

IDC MarketScape: Worldwide Life Science R&D Strategic Consulting Services 2023 Vendor Assessment

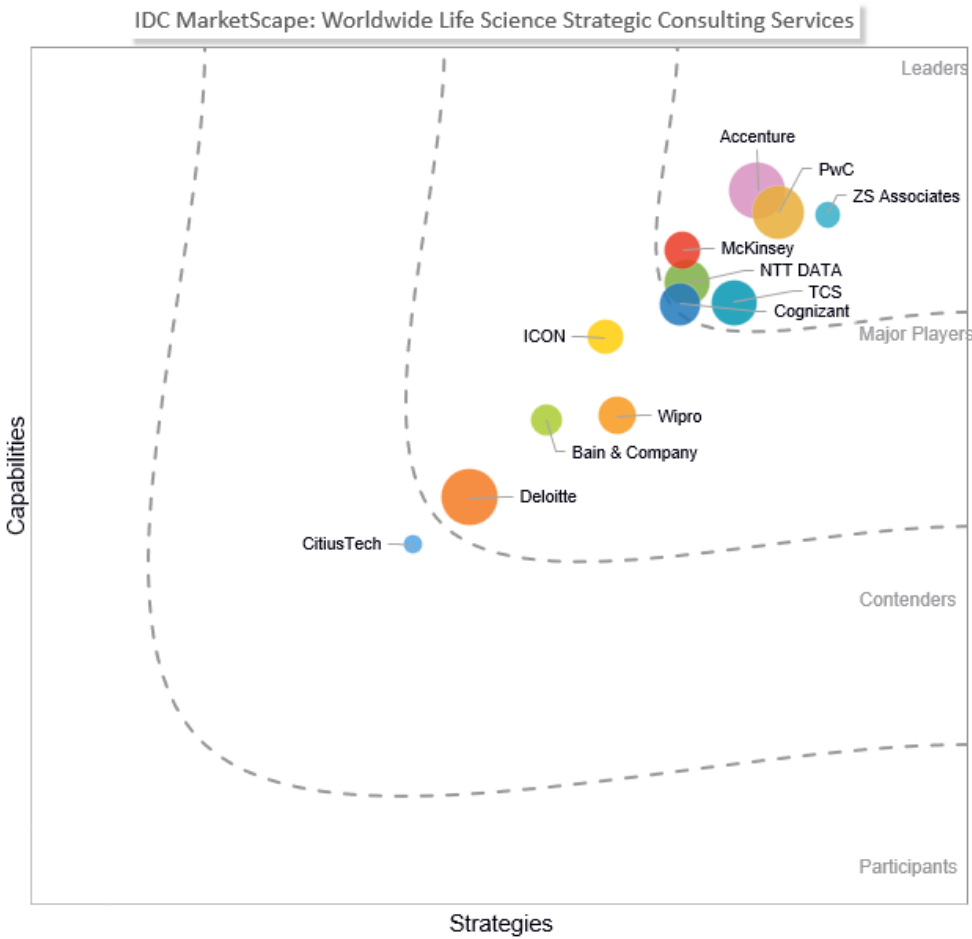
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THIS MARKETSCAPE EXCERPT FEATURES NTT DATA

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Life Science R&D Strategic Consulting Services Vendor Assessment



Source: IDC, 2023

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Life Science R&D Strategic Consulting Services 2023 Vendor Assessment (Doc # US49950023). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

The life sciences industry is struggling to reach a steady state. It has undergone wave after wave of disruption, owing to the COVID-19 pandemic, the evolving geopolitical scenario, and now, by generative AI. We saw technology adoption, remote patient monitoring, and decentralized clinical trials peak during the pandemic. For an industry that was once recalcitrant to technology adoption, it led by example by rapidly adopting technology to scale innovation and accelerate trials to bring drugs and vaccines to the market faster. Yet, after the pandemic, things gradually started slipping back to the old state, though many people were questioning this – should we really be regressing? If we could leverage technology to drive such significant efficiencies in the past, why can't we continue to do so? And the answers aren't simple. So, the industry is in flux, uncertain as to how it should navigate ever-changing global scenarios, comply with rapidly evolving regulations, and adopt disruptive technologies, such as generative AI, and yet come out as a winner. This is where the industry is looking to its strategic consulting (SC) partners for guidance.

SC companies are moving up on the maturity curve, bringing to the table strong technological expertise, deep scientific and therapeutic knowledge, as well as expertise in commercial strategy, portfolio management strategy, business process reengineering, mergers and acquisitions (M&A), and innovation and change management planning. They are also attempting to differentiate themselves by offering expertise in niche areas such as the "lab of the future," cell and gene therapies, medical imaging and interoperability, device design, modeling, and testing.

From a SC perspective, transformation initiatives that the life sciences industry is undertaking include:

- Analytics/business intelligence (BI) application development/data mining
- Predictive modeling
- Management consulting/advisory services
- Organization change management
- Clinical trial budget management
- Clinical efficiency and productivity improvement
- R&D reference architecture definition
- R&D operating model design and implementation
- Process optimization/simplification
- IT system blueprinting
- Decentralized clinical trials implementation strategy
- Digital health strategy

- Data integration strategy
- Data placement strategy
- Regulatory compliance services
- Partner selection and vendor oversight
- Therapeutic/disease area strategy
- Translational research strategy
- Clinical asset optimization
- Global pricing and market access strategy
- Asset value and evidence communication
- Due diligence and asset valuation
- Business model innovation
- Application rationalization
- Infrastructure optimization
- Turnaround strategy
- M&A strategy

The bucket list is large, the demand is expanding, and as "strategic consulting as a service" continues to grow rapidly, each SC services provider works to figure out their sweet spot.

But as organizations try to figure out which partners will make a difference to their growth trajectory, they are looking for players with depth and breadth of domain and technical expertise and the right cultural fit and strategic thinkers who can help them accelerate their innovation agendas. They're looking for a one-stop shop that will help drive digital and organizational transformation across the enterprise and help outline a strategic road map.

While SC service providers vary widely in the relative strengths of their offerings, there are multiple vendors with sufficient experience to compete for requests for information, requests for proposals (RFPs), and other service requests. Therefore, companies must shrink the broad list of prospective vendors to a short list of service providers based on a balanced scorecard that accurately captures specific company requirements and needs. Successful selection of a single service provider or a limited number of preferred providers depends on carefully considering key criteria. Building on contributions from major life science R&D SC service providers (including premier vendors and emerging new vendors in this space), this study examines the life science R&D SC vendor landscape today with a view toward expected growth over the next three to five years.

IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

IDC frequently has unique insights into vendor selection processes within life science companies through clients and contacts in the industry. For a vendor to be considered for inclusion in this study, its services must have been significantly evaluated for the potential to engage clients within the target IDC MarketScope space.

The key inclusion criteria included:

- Vendors should have had at least five customers for their SC offering for at least 12 months as of January 1, 2022.

- Vendors should provide consulting services for one or more of the areas listed below:
 - High-level management consulting and advisory services (including portfolio and other R&D strategy development, new business model assessments and strategies, and globalization strategy development and implementation)
 - Data and digital health strategy
 - Operation and process optimization development and implementation services (including IT framework development, outsourcing strategies, and organizational change management support)
 - Drug development strategy
 - Technology adoption and implementation strategy development (including mobile, cloud, Big Data, and social communication strategy development)
- Vendors should have a minimum revenue of \$200 million.

Further research and due diligence were then conducted to narrow the list of vendors to only those IDC views as legitimate contenders for future deals within the life science R&D SC space. The 12 vendors selected to participate in this study are:

- Accenture
- Bain & Company
- CitiusTech
- Cognizant
- Deloitte
- ICON
- McKinsey
- NTT DATA
- PwC
- TCS
- Wipro
- ZS

ADVICE FOR TECHNOLOGY BUYERS

As per IDC's life sciences digital transformation survey concluded in May 2023, 90% of the life sciences industry considers digital transformation a top priority, and 45% saw up to a 25% increase in investment in digital transformation in 2023, whereas about 10% saw an increase in investment of up to 25%-50%. Companies are at different stages on the maturity curve of digital transformation, business process reengineering, organizational restructuring, and M&As to help set the company up for success.

As per the IDC's life sciences digital transformation survey concluded in May 2023, following data security and privacy, costs, and the ability to integrate digital projects across the organization, the industry saw the identification of the right strategic partners as their biggest challenge. As per IDC's view of the strategic consulting ecosystem, key attributes that life science companies should be looking for in their service providers include:

- The breadth and depth of life sciences R&D SC services
- Expertise in digital transformation in the life sciences industry
- Platforms and accelerators that the partner brings to the table
- Strong digital and analytical skills
- The number of prior related engagements the vendor has completed
- Geographical footprint and global delivery capabilities (typically associated with strategy implementation)
- The focus of the vendor on the life science R&D sector and the number of consultants with relevant expertise
- The ability to provide interdisciplinary expertise and bring an "outside-in" approach to add value to the conversation
- The vendor's pace of investment in innovation
- Flexible pricing models and the vendor's willingness to co-invest and share risk
- The depth of business-related, industry-specific knowledge and the ability to apply this knowledge to improve specific client performance
- Foundational service capabilities (where applicable), corporate financial stability, and the ability to accommodate different types and sizes of life science clients
- Customer references to examine vendor capabilities surrounding project management, change management, technical skills, account management, and overall value delivery
- Vendor's initiative to bring together industry leaders by building consortiums, providing mind share, and fueling innovation
- Life sciences regulatory expertise across geos and expertise in cybersecurity.
- Expertise in AI in general and in generative AI in particular
- The ability to serve as a change agent at an enterprise level

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

NTT DATA

After closely evaluating NTT DATA's offerings and capabilities, IDC has positioned the company in the Leaders category in the 2023 IDC MarketScape for worldwide life science R&D strategic consulting services.

Headquartered in Tokyo, Japan, NTT DATA has over 190,000 employees, with 4,500 representing life sciences and two-thirds focusing on SC. NTT DATA Inc., part of NTT DATA, was formed by consolidating NTT DATA's businesses outside Japan and NTT Ltd, in 2022. NTT DATA has been serving the life science industry for more than 25 years and has over 90 pharma, biotech, medical device, generics, and CRO customers, with pharma representing close to two-thirds and medical devices representing about a third of the same. About two-thirds of its customers are based in the United States, a fourth in Europe, and 10% in APAC. Close to 90% of its customers have over a billion dollars in revenue. About a third of its revenues represent its life sciences SC revenue.

Facts about NTT DATA include:

- **Strategic initiatives:** In 2022, NTT DATA established a global life sciences COE offering consolidated product offerings and centralized delivery. Within this COE, NTT DATA has a good mix of R&D subject practitioners, including physicians, digital health experts, RWD experts, biotech leads, GXP leads, program managers, corporate marketing specialists, and technology experts. It has been investing heavily in generative AI and digital twins. NTT DATA Business Insights Engine and other solutions for data integration have been brought together to create a centralized ecosystem overlaid by advanced analytics and technologies (including AI, ML, and NLP) to derive descriptive, diagnostic, and predictive insights and support industry-specific use cases. Through its acquisition of Dell Services' IT services division, a major provider of technology consulting to healthcare organizations and government departments, NTT DATA now has access to the Unified Clinical Archive (UCA) solution, featuring imaging insights, clinical intelligence, advocate AI, and operational intelligence. It acquired Everis, a global consulting firm offering business and strategic solutions, development and maintenance of technological applications and outsourcing services. Its growth areas include cloud transformation, digital engineering and application modernization, the development of cloud enterprise apps, data and intelligence /data as an asset, and consulting. In addition to developing technology solutions, it focuses on process optimization in R&D, supply chain, and manufacturing. It is developing customer-centric solutions in the areas of decentralized clinical trials, digital therapeutics, and AI-based clinical diagnosis. NTT DATA's solution lead serves as the co-chair of the ML/AI industry liaison committee and the virtual imaging trial committee of The American Association of Physicists in Medicine.
- **M&As and partnerships:** NTT DATA has invested in a series of acquisitions to augment its positioning in the digital transformation space. In 2022, NTT DATA acquired Aspirent, an analytics and digital transformation consulting firm, Apisero (bringing in 1,500 certified MuleSoft consultants and 500 Salesforce consultants), Umvel (expanding NTT DATA's product innovation, design, and engineering footprint in Mexico), Postlight (bringing expertise in building web and mobile products), and Vectorform (a digital transformation and innovation company). In 2021, it acquired Chainalytics (named by Forbes as a "best management consulting firm," with supply chain expertise) and Nexient (bringing in an agile software development team to NTT DATA, supporting its application development and modernization practice). In 2020, NTT DATA acquired Hashmap (a Snowflake Premier Partner) and Acorio (an Elite ServiceNow partner) to help accelerate clients' digital transformation journeys. It acquired Flux7, an Amazon Web Services partner, to support digital transformation. In 2019, it acquired NETE (a digital services and health information technology solutions for U.S. federal healthcare agencies) and Cognosante in 2019, which enables health information exchanges for federal agencies, delivering interoperability between providers, plans, managed care organizations, and other entities. The acquisition of Dell Services in 2016 was focused on life science R&D services.
- **Pricing models:** NTT DATA uses fixed price (structured engagements with defined scope) as its main pricing model. It provides a fixed fee per POD, where a POD represents a dedicated team. It offers a time and materials model (for long-term software development contracts), an end-to-end ownership model for strategic contracts, an automation/savings-based model (for process automation contracts), and an outcomes-based/risk-sharing model for complex projects. 5% of its contracts involve risk sharing.

Strengths

NTT DATA is a Japanese multinational information technology service and consulting company. Its differentiators include its domain expertise, digital transformation capabilities, intellectual property, and robust partner ecosystem, enabling it to drive innovation and digital transformation globally. It helps clients drive workforce transformation and business resilience and build a data-driven enterprise through its modern workforce, connected infrastructure solutions, its Nucleus intelligent enterprise platform offering, and through "Launch by NTT DATA," where it partners with its clients to propel product strategy and development forward, enabling clients to scale digital experiences. The top 5 areas in which NTT DATA supports its customers with its SC capabilities include the development of IT and application road maps, digital transformation, data analysis and insights, digital user experience, data privacy strategy, and infrastructure consulting. It has also engaged extensively with customers in the areas of business intelligence, application development/data mining, application rationalization, and infrastructure optimization. It has executed several engagements in the areas of IT system blueprinting, data integration and placement strategy, predictive modeling, M&A strategy, management consulting/advisory services, and OCM. The bulk of its SC work focuses on drug discovery, pre-clinical trials, clinical trials, regulatory compliance/submissions, and marketing. About 95% of its SC engagements include an innovation component, and 40% contain an AI component. It expects to see 100% growth in the application of AI/ML in its initiatives in the next three years.

NTT DATA's Advocate AI services deliver tools to develop algorithms or validate existing AI tools (third-party algorithms) with a customer's patient population's imaging data. In addition to its AI algorithm evaluation model, NTT DATA offers a data broker model leveraging automated tools to create a database of anonymized and curated clinical imaging data, allowing customers to create revenue from licensed data sets. It has developed a generative AI road map for its customers. It has collaborated with Microsoft Azure Open AI to create accelerators for different use cases. It is developing POCs with clients related to application modernization, business process outsourcing (BPO) and intelligent document processing (IDP), as well as for the generation of synthetic test data for claims and enrolment. Its Nucleus IDP document summary tool uses NLP and Google Bard's generative AI capability to paraphrase text accurately and instantly. Nucleus is its intelligent enterprise and analytics platform, enabling biomarker identification, site identification, and patient identification. It offers Nucleus for UCA, one of the world's largest hybrid cloud-based imaging archives, with over 50 billion cloud-based medical images. PhambieLINQ is its solution for optimizing clinical trial processes and driving interoperability between electronic medical records and electronic data capture platforms.

One of NTT DATA's most complex SC engagements involved driving digital transformation in clinical development and identifying requirements for the efficient development of high-quality clinical trial-related documents. After NTT DATA's advisory team had conducted in-depth interviews and assessed the documentation process, it co-created solutions along with its customers, leveraging NTT DATA's IP and AI/ML, as well as technology components such as ontology and semantics. The solution enabled the sequential generation of various clinical trial-related documents across the drug development process, using data from the protocol as input information. To quote the head of business process management and medical safety of a large American life sciences instrumentation company, "NTT DATA helped us set up our Global IT service desk. They are our strategic supplier. They brought a lot of tech and innovation, consulting, chatbots, integrations for the service desk, IVR, etc. It was a managed service, and they really managed that service. They performed a deep analysis of data and identified which areas we could move from level 2 and 1.5 to level 1 by upskilling these resources. They established a remote level 2 support team in Costa Rica. When COVID progressed, with this model, the NPS score increased. APAC had zero attrition with great NPS scores -I don't know how

they did that. They created hubs in different continents for asset management. They did what was best for us, even if it meant absorbing costs. They are a Japanese company and will always do the right thing and will die on the sword if needed. Thanks to NTT DATA, we achieved \$2.2 million worth of savings. They are helping us build a PMO. We will consult with NTT DATA. And nobody can beat NTT DATA when it comes to costs."

Challenges

While NTT DATA has a diverse SC portfolio, SC services positioned for further development include therapeutic/disease and translational research strategy, clinical asset optimization, clinical trial budget management, asset value and evidence communication, due diligence and asset valuation, R&D operating model design and implementation, and turnaround strategy. While it has depth of experience in the clinical trial space, it should build its capabilities in areas such as drug safety and medical writing. While 70% of the world's largest pharma are its customers, and it is considered to be on point when it comes to PM for larger engagements, communication and staff augmentation could be better for smaller engagements. NTT DATA has made many acquisitions but should invest efforts in integrating these companies with the NTT DATA way of doing things.

Consider NTT DATA When

Consider NTT DATA when seeking a digital and data transformation partner that develops innovative solutions for data integration and placement strategy, application rationalization and infrastructure optimization, and a company that can drive IT system blueprinting and M&A strategy.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well-aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each vendor within the specific market segment being assessed.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores and vendor

positions on the IDC MarketScape on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

For this study, strategic consulting is defined broadly to include:

- High-level management consulting and advisory services (including portfolio and other R&D strategy development, new business model assessments and strategies, and globalization strategy development and implementation)
- Data and digital health strategy
- Operation and process optimization development and implementation services (including IT framework development, outsourcing strategies, and organizational change management support)
- Drug development strategy
- Technology adoption and implementation strategy development (including mobile, cloud, Big Data, and social communication strategy development)

This IDC MarketScape evaluates life sciences R&D strategic consulting services capabilities.

Market Overview

The life science industry is in a hurry to innovate, bring new products to the market, and transform and leverage new tech, yet it is an industry that wants to ensure that all the necessary guardrails are in place. The life sciences industry is expected to undergo the maximum disruption due to generative AI. A third of the life sciences industry envisions shifting the budget from other digital transformation projects. A third looks at increasing its overall IT budget to ensure timely investment in generative AI (source: IDC's *GenAI ARC Survey*, August 2023).

The evolving trends that are shaping the SC landscape include:

- The industry is seeing the convergence of business and IT functions. As a result, the industry is looking for guidance on organizational redesign, building digital literacy within business functions, and enabling it to develop a deeper understanding of business needs.
- There is a growing ask of the SC partner as a change agent to drive enterprisewide change, touching each stakeholder.
- While the COVID-19 pandemic fueled technology adoption and created an appetite for innovation, there has been a waning in this appetite post-pandemic. And the CXO focus has once again shifted from growth to sustainability. As a result, SC companies need to reset their focus from scaling innovation to driving efficiencies. However, the "Generative AI explosion" has sharpened this industry's appetite for technology adoption once again, as the industry explores use case after use case to find opportunities for disruption.
- "AI-everywhere" is happening here and now. While there is considerable excitement, uncertainty reigns high about the risks associated with the use of generative AI. Concerns regarding the use of responsible and ethical AI, how to address bias, model drift, and hallucinations, how to ensure data security and privacy, and how to ensure regulatory compliance and patient safety are the life sciences industry's top priorities.

- A turbulent geopolitical and uncertain economic environment has sharpened cost sensitivities within the life sciences industry, directly impacting how vendors structure their commercial arrangements.
- This is leading to the growth in innovative commercial pricing models, including outcome-based models, co-investment-linked gain-sharing models, and risk-sharing pricing models.
- There is an increased focus on "patient centricity" and a shift toward "participant-centricity," with a desire to address "caregiver fatigue" and garner critical insights from caregivers as well.
- There is an urgent need for guidance on driving decentralized clinical trials strategy, measuring ROI, integrating technology, and garnering evidence.
- There is an increasing ask to drive interoperability between EHRs and EDC.
- Shifting multiyear technology refresh cycles are presenting challenges to SC service providers in terms of finding niche talent and structuring contracts.
- Various maturity levels within organizations require expertise in adopting the right strategic levers to drive change management, yet one does not always see industry readiness to adopt new-age business models delivered through next-gen technologies.
- There is a high focus on diversity and sustainability and an ask for it to be integrated into all solutions.
- There is a significant focus on leveraging technology to improve the efficiency of PTRS.
- Never before has there been such a huge focus on using RWE/RWD, guiding market access and reimbursement strategy and supporting regulatory submission, fueling diversity, leveraging social determinants of health data, and predicting and influencing clinical outcomes based on digital biomarkers.
- There is a need for guidance on global alignment strategy to bridge the gap between global and local regulatory requirements related to data and technology.
- There are rising cybersecurity concerns and the need for partners to provide guidance and support.

LEARN MORE

Related Research

- *IDC FutureScape: Worldwide Life Sciences 2024 Predictions* (IDC #US51290923, October 2023)
- *IDC PeerScape: Lessons Learned from Generative AI Implementation in Life Sciences and Healthcare* (IDC #US51205523, September 2023)
- *IDC PlanScape: Developing Your Path to Impact with Generative AI* (IDC #US51157323, August 2023)
- *IDC Survey Spotlight: The Most Strategic Generative AI Technology Partners for the Life Science and Healthcare Industries* (IDC #US51184823, August 2023)
- *IDC Survey: Life Sciences Digital Transformation Survey Including Key Use Cases of Generative AI in the Life Sciences Industry* (IDC #US50985623, June 2023)
- *IDC Perspective: Real-World Evidence, Social Determinants of Health, and Digital Biomarkers in Driving Patient Recruitment* (IDC #US50382823, March 2023)
- *IDC MarketScape: Worldwide Life Science R&D Decentralized Clinical Trial Consulting Services 2022 Vendor Assessment* (IDC #US49648822, September 2022)

- *IDC MarketScape: Worldwide Life Science R&D Strategic Consulting Services 2021 Vendor Assessment* (IDC #US48159321, August 2021)

Synopsis

This IDC Health Insights study is a refresher of the life science R&D IDC MarketScape, which has a specific focus on strategic consulting in the life science R&D space. This document seeks to compare major service providers with each other based on criteria that should be important to life science companies when considering the selection of a strategic consulting partner to help provide guidance for strategic, operational, and tactical transformation issues within the R&D space. The IDC MarketScape assessment of strategic consulting outsourcing in life science R&D was previously performed in 2011, 2014, 2016, 2018, and 2021.

Dr. Nimita Limaye, research VP, Life Science R&D Strategy and Technology, IDC, notes, "Ongoing disruption, led by a pandemic, geopolitical turmoil, a recession, and the generative AI wave, have all resulted in a lot of uncertainty for the life sciences industry. As companies try to define the right strategy to forge ahead, they are trying to outline their digital transformation strategy, identify top priority use cases to guide their near-term and long-term IT investment road maps, and revamp their product portfolios while never losing focus on quality, risk, and compliance. The life sciences industry is leaning on its strategic consulting partners to lead the way and prepare their organizations to build digital resiliency and scale growth and innovation in a fast evolving, yet fluid world powered by 'AI everywhere.'"

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. With more than 1,300 analysts worldwide, IDC offers global, regional, and local expertise on technology, IT benchmarking and sourcing, and industry opportunities and trends in over 110 countries. IDC's analysis and insight helps IT professionals, business executives, and the investment community to make fact-based technology decisions and to achieve their key business objectives. Founded in 1964, IDC is a wholly owned subsidiary of International Data Group (IDG, Inc.).

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