



Everest Group 5G Engineering Services PEAK Matrix® Assessment 2023: The Next Frontier in the Hyperconnected Era

Focus on HCLTech
June 2023



Introduction

5G's lower latency and higher bandwidth has unlocked newer use cases for enterprises to explore. Additionally, adoption of 5G is allowing transformation of network infrastructure to make them quickly scalable, leading to higher levels of customization and lower operating costs. Enterprises are primarily exploring the below areas within 5G engineering:

- Decoupling of hardware and software in the form of network function virtualization and automation of network operations to lower the costs of network hardware, accelerate network deployment, and enhance efficiency in establishing networks
- Adoption of open-source components (hardware and software) and benchmarking their performance and operational challenges against proprietary solutions
- Feasibility of 5G-enabled use cases to boost monetization opportunities
- 5G-enabled private networks and edge computing solutions to improve industrial processes through connected IoT devices, improved data security protocols, reduced operational expenses, and faster decision-making

However, the nascent nature of the market is leading to uncertainty and increased complexity for enterprises. As a result, they are looking to partner with service providers to share development risks, lower operational costs, implement system integration measures, bring in a larger talent pool, and leverage the diverse expertise of their partner ecosystem to engineer solutions faster. To address these expectations, service providers are investing in enhancing their 5G engineering capabilities through skillset development programs, CoEs, labs to carry out R&D and showcase their solutions, partnerships with ecosystem players, and strategic investments to gain competencies and expand across geographies.

This research, the second edition of Everest Group's 5G Engineering PEAK Matrix® Assessment, evaluates 20 engineering service providers, features them on the PEAK Matrix®, and shares insights on enterprise sourcing considerations. The study is based on RFI responses from service providers, interactions with their 5G engineering leadership, client reference checks, and ongoing analysis of the engineering services market.

The full report includes the profiles of the following 20 leading engineering service providers featured on the [5G Engineering Services PEAK Matrix® Assessment 2023: The Next Frontier in the Hyperconnected Era](#):

- **Leaders:** Accenture, Capgemini, HCLTech, Infosys, NTT DATA, TCS, and Tech Mahindra
- **Major Contenders:** Brillio, Cyient, DXC Luxoft, HARMAN DTS, IBM, LTTS, Tata Elxsi, Tietoevry, VVDN Technologies, and Wipro
- **Aspirants:** BICS, GS Lab I GAVS, and Sasken

Scope of this report



Geography
Global



Providers
20 leading broad-based and pureplay service providers



Services
5G engineering services

5G Engineering Services PEAK Matrix® characteristics

Leaders

Accenture, Capgemini, HCLTech, Infosys, NTT DATA, TCS, and Tech Mahindra

- Leaders are investing significantly in enhancing their 5G engineering capabilities in the form of talent upskilling, labs and CoEs, building extensive partner ecosystem, creating IPs and frameworks that would help accelerate the pace of 5G deployment and streamline operations, and explore current themes in 5G engineering such as virtualization and adoption of open-source components
- Leaders are also contributing toward shaping the market through thought leaderships and by defining standards and specifications through the industry consortia they are a part of
- These service providers generally have a high employee strength, global presence, and a comparatively bigger client base to build on. These capabilities help them form a comprehensive 5G engineering services portfolio, and establish long-term relationships with enterprises, giving them an edge in winning client engagements

Major Contenders

Brillio, Cyient, DXC Luxoft, HARMAN DTS, IBM, LTTS, Tata Elxsi, Tietoenvy, VVDN Technologies, and Wipro

- Major Contenders consist of both broad-based players and pureplay firms that have a noteworthy presence in 5G engineering services and showcase expertise in specific areas within 5G
- Most Major Contenders are small to mid-sized firms with a fast-growing 5G engineering services business. The distribution of revenue and client portfolio is generally inclined toward specific subsegments, ecosystem entities, or verticals with lower presence across others
- While Major Contenders are also investing in scaling their 5G engineering competencies, their investments are not at the scale of Leaders

Aspirants

BICS, GS Lab I GAVS, and Sasken

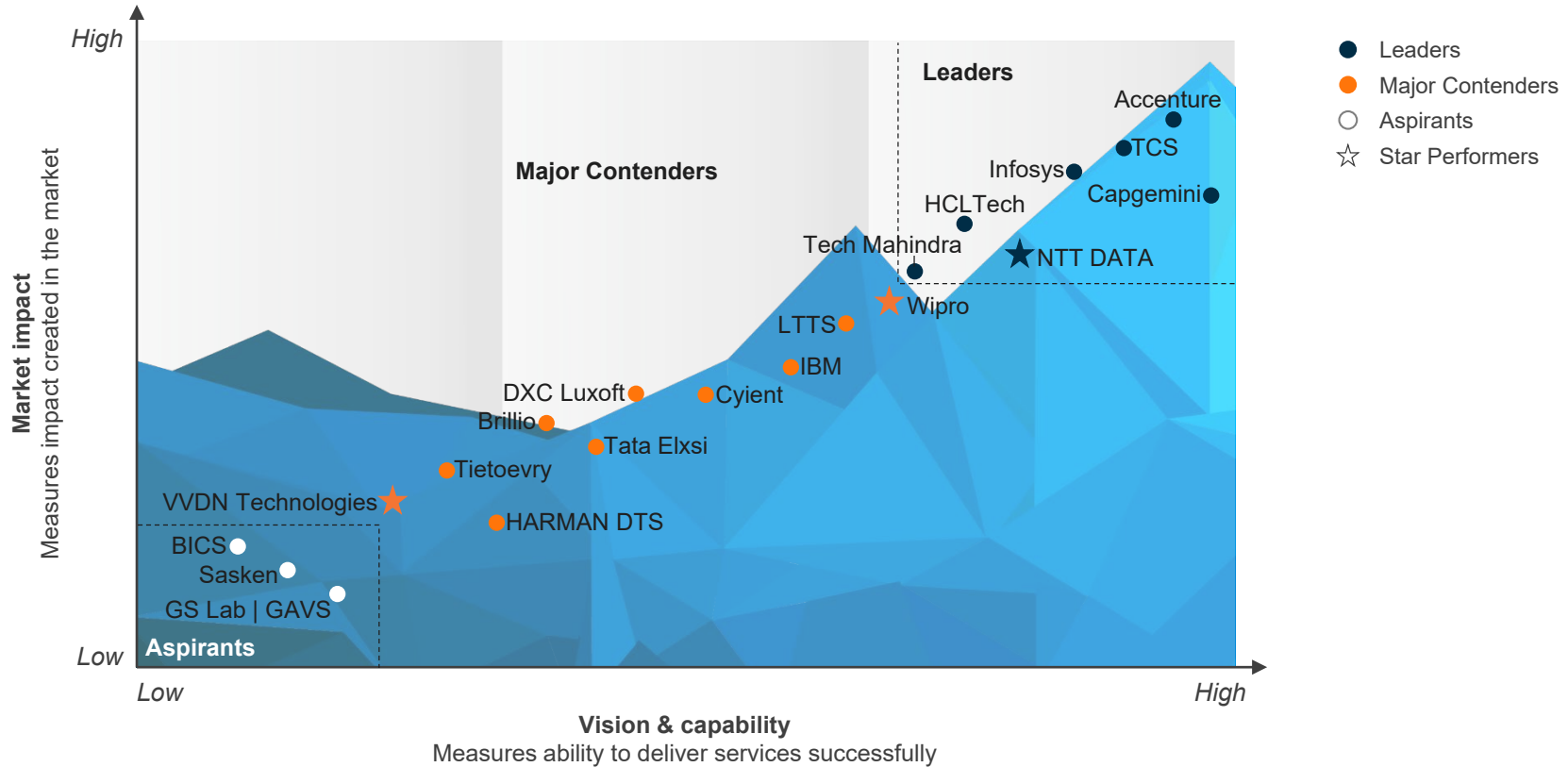
- Aspirants consist of players whose 5G engineering services business is in nascent stages. They have capabilities in specific stages of the value chain and limited diversity in their client portfolio. They have a smaller employee base and limited geographical presence that hinders their chances at scaling their business rapidly
- Aspirants have made limited investments in enhancing their 5G engineering capabilities and they are more focused on scaling the current offerings than having a diversified portfolio

Everest Group PEAK Matrix®

5G Engineering Services PEAK Matrix® Assessment 2023 | HCLTech is positioned as a Leader



Everest Group 5G Engineering Services PEAK Matrix® Assessment 2023^{1,2}



1 Assessments for Sasken and Tietoenvy exclude service provider inputs and are based on Everest Group's proprietary Transaction Intelligence (TI) database, service provider public disclosures, and Everest Group's interaction with buyers
 2 Assessment of NTT DATA reflects the combined capabilities of NTT DATA and the global IT services of NTT; and GS Lab | GAVS covers the capabilities of the combined entity formed by merging GS Lab and GAVS
 Source: Everest Group (2023)

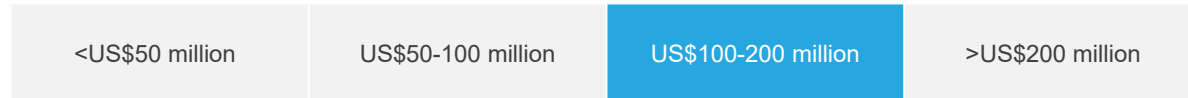
HCLTech profile (page 1 of 4)

Overview

Vision and Strategy

HCLTech’s vision is to build innovative, outcome-based, and industry-ready 5G solutions for chosen markets to enable accelerated digital transformation and data monetization. HCLTech plans to achieve this by using its capabilities in engineering and cloud operations, combined with its state-of-art infrastructure and strong partner ecosystem.

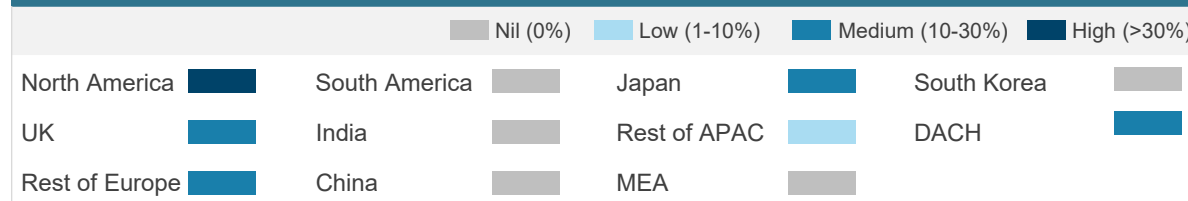
5G engineering services revenue (July 2021 – June 2022)



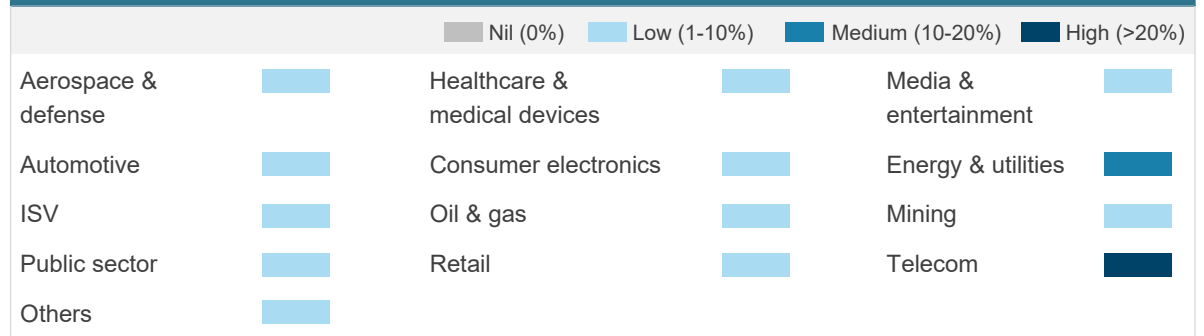
YoY growth rate in 5G engineering services revenue (July 2021 – June 2022)



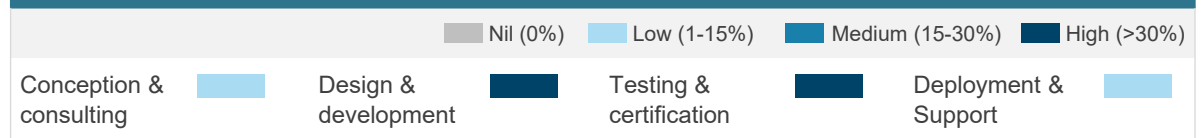
Revenue by geography



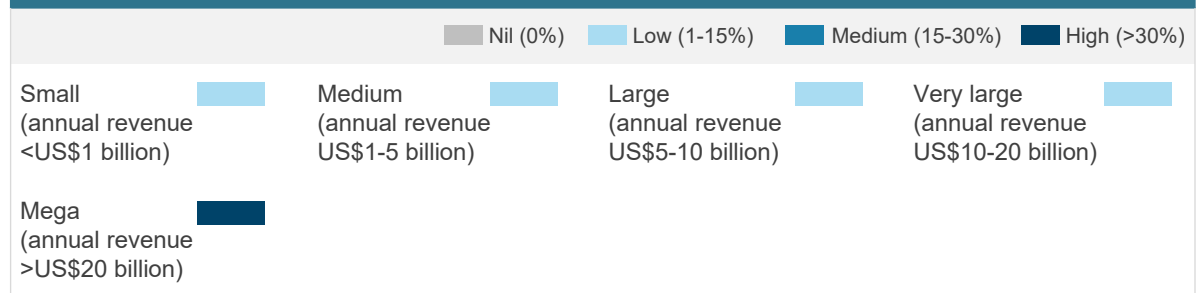
Revenue by 5G engineering industry segments



Revenue by value chain function



Revenue by buyer size



HCLTech profile (page 2 of 4)

Case study

Case study 1 **Helped a global networking company with network function feature development**

Business challenge
The client was looking to develop Access and Mobility Management Function (AMF) for the 5G core network to reduce the time-to-market for its product.

Solution and impact
HCLTech helped the client by co-developing features for the AMF product and integrating new feature releases throughout the year. The AMF product was compliant with 3GPP standards and became an integral part of the client’s 5G-as-a-service offering to its customers, helping in migrating from 4G to 5G.

Case study 2 **Helped a client in enterprise wireless network implementation**

Business challenge
The client wanted a network solution that was easier to connect and efficient enough to manage increased loads of data with growth in Industry 4.0. The client was looking for newer means to connect devices as the wiring sensor is expensive and the Wi-Fi cannot manage multiple sensors.

Solution and impact
HCLTech helped the client by building an enterprise wireless network facilitating enhanced video call quality, mobility, security, and device capability. HCLTech also assisted in the execution process at the customer’s end, leveraging 5G capabilities in improving utility in manufacturing by 40%, quality by 20%, engineering by 15%, and remote testing by 5%. There were also improvements in external modem characteristics as well as power and time management of battery depletion with multi-time usage.

Proprietary solutions (representative list)	
Solution	Details
Network Slice Manager (NSM)	A solution enabling operators to offer Network-as-a-Service (NaaS) using slicing along with network slice life cycle management
Network Abstraction Layer (NAL)	A solution to enable automation and use case development, along with telemetry, policy control, etc.
Network Function Onboarding Exchange (NOX)	An automated solution to enable Network Function (NF) and devices onboarding
Network Service Assurance & Analytics (NSAA)	A cross-domain and correlation Management Data Analytics Function (MDAF)-compliant architecture to improve user and network experience
Augmented Network Automation (HCL ANA) (Erstwhile CISCO SON)	A suite of solutions to automate and optimize Multi-vendor Multi-technology (MVMT) networks
TURBO-5G	A solution for end-to-end test life cycle management for telco networks, devices, and applications. The solution reduces OPEX and improves time-to-market for network and services
Intelligent Secure Edge (ISE)	A collaborative platform that brings citizens, communities, and authorities together as a virtual network, powered by AI, Edge, Wi-Fi 6, 5G, and next-generation technologies
eDAT™	Modular, scalable, extendable, and highly customizable framework for automated testing of electronic devices. It enables test automation using a black box approach through hardware and software interface accelerators

HCLTech profile (page 3 of 4)

Offerings

Key alliances and partnership (representative list)

Company	Details
Atrinet	A partnership to deliver service assurance services (network assurance, CL service assurance, etc.) to CSPs and enterprises
IBM	A partnership to develop CoEs to help CSPs modernize their network infrastructure, transform service delivery, and simplify operations. The CoEs focus on new offerings designed to help telco clients transform their networks, including telco core, vRAN, ORAN, private networks, edge modernization, and 5G labs
Intel and Mavenir	An alliance with Intel Corporation and Mavenir to develop and provide scalable private 5G network solutions for CSPs and cross-vertical enterprises
SAP	A partnership to enable cloud acceleration, industry transformation, and build a sustainable future
VMware	A partnership to expand HCLTech's Cloud Smart portfolio of services powered by VMware technology to include support for VMware Telco Cloud – 5G Core and VMware Telco Cloud RAN, and set up a dedicated lab to streamline the deployment of these solutions across customer networks
Dell	HCLTech Dell Ecosystem offers cyber resilience, hybrid cloud and digital workplace solutions to provide enterprises with an agile, robust, and world-class infrastructure to scale innovation
Microsoft	The HCLTech Microsoft Ecosystem Unit is focused on enabling enterprise customers to embrace disruptive innovation by migrating to and building cloud-native services that help clients fulfill their business goals










Recent 5G engineering services investments/acquisitions (representative list)

Investment/target	Description
Lab Infrastructure	Investment to bolster 5G capabilities through over six state-of-the-art lab infrastructures across the globe
Talent and capability-building initiatives	Investment in training academy programs to provide end-to-end services to customers and build competency in 5G RAN, Core, telco cloud, reference design, network and test automation, and IoT & DevOps
Antenna test lab	Enables HCLTech in building new wireless solutions and radio frequency applications, and assists in RF analysis and product testing across interdisciplinary domains

HCLTech profile (page 4 of 4)

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

- HCLTech’s dedicated capability enhancing investments have helped it build a strong presence across emerging subthemes within 5G engineering such as MEC, ORAN, Software Defined Networking (SDN), and Network Functions Virtualization (NFV)
- Its offshore-heavy delivery mix has been highlighted by clients since it helps them lower the costs of the engagement and easily scale up or down the number of resourced being engaged
- Though HCLTech’s portfolio is inclined toward equipment engineering, it still has significant presence in network and solution engineering services
- HCLTech has built a comprehensive partner ecosystem across key 5G subthemes, such as 5G Core, cloud-based applications, ORAN, and network discovery/management, and has been appreciated by clients for leveraging them in engagements
- Clients have appreciated HCLTech’s flexibility to accommodate client requirement and the ability to provide post-deployment support

Limitations

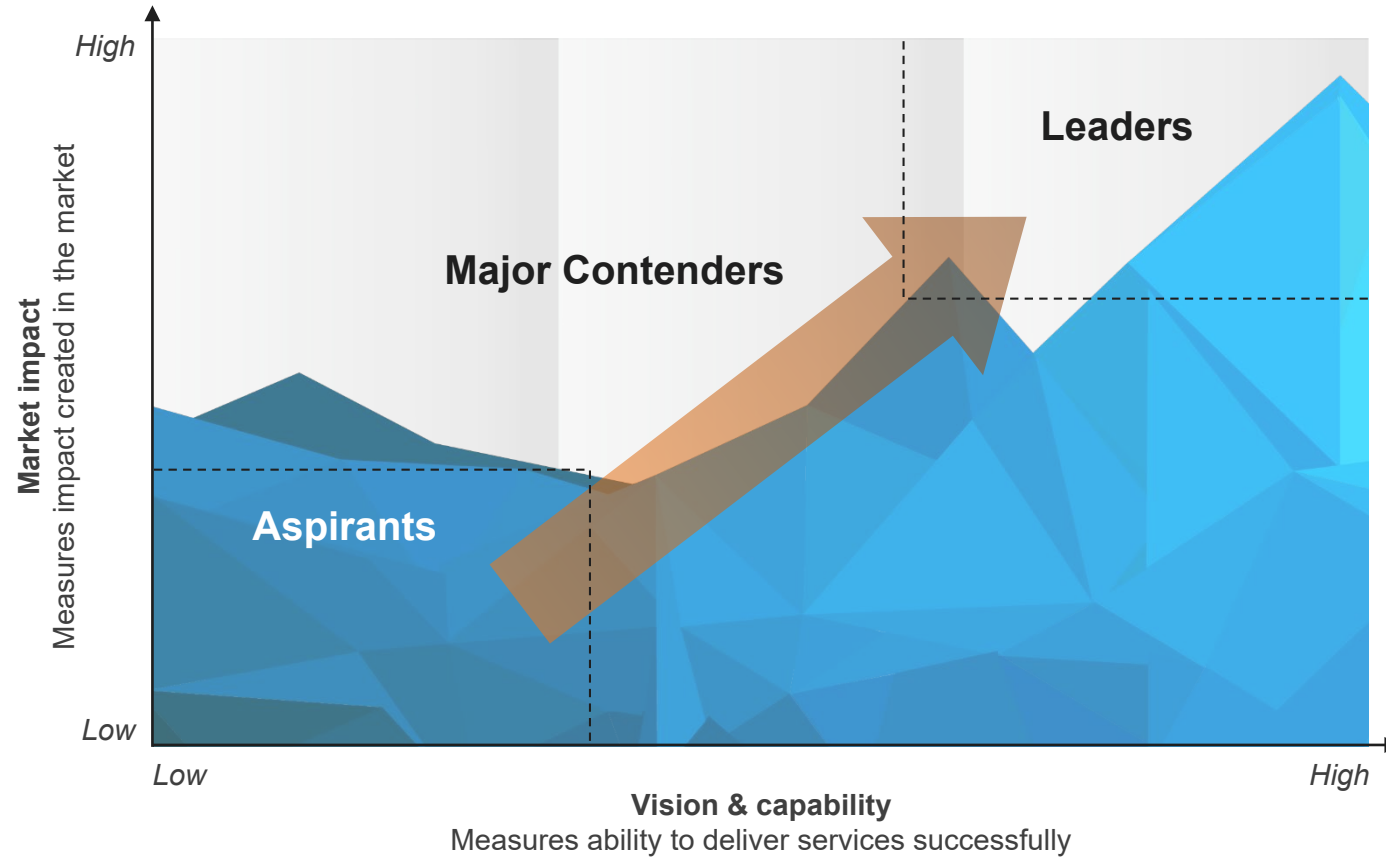
- Clients have highlighted that HCLTech needs to focus on employee retention and enhancing employee skillsets in 5G-specific areas
- Clients have also mentioned that HCLTech needs to make more efforts in adhering to timelines and adopting AI/ML and data analytics solutions in engagements proactively
- HCLTech has limited exposure to engaging with clients through innovative pricing constructs such as outcome-based pricing and revenue-sharing model
- Compared to peers, HCLTech has a smaller private 5G engineering services portfolio

Appendix

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



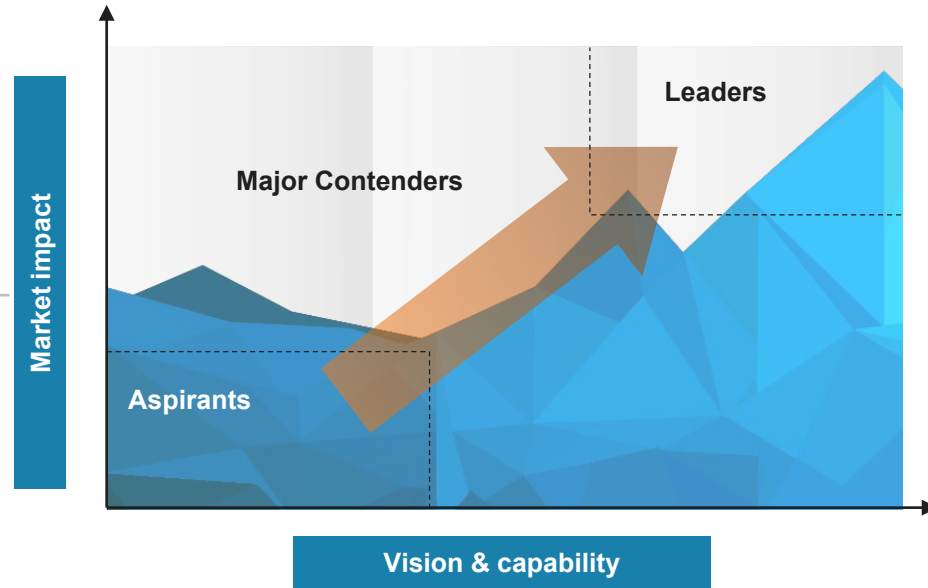
Everest Group PEAK Matrix



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



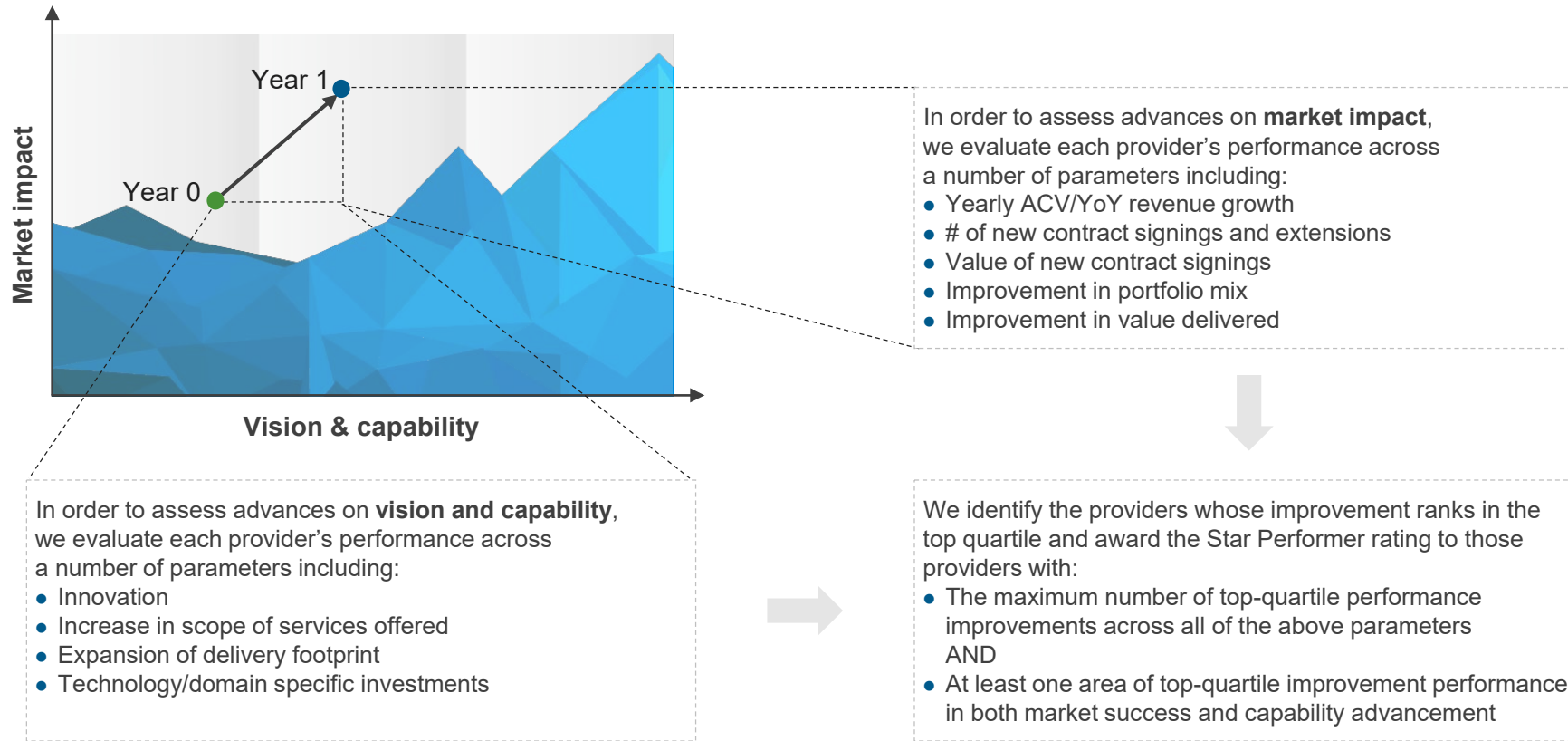
Measures ability to deliver services successfully. This is captured through four subdimensions

- 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

Everest Group confers the Star Performers title on providers that demonstrate the most improvement over time on the PEAK Matrix®

Methodology

Everest Group selects Star Performers based on the relative YoY improvement on the PEAK Matrix



The Star Performers title relates to YoY performance for a given vendor and does not reflect the overall market leadership position, which is identified as Leader, Major Contender, or Aspirant.

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 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 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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