Everest Group®

Everest Group PEAK Matrix for Task Mining Technology Provider 2022

Focus on EdgeVerve

August 2022

Everest Group
PEAK MATRIX®

Background of the research

Background of the research

Everest Group defines task mining as a type of software product that can capture user actions and metadata, such as keystrokes, mouse clicks, activity screenshots, and potentially other system-level activities, performed together on multiple desktops to discover tasks and provide insights into the tasks and activities involved in executing a process. The technology provides a data-based approach to process optimization and automation through different applications and use cases spanning industries and process areas. This has led to task mining being one of the fastest-growing markets in the Intelligent Automation (IA) space. Adoption of task mining solutions can not only help enterprises achieve cost savings and operational efficiencies by optimizing/automating tasks, but also enhances employee experience through better resource allocation. While task mining can play a key role in the success of an organization's digital transformation journey, task mining technology is relatively new to many potential buyers in terms of product capabilities, features, and commercial models.

In this study, we assess task mining software products that can capture user actions and metadata performed together on multiple desktops to virtually reconstruct and analyze processes and are available independent of professional services.

In this study, we analyze the task mining technology landscape across various dimensions:

- Overview of process intelligence software products
- Everest Group's PEAK Matrix® evaluation, a comparative assessment of 17 leading task mining technology providers
- Competitive landscape of the task mining technology provider market
- Key task mining technology trends
- Remarks on key strengths and limitations for each task mining technology provider

Scope of this report

Geography
Global

Technology providers
17 leading task mining technology providers

Product
Task mining

Task Mining Products PEAK Matrix® characteristics

Leaders:

Automation Anywhere, EdgeVerve, NICE, Nintex, and Soroco

- Leaders have a strong vision to enable end-to-end process visualization and optimization for enterprises through their task mining offerings. They have a high focus on democratizing the usage of task mining software and insights by business users/analysts and operations managers with limited/no reliance on enterprise IT

- Leaders differentiate themselves through continued investments in enhancing the accuracy of the ML algorithms for task discovery. They are also enhancing data security and privacy features to tackle enterprises' apprehension and accelerate adoption. Leaders are ahead in offering advanced task enhancement features such as ROI-based simulation analysis and automation workflow generation

- A few Leaders are also focusing on expanding their service and technology provider partnership ecosystem to offer greater flexibility to clients looking for services expertise and implementation support, or are looking to integrate task mining with complementary IA technologies

- Most of the Leaders are improving their offerings around product training and support to enhance familiarity and usability of their products. They are supporting clients with classroom training, portals for training and certification, and online user communities or support forums

Major Contenders:

ABBYY, Celonis, Epiance, IBM, KYP.ai, Mimica, Skan.ai, StereoLOGIC, UiPath, and UltimateSuite

- Many of the Major Contenders are providers that also offer solutions for complementary IA technologies such as RPA and IDP. Some of them are also offering process mining capability either through in-house investments or third-party partnerships. They primarily focus on identifying and prioritizing automation use cases through task mining

- A few Major Contenders are propagating the idea of a broader process transformation by leveraging task mining insights. They are differentiating themselves by investing in R&D to enhance their AI-based capabilities for task sequencing and analytics

- Most of the Major Contenders lag Leaders due to lack of advanced task enhancement capabilities such as triggering alerts/notifications based on task mining insights and limited focus on product training and support. However, they are making investments in such areas to catch up to the Leaders and enhance their value proposition for large-scale implementations
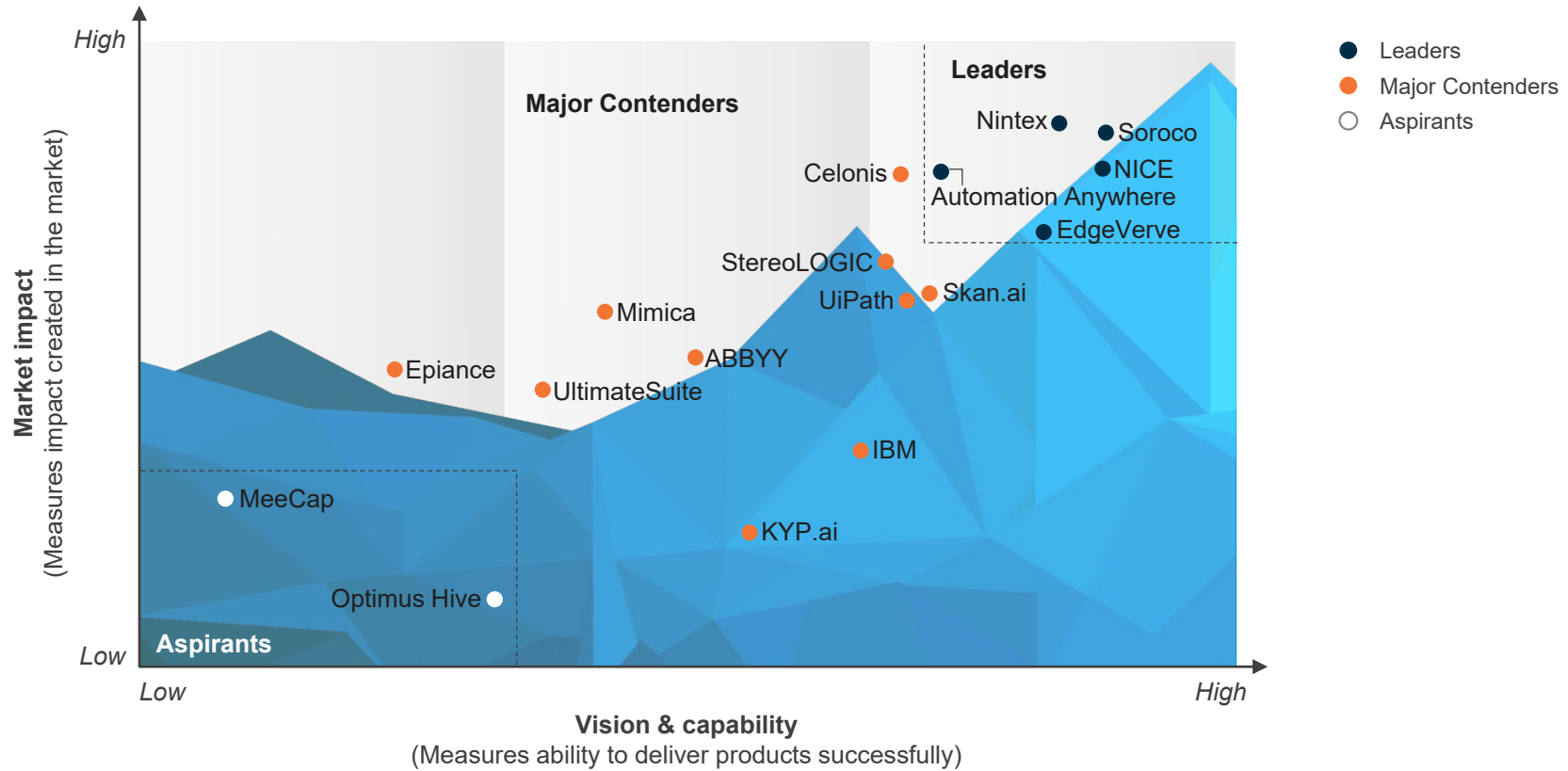
Aspirants:

MeeCap and Optimus Hive

- Aspirants are relatively new entrants in the market. They are investing to enhance core task mining capabilities for data capture, task discovery & analysis, and security as well as developing task monitoring and enhancement functionality

- Most Aspirants are playing to their strengths and serving client needs in specific geographies or buyer size segments and catering to use cases in specific process areas / business functions

Everest Group PEAK Matrix®
Task Mining Products PEAK Matrix® Assessment 2022 | EdgeVerve positioned as Leader

Everest Group Task Mining Products PEAK Matrix® Assessment 2022[1]

Chart — Market impact (Measures impact created in the market) on vertical axis (Low to High); Vision & capability (Measures ability to deliver products successfully) on horizontal axis (Low to High).

Legend:
- Leaders
- Major Contenders
- Aspirants

Plotted points:
- Leaders: Nintex, Soroco, NICE, Automation Anywhere, EdgeVerve
- Major Contenders: Celonis, StereoLOGIC, Skan.ai, UiPath, Mimica, ABBYY, UltimateSuite, Epiance, IBM, KYP.ai
- Aspirants: MeeCap, Optimus Hive

EdgeVerve | task mining product profile (page 1 of 6)
Overview

Company overview

EdgeVerve is a global leader in AI, Automation, and Supply Chain. It is fully owned by Infosys Limited. The company's digital platform portfolio includes XtractEdge (AI), AssistEdge (Automation), and TradeEdge (Supply Chain), which help businesses to develop connections with stakeholders and accelerate growth in the digital world. EdgeVerve's AssistEdge Discover is the task mining solution that helps to analyze tasks and provide task-level insights of processes. It also provides cloud-hosted business platforms that focus on driving revenue growth.

Key leaders

- **Sateesh Seetharamiah, CEO** & Whole-time Director
- **N.Shashidhar,** AVP & Global Product Head AssistEdge
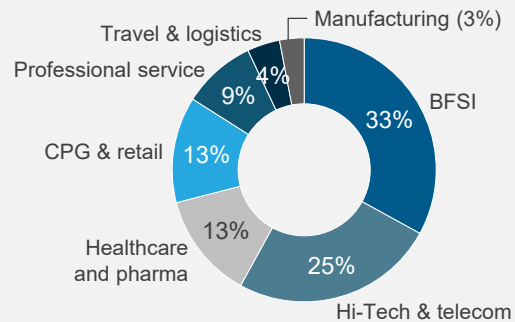
Headquarters: Bengaluru, India

Key clients include: Not disclosed
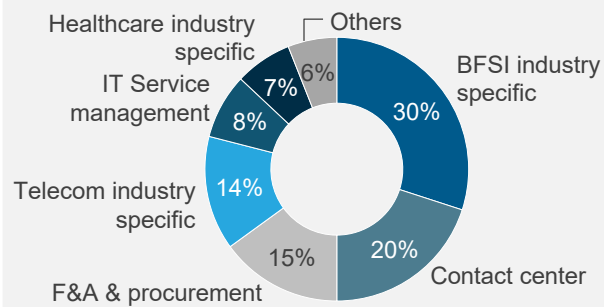
Website: www.edgeverve.com

Recent deals and announcements (not exhaustive)

- **2022:** signed Discover deals with multiple large telecom, insurance, and retail companies
- **2021:** launched its Connected Automation platform, powered by AssistEdge RPA 19.0 and Discover 2.0, at the AdvantEdge 2021 event
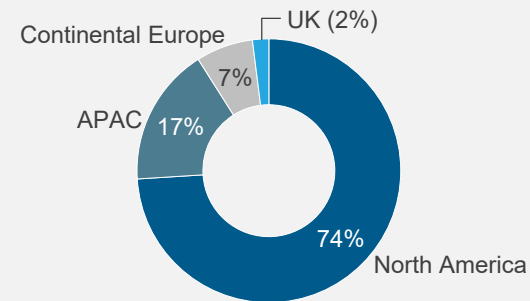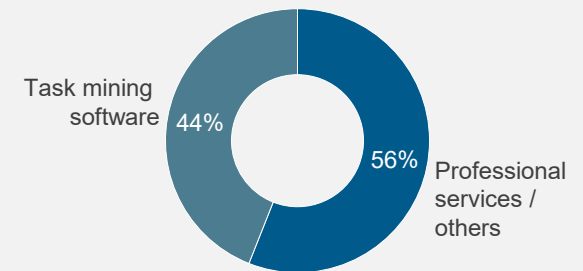
Split of task mining revenue by buyer industry

- Manufacturing (3%)
- Travel & logistics 4%
- Professional service 9%
- CPG & retail 13%
- Healthcare and pharma 13%
- Hi-Tech & telecom 25%
- BFSI 33%

Split of task mining revenue by process areas

- Healthcare industry specific 7%
- Others 6%
- IT Service management 8%
- Telecom industry specific 14%
- F&A & procurement 15%
- Contact center 20%
- BFSI industry specific 30%

Split of task mining revenue by buyer geography

- Continental Europe 7%
- UK (2%)
- APAC 17%
- North America 74%

Split of task mining revenue by offerings

- Task mining software 44%
- Professional services / others 56%

Note: Operational and product-/offering-related information as of December 2021, collected as part of the study / based on Everest Group estimates
Source: Everest Group (2022)

EdgeVerve | task mining product profile (page 2 of 6)
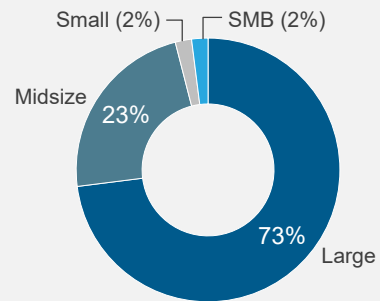## Overview

Product overview:

EdgeVerve's AssistEdge Discover aims to provide an intelligent automation ecosystem to its users through its task mining solution. The product has multiple modes of user-system interaction data capture including computer vision. The product leverages a proprietary neural network algorithm to identify the patterns from the consolidated user data to create process maps. The captured data is processed to provide visuals in multiple formats such as task maps, user-level insights, application insights, and task insights. The product offers a simulation feature to perform what-if analysis and make changes to a task and view the real-time impact on task metrics. EdgeVerve leverages multiple parameters such as the number of variations, task duration, and repeating steps to calculate the automation feasibility of tasks. It also offers the ability to mask sensitive PII data in the captured screenshots through pre-defined or custom hashing rules. The product has a unique auto automate capability converting a discovered task into an automated task with a single click.
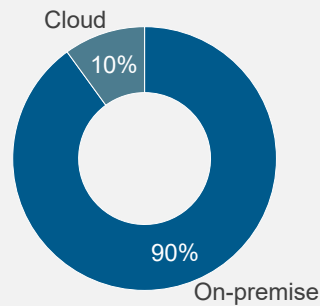
Version number: Discover 2.0

Release date: October 2021

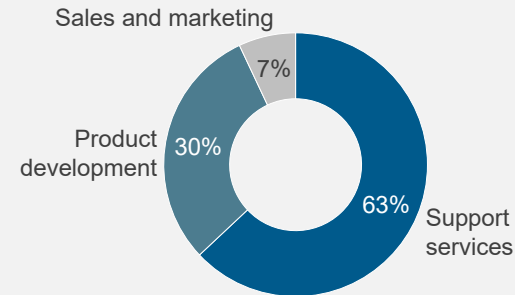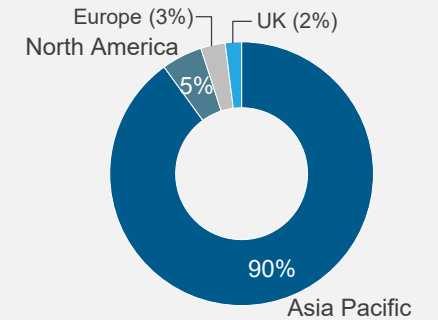| Market adoption and capability overview		
Description	**2021**	**YoY growth**
Task mining clients **(individual logos)**	39	34%
Task mining FTEs	118	136%
Number of service provider partners / resellers	5	Not disclosed
Number of technology/software partners	7	Not disclosed
Key service provider partners / resellers	Accenture and Infosys	
Key technology/software partners	Minit, Joget, CyberArk, Microsoft Azure, GCP, and AWS	

Task mining revenue mix by buyer size[1]

- Small (2%)
- SMB (2%)
- Midsize 23%
- Large 73%

Task mining client mix by hosting model

- Cloud 10%
- On-premise 90%

Split of task mining FTEs by function[2]

- Sales and marketing 7%
- Product development 30%
- Support services 63%

Split of task mining FTEs by geography

- Europe (3%)
- UK (2%)
- North America 5%
- Asia Pacific 90%

1 Buyer size is defined as large (>US$5 billion in revenue), midsize (US$1-5 billion in revenue), small (US$50 million-US$1 billion in revenue), and SMBs (<US$50 million in revenue).
2 Includes FTEs in product development, support services (product support, implementation, etc.), and sales & marketing; excludes FTEs in corporate functions such as HR and IT.
Note: Operational and product-/offering-related information as of December 2021, collected as part of the study / based on Everest Group estimates.
Source: Everest Group (2022)

EdgeVerve | task mining product profile (page 3 of 6)
Capabilities

Capability & offerings

Available   In the roadmap   Available via formal partnership   Not available

Data collection and preparation	Built-in recorder – DOM/COM-based	Built-in recorder – image-based	Silent recording of user activities without user intervention	Allow end users to manually start/pause/stop recording
	Ability to record actions performed on any enterprise applications (e.g., ERP, CRM)	Ability to record actions performed on any green screen (e.g., Citrix and VDI)	Ability to capture screenshots of each user action	Ability to extract specific fields or information within the screenshots using OCR or IDP
	Ability to blocklist/allowlist applications or URLs	Ability to capture metadata (e.g., file name, website URL)	Ability to export captured user action data (UI logs) as a file (.csv, .xls, .doc, etc.)	

Task discovery and analysis	Ability to leverage ML algorithms to classify tasks and create process maps	Ability to identify start and stop points of each task using a built-in AI engine	Ability to automatically identify case IDs (e.g., shipment number, and helpdesk ID)	Ability to generate process maps in BPMN 2.0 format
	Ability to correlate user desktop activity data with the event log data	Ability to detect process loops or cycles within a process model	Ability to allow users to edit or modify the process steps within the process map	Ability to define the to-be process model
	Ability to identify the optimal variant using variant analysis	Ability to perform root-cause analysis to identify causes of process path deviations	Ability to add step description, validations, and exceptions in the recorded content	

Monitoring, insights, and enhancements	Ability to create customized dashboards based on user requirements	Ability to provide workforce intelligence insights (e.g., task duration, user productivity, variance)	Ability to provide idle time per user	Ability to provide application-level insights (e.g., time spent on each application)
	Ability to provide granular/level-2 insights (e.g., time spent on a URL, software version number)	Ability to generate PDDs for discovered processes	Ability to define scenarios and run multiple simulations (what-if analysis / scenario testing)	Ability to provide on-screen guidance for improving users' productivity or reducing effort
	Ability to assess automation potential for tasks	Ability to allow users to generate RPA robot scripts for identified automation opportunities	Ability to configure and trigger alerts/notifications based on insights	

Integration with complementary capabilities	Process mining	Robotic Process Automation (RPA)	Business Intelligence (BI) / data visualization	Process orchestration
	Intelligent Document Processing (IDP)	Conversational AI / chatbots		

Note: Capability information as of December 2021, collected as part of the study

EdgeVerve | task mining product profile (page 4 of 6)
Capabilities

Capability & offerings

| | Available | In the roadmap | Available via formal partnership | Not available |

Security and compliance	Ability to mask PII data in the captured screenshots	Availability of pre-built repository of fields that needs to be masked in the captured data	Active directory integration	Adherence to privacy and regulatory compliances such as GDPR and CCPA acts
	Ability to assign role-based user access controls	Ability to encrypt/decrypt the captured data	Ability to allow users to discard/delete sensitive data permanently	

Product architecture and hosting option	On-premise (central server or virtual machine)	Private cloud	Public cloud	Product architecture based on loosely coupled microservices
	Supports multi-tenant deployments	Product deployed in containerized form	Hybrid model with some components on-premise and some components on cloud	Delivered as a Software-as-a-Service (SaaS) offering

Product training and support	Training and certification by technology provider	Training and certification by partners	Classroom training	Online portal for product training/certification
	Online self-paced training modules	Online certification courses	Free training modules	Interactive online training
	Role-based training	Embedded help tool	Online user community / support forum	Community edition of the product
	Availability of release notes on the website			

Commercial model	Perpetual licensing	Subscription licensing	User-/recorder-based licensing	Analyst-/developer-based licensing
	Server capacity-based licensing	Hybrid of user-based and analyst-based licensing	Hybrid of user-based and server capacity-based licensing	Bundled with complementary technology (process mining, RPA, etc.) license for free

Note: Capability information as of December 2021, collected as part of the study

EdgeVerve | task mining product profile (page 5 of 6)
Capabilities

Key areas of enhancements in the latest product releases (as of December 2021)

- Data collection and preparation
  - Launched multi-screen capture to record interactions performed on a secondary screen
  - Enhanced data capture configuration to enable the user to refine data capture and exclude a certain set of interactions during data capture or pre-analysis and thereby, making it faster
  - Enhanced further computer vision capability with improved accuracy
  - Improved installation journey for a faster and seamless installation of server and sensor
- Task discovery and analysis
  - Added support for BPMN export that now provides the capability to export task maps in BPMN format
  - Enhanced STARC AI model to generate optimal variations
  - Enhanced data screens UX to improve the user experience
- Monitoring, insights, and enhancements
  - Introduced Auto-Automate capability that accelerates the automation execution by enabling one-click task map export from AssistEdge Discover to AssistEdge RPA Studio
  - Added different task KPIs to calculate the automation readiness index, the KPIs are used listed below –
    - Automation potential KPI indicates whether a particular task has high potential or low potential for automation, which in turn assists business analysts to take decision for automating a task
    - Optimization potential KPI indicates the optimization potential for a task, meaning whether there is a need for standardizing the process before automating or not
    - User efficiency provides the score after comparing all the user's data against the standard user data
    - Conformance ratio KPI compares the baseflow (golden flow) with transactions of other users to calculate the score
    - Saving metrics highlight the savings that will be recognized if the particular task is automated
    - Automation funnel automatically recommends the task to be prioritized by taking into consideration automation feasibility and savings of the task
    - Task insights provides drill-down approach of showing an in-depth analysis of the selected task which includes multiple charts within automation indicator, optimization indicator, user efficiency indicator, and comparison graph
    - Variation insights provides a consolidated view of all the variations derived as a part of task analysis. It provides insights on ease of automation and to run simulations for different variations
  - Added simulation or what-if analysis feature provides an immediate indication on how changing variables can improve automation and optimization potentials of the task
  - Started offering LDAP support and integration with active directory

Note: Capability information as of December 2021, collected as part of the study

EdgeVerve | task mining product 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	Data collection and integration	Task intelligence	Implementation and support	Commercial model	Overall
◐	●	◕	◔	◔	◕	◔	◔	●	◔

Strengths

- Through its task mining offering, AssistEdge Discover, EdgeVerve envisions to offer an enterprise-grade insights platform that can be used with other complementary technologies, such as process mining, RPA, and AI, to help enterprises realize greater value from digital transformation initiatives
- AssistEdge Discover Sensor is a built-in recorder that identifies object IDs using control name, description, and key. It also leverages computer vision-based approach for applications where object IDs are not available
- It uses proprietary neural network algorithms to process recorded data and identify patterns from the consolidated user data to create an aggregated process map. The stored process maps can be exported through its Discover database. Clients indicated ease of as-is discovery as its key strength
- Its conformance functionality enables users to benchmark the discovered as-is process maps with the standard models. It also displays all task variants and helps identify the optimal variant using variant analysis
- Its reporting interface provides a drag-and-drop UI to create custom dashboards. It provides workforce intelligence (e.g., time spent per task) and application-level insights to help improve user productivity
- Its proprietary algorithm helps to calculate the automation potential of tasks based on metrics such as number of variations, total and unique steps, and number of events. Its Auto-Automation feature helps to export the discovered task map variant that needs to be automated into the AssistEdge RPA studio
- Clients have highlighted task monitoring along with workforce intelligence insights and automation opportunity identification capability as its key strengths
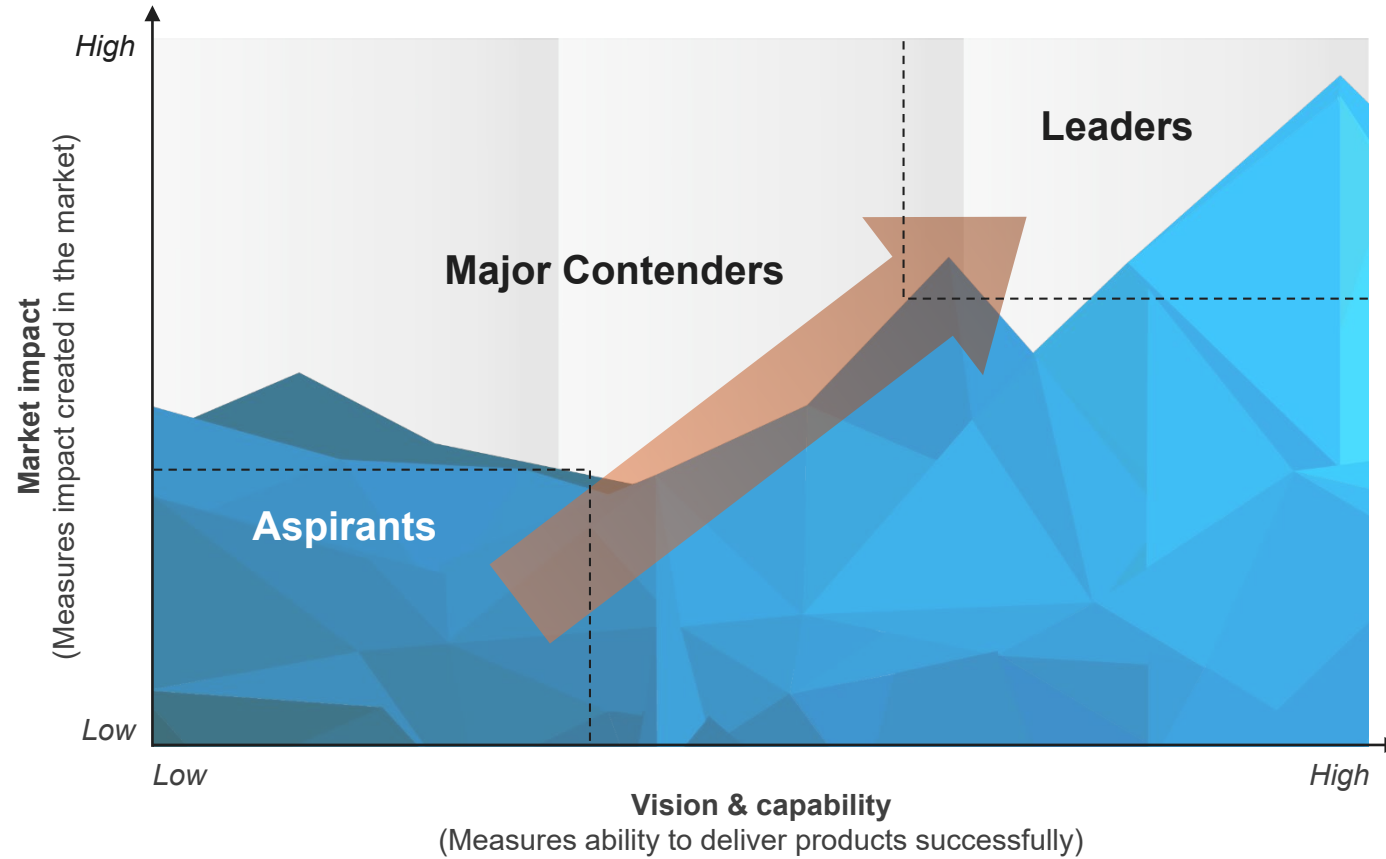
Limitations

- The majority of EdgeVerve's clients are based out of North America and APAC. It has a limited presence in Continental Europe and the UK and lacks presence in other geographies such as LATAM and MEA
- While its conformance functionality allows users to import the reference model for comparison of tasks, it currently does not offer the ability for the process SMEs to define the to-be process model
- It does not offer the ability to provide on-screen guidance or recommendations to users in near real-time for improving employee productivity or reducing the effort. It also does not provide the ability to trigger alerts/notifications based on the insights generated (in the roadmap)
- While EdgeVerve provides an online portal for training and certification, it presently does not have training partners, limiting the accessibility of its product training for clients. Currently, training is available only in English; there is scope to offer training in other local languages
- There is scope to further strengthen its implementation support and customer success program, both through its workforce and by better enabling its implementation partners to help its clients scale up faster
- Currently, the release notes and product documentation are not available on the website. It also does not offer a free community version of its task mining product. This could limit its market familiarity and adoption, especially among small enterprises and SMBs, where EdgeVerve currently has a limited presence
- Clients expect quicker POC, more presence in Europe, and a tighter integration of its product with process mining solutions

Appendix

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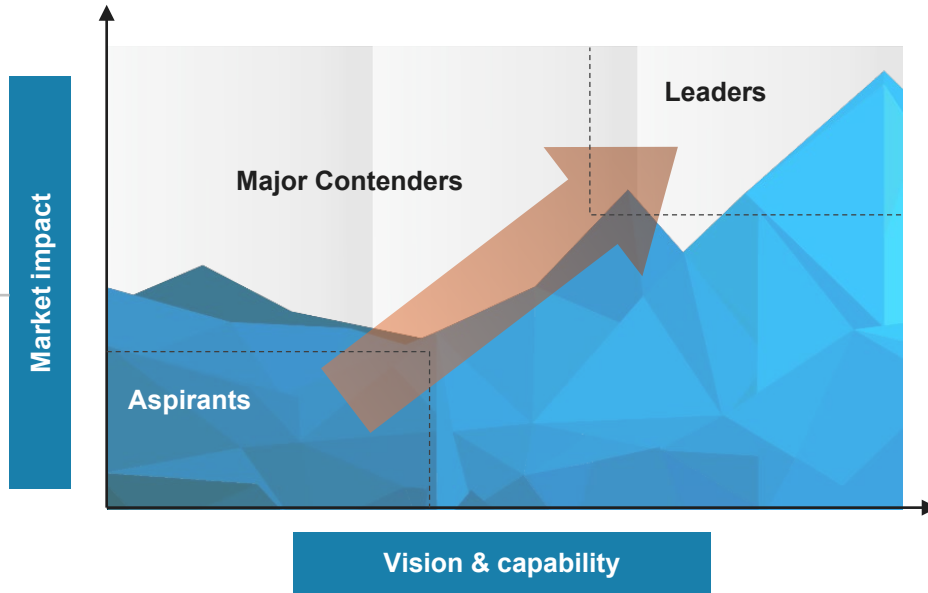
Everest Group PEAK Matrix

Task Mining Products PEAK Matrix® evaluation dimensions

Measures impact created in the market – captured through three subdimensions

Market adoption

Number of clients, revenue base, and YoY growth

Portfolio mix

Breadth of coverage of industries, geographies, processes / use cases, and enterprise size class

Value delivered

Value delivered to the client and their satisfaction with the product as well as the support, based on client feedback

Market impact

Leaders

Major Contenders

Aspirants

Vision & capability

Measures ability to deliver products successfully. This is captured through five subdimensions

Vision and strategy	**Data collection and integration**	**Task intelligence**	**Implementation and support**	**Commercial model**
Vision for the client and itself; key investments, future roadmap, and strategy	Data capture and preparation; integration with complementary capabilities	Task discovery and analysis, task monitoring, insights, and enhancements	Product training & support, partnerships with service providers, ease of use, product architecture, hosting options, and data security	Flexibility, progressiveness, and client adoption of available commercial models

FAQs

Does the PEAK Matrix® assessment incorporate any subjective criteria?
Everest Group's PEAK Matrix assessment adopts an unbiased and fact-based approach (leveraging provider / technology vendor RFIs and Everest Group's proprietary databases containing providers' deals and operational capability information). In addition, these results are validated / fine-tuned 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 PEAK Matrix assessment are relevant to buyers and providers besides the "PEAK Matrix position"?
A PEAK Matrix position is only one aspect of Everest Group's overall assessment. In addition to assigning a "Leader", "Major Contender," or "Aspirant" title, Everest Group highlights the distinctive capabilities and unique attributes of all the PEAK Matrix providers assessed in its report. The detailed metric-level assessment and associated commentary is helpful for buyers in selecting particular providers/vendors for their specific requirements. It also helps providers/vendors showcase their strengths in specific areas

What are the incentives for buyers and providers to participate/provide input to PEAK Matrix research?
- Participation incentives for buyers include a summary of key findings from the PEAK Matrix assessment
- Participation incentives for providers/vendors include adequate representation and recognition of their capabilities/success in the market place, and a copy of their own "profile" that is published by Everest Group as part of the "compendium of PEAK Matrix providers" profiles

What is the process for a provider / technology vendor to leverage their PEAK Matrix positioning and/or "Star Performer" status ?
- Providers/vendors can use their PEAK Matrix positioning or "Star Performer" rating in multiple ways including:
  – Issue a press release declaring their positioning. See citation policies
  – Customized PEAK Matrix profile for circulation (with clients, prospects, etc.)
  – Quotes from Everest Group analysts could be disseminated to the media
  – Leverage PEAK Matrix 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 the designated POC at Everest Group.

Does the PEAK Matrix evaluation criteria change over a period of time?
PEAK Matrix assessments are designed to serve present and future needs of the enterprises. 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 as well as serve the future expectations of enterprises

Everest Group®

With you on the journey

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