NEAT EVALUATION FOR ABBYY:

Process Discovery & Mining

Market Segment: Ability to Accelerate Process Change

Introduction

This is a custom report for ABBYY presenting the findings of the NelsonHall NEAT vendor evaluation for *Process Discovery & Mining Technology* in the *Ability to Accelerate Process Change* market segment. It contains the NEAT graph of vendor performance, a summary vendor analysis of ABBYY for process discovery & mining, and the latest market analysis summary.

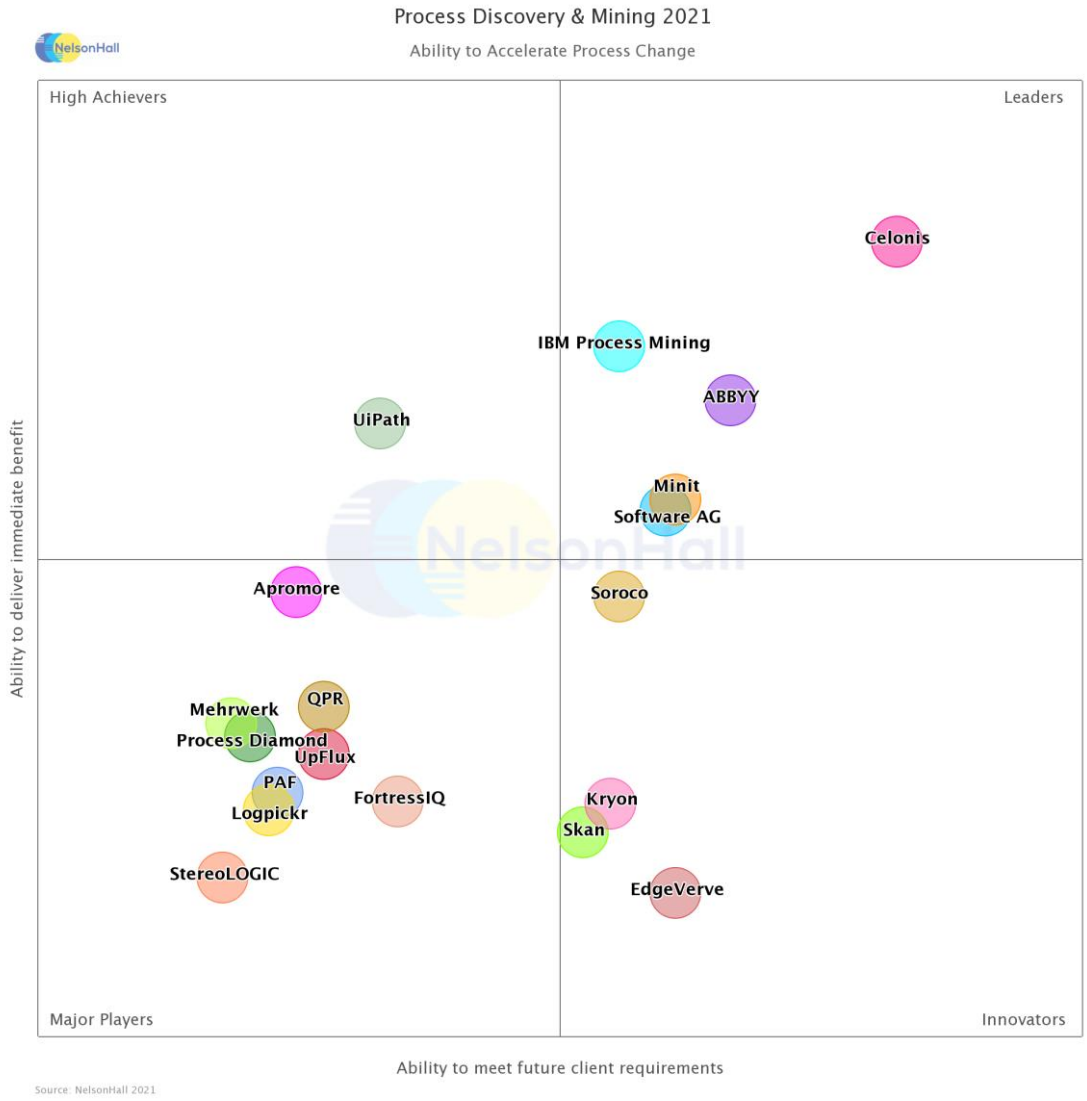
This NelsonHall Vendor Evaluation & Assessment Tool (NEAT) analyzes the performance of vendors offering process discovery & mining technology. The NEAT tool allows strategic sourcing managers to assess the capability of vendors across a range of criteria and business situations and identify the best performing vendors with specific focus on process mining and on desktop process discovery, as well as the ability to plan and accelerate process change.

Evaluating vendors on both their 'ability to deliver immediate benefit' and their 'ability to meet client future requirements', vendors are identified in one of four categories: Leaders, High Achievers, Innovators, and Major Players.

Vendors evaluated for this NEAT are: ABBYY, Apromore, Celonis, EdgeVerve, FortressIQ, IBM Process Mining, Kryon, Logpickr, Mehrwerk, Minit, PAF, Process Diamond, QPR, Skan, Software AG, Soroco, StereoLOGIC, UiPath, and UpFlux.

Further explanation of the NEAT methodology is included at the end of the report.

NEAT Evaluation: Process Discovery & Mining (Ability to Accelerate Process Change)



NelsonHall has identified ABBYY as a Leader in the *Ability to Accelerate Process Change* market segment, as shown in the NEAT graph above. This market segment reflects ABBYY's ability to meet future client requirements as well as delivering immediate benefits to its clients with specific focus on helping them accelerate digital transformation initiatives.

Leaders are vendors that exhibit a high ability relative to their peers both in delivering immediate benefit and also in meeting client future requirements.

Buy-side organizations can access the *Process Discovery & Mining* NEAT tool (*Ability to Accelerate Process Change*) here.

Vendor Analysis Summary for ABBYY

Overview

ABBYY Timeline is an end-to-end process intelligence platform for business transformation. The product was initially developed by TimelinePI, which ABBYY acquired in 2019. Since then, the Timeline platform has seen ongoing integration into ABBYY's portfolio and expansion as part of its overall Digital Intelligence strategy. For example, ABBYY has integrated Timeline with FlexiCapture, its Intelligent Document Processing platform, to enable clients to understand how their content-centric processes perform and discover patterns and insights. The company has also developed its own task mining capability with a proprietary recorder that leverages computer vision, OCR, and machine learning to segment streams of desktop work into tasks that process experts have identified.

ABBYY's client base for Timeline continues to be dominated by the U.S. (64%), followed by Australia (21.4%) and MEA (7.8%). However, it is also gaining traction in Asia-Pacific. The company's top 3 industry verticals are BFSI, telecom & media, and professional services (consulting), which make up 79% of its revenue.

ABBYY sees its pipeline being driven 70/30 by automation and by its traditional installed base. Clients using ABBYY Timeline primarily comprise large enterprises ($1bn+ revenue), which makes up 97%, followed by 3% midmarket.

Key Offerings

With Timeline 5.0, ABBYY supports business data (process mining) and user interaction data (task mining). ABBYY Timeline allows users to extract data from transactional applications (ERP, CRM, HCM, EHR, HIS, and Databases/EDW/Marts) and can be coupled with ABBYY's Content Intelligence solutions to include information from unstructured and semi-structured document types found in case-based business processes.

To collect user interaction data, ABBYY Task Mining has a desktop recorder tool that can passively record user interactions on the desktop. ABBYY deploys a recording service within the client network for task mining to handle data redaction for security and privacy before it is sent for analysis.

ABBYY Timeline currently requires desktop data (task mining) to be manually linked to process activities in the business data (process mining) for end-to-end analysis. It offers a seamless UI for analyzing the two data types separately or together.

ABBYY Timeline includes over 20 built-in analyses, including benchmarking, bottleneck analysis, deadline analysis, schema analysis (process maps), trend analysis, and workflow analysis.

Conformance checking in ABBYY Timeline centers around protocols (business rules), which can be anything from the amount of rework allowed and four-eyes principle to the time constraint between activities and SLAs.

Timeline includes breakdown analysis for users to discover root causes for a set of cases. Breakdown enables users to manually drill down into any dimension and case attribute to see at-a-glance if there are any salient attribute values in the case data using a block chart.

Bottleneck analysis is designed to find where time is being spent from a task or transitional perspective rather than duration, which is a total process perspective. For queue-based

workflows, e.g., call centers or hospitals, ABBYY Timeline offers workflow analysis. Workflows are defined using concepts like working, waiting, and queues.

A focus of ABBYY task mining is to identify and rank tasks (process events) for automation. It scores each task based on complexity (task variability), the difficulty of automation (types of desktop actions and the number of applications touched), and the potential cost/time impact from automation.

ABBYY Timeline includes forecast analysis for making ML-based predictions of the future state of cases using past and present data. Forecast can be configured to predict one or more outcomes, where each outcome is tied to an event.

ABBYY has simplified its pricing of Timeline to be based solely on the number of projects (typically synonymous with the number of processes). The company now offers three pricing tiers: five, ten, and fifteen projects. All tiers include the same ABBYY enterprise support that provides 24/7/365 services.

Timeline is part of ABBYY's messaging around Digital Intelligence and has been fully integrated into ABBYY's portfolio. It is primarily offered as a SaaS platform but can also be deployed on-premise. Recently, the company has added Kubernetes support that enables clients to scale their on-premise deployments more easily.

Financials

ABBYY does not release revenue information for Timeline but has stated that product revenue has grown 100% y/y. The company has pivoted to a subscription model across the board.

Strengths

- 360-degree process view with full capabilities for both process mining and task mining
- ETL with no-code data transformations designed for business users
- Wide array of built-in problem-centric analyses
- No-code custom KPIs designed for business users.

Challenges

- Lack of capability to build custom process analyses within Timeline; process visual can only be exported via URLs to third-party platforms, e.g., Microsoft Power BI or Qlik, to mashup visuals with traditional BI components
- Lack of automated root cause analysis: only has manual root cause analysis using breakdown analysis
- Lack of automated what-if scenario simulation: only has manual what-if analysis using bottleneck analysis for time and cost impact factors.

Strategic Direction

Integrated Digital Intelligence Platform

ABBYY's portfolio vision and strategy are to deliver a unified Digital Intelligence offering that further coalesces the ABBYY process and content intelligence platforms, thereby enabling their clients and partners to:

- Analyze and surface automation opportunities associated with highly variable case-based and content-centric business processes
- Deploy a no-code/low-code design approach that makes it easy for business users to quickly design, train, and deploy skills that handle the complexities of understanding content without being a machine learning expert
- Easily and simply consume cognitive skills that read, understand, and extract insights from documents, helping enterprises accelerate digital transformation
- Train and publish skills, making them discoverable to any automation tool: RPA, BPM, ECM, systems of engagement, and mobile devices
- Monitor performance and continuously improve case-based and content-centric business processes.

Connectors: data collection and result sharing

- Bi-directional connectors: ABBYY has added an API for data ingestion and exporting to and from Timeline that has simplified the creation of Alteryx and RDBMS connectors. The company will work with partners to expand the collection of connectors to incorporate new data sources. Currently, the API is only available to ABBYY and partners to develop against, but it plans to make it generally available in the next 12-18 months
- Connector framework: ABBYY has started work on incorporating an industry-leading connector framework. It wants to leverage this third-party capability to give its clients access to a broader range of business systems and platforms while minimizing development resources.

Outlook

ABBYY Timeline continues to demonstrate the company's vision to deliver a unified Digital Intelligence offering. It is one of a handful of platforms with native process mining and task mining capabilities and amongst only a few where the two capabilities are well integrated. While its task mining capability is currently focused on delivering automation insights, ABBYY recognizes that process improvement is not limited to automation and plans to expand its use to workforce optimization. And its new integrations to ABBYY FlexiCapture and Alteryx APA Platform demonstrate the growing sources of data that can be ingested for automation-focused organizations, which complement well with data from RPA initiatives.

However, the platform lacks some AI/ML features that many competitors already offer, e.g., automated root cause analysis and automated what-if analysis. It also does not allow users to build process analyses within Timeline, though this functionality is planned.

Despite this, ABBYY Timeline continues to grow into a unique product in the space. And ABBYY's ability to deliver on its strategy and roadmap items will only strengthen it.

Process Discovery & Mining Market Summary

Overview

The convergence of process discovery and process mining accelerated in 2020/21 as the market recognized the need to combine their strengths to overcome their challenges – not all work is done within IT systems and not all work is done on desktops.

Both segments aim to help organizations to gain process understanding but from different perspectives:

- *Process discovery* (end-to-end task mining) provides an understanding of work execution through the lens of workers on desktops. It captures all work performed on desktops, including that done outside of IT systems, e.g., Excel, Outlook, Notepad, etc. The segment is traditionally driven by desktop automation and workforce optimization
- *Process mining* provides an understanding of work from an end-to-end perspective through to the final business outcome. Process mining started from a narrow definition of visualization and analysis of event logs from IT systems using algorithms and mathematical procedures. The sole reliance on IT system logs means work performed outside of them is not captured.

Process discovery vendors are integrating process mining technologies to help clients quantify the impact on work to give recommendations that will lead to more significant overall business impact. Similarly, process mining vendors are integrating process discovery technologies to fill in the gaps in IT system logs to provide more reliable and actionable insights with quantification of the potential business impact.

Process discovery & mining solutions typically feature:

- *Connector capabilities* – to extract, transform, and load transactional data from IT systems for analysis and integration to third-party platforms for enabling automation and proactive interventions
- *Desktop capabilities* – to collect streams of desktop work that includes application data, environmental variables, and user interactions, and uses AI/ML to parse work from streams of recordings
- *Conformance checking* – to understand how work is performed against organizational policies and best practices
- *Root cause analysis* – to find factors that are contributing to certain process behaviors and outcomes
- *Data simulation* – to simulate scenarios of process transformation and to understand potential impacts before making changes
- *Proactive intervention* – leveraging ML and heuristics to trigger automations (workflows and RPA bots) and real-time process guidance on desktops.

Buy-Side Dynamics

Benefits sought (ordered by importance) by buyers for engaging a vendor for process discovery & mining are:

- Improve overall visibility and transparency of process flows
- Reduce average process cycle times
- Reduce effort to identify process steps and variations
- Improve identification of root causes in process variations, outcomes, non-compliance
- Improve identification of KPI impact in process variations, outcomes, non-compliance
- Improve identification of processes to be automated
- Improve upskilling or retraining efforts with precision training for individuals or teams
- Improve business agility.

Key inhibitors for buyers looking to adopt process discovery & mining solutions relate to stakeholder buy-in, data, and privacy.

Market Size & Growth

The current global PDM market size is estimated by NelsonHall at ~$670m and will grow to ~$4.3bn by 2025, a growth of 45% CAAGR.

Europe accounts for 43.3% of the PDM market, followed by North America at 42.5% and APAC at 9.7%. Strong growth in North America will cause it to overtake Europe by 2025.

BFSI is the largest sector, accounting for 28.7% of the market. The ongoing impact of the pandemic on global supply chains has boosted adoption in transport/logistics and manufacturing that will continue through 2025. Similarly, healthcare (having been a top growing sector in 2020) will continue to grow due to continued rising costs and deficiencies exacerbated by the pandemic.

Success Factors

The key success factors for process discovery & mining vendors include:

- *Actionable insights*: providing insights that drive impactful changes with just enough information without overwhelming users. This is also not limited to historical data but ongoing data using predictive analytics to intervene in open cases
- *Adaptive and transparent pricing*: offering flexible pricing for organizations to adjust to current and changing needs. At the same time, pricing is transparent so clients can predict how costs will change to budget accordingly
- *Balancing flexibility and ease of use*: some vendors have designed UI/UX with customizability and flexibility in mind. However, during that process, it has become overwhelming and less intuitive to use. Successful vendors are using design thinking to build their platform with the right balance to improve user-friendliness
- *Data governance at scale*: architecting their platforms with organization and process data governance in mind. When scaling adoption from a single business unit to multiple ones

in the same company, platforms need to be designed to handle the increased complexities of data and process ownership

- *Empowering partners*: recognizing they are first and foremost software companies rather than domain experts, these vendors are frequently going hand-in-hand with partners into client engagements so they can speak the same language. They also develop programs to work with partners across geographies and industry verticals
- *Enabling transformations*: going beyond the immediate mapping and assessment needs of clients and enabling them to plan, execute, and monitor process transformations. Provide capabilities to support building business cases with insights on the impact of process changes, standardizing work by templating best practices, generating bots to accelerate their rollout, and knowledge sharing for cooperation and collaboration.

Outlook

Over the next few years:

- Drivers for continued deployment will include continuous or iterative improvement efforts and to improve outcomes of connected processes that support the initial key processes
- Solutions will fully integrate not only business and desktop data but increasingly include additional data modalities like IoT to enable planning process changes with more actionable and impactful insights and to accelerate implementations of process changes
- Machine learning will play a more significant role in enabling the planning of process changes in addition to the current trend of enabling implementation efforts with predictive and prescriptive analytics
- Healthcare will continue being one of the strongest growing sectors, outpaced only by the adoption rate of the transportation and logistics sector
- Process discovery & mining deployments will become 80% cloud-based, with an increasing number of vendors offering PDM-as-a-Service and freemium options to build their client base as part of a land-and-expand strategy.

NEAT Methodology for Process Discovery & Mining

NelsonHall's (vendor) Evaluation & Assessment Tool (NEAT) is a method by which strategic sourcing managers can evaluate outsourcing vendors and is part of NelsonHall's *Speed-to-Source* initiative. The NEAT tool sits at the front-end of the vendor screening process and consists of a two-axis model: assessing vendors against their 'ability to deliver immediate benefit' to buy-side organizations and their 'ability to meet client future requirements'. The latter axis is a pragmatic assessment of the vendor's ability to take clients on an innovation journey over the lifetime of their next contract.

The 'ability to deliver immediate benefit' assessment is based on the criteria shown in Exhibit 1, typically reflecting the current maturity of the vendor's offerings, delivery capability, benefits achievement on behalf of clients, and customer presence.

The 'ability to meet client future requirements' assessment is based on the criteria shown in Exhibit 2, and provides a measure of the extent to which the supplier is well-positioned to support the customer journey over the life of a contract. This includes criteria such as the level of partnership established with clients, the mechanisms in place to drive innovation, the level of investment in the service, and the financial stability of the vendor.

The vendors covered in NelsonHall NEAT projects are typically the leaders in their fields. However, within this context, the categorization of vendors within NelsonHall NEAT projects is as follows:

- Leaders: vendors that exhibit both a high ability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet client future requirements
- High Achievers: vendors that exhibit a high ability relative to their peers to deliver immediate benefit but have scope to enhance their ability to meet client future requirements
- Innovators: vendors that exhibit a high capability relative to their peers to meet client future requirements but have scope to enhance their ability to deliver immediate benefit
- Major Players: other significant vendors for this service type.

The scoring of the vendors is based on a combination of analyst assessment, principally around measurements of the ability to deliver immediate benefit; and feedback from interviewing of vendor clients, principally in support of measurements of levels of partnership and ability to meet future client requirements.

Note that, to ensure maximum value to buy-side users (typically strategic sourcing managers), vendor participation in NelsonHall NEAT evaluations is free of charge and all key vendors are invited to participate at the outset of the project.

Exhibit 1

'Ability to deliver immediate benefit': Assessment criteria

Assessment Category	Assessment Criteria
Offerings	Ease to aggregate logs into processes Desktop process discovery capability Integration between business and desktop data Process visualization Range of prebuilt/templated process analyses Ease (UI-based) of conformance/compliance checking ML-based root cause analysis Recommendations for process improvement and re-engineering Proactive process intervention Integrated automation capabilities Analytics reporting and insights No/low-code development
Delivery Capability	Maturity of partner base Desktop process discovery pricing model available Process mining pricing model available Training
Client Presence	Overall PDM presence North American presence LATAM presence Europe presence MEA presence APAC presence
Benefits Achieved	Visibility and transparency of process flows Reduced effort to identify process steps and variations Identify root causes of process variations and outcomes Identify KPI impact of process variations and outcomes Reduced average process cycle times Identify process activities to be automated Upskilling or retraining efforts Business agility Overall business impact

Exhibit 2

'Ability to meet client future requirements': Assessment criteria

Assessment Category	Assessment Criteria
Level of Investments	Level of investment in PDM
	Level of investment in core desktop process discovery
	Level of investment in data connectors, integration, and models
	Level of investment in prebuilt (templated) process analyses
	Level of investment in analytics, insights, and simulations
	Level of investment in accelerating automation development
	Level of investment in proactive process intervention

For more information on other NelsonHall NEAT evaluations, please contact the NelsonHall relationship manager listed below.

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Sales Enquiries

NelsonHall will be pleased to discuss how we can bring benefit to your organization. You can contact us via the following relationship manager:

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