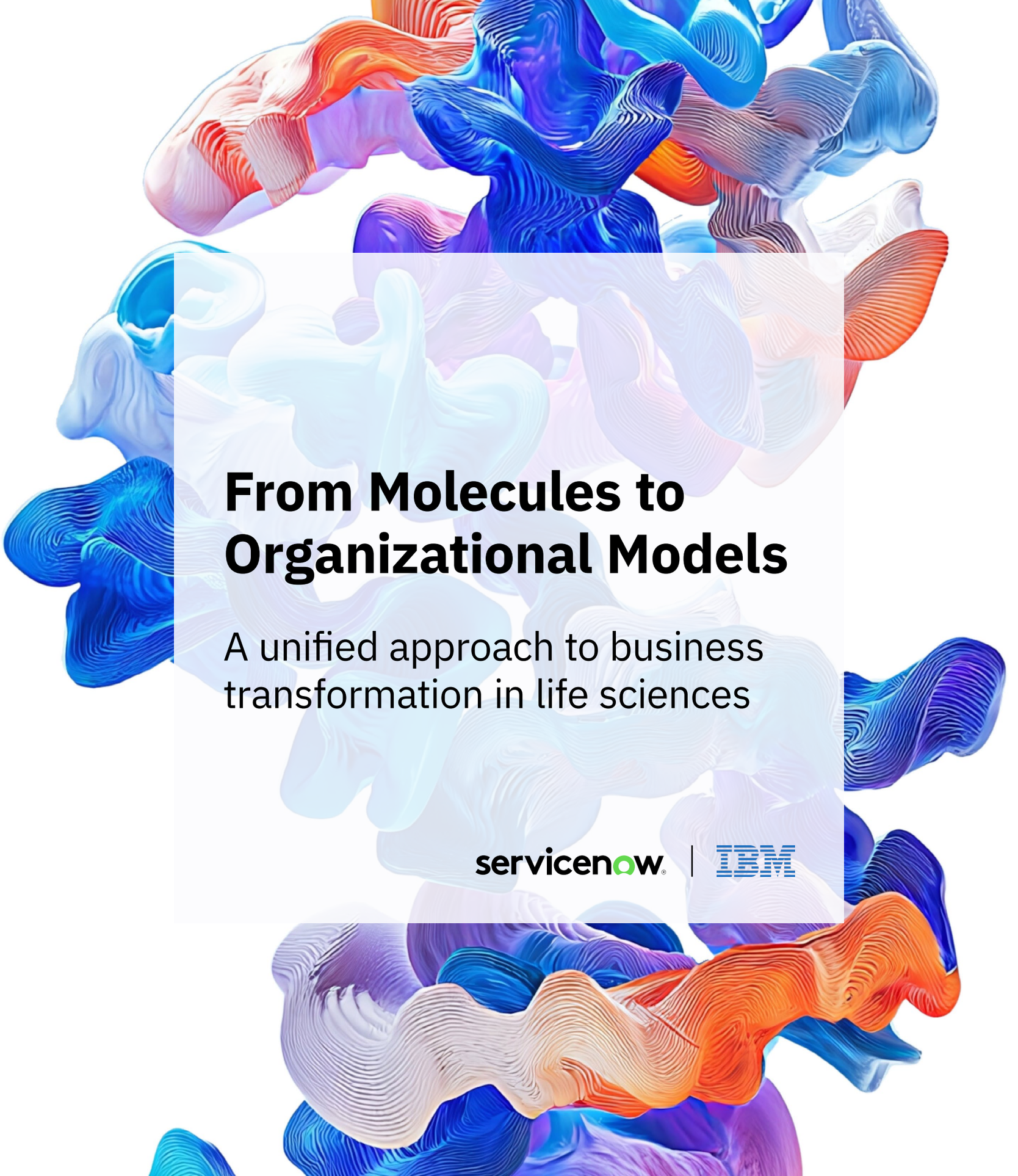

From Molecules to Organizational Models

A unified approach to business transformation in life sciences

servicenow | IBM

Contents

Shocks to strengths in the life sciences industry

Meet the expert:

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Senior Partner, Life Sciences Industry Leader Americas
IBM Consulting

With a proven track record in the life sciences sector, Manoj leads IBM's Life Sciences Practice for the Americas. As a senior partner, Manoj harnesses his expertise in technology, strategy, and management consulting to empower high-performing teams and leaders to drive industry-leading solutions and spearhead the development of innovative, next-gen, patient-centric products and experiences.

In life sciences, business transformation isn't only about processes and technology. It's about people—from the employees who discover new therapies and keep manufacturing lines running to the clinicians and patients who experience better outcomes because of their work.

Our increasingly connected world demands more secure, efficient, and user-friendly experiences. But that can be easier said than done. In recent years, the life sciences industry has weathered a series of challenges and shocks. Aging populations require new approaches to chronic illnesses. Pandemics demand rapid mobilizations and agile responses. Natural disasters and unrest threaten to interrupt supply chains. And regulatory scrutiny is evolving and intensifying around the globe.

Yet even as it adapts to these disruptions, the industry is experiencing an innovation renaissance. For example, interoperability between organizations can enable researchers to access vast datasets. This seamless data exchange between distinct systems can power faster, more informed research.

Industry leaders are also exploring the capabilities of artificial intelligence (AI) to analyze vast amounts of complex biomedical data for drug discovery, genomics discovery, and patient care. AI promises to accelerate the evolution of personalized medicine, making it possible to tailor therapies to individual patients based on complex factors like their genetic makeup and lifestyle.

The impact of AI won't be limited to research and development. New advances in agentic AI will revolutionize the way work is done, eliminating routine tasks and driving new levels of innovation. For example, as leading pharmaceutical companies explore reshoring their manufacturing operations, AI-first automation can help them to boost efficiency, drive quality, and develop more resilient supply chains.

Delivering on the promise of AI will take integrated, streamlined technology and processes. But many organizations rely on legacy infrastructure and siloed internal functions that aren't adequate to support these innovations—or their broader strategic goals.

By consolidating siloed service functions into a single platform and operating model, your organization can align processes and streamline workflows across the enterprise. What's more, this makes it possible to effectively put AI to work for people—and create new value for the enterprise.

Tackling transformation inhibitors

55% of executives say technical debt is either a major obstacle or a significant roadblock to achieving their business goals.

Technological advancements in the life sciences industry can have life-changing—or even lifesaving—implications. But innovations like AI are only as effective as the platform they are built upon.

To get the full benefit of AI, enterprises must address the organizational blockers that stand in their way. Here are some examples:

Technical debt and lack of integration

Siloed business processes and data can slow innovation in the fast-moving, competitive life sciences market. Organizations trying to keep up often adopt an array of ad hoc applications to solve problems as they arise. This approach may address short-term needs, but problems arise over time when these applications can't work together.

As more technical debt builds, it becomes harder to address and slows processes even further.

Evolving risks and regulatory uncertainty

In the highly regulated life sciences industry, many organizations need the highest level of security and compliance to meet legal requirements—like HIPAA, GDPR, and Annex 11—while still being agile enough to adapt to future shifts. Evolving regulatory frameworks and changes in political leadership can introduce elements of instability to these imperatives.

Meanwhile, the increased use of networked devices, AI, and cloud technology makes it more challenging for life science organizations to securely manage large amounts of patient, employee, and operational data.

Rising customer and employee expectations

Customers now expect life sciences organizations to provide the same level of service they experience in e-commerce or retail—and employees want technology that enables them to do their work more easily and effectively, rather than forcing them to swivel-chair between tools.

However, when life science organizations lack integrated technology infrastructure, they can find it difficult to meet these growing demands for faster and more seamless experiences.

A unified approach to business transformation

The paths to approval for new drugs, cell therapies, and solutions are time-consuming and highly regulated. Getting to the point where everything just works requires intentional transformation. Whether your organization is involved in research, pharmaceuticals, or patient care, your success depends on the right technology, expertise, and vision.

For many organizations, this begins with a phased approach, securely connecting end-to-end processes to align siloed operational functions under a global business services (GBS) model. This is combined with a global service delivery mindset to co-execute solutions and scale them across the enterprise, even with limited time, budgets, and people.

The result is a single corporate support organization that:

- **Aligns with strategic priorities** to drive better outcomes.
- **Connects end-to-end processes** with a modern, unified tech stack.
- **Scales across functional areas** through a flexible, secure environment.
- **Boosts innovation and growth** using an agile, AI-first approach.

To get these benefits, life science organizations can use an enterprise platform like ServiceNow to go beyond core IT functions and unify their siloed operations. The connectivity and visibility it provides will drive greater efficiency, productivity, and readiness for innovations like agentic AI—and empower organizations to capture more market share.

STEP ONE: ASSESS

Lay the groundwork for your successful transformation

In late 2024, McKinsey surveyed 100 pharma and medical technology leaders about their organizations' AI efforts. They found that 75% did not have a roadmap with defined goals linked to their organizational priorities—and when it came to realizing significant value with AI, leaders reported that a lack of strategy was one of their top obstacles.

Before life sciences organizations can successfully adopt an AI-enabled GBS model, a thorough assessment phase helps to clearly connect technology and processes to the organization's key goals. This phase includes:

> Global business services enabled by technology and driven with an AI-first mindset is going to be one of the greatest transformation stories for the history books.
>
> **Joanne Wright**,
> SVP Transformation and Operations,
> IBM

Prioritizing strategic objectives to align stakeholders around desired outcomes, such as accelerating research and development, enhancing patient outcomes, and improving operational efficiencies.

Evaluating existing systems and data to identify technical debt and other challenges that could stand in the way of a successful transformation.

Anticipating regulatory requirements to ensure that transformation efforts comply with relevant frameworks and legal constraints from the start.

Understanding key prerequisites and dependencies—like infrastructure and change management—and determining how they will be addressed.

Recommending actions based on the insights gained throughout the assessment stage.

After defining a strategic roadmap through these steps, the integration of technology and data can begin.

STEP TWO: INTEGRATE

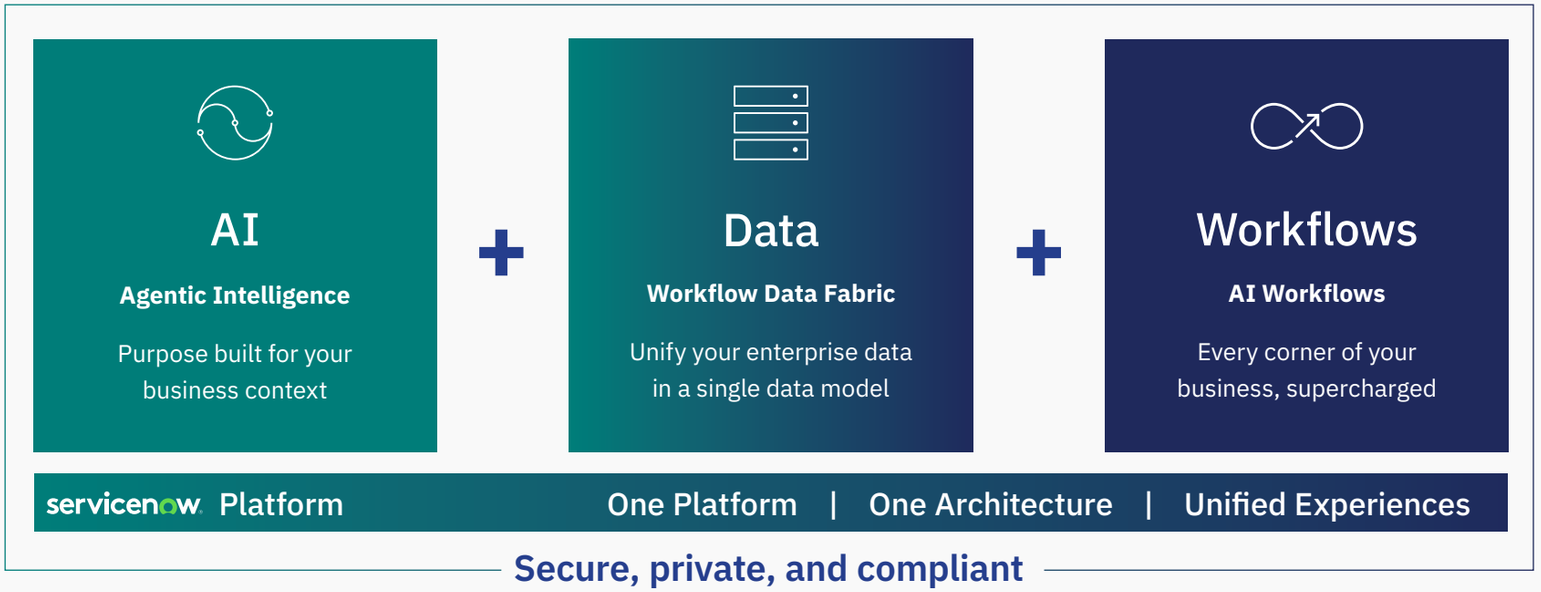
Modernize your enterprise IT estate with a comprehensive tech stack

A traditional shared services model typically begins with IT, centralizing the function to serve the entire enterprise. This allows the organization to cut costs and improve performance by sharing resources and standardizing processes across countries, regions, or geographies.

After implementing this shared services approach for one business function, organizations pursue an incremental approach by adding one or two additional services such as HR, workplace services, or procurement. Yet legacy technologies often stand in the way of the cost and efficiency benefits they seek. Disparate, disconnected solutions create data and process silos, forcing employees to do tedious manual work to connect the dots between different software tools. As they work to scale the benefits of shared services across the enterprise, life science organizations must unify their fragmented technology environment.

IBM and ServiceNow bring together siloed systems on a secure enterprise platform with a single code base, data model, and experience layer. This unified data model makes it possible to automate end-to-end workflows across the enterprise, creating the foundation to evolve from shared services to a GBS model.

For life science organizations, ServiceNow also provides access to industry-specific workflows that help you stay compliant, connected, and future-thinking as you navigate the evolution of AI.



STEP THREE: SCALE

Enable a flexible, secure technology environment—and unleash productivity across your enterprise

In addition to a unified enterprise platform, an effective GBS model for life sciences requires a flexible, secure environment. To support changing workloads as they scale their GBS models, leading life sciences organizations are looking to the cloud.

Cloud computing lets you allocate your compute, network, storage, and security resources on demand. IBM Cloud offers healthcare industry clients an open, secure environment, no matter where you are on your journey to the cloud.

With an intelligent enterprise platform and a flexible cloud—or hybrid cloud—environment, you'll be ready to extend your AI-powered GBS model across more functional areas of your business.

HR
Provide seamless employee experiences with AI-powered personalization—from the research lab to the manufacturing line.

Procurement
Safely speed up tasks in the supply chain between patients, labs, hospitals, or manufacturers with the ServiceNow platform's built-in AI workflows for vendor and operations management.

Customer and patient services
Deliver information as quickly as possible with solutions that offer patients and customers omnichannel support and helpful self-service options.

IBM Cloud
+
ServiceNow
AI Platform

Risk and governance
Keep patient, employee, and operational data safe and compliant with solutions like IBM X-Force, which provides offensive and defensive security fueled by threat intelligence.

Workplace services
Create safer and more compliant workspaces in the lab and other environments with a holistic view of data powered by AI.

Legal
Make it easier to track, automate, and escalate valuable contracts and other legal matters in life sciences with ServiceNow and IBM's AI capabilities.

ART OF THE POSSIBLE

Accelerate speed to market for AI-aided drug discovery

AI foundation models trained on diverse biomedical data are transforming the field of drug discovery. Compared to traditional computational approaches, these models widen the search scope for novel molecules and refine it to eliminate unsuitable ones.

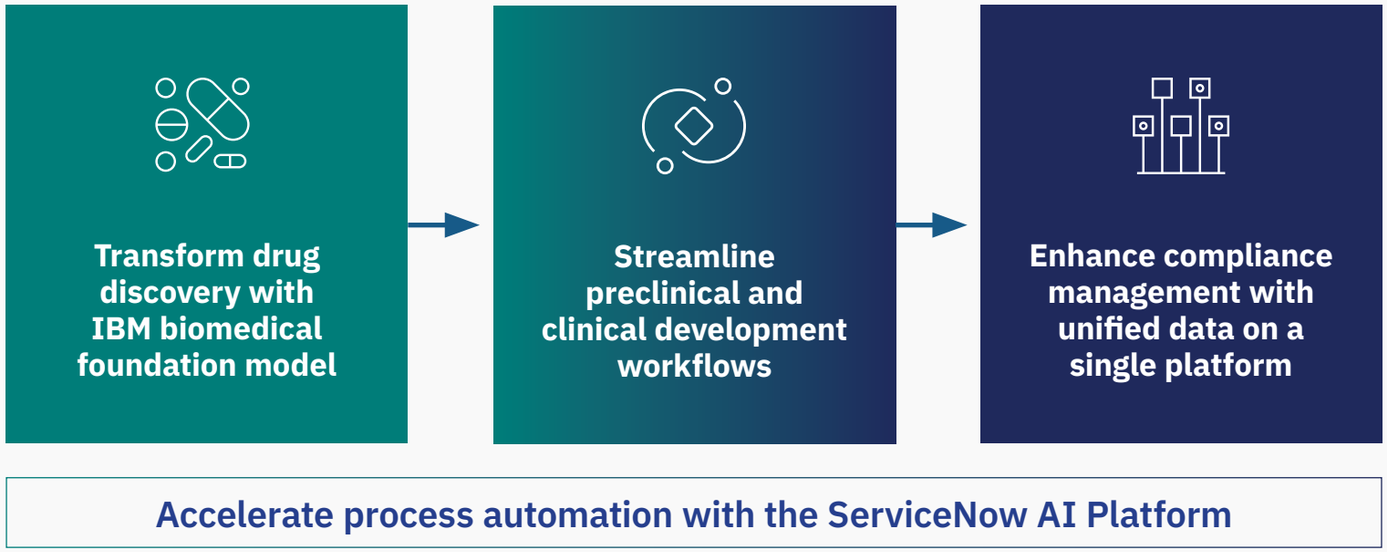
For example, IBM Research biomedical foundation model (BMFM) technologies leverage different types of data, including small molecules and proteins, as well as single-cell RNA and other biomedical data.

These foundation models can drive breakthrough discoveries. But there's more value to be had. IBM and ServiceNow can help you transform your workflows—both in the lab and in clinical development—to keep up with what you've unlocked with AI.

Together, we ensure that your organization has the flexible, secure environment you need to protect sensitive research and data. Then, we use the ServiceNow platform to accelerate process automation and speed to market.

By uniting your organization on a single platform, we help you stay compliant and agile through regulatory changes—so you can bring your innovations to the people they can help, faster.

Driving speed to market for drug discovery



STEP FOUR: INNOVATE

Catalyze productivity and growth with end-to-end, AI-powered workflows

A recent survey found that nearly 50% of GBS leaders are primarily focused on cost savings. However, in the next two to three years, they expect that focus to shift. In the future, GBS leaders expect to prioritize using data-driven insights and new technologies to drive value for their organizations.

With the life science industry's unique requirements in mind, IBM and ServiceNow work with you to co-create modern workflows that leverage leading AI capabilities to create value across the enterprise.

We're innovating together to incorporate the IBM Granite large language model (LLM) and the watsonx suite of AI products into the ServiceNow AI experience. This includes embedded, context-aware ServiceNow AI Agents that can assist with tasks like summarization and content generation—or even autonomously solve complex business challenges.

50% of GBS leaders are primarily focused on cost savings.

Furthermore, ServiceNow Agent Orchestrator makes it possible to achieve even greater efficiencies. Life sciences organizations can deploy teams of autonomous AI agents to collaborate across IT, HR, workplace services, and more to complete complex, cross-functional workflows—with governance and analytics already built into the platform.

By combining Watson and AI agents, you can automatically analyze data and generate insights, then seamlessly translate those insights into workflows and actions within ServiceNow. For example:

- Watson identifies recurring IT issues, and AI agents automate workflows to resolve them.
- Watson uncovers employee dissatisfaction, and AI agents update HR workflows to improve employee experience.

Tapping into the power of AI makes it easier to navigate the complexities of modern life sciences. Industry-specific workflows can help speed up work and gather insights to accelerate and improve discovery of different therapies and drugs, the entire lifecycle of clinical trials, and patient services.

With this AI-first approach, you can reduce manual administrative work and improve service delivery. And these powerful workflows can be used across the life sciences value chain—from initial discovery, preclinical, and product development to manufacturing, supply chain, and commercial operations.

ART OF THE POSSIBLE

Focus on patient safety

Pharmaceutical companies face a variety of challenges related to pharmacovigilance (PV), or drug safety monitoring. These include:

- Manual case data entry.
- Increasing case volumes.
- Time-consuming medical coding.
- Manual creation of aggregate reports.

With IBM and ServiceNow, organizations can streamline and automate these processes, eliminating manual work and leveraging AI to summarize reports.

As a result, pharmaceutical companies can:

- Shift the value of case intake specialists to case review.
- Auto-extract case details across modalities.
- Automate medical coding.
- Generate aggregate reports with AI.
- Make predictions with AI-powered knowledge graphs.
- Enable collaboration between drug discovery and PV teams.

Expected benefits:

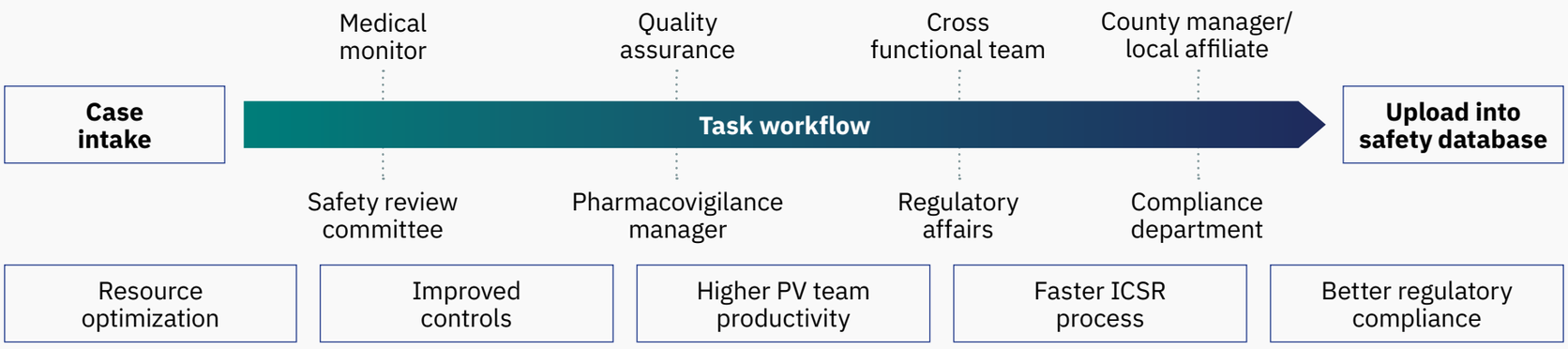
30%
reduction
in processing times for:

- Case intake
- Case processing
- Medical coding

50%
reduction
in aggregate report preparation times

Individual case study reports

End-to-end medical and pharmacovigilance integrated process



Catalyzing change with IBM and ServiceNow

IBM ServiceNow practice credentials

As an Elite ServiceNow partner, IBM has ServiceNow practices in more than 20 countries—and we've been implementing and enriching ServiceNow with IBM advisory services, assets, and accelerators for 12+ years.

BY THE NUMBERS:

4.5 out of 5 ServiceNow customer satisfaction score

1,200+ IBM ServiceNow practitioners

9,000+ IBM ServiceNow certifications and accreditations

650+ IBM ServiceNow implementations

The time to start your AI business transformation journey is now. In fact, leaders expect to see a major shift in 2025, with 44% of executives saying they'll be using AI to innovate in their organizations. Meanwhile, only 6% of leaders say their organizations will still be experimenting with AI.

We're here to help you stay at the forefront of AI-driven business transformation. Leveraging deep industry knowledge and expertise, IBM offers comprehensive consulting and operational services for life sciences. Using industry-specific workflows from ServiceNow, we enable better customer experiences and backend operational efficiencies.

Together, we help organizations deploy leading AI solutions across the enterprise to accelerate, innovate, and prepare for what's next in a rapidly changing industry.

Optimize workflows across the life sciences value chain with ServiceNow

Discovery & Preclinical

Project Portfolio Management

Partner Management

Laboratory Management
- Resource Management
- Supply Chain / Vendor Management
- Inventory
- Lifecycle Management of Lab Assets
- Field Service

Product Development

Clinical Trial Management
- Supply/Sample Management
- Risk Management
- Trial Supply
- Contracting

Patient Trial Support Services
- Screening, Enrollment, Onboarding
- Patient Portal eConsent

Regulatory Affairs
- Submissions Management
- Assessments

Manufacturing & Supply Chain

Vendor Management
- Contract Digitization
- Procurement & Compliance
- Supplier Management & Performance

Operations Management
- Device IoT
- OT Asset, Service & Security
- Plant & Equipment Management
- Paperless Manufacturing

Compliance
- Deviation Handling
- Plant EHS
- Post-Market Surveillance

Commercial Operations

Sales
- Field Force Support & Services
- Samples Ordering
- Hiring & Onboarding

Support
- Patient Services, Reimbursements
- Consent

Medical Affairs
- Speakers and KOL Management
- Stakeholder Engagement & Management
- Call Center Operations

Drug Safety & Pharmacovigilance
- Case Processing
- Adverse Events

Ready to take the next step?

If you're exploring how IBM Consulting and ServiceNow can help your organization unify your enterprise tech stack to drive business transformation, let's talk.

Contact us today

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