



NextWave Business Intelligence

DATA PRODUCT PRACTITIONER SERIES

About this Document

When I built my first data product, I was at a loss as to where to begin the journey. So, like many, I started by doing as much research as possible, seeking out every analyst report I could find on the option for analytics. The problem was, there just weren't very many resources for data product builders. Most of the reports available at that time were focused on "enterprise" analytics—those analytics designed for implementing analytics inside the business for Sales, Marketing, Operations, etc. There was a lack of material for people seeking to discover the options for building analytics for customers. For those looking to turn idea data into actionable insights and hopefully, generate a little revenue along the way.

Unfortunately, the times haven't changed much, and while more materials on data products and product-oriented embedded analytic platforms exist, most are written by analysts, not practitioners. The material they provide is quite good, but it lacks the clarity that comes from having built data products yourself, from having lived through all of the worries associated with taking the journey from strategy to design to implementation to operations management. That is why this series of papers exists. To give you the perspective of a practitioner who has been through the process themselves.

This series of documents is designed to help data product teams understand the options for building great data products on the market today. It's not a comprehensive survey of all of the platforms available—it's a curated list of what I believe to be the best choices based on what I've learned building data products and helping others through the process.

I hope you find it useful.



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DATA PRODUCT PRACTITIONER SERIES

The Short List | Vendors You Should Know

GoodData (www.gooddata.com)

Our take: *“A fully managed platform that delivers automated insights in addition to analytics”*

Overview

Data products are different from enterprise analytics, and as a result, product owners need to seek out slightly different functionality when selecting a platform on which to base their data-driven functionality.

Beyond the data loading and visual analytic requirements, product teams need:

1. Robust embedding capabilities
2. Tools to manage customers through the product lifecycle
3. Flexibility both to get up and running (and producing revenue) quickly and to adjust to the changing needs of customers.

It's not easy to find platforms that support this set of needs, but GoodData is one of the rare breeds that gets it right.

Back when I built my first data product, I reviewed eighteen different platforms before selecting a vendor. I evaluated everything from cost to look & feel, to scalability. The vendor I selected was GoodData and I'd be hard pressed not to pick it again today.

GoodData is a fully cloud-based software-as-a-service (SaaS) offering that gives you fully-managed analytical capabilities for your data product. It's incredibly easy to use, whether building metrics, analytics, and dashboards or if you're an end-user trying to analyze your data.

But GoodData is more than just simple visual analytics—it also offers analytical

insights. This is something you won't find on other platforms in the data product space.

Who's It For?

Data product teams tend to fall into one of three categories:

1. Teams that want a "toolkit" to build their own customized analytics and to save costs and are willing to maintain the platform entirely in-house
2. Teams that want some flexibility but will accept (generally) lower customization capabilities to have benefits of a managed platform (rather than a toolkit)
3. Teams that have limited development or technical resources and would prefer a fully-managed analytic system.

GoodData is an excellent choice for those team in category three—they want a fully managed analytics platform that can be integrated into their core application without requiring extensive in-house resources.

The GoodData platform is offered only as a cloud-based service. There are no servers to buy, no software to install, nothing for you to worry about patching or upgrading. This is a huge benefit to organizations that want to spend their time building analytics and not maintaining analytics infrastructure.

However, this also limits who can use GoodData. If you absolutely must have your analytic engine behind your firewall, on your own servers, in your private data center, GoodData isn't the choice for you.

When deciding if GoodData is the right choice on which to base your data product, consider this question: are you better off using your limited resources building out your main application or managing analytics?

I find that in most cases, it makes more sense to apply your resources to the core application and take advantage of GoodData's expertise in managing the analytics platform.

Key Features

GoodData has evolved significantly over the past few years and presents several key features that differentiate it from the competition.

Web-Based Everything

It's entirely web-based, for authoring, for analysis, and for management. This means that you, the product owner, don't need to worry about distributing packaged software to customers who want to build ad hoc charts and graphs, nor do you need to use a desktop application to create and manage dashboards. It's all done completely via the web with an easy to use drag-and-drop interface.

As a result, it's fast to create and change dashboards. One of the elements of

GoodData that impressed me the most was the speed at which I was able to build metrics, charts, and dashboards. Without ever reading a user guide or attending a training session, I was able to create and deploy professional quality analytics on the GoodData platform. And I did it in minutes, not hours or days.

Multiple Embedding Options

GoodData allows you to embed in exactly the manner you require. Want to pull out a single chart and embed it in your application? GoodData can do it. Want to embed an interactive GoodData canvas in your application so users can see entire dashboards or create their own analytics? GoodData not only lets you do this but gives you both iFrame and javascript options.

Write Back Functionality

It's always been a frustration of mine that most analytical platforms stop with visual analytics. You see a chart, notice a trend, and... nothing. You need to go offline to continue the process of resolving the issue you found.

I've always imagined a scenario where analytics delivered "closed loop" controls—the ability to take action from within the in the analytic system. Now it's reality. GoodData is one of the few analytic platforms I've found that makes this closed loop functionality available to data product builders.

Picture this: you've got an application that manages inventory. You want to

show all of the expected analytics—stock on hand, most ordered items, etc.—but you want to go beyond just displaying these metrics. You want to allow a user to select the most ordered item and place another order.

Or perhaps you'd like your users to be able to mark products that are running low as unavailable.

Reasonable functionality, but hard to accomplish with most platforms. In fact, many platforms other than GoodData require you to build custom functionality to take any action—beyond—on your data. GoodData is more sophisticated than other systems. You can act on your data without leaving the analytics. No more exiting a dashboard and struggling to find the data point that you need buried deep in some other section of the application. You take action right within GoodData and the changes or actions are passed to your core application. This enables a whole range of functionality for product teams that simply is too difficult to accomplish on most platforms.

Insights on Demand

And here's where GoodData starts to look very, very different from anything else you've seen...

GoodData—unlike most options for embedded analytics—thinks of themselves a little differently. They don't consider themselves to be "business intelligence" or "visual analytics" but rather an "in-

sights platform." It's more than just a change in naming conventions.

Where other platforms show you a chart and leave up to you as to what action to take based on what you're seeing, GoodData's "Insights Platform" takes it a step further. It offers recommendations on what to do next. This is powerful stuff.

Picture your call center analytical application offering users possible steps they can take to solve a problem.

Imagine building a logistics data product that tells you users not just which routes are congested, but which might be optimal for them to choose.

These can be recommended actions for a user to take, or they can be fully automated actions. That's right—with GoodData you can tell your data product to automatically take a set action when a pattern in the data is identified. Whoa.

About Moving and Storing Data

Let's talk about moving and storing your data because this is an aspect of GoodData that you need to understand.

When you use GoodData to power your data product, they take the data from the sources you provide and move it into their analytical storage. Although I used to consider this a drawback to GoodData, I've changed my way of thinking. I no longer feel that there's a disadvantage to

moving data into an optimized store before analysis. Let me explain.

Several years ago, GoodData used an ETL system that was designed to load fresh data into their data storage a few times per day. It wasn't optimal for rapid refreshing on an hourly, minutely, or even near real-time basis. And it wasn't cost-effective to try for these kinds of refresh schemes. On top of this, GoodData charged based on the quantity of data stored on their cloud platform. This led product teams to consider loading pre-aggregated data into GoodData thereby limiting the ability of an end-user to drill down to individual record details.

Times have changed. GoodData now uses a more advanced data loading system that can refresh data as frequently as you'd like, even as it arrives in a transactional database. And, they no longer charge fees based on the total data stored, instead basing their fee structure on the number of projects (customer instances) in production.

For me, these two changes to the GoodData model have altered my way of thinking. In most cases, product teams will want to draw data from multiple sources and combine them before presentation, necessitating the movement (and storage) of the combined data anyway. If I have to move and store the data anyway, and there's no additional penalty in terms of cost or data "staleness," I'd rather have the experts at GoodData do this task than saddle my technical resources with in-

infrastructure management. They're rather good at it.

If you are getting an image of a data product-building platform that is incredibly easy to use, powerful, and opens up a whole world of new revenue possibilities, you are on the right track.

GoodData benefits from deep experience building—and thinking about the future of—data products and it shows in their functionality.

Services

GoodData excels at services like no other vendor I've experienced. They call it "white glove" service, and it covers the entire lifecycle of the analytics process.

Their service begins with the design and implementation of your data product.

Using one of the best methodologies on the market that I've ever seen, GoodData steps your product team through all phases of strategy, design, and technical implementation.

It isn't just a technical implementation plan—they consider everything, product tiers to pricing to data sources to operational processes. GoodData is the only vendor I've heard of that includes both a user experience specialist and a data scientist on the implementation team. Impressive stuff.

What has impressed me the most about GoodData is their willingness to assist

with any problem, anytime. I experienced this firsthand when, after making a mess of my data product the night before a big presentation, one email to GoodData support had the issue resolved with no questions asked. That's the kind of support you require if you're risking your company's reputation by replying customer-facing analytics.

Pricing

Pricing of the underlying platform can make or break a data product. Platform vendors that don't understand the unique needs of data product teams often miss in this area, insisting upon lengthy contract terms, substantial up-front fees, or "per user" licensing terms. Unsurprisingly for a company that's been in the data product enablement business for years, GoodData understand this.

You won't find per user licensing fees at GoodData. They know that charging for each additional user discourages widespread adoption and makes strategies like a free "basic analytics tier" difficult to accommodate.

Instead, GoodData uses a "base plus tenant" approach to pricing their analytic platform. This type of structure means that you can expect to pay a set fee for platform access (this comes in two variants, standard or enterprise) and then you pay for each customer instance you develop. If you are providing analytics to 100 customers each with 1,000 users, you pay based on the 100 customers, not

the total user count. It's a great model for data product owners and makes life much simpler than the internal analytics-focused per seat fee schemes favored by some providers.

Caveats

So it's a great platform that offers enormous potential for data products, it's backed by an excellent team that can do as much as little of the work as you'd like, and they've priced it to minimize the stress for a product owner. What's not to like?

As you'd imagine, there are a few situations where GoodData might not be the best choice or where should simply be aware of the limitations.

First, if you absolutely, positively must have your analytics platform on premise (that is, inside your walls and not managed by a vendor) then GoodData isn't best choice for you.

A major feature of the GoodData platform is that it's a fully managed cloud-based service and this is the only way it's offered. I'd argue that the fully-managed cloud model is a great fit for the vast majority of data products, but you might have reasons for requiring complete control of your infrastructure. If so, this isn't a good option for your product.

Second, if you are looking for the kind of analysis tool used by data scientists, GoodData isn't the best choice.

It's designed to be used by business people answering questions in the context of doing their daily jobs, not by those who need complicated ad hoc data transformations and calculations to address one-off questions. GoodData is better for creating analytical workflows that augment core applications than at pure, unguided analysis.

Final Thoughts

I've followed GoodData over the past several years and paid close attention to their progress.

I wanted to see if the fantastic service that I experienced when building data products not once, but four times, would diminish. It hasn't.

I wanted to see if they rested on their lead in the data product space and ceased investing in moving the platform forward. The existence of the powerful Insights Platform makes it quite clear that they've haven't slowed, but rather, have put their foot on the gas.

And finally, I wanted to see if I'd still choose GoodData to build a data product again in the future. I would.

GoodData is an excellent embedded analytics platform with cutting-edge functionality and a team that understands—and is ready to support—data product owners. I recommend that you take a look at what they have to offer and strongly consider building your analytical application on GoodData.

You can learn more about GoodData
at www.gooddata.com



About NextWave Business Intelligence

NextWave BI is a consultancy that helps companies monetize data and provide insights to their users through the creation of analytic/data products. We help with strategy, persona selection, pricing, and go-to-market planning. We're data product practitioners, not theorists.

*Learn more at www.nextwavebi.com
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