



EVERYWHERE INFUSE ANALYTICS

3 Use Cases for the All-New Sisense Notebooks

Analytics today: Inadequate to meet current data challenges

Business intelligence and analytics (BI&A) tools today provide nontechnical business users with the insights they need to solve well-defined problems. But as business problems become more sophisticated, diverse datasets and data lakes need to be brought in to supplement existing datasets. BI&A tools are unable to provide the kind of compounded insights needed to solve the more complex, less-clearly defined problems that advanced data brings.

Analyst teams within the company spend most of their time solving these “open ended” problems, often using code-based techniques in SQL, Python, and R. Since these tools operate outside of the self-service BI environment, there is a big gap in how analysts can integrate their data and insights to help business users arrive at optimal decisions.

Analysts and business users need an integrated solution that is accessible to both roles in order to capitalize on the full potential of analytics.

Businesses feel the need for speed

Speed to insight is one of the most sought-after business values in the new normal.

Speed to insight is a key differentiator and can distinguish the market leader from the also-rans. Companies that can quickly leverage the data analytics and spot trends early on, to build more robust supply chains, reduce costs, and respond with agility to customer behavior patterns, deliver greater market share and profitability.

Nontechnical business users rely on self-service BI tools to get the insights they were missing, while analysts seek their answers outside of the self-service system. But for true analytics acceleration, you need more.

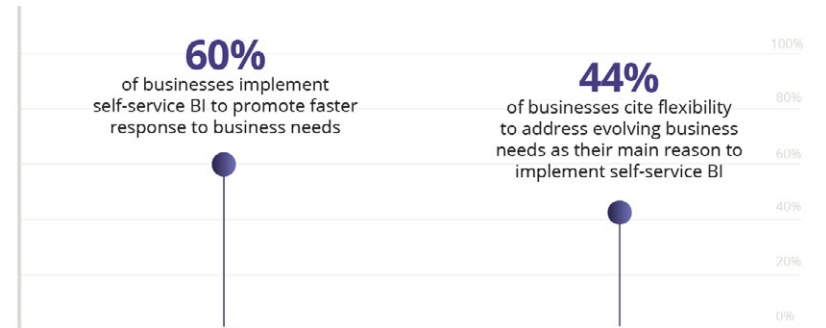
Challenges of integrating BI

BI environments require upfront data modeling in order to extract the maximum juice out of the vast amounts of data that businesses generate. These reside apart from other code-based systems, and thus are slow and unwieldy when combining data in novel ways to answer new questions.

Code-driven tools are excellent for novel analysis, but are challenging for business users to operate and generally require data expertise to leverage.

This means the utility of insights is limited, since nontechnical business users cannot further explore results on their own.

What if you could have a platform that seamlessly answers the questions of both the code-first analyst and the code-free business user?



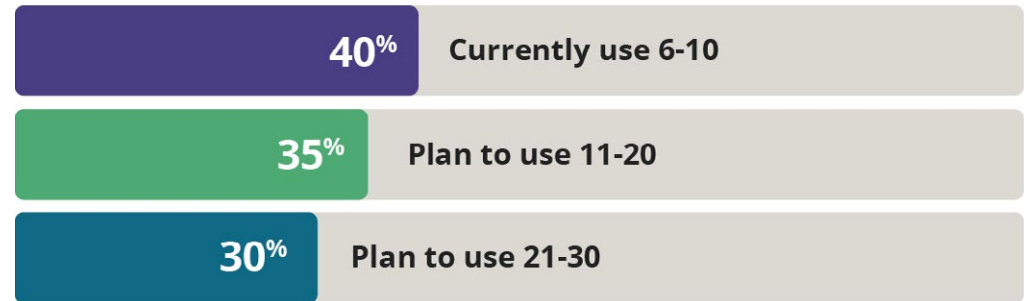
Source: IDC report commissioned by Sisense, 2020

Data complexity has impact on time to insight

An IDC survey commissioned by Sisense reveals that analysts and IT professionals find limitations to existing BI solutions. Their solutions lack the capabilities to synchronize and collaborate on advanced analysis utilizing multiple data sources.

Q: How many data sources does your organization use or plan to use for analytics?

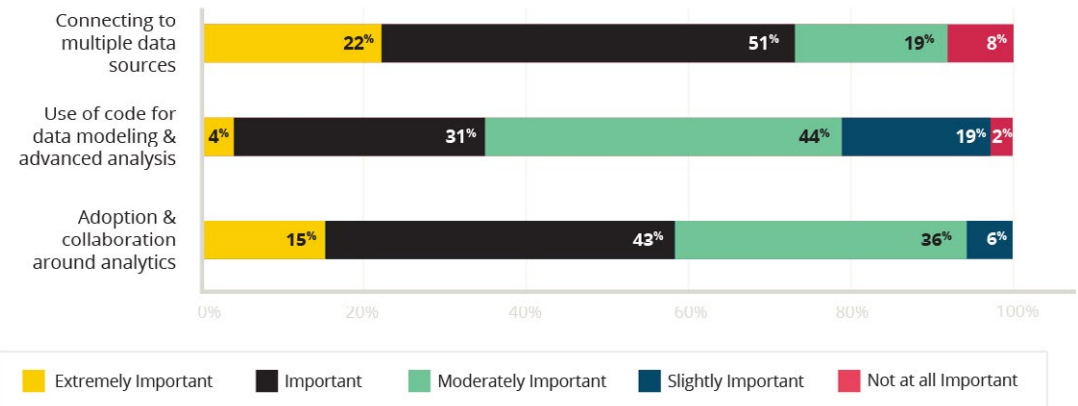
Number of data sources



Source: IDC report commissioned by Sisense, 2020

Q: How important are the following analytics capabilities for your organization?

Top Analytics Capabilities



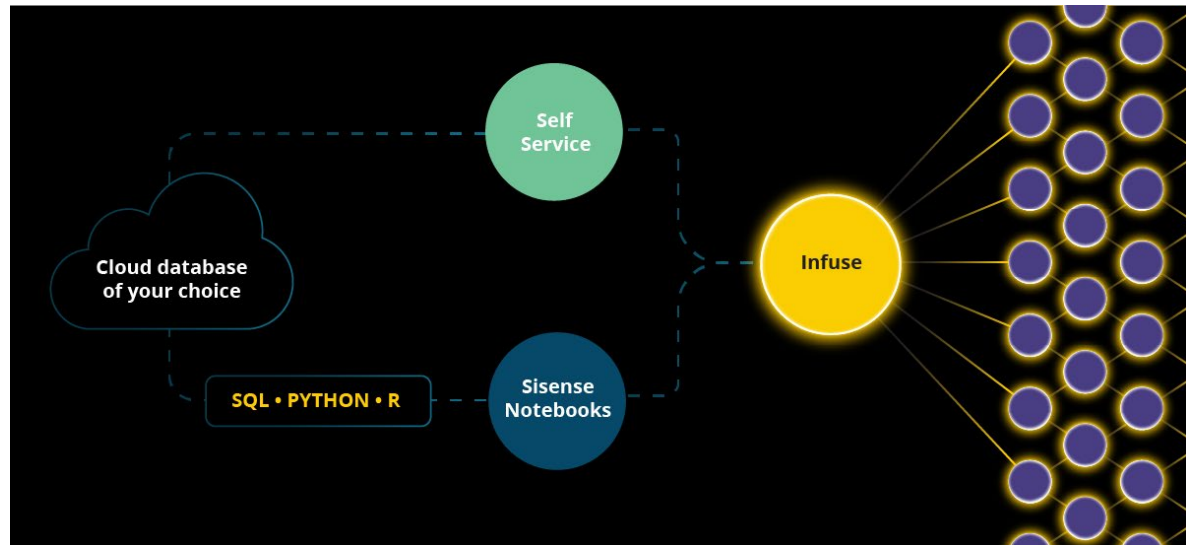
Source: IDC report commissioned by Sisense, 2020

Integrated self-service BI: Code-first and code-free

Sisense's new Notebooks functionality bridges the crucial gap in the analyst's workflow, which is a stumbling block to better analysis and time to insight. By integrating code-driven, specialist analysis tools into a self-service BI environment, Sisense enables insights delivered by data teams to be fully incorporated and quickly leveraged by business users.

Sisense's Notebooks functionality offers a powerful way to integrate data and code-first analytics to respond to dynamic business conditions with greater agility. Analysts are now empowered with the much-needed flexibility and versatility required to bring in a wide range of data sources and libraries to conduct advanced analyses using procedural code and deliver the results back into the self-service BI environment.

The result: quicker, more robust insights to enable faster decision-making.



The new analyst playground: Sisense Notebooks

1. For the first time, analysts can perform advanced analysis within the self-serve BI environment without having to use separate tools to access SQL, Python, and R.
2. Sisense Notebooks enables SQL, Python, and R to be combined into a truly integrated workflow, so that the analyst goes from model design to advanced analysis to visualization to source control, all in one location and with the highest degree of data security.
3. Analysts can write groups of SQL queries that reference previous results for more streamlined yet deeply granular analysis.
4. Unlike in most self-service BI tools, visualizations here are easier to create with the multi-cell SQL editor because no upfront data modeling is required — saving significant time.
5. This functionality enables the data professionals who can explore data using code tools — which are fast and flexible for experienced users — and deliver results in a full-featured self-service environment where business users can answer all their drill-down and follow-on questions without continued help from the data professional.

The result: seamless integration of data and visualizations coupled with faster time to complete analysis and arrive at insights.

3 use cases with **Sisense** Notebooks

1. Connect and query

With Sisense Notebooks, analysts can bring several data sources together and quickly query them to present insights through powerful visualizations. For example, marketers want to know why a campaign is underperforming. The self-service dashboard will show which campaigns are underperforming, but often cannot explain the cause. The campaign will continue to struggle until an analyst can dig deeper and look under the rocks to pinpoint the factors that lead to underperformance.

With Sisense Notebooks, analysts can directly connect to a database containing CSV data, that has, for example, GDP, and run a regression to understand the impact of macroeconomic factors on the campaign.

Analysts can further leverage geospatial analysis with Python and Notebooks to identify outside variables to help marketers deeply personalize their campaigns right down to ZIP code level and enable them to respond with greater agility to dynamic market trends.

2. Use custom libraries for improved visualizations

Analysts can now process data with Python/R and extend visualization with a vast set of custom libraries. Having access to Python and R libraries

enables analysts to integrate domain-specific visualizations in Sisense.

For example, logistics providers often need to visualize geospatial information. Analysts can easily do this with the choropleth library available in Python and deliver insights within the self-service BI environment to help business users make decisions. Vastly improved visualizations can help spot outliers, detect trends, and see clearly which areas require a deeper dive to better understand the variables that affect a business problem.

3. Go further with predictive and prescriptive analytics

Standard BI&A tools provide historic and descriptive analytics that can leave business users in the dark about what needs to be done to improve the problem. With Sisense Notebooks, analysts can deliver predictive and prescriptive analytical solutions for important business decision-making. Additionally, they can infuse these actionable insights exactly at the right time and place where business users need it to prompt next steps.

For example, healthcare providers treating patients can use expert systems libraries to act upon specific patient data that is available in Sisense dashboards and recommend diagnostic procedures.

Accelerate insights and business growth

Solving common data challenges is a step in the right direction toward business growth. Analysts have spoken up on the limitations of existing BI solutions:

"Transforming data into insights is time-consuming."

*"We need to enhance our ability to extract data from different data sources so we can generate effective insights from our data faster." **

Data execs, rest assured we've got your back. With Sisense Notebooks, you get the powerful advantage of an integrated BI environment that smashes the barrier between analytics, infusing analytics everywhere to accelerate insights and every business decision.

Curious to learn more about Sisense Notebooks?
Our technical Q&A has further insights.

*Quotes from data executives in the Sisense-commissioned IDC Report 2020.