

# IDC MarketScape: Worldwide Life Science R&D Strategic Consulting Services 2021 Vendor Assessment

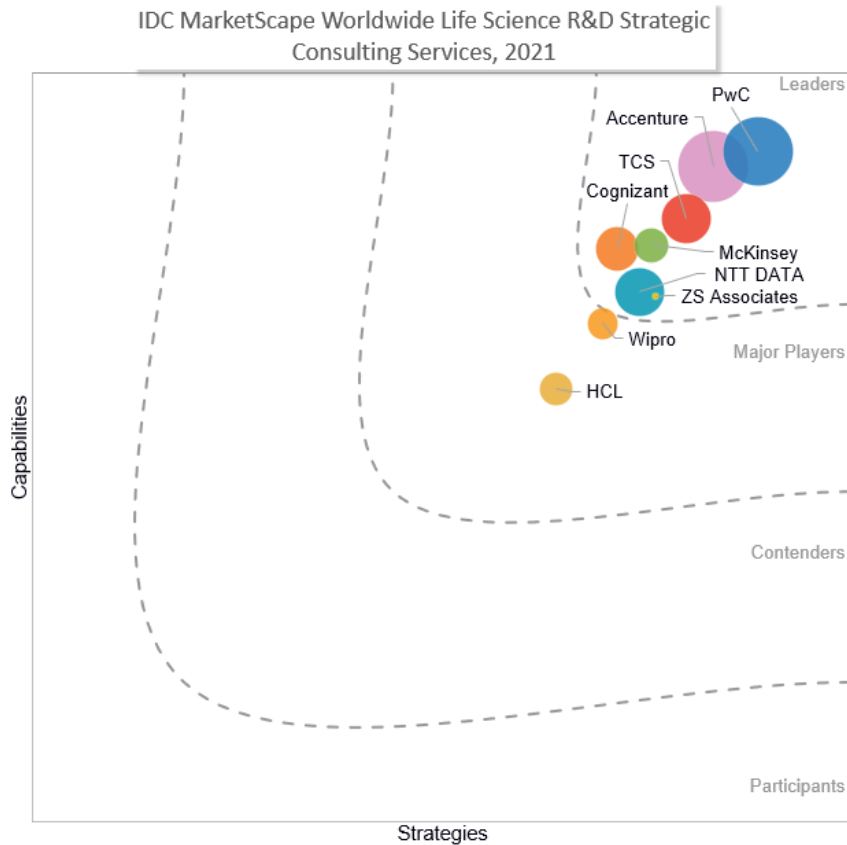
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THIS IDC MARKETSCAPE EXCERPT FEATURES NTT DATA

## IDC MARKETSCAPE FIGURE

FIGURE 1

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



Source: IDC, 2021

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

## IN THIS EXCERPT

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The content for this excerpt was taken directly from IDC MarketScape: Worldwide Life Science R&D Strategic Consulting Services 2021 Vendor Assessment (Doc # US48159321). 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

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The COVID-19 pandemic has brought to bear the importance of strategic consulting (SC) to the life science industry. The industry has gone through a lot of turmoil over the past one-and-a-half years, and the questions that needed to be answered have changed. Externalization strategies are now not being driven solely by vendors that have the ability to deliver increased agility and cost savings, but by vendors that can also provide strategic counsel on business continuity, on digital resiliency, and on the adoption of innovative business models and technologies to deal with this crisis.

As pharmaceutical companies continue on a path of vendor consolidation, choosing service providers that could deliver a full suite of business process outsourcing (BPO) and IT outsourcing (ITO) solutions, complemented by strategic consulting efforts, is becoming a preferred model. The sudden spurt in start-ups, the development of digital ecosystems, and the growing adoption of co-innovation models have led life science companies to seek guidance on the right path ahead and on determining which innovative technology to adopt, which start-up to partner with, and how best to integrate the same within existing workflows. As the boundaries between life sciences and healthcare continue to blur, there has been a heightened focus on the use of real-world evidence. While the industry recognizes that this is where the rest of the world is headed, a lot of questions remain unanswered regarding the right data sources to leverage, the right choice of strategic partnerships, the right strategies to deal with interoperability challenges, and the right ways to utilize the data, to name a few. ITOs that can go a step beyond technology implementation and data integration, to actually providing expert guidance on these matters, will take the lead. Expertise in areas such as the implementation of decentralized clinical trials, prescription digital therapeutics, *in silico* drug discovery, and the lab of the future are some of the areas gaining increasing importance.

From a strategic consulting perspective, transformation initiatives are taking many forms such as:

- Traditional high-level management consulting
- Organizational change management (OCM)
- Application rationalization
- Operations optimization
- Infrastructure optimization
- Partner selection and vendor oversight
- Data integration and monetization
- Turnaround strategy
- Business model innovation

Strategic consulting as a service has been experiencing double-digit growth over the past couple of years and is now experiencing even greater demand, fueled by the business disruption caused by the pandemic. As this competency continues to evolve over half a century, the life science industry is increasingly separating the wheat from the chaff to identify those partners that will truly make a difference to its organizations' growth trajectory. Partnering with the right vendor can help organizations reset their thinking, drive cultural change, and accelerate their innovation agendas. It is keeping in mind the latter that major IT service providers have built industry-specific expertise and started focusing on honing their strategic consulting capabilities.

While strategic consulting service providers vary widely in the relative strengths of their offerings, there are multiple vendors with sufficient experience to compete for RFIs, RFPs, and other service requests. Therefore, it is important for companies to shrink the broad list of prospective vendors to a short list of three to five finalists 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 service providers depends on careful consideration of key criteria. Building on contributions from nine major life science R&D strategic consulting service providers (including both premier vendors and emerging new vendors in this space), this study examines the life science R&D strategic consulting vendor landscape today with a view toward expected growth over the next three to five years. This is the second of three documents (BPO, ITO, and strategic consulting) examining services outsourcing in the life science R&D space (refer to Table 3).

When evaluating vendors, the key criteria IDC believes that life science companies should consider include:

- The breadth of life science R&D strategic consulting services offered; the depth of related platform, project, and/or transformational initiative experience; and the number of prior related engagements the vendor has successfully completed
- Geographical footprint and global delivery capabilities (typically associated with strategy implementation), level of priority and focus by the vendor on the life science R&D sector, and the vendor's pace of investment in related life science industry and/or technology-specific areas
- The depth of business-related, industry-specific knowledge and the ability to apply this knowledge to improve specific client performance and success
- Foundational service capabilities (where applicable), corporate financial stability, and the ability to accommodate different types and sizes of life science clients
- Diligent vetting of customer references to examine vendor capabilities surrounding project management, change management, technical skills, account management, and overall value delivery to clients

## IDC MARKETSCOPE VENDOR INCLUSION CRITERIA

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IDC has unique visibility 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, the vendor's services must have been significantly evaluated by IDC for the potential to engage clients within the target IDC MarketScape space. Further research and due diligence were then conducted to narrow the list of vendors to only those that IDC views as legitimate contenders for future deals within the pharmaceutical R&D space. The nine life science R&D strategic consulting vendors selected to participate in this study were:

- Accenture
- Cognizant Technology Solutions
- HCL Technologies
- McKinsey
- NTT DATA
- PricewaterhouseCoopers (PwC)
- Tata Consultancy Services (TCS)
- Wipro
- ZS Associates

## ADVICE FOR TECHNOLOGY BUYERS

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Strategic consulting services in the life science industry are gaining increasing importance. The focus is on partners that can drive both enterprise agility and digital resiliency. Partners that can help define a long-term strategic road map, moving beyond long-term sustainability to exponential growth powered by digital acceleration, are sought after. As the world transitions from being inward focused to a world of digital ecosystems that are adopting collaborative co-innovation strategies, strategic consulting partners are helping shape these partnering models. With the increased focus on disaggregated care and decentralized clinical trials, a partner that can provide strategic guidance on the right choice of technology platforms, the right technology deployment strategies, and the right patient-centric study implementation models are much in demand. The ability of the consulting partner to transition from operating at the high-level, "bigger picture" stage to getting into the weeds and actually providing handholding through the execution of that strategy becomes a differentiator. As strategic consulting partners take increasing ownership, one is seeing the growth of risk-sharing and outcome-based pricing models. Customers value partners that can provide insights on the competitive landscape – and expert inputs on regulatory strategy – especially in newer areas of technology adoption, such as the use of software as a medical device (SaMD). Smaller biotechnology companies, in particular, do not necessarily have the scale and the bandwidth internally to address these concerns, and this is where the right strategic consulting partner makes a big difference. That is also the reason why one sees a lot of the strategic consulting companies increasing their "emerging to midsize" customer base.

Life science companies are looking for guidance on portfolio strategy, insights on the right value proposition, the right positioning statements for their assets, and inputs on the right pricing constructs. As a result of the extreme obsession with consumers and patients existing today, life science companies are trying to find the right path to drive long-term engagement throughout the patient's journey. It is an interesting time where IT service providers are actively and aggressively working to grow their strategic consulting capabilities, typically in areas adjacent to vendor service strengths, while strategic consulting companies are building their technology, data, and analytics capabilities, largely inorganically, through acquisitions.

In IDC's view of the strategic consulting ecosystem, key attributes that life science companies are looking for in their service providers include:

- Traditional management consulting expertise
- Deep life science industry and/or technology-specific knowledge
- The ability to provide deep insight into the industry landscape, competitive intelligence, and best practices
- Guidance on selecting the right application, platform, framework, and infrastructure
- Understanding of regulatory strategy in newer areas such as prescription digital therapeutics
- Operational experience in the area of interest, as appropriate
- Understanding of the life science business at both the company level and the tactical level
- Access to industry-adjacent best practice knowledge, where appropriate
- The ability to deliver both strategic guidance and direct implementation support for the project of interest
- Experience in organizational change management, driving workforce elasticity and leadership transformation
- Experience in implementing an integrated digital strategy, complemented by driving digital fluency across the organization
- Strong referenceable clients

At the next level, IDC recommends that life science companies consider the following during their vendor selection process:

- The ability to work effectively with multiple stakeholders (including competing service providers) to drive transformation initiatives regardless of organizational boundaries
- Experience and knowledge from adjacent industries
- Internal agreement on the relative importance of quality versus cost in the selection of a service provider
- The ability to deliver a unified service capability over multiple service or geographical areas
- The potential to seamlessly expand services delivered across BPO, ITO, and strategic consulting as part of preferred vendor relationships
- Compatible corporate cultures
- Historical corporate relationships that could impact vendor selection

## VENDOR SUMMARY PROFILES

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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 a close evaluation of NTT DATA's offerings and capabilities, IDC has positioned the company in the Leaders category in the 2021 IDC MarketScape for worldwide life science R&D strategic consulting services.

Established in 1967, NTT DATA has been serving the life science industry for more than 25 years. It is headquartered out of Tokyo, Japan, has its U.S. offices out of Plano, Texas, and has delivery centers in 50 countries across the world. NTT DATA has extensive experience working with over 50 pharmaceutical and biotechnology companies, across multiple geographies, with over half based in the United States, one-fourth in Europe, and 10% in APAC. 85% of its customers have revenue of over \$1 billion, and it derives 17-20% of its revenue from its life science efforts, of which 30% represents its life science R&D revenue. NTT DATA employs over 45,000 people, with more than 3,500 people with specific life science experience, with at least half of them having industry-specific experience.

#### *Strategic Initiatives*

NTT DATA is focusing on building its capability for the ingestion and integration of structured and unstructured data from multiple data sources using the NTT DATA engine (HCLS Insights) powered by Nucleus (NTT DATA's intelligent enterprise platform) to create a foundation for advanced analytics and technologies (such as AI, ML, and NLP) and build descriptive, diagnostic, and predictive insights to provide a multifaceted view into clinical trials and commercial operations. It powers a precision medicine strategy by enabling physician and participant targeting, site identification, and biomarker progression. It is focusing on a user experience approach, collecting all stakeholder input within the patient's ecosystem to provide a comprehensive perspective, and integrating social interaction techniques leveraging assets such as Jibo, the behavioral robot, to help pharma companies design for the future. It is building on its cloud-native global-qualified infrastructure and clinical service desk to enhance employee and customer experience.

## **M&As**

In 2020, NTT DATA acquired Hashmap (a Snowflake Premier Partner) and Acorio (an Elite ServiceNow partner) to help accelerate clients' digital transformation journeys and establish a trusted data foundation to operationalize and scale AI. Almost half of Acorio's revenue come from its life science business. Flux7 is an Amazon Web Services Premier Consulting Partner, which NTT DATA acquired in 2019 and provides cloud implementation and migration, automation, DevOps, and agile application consulting and development services for enterprises. Its acquisition of NETE (2019), a leader in digital services and health information technology solutions for U.S. federal healthcare agencies, provides NTT DATA with expertise in application development, digital services, clinical/bioinformatics, advanced data analytics, cloud, and cybersecurity. It also acquired Cognosante in 2019, which enables health information exchanges (HIEs) for federal agencies, delivering interoperability between providers, plans, managed care organizations, and other entities while also providing intelligent data analytics in a self-service data inquiry environment. The acquisition of Dell Services in 2016 was focused on life science R&D services. On May 18, 2021, NTT DATA entered into an agreement to acquire Nexient, a cloud-native company that will expand NTT DATA's differentiating transformation, modernization, and cloud app development experience. Along with a proactive investment in digital and consulting for life sciences, the Nexient acquisition will accelerate NTT DATA's push into digital therapeutic global app development.

## **Pricing Models**

NTT DATA sees fixed price, milestone-based contracts with a year-on-year reduction in service fees based on automation as the continued industry ask. 20% of its contracts involve risk sharing.

## **Strengths**

NTT DATA brings a broad portfolio of SC capabilities that span healthcare and life sciences, resulting from the acquisition of Dell Services. It brings in a focus on process automation and platform collaboration, with its own IP (Nucleus) eliminating the need for other third-party tools and fees and platform partnerships; it provides an offering that spans the full spectrum of SC services. It has served as a global systems integrator for over 40 years, investing \$3.6 billion annually in R&D. SC represents one-fourth of its business. Half of its SC engagements include an innovation and an AI component, 60% include an IP component, and one-fourth include an AI component. NTT DATA has vast expertise in heterogeneous life science data integration, analysis, data management, and cyber infrastructure. It has been recognized for the high quality of managed services and SLA attainment and for serving as a capable partner for setting up these services from scratch. It is now focusing on digital and cloud, data and operational consulting, and persona and customer experience. NTT DATA is building strong capabilities in areas such as behavioral robotics, through its partnership with MIT Labs (being a corporate sponsor in residence at MIT Media Labs).

Nucleus is NTT DATA's own advanced intelligent enterprise and analytics platform, with in-built bots to enable biomarker identification, site identification, and patient identification. It offers a full suite of enterprise imaging and analytics including infrastructure, managed services, and consulting as part of its Nucleus for Unified Clinical Architecture (UCA), one of the world's largest hybrid cloud-based imaging archives, with over 50 billion cloud-based medical images. It is working on making the use of imaging (MRIs) more cost effective and scalable and has partnered with Vidence (an oncology informatics company) to build advanced ML algorithms to predict patient outcomes. In Japan, NTT DATA develops platforms designed for the Japanese market to transform the case report form (CRF) creation process, in collaboration with various pharmaceutical companies. It evaluates clinical outcomes for cancer patients based on healthcare big data including electronic medical records. And it has partnered with Chugai Pharmaceuticals to develop an AI-enabled clinical trial document generation solution including CRFs, incorporating ontology and semantics. NTT DATA's complete solution, PhambieLINQ, aims to cover an end-to-end clinical trial process and optimizes clinical trials' processes of pharmaceutical companies. It has helped a United Kingdom-based pharma develop a therapeutic-based analytic platform (oncology and respiratory), taking ownership of IT and the big data strategy, and developed scalable ingestion patterns for business-aligned analytics. It reduced the deployment time of AWS and Hadoop-based precision medicine environment from 8 weeks to less than 4 hours, and five drugs were launched faster than the FDA agreed upon timeline.

It has developed wearable tech to enable in-clinic bio-signal data capture and remote care and real-time physical therapy after surgery and has its own proprietary smart fabric called Hitoe and has begun trials on patient rehabilitation support for elderly patients. It has an exclusive partnership with a world-renowned clinic to generate actionable insights from data using a portfolio company's clinical analytics platform, funded by its NTT Venture Capital group. It provides a 5C approach – connectivity, concurrency, coordination, collaboration, and conformity – to drive an Industry 4.0 model. NTT DATA has developed advanced NLP and interactive AI with behavioral robotics, with initial use cases to address the needs of an aging population, collecting data through a variety of sensors to detect falls; drive medication adherence and assess cognitive function; and drive the early detection of dementia. More recent use cases leveraging the Jibo IP and related digital apps being built include hybrid clinical trials enablement and a digital therapeutic approach toward behavioral health. To quote a life science instrumentation company, "NTT DATA is my partner of choice for the lab products division. NTT DATA is up front – if they say they can do it, they will. For data governance, they had the relevant experience. NTT DATA helped us rethink how to model our product data management strategy. There will always be problems along the way; the key is how you react. They have strong account management and accountability."

## **Challenges**

While NTT DATA has the breadth of expertise, it should build depth of expertise in R&D-specific market segments. NTT DATA should strengthen its SC capabilities in areas such as therapeutic area strategy and translational research strategy, as well as drug safety and trial budget management to be able to compete more effectively in strategic consulting proposals.



## APPENDIX

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

### Market Definition

For the purposes of this study, strategic consulting is defined broadly and includes:

- 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)
- Operation and process optimization development and implementation services (including IT framework development, outsourcing strategies, and organizational change management support)
- Technology adoption and implementation strategy development (including mobile, cloud, big data, and social communication strategy development)

## Market Overview

The life science industry has undergone accelerated transformation in the recent past, resulting from the acute disruption caused by the pandemic. This has led the industry to rethink business models, revisit digital strategy, and reevaluate ROI on IT spend. That does not mean, however, that innovation has slowed down; in fact, it continues in an even more accelerated mode. Efforts at the forefront include:

- Increased focus on digital therapeutics
- The evolution of digital ecosystems and co-innovation efforts
- Identification and leveraging of relevant cross-industry best practices and technological innovation in pursuit of operational efficiency optimization and process excellence
- An obsessive focus on patient engagement, patient optionality, and industry-specific solutions (e.g., mobile apps, wearables, telehealth, and decentralized clinical trial models)
- Increased focus on *in silico* models and digital twins
- The growing importance of GPU models in accelerating drug discovery
- The shift in focus to cell and gene therapies and precision-medicine strategies
- The shift in importance of real-world data from commercial to R&D, and the transition to a data-centric world

Yet this industry did not undergo a digital revolution. What one primarily saw was digital evolution, complemented by an attitudinal revolution. As the life science industry saw the proof of concept that technology and collaboration could work hand in hand to bring a vaccine to the market in less than a year and that decentralized clinical trials could actually be successfully implemented at scale, there was a change in mindset. There was a need to innovate at warp speed and yet control spend, ensure sustainability, and drive resiliency. There was a need to think ahead and carefully craft a strategy for the future, not only to rapidly reset from the business impact that the pandemic had caused but to grow exponentially.

This escalated the demand for experienced strategic consulting companies to help the life science industry navigate this challenging path and forge ahead. Strategic consulting companies are needed more than ever to provide insights on new business models, technology innovation strategies, and best practices from outside of the industry. The pandemic has triggered a huge uptick in the adoption of IDC's 3rd Platform (comprising IDC's four pillars of technology innovation: IT clouds, big data and analytics, mobile platforms and solutions, and social and unified communications) by the life science industry, and strategic consulting companies are steering digital convergence to enable asset-driven innovation and are embedding new leadership mindsets to drive growth.

Key R&D areas where strategic consulting is expanding include real-world data, predictive analytics, data productization and monetization strategies, technology adoption and implementation (including mobile, cloud, big data, and social communication strategies), globalization, and partner strategy strategies to drive business continuity and digital resiliency, which have become a business-critical priority.

## LEARN MORE

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### Related Research

- *IDC MarketScape: Worldwide Life Science R&D BPO Services 2021 Vendor Assessment* (IDC #US48126821, forthcoming)
- *IDC MarketScape: Worldwide Life Science R&D ITO Services 2021 Vendor Assessment* (IDC #US47455021, forthcoming)
- *The Future of Intelligence for Life Sciences: Transcending Boundaries* (IDC #US47730821, June 2021)
- *GPU-Powered Transformer Models Poised to Accelerate Drug Discovery and Disrupt Drug Development* (IDC #US47660321, May 2021)
- *IDC TechScape: Worldwide Life Science R&D Machine Learning and Cognitive Computing Landscape, 2021* (IDC #US47482121, March 2021)

### Synopsis

This IDC Health Insights study is the second of a three-part life science R&D IDC MarketScape series. With 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. IDC MarketScape assessment of strategic consulting outsourcing in life science R&D was previously performed in 2011, 2014, 2016, and 2018.

Dr. Nimita Limaye, research VP, Life Science R&D Strategy and Technology, IDC, noted, "These deeply challenging times have resulted in an elevated need for expert guidance on aspects related to digital resiliency, near-term and long-term IT investment road maps, cloud strategy, inputs on research platforms, and enterprise digital strategy. In a world full of distrust and despair, life science organizations are facing newer challenges, such as driving diversity and equity in clinical trials and building trust in trial participants, and are seeking insights on how to navigate this slippery path. As organizations explore newer areas such as cell and gene therapy and computational genomics, and experiment with newer operating models such as decentralized clinical trials, prescription digital therapeutics, digital ecosystems, and federated learning models, they do not need to just build technological capabilities but to drive cultural change within the organization. SC partners that possess the combination of technology implementation, AI/ML-powered data and analytics expertise, and life science domain expertise, complemented by organizational change management skills, will truly lead the way."

## 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. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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