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

Focus on Accenture
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Introduction

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 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 Life Sciences Smart Manufacturing Services PEAK Matrix® Assessment 2023.
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:

- **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

Geography
Global

Industry
Life sciences
(biopharmaceuticals
and medical devices)

Services
Life sciences smart
manufacturing services

Life Sciences Smart Manufacturing Services PEAK Matrix® characteristics

Leaders

Accenture, Cognizant, Deloitte, HCLTech, and TCS

- 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

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

- 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 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

Atos, HARMAN DTS, and NNIT

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

Everest Group Life Sciences Smart Manufacturing Services PEAK Matrix® Assessment 2023[1,2,3]
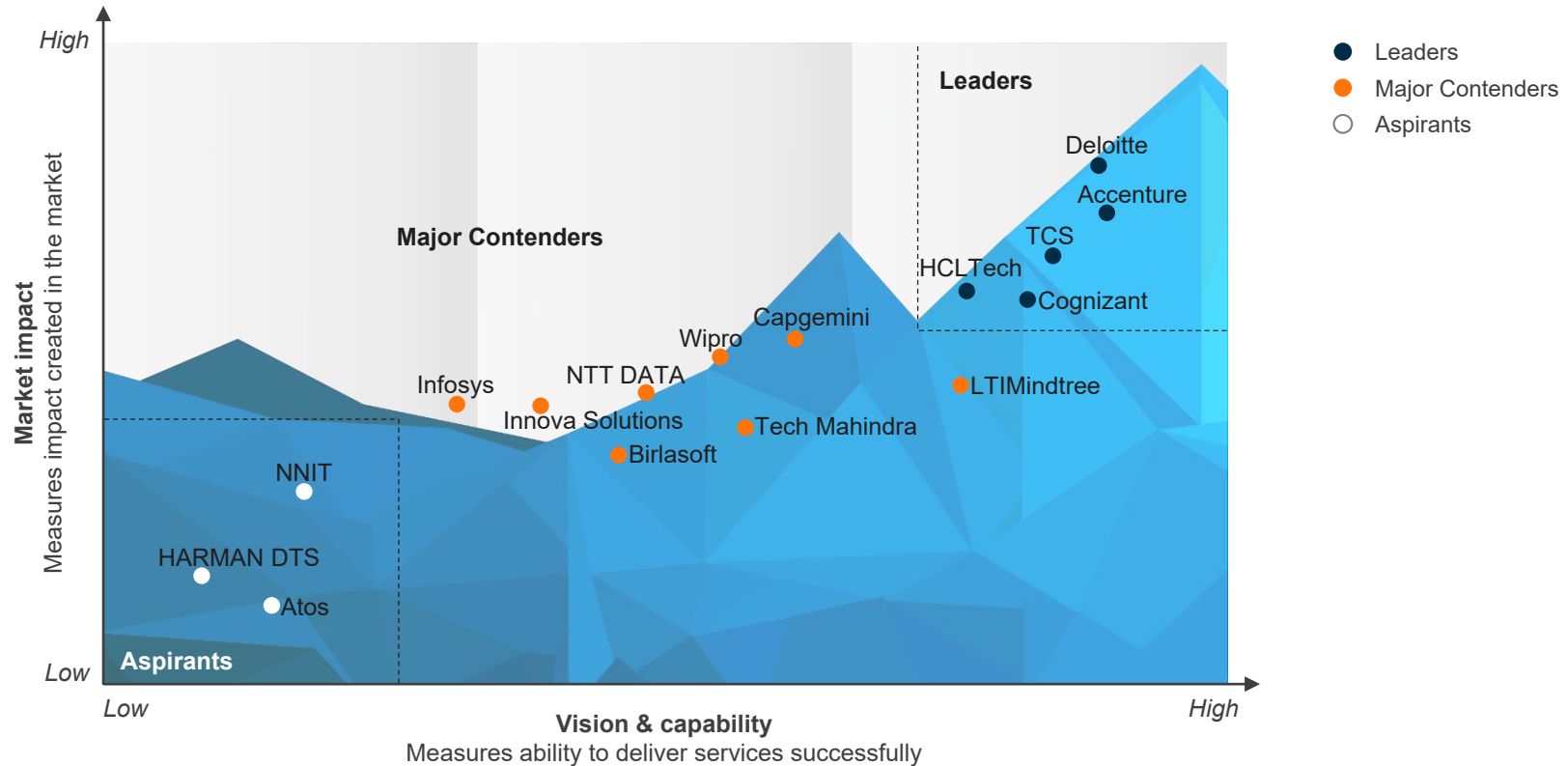
1   Assessments for Atos, Capgemini, Infosys, and NTT DATA exclude provider inputs and are based on Everest Group's proprietary Transaction Intelligence (TI) database, provider public disclosures, and Everest Group's interactions with enterprise buyers
2   Assessment for Birlasoft, HARMAN DTS, and NNIT is based on partial primary inputs (briefings only)
3   The assessment of Atos is completed prior to its acquisition by Eviden

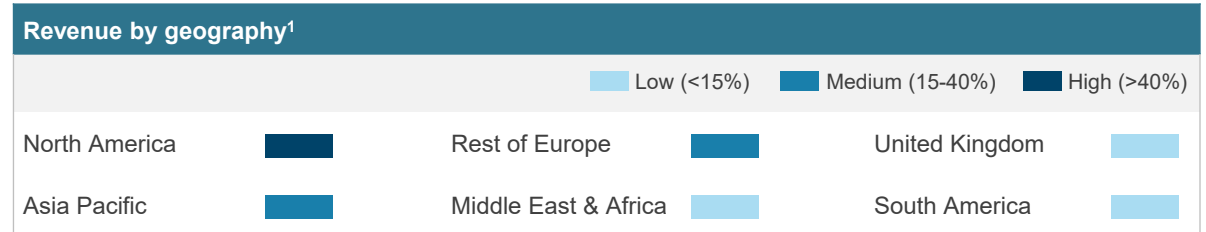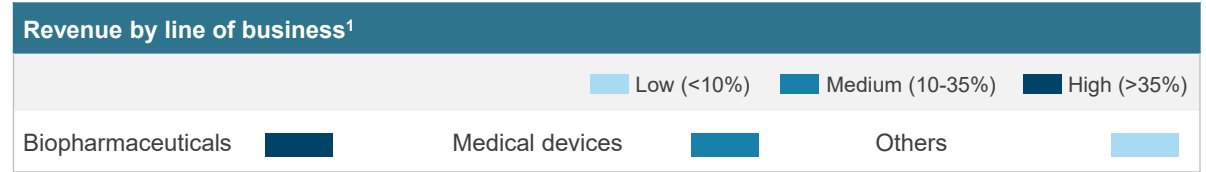# Accenture profile (page 1 of 6)
Overview

Company mission

Accenture's vision is to be at the core of clients' businesses and operations, assisting them in unlocking predictive and adaptive smart manufacturing capabilities to build more agile and resilient organizations. Accenture aims to help clients to be prepared and responsive to new science advances (modalities and treatment options) and disruptions, while building agile and patient-centric value networks with trust and the sustainability of the client's business at the forefront of their engagements.

It also assists clients in addressing key challenges such as improving yield, enhancing supply chain metrics, and reducing cycle times through the adoption of digitization and automation embedded across enterprise operations to help clients reinvent their business. It works with life sciences enterprises to deliver innovation to their strategies across their product development life cycle, manufacturing, quality execution, and delivery.

Overview of the client base

The client base comprises 90% of Fortune 500 life sciences companies, which it has served for more than twenty years. These include all of the top 10 largest BioTech, medical technology, and biopharmaceutical companies in the global pharma markets.

Revenue by line of business[1]

Low (<10%)   Medium (10-35%)   High (>35%)

Biopharmaceuticals	Medical devices	Others

Revenue by buyer size[1]

Low (<20%)   Medium (20-40%)   High (>40%)

Small (annual revenue <US$1 billion)	Midsize (annual revenue US$1-10 billion)	Large (annual revenue >US$10 billion)

Revenue by geography[1]

Low (<15%)   Medium (15-40%)   High (>40%)

North America	Rest of Europe	United Kingdom
Asia Pacific	Middle East & Africa	South America

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

Accenture profile (page 2 of 6)
Case studies

NOT EXHAUSTIVE

Case study 1	Transformed the information hand off from R&D to manufacturing to improve the time-to-market for a global pharmaceutical and biotechnology company

Business challenge

A global biopharma client, with a growing product portfolio (both in size and complexity) and increased external pressures, aimed to improve its product launch timelines. It identified the need to digitally connect cross-functional groups across the end-to-end value chain to reduce new product launch timelines. The client was looking to adopt a digital thread for life sciences solutions, to remain competitive and bring new modalities to market quickly and effectively.

Solution

Accenture developed a collaborative proof of concept and deployed the Accenture Life Sciences Digital Thread framework with the client to expand on the recipe management and tech transfer processes.

Impact

- Improved time-to-market by reducing technology transfer cycle time from 12 weeks to 7-8 weeks, and avoiding missed revenue opportunities
- Enabled client readiness for a growing portfolio and a more complex portfolio, and assisted in the transition from a low mix with moderate growth and low complexity portfolio to a high mix with high growth and complexity portfolio
- Enabled digital product profiles to assess efficacy and quality
- Partnered with a leading UK university's innovation hub and the client to conduct research on how this data can support health equity

Case study 2	Enabled a circular supply chain model for medical devices to save landfills and costs for a global pharmaceutical company

Business challenge

A global pharmaceutical company launched a circular supply chain program to address the end-of-use of products challenge by returning used devices for recycling and reuse. The client sought assistance from Accenture to implement the program globally, with the goal of diverting waste from landfills and achieving the large-scale recycling of medical devices.

Solution

Accenture supported the client in developing its global program by designing and scaling pilots in five countries worldwide. It provided advise to the client on recycling and waste sorting technologies, developed a circular supply chain strategy and roadmap, established a global governance model, and documented insights and learnings in a deployment playbook. Accenture also acted as a neutral convener for a pre-competitive industry recycling partnership and designed the collection and circular supply chain model for the program.

Impact

The program created environmental, commercial, and reputational value through the following:

- Diverting tons of waste from landfills and incinerators, thus reducing end-of-life carbon emissions from devices
- Enhancing differentiation and improving commercial outcomes
- Securing a first-mover advantage and establishing the client's reputation as a sustainable and trusted brand, thereby gaining recognition for their efforts

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Frameworks

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Smart manufacturing services consulting frameworks used (representative list)	
Framework	**Details**
Front-end study	This framework assists in conducting a detailed analysis of pain points in manufacturing and batch releases, beginning from the ERP layer and extending to functional teams and associated systems. It helps to identify opportunities in waste reduction, recommend optimal deployment strategies to achieve quantifiable value, facilitate the governance of complex deployment programs, and confirm the realization of value that is relative to the initial expectations.
Product/Modality-centric transformation approach	This framework facilitates a collaboration with clients to create a holistic approach to digital transformation, by breaking down functional silos and targeting improvements for key products or groups of products throughout the value network. It helps ensure that the bottlenecks across the end-to-end supply chain in R&D, drug substance, drug product, manufacturing, quality control, and supply chain are addressed in a prioritized and synergistic way, thereby driving further improvement. Furthermore, it enhances the collaboration between R&D and operations team to drive continuous improvement in the manufacturing process to expedite approval across markets and implementation of manufacturing process improvements, including slower-to-approve modalities, such as biologics.
Digital Maturity Assessment	The Digital Maturity Assessment is a survey-based evaluation of digital operations transformation maturity, investments and benefits anticipated through digital solutions, and the necessary change/enablers. An organization can benchmark itself against responses from a panel of nearly 900 companies worldwide. This enables a quick overview of the organization's current digital operations maturity along with various slice and dice capabilities to perform a high-level analysis of the digital transformation journey.
Operational Resiliency framework	This framework provides a holistic approach that integrates capabilities across businesses, technologies, and operations. It helps organizations to shift from reactive, respond, and recover-focused models – to have proactive capabilities that prioritize preparation and learning to be more sustainable, trustworthy, and operationally excellent.

Accenture profile (page 4 of 6)
Offerings

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Proprietary smart manufacturing solutions – such as IP, platforms, accelerators, and tools (representative list)	
Solution	**Details**
Accenture Digital Plant	This is a solution that combines analytical capabilities from various industry verticals with intuitive dashboards, predictive analytical models, and applications. It enables clients to make proactive decisions based on insights and take prompt actions.
Digital Twin for CHO cell fermentation	Accenture collaborated with the National Institute of Bioprocessing Research and Training (NIBRT) to create a cell biology processor simulator. The interactive platform will allow scientists to optimize the biologics manufacturing processes by identifying the optimal diet and environment for producer cells, the most effective genetic modification for these cells, and the cause of loss of production yield or quality.
Digital Thread for Life Sciences	It is an ERP-compatible recipe management tool, which assists life sciences clients in bringing innovation into their strategy across their product development, execution, and operations through to production and delivery. It also assists in tracking Quality Target Product Profile (QTTP), Critical Quality Attributes (CQAs), Critical Process Parameters (CPPs), Critical Material Attributes (CMAs), and the relationships between these as the recipe evolves over time.
Master Batch Record (MBR) Factory	It facilitates faster deployment and speed-to-value, improves user-centric design of MBRs, and reduces the total cost of ownership.
Connected Industrial Worker	This is a web-based app that is primarily focused on maintenance, execution, and operations of the manufacturing plant. It assists the workers in the field to manage all relevant information in one single place (work order data, permits, material information, inspection rounds, audits, checklists, document marking, etc.).
Spend Performance Evaluator	This is an AI/ML tool that provides visibility into operational-level KPIs for the transport and logistics category and compares them with the industry peers to identify the areas for improved spend performance.
Sustainability Accelerator	The Sustainability Accelerator enables organizations to effectively simulate and make responsible decisions that realize financial and societal value. It is a platform powered by the Accenture Center for Data & Insights, which seamlessly enables an organization to align corporate targets to the UN Sustainable Development Goals and industry leading benchmarks; prioritize sustainability topics and initiatives based on consumer, investor, and industry expectations; implement sustainability initiatives across value chain functions; and engage their ecosystem.

Accenture profile (page 5 of 6)
Recent developments

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Event name	Type of event	Year	Details
Key events – related to smart manufacturing services (representative list)			
Eclipse Automation	Acquisition	2022	Acquired Eclipse Automation, a provider of customized manufacturing automation for key manufacturing industries including life sciences, to assist clients in building factories for the future with automated production lines by leveraging cloud, data, and AI
Velocity Labs	Partnership	2022	Partnered with AWS to develop innovative approaches for connecting key GxP and non-GxP systems, such as Laboratory Information Management Systems (LIMS), Manufacturing Execution Systems (MES), Document Management Systems (DMS), and Enterprise Resource Planning (ERP). It assists in improving the speed and efficiency of deploying these systems and enhances collaboration between different client functional teams such as manufacturing and supply chain
Accelerated Learning Environment (ALE) Lab	Investment	2021	Invested in three digital laboratories located in Orlando, Dublin, and Singapore. It has digitalized the end-to-end process of fermentation recipe development and the execution and batch release to test the potential of novel software (and combinations thereof). It trains the workforce and clients on the complexities of bioprocessing and Industry 4.0. It also continues to invest heavily in training of people, for deepening their industry knowledge, capabilities, and skills
Enterprise System Partner (ESP)	Acquisition	2019	Acquired ESP, a consulting and manufacturing services provider for the life sciences industry, to strengthen its capabilities in manufacturing for pharmaceutical, BioTech, and medical device clients globally
Accelerate innovation	Acquisition	2020-present	Made multiple acquisitions to enhance its consulting and technology capabilities and accelerate innovation in manufacturing for clients. The acquisitions include Myrtle Consulting, Inspirage, MacGregor Partners, The Beacon Group, Greenfish, and Revolutionary Security
Digital thread	Alliance	Ongoing	Partnered with SAP and niche software companies to build innovative tools that support improved recipe curation from R&D to commercial production. This collaboration includes building a digital product profile in SAP, which assists in tech transfer and commercial scaling
Life Science Group Therapy Sessions	Initiative	Ongoing	Conducts quarterly invite-only meetings and events to engage multiple clients in discussing the challenges of collaboration across functional domains such as clinical production, commercial production, quality, and external manufacturing. It also assists in exploring the potential of digital tools to establish a digital thread across silos for sharing complex insights and knowledge

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

Measure of capability: ◐ Low ● High

Market impact				Vision & capability				
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Scope of services offered	Innovation and investments	Delivery footprint	Overall
●	●	●	●	●	●	●	●	●

Strengths

- Accenture's strategic acquisitions of Enterprise System Partner (ESP) and Eclipse, among others, have enabled it to expand its smart manufacturing offerings, especially in Manufacturing Execution System (MES) implementation. Clients value the leadership of ESP, which serves as a key differentiator in securing manufacturing deals from life sciences enterprises

- Accenture has a superior position in consulting, implementation, and maintenance of manufacturing services, further strengthened by its acquisitions, partnerships, and focus on futuristic domain use cases such as specialty drugs and sustainability

- Accenture ranks high in domain expertise and quality of talent, right from entry-level employees to senior leadership

- Accenture demonstrates a strong commitment to client engagement by proactively addressing their feedback and engaging in frequent discussions to provide project updates, guiding clients through the next steps, etc.

Limitations

- While Accenture maintains a strong focus on providing services across the life sciences manufacturing value chain, there is still room for improvement in expanding its presence in sourcing and procurement

- Clients would appreciate competitive pricing and a proactive approach in providing onshore resources for the engagements, thereby strengthening the existing relationship

- With a strong foothold in the very large buyer segment (>US$10 billion revenue), it should look to further augment its presence in the midsize (US$1-5 billion revenue) and large buyer (US$5-10 billion revenue) segments for better diversification of its overall client base

Appendix

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

Everest Group PEAK Matrix
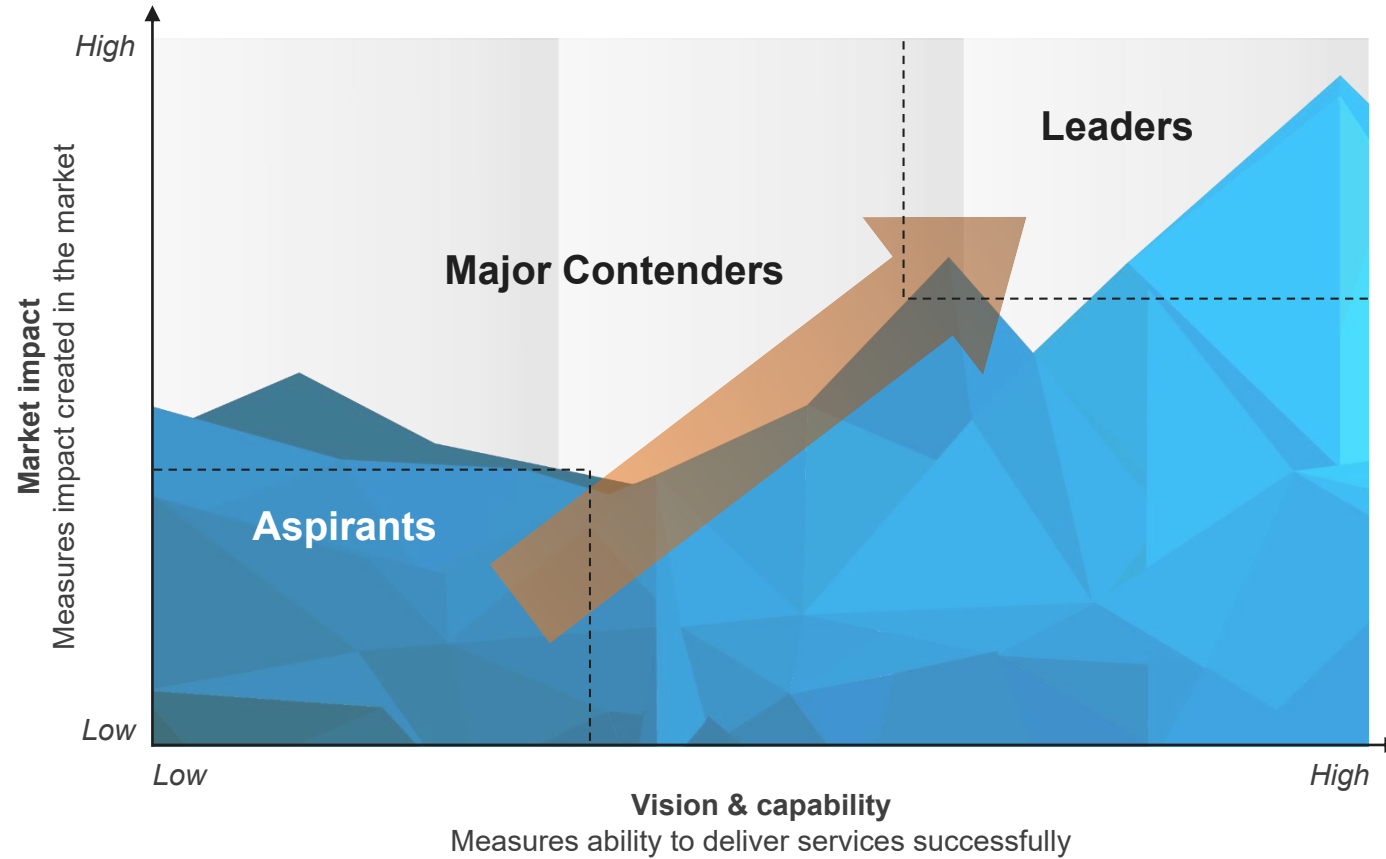
Services PEAK Matrix® evaluation dimensions

Measures impact created in the market –
captured through three subdimensions

Market adoption

Number of clients, revenue base,
YoY growth, and deal value/volume

Portfolio mix

Diversity of client/revenue base across
geographies and type of engagements

Value delivered

Value delivered to the client based
on customer feedback and
transformational impact

Market impact

Leaders

Major Contenders

Aspirants

Vision & capability
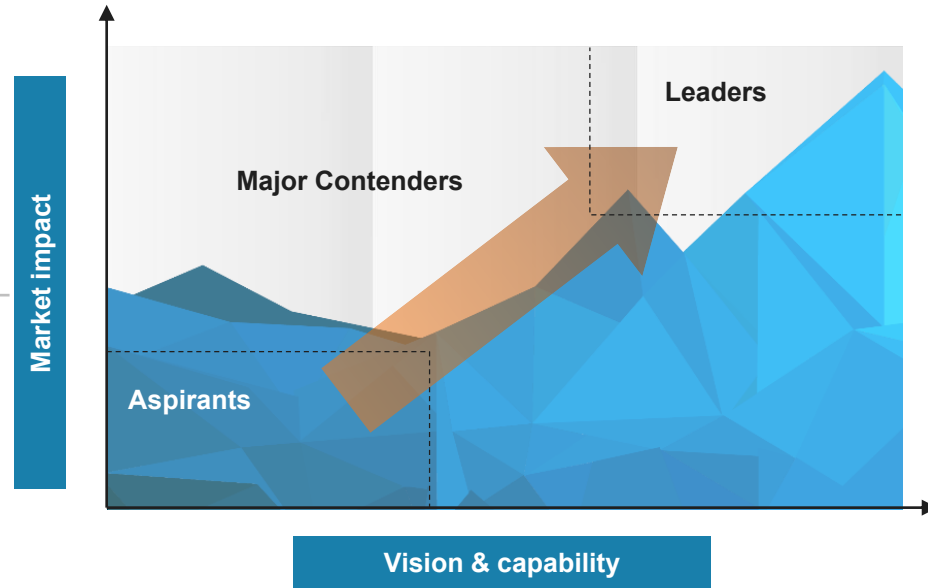
Measures ability to deliver services successfully.
This is captured through four subdimensions

Vision and strategy

Vision for the client and itself; future
roadmap and strategy

Scope of services offered

Depth and breadth of services portfolio
across service subsegments/processes

Innovation and investments

Innovation and investment in the enabling
areas, e.g., technology IP, industry/domain
knowledge, innovative commercial
constructs, alliances, M&A, etc.

Delivery footprint

Delivery footprint and global sourcing mix

FAQs

Does the PEAK Matrix® assessment incorporate any subjective criteria?
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 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?
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 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?
- 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?
- Providers/vendors can use their PEAK Matrix positioning or Star Performer rating in multiple ways including:
  - Issue a press release declaring positioning; see our citation policies
  - 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?
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.

Everest Group®

With you on the journey

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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