

FROST & SULLIVAN
BEST PRACTICES



2026

GLOBAL INTEGRATED
PHARMACEUTICAL R&D
PLATFORMS

**TECHNOLOGY INNOVATION
LEADERSHIP**

Table of Contents

<i>Best Practices Criteria for World-Class Performance</i>	3
The Transformation of the Integrated Pharmaceutical R&D Platform Industry	3
Unified Intelligence Platform Redefining R&D Velocity and Value	4
Transforming Complex R&D Ecosystems through Context-Driven Innovation	6
Driving Enterprise-Scale Adoption through User-Centric Execution Excellence	7
<i>Conclusion</i>	10
<i>What You Need to Know about the Technology Innovation Leadership Recognition</i>	12
Best Practices Recognition Analysis	12
Technology Leverage	12
Business Impact	12
<i>Best Practices Recognition Analytics Methodology</i>	13
Inspire the World to Support True Leaders	13
<i>About Frost & Sullivan</i>	14
The Growth Pipeline Generator™	14
The Innovation Generator™	14

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each recognition category before determining the final recognition recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Uncountable excels in many of the criteria in the integrated pharmaceutical R&D platform space.

RECOGNITION CRITERIA	
<i>Business Impact</i>	<i>Technology Leverage</i>
Financial Performance	Commitment to Innovation
Customer Acquisition	Commitment to Creativity
Operational Efficiency	Stage Gate Efficiency
Growth Potential	Commercialization
Human Capital	Application Diversity

The Transformation of the Integrated Pharmaceutical R&D Platform Industry

The global pharmaceutical and contract services landscape is undergoing a profound shift as organizations move toward integrated, digital-first research and development (R&D) models. Despite increasing investment in digital infrastructure, the industry continues to face persistent structural challenges, most notably the prevalence of fragmented data environments. Pharmaceutical companies, contract research organizations (CRO), and contract development and manufacturing organizations (CDMO) often operate with a patchwork of disconnected systems, where critical experimental, quality, and operational data are stored in silos. This lack of integration limits visibility across the product lifecycle and hinders the ability to derive actionable insights from accumulated data. Many organizations still rely on unstructured communication methods, such as spreadsheets, PDFs, and email exchanges, resulting in inefficiencies, errors, and delays in decision-making.

A significant challenge facing pharmaceutical companies is the growing complexity of modern drug development, particularly with the rise of advanced modalities such as biologics and cell and gene therapies. These innovations require highly coordinated workflows across research, development, and manufacturing, as well as tighter collaboration with external partners. Simultaneously, increasing pressure to accelerate time-to-market, driven by competitive dynamics and funding constraints, intensifies the need for real-time data transparency and rapid decision-making. Despite these demands, the industry's historical lag in digital adoption, combined with inconsistent implementation across teams and regions, continues to impede progress toward fully integrated R&D environments.

For CROs and CDMOs, the challenges are further compounded by the inherently collaborative nature of their business models. As outsourcing becomes more prevalent, these organizations must manage complex networks of clients, suppliers, and regulatory requirements while maintaining strict data integrity and security. A key pain point is the lack of seamless, structured data exchange across organizational boundaries. Sponsors and service providers often struggle to share information efficiently without compromising confidentiality, leading to delays in technology transfer, reduced operational transparency, and increased risk of miscommunication. Additionally, supply chain volatility and global operational complexity require these organizations to respond rapidly to change, yet fragmented systems limit their ability to do so effectively.

Another critical industry-wide issue is the gap between data generation and data utilization. While many organizations have invested heavily in capturing and storing large volumes of data, far fewer have developed the capabilities to fully utilize this information. The absence of contextual data further reduces the value of stored datasets, making it difficult to conduct meaningful analysis or leverage emerging technologies such as artificial intelligence (AI). As a result, companies risk underutilizing one of their most valuable assets, while missing opportunities to improve quality, accelerate innovation, and enhance overall R&D productivity. Addressing these interconnected challenges requires technological advancement and a fundamental shift toward unified, context-rich, and insight-driven R&D ecosystems.

Founded in 2016 and headquartered in San Francisco, California, Uncountable is a leading provider of an integrated, AI-driven platform designed to transform how enterprise R&D organizations capture, connect, and utilize scientific data across the full product lifecycle. The company's unified cloud-based platform unites critical systems into a single environment, enabling organizations to eliminate data silos, preserve experimental context, and accelerate decision-making from research through manufacturing. By combining structured data architecture with advanced AI capabilities, Uncountable is redefining how life sciences organizations harness data, transforming fragmented information into a unified, actionable intelligence layer that accelerates decision-making across R&D and manufacturing.

Unified Intelligence Platform Redefining R&D Velocity and Value

Uncountable establishes a differentiated position in the life sciences informatics landscape by delivering a truly unified, AI-driven R&D platform that replaces the fragmented, siloed systems traditionally used across pharmaceutical and biotechnology organizations. Rather than functioning as a point solution, the platform integrates core capabilities into a single cohesive environment, including an Electronic Lab Notebook (ELN), a Laboratory Information Management System (LIMS), Product Lifecycle Management (PLM), Quality Control LIMS, and a Quality Management System (QMS). This unified architecture eliminates the inefficiencies associated with disconnected tools and enables seamless data flow across the entire product lifecycle, from early-stage research through development and into manufacturing.

The platform centers on its ability to standardize and structure scientific data, capturing experimental outputs, contextual decision-making inputs, and quality metrics in a consistent, interoperable format. This structured approach addresses one of the industry's most persistent challenges: the loss of context and usability in scientific data. Uncountable replaces traditional workflows leveraging unstructured data formats with integrated digital processes, enabling researchers and external collaborators to share

structured datasets directly within the platform, thereby eliminating transcription errors and significantly improving reproducibility and traceability.

"[...] Uncountable is redefining how life sciences organizations harness data, transforming fragmented information into a unified, actionable intelligence layer that accelerates decision-making across R&D and manufacturing."

**- Unmesh Lal,
Vice President, Healthcare & Lifesciences**

The platform's integrated ELN capabilities ensure that experimental data is captured with full contextual integrity, while the embedded LIMS functionality manages samples, testing workflows, and laboratory operations at scale. Beyond the laboratory, the inclusion of PLM functionality extends visibility into the broader innovation portfolio, enabling organizations to assess the impact of upstream changes like supplier innovations or regulatory

constraints on downstream product development. Complementing this extended visibility, the Quality Control LIMS and QMS modules close the loop between development and manufacturing by linking quality data generated on production lines back to R&D decisions. This end-to-end traceability enables faster root cause analysis and supports proactive quality optimization, a critical requirement in highly regulated pharmaceutical environments.

A defining strength of Uncountable's platform lies in its advanced analytics and AI capabilities. By combining structured datasets with preserved experimental context, the platform enables the application of large language models (LLM) and advanced querying tools to generate actionable insights in real time. Scientists can interrogate datasets, identify patterns, and assess the impact of variables across experiments and production processes, significantly accelerating decision-making. Importantly, this approach shifts the industry paradigm from data accumulation to data utilization, ensuring that every piece of captured data contributes to ongoing innovation and operational improvement.

The platform is designed to support the full continuum of R&D and manufacturing workflows, enabling organizations to transition seamlessly from discovery through scale-up. Its ability to connect upstream innovations, such as new materials or process inputs, with downstream manufacturing outcomes allows companies to respond rapidly to supply chain disruptions, quality deviations, or regulatory changes. This cross-functional visibility enables faster problem resolution and continuous improvement in product quality, which is particularly valuable in an increasingly complex and globalized pharmaceutical value chain, where agility and responsiveness are critical competitive differentiators.

"I could not identify a deficiency for Uncountable's ELN for process chemistry. The application is very configurable to what the chemist wants to see. There is an amazing number of plug-ins to bring in different formatted content and visualizations."

-Anonymized Customer Testimonial¹

Within CDMO environments, Uncountable's platform enables more structured and efficient data exchange between sponsors and service providers, addressing persistent challenges in technology transfer, process scale-up, and multi-program collaboration. By creating a unified data layer across

¹ Provided by Uncountable.

development and manufacturing workflows, the platform supports improved continuity, reduces miscommunication risks, and enhances transparency across complex outsourcing ecosystems.

Uncountable further strengthens its value proposition through a pragmatic and flexible deployment model. Recognizing the challenges associated with enterprise-scale transformation, the platform supports incremental adoption, allowing organizations to transition from legacy systems to fully structured digital processes over time. Its interoperability with existing enterprise systems, including Manufacturing Execution Systems and other data sources, ensures that clients can integrate Uncountable into their existing technology landscape without requiring disruptive, wholesale system replacements.

Ultimately, Uncountable's unified platform redefines how scientific data is captured, shared, and leveraged, positioning it as a critical enabler of digital transformation in the life sciences sector. Its ability to integrate disparate functions, preserve data context, and deliver actionable insights at scale underscores its leadership in enabling technology innovation, providing organizations with a powerful foundation to accelerate discovery, improve operational resilience, and bring products to market more efficiently.

Transforming Complex R&D Ecosystems through Context-Driven Innovation

Uncountable demonstrates strong application diversity by delivering a platform that is deeply specialized for pharmaceutical and biotechnology environments while remaining adaptable across a broader range of R&D-intensive industries. Unlike traditional point solutions such as standalone ELN or LIMS systems, the company delivers a unified architecture that integrates multiple functionalities into a single environment. This approach reduces system fragmentation and enables seamless data flow across the product lifecycle, positioning the platform as a comprehensive digital backbone rather than a discrete software tool. Its core design is centered on structured data, standardized communication, and integrated workflows, enabling scientists, chemists, and research teams to operate within a unified digital environment regardless of domain.

Within the pharmaceutical and biotechnology space, the platform aligns well with the increasing complexity of modern drug development, including advanced modalities such as biologics. These domains require highly interconnected workflows, seamless collaboration, and strong data traceability. Uncountable addresses these needs by capturing structured experimental data and the contextual rationale behind scientific decisions, enabling organizations to manage complexity more effectively while accelerating development timelines.

"Uncountable's instrument integration allows for various instruments through SFTP and API integrations. This allows data to be automatically uploaded from instruments to the system. It can also upload data directly, and technicians can manually upload data from instruments by dragging and dropping CSV files into the system. The system can connect to modern software like HPLC machines, sending sample lists and test information to the instrument and receiving data back."

-Anonymized Customer Testimonial²

² Provided by Uncountable.

A defining element of Uncountable's application diversity is its ability to extend beyond internal workflows and enable collaboration across organizational boundaries. The platform directly addresses a critical gap in the industry: inefficient and fragmented communication between sponsors and external partners such as CROs and CDMOs. By replacing unstructured methods with structured, controlled data-sharing mechanisms, the company improves data integrity, reduces errors, and enhances collaboration speed across the value chain. Moreover, by delivering a single source of truth for scientific and operational data even across expansive global enterprises, the platform ensures that insights are accessible across teams, functions, and geographies, thereby maximizing organizational alignment and efficiency.

Uncountable anchors its commitment to innovation in its focus on data utilization rather than data accumulation. While many organizations prioritize building data lakes, the company emphasizes the importance of making data actionable. By preserving contextual information alongside structured datasets, the platform enables more meaningful analysis and informed decision-making. This approach transforms data from a passive asset into an active driver of innovation and operational efficiency.

The integration of AI, particularly LLM capabilities, further reinforces Uncountable's innovation strategy. These tools leverage the platform's structured and contextual data environment to enable advanced querying, pattern identification, and real-time decision support. Scientists can explore datasets more intuitively, uncover insights faster, and accelerate experimentation cycles, significantly improving speed and quality of outcomes.

Importantly, Uncountable grounds its innovation model in continuous customer feedback. Real-world challenges observed across its client base drives product development, ensuring that enhancements are practical, relevant, and aligned with evolving industry needs. This empirical, user-centric approach warrants that innovation delivers tangible value instead of theoretical capability.

Through its combination of broad applicability, creative execution, and forward-looking innovation, Uncountable positions itself as a transformative enabling technology provider capable of addressing the growing complexity and pace of modern R&D.

Driving Enterprise-Scale Adoption through User-Centric Execution Excellence

Uncountable delivers a highly differentiated customer purchase and service experience by aligning its deployment model, engagement approach, and product delivery with the realities of complex enterprise environments in the life sciences industry. Rather than adopting a transactional software sales model, the company operates as a long-term partner focused on ensuring successful adoption, sustained value realization, and continuous alignment with evolving client needs. This approach is particularly critical in pharmaceutical and biotechnology organizations, where digital transformation initiatives often fail due to misalignment between technology capabilities and operational execution.

A defining strength of Uncountable's customer purchase experience lies in its enterprise-first strategy. By focusing on enterprise-wide rollouts instead of isolated, team-level implementations, the company ensures that customers realize the full value of a unified data environment. This approach directly addresses a common industry issue, where fragmented deployments limit usability and prevent meaningful insights from being generated.

“Unlike traditional point solutions such as standalone ELN or LIMS systems, the company delivers a unified architecture that integrates multiple functionalities into a single environment. This approach reduces system fragmentation and enables seamless data flow across the product lifecycle, positioning the platform as a comprehensive digital backbone rather than a discrete software tool.”

**- Unmesh Lal,
Vice President, Healthcare and Lifesciences**

The company further enhances the purchasing experience through a structured and pragmatic implementation methodology. Recognizing that large-scale deployments cannot succeed through rapid or overly optimistic timelines, Uncountable emphasizes phased rollouts tailored to each client’s organizational structure. These implementations are often executed site-by-site or function-by-function, enabling controlled adoption, minimizing disruption, and ensuring that each stage is optimized before scaling further. This disciplined approach reduces risk while building confidence among stakeholders,

ultimately improving overall project success rates.

Central to this process is Uncountable’s strong in-house implementation team, which plays a critical role in delivering consistent and high-quality outcomes. Unlike vendors that rely heavily on third-party integrators, the company maintains direct ownership of the deployment process, enabling tighter quality control and deeper alignment with customer objectives. The team frequently engages on-site with client organizations, providing hands-on support and facilitating real-time problem-solving during implementation. This level of engagement ensures that the platform is deployed effectively and allows it to be tailored to the specific workflows and requirements of each customer.

Uncountable’s global presence further strengthens its customer service capabilities. With teams operating across key regions, including North America, Europe, and Asia-Pacific, the company is well positioned to support multinational organizations operating in various time zones. This proximity to customers enables more responsive service delivery and ensures that implementation and support activities remain closely aligned with regional operational needs.

A critical differentiator in Uncountable’s approach is its emphasis on end-user experience going beyond the typical focus on solely the requirements of technology buyers. In many enterprise software deployments, purchasing decisions are driven primarily by technical or compliance considerations, often at the expense of usability. The company explicitly addresses this imbalance by prioritizing user adoption and satisfaction, recognizing that long-term success depends on whether scientists and operational teams actively engage with the platform. By designing workflows that align with how users naturally work and by incorporating feedback into ongoing product development, Uncountable ensures high levels of engagement and sustained utilization.

A strong focus on stakeholder alignment complements this user-centric approach. Uncountable actively bridges the gap between technical decision-makers and end users, ensuring that both groups’ needs are addressed. This dual-focus strategy mitigates a common failure point in digital transformation initiatives, where solutions meet technical requirements but fail to deliver practical value to operational teams. By aligning these perspectives early in the process, the company significantly improves adoption outcomes and overall customer satisfaction.

The company also distinguishes itself through its transparency and realism during the sales and implementation process. Rather than overselling capabilities or underestimating the complexity of deployment, Uncountable sets clear expectations regarding timelines, resource commitments, and potential challenges. This honesty builds trust with customers and fosters stronger, more collaborative relationships. It also ensures that projects are approached with the appropriate level of rigor, reducing the likelihood of delays or failures.

Ultimately, Uncountable's customer experience strategy is centered on breaking the cycle of failed enterprise software adoption that has historically affected the life sciences industry. By combining structured implementation, strong in-house expertise, user-centric design, and ongoing partnership, the company ensures that customers not only purchase the platform but also successfully adopt and scale it, realizing its full value over time.

Establishing Market Leadership through Proven Impact and Enterprise Trust

Uncountable builds a strong and distinctive brand within the life sciences informatics space by positioning itself as a premium provider of unified, enterprise-grade R&D solutions. Its reputation is anchored in its ability to address one of the most persistent and complex challenges in the industry, data fragmentation, through a cohesive platform that integrates research, development, quality, and manufacturing workflows. This unified vision differentiates the company from traditional point-solution vendors and reinforces its identity as a forward-looking enabling technology leader.

A key component of Uncountable's brand equity is its consistent focus on enterprise-scale value delivery. From its inception, the company has targeted large scientific organizations, where the challenges of data silos, global operations, and cross-functional coordination are most pronounced. By successfully deploying its platform across complex, multi-site environments and supporting large, multi-site enterprise deployments, Uncountable demonstrates technical maturity and operational reliability. This enterprise focus strengthens its credibility and positions the company as a trusted partner for organizations undergoing large-scale digital transformation.

Uncountable's premium positioning further enhances its brand perception. The company explicitly acknowledges that its solution may come at a higher price point than traditional systems; however, it justifies this with the depth of functionality, scalability, and the tangible value it delivers. By enabling faster R&D cycles, improving data utilization, and enhancing responsiveness to operational challenges, the platform generates measurable returns for its customers. This strong alignment between cost and value reinforces Uncountable's image as a high-impact, results-driven solution provider.

"The system is designed to be highly configurable and maintainable. Here are the key points: no-code environment, flexible column addition, template creation, workflow editor, customizable request forms, and a label editor. I thought this system possesses excellent configurability."

-Anonymized Customer Testimonial³

Commercialization success is evident in the company's ability to translate its technological capabilities into real-world impact across its customer base. Organizations using the platform report improved speed

³ Provided by Uncountable.

in addressing supply chain changes, faster identification and resolution of quality issues, and enhanced collaboration across internal teams and external partners. These outcomes directly influence critical business metrics such as time-to-market, operational efficiency, and product quality, demonstrating that Uncountable's value proposition extends well beyond theoretical benefits to deliver tangible, high-value results.

A notable validation of Uncountable's commercial impact is reflected in its engagement with leading research institutions, including St. Jude Children's Research Hospital. St. Jude's Kalodimos Lab struggled to collaborate effectively and manage large volumes of complex scientific data generated across research teams. Uncountable implemented a centralized data platform that made information accessible, automated routine lab workflows, and provided tools such as well-plating interfaces and machine learning for analysis. As a result, researchers saved time, improved decision-making, and identified patterns more quickly, accelerating experimental design and execution. Ultimately, the partnership enabled faster, more coordinated research progress, helping advance St. Jude's efforts to develop new cancer treatments.⁴

Uncountable's growing presence within the broader life sciences ecosystem further contributes to its brand strength. The company actively expands its footprint through increased collaboration with CROs and CDMOs, addressing the rising demand for more integrated and transparent outsourcing models. By facilitating secure, structured data exchange across organizational boundaries, Uncountable helps to create a more connected and efficient R&D ecosystem.

Equally important is Uncountable's role as a thought leader in shaping the future of data utilization within life sciences. By emphasizing the importance of preserving context alongside structured data and enabling AI-driven insights, the company is redefining how organizations extract value from their data assets. This forward-looking perspective enhances its brand credibility and positions it at the forefront of digital transformation in the industry.

Overall, Uncountable builds its brand equity on a combination of technological innovation, enterprise-scale execution, and proven commercialization success. Its ability to consistently deliver measurable outcomes, supported by credible use cases such as leading research institutions, underscores its leadership in enabling technologies and strengthens its position as a trusted partner in advancing life sciences R&D.

Conclusion

Uncountable distinguishes itself as a transformative force in life sciences by delivering a unified, artificial intelligence-driven platform that eliminates data silos, preserves critical scientific context, and seamlessly connects research and development (R&D), quality, and manufacturing into a single, scalable system. Its ability to translate structured, contextualized data into actionable intelligence, while enabling cross-enterprise collaboration and accelerating response to supply chain and quality challenges, demonstrates technological leadership and real-world impact. Through a user-centric deployment model and proven enterprise-scale execution, Uncountable ensures sustained value creation for its customers. Backed by strong commercialization success and validated in mission-critical environments, the company supports

⁴ <https://www.uncountable.com/resources/st-jude-childrens-research-hospital-case-study>

improved operational efficiency, decision-making speed, and collaboration across R&D environments, solidifying its position as a clear leader in enabling technology for the life sciences sector.

For its strong overall performance, Uncountable is presented with Frost & Sullivan's 2026 Global Enabling Technology Leadership Recognition in the integrated pharmaceutical R&D platform industry.

What You Need to Know about the Technology Innovation Leadership Recognition

Frost & Sullivan's Technology Innovation Recognition identifies the company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value.

Best Practices Recognition Analysis

For the Technology Innovation Leadership Recognition, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Business Impact

Financial Performance: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Leveraging innovative technology characterizes the company culture, which enhances employee morale and retention

Best Practices Recognition Analytics Methodology

Inspire the World to Support True Leaders

This long-term process spans 12 months, beginning with the prioritization of the sector. It involves a rigorous approach that includes comprehensive scanning and analytics to identify key best practice trends. A dedicated team of analysts, advisors, coaches, and experts collaborates closely, ensuring thorough review and input. The goal is to maximize the company's long-term value by leveraging unique perspectives to support each Best Practice Recognition and identify meaningful transformation and impact.

VALUE IMPACT			
STEP		WHAT	WHY
1	Opportunity Universe	Identify Sectors with the Greatest Impact on the Global Economy	Value to Economic Development
2	Transformational Model	Analyze Strategic Imperatives That Drive Transformation	Understand and Create a Winning Strategy
3	Ecosystem	Map Critical Value Chains	Comprehensive Community that Shapes the Sector
4	Growth Generator	Data Foundation That Provides Decision Support System	Spark Opportunities and Accelerate Decision-making
5	Growth Opportunities	Identify Opportunities Generated by Companies	Drive the Transformation of the Industry
6	Frost Radar	Benchmark Companies on Future Growth Potential	Identify Most Powerful Companies to Action
7	Best Practices	Identify Companies Achieving Best Practices in All Critical Perspectives	Inspire the World
8	Companies to Action	Tell Your Story to the World (BICEP*)	Ecosystem Community Supporting Future Success

*Board of Directors, Investors, Customers, Employees, Partners

About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at <http://www.frost.com>.

The Growth Pipeline Generator™

Frost & Sullivan's proprietary model to systematically create ongoing growth opportunities and strategies for our clients is fueled by the Innovation Generator™.

[Learn more.](#)

Key Impacts:

- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

Analytical Perspectives:

- Megatrend (MT)
- Business Model (BM)
- Technology (TE)
- Industries (IN)
- Customer (CU)
- Geographies (GE)

