










DATA ANALYTICS BUYER'S GUIDE

Qlik®

Top Questions to Ask When Choosing a BI Tool

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Unlocking the benefits of a modern analytics platform.

Every organization wants to be a data-driven enterprise, using data to improve decision-making, solve their most challenging problems and improve revenue and profitability for their business.

Unfortunately, traditional BI tools can't keep up with the pace of today's digital economy and the rise of new technologies like cloud and artificial intelligence. The time has come for something better – a modern analytics platform that can handle every use case your business needs, from robust reports to real-time intelligence to analytics on the go.

In this guide, we explore the criteria for the modern analytics platform that can best benefit your business – high-level considerations, specific use cases and platform capabilities. In the end, you should be well equipped to find the right platform to drive value for your business.

Organizations with access to modern analytics capabilities are **59% more likely** to see double digit revenue growth annually.

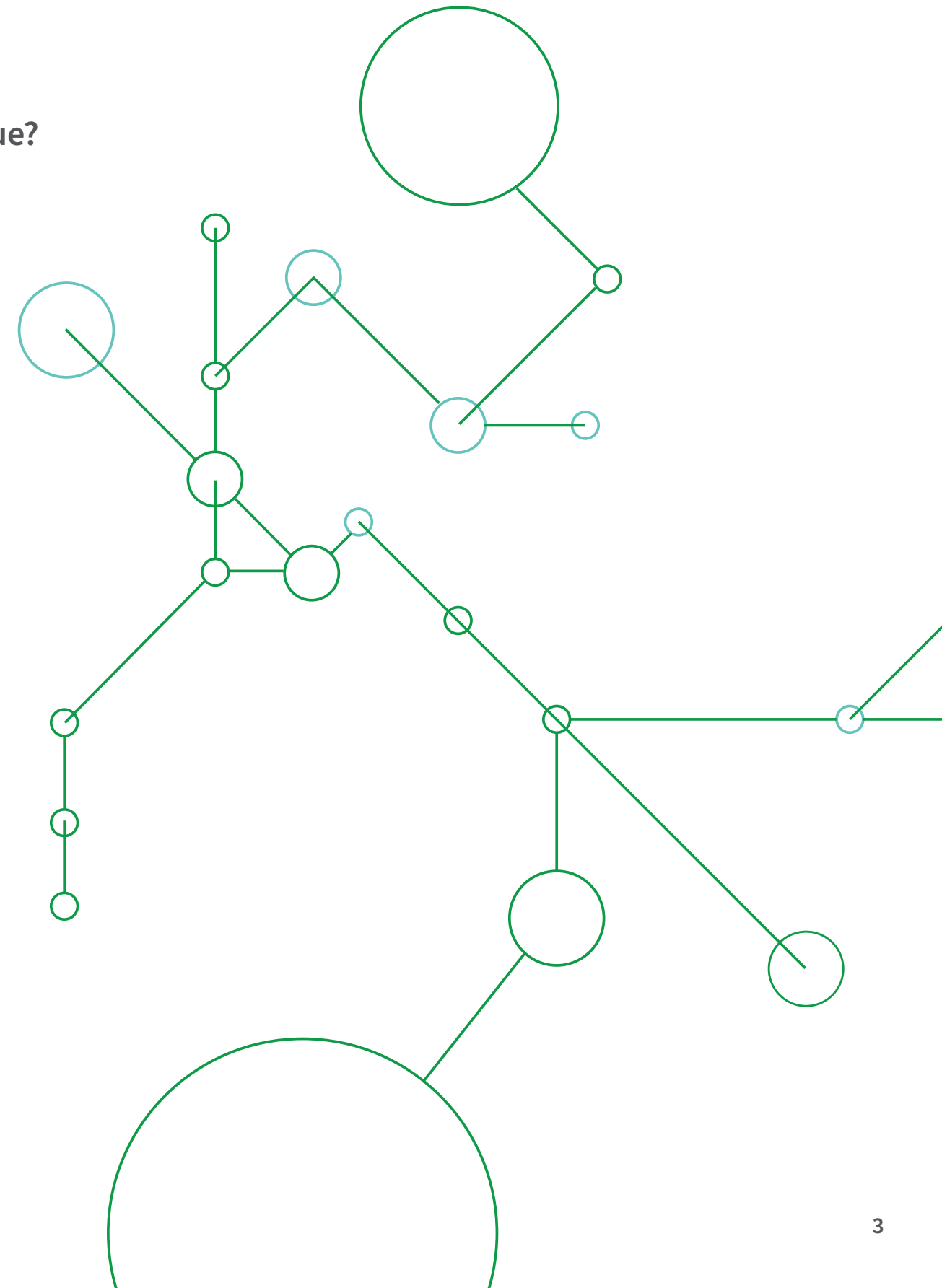
Source: *Modernizing Analytics: A New Era of Data-Driven Excellence*, Aberdeen, February 2020.
<https://go.qlik.com/Qlik-AMP-Modernizing-Analytics.html>

Where will the value come from?

Take a look at your short- and long-term goals for an analytics platform. How will BI drive value?

How do you expect analytics to impact your business? For example, are you looking to:

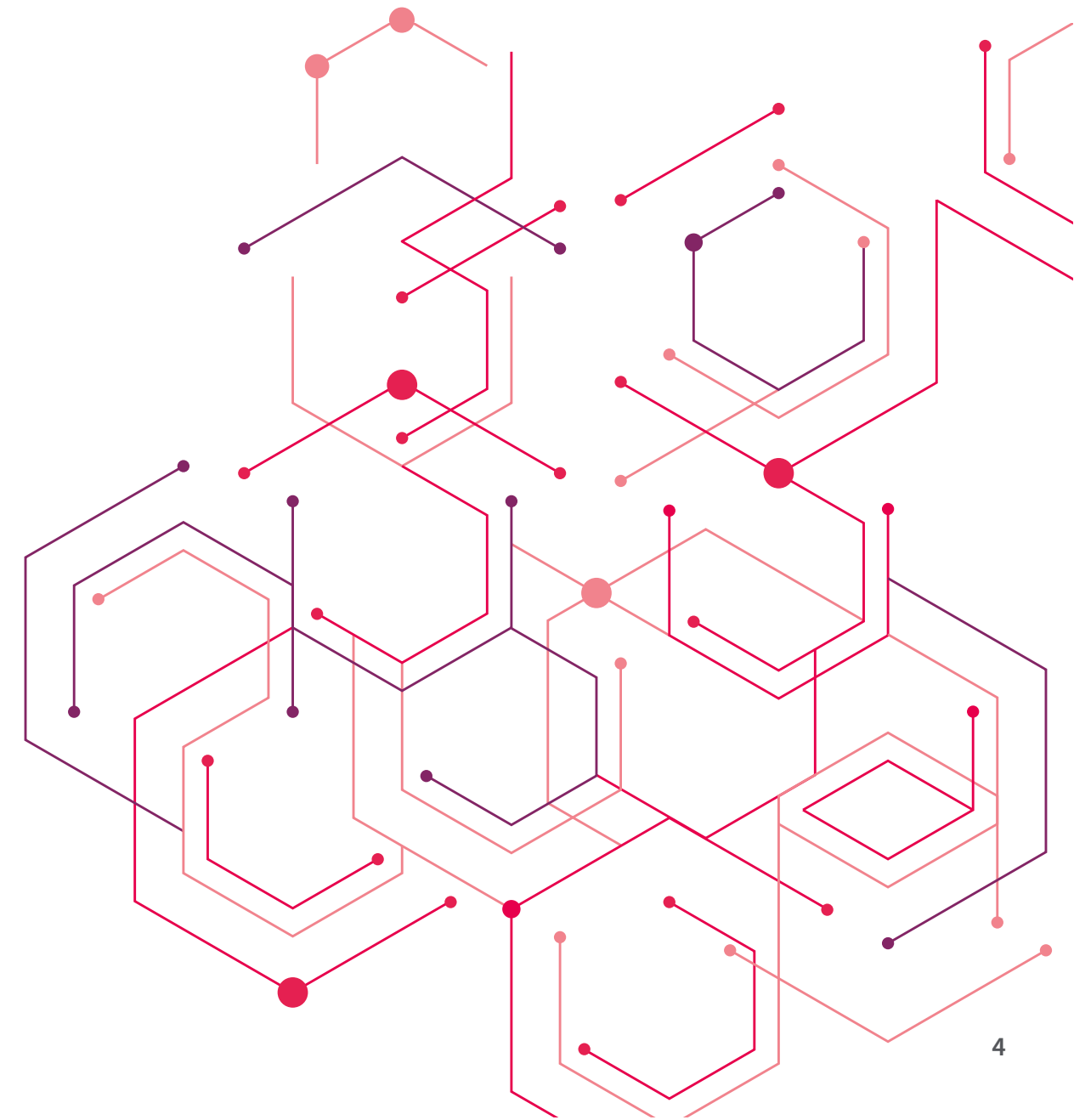
- Better understand key KPIs, what's happening in your business, and why
- Empower more people across your organization to use data
- React quickly based on changing data
- Uncover hidden insights in your data
- Use insights to make better decisions and trigger informed action
- Solve a specific business problem in your industry
- Help teams work with data on the go
- Create advanced analytics to support large strategic decisions
- Embed analytics in apps for teams, partners and customers
- Build new types of analytics for unique challenges
- All of the above



Who are your stakeholders?

If you want analytics to have a widespread impact on your business both today and tomorrow, look for a platform that will empower users of all skill levels to work with data. Your entire workforce should be able to freely explore data, uncover hidden insights, make smarter decisions and drive increased value.

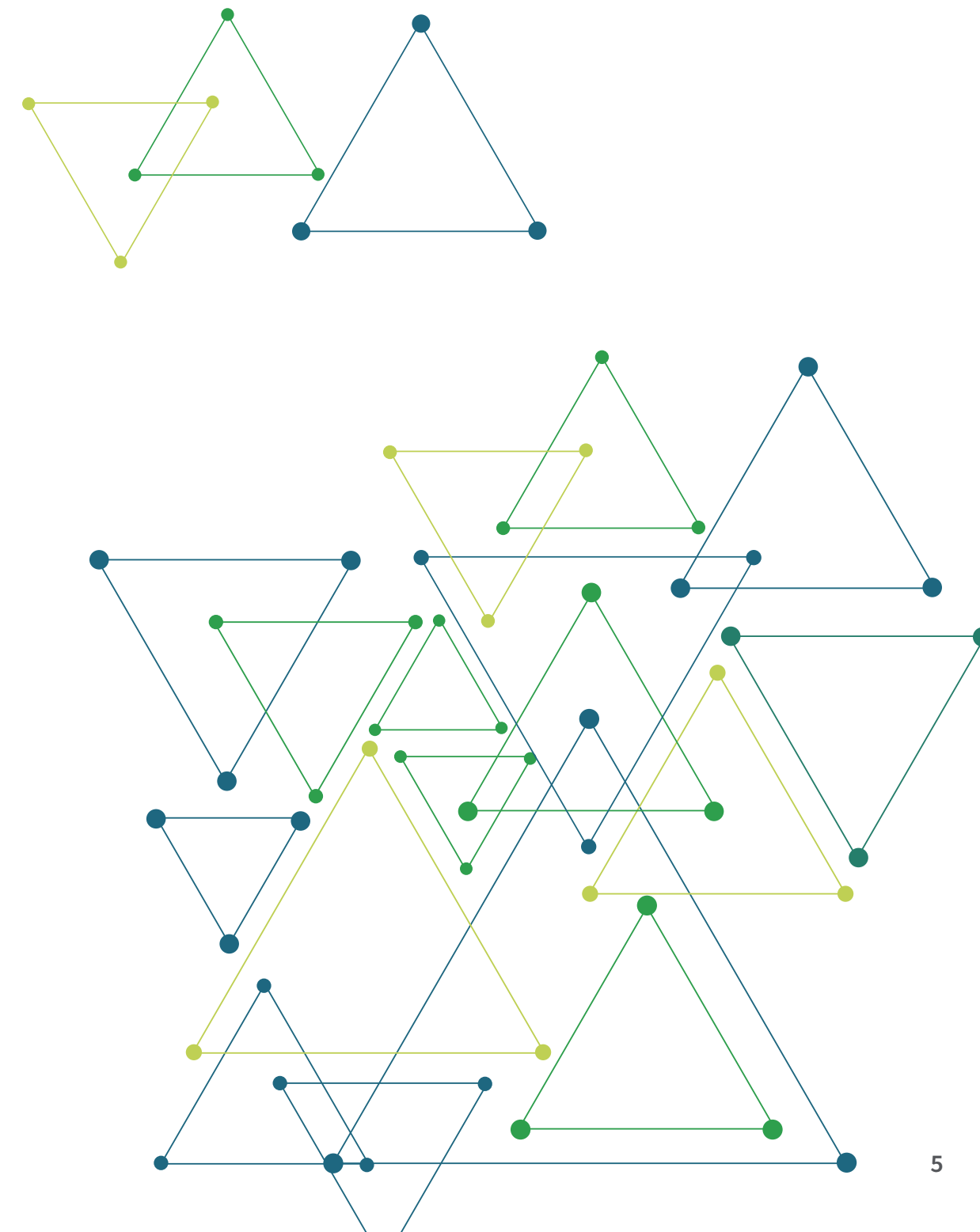
- Are you providing analytics to broad groups of users across your organization, or a small number of more skilled analysts?
- Which users will have access to dashboards, reports, natural language processing and self-service capabilities?
- Will the platform be limited to a specific business line or function, or is there a broader strategy?
- Will your workforce need mobile access to analytics?
- Are you looking to embed analytics in operational applications and workflows?
- Who will be responsible for implementing and managing the platform?
- Is there an executive sponsor or advisory board to guide the implementation and eliminate roadblocks?



What will it really cost?

Many businesses only consider the initial purchase price when choosing an analytics platform. But total cost of ownership can be much more than that. Look for competitive pricing but watch out for additional costs.

- Will you be working in the cloud with an easy-to-adopt Software-as-a-Service (SaaS) offering, or do you require a more traditional on-premise solution?
- What are the software subscription and maintenance costs – for the core analytics product, third-party products and required underlying technologies?
- Are there on-premise hardware costs – including servers for production and development, and maintenance?
- Are there flexible deployment options to meet your unique needs?
- What will you need to spend on ongoing support – including IT, vendor management, implementation costs and professional services?
- What will you spend on user training and enablement?
- What are the network, computer and storage costs?



Keep more than one use case in mind.

BI and data analytics have evolved, helping teams take on more business challenges than ever. Look for an analytics platform that can accommodate all your use cases within a unified, governed framework. For example, reporting is just as important as it was decades ago, so you shouldn't need separate architecture to support it. And if self-service data visualization is high on your priority list, you'll also want to consider the interactivity of your dashboards. Finally, with even more innovative capabilities like search and conversational analytics becoming available, you'll want a fully open platform that can be customized and extended to support every possibility.

And take users into account, too.

You have a broad range of users, all with different skill sets. This includes the business analysts who build visualizations and analytics, but also business users who want to interactively explore – not to mention senior management and executives, external clients, partners and beyond. And of course, you need to consider data scientists, data managers, developers and IT administrators, too. Your analytics platform should give everyone – regardless of their skill set – the power to make discoveries in your data.

In addition to new use cases, modern analytics platforms now offer a variety of new features and capabilities:

- Full enterprise SaaS capabilities
- Agile analytics apps
- Continuous, real-time intelligence
- Interactive exploration
- Natural language processing
- Augmented analytics
- In-memory processing
- Web mashups and custom apps
- Analytics within processes
- Data-driven workflows
- Support for multiple lines of business



Self-Service Visualization

In the best self-service visualization environments, users – and teams – can analyze all their data and make trusted, meaningful discoveries. Self-service capabilities are usually most important to power users like business analysts and analytics creators.

Visualization and creation

- Is there a broad set of visualizations, including bar/line charts, scatterplots, heat maps and histograms?
- Do visualizations inherently summarize the overall shape of the data set and help pinpoint outliers?
- How do visualizations represent data-density (millions of data points)?
- Can visualizations automatically adapt data and visual representations to different layouts?
- Is the creation interface intuitive, with drag-and drop capabilities and simple properties/menus?
- Does the creation experience use machine intelligence to suggest the right charts and analytics based on the data?
- Are repositories of visualizations, measures and dimensions available for reuse?
- How are hierarchies and rollups created?
- Is there a robust expression language for complex calculations?
- Is there a diverse library of statistical functions, including forecasting, trends and clustering?
- Can users create data subsets, variables and conditions for analysis?
- What are the geographic mapping and analysis capabilities of the product?



Self-Service Visualization

Data preparation

- Can users bring together many different data sources for analysis using a visual interface?
- When combining sources, can users be confident there is no data loss or inaccuracy?
- Is there data profiling to suggest the best relationships among sources?
- Is there additional profiling to handle various data types automatically?
- Can users load “dirty” data without having to perfectly model and clean it in advance?
- Is there a full suite of data transformation capabilities, including data manipulation, derived fields, table concatenation and binning?

- Are there broad connectivity options for SaaS, on-premise and file-based sources?
- Are there smart data prep capabilities, such as smart suggestions and descriptive statistics, to assist and automate the process?
- Can users create analytics and explore data through a SaaS client – without needing desktop software?
- Is a central repository of trusted data sources available for users?
- Is there a single enterprise-wide catalog that allows users to search, preview, select and publish data sets directly into their analytics tool?

Collaboration and sharing

- Can users easily access relevant (governed) content for their groups and teams?
- Can users publish and share content within and across teams?
- Can users search for relevant content from other users?
- Is there interactive data storytelling? Is it driven by live analytics or static in nature?
- Are comments, annotations and discussion threads available?
- Can users follow content and authors, and provide feedback?



Analytics Apps and Dashboards

Users with less sophisticated data skills still need more than static reports. They need a way to search and explore data – uncovering patterns, connections and insights that drive meaningful decisions. Interactive dashboards and guided analytics apps let you do just that, benefiting a wide variety of business users, managers and executives.

Centrally deployed apps

- Are there intuitive authoring tools for rapidly developing dashboards and analytics applications?
- Are there application-level controls and functionality for creating an interactive experience, including sliders, buttons, layout options, etc.?
- Can an application guide a user through a linear process of exploration?
- Can data be reduced dynamically, allowing the same applications to be deployed with different subsets of users, based on their entitlement?
- Can data and visualizations be packaged and deployed together within applications?
- Can apps be deployed broadly, to large communities of users across geographies, without performance loss?





Analytics Apps and Dashboards

Interactive exploration

- Are simple, natural interactive selections available in all visualizations, charts and objects?
- Can users explore without restrictions, in a nonlinear, free-form fashion (vs. restricted to a linear path)?
- Can users ask unanticipated questions, without having to rebuild content (visualizations or queries)?
- Does the application understand context (the selection state), and do all visualizations update to the new context after each selection?
- Are relationships in the selected data highlighted – both those related and unrelated to the selection?
- Are unrelated values retained in the analysis or filtered out?
- Is there panning/zooming/navigation in scatterplots, maps and other types of charts?
- Can users perform comparative analysis (compare multiple data sets)?
- Can users run what-if scenarios?
- Can users access transaction-level details at any time in the exploratory process?
- Are there bookmarks for saving context/selection state?
- Does the system respond instantly to selections/interactions?
- Can users change the properties of a chart for their own use without affecting the master object?
- Can users search across an entire app to expose matching data?
- Is search-based navigation possible, to display relevant charts and graphs?



Search and Conversational Analytics

Analytics is no longer just a visual medium. Natural language processing and generation now make it possible for users to converse with their analytics, asking questions and receiving answers using natural language. Powered by AI, search and conversational analytics will continue to get more sophisticated and helpful over time.


Search-based visual analysis

- Is natural language processing (NLP) available, so users can ask questions using simple conversational language?
- Is there sophisticated NLP available that can parse natural language and understand user intent?
- Does natural language processing support multiple languages?
- Can the platform auto-generate relevant visual analytics in response to questions?
- Can the platform provide narrative insights along with visual results?
- Can the platform auto-generate advanced analyses such as clusters and correlations?
- Are natural language processing and insight generation behavior customizable?
- Can users customize insights and directly add them to dashboards for interactive analysis?
- Does the platform use machine learning to improve the insights provided over time?

Search and Conversational Analytics

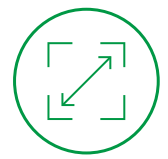
Conversational analytics

- Do users have access to an AI chat assistant to guide them through data analysis?
- Is natural language generation used to provide narrative insights and key observations from data?
- Does the chat assistant provide visual insights along with narrative answers?
- Can you switch from conversational answers to visual analytics to explore further, without losing context?
- Can the assistant understand shorthand and everyday language like “last year” or “10k”?
- Can users ask the assistant more sophisticated questions about comparisons and predictions?
- Does the assistant understand context, allowing users to ask follow-up questions without repeating the entire framework?
- Does the assistant make suggestions for additional questions to ask?



By 2025, AI for video, audio, vibration, text, emotion and other content analytics will trigger major innovations and transformations in 75% of Fortune 500 global enterprises.

Source: Gartner, *Top 10 Trends in Data and Analytics, 2020*, Rita Sallam, Svetlana Sicular, et al., 11 May 2020. <https://www.gartner.com/smarterwithgartner/gartner-top-10-trends-in-data-and-analytics-for-2020>.



Custom and Embedded Analytics

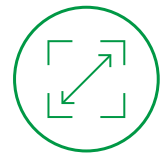
Using public APIs, developers can create fully customized analytics apps for just about any situation or purpose. And with embedded analytics, you can weave dashboards and visualizations into your operational apps, so even more users can make discoveries with your data.

Open APIs

- Is a complete set of public and documented APIs available for customizing and integrating applications?
- Do these APIs include a full range of access (from high level down to engine level) and administration/management access?
- Are the same APIs used to build the product exposed for developers to use?
- Are the APIs easy to use for developers with standard skill sets (HTML5, JavaScript, .NET)?
- Are supporting API documentation, tutorials and examples available?

Custom and embedded analytics

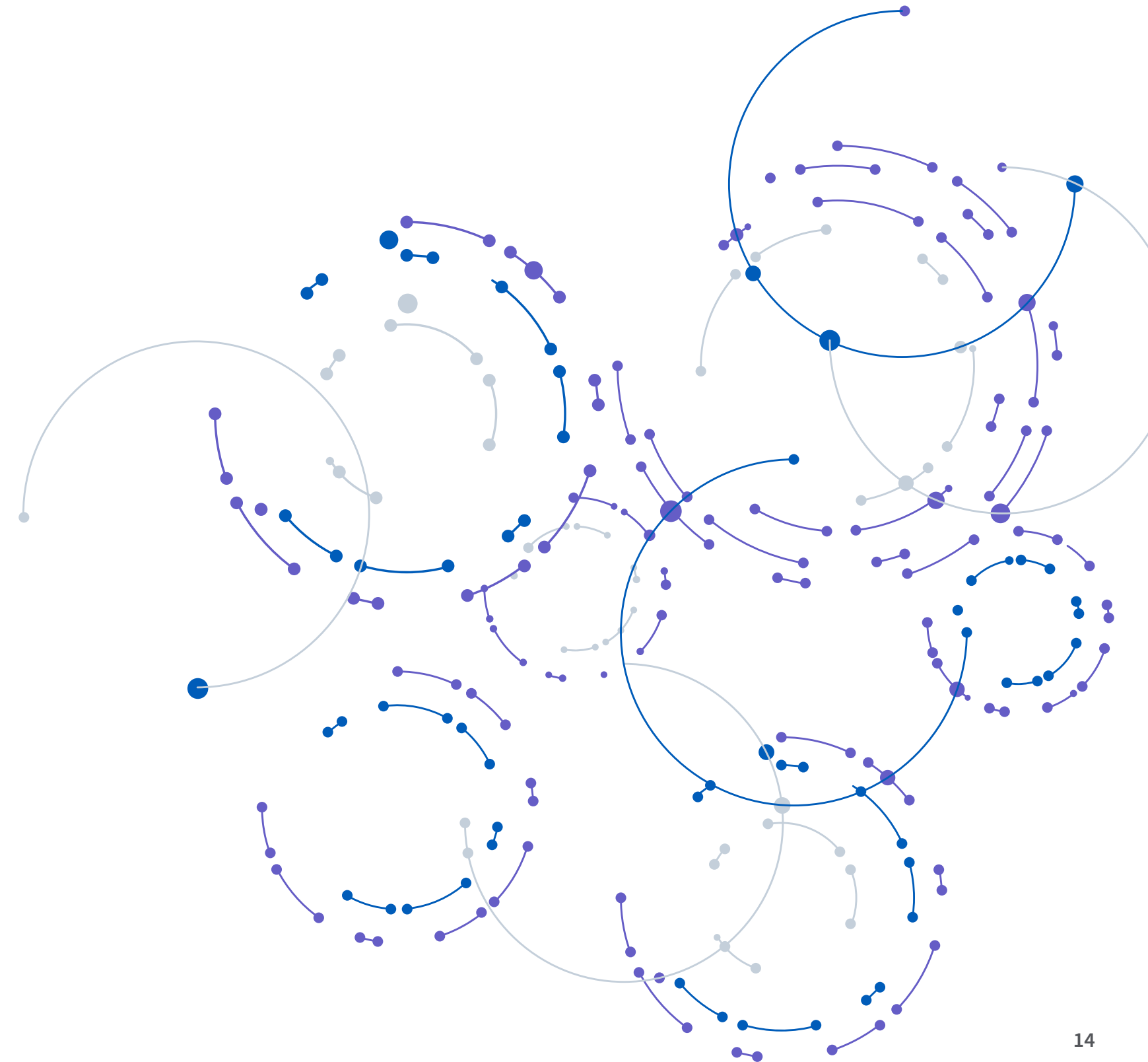
- Can developers easily create scalable web applications and mashups?
- Can users build fully customized analytics applications?
- Can users embed analytics in operational apps and existing workflows?
- When analytics are embedded, is there full interactivity, and do all analytics update in context together when selections are made?
- Can externally facing web apps be created and exposed for customer or partner access, with full interactivity?
- Can the platform support integration with ISV offerings in an OEM framework?
- Does the platform offer white-labeling or theming support?



Custom and Embedded Analytics

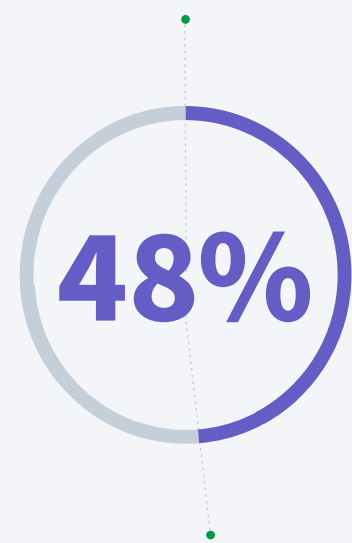
Platform extension

- Can developers build new types of data visualizations for specialized analytics use cases?
- Can developers extend product functionality using new types of application components?
- Can custom connectors be built for third-party engines and data sources?
- Are easily accessible catalogs of extended solutions available?
- Is there a developer-supported community for APIs, embedding, customization and extensions?



Mobile Analytics

Mobile analytics extend the value of BI beyond the office walls, making it possible for any member of your workforce to explore your data on nearly any device. Mobile capabilities tend to be particularly important to salespeople, field business users and executives.



Percentage of employees who will likely work remotely at least part of the time after COVID-19.

Source: Smarter with Gartner, 9 Future of Work Trends Post-COVID-19. <https://www.gartner.com/smarterwithgartner/9-future-of-work-trends-post-covid-19>

Analytics capabilities

- Does the platform offer an enhanced user experience optimized for mobile devices?
- Is the full set of analytical capabilities available on mobile devices?
- Is mobile analysis based on live data and calculation, or pre-aggregated data sets and snapshots?
- Is full interactivity available on mobile devices, including search and selection, allowing users to answer unanticipated questions?
- Can users fully navigate objects, including scroll, zoom and pan, and access all menus?
- Is the solution secure and governed, with enterprise-grade data and user security?
- Is there an additional cost for mobile analytics?
- Are data alerts with push notifications available on mobile?



Mobile Analytics

Mobile devices

- Is there support for all devices and form factors, including iOS, Android and Windows devices?
- Is the user interface touch-based, with a full range of intuitive interactions?
- Is the user interface designed/sized appropriately for touch?
- Are analytics and UX design responsive, adapting visuals, data and functionality for the best experience on any device?
- Is there an optimized experience for small handheld devices?

Online and offline

- Is there support for both online and offline use?
- Can users conduct full exploration and analysis when offline, including search and selection, allowing for unanticipated questions to be answered?
- Is there an analytics engine running locally on devices, or just static views of data?
- Can users choose applications and subsets of data they want to download for offline use?
- How are offline apps and data refreshed when updates occur?

Reporting and Alerting

Monitoring business performance and distributing reports are basic business necessities, so any analytics platform you choose should make these tasks intuitive and easy. Reporting and alerting tend to be most important to more passive users, like executives and operational teams.

Reporting

- Can the platform adequately replace legacy BI/reporting environments?
- Is there self-service access to reports?
- Does the reporting environment leverage analytics and objects already built in the core platform applications?
- Can users generate reports directly from analytics apps, with data based on their selections?
- Can users export data from analytics apps to spreadsheets, presentations and PDF documents?
- Is there support for a variety of report formats?
- Can the platform centrally produce and distribute reports, with data specific to each recipient?
- Can reports be delivered through a number of channels?
- Does the solution scale to high volumes with secure data and distribution?

Reporting and Alerting

Alerting

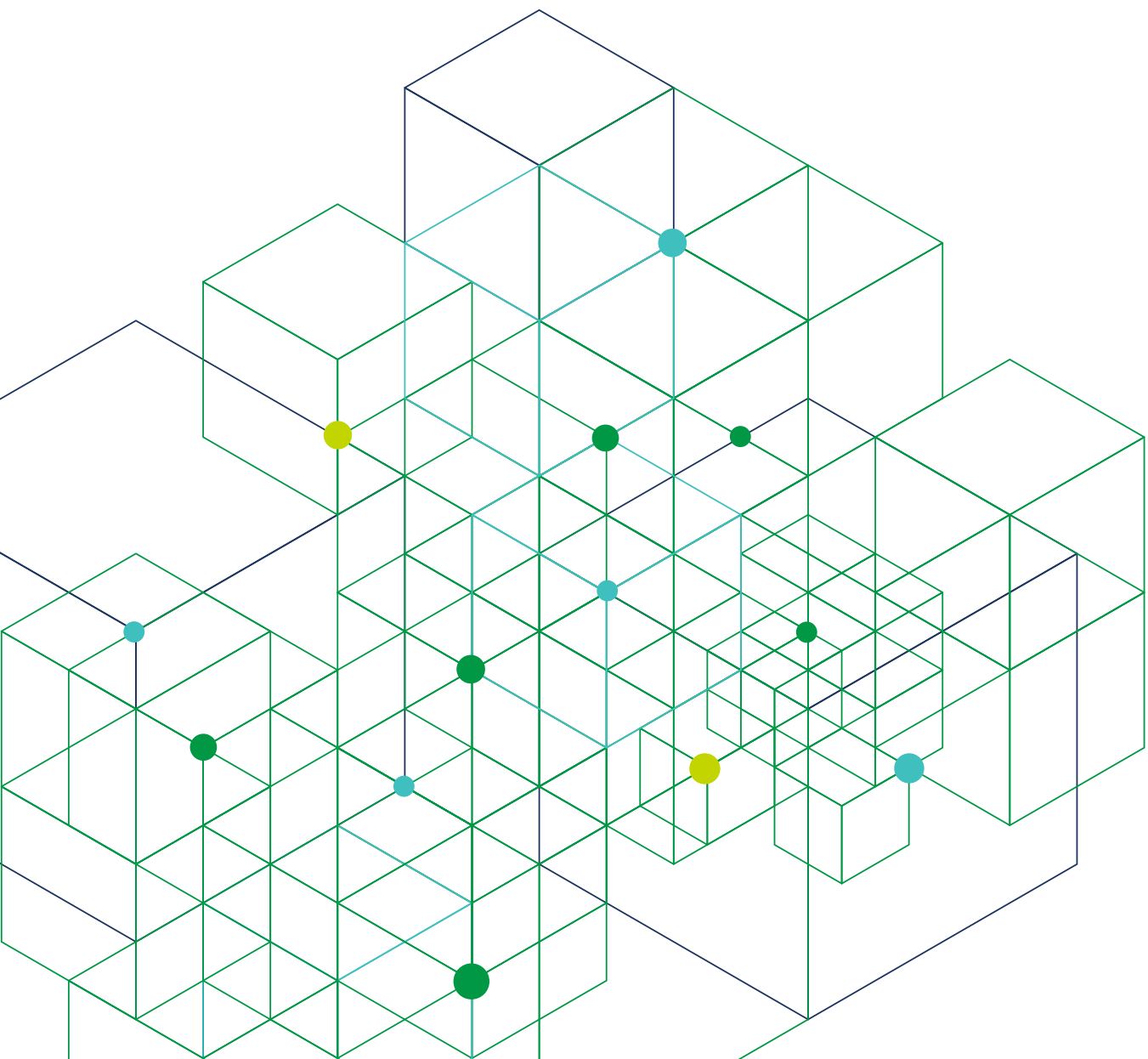
- Can users receive alerts and notifications based on conditions in the data set?
- Can you set alerts based on more advanced criteria than simple KPI thresholds, such as statistical evaluation of new data against thresholds, comparisons between measures and condition and/or logic?
- Can you evaluate and trigger alerts based on individual dimension values?
- Are alerts only tied to specific visualizations or are they based on the entire data set?
- Do alerts link to in-context dashboards for further exploration – the right sheet, with the right selections applied?
- Can users define their own alerts through a simple self-service UI?
- Can administrators define and manage centralized alerts and distribute them to large groups of users?
- Can alerts be triggered both on a scheduled basis and on data reloads?
- Can alerts be delivered via customizable email, through the web interface, and on mobile devices?

Platform-Wide Analytics Capabilities

After you check the boxes on use cases, think about the core set of capabilities that you need to set yourself up for success. Easy data access, broad deployment options and centralized governance lay a solid foundation for the best modern analytics platforms.

Cloud/on-premises deployment

- Can the platform be seamlessly deployed and accessed from combinations of on-premise, private cloud and public cloud sites?
- Can the platform be deployed as a complete Software-as-a-Service solution?
- What data sources can be accessed from the cloud?
Does all data need to be moved to the vendor's cloud?
- Are hosted private cloud offerings available and managed by trusted third parties?
- Is a public cloud offering hosted by the vendor?





Platform-Wide Analytics Capabilities

Data and connectivity

- Is self-service data preparation for business users available?
- Are there more powerful ETL tools, or scripting for complex data integration, transformation and modeling?
- Is there a broad set of connectors for file-based, on-premises, cloud and web sources?
- Can many different data sources be combined for analysis without data loss or inaccuracy?
- Does data need to be fully modeled and cleaned before it can be made available?
- Will the data sources remain up-to-date as changes occur to the underlying data?
- Are there both full and incremental data reloads, both scheduled or event-based?
- Can the platform handle streaming data?
- Can the platform connect to a variety of big data sources?
- Can the platform scale to massive data sets without sacrificing speed or flexibility of analysis?
- Are there facilities for user-driven dynamic reduction of big data sets for analysis?
- Can users combine big data and “small” data, such as user-provided spreadsheets?



Platform-Wide Analytics Capabilities

Data catalog

- Are all required data sources, regardless of whether they're on-premises or in the cloud, accessible?
- Is there a complete and accurate catalog of metadata associated with each data source?
- Is the lineage of each data set preserved as the data is prepared, so a user can understand its origin, evolution and meaning?
- Is there a global mechanism for offering governed data sources to users for analysis?
- Are the validation, profiling and quality-checking of data done automatically?
- Are data consumers able to select new datasets for themselves?
- Does the data catalog have sufficient governance so users can only access authorized data?
- Can Personally Identifiable Information (PII) be selectively protected and, if necessary, obscured from general viewing?
- Is the catalog restricted to data used by a particular BI tool?
- If the organization uses multiple BI products, can the catalog interact with all of these tools?

Advanced analytics and augmented intelligence

- Are there onboard, platform-wide capabilities for generating insights, automating tasks and supporting natural language interaction?
- Is machine learning available to enhance analytical processes and help improve the accuracy and relevance of insights?
- Is self-service data preparation augmented with machine intelligence to assist users and automate processes?
- Does the platform perform advanced analytics calculation such as clustering and correlation?
- Is there a business logic layer available to customize insight generation and natural language processing?



Platform-Wide Analytics Capabilities

Geospatial analytics

- Is advanced multilayer geographic mapping available?
- Can advanced maps use a variety of shapes, symbols and other visual representations?
- Is advanced geospatial calculation available?
- Does geospatial calculation support combining location and non-location data?
- Are geocoding services offered?

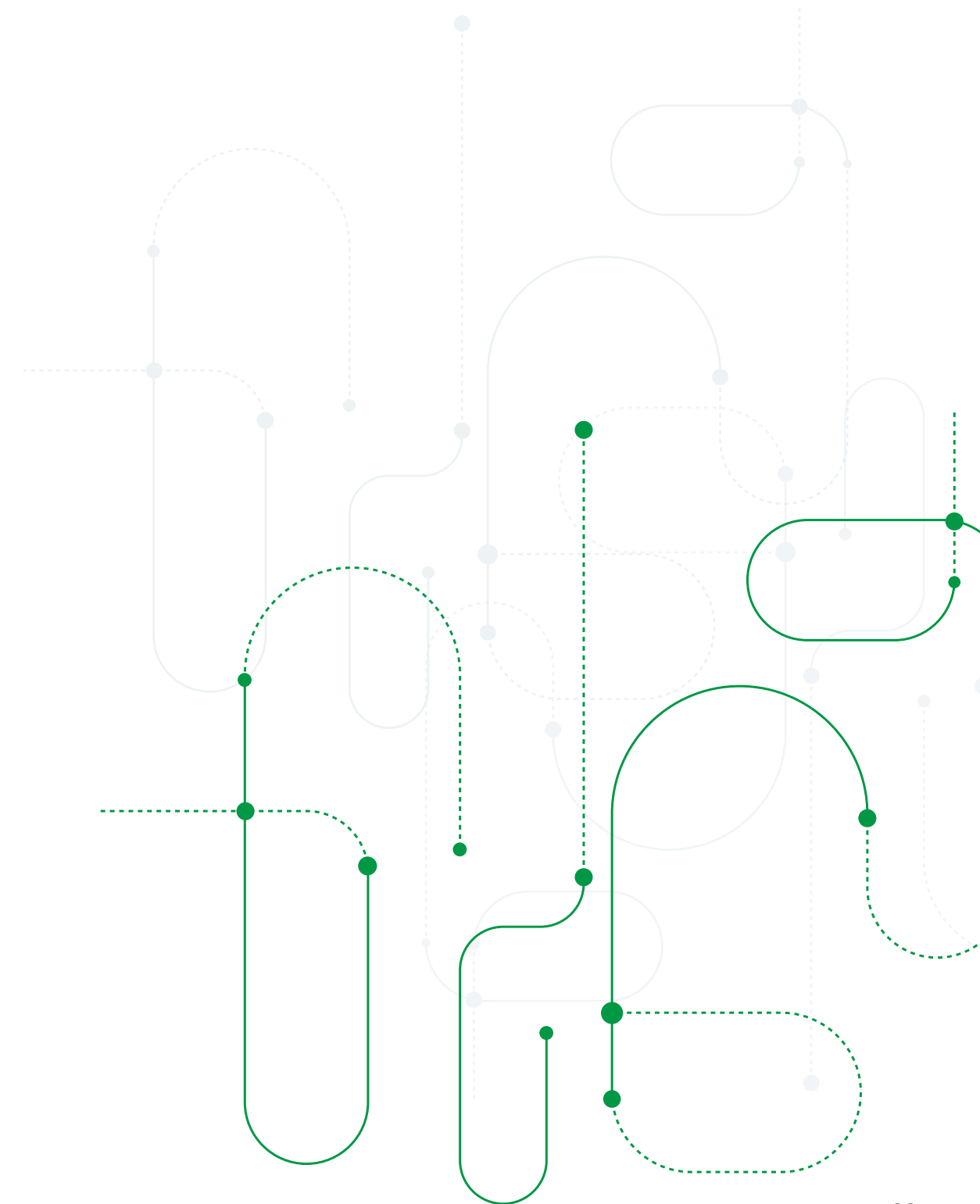
Collaboration hub

- Is there a central point of access or hub for all users?
- Can governed content be made available based on role, workgroup and function?
- Can users publish shared content for others to use?
- Can users search globally for analytics content and data?
- Are social features supported, such as discussions, digests, following, rating, etc.?
- Can users organize and monitor custom content directly from the hub?

Platform-Wide Analytics Capabilities

Core analytics engine

- Is the platform driven by a high-performance, in-memory analytics engine?
- Is the engine limited by a legacy SQL/query-based architecture?
- Does the engine perform dynamic calculation or rely on pre-aggregation?
- Does the engine support free-form, nonlinear exploration and search?
- Does the engine understand context (selection state) and maintain a global context across an application?
- Does the engine understand the relationships within data – both the related and unrelated values – relative to selections?
- Are relationships between tables and data sets managed by the engine?
- Can the engine scale to support large data volumes and high numbers of concurrent users asking unanticipated questions?





Platform-Wide Analytics Capabilities

Client and administration

- Is the core analytics client web / SaaS-based – using HTML5/web technology for all functions – or does it require desktop installation?
- Do all clients (web and mobile) deliver the same analytics capabilities?
- Is there support for multiple languages and accessibility?
- Is there a centralized management and administration interface?
- Does the management interface allow you to administer apps, data sources, users and workspaces?
- Does the management interface provide access to all configurations, including tasks/scheduling, security, governance, deployment and entitlements?

Architecture

- Is the architecture modular and workload-optimized (containerized, microservices-based, etc.)?
- Is there support for high availability and failover?
- Where do the data and analytics physically reside?
- Are there capabilities for distributing content across environments?
- Is the platform a unified architecture without multiple disconnected components?



Governance and Deployment

Security and governance

- Can all of your organization's analytics use cases be handled seamlessly within a unified, governed platform?
- Are there governed repositories of measures, dimensions and analytics content?
- Are governed data sources available for analytics use?
- Are there governed workspaces for teams and business functions?
- Is there a flexible security model?
- Does data security/reduction extend down to the row and column level?
- Is there auditing/usage analysis for analytics apps, content, data and objects?
- Can the platform integrate with third-party security and management tools?
- Is app version control/integration available?

Scalability

- Does the solution scale across multiple sites, including SaaS and privately managed sites (private cloud and on-premises)?
- Does the solution scale to large numbers of concurrent users?
- Does the solution scale to large data volumes?
- Does the solution scale across geographies?
- Can the analytics engine scale and still offer dynamic calculation without impacting performance or flexibility?

Additional Considerations

Solutions

- Does the vendor offer industry expertise and solutions for specific use cases?
- Are there defined solutions/offerings for business functional areas (sales, finance, IT, etc.)?
- Does the solution offer app templates and starter apps?
- Does the vendor have industry and functional experts with deep domain experience?

Services, training, enablement and support

- Does the vendor have a good track record for resolving technical support issues?
- Does the vendor offer consulting services that span requirements, development and deployment?
- Do support services offer timely, proactive support, ensuring quality and reliability?
- Is a wide variety of training and enablement available on demand and in person?
- Does the vendor offer data literacy training?
- Does the vendor offer partner and ecosystem support?

Broad user community and ecosystem

- Is there an active community of users for knowledge-sharing?
- Is there a robust ecosystem of partners with skills specific to both industries and use cases?
- Are there online marketplaces for partner solutions and offerings?
- Are there open-source communities for developers to accelerate innovation and share ideas?

Additional Considerations

Reputation

- How is the vendor regarded by major industry analysts?
- Does the vendor have a broad base of satisfied and loyal customers?
- Is the vendor known for its commitment to customer success, including ongoing engagement with customers?
- Does the vendor offer a clear roadmap for planned features and innovations?

Pricing and packaging

- Are pricing and packaging simple and easy to understand?
- Are there subscription-based and perpetual pricing options?
- Is there specialized pricing for specific types of customers, such as OEM?

Adoption and usability

- Is the user experience simple and intuitive across product areas?
- Is the user experience consistent across product areas?
- How well does the user interface progressively reveal complexity as users need and want it?
- Does the solution strike the right balance between being self-service-oriented, offering a full range of capabilities and also affording IT administration and oversight?

It's time to make the right choice for your data.

A modern data analytics platform will empower your team with the insights they need to take action here and now. By putting the power of continuous, real-time intelligence in more people's hands, you're helping make every decision better and accelerating value across your business. We hope this guide helps you select the ideal platform for your organization.

Additional Resources

[Gartner Magic Quadrant for Analytics & Business Intelligence Platforms](#) →

[What Makes Qlik Different](#) →

[Qlik Products](#) →

[Qlik Sense Overview](#) →



Why choose Qlik?

Qlik® is the only complete analytics solution on the market that helps you free, find, understand and trust your data so you can act on it in real time. With our AI-powered, self-service, data analytics platform, you can:

- ✓ **Bring actionable data into every business decision**
- ✓ **Give everyone – at any skill level – the power to explore data with our unique Associative Engine**
- ✓ **Take action on your data with an agility that balances risk and reward**

With Qlik, you can empower your data users to follow their curiosity, explore their data freely and make transformative discoveries.

To start your free trial of Qlik Sense, or to learn more, click below.

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ABOUT QLIK

Qlik's vision is a data-literate world, where everyone can use data and analytics to improve decision-making and solve their most challenging problems. Our cloud-based Qlik Active Intelligence Platform delivers end-to-end, real-time data integration and analytics cloud solutions to close the gaps between data, insights and action. By transforming data into Active Intelligence, businesses can drive better decisions, improve revenue and profitability, and optimize customer relationships. Qlik does business in more than 100 countries and serves over 38,000 active customers around the world.

