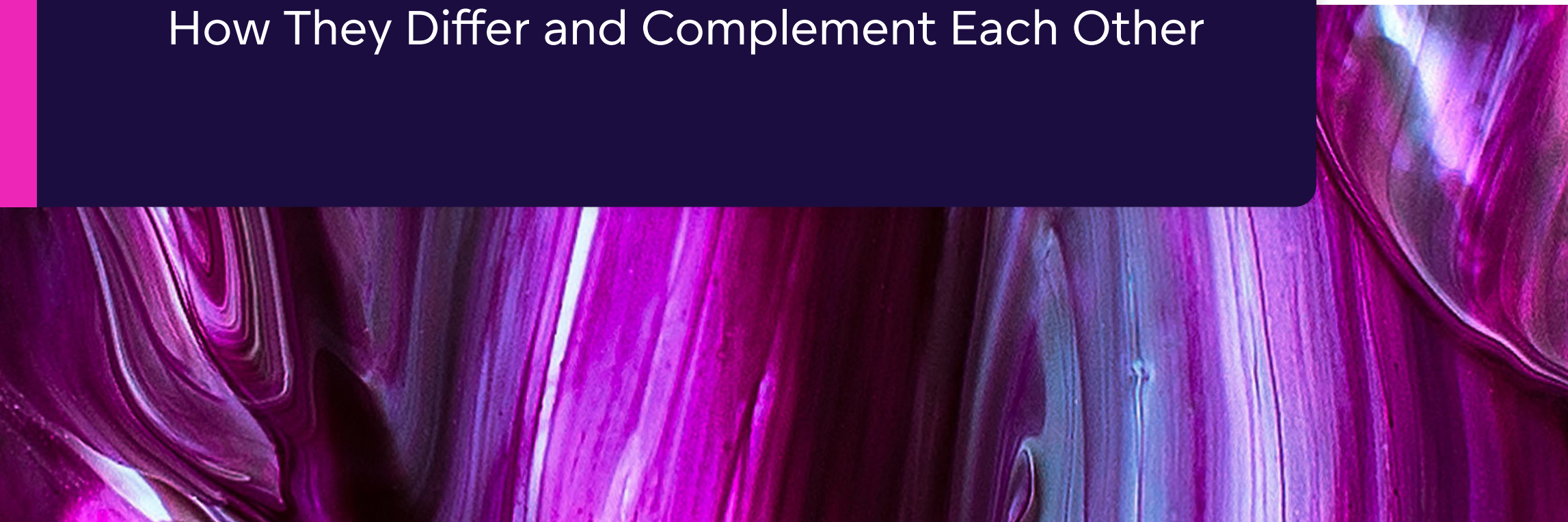
GoodData

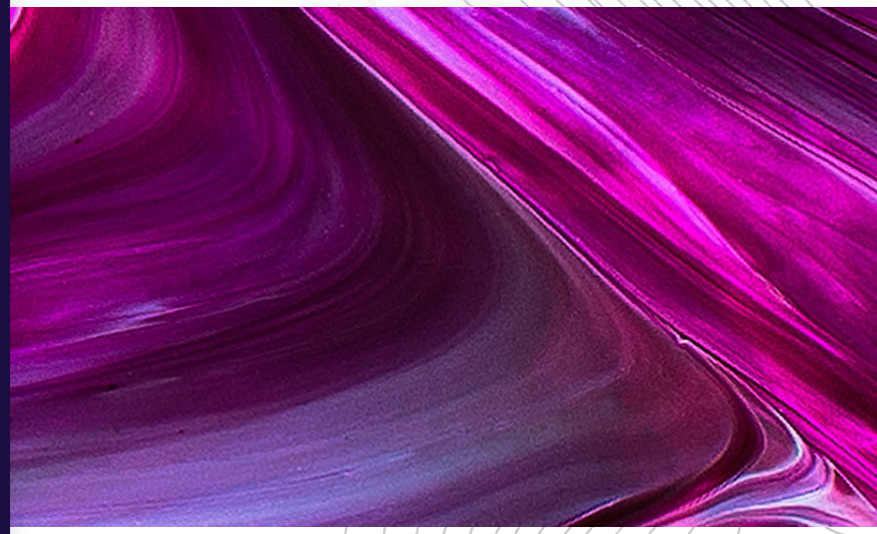
Headless BI + Embedded Analytics

How They Differ and Complement Each Other



In today's modern IT environment, giving employees and customers access to digestible and consistent data regardless of their technical background is data analytics' main challenge and goal. New approaches to working with enterprise data can help accomplish this.

Headless BI and embedded analytics are key solutions to ensuring data and analytics consistency and accessibility across various users and apps.



What are headless BI and embedded analytics?

Headless BI is a newly introduced data architecture concept designed to interact with and consume metrics in the modern data stack. Headless BI refers to an analytical backend component that creates a layer between the data warehouse and metrics-consuming tools. It holds standardized metrics, making them accessible and consumable by different heads (BI and data tools, custom applications, or AI/ML tools) via open APIs, SDKs, and standard protocols.

Embedded analytics is an individual software solution that does not look or act as a standalone solution. Instead, the entire analytics platform or its parts are integrated into another existing software product (application) or web portal.

Gartner defines embedded analytics as:

“ ... a digital workplace capability where data analysis occurs within a user’s natural workflow, without the need to toggle to another application.” (Gartner Glossary, Information Technology Glossary, E, Embedded Analytics)

Gartner®

How do headless BI and embedded analytics work together?

Analytics platforms with headless BI and embedded analytics features enable a comprehensive delivery of analytics to all end users regardless of technical prowess. No matter how the data is consumed, it remains consistent when both of these capabilities are built on top of the same semantic layer and act as a single source of metrics.

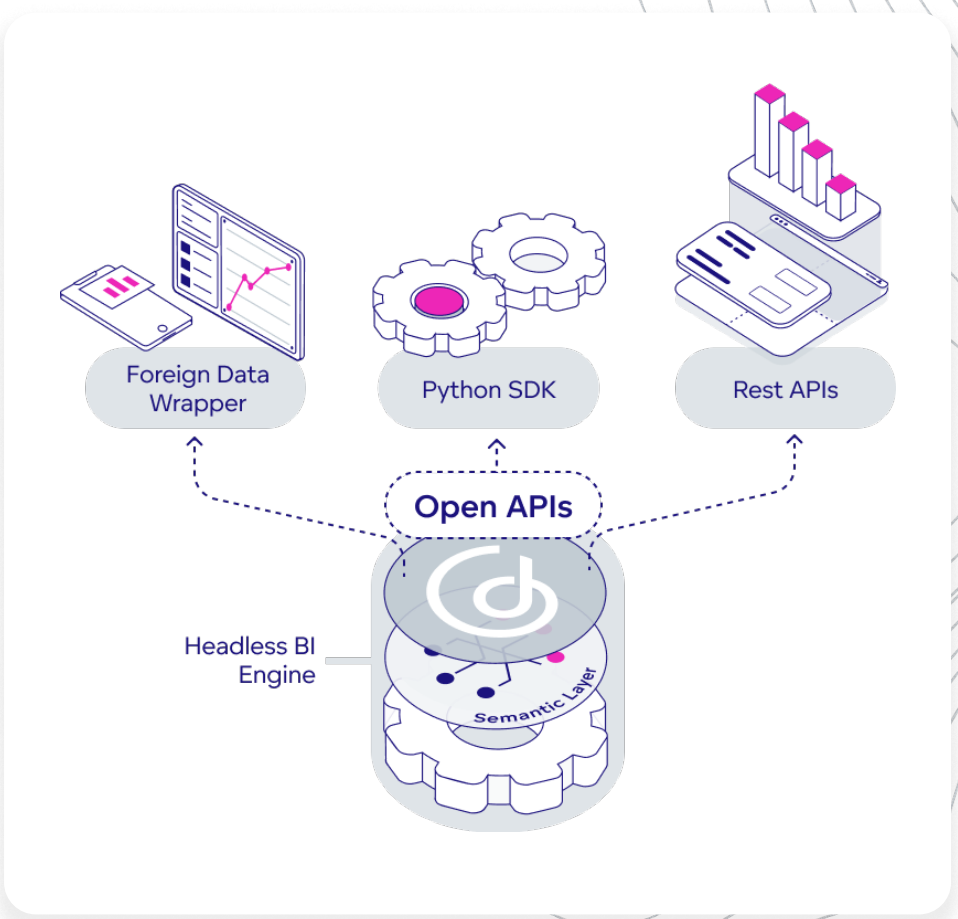
With embedded analytics, companies can integrate analytics — or at least a part of their analytics — into their daily business applications, giving business users access to the data they need to make decisions or comparisons and track key performance indicators. They can also use self-service tools to explore the data further. Embedded analytics suits business users, who can access different product information (e.g., the most and least sold products or regular customers by age, location, etc.) by setting up filters in dashboards embedded into their application.

On the other hand, with headless BI, users who are more technical can achieve more advanced analytics. With this capability, they can give third-party data tools access to the same semantic layer and metrics utilized for embedded analytics. For example, data analysts and data scientists can consume the same metrics and data models by connecting different BI and data tools. Data analysts can connect different BI tools to the headless BI component to create various metrics and dashboards, allowing them to easily gather and analyze data to address current issues and facilitate decision-making. The same data and metrics can be used by data scientists who utilize different data tools for machine learning and predictive modeling to solve analytically complex business problems.

GoodData's API-first analytics platform enables companies to embed analytics into their own applications and use different data tools to consume the same data. Various end users can use GoodData's semantic layer in different ways:

- With APIs, Python SDKs, and standard protocols to give developers full access to interact with and consume data using other data tools
- With a React SDK library to integrate analytics into their own products and workflows or rapidly build interactive data apps for their customers

Different customers can build their custom visualizations and manage dashboards without overwhelming data teams by embedding self-service tools.



Learn more about analytics

Looking for more analytics insights from GoodData?
Don’t worry, we have plenty of resources to review.

We recommend diving into:

Whitepaper - What you need to know about GoodData and headless BI

Article - Headless BI: Achieve Consistent Analytics Results

eBook - Starter Guide: Embedded Analytics in Your Software Product