

Everest Group PEAK Matrix for Process Mining Technology Provider 2022

Focus on Celonis
June 2022



Background of the research

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Everest Group defines process mining as a type of analytics product that involves a fact-based approach to help discover, monitor, and optimize as-is processes by analyzing process-related information primarily from event logs generated by enterprise systems (e.g., ERP, CRM, etc.). The technology provides a data-based approach to process optimization through numerous applications and use cases spanning industries and process areas. This has led to process mining being and continuing to be one of the fastest growing markets in the Intelligent Automation (IA) space. Adoption of process mining not only helps enterprises achieve traditional benefits such as cost savings and operational efficiency, but also opens avenues to target business/strategic outcomes such as top-line growth, accelerated digital transformation, enhanced customer experience, and sustainability. In order to support the enterprise objectives, products are rapidly evolving in the sophistication of their capabilities, features, and functionalities.

In this study, we assess process mining software products in the market that can analyze process-related information captured in event logs to discover process maps and are available independent of professional services.

In the full report, we analyze the process mining technology landscape across various dimensions:

- Overview of process intelligence software products
- Everest Group’s PEAK Matrix® evaluation, a comparative assessment of 19 leading process mining technology providers
- Competitive landscape of the process mining technology provider market
- Key process mining technology trends
- Remarks on key strengths and limitations for each process mining technology provider

Scope of this report



Geography
Global



Technology providers
19 leading process mining
technology providers



Product
Process Mining

Process Mining Products PEAK Matrix® characteristics

Leaders:

Celonis, Minit, Software AG, and UiPath

- Leaders continue to differentiate themselves by offering innovative features such as action triggers, AI-based process simulations, and next-best-action recommendations. They continue to invest in robust training programs, thought leadership initiatives, and service provider partnerships, to increase awareness in the market
- Leaders are expanding their packaged solutions to a wide variety of processes (accounts payable, accounts receivable, incident management, meter-to-cash, and hire-to-retain) and systems (BMC Remedy, Coupa, JD Edwards, Microsoft Dynamics AX, and Oracle EBS) to accelerate the adoption of process mining
- Leaders are ahead in offering pre-built integration with Business Intelligence (BI) platforms, such as Microsoft Power BI and Tableau, to increase the breadth and depth of analytics and visualization capabilities. They are also focusing on forging partnerships with or developing in-house capabilities for complementary technologies such as a, RPA, IDP, process orchestration, and conversational AI

Major Contenders:

ABBYY, Appian, Apromore, Datricks, Everflow, IBM, iGrafx, MPM ProcessMining, QPR Software, SAP Signavio, and UpFlux

- Major Contenders are following Leaders in offering advanced process discovery and monitoring features. They are also focusing to enhance conformance checking capabilities such as offering out-of-the-box process templates for benchmarking analysis and AI-based root-cause analysis
- A few Major Contenders are differentiating themselves by investing in R&D to offer AI-based simulation capability and enhance their predictive monitoring capabilities to identify potential KPI breaches and trigger proactive alerts via email or message. Some of them are also offering task mining capability either through in-house investments or third-party partnerships
- While Major Contenders are expanding their presence across industries, geographies, and buyer sizes, they have relatively fewer partnerships with service providers; thus limiting their ability to support large-scale implementations

Aspirants:

Livejourney, Mavim, Mindzie, and process.science

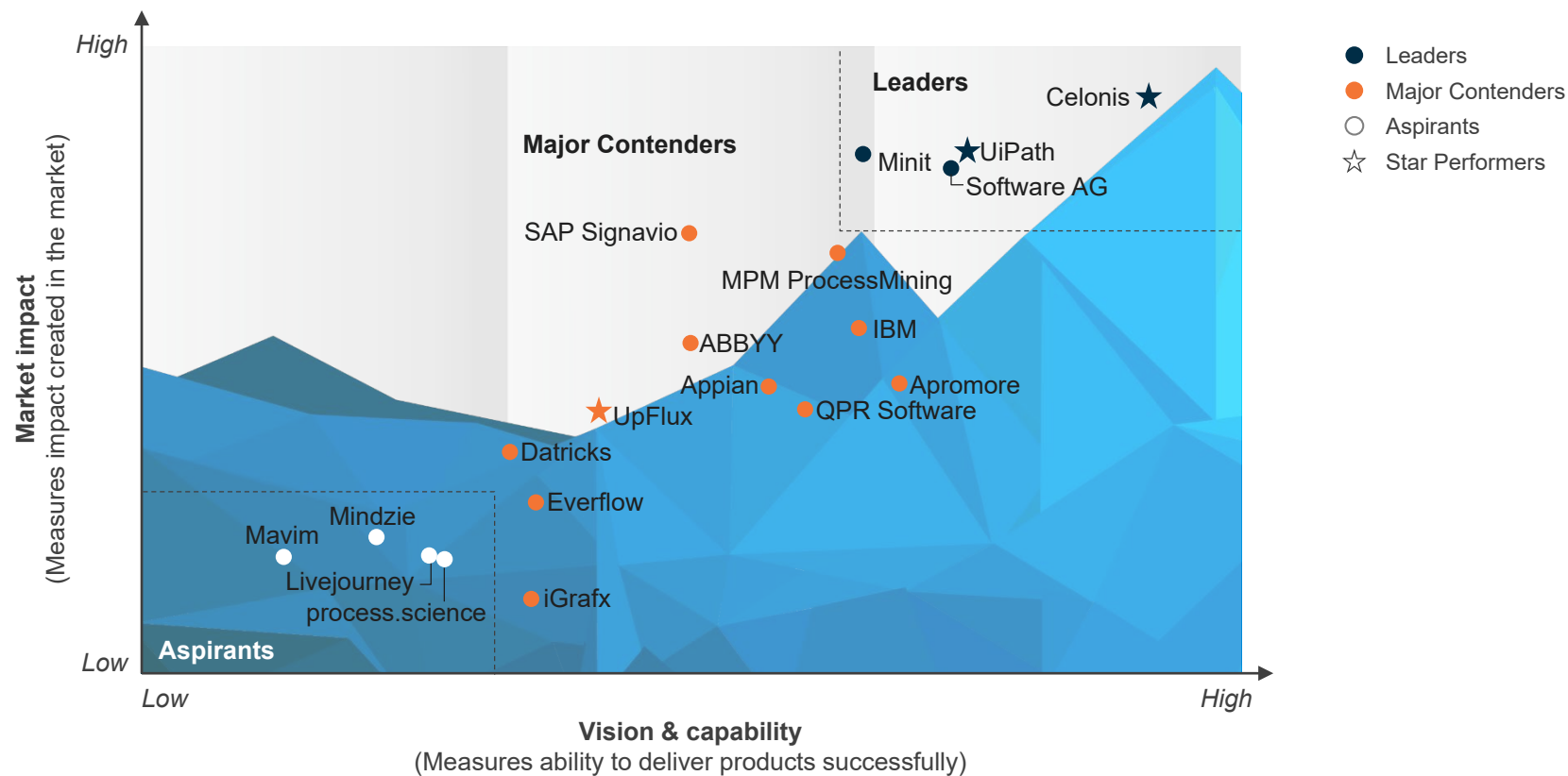
- Aspirants are relatively newer entrants in the market. They are investing in expanding data setup and preparation capabilities, enhancing core process mining capabilities around process discovery and conformance checking, and developing advanced process monitoring functionality
- All the Aspirants offer a SaaS-based process mining solution and most of them have observed significant adoption of the offering among their client bases
- Most Aspirants are creating their niches and differentiating themselves by serving client needs in specific geographies, process areas / use cases, or buyer size segments

Everest Group PEAK Matrix®

Process Mining Products PEAK Matrix® Assessment 2022 | Celonis positioned as Leader and Star Performer



Everest Group Process Mining Products PEAK Matrix® Assessment 2022¹



¹ Analyses for Everflow, Logpickr, and Minit are based on their capabilities before their acquisition by Pegasystems, iGrafx, and Microsoft respectively

Note: Star Performers are selected based on a relative comparison of providers' performance on the market impact and vision & capability dimensions in the previous and latest PEAK Matrix® assessments. Providers with the highest Year-over-Year (YoY) improvement are designated as Star Performers. The Star Performer title does not reflect the overall market leadership position, which is designated through Leaders, Major Contenders, or Aspirants

Source: Everest Group (2022)

Celonis | process mining product profile (page 1 of 7)

Overview

Company overview

Founded in 2011, Celonis helps companies reveal and fix inefficiencies, enabling them to maximize business performance. Powered by its process mining technology, its Execution Management System (EMS) x-rays a company's entire business operations to show, in real-time, how the business really works. The EMS then orchestrates across systems, processes, and people to fix inefficiencies. This unlocks business capital, provides better employee and customer experiences, and reduces carbon emissions. Celonis has thousands of global customers across all industries.

Key leaders

- **Alexander Rinke**, Co-founder and Co-CEO
- **Bastian Nominacher**, Co-founder and Co-CEO
- **Martin Klenk**, Co-founder and CTO

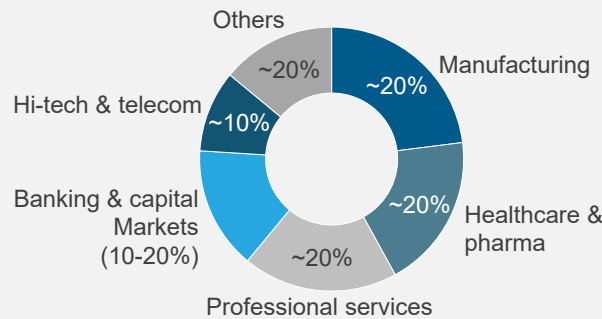
Headquarters: München, Germany and New York City, USA

Key clients include: Dell, Deutsche Bank, Wells Fargo, AstraZeneca, L'Oréal, General Electric, Telia, ExxonMobil, Mars
Website: www.celonis.com

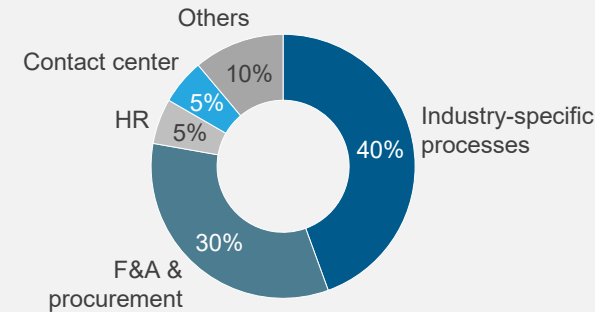
Recent deals and announcements (not exhaustive)

- **March 2022:** Celonis announced the acquisition of Process Analytics Factory (PAF) to embed Celonis EMS into the Microsoft Power Platform
- **January 2022:** announced global strategic partnership with Accenture
- **November 2021:** announced that it will expand its process mining and execution management operations into India, to better serve India-based customers and partners
- **October 2021:** announced strategic partnership with ServiceNow to help customers identify workflow processes that can be automated
- **October 2021:** announced a partnership with IDP provider Conexiom and acquisition of Streaming DataOps company Lenses.io
- **October 2021:** launched Execution Graph technology for linking processes across business units with a graph database
- **September 2021 - January 2022:** announced product & engineering investments, including Celonis Labs, a new innovation facility led by Eugenio Cassiano, new Chief Product Officer Ariel Bardin, and new Chief Engineering Officer Vaishnavi Sashikanth
- **April 2021 and October 2021:** held its annual user events Celosphere, World Tour, and Ecosystem Summit with a combined 75,000 registrants
- **June 2021:** announced a series D funding of US\$1 billion at a valuation of more than US\$11 billion

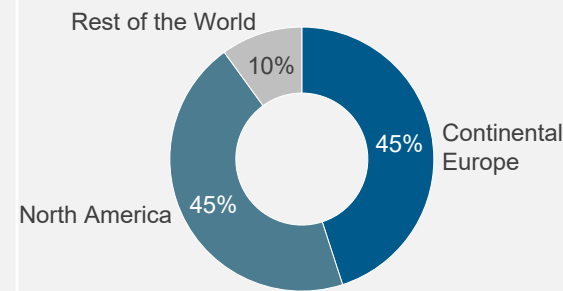
Split of process mining revenue by buyer industry



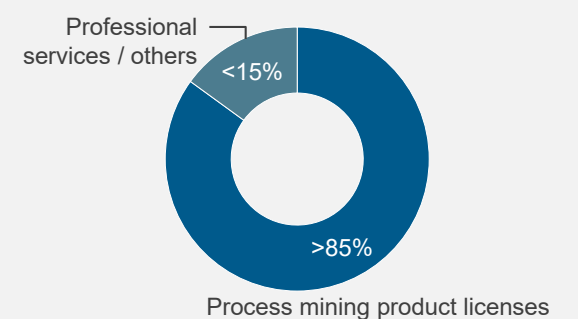
Split of process mining revenue by process areas



Split of process mining revenue by buyer geography



Split of process mining revenue by offerings



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)

Celonis | process mining product profile (page 2 of 7)

Overview

Product overview:

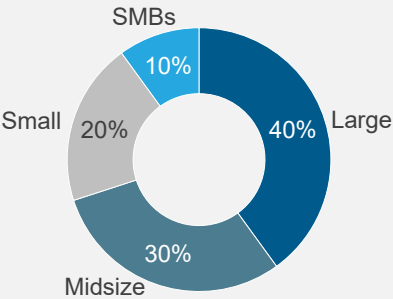
The Celonis Execution Management System (EMS) combines process mining and automation technologies to help enterprises reveal and fix inefficiencies. The Celonis EMS offers in-built capabilities for real-time data integration from systems, apps, and desktops. Once data is integrated, the Celonis Process Data Engine supports advanced process intelligence through technologies such as Execution Graph to visualize interconnected processes spanning multiple systems and departments, Process Simulation for what-if analysis, and Knowledge Models to easily manage and share process knowledge. Celonis EMS lets users fix inefficiencies directly from the EMS with its Action Flows capability to automatically trigger targeted actions into systems such as SAP, Oracle, and Salesforce. Celonis Studio offers a no-code IDE to build and deploy apps, which can be downloaded from the Celonis Marketplace. Within the Celonis Marketplace, customers can download pre-built apps for key initiatives such as Supply Chain Transformation, Shared Service Center Transformation, System Transformation, and Process Excellence.

Version number: Celonis Execution Management System (Celonis EMS)

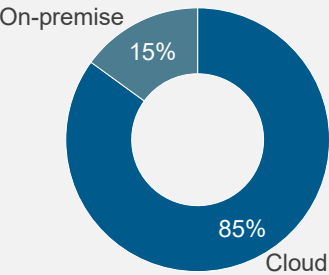
Release date: January 2022

Market adoption and capability overview		
Description	2021	YoY growth
Process mining clients (individual logos)	Not disclosed	Not disclosed
Process mining FTEs	2,200	100%
Number of service provider partners / resellers	330	100%
Number of technology/software partners	35	17%
Key service provider partners / resellers	Accenture, Deloitte, EY, IBM, PwC, ServiceNow, and McKinsey	
Key technology/software partners	AWS, Conexiom, Coupa, Ecovadis, GBTEC, IBM, Microsoft, OpenText, Oracle, Rossum, Salesforce, SAP, ServiceNow, Snowflake, and Splunk	

Process mining revenue mix by buyer size¹



Process mining client mix by hosting model



Split of process mining FTEs by function²

Not disclosed

Split of process mining FTEs by geography

Not disclosed

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 2020, collected as part of the study / based on Everest Group estimates
Source: Everest Group (2022)

Celonis | process mining product profile (page 3 of 7)

Capabilities

Available In the roadmap Available via formal partnership Not available

Capability & offerings

Process setup and data preparation	Built-in ability to pre-process (prepare, clean, and transform) event logs data	Ability to detect outliers in the event logs	Ability to merge event logs from different information systems for a process model	Ability to configure/modify case IDs, resources, and any specific attributes in event log data
	Ability to supplement event logs with data from IoT devices for discovering processes	Ability to ingest data from event logs in near real time		
Interoperability	Pre-built connectors for SAP applications	Pre-built connectors for Oracle applications	Pre-built connectors for ServiceNow applications	Pre-built connectors for Salesforce applications
	Pre-built connectors for Microsoft applications	Support for Windows OS	Support for Linux OS	Support for Mac OS
	Online repository of pre-built packaged solutions for specific systems/processes	Ability to access all platform functionalities through open APIs		
Integration with complementary capabilities	Task mining	Robotic Process Automation (RPA)	Business Intelligence (BI) / data visualization	Extract Transform Load (ETL)
	Process orchestration	Intelligent Document Processing (IDP)	Conversational AI / chatbots	
Process discovery	Ability to create BPMN 2.0 compliant process models	Ability to display time/frequency for each process step	Ability to display cost for each process step	Ability to display resources consumed for each process step
	Ability to detect exceptions (failed transactions) in process	Ability to detect anomalies / fraudulent transactions in a process	Out-of-the-box dashboards to assess rework percentage for identified process loops	Ability to merge two or more process models
	Ability to display all discovered process variants side-by-side	Ability to discover organization-level relationships / social networks	Ability to discover customer journey maps by mining customer interactions (through websites)	Ability to display all interconnected processes spanning multiple departments in a single graph

Celonis | process mining product profile (page 4 of 7)

Capabilities

Available In the roadmap Available via formal partnership Not available

Capability & offerings

Conformance checking	Ability to define target process workflow through a built-in process modeler	Ability to import BPMN models to define standard model	Out-of-the-box process templates based on industry best practices (e.g., for O2C, P2P)	Ability to use one of the discovered process variants as the reference model
	Ability to perform gap analysis to identify (un-) desirable deviances/violations	Ability to perform root-cause analysis to identify causes of process path deviations	Ability to check compliance rules such as segregation of duties	
Process monitoring and reporting	Ability to create customized dashboards based on user requirements	Ability to monitor processes in near real time against defined KPIs	Ability to enable users to create custom KPIs for monitoring process performance	Ability of the software to identify optimal process variant
	Ability to create custom metrics to identify optimal process variant, by using functions	Ability to export dashboards and insights via presentation tools such as PDF and PPT	Ability to allow users to collaborate within the platform or through MS Teams, Slack, etc.	
Process enhancement	Ability to automatically send notifications to users for post KPI breaches	Ability to use AI/ML to predict and highlight any potential KPI breach	Ability to automatically send notifications to users in case of expected KPI breach	Ability to use AI/ML to recommend next-best-action to process owners in near-real time
	Ability to define scenarios and run multiple simulations (what-if analysis / scenario testing)	Ability to export simulated process models of various what-if scenarios in BPMN format	Ability to identify processes for automation	Ability to automatically trigger RPA robots to carry out high-severity process steps
Security and compliance	Availability of pre-built algorithms in system connectors to encrypt/decrypt event log data	Ability to create different environments with restricted user access authorization	Active directory integration	Compliant with the industry security standards, such as SOC 2 and GDPR
	Availability of role-based access to the system	Availability of an anonymization option for any specific attributes in log data		
Product architecture and hosting options	Product architecture based on loosely coupled microservices	Product architecture based on lightweight docker containers	Supports multi-tenant deployments	On-premise (central server or virtual machine)
	Private cloud	Public cloud	Delivered as a Software-as-a-Service (SaaS) offering	Hybrid model with some components on-premise and some components on cloud

Celonis | process mining product profile (page 5 of 7)

Capabilities

Available In the roadmap Available via formal partnership Not available

Capability & offerings

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	Role-based product training courses	Online certification courses	Free training modules
	Interactive online training	Community edition of the product	Embedded help tool	Online user community / support forum
Commercial model ¹	Perpetual licensing	Subscription licensing	User-based licensing	Process-based licensing
	Event logs volume-based / case-based / server capacity-based licensing	Hybrid of user-based and event logs volume-based licensing	Hybrid of user-based and process-based licensing	Hybrid of event logs volume-based and process-based licensing
	Hybrid of user-based, process-based, and event logs volume-based licensing			

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


- Process setup and data preparation
 - Acquired Lenses.io to allow streaming of data in near real-time from any enterprise systems and databases
 - Partnered with Conexiom for invoice ingestion through the integration of Celonis EMS with Conexiom platform
- Process discovery
 - Launched execution graph which displays all interconnected processes spanning multiple departments in a single graph
- Process monitoring and reporting
 - Added visual editors for creating views and knowledge models in studio
- Process enhancement
 - Added the ability to define scenarios and run multiple simulations along with exporting the simulated process models of various what-if scenarios in BPMN format
 - Partnered with ServiceNow to feed process insights into the Now platform to improve the flow of work

¹ In Q4 2021, Celonis started piloting a performance-based pricing / gainshare model, based upon predetermined mutually-agreed KPIs to measure business impact, for a select set of customers

Celonis | process mining product profile (page 6 of 7)

Everest Group assessment – Leader and Star Performer

Measure of capability:  Low  High

Market impact				Vision & capability					
Market success	Portfolio mix	Value delivered	Overall	Vision and strategy	Process set-up and integration	Process intelligence	Implementation and support	Commercial and sales model	Overall
									



Strengths

- Celonis, through its process mining-powered Execution Management System (EMS), envisions to help enterprises unlock execution capacity by enabling users to discover business processes, identify process inefficiencies, and recommend/execute requisite actions to optimize operations
 - Celonis continues to be the leading player in the process mining market in terms of both revenue and clients. It launched Execution Graph, which helps enterprises visualize interconnected processes across their organizations and analyze how those processes impact one another. Celonis supplements its offering with task mining capability that allows to capture user activities across multiple desktops for generating process maps.
 - Celonis continues to invest in driving market awareness for process mining and establishing thought leadership space through workshops, enterprise case studies, and whitepapers. It is also investing in the ESG theme to enable sustainable business execution by catering to use cases around reducing carbon emissions, minimizing waste in supply chains, and improving supplier due diligence
 - It provides integrated ETL capability and offers pre-built connectors for various enterprise systems and data sources, which are made available to its customers through its online repository, EMS store. In 2021, Celonis acquired Lenses.io, a data streaming provider, to offer near real-time data processing capability. Clients have also highlighted ETL capability, data ingestion, and standard connectors as its key strengths
- Celonis' conformance checker capability enables users to import BPMN 2.0 models or define a reference model using built-in process modeler. It also offers out-of-the-box process templates in EMS store for benchmarking analysis
 - It offers built-in BI engine and visual editor to create dashboards and custom KPIs for continuous process monitoring. In April 2021, Celonis acquired PAFnow with the aim to offer process mining as an embedded capability within the Power BI platform, enhancing the ease of getting started
 - Its process simulation capability allows users to define scenarios and evaluate the impact of process redesign and automation. Celonis offers a built-in ML workbench for prescriptive capabilities such as recommending next-best-actions to improve process KPIs
 - Its smart sensor capability predicts KPI breaches and enables triggering actions such as alerting users about those breaches via email or SMS or MS Teams, assigning tasks to them, and executing pre-built automation workflows
 - Clients have highlighted product vision and roadmap, ease of use, scalability of the product across different systems and geographies, training program, and pro-active communication of new features as the key areas of strength. They have also appreciated its process analysis which aids time-to-value and helps uncover process opportunities

Celonis | process mining product profile (page 7 of 7)

Everest Group assessment – Leader and Star Performer

Measure of capability:  Low  High

Market impact				Vision & capability					
Market success	Portfolio mix	Value delivered	Overall	Vision and strategy	Process set-up and integration	Process intelligence	Implementation and support	Commercial and sales model	Overall
									

Limitations

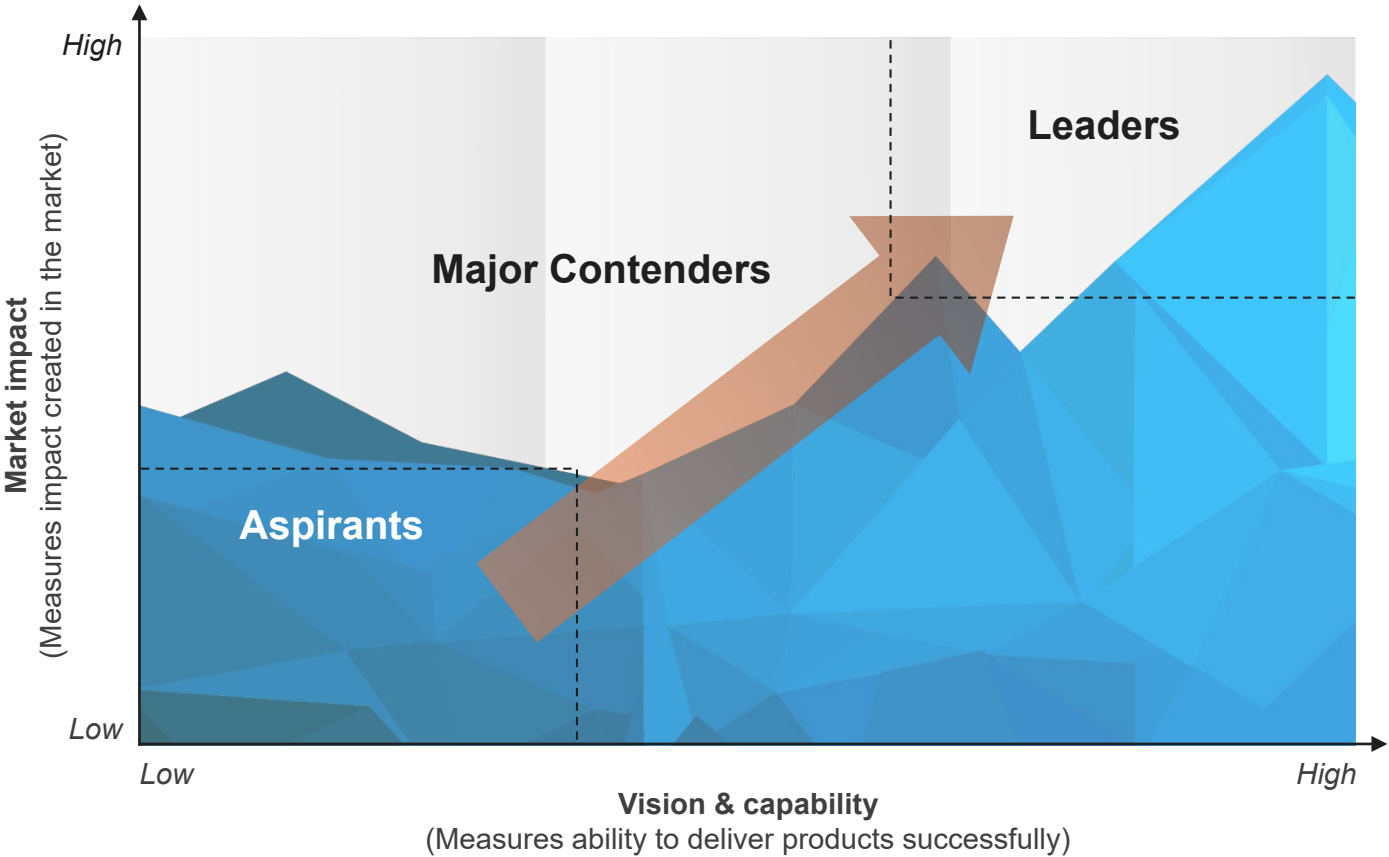
- While Celonis' client base is spread across small, midsize, and large enterprise segments, its experience of serving the SMB segment (with revenue less than US\$50 million) is relatively limited
 - While clients recognize strong integration of its platform with standard enterprise applications, they have indicated scope to further strengthen its integration with custom applications (industry-specific and home-grown applications)
 - Clients have indicated the need to improve the platform's low-code/no-code functionality to enhance ease of use. They also expect Celonis to simplify the creation of a reference model for conformance checking
 - While Celonis offers its in-house task mining capability to clients, there is scope to improve workforce insights and offer the ability to conduct task-level simulation analysis. It can also consider partnerships with pure-play task mining providers to increase its value proposition for enterprises looking for flexibility to integrate best-of-breed technologies. Clients also indicated that there is scope to improve task mining
 - Celonis, post its acquisition of Integromat which is a workflow automation platform, started providing the ability for users to trigger automation workflows. While it has strategic partnerships with RPA providers such as Appian and Blue Prism, clients have indicated the scope to enhance the platform's integration with RPA tools
- While Celonis offers simulation capability, it is currently based on monte-carlo simulation, which is statistical in nature and lacks advanced AI-based simulation capability
 - Clients have indicated the scope to enhance the EMS platform to automatically recognize process leakages and make prescriptive recommendations. They also expect easier KPI tracking to monitor/track the process at a granular level
 - While its platform is available in multiple languages, Celonis currently offers classroom training only in English and German, there is scope to provide on-site training in other local languages such as Spanish, French, Dutch, Italian, and Japanese
 - Its 24X7 customer support is only available to premium clients and not for all. Clients have also experienced challenges in raising tickets and following up on them in the support portal
 - Clients expect Celonis to add a feature for getting insights on RoI or the value delivered and the ability to track default cycle times by region/country. Clients also indicated the scope to further enhance its execution capability

Appendix

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



Everest Group PEAK Matrix

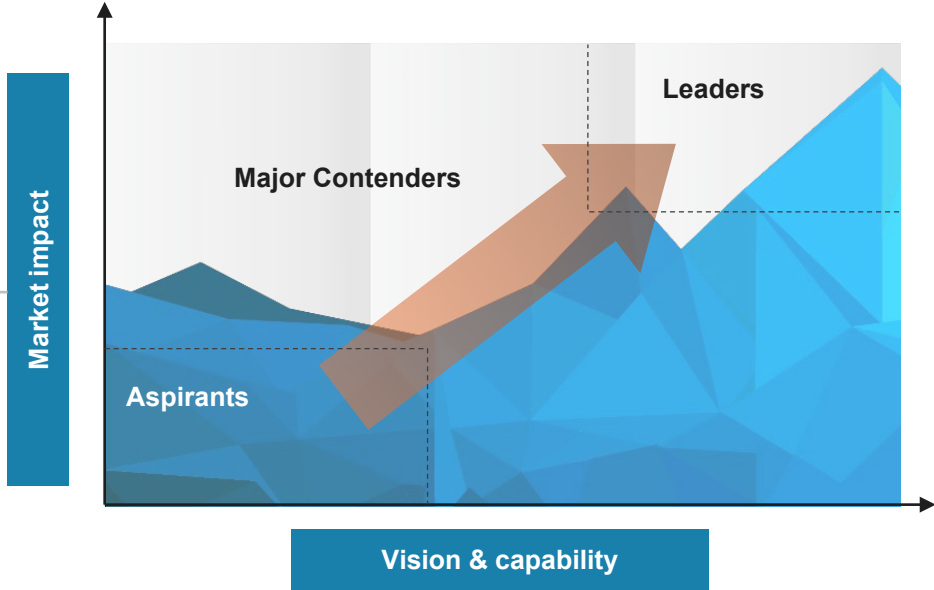




Process Mining Products PEAK Matrix® evaluation dimensions

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



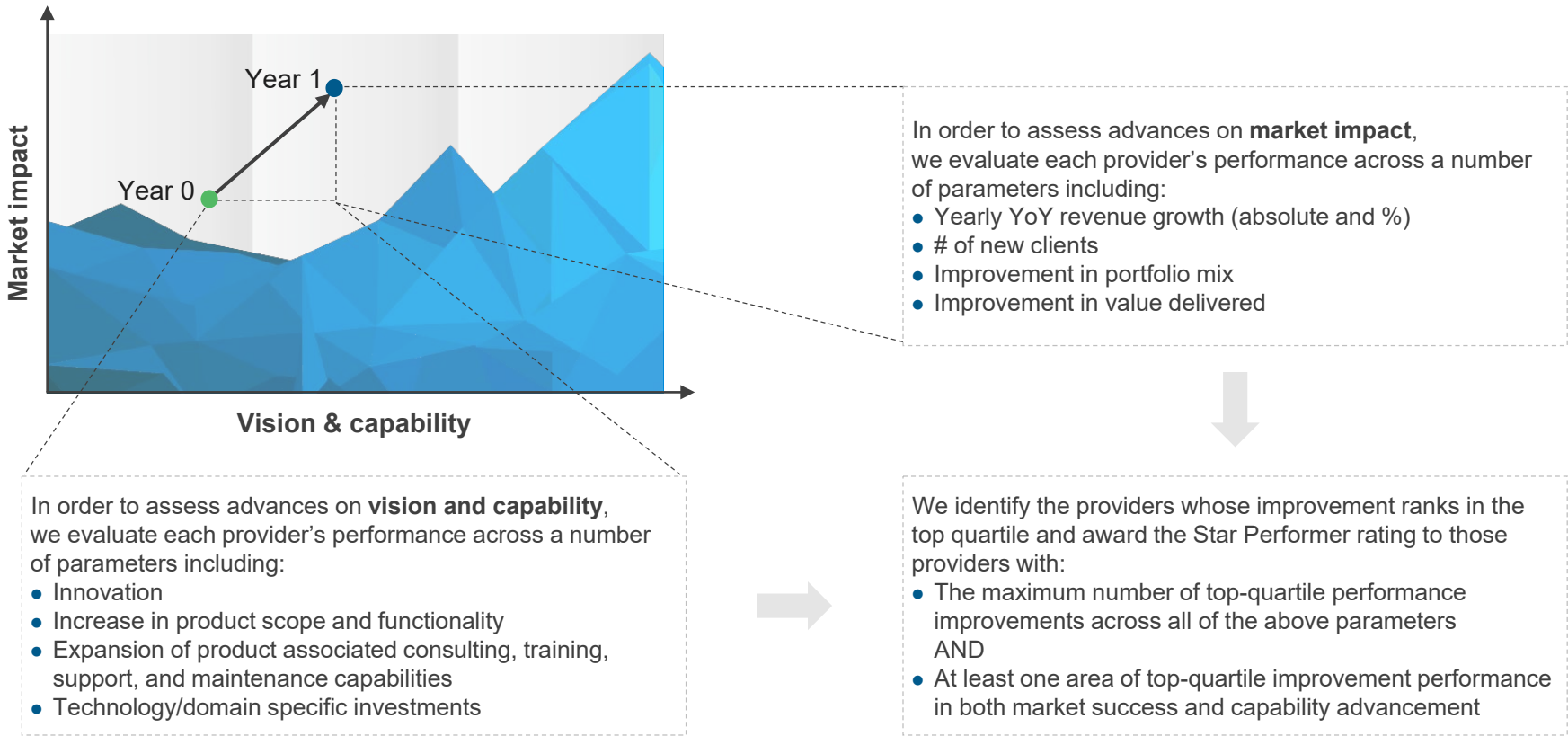
Measures ability to deliver products successfully. This is captured through five subdimensions

Vision and strategy	Process setup and integration	Process intelligence	Implementation and support	Commercial and sales model
Vision for the client and itself; key investments, future roadmap, and strategy	Data preparation and import; integration with enterprise applications & complementary capabilities	Process discovery, conformance checking, process monitoring & reporting, and process enhancement	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; sales channel effectiveness

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 provider 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 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



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