

- Data-Driven Patient Care: Utilizing robust data collection and analytics tools, companies can ensure that patient care is both effective and efficient.
- **Personalized Medicine:** Personalized treatment regimens, powered by patient data and genetic information, are the future of medicine.
- Enhanced Engagement: Interactive patient platforms and mobile applications increase engagement, providing patients better access to information and healthcare services.
- Improved Clinical Decision-Making: Advanced analytics and AI integrate with clinical workflows to offer healthcare professionals insights for tailored treatment, improving decision-making and patient health outcomes.

# Insights

- In 2021, a <u>study from KPMG</u> showed that customer/ patient experience and digitally enabled services were the top customer-centric priorities, a statistic that still holds true today.
- <u>Another study</u> revealed that 44% of patients are more willing to share their data with pharmaceutical companies if it can benefit them personally, improve their health, or improve medication effectiveness.

#### Leveraging SAP S/4HANA Private Cloud Across Business Priorities

As we reflect on these business imperatives, integrated, cloud-based platforms like SAP S/4HANA Private Cloud play a pivotal role in addressing these demands. With its scalable, secure, and flexible environment, SAP S/4HANA Private Cloud becomes the central hub where biopharma companies can thrive amidst change. It offers a suite of tools that drive innovation, streamline supply chain management, ensure regulatory compliance, and prioritize patient-centric initiatives. By enabling real-time data processing, advanced analytics, and seamless integration capabilities, biopharma companies can make informed decisions swiftly, adapt to market changes, maintain compliance effortlessly, and focus on patient outcomes effectively.

SAP S/4HANA Private Cloud has become the linchpin for organizations seeking real-time supply chain visibility and scenario planning. A leading vaccine producer experienced a **50% reduction** in their supply planning cycle by leveraging SAP's Integrated Business Planning solution to manage unexpected demand surges. Moreover, life sciences leaders turn to SAP S/4HANA Private Cloud for responsive financial planning, utilizing predictive analytics to navigate challenges. With drug pricing reforms on the horizon, such as the proposed Medicare negotiation for drug prices, SAP's advanced analytics empower companies to adapt pricing strategies effectively and ensure profitability.

SAP S/4HANA Private Cloud comprehensively addresses the priorities of biopharma companies, providing robust data analytics, agile supply chain management, regulatory compliance functionalities, and patient management systems. Let's explore how this cloud ERP can change your organization.

#### **Chapter 3**

# Transformation Made Simple with SAP S/4HANA Private Cloud

Navigating the next wave of biopharma innovation requires not just incremental adjustments but a transformative approach that leverages the best of technology. Integrating SAP S/4HANA Private Cloud stands at the forefront of this transformation, offering biopharma leaders a powerful tool to adapt to the rapidly changing landscape.

This chapter examines how SAP S/4HANA Private Cloud can act as the catalyst for a new era of efficiency, agility, and patient-centricity.



### Achieving GxP Compliance Excellence

In biopharma, compliance is not merely a regulatory requirement but a cornerstone of trust and quality. As companies endeavor to meet global and regional standards, the ability to seamlessly manage GxP compliance processes and validate ERP systems becomes a differentiator. SAP S/4HANA Private Cloud elevates compliance by:

- Automating compliance processes to ensure consistency and reduce human error.
- Providing real-time visibility into operations, ensuring that compliance is maintained throughout the product lifecycle.
- Controlling when to update the software, guaranteeing a strategy in place for updates.
- Offering scalable solutions to keep pace with the evolving regulatory landscape.

GxP compliance excellence achieved through SAP S/4HANA Private Cloud safeguards patient safety and fortifies the company's reputation and market position.

#### Driving Innovative Research & Development

The pressure to deliver novel therapies faster and more efficiently has never been higher for biopharma companies. Innovative research and development (R&D) is the engine of growth in the industry, dictating the pace at which new treatments can reach patients in need. SAP S/4HANA Private Cloud propels this critical function by:

- Integrating vast data sources for enhanced drug discovery and development.
- Streamlining R&D operations to accelerate the journey from laboratory to market.
- Facilitating collaboration across global teams essential for complex research projects.

These capabilities ensure that innovation thrives with an efficiency that can redefine patient outcomes and marketplace success.

## Enhancing Operational Efficiency

Operational efficiency is the heartbeat of biopharma companies, ensuring that breakthroughs in the lab translate into accessible treatments. It encompasses the delicate balance of cost, quality, and time - factors that directly influence the company's bottom line and its ability to serve patients effectively. SAP S/4HANA Private Cloud empowers companies to:

- Elevate manufacturing precision, maximizing yield while adhering to stringent quality standards.
- Enhance supply chain agility, enabling rapid response to market changes and demands.
- Optimize asset utilization to ensure seamless production flows and delivery schedules.

With SAP S/4HANA Private Cloud, operational efficiency becomes a competitive advantage, allowing firms to meet the pressing demands of healthcare delivery in the 21st century.

#### Fostering an Integrated Ecosystem

In the complex biopharma landscape, integration is critical to unlocking value across the ecosystem, from basic research to patient delivery. A cohesive network of partners, suppliers, and healthcare professionals drives innovation and ensures treatments are developed and delivered effectively. SAP S/4HANA Private Cloud supports this integration by:

- Enabling secure and efficient data exchange among diverse stakeholders.
- Supporting collaborative R&D efforts, which are crucial for multi-faceted drug development programs.
- Aligning operations with strategic goals, ensuring that every action taken is part of a concerted effort to deliver on promises to patients and shareholders.

#### SAP S/4HANA Private Cloud connects different parts of the organization,

integrating the entire biopharma value chain.

SAP S/4HANA Private Cloud isn't simply a technology solution; it is a strategic enabler for biopharma companies seeking to lead in a new era of healthcare innovation. It is the digital backbone that supports every step of the value chain, from the spark of innovation in R&D to the final delivery of life-saving therapies to patients.

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We have explored how SAP S/4HANA Private Cloud can empower biopharma companies to achieve their most ambitious goals, with a focus on innovation, operational excellence, ecosystem integration, and compliance mastery. It's time for you to tell us about your company so we can start discussing how to help you.

#### We are Endeavor Consulting Group

Too many companies become sidetracked on the way to greatness when problems arise: problems of growth, integration, modernization, expansion, and more. It's our mission to help you do what you do best by solving any problems you currently face — and preventing new ones from arising down the line.

We believe in developing and executing straightforward solutions to complicated situations. Our team is driven and energetic, and they're passionate about delivering results and earning your trust. Endeavor has offices all over North America, from Puerto Rico to Indiana, North Carolina to Pennsylvania, and British Columbia to Quebec.



If you're interested in joining our team of elite and experienced professionals, check out our <u>Careers page</u> for more information.

#### **How We Help**

First, we evaluate your current supply chain system through our **FREE ASSESSMENT** and provide custom supply chain and ERP systems to support your product's path to launch. We then establish integrated processes for supply and demand planning while mitigating all associated risks using our vast network of vendors. Our quality and compliance team ensures regulatory and launch readiness by supporting your technology platforms and implementing distribution management processes. Furthermore, we optimize your product life-cycle management for continued growth and identify efficient methodologies to help navigate through any complex challenges that may arise. Lastly, we show you how to capitalize on the ever-changing market opportunities to guarantee your business' streamlined success.

#### Contact us for a Free Assessment.





