



# **Unveiling the Impact of AI Initiatives in Life Sciences**

Life Sciences IT Services

Market Report – December 2019: Complimentary Abstract / Table of Contents

# Our research offerings for global services

<ul style="list-style-type: none"> <li>▶ <b>Market Vista™</b> Global services tracking across functions, sourcing models, locations, and service providers – industry tracking reports also available</li> </ul>	
<ul style="list-style-type: none"> <li>▶ Application Services</li> </ul>	<ul style="list-style-type: none"> <li>▶ Human Resources</li> </ul>
<ul style="list-style-type: none"> <li>▶ BPS   Banking &amp; Financial Services</li> </ul>	<ul style="list-style-type: none"> <li>▶ ITS   Banking &amp; Financial Services</li> </ul>
<ul style="list-style-type: none"> <li>▶ BPS   Healthcare &amp; Life Sciences</li> </ul>	<ul style="list-style-type: none"> <li>▶ ITS   Healthcare</li> </ul>
<ul style="list-style-type: none"> <li>▶ BPS   Insurance</li> </ul>	<ul style="list-style-type: none"> <li>▶ ITS   Insurance</li> </ul>
<ul style="list-style-type: none"> <li>▶ Catalyst™</li> </ul>	<ul style="list-style-type: none"> <li>▶ IT Services Executive Insights™</li> </ul>
<ul style="list-style-type: none"> <li>▶ Cloud &amp; Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>▶ <b>ITS   Life Sciences</b></li> </ul>
<ul style="list-style-type: none"> <li>▶ Customer Experience Management Services</li> </ul>	<ul style="list-style-type: none"> <li>▶ Locations Insider™</li> </ul>
<ul style="list-style-type: none"> <li>▶ Data &amp; Analytics</li> </ul>	<ul style="list-style-type: none"> <li>▶ PricePoint™</li> </ul>
<ul style="list-style-type: none"> <li>▶ Digital Services</li> </ul>	<ul style="list-style-type: none"> <li>▶ Procurement</li> </ul>
<ul style="list-style-type: none"> <li>▶ Engineering Services</li> </ul>	<ul style="list-style-type: none"> <li>▶ Recruitment &amp; Talent Acquisition</li> </ul>
<ul style="list-style-type: none"> <li>▶ Enterprise Platform Services</li> </ul>	<ul style="list-style-type: none"> <li>▶ Service Optimization Technologies</li> </ul>
<ul style="list-style-type: none"> <li>▶ Finance &amp; Accounting</li> </ul>	

## Membership information

- This report is included in the following research program(s)
  - [Life Sciences IT Services \(ITS\)](#)
- If you want to learn whether your organization has a membership agreement or request information on pricing and membership options, please contact us at [info@everestgrp.com](mailto:info@everestgrp.com), [unitedkingdom@everestgrp.com](mailto:unitedkingdom@everestgrp.com), or [india@everestgrp.com](mailto:india@everestgrp.com)

## More about membership

In addition to a suite of published research, a membership may include

- Accelerators™
- Analyst access
- Data cuts
- Pinnacle Model™ reports
- PriceBook
- Virtual Roundtables
- Workshops

## Custom research capabilities

- Benchmarking | Pricing, delivery model, skill portfolio
- Peer analysis | Scope, sourcing models, locations
- Locations | Cost, skills, sustainability, portfolio – plus a tracking tool
- Tracking services | Service providers, locations, risk
- Other | Market intelligence, service provider capabilities, technologies, contract assessment

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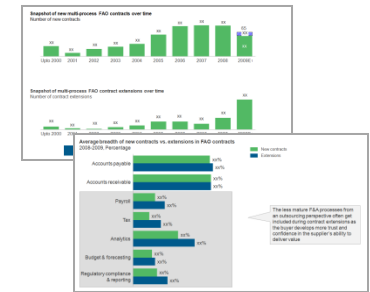
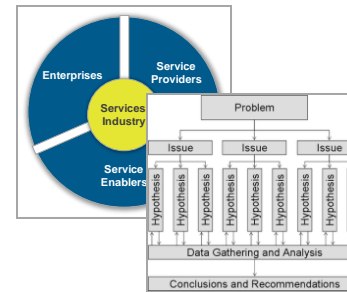
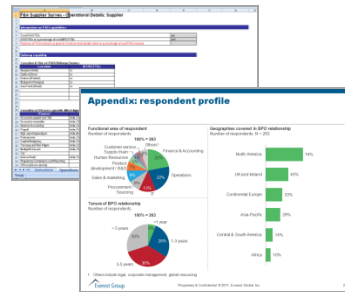
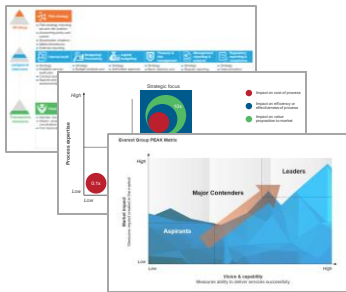
# Our research methodology is based on four pillars of strength to produce actionable and insightful research for the industry

- Market thought leadership
- Actionable and insightful research
- Syndicated and custom research deliverables

- 1 Robust definitions and frameworks**  
F&A pyramid, Total Value Equation (TVE), PEAK Matrix™, market maturity
- 2 Primary sources of information**  
Annual contractual and operational RFLs, service provider briefings and buyer interviews, web-based surveys

- 3 Diverse set of market touchpoints**  
Ongoing interactions across key stakeholders, input from a mix of perspectives and interests, supports both data analysis and thought leadership

- 4 Fact-based research**  
Data-driven analysis with expert perspectives, trend-analysis across market adoption, contracting, and service providers



- Proprietary contractual database of life sciences IT services (updated annually)
- Year-round tracking of life sciences IT service providers
- Large repository of existing research in life sciences
- Dedicated team for life sciences outsourcing research, spread over two continents
- Over 20 years of advising clients on ITS-BPS-related decisions
- Executive-level relationships with buyers, service providers, technology providers, and industry associations

# Background and scope of research

There is a growing interest in Artificial Intelligence (AI) technologies among life sciences enterprises. AI presents unique opportunities for life sciences enterprises – allowing them to improve customer experience, achieve operational efficiency, enhance employee productivity, cut costs, accelerate speed-to-market, and develop more personalized products.

While AI is a relatively new area in the life sciences space and its adoption is in the nascent stage, digitalization of the life sciences industry is accelerating enterprises’ interest in AI. With CEOs and CIOs acknowledging the transformative power of AI, enterprises are rapidly building appropriate AI strategies. To help life sciences gain better visibility into the impact of AI, Everest Group has analyzed the market from the vantage point of life sciences enterprises.



In this market report, we analyze the AI investments for 20 leading US-based life sciences enterprises by mapping them on the Everest Group’s AI effectiveness assessment model, which is a composite index of a range of distinct metrics related to each enterprise’s competency and the impact.

## Scope of this report:



**Geography**  
Global



**Industry**  
Life sciences (pharmaceuticals, medical devices, biotechnology, and other life sciences<sup>1</sup>)



**Companies**  
Market activity and investments of 13 leading biopharmaceutical, 3 medical devices, and 4 biopharmaceutical and medical device enterprises in AI



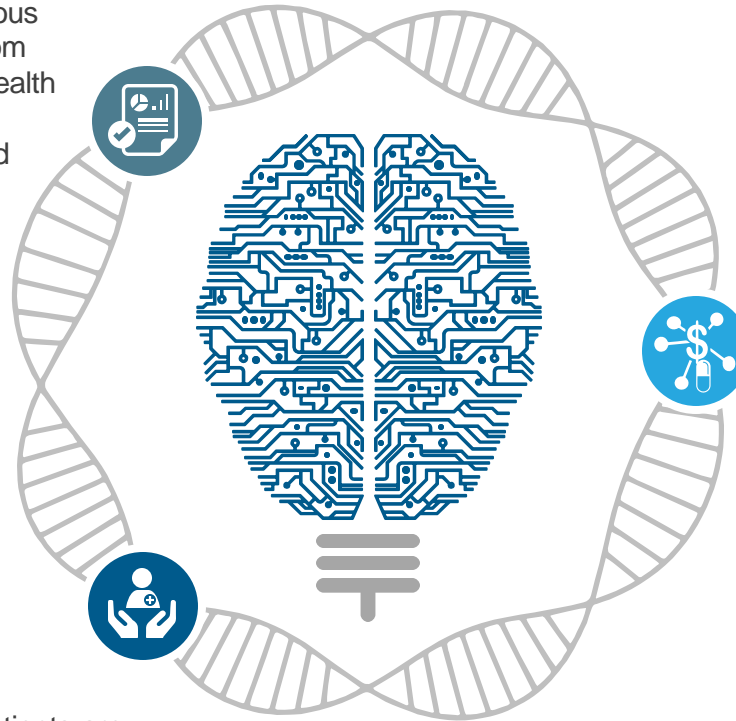
**Use cases**  
Only publicly-available information (~90 distinct use cases) has been used for the entire analysis in this report

<sup>1</sup> Includes healthcare data & information services and medical products distribution

# AI has immense potential to transform the life sciences industry, the need for which is validated by several demand drivers

## Data to draw insights

- The life sciences industry hosts enormous amounts of Real World Data (RWD) from diverse sources, including Electronic Health Record (HER), clinical trials, genomic sequencing, medical imaging, published literature, wearables, and health apps
- About 60% of biopharma companies currently use Machine Learning (ML) to analyze RWD; 95% expect to use it



## High R&D cost

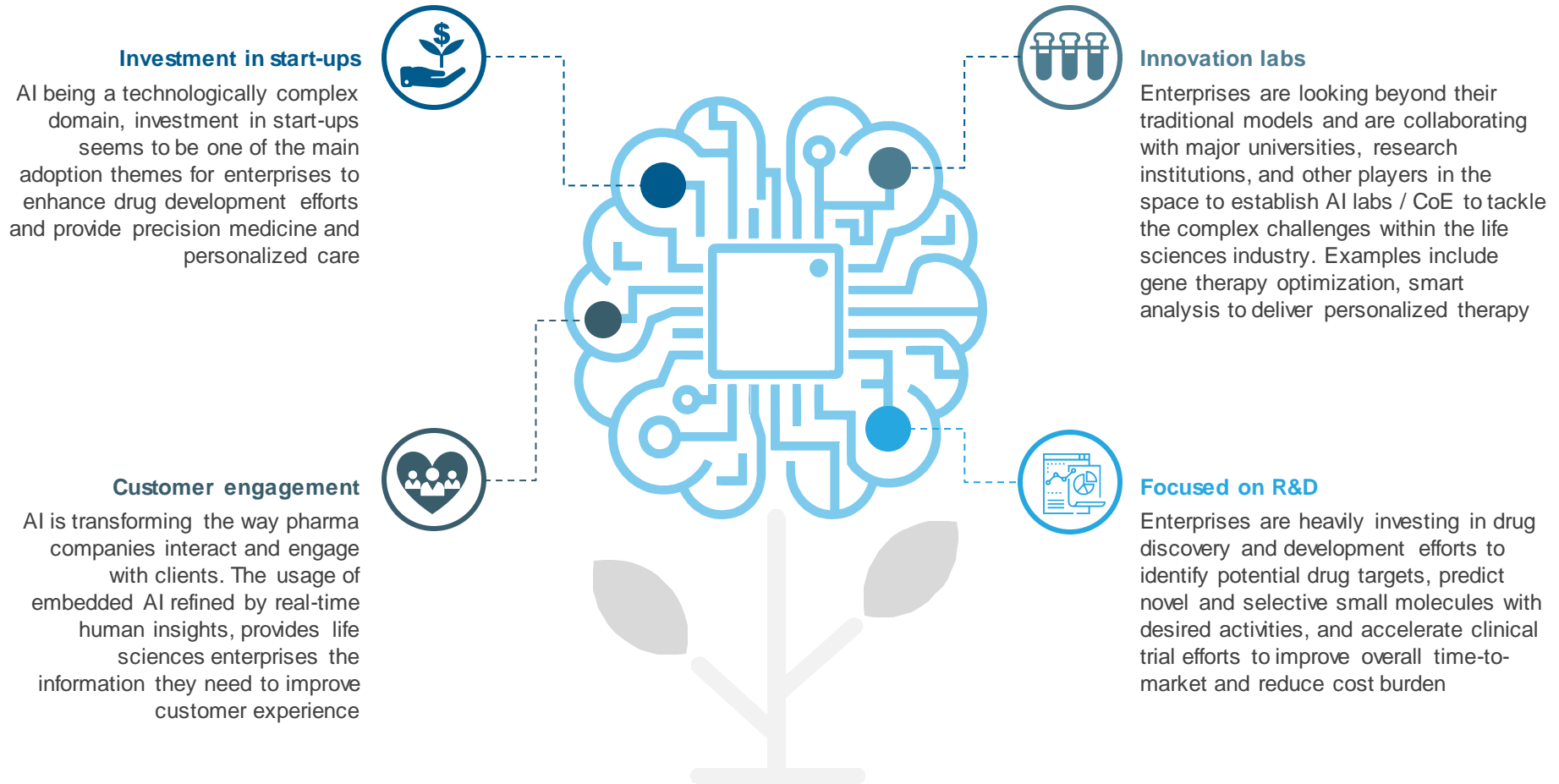
- The ever-increasing costs of biopharmaceutical research are largely driven by two factors – time and risk of failure owing to the poor patient selection techniques and the inability to effectively monitor patients
- Approximately 85% of AI initiatives undertaken by life sciences enterprises are focused on research and development

## Patient centricity

- With consumerism gaining attention, patients are demanding increased engagement, control, convenience, and quality
- Nearly eight billion voice assistants are expected to be in use by 2023

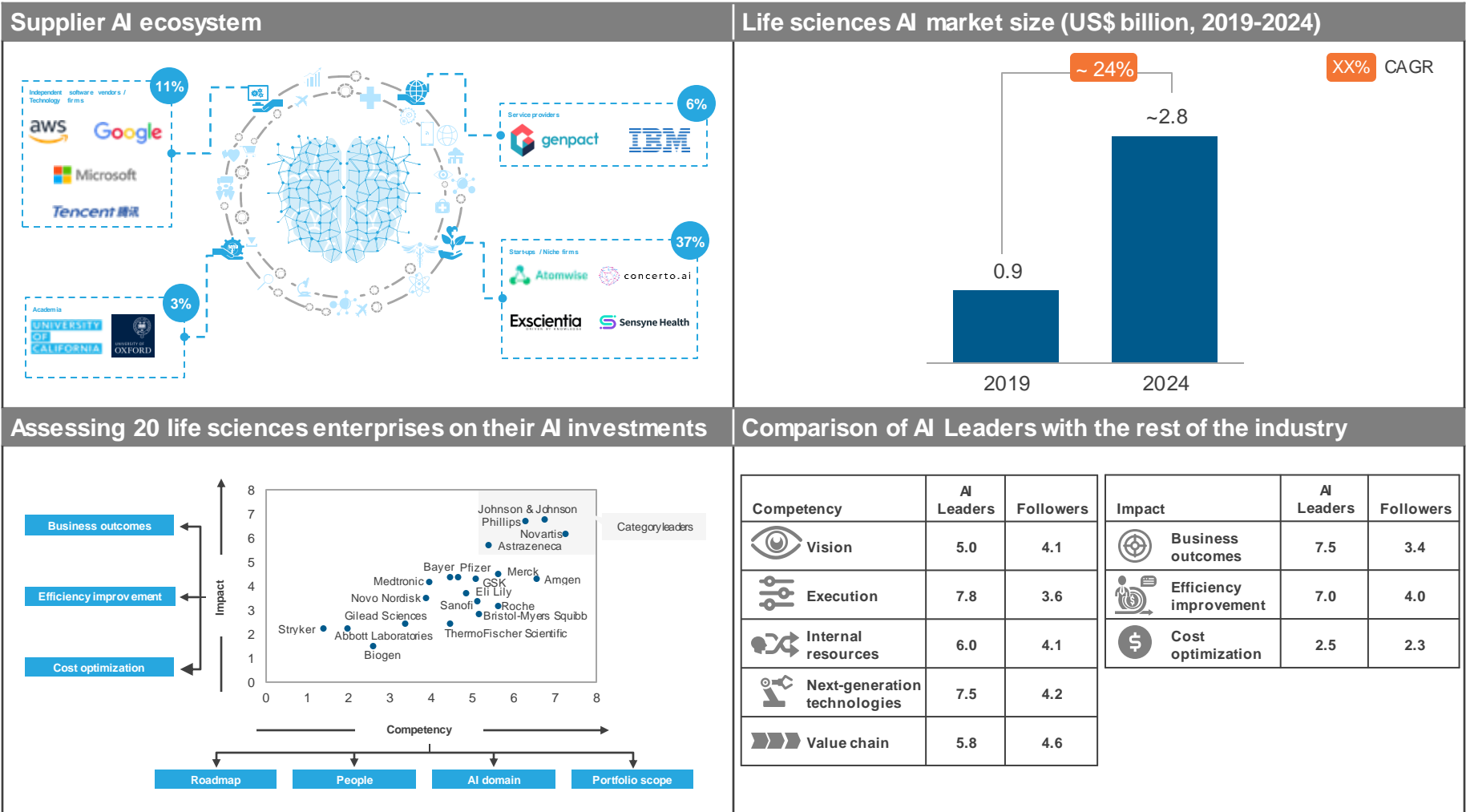
Source: Everest Group assessment of AI initiatives of the 20 leading life sciences enterprises; Deloitte RWE benchmarking study; Voicebot.ai

# Enterprises are currently investing in AI-driven initiatives to unlock its true value





# This report offers multiple distinct chapters providing a deep dive into adopting AI at life sciences firms; below are four charts to illustrate the depth of the report



# Research calendar – Life Sciences IT Services

■ Published ■ Planned □ Current release

## Flagship Life Sciences IT Services reports

### Release date

Life Sciences Report Card 2017 – Enterprise Initiatives and Service Provider Performance .....	March 2018
Life Sciences Annual Report 2018: Pharma's DevOps Factor for Digital Transformation .....	March 2018
Life Sciences Digital in North America – Service Provider Landscape with Services PEAK Matrix™ Assessment 2018.....	June 2018
Life Sciences Digital in Europe – Service Provider Landscape with Services PEAK Matrix™ Assessment 2018.....	August 2018
Life Sciences Report Card 2018 – Enterprise Initiatives and Service Provider Performance.....	March 2019
Life Sciences Clinical Trials Products PEAK Matrix™ Assessment 2019: Integrated Platforms Rise to the Challenge.....	May 2019
Life Sciences Digital Services – Service Provider Landscape with Services PEAK Matrix™ Assessment 2019.....	September 2019
Life Sciences Sales and Marketing Data & Analytics Services PEAK Matrix™ Assessment 2019 .....	Q4 2019

## Thematic Life Sciences IT Services reports

Atos Acquires Syntel: Can Atos Win in the North American Battleground?.....	July 2018
The Dissatisfaction Conundrum: What are Clients not Telling Service Providers?.....	January 2019
Assuring Trust in a Converging Life Sciences Ecosystem: The Emerging Role of Quality Assurance .....	February 2019
The Future of Clinical Trials .....	August 2019
Pharmacovigilance of the Future .....	September 2019
Assessing the Cloud Maturity Journeys of Leading Life Sciences Enterprises .....	December 2019
<b>Unveiling the Impact of AI Initiatives in Life Sciences .....</b>	<b>December 2019</b>

Note: For a list of all of our published Life Sciences ITS reports, please refer to our [website page](#)

# Additional LS IT services research references

The following documents are recommended for additional insights into the topic covered in this report. The recommended documents either provide additional details on the topic or complementary content that may be of interest

- 1. Life Sciences Digital Services – Service Provider Landscape with Services PEAK Matrix™ Assessment 2019** ([EGR-2019-46-R-3324](#)); September 2019. The life sciences industry is plagued by issues such as high time-to-market for drugs and high costs of drug development. Enterprises have prioritized digital technologies in their corporate strategies to optimize processes, reduce costs, and positively impact the bottom line. Digital adoption is already influencing all aspects of the life sciences value chain, right from accelerating the drug discovery process to improving sales & marketing of drugs. In fact, with the proliferation of wearables and Internet of things-based devices, these technologies are also influencing how patients respond to clinical trials and drug consumption. To help enterprises in their transformation journeys, service providers have ramped up their digital technology skills and made a slew of investments in the domain. Service providers are entering into partnerships and acquisitions to provide enterprises with domain-focused solutions. This is driving the need for research and market intelligence on demand and supply trends in life sciences digital services.
- 2. Life Sciences Clinical Trials Products PEAK Matrix™ Assessment 2019: Integrated Platforms Rise to the Challenge** ([EGR-2019-46-R-3178](#)); May 2019. Digital technologies have the potential to streamline and accelerate each stage of the clinical trials process – from matching eligible patients to studies, to data collection and monitoring adherence. However, the overall life sciences industry has been slow to digitize clinical trials, with even the most technologically advanced enterprises only piloting technologies in different areas of clinical development. As the industry continues to struggle with its fundamental challenge of achieving faster time-to-market, organizations need to act immediately to devise a robust strategy to harness the full potential of digital technologies in clinical development. In response, clinical trials product vendors have been making significant efforts around ramping up their proprietary solutions portfolio, with many now focusing on taking an end-to-end single vendor platform for clinical trials to the market. What remains to be seen is whether these investments and innovative offerings can now translate into positive business outcomes for enterprises

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