

The Forrester Wave™: Location Intelligence Platforms, Q4 2018

Tools And Technology: The Digital Intelligence Playbook

by James McCormick and Emily Miller

December 5, 2018

Why Read This Report

In our 27-criterion evaluation of location intelligence platforms providers, we identified the eight most significant ones — CARTO, Esri, Galigeo, MapLarge, Near, Oracle, Pitney Bowes, and Ubimo — and researched, analyzed, and scored them. This report shows how each provider measures up and helps customer insights (CI) professionals make the right choice.

Key Takeaways

Esri And Pitney Bowes Lead The Pack

Forrester's research uncovered a market in which Esri and Pitney Bowes are Leaders; Oracle and CARTO are Strong Performers; Ubimo, MapLarge, and Near are Contenders; and Galigeo is a Challenger.

Location Intelligence Platforms Enhance Digital Intelligence Practices

Digital intelligence practices seek to leverage information on customers and their interactions with brands for the purposes of driving optimal decisions, actions, and experiences. Location intelligence platforms help firms do this by embedding location information and spatial analytics techniques into business and customer digital touchpoints.

Capabilities For Executing On Location Intelligence Differentiate Platforms

Ultimately, it is not location data or spatial analytics that delivers the value to the business, but the ability to embed them into decision making, actions, and experiences. It is here where differences in vendors' visions, road maps, and capabilities are most stark. But all vendors have work to do in this area.

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Location Intelligence Platforms Are Critical For Customer Engagement

The volume, velocity, and variety of inbound spatially related customer information have never been greater. Devices such as mobile phones, cars, wearables, and many other digital touchpoints and connected devices inundate businesses with valuable locational information about their customers and their engagements.¹ Firms are now building practices that are taking advantage of locational information to drive better decisioning and customer engagement, seeking market differentiation and increased revenues by working with location data.² Forrester calls this location intelligence:

The practice of collecting and managing customer location data, enriching it with other data sources and analyzing for contextual insights for the purposes of informing optimized actions, decisions, and customer experiences.

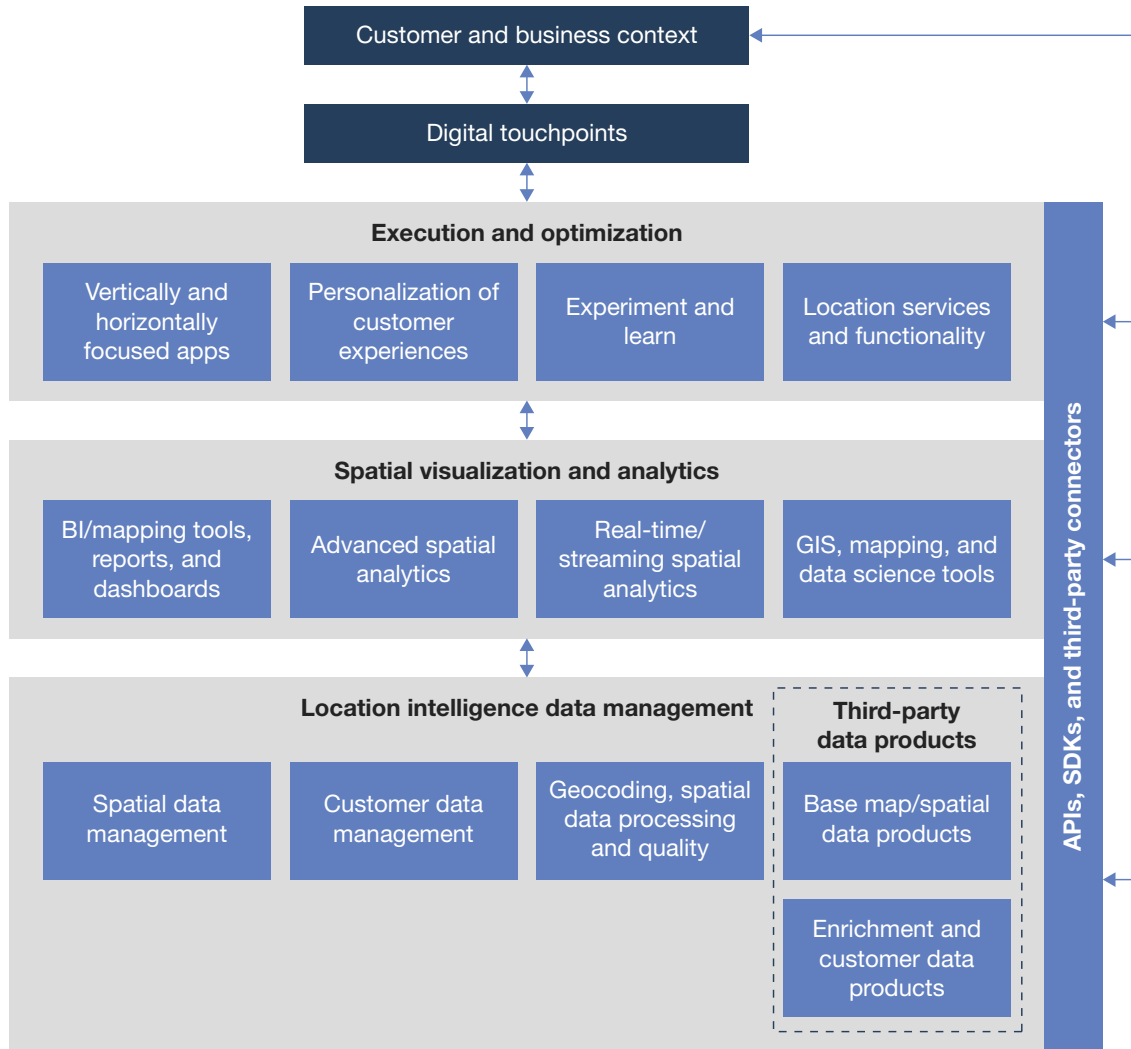
A Holistic Location Intelligence Practice Demands A Platform

Location intelligence is part of the broader practice of digital intelligence: Firms use data and analytics to obtain insights into their customers' digital engagement to continuously optimize their actions and their customers' experiences.³ The practice ultimately delivers the best possible experiences continually — at scales that can differentiate the business from its competitors.

Achieving complete digital intelligence requires the synchronization of a myriad of technologies within a single cohesive stack.⁴ Location intelligence is similar: Location intelligence platforms meld multiple capabilities for managing customer location and associated data with those for spatial visualization and analysis. These platforms directly feed capabilities that take action and optimize customer experiences based on insights within the customers' and/or the business users' context (see Figure 1). Forrester defines a location intelligence platform as:

A cohesive set of location data management, analytics, execution software, and data products to enable enterprises to synchronize and optimize customer experiences, business decisions, and actions.

FIGURE 1 The Location Intelligence Stack



Differences And Similarities Describe The Location Intelligence Platform Space

As firms digitize, they create new touchpoints that connect a customer’s online and physical worlds — and this intersection is where the potential value of location is greatest. And don’t the vendors know it. They are racing to build and mature their location intelligence platform offerings in a landscape where:

- › **Location intelligence platform players run the gamut.** We see large and small vendors: some with geographic information system (GIS) and spatial analytics capabilities that they are rapidly updating; some emerging from the opportunity that cloud provides; and some stemming from the

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mobile technology space. Vendors such as ESRI, Oracle, and Pitney Bowes have been around a long time and have a huge installed base, while others are just starting up, carving out niche markets and honing spatial expertise.

- › **Platform vendors converge on digital customer engagements.** The one commonality we're seeing is that the users of location intelligence platforms are finding opportunities in leveraging geospatial data to inform digital engagements and insights. Examples include using APIs to inject location functionality, such as geocoding and routing, into customer apps, and targeting customers with ads based on their relative location to stores or branches. Vendors are continually maturing platform capabilities to support these use cases.

Location Intelligence Platforms Evaluation Overview

To assess the state of the location intelligence platform market and see how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of top location intelligence platform vendors. After examining past research, user needs assessments, and vendor and expert interviews, we developed a comprehensive set of 27 evaluation criteria, which we grouped into three high-level buckets:

- › **Current offering.** Each vendor's position on the vertical axis of the Forrester Wave™ graphic indicates the strength of its current offering. Key criteria for these solutions are location intelligence data management, spatial visualization and analytics, data products, execution and optimization, and platform experience.
- › **Strategy.** Placement on the horizontal axis indicates the strength of the vendors' strategies. We evaluated product vision, execution road map, performance, supporting services, and partner ecosystem.
- › **Market presence.** Represented by the size of the markers on the graphic, our market presence scores reflect each vendor's platform revenue, enterprise customers, and deal size.

Evaluated Vendors And Inclusion Criteria

Forrester included eight vendors in the assessment: CARTO, Esri, Galigeo, MapLarge, Near, Oracle, Pitney Bowes, and Ubimo (see Figure 2). Each of these vendors:

- › **Markets a platform that delivers advanced location intelligence capabilities.** Each vendor's platform provides advanced capabilities in the following areas: an enterprise spatial database for managing and analyzing different spatial data types; managing and analyzing vector, raster, and associated attribute data; and spatial analytics and location-based segmentation capabilities.

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- › **Has in-platform applications, APIs, and SDKs that activate on location intelligence.** The vendor's platform includes vertically and functionally focused location-intelligence-based applications for operations or customer engagement. It also includes APIs and software development kits (SDKs) for delivering location intelligence functionality.
- › **Has a significant location intelligence software business focus.** The vendor's location intelligence business is \$2.5 million or greater, with at least 40% of location intelligence revenue generated from software sales.
- › **Has market visibility in the location intelligence space.** Forrester clients often discuss the vendor's location intelligence products through inquiries; alternatively, the vendor may, in Forrester's judgment, warrant inclusion or exclusion in this evaluation because of specific approaches the vendor has taken relative to location intelligence market trends.

FIGURE 2 Evaluated Vendors And Product Information

Vendor	Product name	Product version
CARTO	CARTO LI Platform	Summer 2018 release
Esri	ArcGIS	10.6.1
Galigeo	Galigeo Enterprise Territory Management Predictive POS Galigeo for Salesforce	G18.0 G18.0 G18.0 Summer 2018
MapLarge	MapLarge Mapping Engine	4.x
Near	Allspark	3
Oracle	Oracle Analytics Cloud Oracle Spatial and Graph Database Big Data Spatial and Graph	18.3.3
Pitney Bowes	Spectrum Technology Platform Spectrum Spatial Spectrum Spatial Analyst Spectrum Spatial for Big Data MapInfo Pro Location Intelligence APIs	12.2.1 12.2 12.2 17 3
Ubimo	Polaris	1.23

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Vendor Profiles

We intend this evaluation of the location intelligence platform market to be a starting point only and encourage clients to view detailed product evaluations and adapt criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool (see Figure 3 and see Figure 4). Click the link at the beginning of this report on Forrester.com to download the tool.

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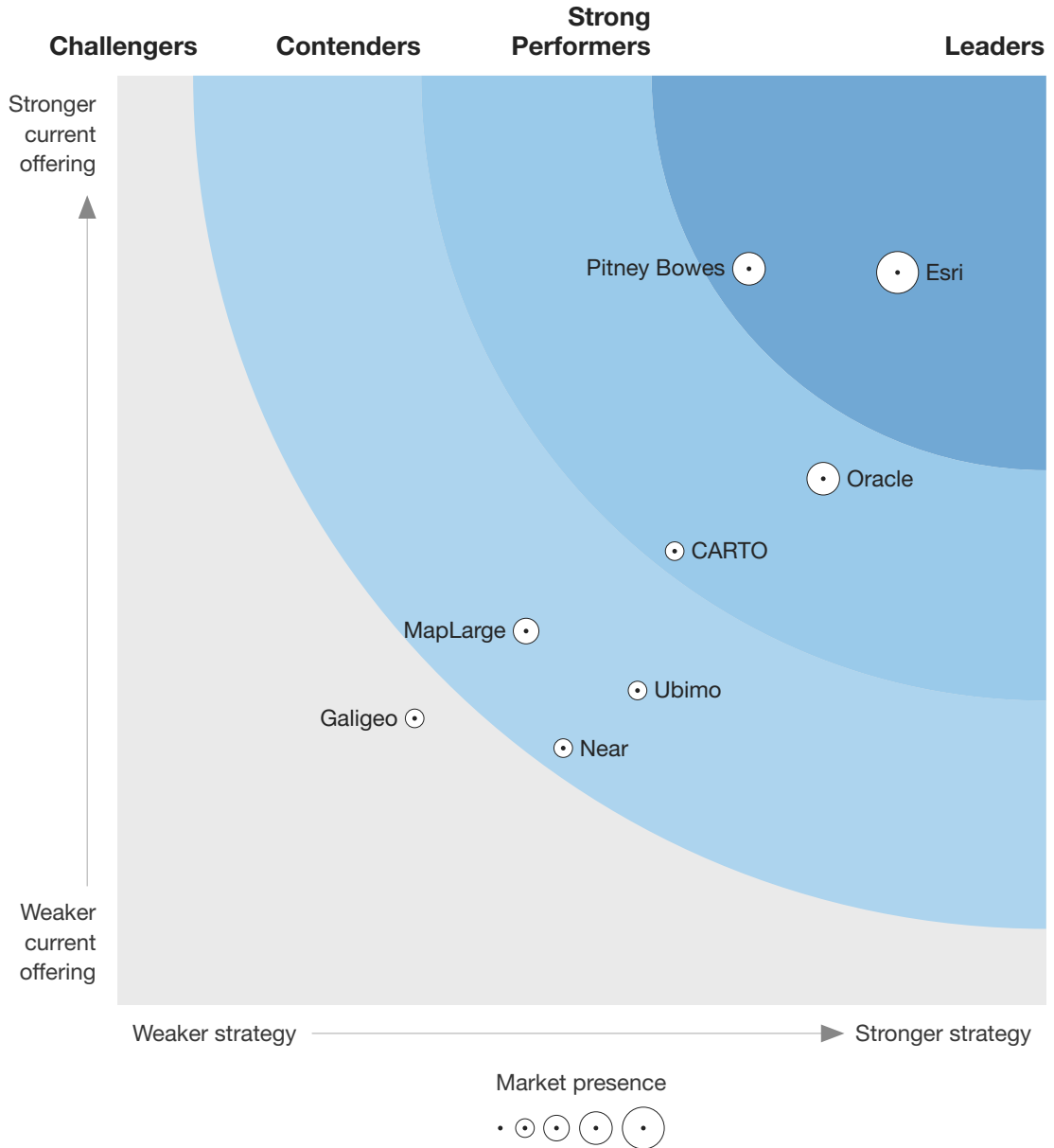
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FIGURE 3 Forrester Wave™: Location Intelligence Platforms, Q4 2018

THE FORRESTER WAVE™

Location Intelligence Platforms

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FIGURE 4 Forrester Wave™: Location Intelligence Platforms Scorecard, Q4 2018

	Forrester's weighting	CARTO	Esri	Galileo	MapLarge	Near	Oracle	Pitney Bowes	Ubimo
Current offering	50%	2.44	3.94	1.54	2.01	1.38	2.83	3.96	1.69
Location intelligence data management	20%	1.80	3.80	1.20	1.80	0.80	3.80	3.80	0.80
Spatial visualization and analytics	30%	1.80	5.00	1.40	1.80	1.00	2.20	4.20	2.00
Data products	20%	3.00	4.00	1.00	2.00	1.50	2.00	5.00	2.00
Execution and optimization	15%	2.60	4.20	2.50	2.40	1.80	4.40	3.60	1.20
Platform experience	15%	3.66	1.66	2.01	2.32	2.32	2.32	2.69	2.32
Strategy	50%	3.00	4.20	1.60	2.20	2.40	3.80	3.40	2.80
Product vision	20%	3.00	3.00	3.00	1.00	1.00	3.00	5.00	3.00
Execution road map	20%	3.00	5.00	1.00	5.00	5.00	5.00	3.00	5.00
Performance	20%	5.00	3.00	3.00	3.00	5.00	1.00	3.00	5.00
Supporting services	20%	1.00	5.00	1.00	1.00	1.00	5.00	3.00	1.00
Partner ecosystem	20%	3.00	5.00	0.00	1.00	0.00	5.00	3.00	0.00
Market presence	0%	1.66	5.00	1.66	2.34	1.66	3.66	3.66	1.68
Platform revenue	34%	1.00	5.00	1.00	3.00	1.00	3.00	3.00	3.00
Enterprise customers	33%	3.00	5.00	3.00	1.00	1.00	5.00	5.00	1.00
Deal size	33%	1.00	5.00	1.00	3.00	3.00	3.00	3.00	1.00

All scores are based on a scale of 0 (weak) to 5 (strong).

Leaders

- › **Esri.** Esri's vision for location intelligence is to help organizations understand why things happen where and when they happen, with the goal of gaining business advantage through better understanding. By continuing to evolve ArcGIS, Esri is pushing beyond the traditional GIS markets that it has long dominated into the location intelligence market. With its consolidated UI, ArcGIS brings extensive data offerings with global coverage, together with industry-leading spatial visualization and analytics — a powerful and compelling combination. However, unlike the traditional practice of GIS, location intelligence is an enterprisewide occupation where the scale of decision making, action, and application of customer experiences with location information is

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the imperative. The product has a way to go to extensively appeal beyond its traditional base of power users and spatial analytics specialists, for whom reports and dashboards are still the core output. To build on its success within this new space, Esri must plan for many more capabilities that democratize and automate the execution of spatial insights — particularly when it comes to customer engagement.

- › **Pitney Bowes.** Pitney Bowes strives to deliver insights through its address-centric location intelligence platform, which comprises six core components. These components deliver a comprehensive and scalable set of spatial analytics capabilities that typical power users, such as GIS professionals, require, but they also provide capabilities for democratizing spatial insights to business and operational users through the Spectrum Technology product. Pitney Bowes' platform is strong across most of the capabilities for location intelligence we assessed, and it scored the highest out of all evaluated vendors for its overall current offering. However, its platform integration and management capabilities are not as strong as some of the others we assessed. And while there is no doubt the vendor has a strong location intelligence platform business, it did not demonstrate the same strength across all performance indicators as some of the other evaluated vendors. To this end, Pitney Bowes should continue to transform the business and unlock further value for its customers — particularly by integrating location intelligence components more tightly together and into systems of customer engagement (e.g., marketing and product platforms).

Strong Performers

- › **Oracle.** Oracle's strategy for enterprise-scale location intelligence is to merge spatial analysis with big data and its associated technologies. In doing so, it has exploited cloud architectures and advanced analytics technologies when developing the three core components of its location intelligence offering: Oracle Analytics Cloud; Oracle Spatial and Graph Database; and Big Data Spatial and Graph. These components form the location intelligence platform, which activates solutions to consume the location information provided. The platform scores well across most of the areas we assessed and is at its best when it comes to enterprise location intelligence data management. However, the focus on database analytics has resulted in the product lacking a strong native, prebuilt GIS application, which puts the onus on partner technologies or customer builds to support the needs of spatial analytics power users. To strengthen its location intelligence platform, Oracle should build on its current enrichment and customer data products offerings and on creating a more unified user interface for accessing and managing all capabilities and components.
- › **CARTO.** CARTO's location intelligence offering, CARTO LI platform, consists of native user interfaces, applications, and libraries with which it seeks to democratize location data and analytics to aid a broad range of business users and technologists in their decision making. The platform's strength lies in its broad appeal and value to a wide range of enterprise functions, which are further enhanced by flexible deployment options and a well-integrated set of capabilities. The biggest opportunities for improvement are in some of its analytics capabilities, including those for visual discovery and advanced analytics. Also, CARTO's professional services offering for the platform is

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not as strong as that of some other vendors in this assessment. To build on its current relevance to the enterprise, CARTO must focus on more than helping users make decisions; it must strengthen capabilities that automate and scale decisions, actions, and customer experiences.

Contenders

- › **Ubimo.** Ubimo's Polaris is a panel-based marketing technology platform aimed at delivering business value to marketers via a self-service UI. Ubimo believes that location intelligence's value comes from the behavioral analysis of consumers in the physical world and its ability to fill in the missing link of the customer journey. The majority of Ubimo users come from programmatic and digital marketing teams, out-of-home advertising agencies, and marketing intelligence firms. Polaris' reporting and real-time analyses are a strength — and so is the easy-to-use, single-UI platform. Polaris lags leading location intelligence platforms in its ability to support location-based functionality across the enterprise, its features and functions supporting the true GIS power user, and its capabilities for managing spatial data within an enterprise environment. To expand beyond the realm of programmatic buying, Ubimo should consider strengthening Polaris' ability for first-party data collection and management and boosting the strength of its geospatial analysis for power users.
- › **MapLarge.** MapLarge focuses on providing a robust, extensible developer platform for its customers to create high-performing and agile location intelligence solutions that integrate with multiple types of geospatial and related data sources. Its eponymous platform caters strongly to government and security agency clients in the US, aiming to deliver mission-critical insights. MapLarge's strength is its ability to meet the high-functioning spatial processing needs of customers wishing to build mission-critical solutions that include location intelligence requirements. It meets these requirements well with an in-memory, high-speed, distributed database backed up by relevant APIs and SDKs. Despite fast and attractive processing and rendering inside the tool, the product's native spatial analytics capabilities and data offerings are not as strong as many of the other products we assessed. Also, the vendor's services strategy does not compare favorably. Given its strength as a developer platform, MapLarge must strengthen its professional services offering and its services partner network to become more relevant to the location intelligence market.
- › **Near.** Near's vision is to service location intelligence needs by leveraging panel-based location information from any entity that's moving through space and time via its Allspark platform. Allspark is a location-focused marketing platform using panel-based data on human mobility to generate time-series audience segmentations and analyses. Allspark's strength is in its globally collected and continually refreshed panel database sourced via aggregators, Wi-Fi networks, telecoms, and smartphones to generate insights that the platform surfaces. However, Allspark does not compare well to other evaluated platforms when it comes to spatial management and many aspects of spatial analytics. Near has a narrow focus on a limited set of location intelligence uses cases. To broaden its appeal to the location intelligence enterprise market and take Allspark beyond a rapidly maturing panel-based customer data market, Near must start by building out the platform's spatial data management and analytics capabilities.

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Challengers

- › **Galigeo.** Galigeo takes a business-led approach to location intelligence and has sought to democratize and embed spatial data into the business information process. With a platform consisting of four main components — Galigeo Enterprise, Territory Management, Predictive POS, and Galigeo for Salesforce — the vendor predominantly serves B2B2C use cases by analyzing, understanding, predicting, and operating on sales territories to improve business performances. The vendor executes well on this vision, and its product offers valuable sales and marketing capabilities within consolidated UIs. Galigeo makes no bones about being hyperfocused on serving the needs of French and Eurocentric clients as well as on a specific, limited set of use cases. That's why Galigeo is a niche player in the location intelligence space. But it also gives Galigeo plenty of room for growth by expanding into new geographies and building new spatial analytics and execution capabilities to boost its enterprise credentials and appeal.

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Supplemental Material

Online Resource

The online version of Figure 3 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings. Click the link at the beginning of this report on Forrester.com to download the tool.

Data Sources Used In This Forrester Wave

Forrester used a combination of three data sources to assess the strengths and weaknesses of each solution. We evaluated the vendors participating in this Forrester Wave, in part, using materials that they provided to us by August 22, 2018.

- › **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.
- › **Product demos.** We asked vendors to conduct demonstrations of their products' functionality. We used findings from these product demos to validate details of each vendor's product capabilities.
- › **Customer reference calls/surveys.** To validate product and vendor qualifications, Forrester also conducted reference calls and an online survey with three of each vendor's current customers.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria for evaluation in this market. From that initial pool of vendors, we narrow our final list. We choose these vendors based on 1) product fit, 2) customer success, and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation. Vendors marked as incomplete participants met our defined inclusion criteria but declined to participate or contributed only partially to the evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave evaluation — and then score the vendors based on a clearly defined scale. We intend these default weightings to serve only as a starting point and encourage readers to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and

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market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve. Vendors marked as incomplete participants met our defined inclusion criteria but declined to participate in or contributed only partially to the evaluation. For more information on the methodology that every Forrester Wave follows, please visit [The Forrester Wave™ Methodology Guide](#) on our website.

Integrity Policy

We conduct all our research, including Forrester Wave evaluations, in accordance with the [Integrity Policy](#) posted on our website.

Endnotes

- ¹ See the Forrester report "[Drive Intelligent Customer Interactions With Spatial Analytics.](#)"
- ² See the Forrester report "[Drive Intelligent Customer Interactions With Spatial Analytics.](#)"
- ³ See the Forrester report "[Inject Digital Intelligence Into Your Insights-Driven Business.](#)"
- ⁴ See the Forrester report "[Inject Digital Intelligence Into Your Insights-Driven Business.](#)"

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