

HFS Top 10 Process Intelligence

Products

Excerpt for Celonis

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THE P 10

"Process intelligence technologies are critical change agents, bridging the divide of siloed data, BI, analytics, AI, and automation initiatives we see sprinkled across enterprises. The products available today are helping us address process debt, identify automation ROI, improve training and development programs, scale risk and compliance initiatives, and accelerate cloud migration. And yet, we're only on the cusp of what's possible with applying the fields of data science and advanced analytics to enterprise operations...in a few years, we're going to wonder how we got by without them."

— Reetika Fleming

"The data speaks for itself; the process intelligence market is beginning to pick up steam and enterprise leaders' yearning for process excellence is driving demand in the space. Leveraging the real-time process data which is now available thanks to the latest batch of process intelligence tools and techniques means that reaching previously unachievable 'process excellence' has suddenly become a reality, making this a market to watch."

— Sam Duncan



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Introduction, methodology, and definitions



Introduction

- HFS sees the emerging category of process intelligence as a key change agent technology, bridging the divide of siloed data, analytics, AI, and automation initiatives targeted at improving business operations.
- The 2020 HFS Top 10 Process Intelligence Products report examines key vendors in this evolving market. HFS includes both process mining and discovery vendors into an umbrella term, "process intelligence", focusing on the unifying outcome that these technologies provide to clients.
- We assessed and rated the capabilities of 14 products as viewed in practice across a defined series of innovation, execution, and voice of the customer criteria. This report highlights the overall ratings for the 14 product vendors and the top leaders for each sub-category.
- This report also includes detailed profiles of each vendor, outlining their overall and sub-category rankings, company facts, and detailed strengths and weaknesses.





Product vendors covered in this report*































^{*}UiPath was not an active participant in this study

Research methodology

This HFS Top 10 report assessed and scored 14 product vendors across execution, innovation, and voice of the customer criteria. The inputs to this process included input from 40+ enterprise leaders driving process intelligence initiatives in their organizations, along with inputs from key SIs and consulting firms that act as partners to implement and support process intelligence programs for end clients. The research is also augmented with information from publicly available information sources. Specific assessment criteria and weighting include:



33.3%

Ability to execute

- **Capability:** Depth and breadth of key functionalities across relevant product portfolios, scale of current adoption, and client mix.
- Security, governance, and controls: Support for large-scale enterprise use and
 maintenance of platforms, focus on model and data governance, usability,
 lifecycle management, explainability, security and data privacy, and controls
 for user and access management.
- Scalability and flexibility: Ability to scale product with larger datasets, level of in-memory processing, end-to-end ML integration, deployment, pricing options and flexibility, and management of data infrastructure and pipelines.
- **Support:** Level of focus and expertise to provide training, service, and support capabilities to enterprise customers and partners to facilitate project success.
- **Extensibility:** Capability to facilitate integration with peripheral technology products and provide connectors and accelerators for data integration.



33.3%

Innovation capability

- Overall technology roadmap and vision: Technology R&D sufficient to accelerate adoption using cutting-edge techniques that address client needs.
- **Applied technology innovation:** Innovative features and proprietary IP embedded and available in the product, differentiated from peers.
- Ability to transform business processes and deliver outcomes: Achievement
 of business outcomes, ability to measure outcomes, transformation
 potential, effectiveness of tools.
- Partnership ecosystem: Level of focus and progress on developing an ecosystem of services and technology partnerships that benefit clients.
- Investments in UI/UX and data visualization: Focus on simplifying, automating, and augmenting a platform's UX; ability to select from a range of visualization techniques to represent and drill-down into analytical models, including output formats for different enterprise audiences.



33.3%

Voice of the customer

 Client satisfaction based on direct feedback from enterprise clients and partners. Driven by interviews and surveys with client and partner references provided by product vendors and sourced directly by HFS.



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Executive summary



Executive summary: Vendor landscape



Winners

The top five leaders are pioneering unicorn **Celonis**, customer favorite **Minit**, visionary startup **FortressIQ**, and automation vendors **ProcessGold** (**UiPath**) and **Kryon**. Rounding out the Top 10 process intelligence products are (in rank order) **PAFNow, LANA Labs, myInvenio, QPR, and TimelinePI (ABBYY).** We evaluated 14 platforms for this analysis, using the criteria of execution, innovation, and voice of the customer.

Differentiating features are already blurring

Features and functionalities are being cross-pollinated across the market. In the last two years, we have observed a tremendous amount of R&D and product updating from most of the vendors in our analysis. As process intelligence technologies mature, clients get more experienced, and new entrants bring in disruptive new features, we see all vendors making concerted efforts to close gaps and invest in new functionalities to keep up with this fast-moving market. In particular, many vendors have invested in better data visualization and UI/UX capabilities to make their analyses easier to consume for different business users.

Customers want to invest in people

At the end of the day, customers value relationships. Many of the smaller vendors in our analysis got their "in" because clients believed in them and were looking for smaller startups to work with rather than simply going with the largest firms out there. This has allowed many enterprise clients to shape and influence their vendors' R&D and product directions to suit their needs and to get more individualized attention from these smaller vendors, which are growing through deep client relationships. At the same time, other clients that are working with the largest process intelligence firms feel very connected to the vision and industry direction shared by their product leaders.



Process intelligence technologies are just getting started



Demand for process intelligence is fueling massive prototyping.

Process intelligence vendors are reporting large pipelines of clients currently undertaking prototyping and piloting activities to assess business value and select vendors through "bake-off" projects. As popular as process mining and discovery already appears to be, there's a sizeable number of engagements still in the making. Further, process mining products, in particular, are highly scalable and stable in enterprise environments comparing against other emerging technologies, and they feature a high percentage of production builds.

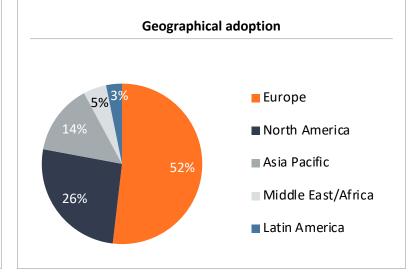
Prototyping - Proof of concept / proof of value Pilot - Limited roll out of the solution Production build - Solution implementation and management in live client environment

Source: HFS Research, 2020

Sample: 1,000+ Process mining engagements from 14 leading vendors

Europe is leading the charge...but ask us again tomorrow.

The geographical concentration of process mining vendors in Europe has led to the proliferation of these tools among enterprises in the region, particularly continental Europe. However, the wave of process intelligence technologies has definitively hit North American shores through vendors' geographical expansions, SI/consulting partner networks, and enterprise buyers proactively keeping a lookout on this emerging change agent. We expect a more evenly distributed adoption split by early 2022.



F&A and procurement are the current trailblazers.

Finance and accounting and procurement register the highest adoption rates for process intelligence technologies, appearing in around a third of deployments, followed by customer service. This is unsurprising given the need for better process analytics and visibility and the availability of event log data in these functional areas. Cloud migration, by contrast, is driving demand from the CIO's office and expanding the applicability of this technology across both business and IT.

Functional split of adoption





THE P 10

The HFS Top 10 process intelligence products results



Summary of process intelligence vendors assessed in this report



Platform providers (alphabetic order)	HFS Point of View
ABBYY (TimelinePI)	Reenergized with the potential of combining unstructured data with process analytics
Apromore	Open source darling with a different take on pricing
Celonis	Market makers for process mining
FortressIQ	Visionaries in unstructured data capture
Kryon	Leading the charge on "click to automate" from process discovery
LANA Labs	Executing on a vision for automated process analysis
Minit	Exploring the benefits of combining mining and discovery outputs with "hierarchical" process analytics
MyInvenio	Offering multi-level process mining to improve automation
NICE	Offering process discovery with advanced ML capabilities to all automation clients
PAFnow	A powerful process intelligence layer for Power BI fans
QPR	Quick time to insight and value from an experienced team
Signavio	Enabling organization-wide collaboration on process analysis
SoftwareAG	An industry stalwart in process mining
UiPath (ProcessGold)	Automation leader buying its way into process analytics to help enterprises "x-ray" operations



HFS Top 10 process intelligence product rankings



		Execution					Innovation							
Rank	Overall HFS Top 10 position	Scalability and flexibility	Depth and breadth of key functionalities	Security, governance, and controls	Implementa- tion, service, and support	Extensibility	Overall execution	Overall technology roadmap and vision	Applied technology innovation	Ability to transform business processes and deliver outcomes	Partnership ecosystem	UI/UX, visualization	Overall innovation	Voice of the customer
#1	celonis	Fortress	celonis	NICE °	celonis	celonis	celonis	celonis	Fortress 🔯	celonis	celonis	Ui Path	celonis	minit
#2	minit	paf	Ui Path [™]	KRYON	Ui Path [™]	minit	minit	Fortress [Q	celonis	minit	NICE	celonis	Ui Path	Fortress Q
#3	Fortress 🔯	apromore	9 software AG	1 LANA	KRYON	<mark>Ui</mark> Path [™]	1 LANA	KRYON	KRYON	Ui Path	Ui Path	paf	Fortress [Q	KRYON
#4	Ui Path	minit	1 LANA	minit	NICE	KRYON	Ui Path"	paf	minit	1 LANA	Fortress 🔯	minit	minit	celonis
#5	KRYON	celonis	minit	paf	∭ QPR	1 LANA	paf	1 LANA	···· QPR	· □ QPR	paf	ABBYY Timeline	KRYON	paf
#6	paf	1 LANA	paf	9 software [№]	1 LANA	apromore	KRYON	minit	apromore	KRYON	KRYON		paf	Ui Path [™]
#7	1 LANA	mų i nvenio	Fortress [Q	Ui Path [™]	minit	ABBYY Timeline	Fortress 🔯	SIGNAVIO	ABBYY Timeline	Fortress 🔯	SIGNAVIO	Fortress 🔯		my i nvenio
#8	my i nvenio	SIGNAVIO	 ■ QPR	• apromore	SIGNAVIO	∭ QPR	5 software ^₄	Ui Path	Ui Path	paf	minit	KRYON	1 LANA	△ ABBYY Timeline
#9		\$ software №	SIGNAVIO	celonis	Fortress 🔯	my i nvenio	∭ QPR	···· QPR	1 LANA	△ ABBYY Timeline	my i nvenio	5 software AG	ABBYY Timeline	• apromore
#10	ABBYY Timeline	∭ QPR	my i nvenio	Fortress 🔯	paf	Fortress 🔯	NICE	my i nvenio	my i nvenio	my i nvenio	∮ software [№]	1 LANA	my i nvenio	NICE°

Notes: *This HFS Top 10 report assessed and scored 14 product vendors across execution, innovation, and voice of the customer criteria. The inputs to this process included input from 40+ enterprise leaders driving process intelligence initiatives in their organizations, along with inputs from key SIs and consulting firms that act as partners to implement and support process intelligence programs for end clients. The research is also augmented with information from publicly available information sources.

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Notable performances in HFS Top 10 Process Intelligence Products



HFS Podium Winners Top 3 providers overall across execution, innovation, and voice of the customer criteria									
	#1.			#2.		#3.			
	celonis			minit		Fortress Q			
Execution powerhouses Top 3 providers on execution criteria				ovation champio iders on innovati		Outstanding Voice of the Customer Top 3 providers on voice of the customer criteria			
#1	#2	#3	#1	#2	#3	#1	#2	#3	
celonis	minit	1 LANA	celonis	Ui Path"	Fortress 🔯	minit	Fortress Q	KRYON	

Other notable top 3 performances

- NICE ranked #1 for security, governance, and controls.
- PAFnow ranked #2 for scalability and flexibility
- Apromore ranked #3 for scalability and flexibility
- **Software AG** ranked #3 for depth and breadth

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Product vendor profiles



Market makers for process mining



Process Mining and Process Discovery

Dimension	Rank
HFS Top 10 position	#1
Ability to execute	#1
Scalability and flexibility	#5
Depth and breadth of key functionalities	#1
Security, governance, and controls	#9
Implementation, service, and support	#1
Extensibility	#1
Innovation capability	#1
Overall technology roadmap and vision	#1
Applied technology innovation	#2
Ability to transform business processes and deliver outcomes	#1
Partnership ecosystem	#1
UI/UX, visualization	#2
Voice of the customer	#4

Overview

engagements. Key clients include:

Siemens

Airbus

Vodafone

Uber

L'Oreal

Celonis was founded in Munich, Germany in 2011, and has since become a global company with dual
headquarters in New York City and Munich. The firm's recent Series C round takes its valuation to approximately
\$2.5 billion. Aiding its valuation is its Intelligent Business Cloud (IBC) product, which helps companies achieve
process excellence by turning insights into action and optimizing business processes.

Processes supported

 Celonis supports approximately 110 unique processes, including; purchase-to-pay, accounts payable, orderto-cash, accounts receivable, billing, supply chain and warehouse management.

Industry coverage

 Banking, insurance, wholesale distribution, public sector, retail, professional services, utilities, consumer products, telecoms, travel and transportation and healthcare, among others.

Strengths Challenges

- Triple-A vision: Celonis has taken the HFS Triple-A Trifecta and introduced it as a key ingredient of the firm's
 vision, leveraging its own AI engine to provide intelligent guidance alongside an array of automation and analytics
 to help clients quickly identify and solve challenges.
- Focus on operational actions: Unique to the market, Celonis recently announced operational apps to support both F&A and supply chain management, which are pre-configured modules to help clients drive better outcomes and prioritize work based on key goals and KPIs.
- Impressive customer success stories: Celonis boasts a number of impressive customer success stories with a very
 vocal client base, which includes the likes of Uber, L'Oreal, and Siemens, which will help Celonis win over new
 clients as its solution is tried and tested with proven value.
- Size, scale, and presence: Celonis' experience in the process mining space means alongside its impressive
 presence in the market, its solutions also boast size and scalability, making them a solid choice for any enterprise.

with over 150 implementation partners

• **Digital Consulting Platform:** A self-service

project basis, over 4,000 users in 2019

Key technology partners: SAP, Oracle,

ServiceNow, and Salesforce

TCS, and Infosvs

including KPMG, Accenture, Deloitte, and EY

platform available to digital consultants on a

BPO partnerships: Genpact, Tech Mahindra,

- Expectations of a market leader: Because of Celonis' size and status in the market, the pressure is on to
 ensure it continues to push the boundaries on what is possible with process mining, lead the way for its
 peers, and provide market education for enterprise clients.
- Focus outside of F&A SCM, SAP data migration: Celonis' exponential growth is partly a result of its SAP
 partnership and consequent expansion into the F&A and SCM spaces. As an industry leader, Celonis now
 needs to chart a strategy for becoming relevant in industries like healthcare and banking, where SAP is not
 the go-to platform and the processes and technology landscape are vastly different from its current set.
- **Pricing models:** Process mining clients mentioned one recurring theme: the inflexibility of Celonis' pricing models. Also, many at additional firms contemplated Celonis, but ultimately went elsewhere as it was inaccessible due to price.

Recent developments and highlights **Key clients** Key partnerships and acquisitions Go-to-market approach Celonis has over 600 Acquisitions: Sales model: Both directly • March 2020: Celonis launched the Intelligent Business Cloud (IBC) in Japan, with its own local datacenter. enterprise customers, 2019: Banyas and indirectly through • April 2020: SAP P&T Partner of the Year Award Winner including 1,400 Partnerships: reselling partners and • April 2020: Celosphere Live, a three-day virtual event, had over 18,000 registrations. consultancy-led • Key implementation partners: Celonis works consultants

Headcount: 900+

Locations: Headquartered

in Munich and New York

City, with regional offices

Kosovo, Japan, Spain,

France, and the US

- April 2020: Miguel Milano, Former President of Salesforce international, joined Celonis as co-owner and Chief Revenue Officer
- June 2019: Celonis launched Snap, a free-to-use process mining platform, which has over 18,000 users.
- **November 2019:** Celonis won the German President's Award for technical and scientific achievements, the first software company to do so.
- in the UK, the Netherlands, November 2019: Celonis raised \$290 million in Series C funding, taking its valuation to approximately \$2.5 billion.
 - November 2019: Celonis announced free and publicly available IBC training.
 - October 2019: Hala Zeine joined Celonis as the Chief Product Officer.
 - September 2019: Celonis announced a partnership with Genpact.
 - January 2019: Celonis launched the IBC.



HFS Research authors



Reetika Fleming
Research Vice President

Reetika Fleming is Research Vice President at HFS Research. Her research extends into defining future business operations for property and casualty, life, and annuities and reinsurance companies.

She studies the broad use of data and analytics within enterprises, with a new research focus on machine learning and AI techniques to improve business decision making.

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Sam Duncan
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Sam Duncan is a Senior Research Analyst at HFS Research. His research includes exploring innovative applications of blockchain technology as well as delving into the latest trends in the Banking & Financial Services and Insurance industries.

Alongside this Sam contributes and supports the creation of HFS' Quarterly Market Index, a report which reviews and analyses the quarterly results of the leading IT and Business Services companies in the previous quarter.

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