

Everest Group Life Sciences Smart Manufacturing Services PEAK Matrix® 1 Assessment 2023

Focus on Deloitte ² August 2023



Introduction 1

Historically, the traditional manufacturing industry was primarily focused on designing standardized manufacturing procedures and managing labor and mechanical systems, but with the emergence of Industry 4.0, technology adoption has become widespread across industries, unlocking numerous benefits. However, the life sciences industry has been slow in adopting technology to modernize manufacturing setups. Nevertheless, the pandemic, regulatory frameworks, and the urge to achieve operational excellence are now driving the adoption of smart manufacturing services.

Life sciences enterprises aim to unlock benefits such as cost optimization, increased productivity, visibility, and efficiency by investing in critical use cases, including digital twins, predictive ³ maintenance, etc. They are also exploring high-growth opportunities such as sustainable manufacturing, batch-to-continuous manufacturing, and manufacturing of personalized medicines. As the industry experiences investments in smart manufacturing, service providers are taking on the role of end-to-end digital transformation partners by co-developing solutions to assist enterprises in their digital journeys.

In the full report, we present an assessment of 16 life sciences service providers featured on the <u>Life Sciences Smart Manufacturing Services PEAK Matrix® Assessment 2023</u>.

The assessment is based on Everest Group's annual RFI process for the calendar year 2023, interactions with leading life sciences service providers, client reference checks, and an ongoing analysis of the life sciences smart manufacturing services market.

The full report includes the profiles of the following 16 leading life sciences service providers featured on the Life Sciences Smart Manufacturing Services PEAK Matrix: 5

- Leaders: Accenture, Cognizant, Deloitte, HCLTech, and TCS
- Major Contenders: Capgemini, Tech Mahindra, LTIMindtree, Wipro, NTT DATA, Innova Solutions, Birlasoft, and Infosys
- Aspirants: Atos, HARMAN DTS, and NNIT

Scope of this report 7







Life Sciences Smart Manufacturing Services PEAK Matrix® characteristics

Leaders 2

Accenture, Cognizant, Deloitte, HCLTech, and TCS 3

- Leaders have positioned themselves as digital transformation partners for enterprises with end-to-end capabilities, and offer a balanced breadth of offerings across the life sciences manufacturing value chain
- They demonstrate flexibility and innovation while pitching engagement models and commercial constructs, and possess a distinct talent pool specializing in the life sciences smart manufacturing space
- There is a presence of a robust partnership ecosystem and investments aligned with the demand of the enterprises in the areas of digital twins, IoT-enabled analytics, cybersecurity, etc., as well as high-growth opportunity areas such as specialty drugs manufacturing, sustainable manufacturing, and batch-to-continuous manufacturing
- They showcase a clear future roadmap to better supplement their internal capabilities and fill in the gaps in their existing portfolio of services through the development of IP, CoEs, and strategic initiatives

Major Contenders 5

Capgemini, Tech Mahindra, LTIMindtree, Wipro, NTT DATA, Innova Solutions, Birlasoft, and Infosys 6

- Major Contenders comprise a varied mix of midsize and large firms. They possess a relatively less balanced portfolio compared to Leaders and are inclined toward specialization in 7 certain specific areas of the value chain. Additionally, they offer limited solutions around high-growth opportunity areas such as specialty drugs manufacturing, sustainable manufacturing, and batch-to-continuous manufacturing
- Major Contenders have shortcomings in certain areas of the manufacturing value chain; the prevalent approach to address smart manufacturing use cases is by harnessing cross-industry intellectual property, talent, and partnerships
- They have substantiated their position within the mid-tier segment of clients by pursuing active client management and ramping up/down resources commensurate to the ask of buyers

Aspirants 8

Atos, HARMAN DTS, and NNIT 9

- When it comes to their services portfolio, Aspirants have restricted their focus to specific areas in the life sciences manufacturing value chain, with limited digital service capabilities 10
- They have a limited partnership ecosystem and place more focus on leveraging horizontal capabilities to cater to the needs of life sciences enterprises rather than developing domain-specific services through CoEs and strategic alliances
- They have a dedicated focus on capturing the market share in the small and midsize buyer segment

Everest Group PEAK Matrix[®] ¹

Life Sciences Smart Manufacturing Services PEAK Matrix® Assessment 2023 |2 Deloitte is positioned as a Leader

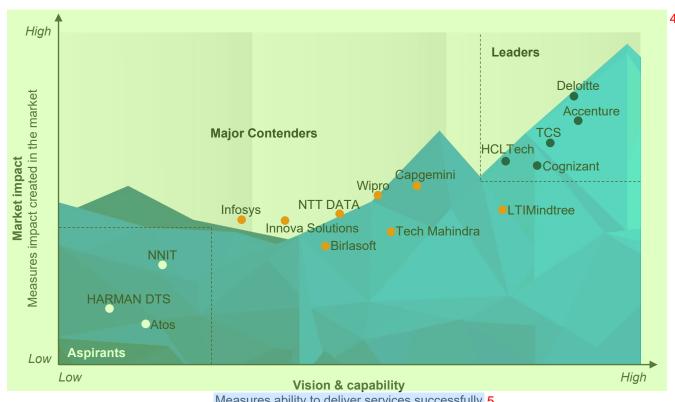


Leaders

Aspirants

Major Contenders

Everest Group Life Sciences Smart Manufacturing Services PEAK Matrix® Assessment 2023^{1,2,3}



Measures ability to deliver services successfully 5

Confidentiality: Everest Group takes its confidentiality pledge very seriously. Any information we collect that is contract specific will only be presented back to the industry in an aggregated fashion Source: Everest Group (2023)



Assessments for Atos, Capgemini, Infosys, and NTT DATA exclude provider inputs and are based on Everest Group's proprietary Transaction Intelligence (TI) database, provider public disclosures, and Everest Group's interactions with enterprise buyers

Assessment for Birlasoft, HARMAN DTS, and NNIT is based on partial primary inputs (briefings only) 3 The assessment of Atos is completed prior to its acquisition by Eviden

Deloitte profile (page 1 of 6)

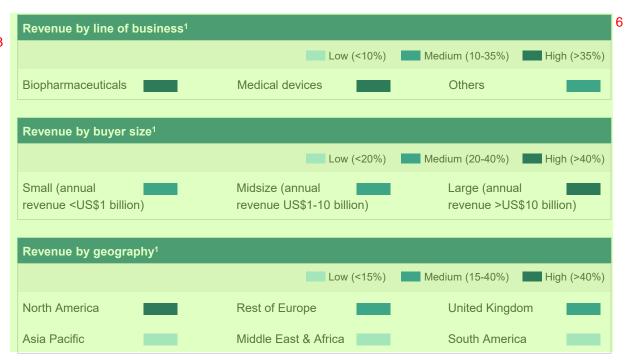
Overview

Company mission 2

Deloitte's Life Sciences Smart Manufacturing practice partners with life sciences enterprises in reimagining and reconfiguring their value chains to ensure the reliable and efficient supply of affordable and accessible therapies and medical products to the end customers, resulting in enhanced well-being of patients. It supports clients in their digital transformation journey and pushes life sciences manufacturing into the next generation of digital evolution. This is achieved through substantial investments in expanding global smart manufacturing capabilities, fostering robust partnerships, developing proprietary IP-based assets, leveraging smart factory technology, and nurturing talent.

Overview of the client base 4

Among its diverse customer base, Deloitte's life science smart manufacturing practice engages with the top 10 5 largest global pharmaceutical enterprises, top 10 largest BioTech enterprises, 9 out of the top 10 medical device enterprises, and 18 out of the 21 largest life sciences enterprises.



1 All the revenue components add up to a total of 100%



Deloitte profile (page 2 of 6) ¹

Case studies

NOT EXHAUSTIVE

Case study 12

Transformation of Quality Management System (QMS) for a global 3 pharmaceutical manufacturer

Business challenge 6

The client faced challenges with high costs of quality and the regulatory risks in managing compliance. It had 7 basic and disconnected platforms for quality processes, and lacked integration and traceability. To address this, the client identified a QMS platform and set ambitious timelines to deploy multiple Quality System Elements (QSEs) across more than five sites.

Solution 8

Deloitte assisted the client in their QMS transformation journey by assessing the current state of QSEs and conducting a process design exercise. Additionally, it built solutions tailored to client requirements, including customization with next-generation functionalities, performed detailed validation and system testing, and supported the change management process through a training program strategy.

Impact 10

- Assisted the clients in realizing benefits worth US\$30 million by eliminating non-value-added work, thereby 11
 reducing overhead expenses
- Deployed more than 10 QSEs in 14 months across five manufacturing sites
- Ensured QMS process adoption for more than 700 employees globally

Case study 2 4

Developing a global security standard for the manufacturing sites of a global 5 pharmaceutical enterprise

Business challenge 12

The client recognized the necessity of developing and implementing a global security standard across all manufacturing and R&D sites to enhance the security maturity of Internet of Things (IoT), Industrial Control Systems (ICS), and Operational Technology (OT).

Solution 14

Deloitte implemented a tailored OT cybersecurity framework, conducted detailed site security assessments, 15 and deployed monitoring solutions to enhance OT asset security monitoring, visibility, and situational awareness. It also deployed threat intelligence and analytics for detecting OT cybersecurity threats and established standards, communication plans, playbooks, and workflows for incident response and recovery.

Impact 16

- Deployed 14 OT security controls
- Remediated 42 manufacturing and R&D sites
- Identified and monitored more than 30,000 OT digital assets

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Deloitte profile (page 3 of 6)¹ Offerings

NOT EXHAUSTIVE

Proprietary smart manufacturing solutions	– such as IP, platforms, accelerators, and tools (representative list) 2	
Solution	Details	3
Supply chain control tower platform	It is an end-to-end platform solution that assists clients by providing prescriptive insights, monitoring transaction-level data, and offering analytical capabilities across the manufacturing and supply chain processes.	
CentralSight	It has the capabilities to effectively visualize a multi-tier deep supplier ecosystem, helping enterprises identify and address the associated risks within the ecosystem in a timely manner.	
Smart factory capability compass	It is an application that assists clients in assessing the current manufacturing maturity and readiness of their sites for smart factory investments and initiatives.	
CognitiveSpark for manufacturing	It is a cloud-based, Al-powered solution designed to assist biopharma and MedTech manufacturers with insights that help optimize manufacturing processes and improve product quality.	t
Turnkey IoT	It is a suite of pre-configured solution accelerators tailored to high-potential manufacturing use cases.	
Managed Extended Detection and Response (MXDR)	It is a SaaS-based, modular cybersecurity solution designed to protect enterprises from internal and external cyber threats.	
Greenlight	This is a decarbonization solution designed to achieve net-zero emissions. It includes a package of dashboard modules that can ingest Green House Gas (GHG) emissions and reduce project data, enabling clients to visualize and analyze their aggregate carbon footprint.	
IDEA	It is an IoT-based application that helps clients manage real-time energy consumption from different sources, combining the IoT approach with traditional Energy Management Systems (EMS).	
Digital IoT	It is a preconfigured Siemens MindSphere application that offers a cloud-based, open IoT operating system connecting products, plants, systems, and machines. This application unifies data from Digital Product Lifecycle Management (DPLM), Data Acquisition and Management System (DAMS), Digital Manufacturing Execution System (DMES), and IoT systems onto an integrated dashboard, thereby enabling actionable insights.	

Deloitte profile (page 4 of 6) Offerings

NOT EXHAUSTIVE

Proprietary smart manufacturing solutions – such as IP, platforms, accelerators, and tools (representative list) 2					
Solution	Details	3			
SupplyHorizon	It enables enterprises to proactively identify and mitigate supply chain issues. It leverages internal and external data, risk profiling, mitigation planning, persona-based visualizations, and AI to enable a visibility of multi-tier supply networks and sense any upcoming risks in order to mitigate disruptions.				
Smart manufacturing platform	This is a platform solution that enables the comprehensive view of manufacturing operations across the organization with connected data from disparate systems to create dyna data visualizations that provide useful insights and recommended actions. It assists in predictive analytics, quality analytics, planning and management, shop floor tracking and serialization, etc.				
Supplier 360	It is an end-to-end management solution that improves supplier relationships by consolidating data from various disparate sources to generate actionable insights on supplier performance, connecting stakeholders, and more.				

Deloitte profile (page 5 of 6)¹ Recent developments

NOT EXHAUSTIVE

Key events – related to	smart manufacturi	ing services	(representative list) 2
Event name	Type of event	Year	Details
Industrial data fabric	Alliance	2023	Forged a multi-party partnership with AWS, HighByte, and Element to help manufacturers connect, structure, and manage industrial data at scale through an open industrial data framework; supports Deloitte's smart manufacturing platform and services, offering data analytics, predictive insights, and faster time-to-value for manufacturers
Nubik	Acquisition	2022	Acquired to strengthen its presence and leadership in the Salesforce practice and firm up its relationships and offerings for mid-market clients; it will assist clients with advanced solutions in manufacturing and distribution
OCT Emissions Solutions	Acquisition	2022	Acquired to assist clients with an end-to-end offering across the climate change and decarbonization life cycle. It provides solutions for hydrogen, carbon sequestration and offsets, and carbon dioxide cleanup
AE Cloud Consultant	Acquisition	2022	Acquired to deploy front-end and back-end solutions for order management, production management, supply chain management, warehouse and fulfillment, procurement, etc., for enterprises
Smart factories spread across global locations	Investment	2022	The smart factories that are spread across the globe serve as an ecosystem of smart manufacturing capabilities built on advanced technologies such as IoT, cybersecurity, and digital twins; also acts as a platform that brings together solution providers, technology innovators, and academic researchers to drive innovation
Check Point	Alliance	2021	Alliance with Check Point, a leading provider of cybersecurity solutions, to assist Deloitte in strengthening Industry 4.0 technologies by securing the enterprise manufacturing and supply chain infrastructure
Syncronic	Acquisition	2021	Acquired to enhance its supply chain practice in the Nordics region
aeCyberSolutions	Acquisition	2021	Acquired to strengthen its cybersecurity offerings
Digital Immunity	Alliance	2020	Alliance with Digital Immunity to leverage Deloitte's multiple OT lab environments, such as the Smart Factory in Wichita, to accelerate deployment testing by utilizing configuration and deployment guidelines from the lab environment
Nozomi	Alliance	2020	Alliance with Nozomi Networks to deliver IT, OT, and IoT security services in the EMEA region. This collaboration aims to assist enterprises in enhancing their threat detection capabilities and implementing effective cyber risk solutions
Beelogix	Acquisition	2019	Acquired to expand its capabilities and leadership in SAP digital supply chain solution

Deloitte profile (page 6 of 6) Everest Group assessment – Leader

Measure of capab





oility: 🕐 Low 🬑	High
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	Market	t impact		Vision & capability				
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Scope of services offered	Innovation and investments	Delivery footprint	Overall
		•				•	•	

Strengths 3

- Deloitte has made substantial investments in developing manufacturing solutions throughout the life sciences value chain, focusing on futuristic domain use cases such as cell and gene therapy manufacturing and sustainable manufacturing. It is further reinforced by its dedicated investments in building the Wichita smart factory, which strengthens its capabilities in IoT, cybersecurity, digital twins, robotics, etc.
- While clients highlight the premium pricing points, they acknowledge the innovative commercial constructs offered by Deloitte and perceive the dollar value per service provided to be better compared to peers
- Clients view Deloitte as a reliable strategic partner as it addresses both the existing and emerging business problems, even by engaging third-party providers if necessary
- Clients appreciate the high quality of the talent deployed and the strong technical domain knowledge they possess

Limitations 4

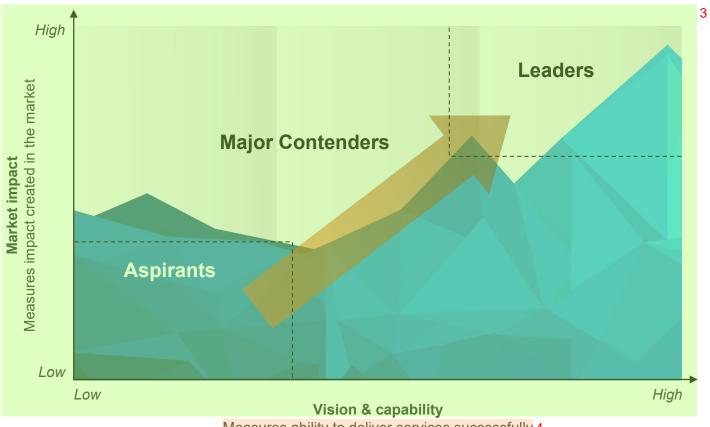
- Although clients appreciate the technical and domain expertise of the talent deployed, they expect better attrition management to ensure seamless project delivery
- Deloitte's tendency to consistently agree with clients without conducting thorough evaluations can reveal a lack of critical assessment and hinder their ability to make decisions that align with the enterprise's expertise and best interests
- While clients appreciate Deloitte's strategic inputs, they look for better transparency and alignment with the enterprise stakeholders

Appendix¹

Everest Group PEAK Matrix® is a proprietary framework for assessment of ¹ market impact and vision & capability



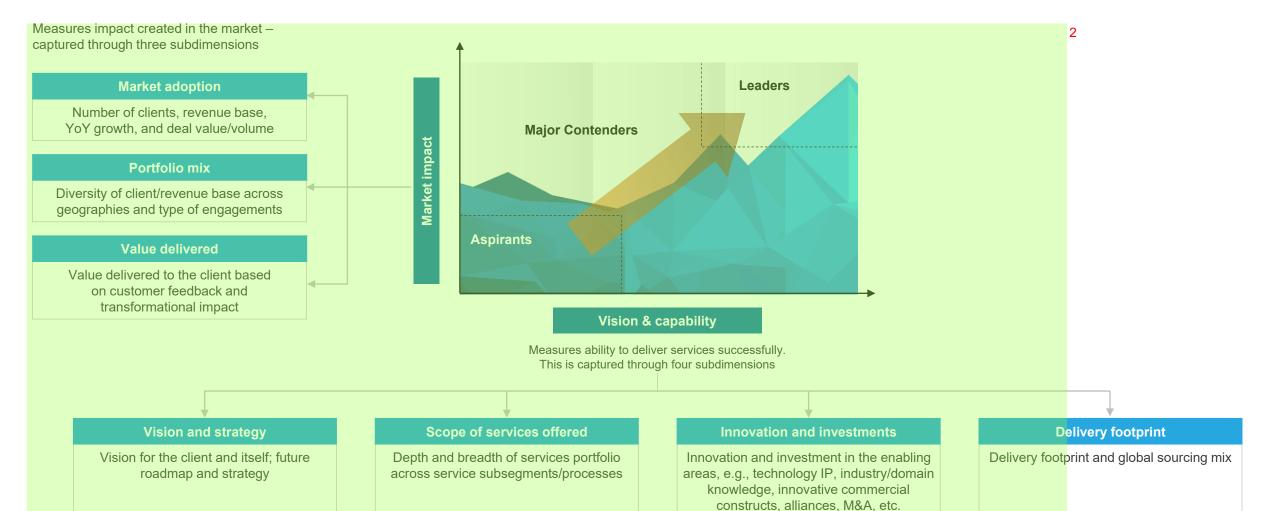
Everest Group PEAK Matrix 2



Measures ability to deliver services successfully 4

Services PEAK Matrix® evaluation dimensions





FAQs

Does the PEAK Matrix® assessment incorporate any subjective criteria? 1

Everest Group's PEAK Matrix assessment takes an unbiased and fact-based approach that leverages provider / technology vendor RFIs and Everest Group's proprietary databases containing providers' deals 2 and operational capability information. In addition, we validate/fine-tune these results based on our market experience, buyer interaction, and provider/vendor briefings.

Is being a Major Contender or Aspirant on the PEAK Matrix, an unfavorable outcome? 3

No. The PEAK Matrix highlights and positions only the best-in-class providers / technology vendors in a particular space. There are a number of providers from the broader universe that are assessed and do not make it to the PEAK Matrix at all. Therefore, being represented on the PEAK Matrix is itself a favorable recognition.

What other aspects of the PEAK Matrix assessment are relevant to buyers and providers other than the PEAK Matrix positioning?

A PEAK Matrix positioning is only one aspect of Everest Group's overall assessment. In addition to assigning a Leader, Major Contender, or Aspirant label, Everest Group highlights the distinctive capabilities 6 and unique attributes of all the providers assessed on the PEAK Matrix. The detailed metric-level assessment and associated commentary are helpful for buyers in selecting providers/vendors for their specific requirements. They also help providers/vendors demonstrate their strengths in specific areas.

What are the incentives for buyers and providers to participate/provide input to PEAK Matrix research? 7

- Enterprise participants receive summary of key findings from the PEAK Matrix assessment
- For providers
 - The RFI process is a vital way to help us keep current on capabilities; it forms the basis for our database without participation, it is difficult to effectively match capabilities to buyer inquiries
 - In addition, it helps the provider/vendor organization gain brand visibility through being in included in our research reports

What is the process for a provider / technology vendor to leverage its PEAK Matrix positioning? 9

- Providers/vendors can use their PEAK Matrix positioning or Star Performer rating in multiple ways including:
- Issue a press release declaring positioning; see our <u>citation policies</u>
- Purchase a customized PEAK Matrix profile for circulation with clients, prospects, etc. The package includes the profile as well as quotes from Everest Group analysts, which can be used in PR
- Use PEAK Matrix badges for branding across communications (e-mail signatures, marketing brochures, credential packs, client presentations, etc.)
- The provider must obtain the requisite licensing and distribution rights for the above activities through an agreement with Everest Group; please contact your CD or contact us

Does the PEAK Matrix evaluation criteria change over a period of time? 11

PEAK Matrix assessments are designed to serve enterprises' current and future needs. Given the dynamic nature of the global services market and rampant disruption, the assessment criteria are realigned as and when needed to reflect the current market reality and to serve enterprises' future expectations.

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Everest Group is a leading research firm helping business leaders make confident decisions. We guide clients through today's market challenges and strengthen their strategies by applying contextualized problem-solving to their unique situations. This drives maximized operational and financial performance and transformative experiences. Our deep expertise and tenacious research focused on technology, business processes, and engineering through the lenses of talent, sustainability, and sourcing delivers precise and action-oriented guidance. Find further details and in-depth content at www.everestgrp.com.

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