

Everest Group PEAK Matrix[®] for Process Mining Technology Vendors 2020

Focus on Celonis
February 2020

Background of the research

The process automation market is evolving in more ways than one, with many organizations taking the next step of complementing Robotic Process Automation (RPA) with Artificial Intelligence (AI) solutions such as virtual agents and intelligent document capture. Process automation is driving the need for enterprises to review and optimize processes and gain insights before automating them, in turn fueling demand for technologies such as process mining. While the concept of process mining has been around as a topic of academic interest, it is quite nascent in the landscape of enterprise automation and digital transformation. Process mining solutions leverage event logs generated by information systems such as ERP, CRM, HCM, and SCM to reconstruct a virtual view of the business process. Process mining blends the power of data-based analysis techniques, such as data mining and machine learning, to help organizations discover the as-is process along with its variants and identify process optimization/automation opportunities. Adoption of process mining solutions can not only help enterprises achieve cost savings and operational efficiency by optimizing processes, but also enhance employee experience through better resource allocation. While process mining can play a key role in the success of an organization's optimization/ transformation journey, process mining technologies are relatively new to many potential buyers in terms of product capabilities, features, and commercial models. The technologies are also evolving, with an expanding feature set and increasing richness of functionality.

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

- Everest Group's PEAK Matrix® evaluation, a comparative assessment of 13 leading process mining technology vendors
- Competitive landscape in the process mining technology vendor market
- Key process mining technology trends
- Remarks on key strengths and areas of improvement for each process mining technology vendor
- DPM vendor profiles

Scope of this research

- **Products:** Process Mining
- **Geography:** Global
- **Technology vendors:** 13 leading process mining technology vendors

Introduction and scope

Everest Group recently released its report titled “Process Mining – Technology Vendor Landscape with Products PEAK Matrix® Assessment 2020”. The report provides a detailed view of the process mining technology vendor landscape and a thorough assessment of the various process mining technology solutions across several key dimensions.

As a part of this report, Everest Group presented a comparative assessment of 13 leading process mining technology vendors and updated its classification of the vendors on the Everest Group Process Mining Products PEAK Matrix® into Leaders, Major Contenders, and Aspirants. The PEAK Matrix is a framework that provides an objective, data-driven, and comparative assessment of vendors based on their market impact and vision & capability.

Based on the analysis, **Celonis emerged as a Leader**. This document focuses on Celonis process mining experience and capabilities and includes:

- Celonis’ position on the Everest Group Process Mining Products PEAK Matrix 2020
- Detailed profile of Celonis

Buyers can use the PEAK Matrix to identify and evaluate different process mining technology vendors. It helps them understand technology vendors’ relative strengths and improvement areas. However, it is also important to note that while the PEAK Matrix is a useful starting point, the results from the assessment may not be directly prescriptive for each buyer. Buyers will have to consider their unique situation and requirements, and match them against technology vendor capability for an ideal fit.

Process mining products PEAK Matrix® characteristics

Leaders:

Celonis, Software AG, and UiPath

- Leaders are ahead in developing superior process mining capabilities, with greater focus on ease of use for business users, integration with enterprise applications, accuracy in process model generation, and analytics and dashboarding capabilities
- They have played a pivotal role in educating the market and increasing awareness about the benefits of process mining. In addition to investing in product development, a majority of them have invested heavily in building robust training and customer support capabilities
- Leaders have a vision to drive enterprise performance and improve customer experience using a data-driven approach to process mining, and they are evangelizing process mining technology through various events and thought leadership initiatives
- They have successfully implemented process mining for numerous clients in Europe and North America, and a few are looking to expand their delivery footprints to the emerging markets of APAC and LATAM

Major Contenders

ABBYY Timeline, Apromore, Lana Labs, Logpickr, Minit, myInvenio, PAFnow, and QPR Software

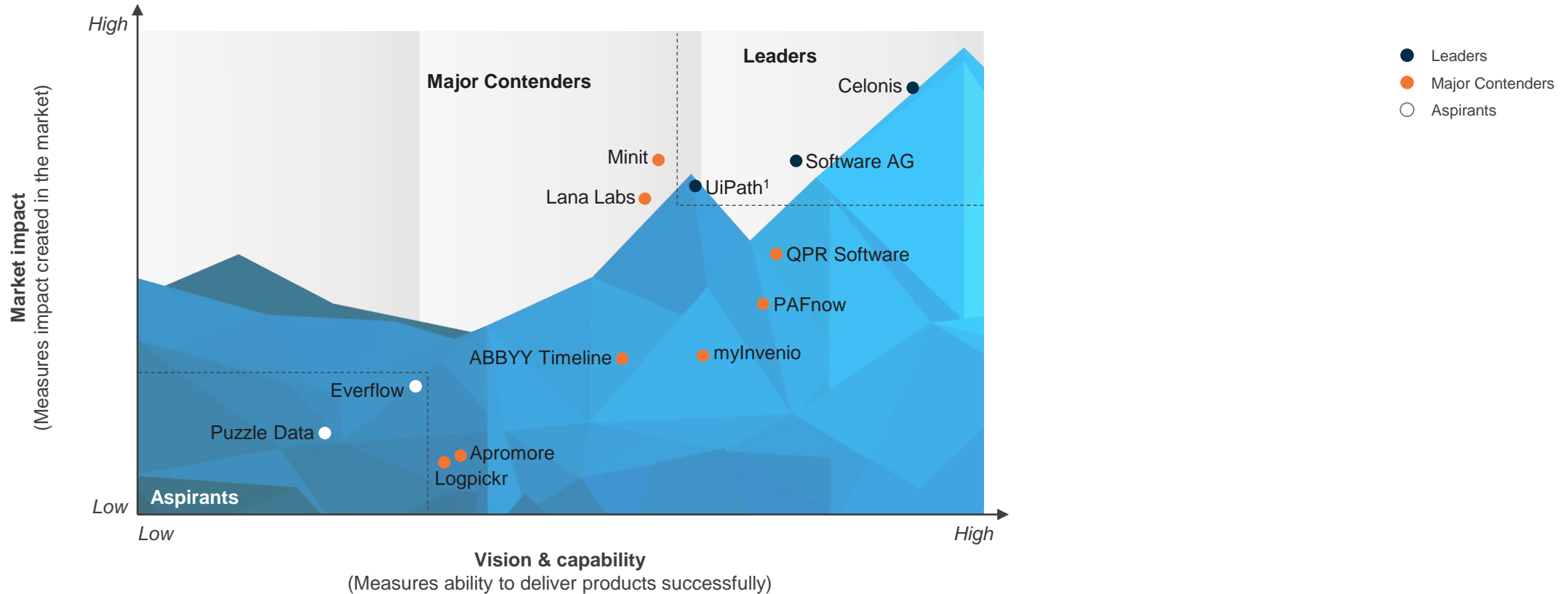
- Almost all the Major Contenders have developed capabilities to support key process mining use cases. However, many of them can work to supplement these with better enterprise-grade product architecture and focus on improving ease of use for business users
- A majority of Major Contenders are investing to further improve their process monitoring and dashboarding capabilities, as well as developing advanced AI-/ML-based predictive and prescriptive analytics capabilities to support more sophisticated process intelligence use cases
- While many of them are working to build a strong partner ecosystem with providers of complementary technologies (such as DPM, RPA, BPM, and BI), they must also expand the scope of their collaborations with service providers and academic institutions to expand their reach

Aspirants

Everflow and Puzzle Data

- Aspirants have made their products commercially available only over the last couple of years. They are investing to develop and offer features beyond process discovery to advanced use cases of process mining. They should also build training programs and enhance their platforms' UI/UX to facilitate ease of use
- While they have acquired a few clients in their focus geographies, Aspirants need to expand their reach to other key geographies and serve clients globally to drive growth

Everest Group Process Mining Products PEAK Matrix® Assessment 2020



¹ UiPath Process Mining (formerly ProcessGold)

Celonis | Process Mining Products profile (page 1 of 6)

Overview

Company overview

Founded in 2011, Celonis is a New York- and Munich-based enterprise software company that focuses on providing an intelligent business solution, powered by process mining technology. Through its intelligent business cloud offering, it aims to deliver business value by enabling companies to discover inefficiencies across a range of operational functions, help improve businesses processes, and continually monitor improvements to ensure optimal process performance.

Key technology 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, US

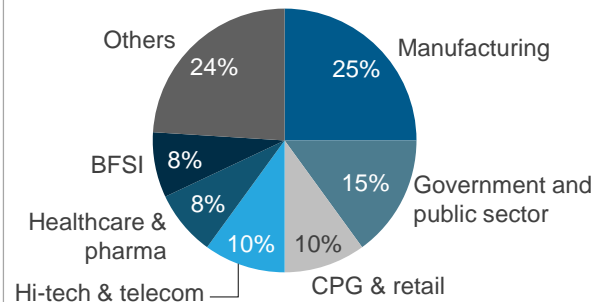
Key clients include: Uber, Siemens, Citi, and Vodafone

Website: <https://www.celonis.com/>

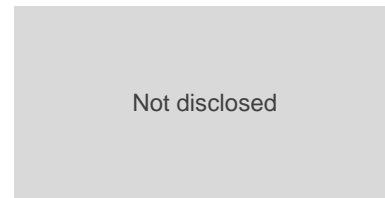
Non-exhaustive list of recent deals and announcements

- **November 2019:** Raised US\$290 million in a Series C funding round, putting a US\$2.5 billion valuation on the company
- **October 2019:** Announced Task Mining (in beta) – the ability to capture user-interaction data (clicks, screenshots, and mouse movements) and match it to business data for a 360-degree view of business process excellence
- **September 2019:** Partnered with Genpact, a global professional services firm to allow enterprises to identify, transform, and monitor business processes in real-time
- **July 2019:** Launched Snap, Celonis' free-to-use, 100% cloud-based process mining solution
- **October 2018:** Announced Intelligent Business Cloud (IBC), the first cloud-native process mining solution, which enables faster implementation and removes the need to maintain physical infrastructure
- **September 2018:** Partnered with RPA firms Automation Anywhere to collaborate on sales and marketing and Blue Prism, to accelerate digital transformation

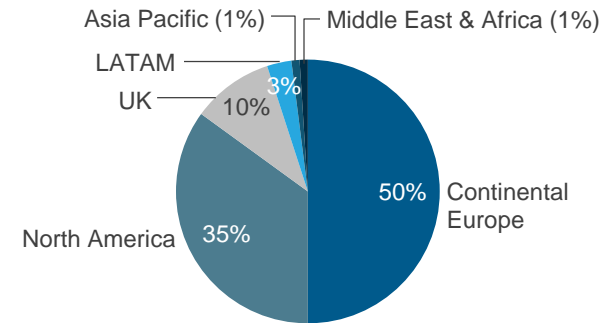
Split of process mining revenue by buyer industry



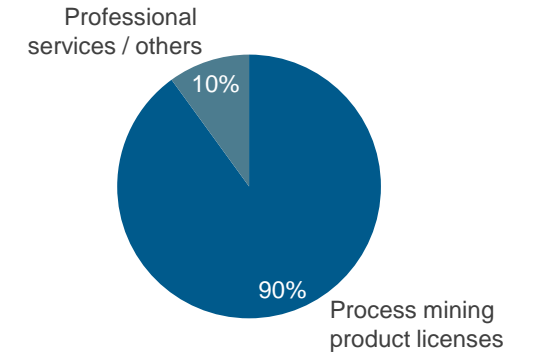
Split of process mining revenue mix by process area



Split of process mining revenue by buyer geography



Split of process mining revenue by offerings



Note: Operational and product-/offering-related information as on June 2019, collected as part of the study / based on Everest Group estimates

Source: Everest Group (2020)

Overview

Product overview

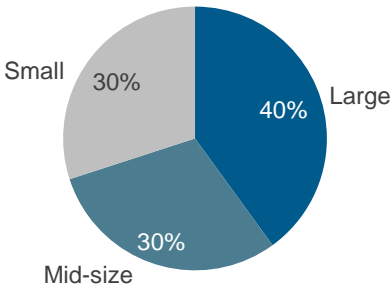
Celonis through its Intelligent Business Cloud (IBC) offering helps customers visualize and transform business processes. IBC operations involve key steps such as connect, discover, enhance, and monitor. The Celonis app store in the IBC provides a content platform for process mining that offers pre-built packages (Accelerators) tailored to a particular use-case and to solve for specific business process problems. Its Enterprise Performance Acceleration software offers both task mining (recording user actions) as well as classic process mining (recording system actions). The Celonis Task Recorder captures users' actions and activity on screens and can be used to automate user clicks from productivity applications.

Version number: Celonis Intelligent Business Cloud
Release date: October 2018

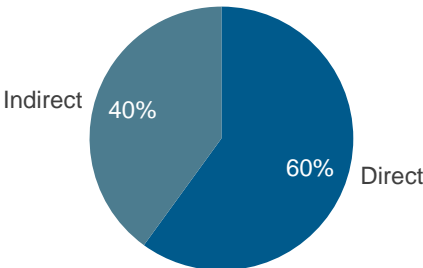
Market adoption and capability overview

Number of process mining clients: N/A
YOY growth in number of process mining clients: N/A
Number of FTEs in process mining team²: 700
Number of service provider partners / resellers: 115-125
Number of people who have taken process mining training course / certification program: 15,000-15,500
Key service provider partners / resellers: SAP, Deloitte, EY, KPMG, PwC, Genpact, Accenture, Capgemini, Protiviti, and Infosys
Key third-party technology partners: Microsoft, Automation Anywhere, Blue Prism, Salesforce, ServiceNow, and SAP

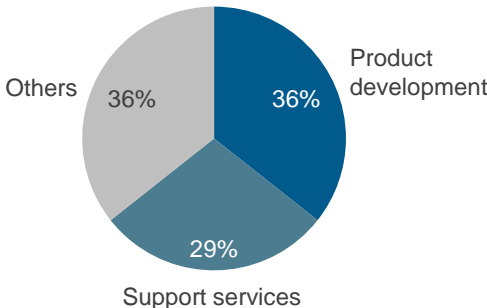
Process mining revenue mix by buyer size¹



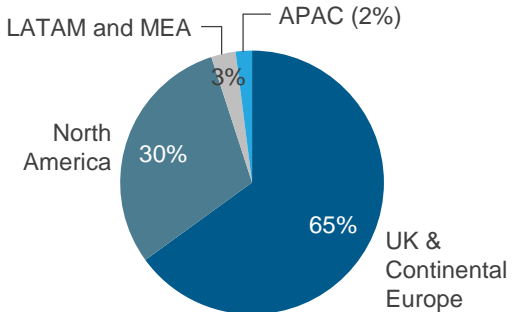
Split of process mining revenue by sales channel



Split of process mining FTEs by function²



Split of process mining FTEs by geography



¹ Buyer size is defined as large (>US\$5 billion in revenue), mid-size (US\$1-US\$5 billion in revenue), and small (<US\$1 billion 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 on June 2019, collected as part of the study / based on Everest Group estimates

Source: Everest Group (2020)

Celonis | Process Mining Products profile (page 3 of 6)

Capabilities

Available In the roadmap Available via formal partnership Not available

Capability & offerings					
Process setup and data preparation	Ability to pre-process (prepare and clean) event logs data			Ability to detect outliers in the event log	
	Ability to merge event logs from different information systems for a single process model			Ability to configure/modify case IDs, resources, and any specific attributes in event log data	
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	Pre-built connectors for legacy applications	Ability to integrate with enterprise systems without coding
	Ability to integrate with third-party tools / products through REST or SOAP web services			Support for Windows OS	Support for Linux
Complementary capabilities	Desktop Process Mining (DPM) ¹		Robotic Process Automation (RPA)	ETL	Business Process Management (BPM)
Process discovery	Ability to create BPMN 2.0 compliant process models			Support for different output model variants such as petri net or fuzzy model	Ability to display cost for each step in the process model
	Ability to display resources consumed for process steps	Ability to detect exceptions (failed transactions) in process		Automated extraction of the decision rules governing routing decisions in the process	Multi-level process mining capability
	Ability to discover organization-level relationships / social networks	Ability to merge two or more process models		Ability to develop process models for unstructured processes, with no pre-defined schema	Ability to compare the discovered case variants side-by-side
Process conformance checking	Ability to import BPMN models to define standard model	Availability of out-of-the-box pre-defined, reusable process templates		Ability to perform gap analysis to identify (un)desirable deviances/violations	
	Ability to highlight deviations in the discovered model	Ability to perform root-cause analysis to identify causes of process path deviations		Ability to check compliance rules such as the segregation of duties (e.g., to check if authorization controls for each role were followed)	

¹ Celonis launched Task Mining with DPM features in January 2019

Celonis | Process Mining Products profile (page 4 of 6)

Capabilities









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

Capability & offerings									
Process monitoring and reporting	Ability to create customized dashboards based on user requirements / user-defined query			Ability to support text search capability in the process map		Ability to monitor processes in near real-time against defined KPIs		Ability to compare multiple process variants visually on defined metrics	
	Ability to define scenarios and run multiple simulations (what-if analysis / scenario testing)			Ability to share complete analysis project with other users through project file export			Ability to add notes for process steps to record derived insights		
Predictive and prescriptive analytics	Ability of the software to identify and recommend optimal process variants			Ability to estimate lead time and predict delays based on real-time process information			Ability to use AI/ML to predict and highlight / warn business users of any expected KPI breach		
	Ability to automatically send notifications to users in case of any expected KPI breach			Ability to identify and recommend processes/tasks for automation			Ability to recommend tools to automate processes, e.g., RPA, chatbots or IDP		
Commercial model	Perpetual licensing		Subscription licensing		User-based licensing		Process-based licensing		Event logs- / server capacity-based licensing
Hosting options	Desktop/laptop	Server/on-premise		Private cloud	Public cloud	Supports multi-tenant deployment	Supports containerization	Own hosting services	Hosting services offered via partners
Product training and support	Training and certifications by vendor		Training and certifications by partners		Classroom training	Online portal for process mining training/certification		Online self-paced training modules	Separate training courses for different user roles
	Online certification courses		Availability of a community edition of the product		Free training modules	Interactive online training		Embedded help tool	Online user community
Security and compliance	Availability of pre-built algorithms in system connectors to encrypt/decrypt data from event logs					Ability to create different environments of event logs with restricted user access authorization			
	Availability of role-based access to the system		Ability to selectively grant permissions to view attributes of a process model			Availability of an anonymization option for any specific attributes in log data		Active directory integration	

Celonis | Process Mining Products profile (page 5 of 6)

Everest Group assessment – Leader

Measure of capability:  High  Low

Market impact				Vision & capability					
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Process setup & integration	Process intelligence	Implementation & support	Commercial model	Overall
									

Strengths

- Celonis aims to provide enterprises with a technology platform to identify process improvement opportunities and accelerate process performance. Celonis holds over 60% share of the process mining software market and has the largest process mining enterprise client base in the industry spread across small, midsize and large enterprise segments
- While a majority of its revenue comes from Continental Europe, it has a strong presence in North America and APAC as well. It has experience in serving organizations from various industries such as manufacturing, public sector, retail, telecom, banking, insurance, and healthcare
- Celonis' "Intelligent Business Cloud" platform's architecture includes front-end applications such as Action Engine, Process Analytics, Machine Learning Workbench, and Transformation Center that integrate with its central process mining engine to fetch data from enterprise applications
- Its integrated ETL technology, Celonis Event Collection, provides the ability to extract data from both on-premise and cloud systems and offers pre-built connectors to over 30 enterprise applications, enhancing its ease of use
- It offers multi-level process mining capability to visualize sub-processes. Celonis also offers ML-based root cause analysis capability that enables users to determine root causes that have the largest impact on key business metrics in addition to its frequency of occurrence
- Celonis has invested in building strategic partnerships with leading providers of enterprise applications, such as SAP, Microsoft, and Salesforce, to enable strong integration with these underlying systems










Areas of improvement

- Clients have expressed concerns around its ability to maintain the quality of customer support and focus on customer success with its expanding operations and fast-growing client base. Strengthening its customer success program to provide more regular and responsive support would help its clients address challenges during implementation and scale up adoption
- Clients expect Celonis to have more in-depth knowledge of operational processes for providing better customer support
- Providing the ability to capture and mine voice conversations can enable enterprises to leverage the platform to discover conversational processes
- While Celonis offers a comprehensive training program on its own, availability of certified training partners could improve the flexibility and accessibility of its product training for enterprises, especially outside Continental Europe
- Celonis currently offers classroom training in English and German. Providing more local support and product training in languages such as Spanish, French, and Japanese can improve its value proposition for enterprises in these geographies and further accelerate its growth
- While the product can recommend tasks for automation, the ability to recommend the best-fit tools to automate those tasks, e.g., RPA, chatbots, or IDP, is currently not available

Celonis | Process Mining Products profile (page 6 of 6)

Everest Group assessment – Leader

Measure of capability:  High  Low

Market impact				Vision & capability					
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Process setup & integration	Process intelligence	Implementation & support	Commercial model	Overall
									

Strengths

- Celonis also offers an app store that allows its partners and customers to share downloadable, reusable assets called “Accelerators” to help improve speed of implementations. These include standard system connectors, process analysis templates, action engine skills, and ML algorithms
- Celonis, through its Action Engine feature, provides the ability to trigger actions in the underlying systems, based on identified process deviations, and ensures corrective actions
- It offers roles-based access and the ability to assign granular permissions control on available modules/applications (i.e., Process Analytics, Event Collection, Action Engine, and Transformation Center) as well as for individual objects (i.e., processes, analysis, and data pools)
- Celonis offers a free cloud-based community edition of its platform, Celonis Snap, to make the technology easily accessible, especially for individual users and SMBs. As part of Celonis Academy, it offers online training modules with role-based learning as well as classroom training. It also offers Academic Edition kit, developed specifically for students, teachers, and researchers, which includes training and free access to Celonis’ products
- Clients have indicated high overall satisfaction with the vendor, especially for its vision, product strategy, and customer support. Clients have also appreciated Celonis for its interoperability and root-cause analysis functionality

Areas of improvement

- There is scope for Celonis to further strengthen its technology partner ecosystem by building formal partnerships and go-to-market with vendors offering complementary capabilities such as BPM to enhance its value proposition for enterprises looking for a more holistic solution
- There is scope for the vendor to achieve more with its partnerships with RPA vendors such as UiPath and Automation Anywhere. For example, developing the ability to automatically create and export initial automation workflows into RPA platforms’ design studio could help improve speed and ease of developing automations for enterprises
- While Celonis is developing its own DPM capability¹, it could also consider forging partnerships with providers of such technologies to increase its value proposition for enterprises looking to integrate with best-of-breed technologies to extend the scope of process mining
- While Celonis currently provides a standard service program for all its users with global phone and email support during business hours based on Europe and North America’s time zones, 24X7 customer support is only available to a select group of premium clients. There is opportunity for Celonis to extend 24X7 customer support to all its clients and better align with market expectations
- While Celonis has a strong vision for its process mining offering, there is need to improve speed of delivery in terms of product roadmap. More readiness to offer on-demand services and provide concessions/flexibility in terms of pricing and contract terms could also be helpful

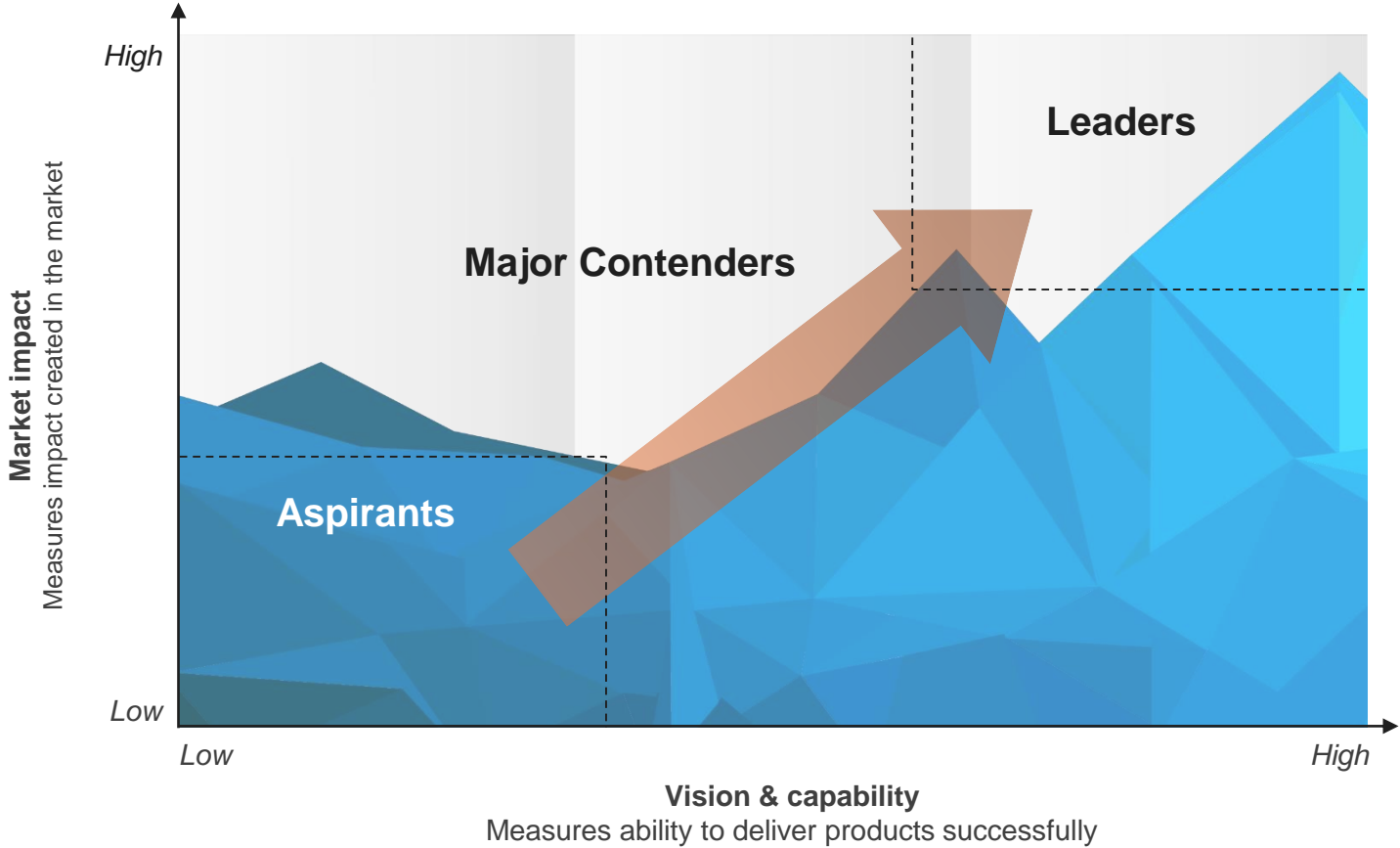
¹ Celonis has made the beta version of its task mining functionality available to select group of customers for pilot testing; the offering was not generally available, as of August 2019

Appendix

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



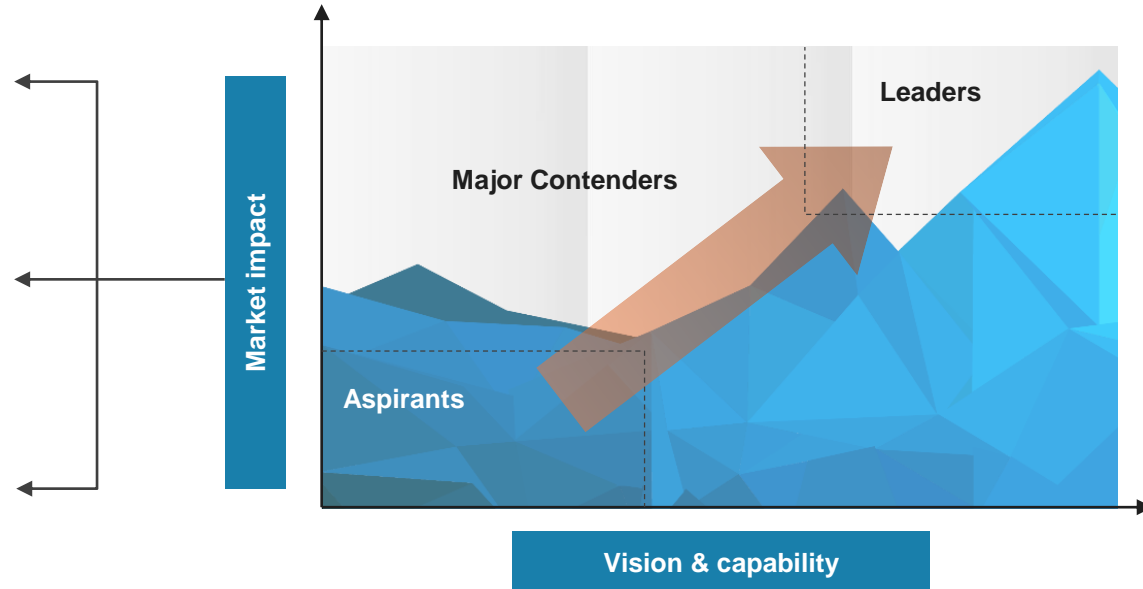
Everest Group PEAK Matrix



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 discovery and intelligence	Implementation and support	Commercial 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 predictive & prescriptive analytics	Training & certification, product support, ease of use, hosting options, and data security & compliance	Flexibility, progressiveness, and client adoption of available commercial models

Does the PEAK Matrix® assessment incorporate any subjective criteria?

Everest Group's PEAK Matrix assessment adopts an unbiased and fact-based approach (leveraging service 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 service 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 service 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



About Everest Group

Everest Group is a consulting and research firm focused on strategic IT, business services, and sourcing. We are trusted advisors to senior executives of leading enterprises, providers, and investors. Our firm helps clients improve operational and financial performance through a hands-on process that supports them in making well-informed decisions that deliver high-impact results and achieve sustained value. Our insight and guidance empower clients to improve organizational efficiency, effectiveness, agility, and responsiveness. What sets Everest Group apart is the integration of deep sourcing knowledge, problem-solving skills and original research. Details and in-depth content are available at www.everestgrp.com.

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