

Technology Services Talent Handbook – Do You Have the Right Locations in Your Delivery Portfolio?

January 2022: Complimentary Abstract / Table of Contents



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- ▶ Pricing-as-a-Service
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- ▶ Procurement
- ▶ Recruitment
- ▶ Retirements Technologies
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- ▶ Service Optimization Technologies
- ▶ Supply Chain Management (SCM) Services
- ▶ Talent Excellence GBS
- ▶ Talent Excellence ITS
- ▶ Technology Skills and Talent
- ▶ Trust and Safety
- ▶ Work at Home Agent (WAHA) Customer Experience Management (CXM)

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Benchmarking

Contract assessment

Peer analysis

Market intelligence

Tracking: service providers, locations, risk, technologies

Locations: costs, skills, sustainability, portfolios

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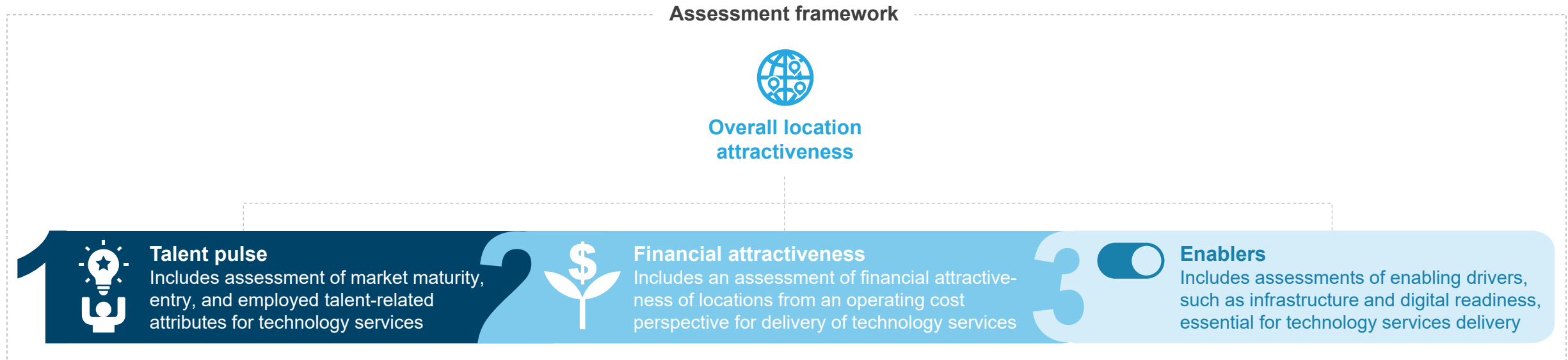
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Background and objective

Technology services have become critical for enterprises to ensure continued engagement and deliver superior user experiences to customers. While the COVID-19 pandemic impacted global economies and affected several industries and verticals, it proved to be a blessing in disguise for technology-led Research & Development (R&D) services that grew significantly due to digital enablement across all parts of most businesses. As businesses have readjusted for post-pandemic recovery, digital transformation has led to faster adoption of emerging technologies such as AI, ML, blockchain, and 5G among enterprises and consumers across the globe. Therefore, it is vital for market players (enterprises, GBS, and service providers) to continue to introduce and leverage digital into their wider service delivery construct in a sustained manner. To remain competitive and sustainable, market players will have to review their location strategies and develop delivery portfolios that align with their digital transformation agendas.

This Everest Group handbook supports market players in their efforts to identify the right locations to support technology services. It highlights the relative attractiveness of leading global locations for supporting technology services based on a holistic and multi-faceted assessment. At an overall level, this handbook covers the technology services delivery attractiveness on three broad dimensions:



Scope and coverage (page 1 of 2)



The report focuses on delivery of technology services



20 delivery locations across geographies have been prioritized for assessment. These represent the most leveraged locations for technology services delivery in their respective geographies.





Americas		Asia Pacific (APAC)			Middle East and Africa (MEA)
Canada	US	Australia	China	India	
					Israel
Costa Rica	Mexico	Indonesia	Malaysia	Singapore	
Central and Eastern Europe (CEE)			Western Europe		
Czech Republic	Lithuania	Poland	France	Germany	
Romania	Ukraine		Ireland	UK	

Scope and coverage (page 2 of 2)



Four clusters with specific focus areas have been chosen for this assessment. These clusters are the key services within the technology services domain and have experienced maximum demand post-pandemic. They further represent different competency areas and skill families.



Cluster	Competency areas / skills families
 Software	Includes areas such as software development, application development, database programming, scripting, API management, and DevOps/agile enablement
 Quality Assurance (QA)	Includes areas such as functional and unit testing, security testing, performance testing, specialized Service Oriented Architecture (SOA) testing, and test data management
 Exponential technologies	Includes areas such as Internet of Things (IoT), Artificial Intelligence, (AI), Machine Learning (ML), Natural Language Processing(NLP), Computer Vision (CV), Augmented Reality (AR), Virtual Reality (VR), Cloud, Blockchain, and 5G
 Data services	Includes areas such as database administration, database management, relational databases, non-relational databases, data visualization and Extract, Transform, and Load (ETL), Business Intelligence (BI), advanced analytics (includes prescriptive and predictive), data engineering, and data sciences

Overview and abbreviated summary of key messages

This report examines the relative delivery attractiveness of leading global locations for supporting technology services based on a holistic and multi-faceted assessment. It also identifies the key implications of the research findings for market players (enterprises, GBS organizations, and service providers).

Some of the findings in this report, among others, are:

Labor supply models are experiencing unprecedented challenges globally, leading companies to rethink their talent sourcing strategies

- Surge in technology demand is creating talent wars for digital skills. The drivers for this includes:
 - Unfavorable demand-supply dynamics; limited supply, high demand
 - High competitive intensity / high attrition
 - Lack of skilled professionals – unemployment rates are at a record low
- Organizations need to have locations in their delivery portfolio which can provide sustained supply of talent skilled in niche technological areas

Salaries are moving up significantly across the pay spectrum leading to increase in cost and margin pressure for companies

- Spiking attrition in the technology space, given the momentous rise in demand, is causing significant resourcing challenges and impacting productivity
- GBS organizations and service providers have a good mix of offshore/nearshore presence to develop cost-effective specialized capabilities across technology segments

Traditional principles of location selection need to be revised

The right location should not only offer depth and breadth of maturity across multiple technology segments but should also have a vibrant start-up ecosystem, agile academic institutions, tech-savvy government, modern technology infrastructure, healthy competitive environment, and friendly regulatory policies

This study offers three distinct chapters providing a deep dive into key aspects of technology services delivery market; below are four charts to illustrate the depth of the report

Assessment framework

Talent pulse

- Entry-level talent**
 - Size of talent pool:** the number of graduates and postgraduates from all relevant educational streams for technology services that are incrementally added to the existing talent pool every year at a country level
 - Quality of talent pool:** talent readiness to acquire the requisite technical, vocational, and business skills for technology services; corresponds to quality of vocational training, graduate skillsets, and ease of finding skilled employees
- Experienced talent**
 - Size of employed pool:** the size of the employed pool across leading players (both service providers and Global Business Services (GBS) centers) supporting global and domestic delivery of technology services
 - Market maturity:** the maturity of a market based on the following parameters: evidence of delivery (typical size, presence of companies, etc.), size of the experienced talent pool, and overall maturity of technology services in the location
 - Attrition:** indicates typical levels of annual voluntary attrition


Financial attractiveness

Financial attractiveness: attractiveness of a location from an operating cost perspective


Enablers

- Operating environment:** favorability of drivers impacting the global services enabling ecosystem
 - General infrastructure:** availability of basic infrastructure needed to support business operations; based on factors such as availability and transparency of real estate, ease of connectivity, and availability of utilities
 - Digital readiness:** current status of digital connectivity, IT penetration, and innovation potential to scale technology services
 - Safety and security:** susceptibility to natural disasters and business cost of crime and violence
 - Quality of life:** ability to access to favorable healthcare facilities, education system, and environment
- Business environment:** includes favorability of drivers impacting the global services enabling ecosystem
 - Macroeconomic stability:** risks affecting the state stability such as macroeconomic risks, financial risk, and country-credit risks
 - Geopolitical stability:** risks affecting the state's stability such as external interventions and political risks
 - Regulatory environment and ease of doing business:** legal and regulatory hurdles to business operations
 - Start-up ecosystem:** maturity of the start-up ecosystem


Locations assessed




Region	Location	City assessed
Americas	Canada	Toronto
	US	Detroit
	Costa Rica	San Jose
	Mexico	Mexico City




Region	Location	City assessed
Asia Pacific	Australia	Melbourne
	China	Shanghai
	India	Bangalore
	Indonesia	Jakarta
	Malaysia	Kuala Lumpur
	Singapore	Singapore city



Region	Location	City assessed
Middle East and Africa	Israel	Tel Aviv



Region	Location	City assessed
Central Eastern Europe	Czech Republic	Prague
	Lithuania	Vilnius
	Poland	Warsaw
	Romania	Bucharest



Region	Location	City assessed
Western Europe	Ukraine	Kiev
	France	Paris
	Germany	Berlin
	Ireland	Dublin


Note: Leading tier-1 cities considered for each country, except for the US where we have considered tier-2 city

Comparative assessment of key locations

Overall attractiveness of location based on

- Talent pulse
- Financial attractiveness
- Enablers

Rank	Location	Overall attractiveness of location for technology services delivery
1	India	High
2	China	High
3	United States	High
4	Germany	High
5	Indonesia	High
6	France	High
7	Canada	High
8	United Kingdom	High
9	Mexico	High
10	Malaysia	High
11	Poland	High
12	Australia	High
13	Romania	High
14	Ukraine	High
15	Singapore	High
16	Czech Republic	High
17	Lithuania	High
18	Ireland	High
19	Israel	High
20	Costa Rica	High



Talent pulse | experienced talent assessment

Overall availability¹

- High
- Medium
- Low

Location	Quality assurance 2021; rating	Software 2021; rating	Exponential technologies 2021; rating	Data services 2021; rating
Canada	High	High	High	High
United States	High	High	High	High
Costa Rica	Low	High	Low	High
Mexico	High	High	High	High
Australia	High	High	High	High
China	High	High	High	High
India	High	High	High	High
Indonesia	Low	High	Low	High
Malaysia	Low	High	High	High
Singapore	Low	High	High	High

¹ Ratings are relative across all skill-location combinations, based on total employed talent pool supporting both global and domestic delivery of technology services
Source: Investment promotion agencies of respective countries, and inputs from market participants

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Research calendar

Locations Insider™

■ Published
 ■ Planned
 ■ Current release

Flagship reports

Release date

Global Locations State of the Market 2021: Embracing Uncertainties in a Disrupted World Risk Watch	March 2021
Location Spotlight – Hungary	June 2021
Location Spotlight – Thailand	July 2021
Location Spotlight – Croatia	August 2021
Location Spotlight – Latvia	August 2021
Location Spotlight – Ghana	August 2021
Location Spotlight – Queretaro, Mexico	November 2021
Global Locations State of the Market Report 2021: Embracing Uncertainties in a Disrupted World Locations PEAK Matrix®	November 2021
Global Locations State of the Market 2021: Embracing Uncertainties in a Disrupted World Key Trends Shaping the Landscape	November 2021
Reimagining Latin America Delivery in a Post-COVID World	December 2021

Thematic reports

Release date

Leading European Locations for Global Delivery of Engineering Services	October 2020
Data & Analytics Handbook – Delivery Location Strategy to Steer Through Digital Disruption	November 2020
Talent Handbook on Cybersecurity Skills	June 2021
Technology Services Talent Handbook – Do You Have the Right Locations in Your Delivery Portfolio?	January 2022

Note: For a list of all of our published Locations Insider™ reports, please refer to our [website page](#).

Research calendar

Talent Excellence GBS

■ Published
 ■ Planned
 ■ Current release

Flagship reports

Release date

Innovative Talent Practices to Build the GBS of the Future	November 2019
European Digital Services Talent Handbook: Prepare for Digital Disruption	June 2019
Playbook: Integrating Work From Home (WFH) in the Global Business Services (GBS) Delivery Model	June 2020
Workforce Productivity: The Next Frontier in Improving Organizational Efficiency	June 2020
Engineering Services Skills Handbook: Preparing for Next Wave of Growth in Global ER&D	July 2020
Winning the War for Talent: An Enterprise Guide to Building a Sustainable Workforce Strategy	July 2020
Charting the Skilling Journey to Build the IT Services Talent of Tomorrow: Replacing the Commodity IT Services Role Definitions	August 2020
Future of Work From Home (WFH) in GBS Separating Hype from Reality	May 2021
Skilling Strategies for GBS Organizations Pinnacle Model™ Analysis 2021	July 2021
Disruptive and Innovative Technology Solutions for Global Business Services (GBS) Talent Management	November 2021
Technology Services Talent Handbook – Do You Have the Right Locations in Your Delivery Portfolio?	January 2022

Planned reports

Release date

Unlocking GBS Workforce Productivity	Q1 2022
Role of Next-generation Technologies in Talent Acquisition	Q1 2022
Next-generation Talent Practices for Evolving GBS Needs	Q1 2022
Global Workforce Strategy Planning Pinnacle Model™ Analysis 2021	Q1 2022

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Research calendar

Engineering Services (ES)

■ Published
 ■ Planned
 ■ Current release

Flagship reports

	Release date
Reaching New Frontiers in Experience-centricity and Resilience: Software Product Engineering Services PEAK Matrix® Assessment 2021	March 2021
Semiconductor Engineering Services PEAK Matrix® Assessment 2021: Enabling the Hyper-connected Intelligent World	March 2021
A Transformational Leap in Cyber-physical Convergence – Industry 4.0 State of the Market Report 2021	April 2021
Exploring the Future of Mobility: Autonomous, Connected, Electric, and Shared (ACES) Mobility Automotive Engineering Services PEAK Matrix® Assessment 2021	September 2021
Reaching New Frontiers in Experience-centricity and Resilience – Software Product Engineering Services State of the Market Report 2021	September 2021
Envisioning the Connected Future: 5G Engineering Services PEAK Matrix® Assessment 2021	September 2021
Enabling the Hyper-connected Intelligent World – Semiconductor Engineering State of the Market Report 2021	November 2021
Digital Engineering Services PEAK Matrix® Assessment 2022	Q1 2022
Digital Twin Services PEAK Matrix® Assessment 2021	Q1 2022

Thematic reports

	Release date
Engineering Services Enterprise Pulse: Are Engineering Enterprises Truly Happy with Their Service Providers?	April 2020
Engineering Services Top 50	June 2020
Extended Reality and its Applications Across Industries	August 2020
Leading the Pack: Trends for the Top 200 Engineering Research & Development (ER&D) Enterprises 2021	September 2020
Technology Services Talent Handbook – Do You Have the Right Locations in Your Delivery Portfolio?	January 2022

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