

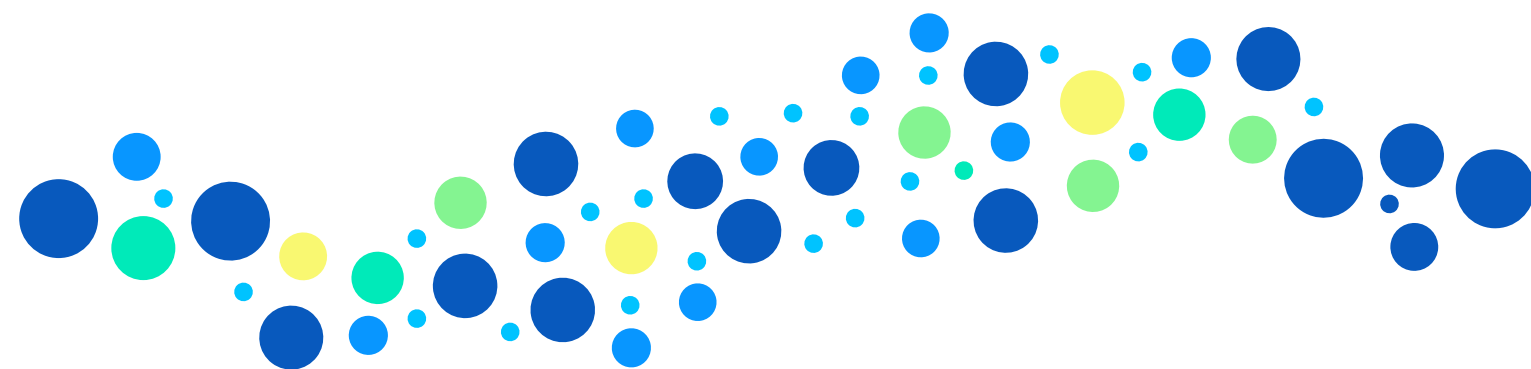
# Mastering Data Products

The Definitive Guide to Improving Data Quality



## **Data products are all the rage.**

Everywhere you turn, someone is telling you that in order to get the most out of your data, you must manage it as a product that everyone in the business can use.



And the best way to ensure that your business partners have access to the data they need, when they need it, to make informed decisions and drive success, is by using data products.

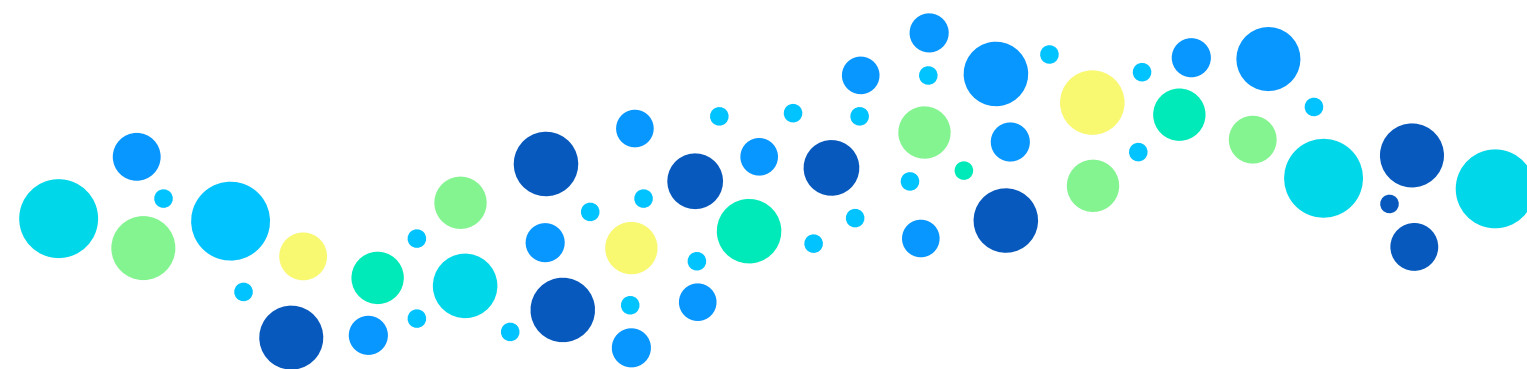
**Sounds reasonable, right?** But what, exactly, does it mean to manage data as a product? And how do data products solve the chaotic mess of incomplete, inaccurate information that fails to deliver value?

Managing your data as a product requires your business to create a **data product strategy** and roll it out through the design and use of a data product.

## **Still confused?**

Trust us, you're not alone.

While data products are getting a lot of buzz in the industry, there are many interpretations of what a data product is. And in our opinion, most of these interpretations are wrong.



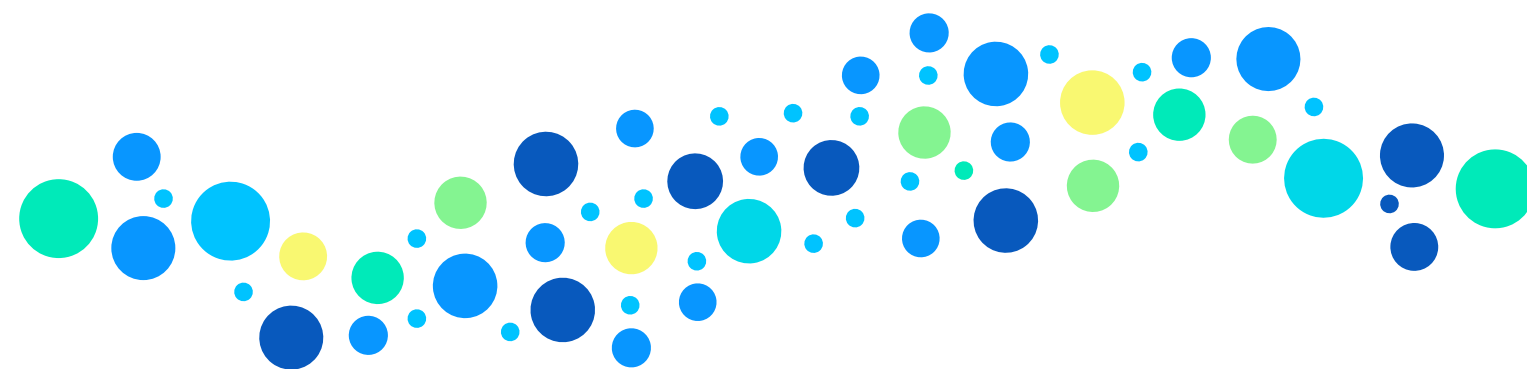
## **Defining data products: let's set the record straight**

Data products make data tangible for everyone across the organization. They provide ready-to-consume sets of high-quality, reliable, and accessible data that people throughout the business can easily use to solve business challenges.

The best data products are organized based on business entities and governed by domain. They consist of comprehensive, clean, curated, and continuously-updated data sets that are aligned with key business entities, making them consumable by both humans and machines across the entire enterprise.

## What a data product is not

While it's important to understand what a data product is, it's equally important to understand what it is not. Many solutions in the market today masquerade as data products. Here's how to spot the imposters.



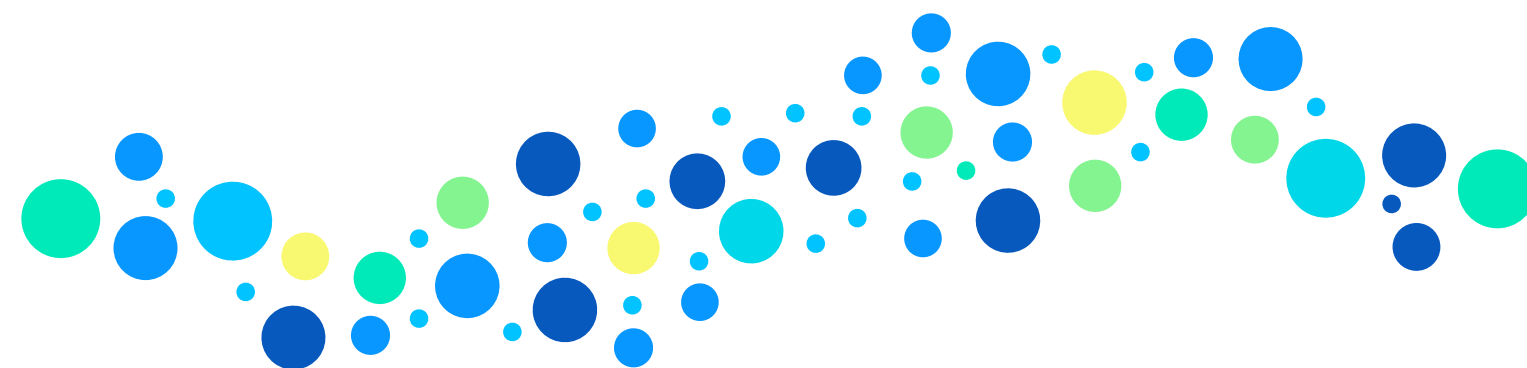
## Data products are NOT:

- **A static collection of information:** data products are dynamic solutions that use data to create value for organizations. They go beyond simple data analysis, transforming data into tangible, actionable outcomes.
- **Limited to traditional analytics or reporting:** data products embrace advanced AI/ML mastering, data enrichment, and data quality to solve complex business challenges, make informed decisions, optimize processes, and elevate customer experiences.
- **A one-time deliverable:** data products are reusable and agile – that's why they require continuous monitoring, refinement, and iteration. They adapt to evolving business needs and dynamic market conditions to ensure data remains relevant and valuable over time.

# What's all the hype about?

Investing in a data product strategy is the best decision you could make for your business. And we're not the only ones who believe this to be true. In their **Hype Cycle for Data Management 2023**, Gartner highlights the transformational impact data products have on the way organizations manage data.

As companies accelerate the movement of data to the cloud, new opportunities to innovate the way they manage data are emerging. Today, disruptive technologies such as data products enable organizations to uncover new insights from their data, empowering their people to work smarter.



Data products are a consumption-ready set of high-quality, trustworthy, and accessible data that people across an organization can use to solve business challenges. However, not all data products are created equal. The best data products use the perfect synergy of AI and human intelligence to reveal new insights that enable organizations to boost operational efficiency, power exceptional customer experiences, find untapped revenue opportunities, and safeguard their business from unforeseen risks.

However, when data teams don't understand the business requirements and lack a well-defined strategy to manage the lifecycle of data products, they can't deliver the transformational changes their organization needs. That's why it is critical for businesses to invest in a data product strategy and support it with an innovative, AI-powered data product platform.



# Elevate the value of your data with a data product strategy

Implementing a data product strategy through the design and use of data products is a surefire way for your organization to reap greater value from your data. Embracing a data product strategy delivers a myriad of positive impacts on the business, including:

**Better business intelligence:** data products deliver the best version of your data for use in BI and analytics tools as well as in dashboards.

**Exceptional customer experiences:** data products help you understand your customers, inside and out, so you can deliver the experiences they've come to expect.

**Optimized operations:** validated, trustworthy data boosts operational efficiency and drives greater ROI so your business runs better.

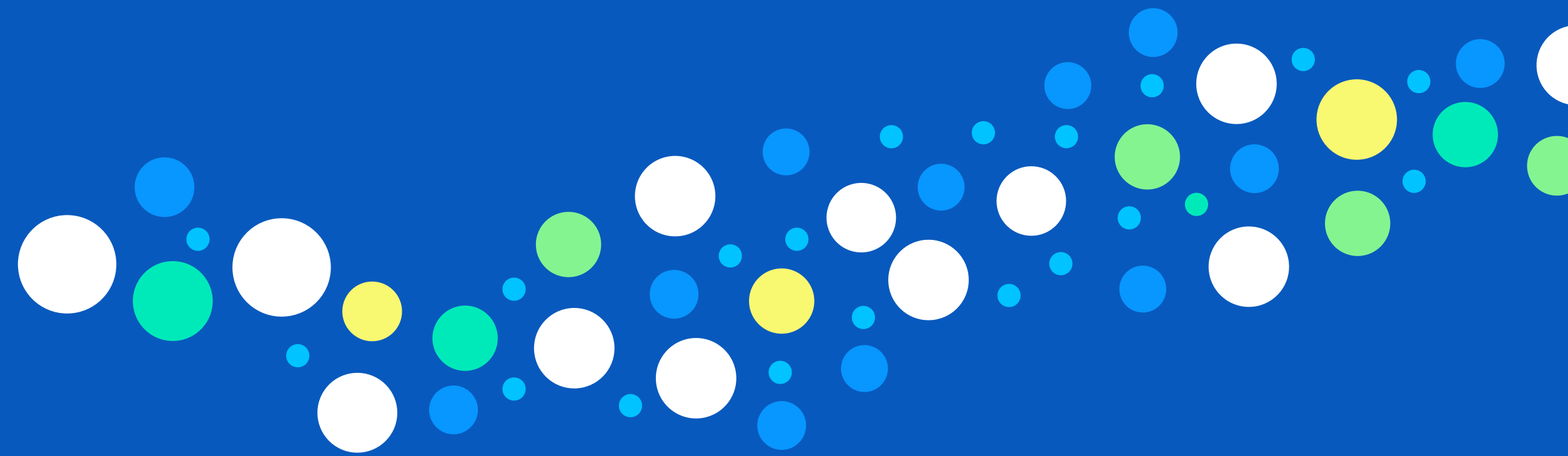
**Revenue gains:** using data products, companies can spot new revenue opportunities by revealing previously-hidden relationships in the data.

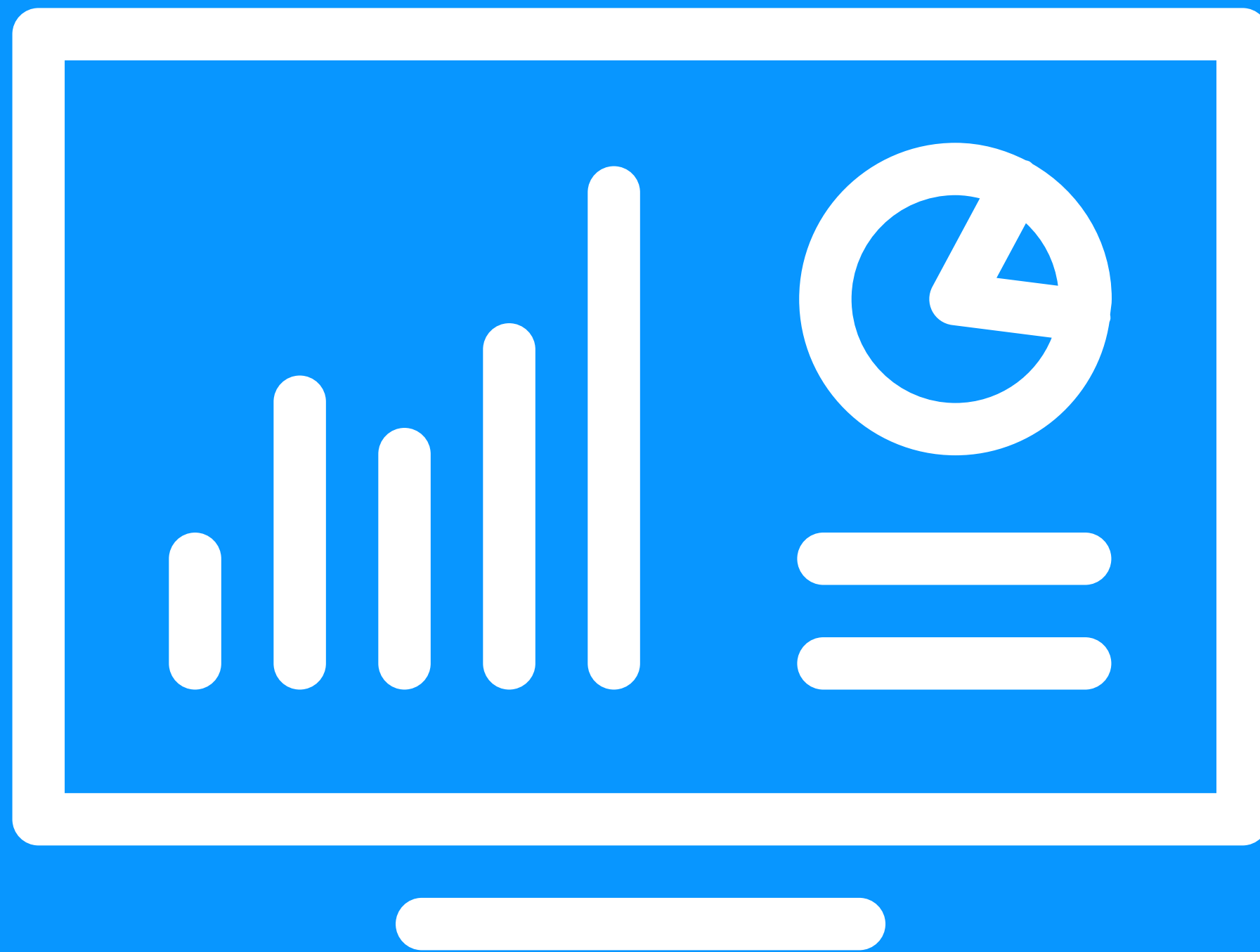
**Increased productivity:** clean, trustworthy data improves the productivity of your data team, enabling business users to get answers to their questions faster.

**Agile decision-making:** a single source of truth eliminates data brawls because everyone is on the same page.

# The 4 most essential data product capabilities

As data products grow in popularity, it's important to understand the characteristics that distinguish high-quality offerings. The following capabilities take the lead when it comes to defining exceptional data products.





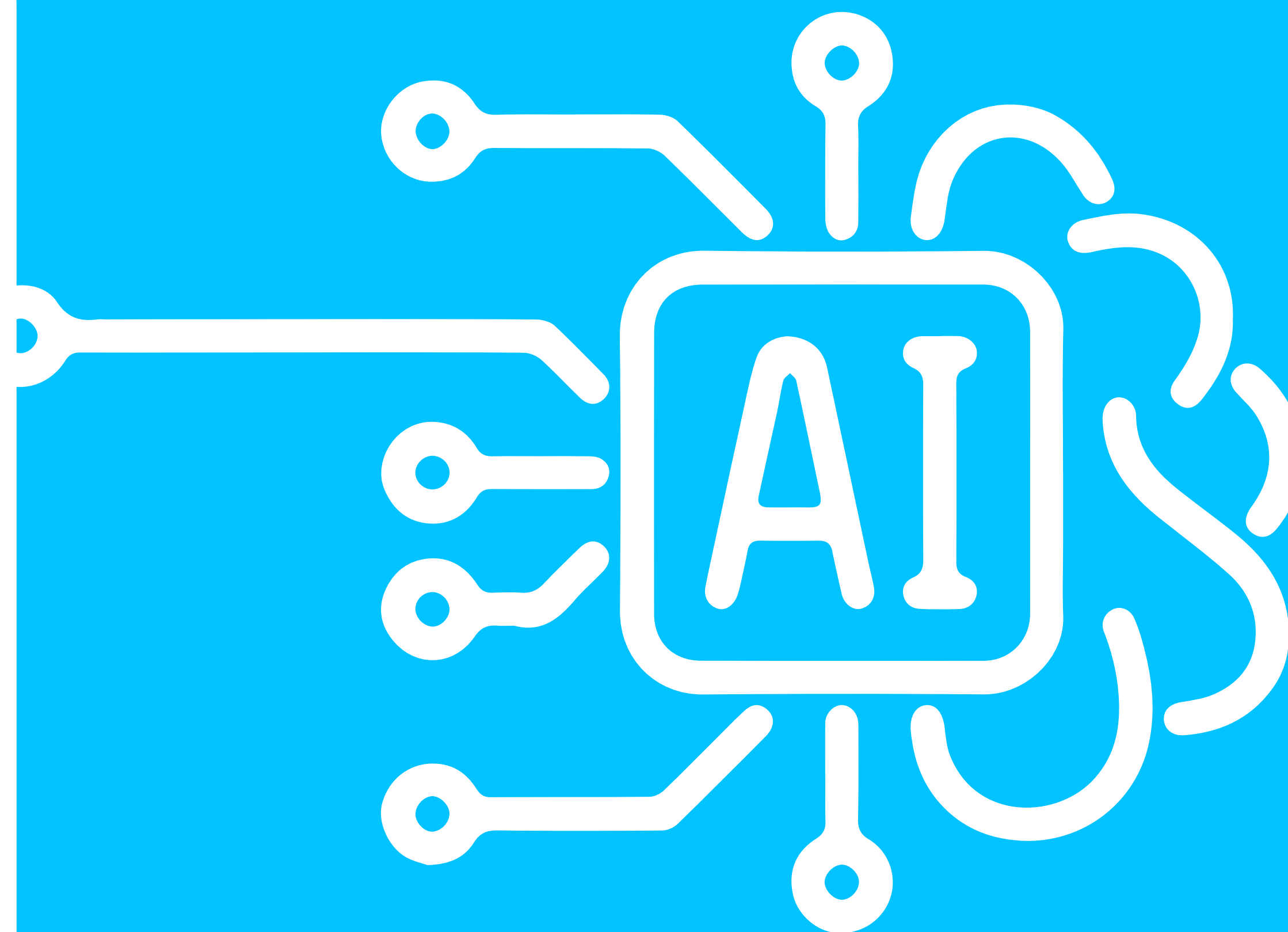
## ① Built for consumption

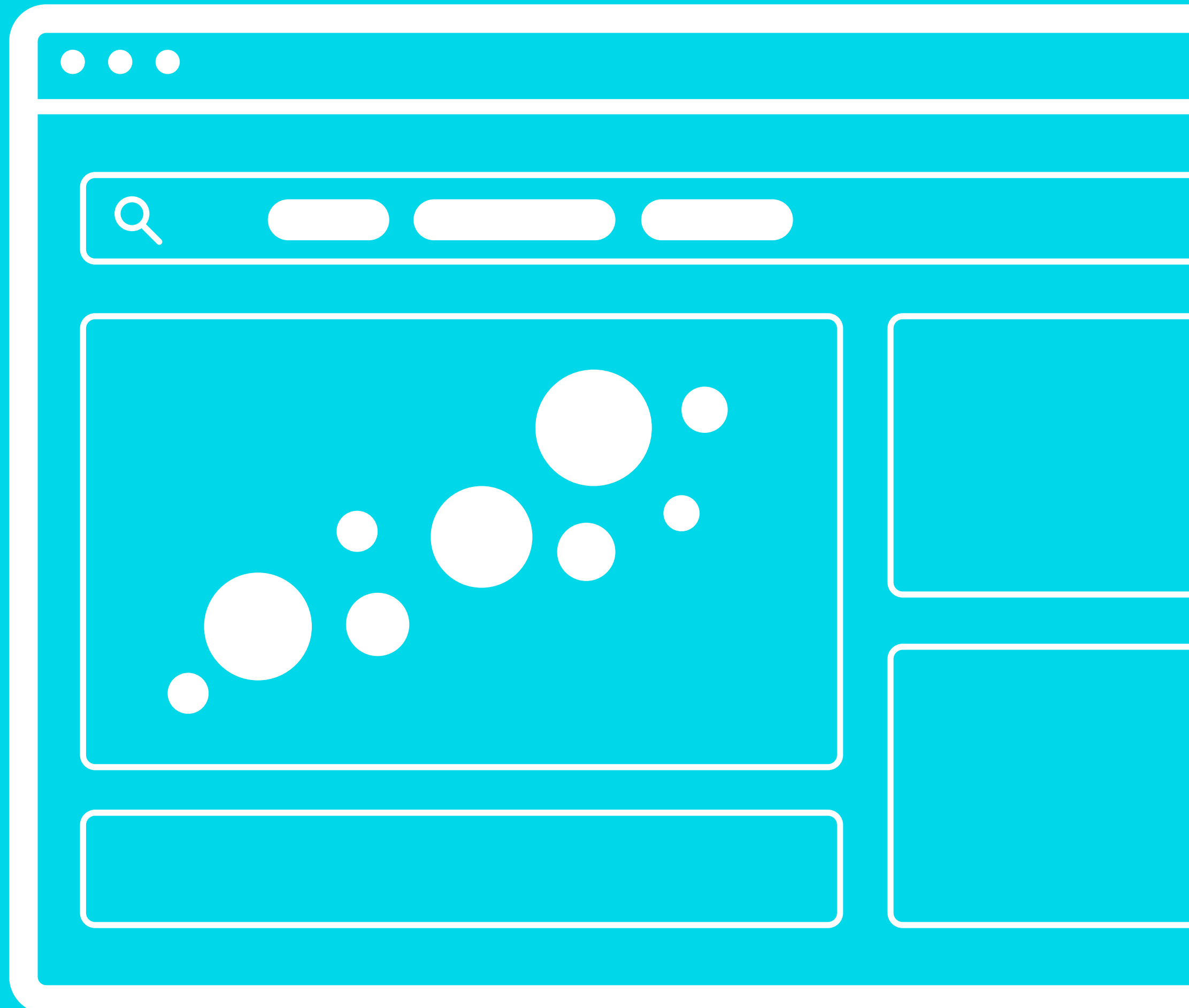
Data products put the power of data in the hands of individuals, allowing them to extract insights, uncover patterns, and spot opportunities to enhance the business. By adopting a consumption-oriented approach, data products prioritize the accessibility and usability of information so that users don't need to be data experts to interact with and benefit from data products. Instead, they can easily navigate through intuitive interfaces, visualize data in impactful ways, and derive actionable insights effortlessly. With a consumption-oriented mindset, data products create an immersive and engaging experience that puts users first, keeping them hooked by fostering a deeper understanding of their data.



## ② Mastered using AI/ML

Data products blend the power of AI with human intelligence to continuously adapt to changing business needs and improve data at scale. Using sophisticated algorithms and ML-driven models, data products compare and score diverse data sets. Over time, data products become smarter and more intuitive, making it easier to connect and transform data faster than using traditional, rules-based approaches. Furthermore, good data products are taking AI/ML mastering even further by using generative AI and large language models in tangible ways, such as categorizing resources to a standard taxonomy.



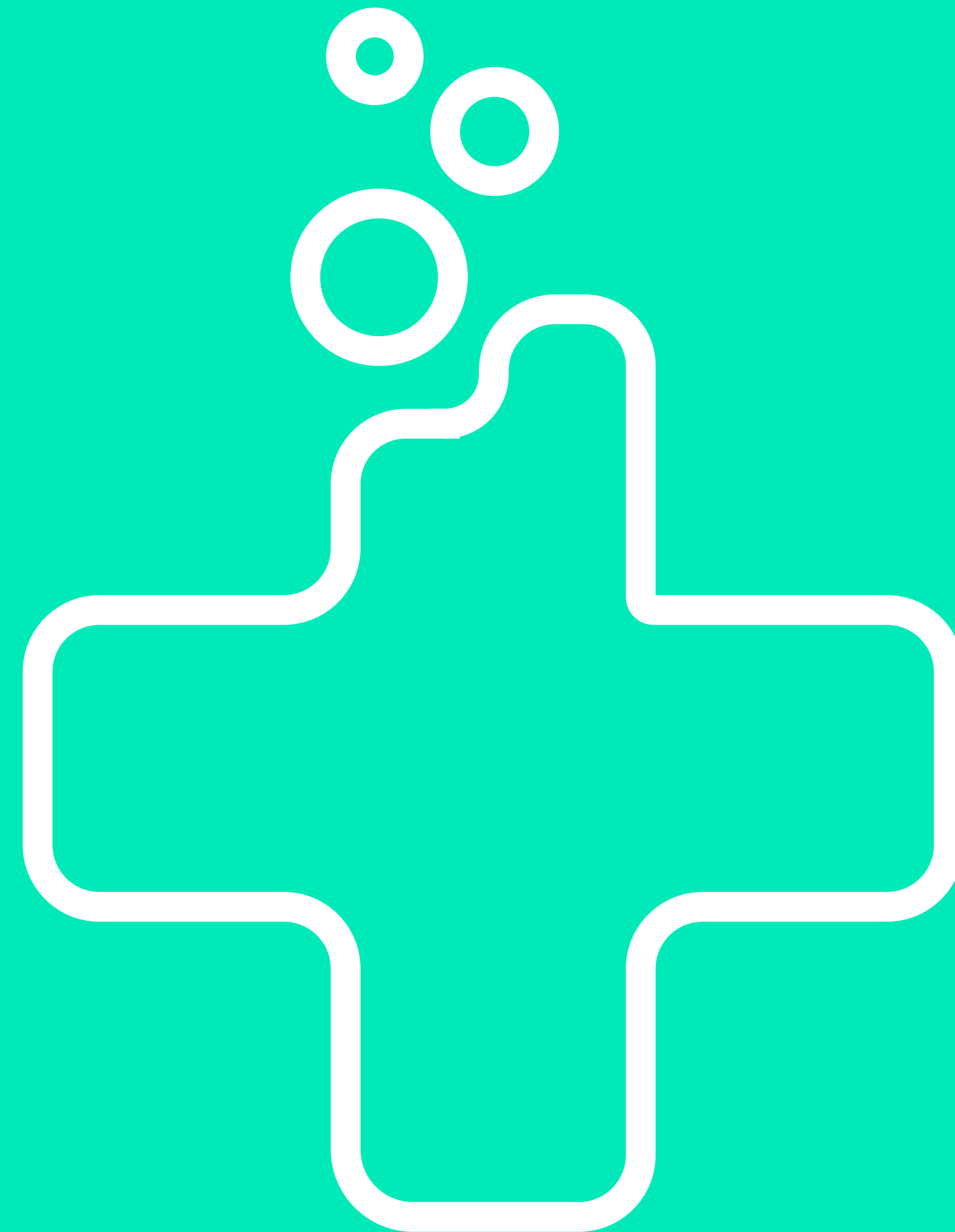


### ③ Designed to improve data quality

Data quality is the backbone of reliable and effective data products, providing the tools and capabilities to standardize, refine, and validate data. By monitoring and reporting on the quality and completeness of data, organizations can spot where data is incomplete, inaccurate, duplicative, or outdated. Then, using pre-integrated APIs and reference sources, data products can source and onboard trusted providers without the need to maintain custom connections.

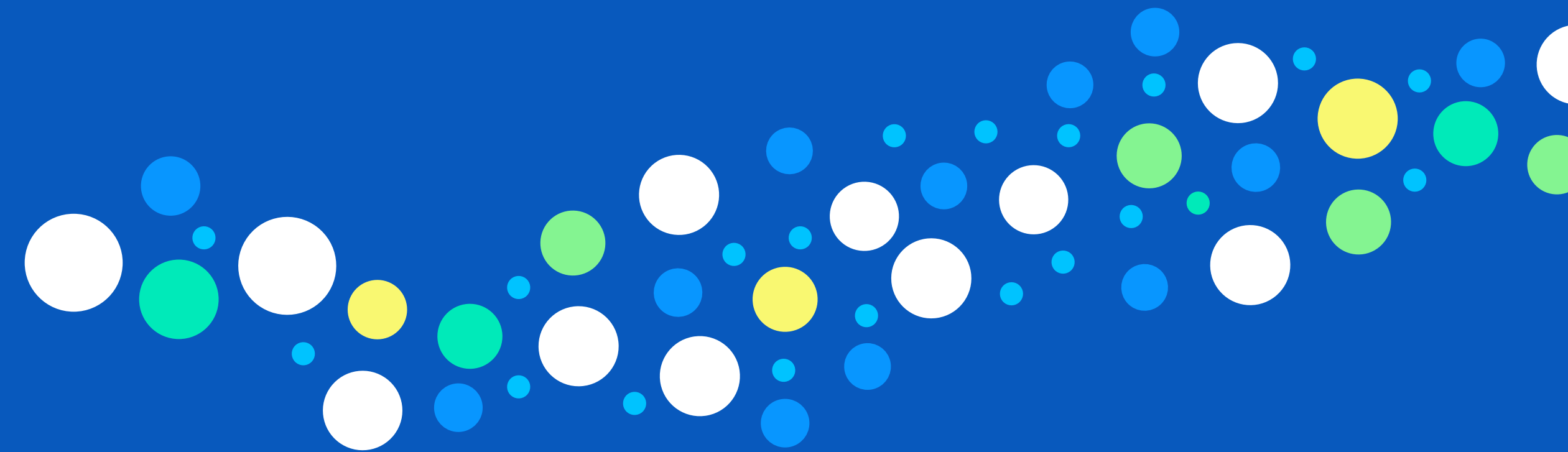
## ④ Engineered for enrichment

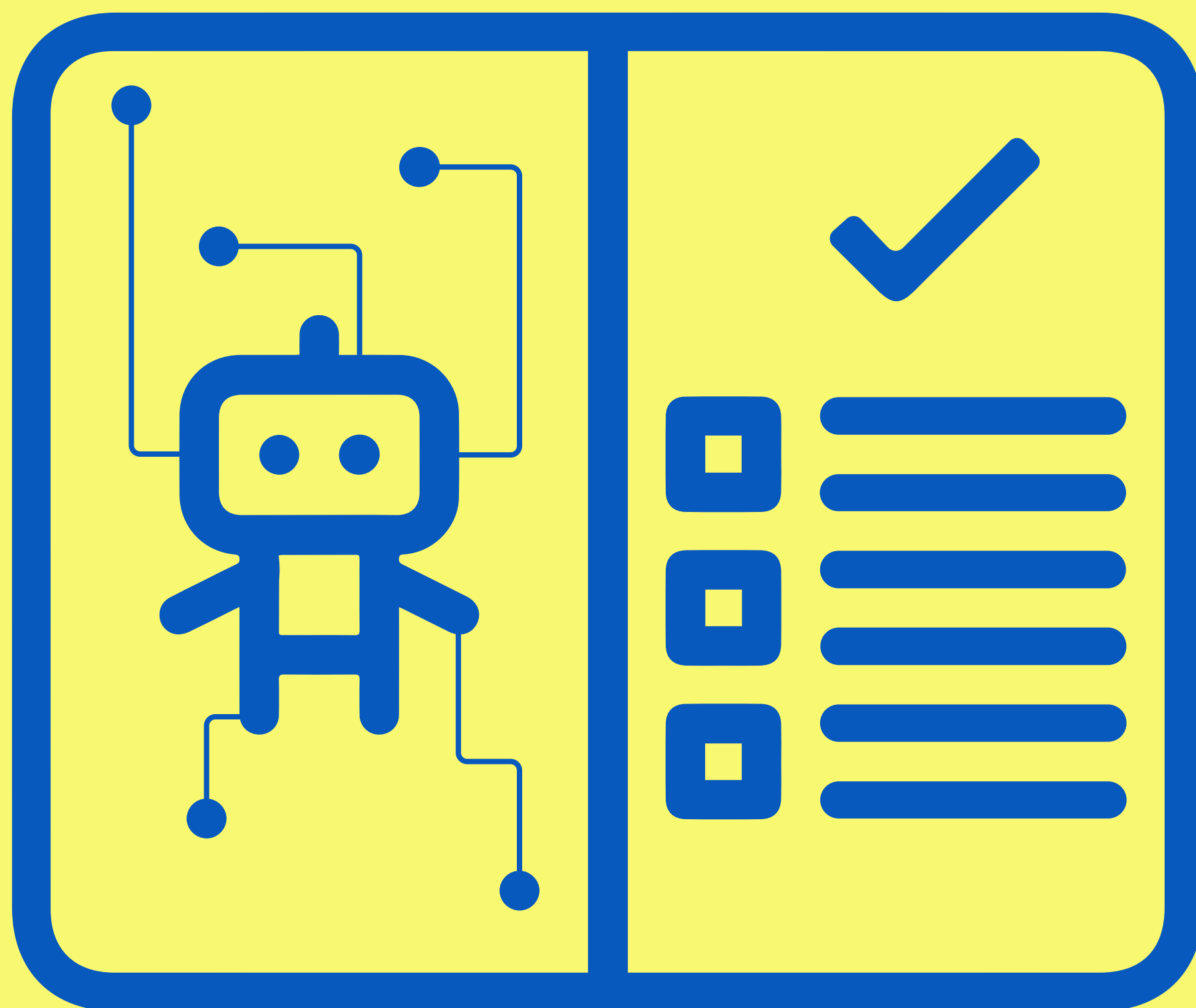
The goal of a data product is to deliver the best version of your data. Using data quality tools to standardize and validate data is a good place to start, but many times, the best source to enrich the data exists outside of the organization. That's why good data products also include robust data enrichment capabilities. By linking internal and external data using unique IDs, data products allow businesses to match their data with trusted vendors that best align with business needs. That way, businesses can choose and add new, relevant columns based on selected external sources and attributes.



# Wondering how data products stack up against traditional MDM? Let's take a closer look.

Data products make it faster and easier to deliver clean, trustworthy, consumable data at scale – and that's different to what a traditional, rules-based master data management (MDM) delivers. Here's how they do it.





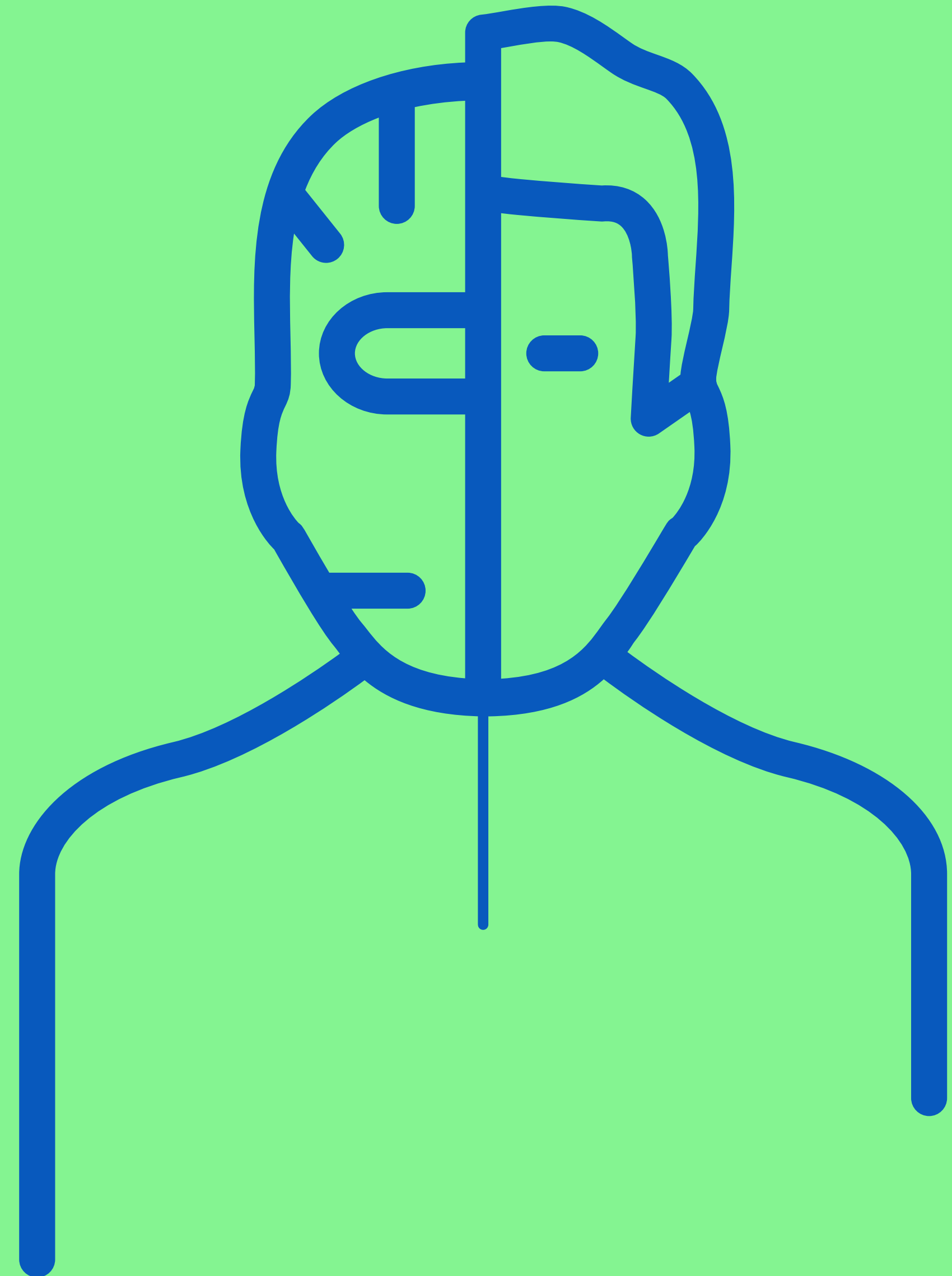
## AI-powered vs. rules-based

Traditional MDM solutions rely on rules to clean and master the data. But as data changes, rules need to change, too. Writing, modifying, and maintaining rules is time-consuming and requires extensive human effort, making it difficult for traditional MDM solutions to keep pace with the volume and complexity of modern data. With data products, AI does the heavy-lifting, making it simpler and faster to curate, match, enrich, and clean the data, allowing humans to focus their attention on resolving quality issues in the data that's problematic.



## Automated vs. manual

Traditional MDM solutions demand an immense amount of manual, human effort to configure, curate, and maintain the rules for mastering data. And as data evolves (as it inevitably will), the process starts all over again. Data products take a different approach. Using AI, data products automate the processes required to standardize, match, and enhance data, making it easier to scale as data changes.



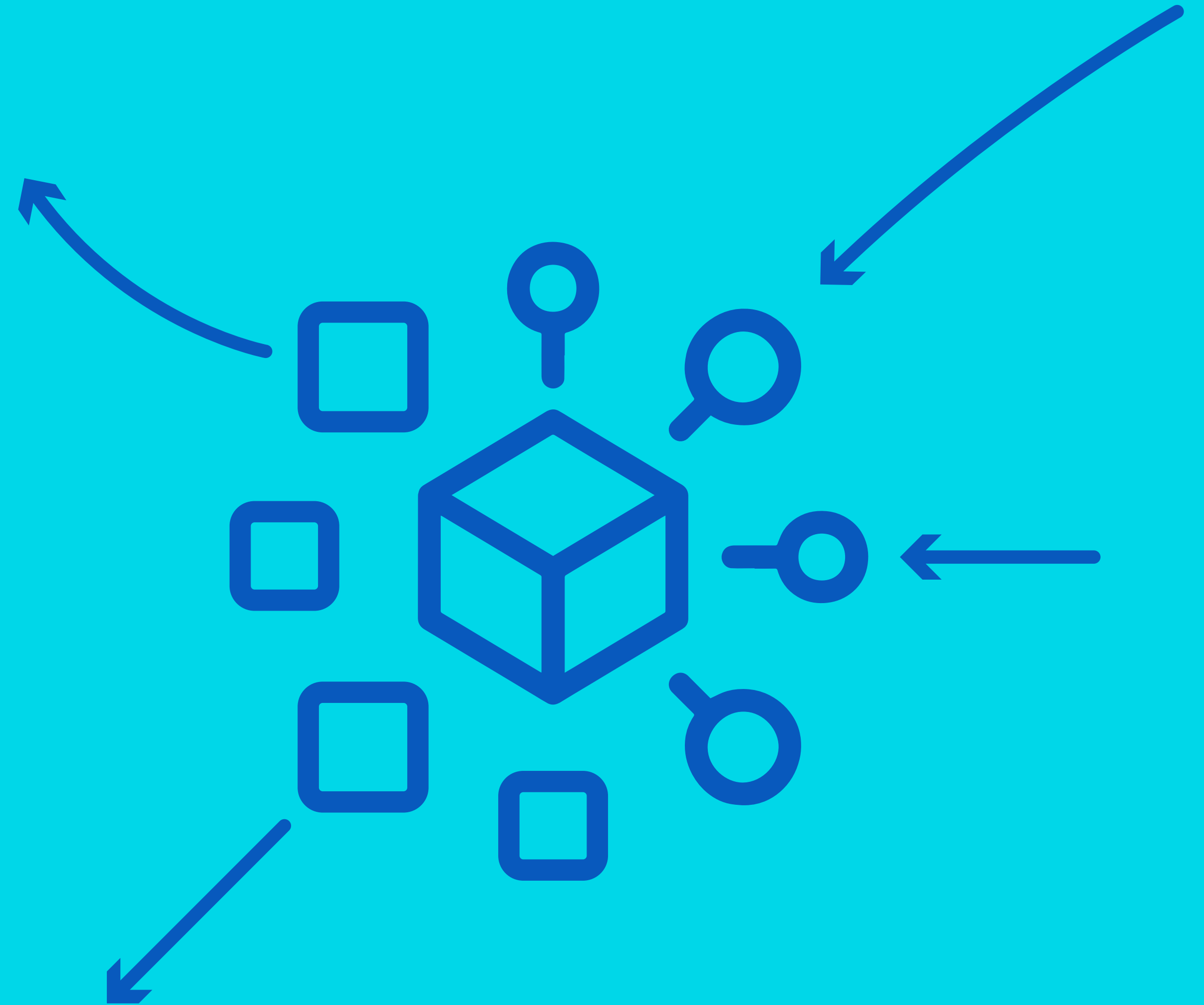


## Dynamic data vs. static data

Data is dynamic. But traditional MDM solutions weren't designed to handle the ever-growing and complex nature of modern data. In contrast, data products were specifically built to address this challenge. Using the perfect synergy of AI and human intelligence, data products automate up to 95% of the curation process, empowering humans to concentrate their efforts on resolving only the most critical issues. This seamless collaboration between technology and human expertise transforms data management, allowing organizations to remain agile as data evolves.

## Decentralized vs. centralized

The distinction between data products and traditional MDM becomes more pronounced when considering their centralized versus decentralized data management approaches. Traditional MDM relies on centralized control, where data governance and management are tightly controlled by a central authority or department, leading to bottlenecks and inefficiencies. In contrast, data products often adopt a decentralized model where they manage and curate data across various teams and departments, and distribute it in a way that aligns with their specific needs and expertise. This approach empowers individual teams to assume greater ownership and control over their data so they can adapt and optimize their data practices based on their unique requirements.



# The organizational impact of data products

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Implementing a data product strategy through the design and use of data products is the best way to maximize the value of your data. But before you jump into the deep end, there are four things you should know and do to ensure your organization is set up for success.

# 4 things to know (and do!) before implementing a data product strategy

## Understand how users consume data today

People across the business are using data to make decisions. Therefore, it's important for you to understand how they access it – and whether or not they trust it. Ask them:

- What business questions are you using data to answer?
- What reports, dashboards, and analytics are you using to answer these questions?
- What data is in these reports, dashboards, and analytics?
- What data is missing from these reports, dashboards, and analytics?

The answers to these questions will provide insight into the most pressing challenges the business needs to address, the reports, dashboards, and analytics they use the most, and the data that is missing from these sources. From there, you can determine which use cases are the highest priority to the business, and create a minimum viable data product (MVDP) to address them.

### Tip!

When you ask users what questions they need to answer, look for themes in their responses. If, for example, most of the questions focus on sales activities at customer and prospect locations, then building a data product of customers organized by location would be a good place to start.



## Identify challenges with your organization's current approach

Most data teams have processes and technologies in place to support their data-related initiatives. But too often, data teams find themselves reacting to business requests instead of proactively anticipating what the business needs. A few common challenges include:

- **Using legacy MDM solutions:** these manual, rules-based solutions are expensive to implement and time-consuming to maintain. Not to mention they don't scale as data grows and changes.
- **Yielding to the pressure to react:** many data teams assume the role of order-taker, leaving themselves at the mercy of business requests instead of proactively uncovering and providing what the business needs.
- **Delivering one-off solutions:** when data teams are in reactive mode, they often deliver one-off solutions that address a single problem vs. implementing a scalable, reusable solution that provides greater efficiency in the long-term.

To discover what challenges your organization needs to overcome, ask yourself:

- What business logic are we using to transform the data to answer business questions?
- Are we anticipating business needs or simply reacting to requests?
- Do the solutions we have in place today support the dynamic nature of our data?
- Are the solutions we deliver reusable?
- Will our solutions scale as our data evolves and our user's needs mature?

Understanding where you are today is an important step to determining where you need to go next. Document what's working – and what's not – so you can make informed decisions for your data product strategy.

### Tip!

We know you've made large investments in your current technology stack. And rest assured, you don't need to abandon your legacy investments entirely. In fact, some use cases may not need a new approach.

Instead, prioritize the challenges you're facing and determine which ones would benefit from a data product strategy. Using the insight you learned about how users consume data, you can prioritize the use cases that would most benefit from data products.

## Demonstrate how data products change the way users consume data

Everybody in your organization wants better data. However, not everybody is willing to invest the time and energy required to improve **data quality**. That's why it's important to find your champions early and leverage their support to demonstrate how data products change the way users consume data.

To identify these champions, ask which business leaders are:

- Passionate about making data-driven decisions
- Willing to engage in the process of making data better
- Open to an agile approach where they partner with the data team to experience incremental value
- Enthusiastic evangelists who will support proposals to implement a data product strategy and invest in a data product platform

With the right champions, you can introduce new ways for users to consume data and demonstrate how a data product strategy made a direct impact within the business.

### **The secret to winning over stakeholders**

Educating stakeholders on the value of data products is the best way to secure their support. Show them, firsthand, how data products enhance data quality. Engage them in conversations about the significance of a decentralized approach, emphasizing how it gives them greater ownership and control over their data while enabling faster decision-making. Remember, your stakeholders aren't immersed in data on a daily basis. That's why it's so important to invest time in educating them so they'll be an advocate for your data product initiative.

### **Tip!**

Each time you release a data product to your champions, deliver a few more capabilities and a little more value. Not only will it help drive adoption of your data product, but it will also get them excited about the possibilities, making them more likely to champion your requests for additional funding, more resources, or complementary technology innovations.

## Determine if you will build a data product platform – or buy one

When it comes to a “build vs. buy” decision, many companies think it’s all or nothing. It’s not. Data teams, instead, should focus on what they are uniquely qualified to do. Then, look for solutions that enable them to maximize the time they spend on those valuable tasks.

To help guide your decision when it comes to data products, ask yourself:

- Are there tasks I’m doing today that a pre-built data product platform could do faster and more efficiently?
- Do I have the right skills in house to build a data product platform, namely a cloud engineer, data engineer, and analytics engineer?
- Would buying a pre-built data product platform free up time to focus on tasks such as understanding business needs, acquiring data to serve those needs, and making the data insight-ready?

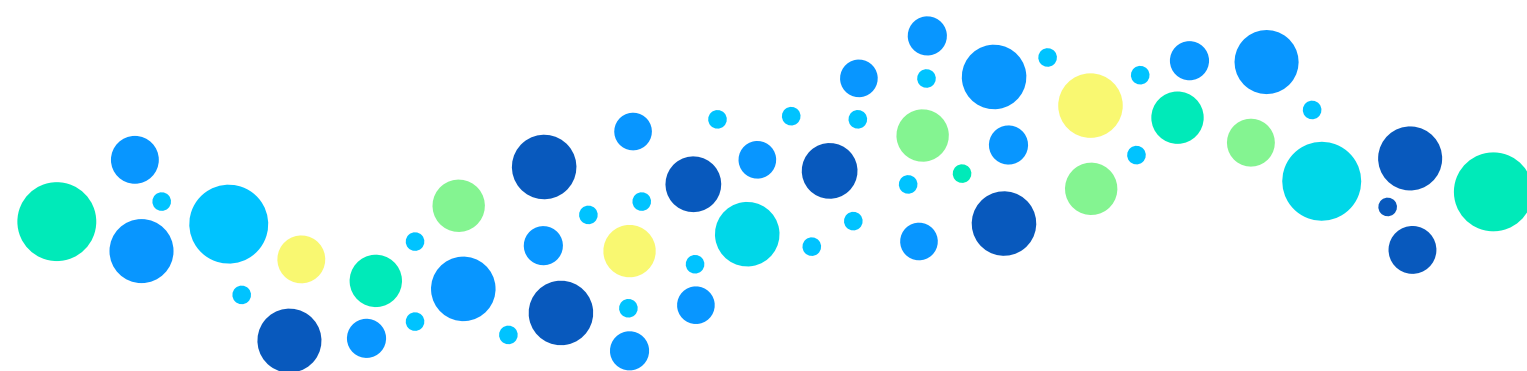
As we mentioned above, implementing a data product strategy does not require you to abandon your current technology investments. Instead, they provide a way to transform data management to better align with modern, dynamic data needs.

### Tip!

Calculate the total cost of ownership for both options, including development, maintenance, licensing, and support. Sometimes buying may be more cost-effective in the long run. Ultimately, the decision should align with your business goals, budget, and specific data technology requirements. A hybrid approach, combining both build and buy components, is also a viable strategy in many cases.

## Customization vs. convenience

When it comes to tailoring data products to align with an organization's distinct requirements vs. choosing pre-built, turn-key solutions that offer convenience and quick implementation, many individuals believe they must make a tradeoff. We're here to dispel this notion. You can, in fact, customize data products to perfectly suit your business' unique needs without sacrificing convenience.



### Tip!

Be aware of internal build vs. buy biases. Review the roadmaps for solutions you've built in-house. Are they filled with bug fixes, data quality firefighting, and maintenance overhead? If so, it may be time to consider buying more.



## The role of data products in the broader data strategy

While data catalogs, data observability, and MDM solutions are essential components of data management, data products hold a central position within the larger framework of a data strategy.

Data products function as tangible outcomes generated from raw data, converting it into valuable insights or practical tools for better decision-making and business processes. Within the scope of a well-rounded data strategy, data products serve as the crucial link between data collection and informed decision-making, ensuring that organizations do not merely accumulate data, but also harness it effectively to advance business objectives. And, they are often tailored to specific value cases and are user-friendly, making data more accessible and actionable.

On the other hand, data catalogs help in data discovery and metadata management, while MDM focuses on maintaining data accuracy and consistency. Companies primarily use observability solutions for monitoring and troubleshooting complex systems, including data pipelines and applications, because they focus on real-time monitoring, logging, and error detection to ensure system reliability.

In essence, data products are the keystone in the landscape of a data strategy. They act as the bridge that spans the gap between raw data and meaningful outcomes, offering concrete solutions that empower organizations to unlock the full potential of their data assets.

### Tip! Hire a data product manager

Savvy organizations are hiring **data product managers** to bridge the gap between technical data teams and business needs. Their role is to oversee the entire lifecycle of data products, prioritize user-centric development, ensure alignment with the organization's data strategy, maintain data quality and governance, facilitate cross-functional collaboration, and optimize products based on feedback and metrics. They also explore monetization opportunities, manage data-related risks, stay informed about industry trends, and play a crucial role in leveraging data products effectively to create business value.



# Tamr: the leading data product platform

Tamr checks all the boxes when it comes to delivering the data product platform businesses need to deliver the clean, accurate, continuously-updated data that drives business outcomes. Our innovative data product platform is the first of its kind to **unite AI with human intelligence** to improve data quality and enrich data with first- and third-party data so businesses can revolutionize customer experiences, drive greater ROI, boost operational efficiency, and avoid risks.

Using Tamr's cloud-native and SaaS solutions, industry leaders uncover the insights they need to stay ahead of the competition in a rapidly-changing business environment. Don't take our word for it, though. See how a global financial services firm is using Tamr data products to boost the bottom line by identifying and serving high-value customers better.

Attribute Name	Value
Company Name	Citigroup
Full Address	388 Greenwich Street, New York, NY 10013
Phone	1 (888) 248-4226
URL	citi.com
Ticker	NYSE: C
Alternative Names	Citigroup Inc.   Citi
Subsidiaries	Banamex   Citibank   Citibank Canada   Cit...
Company Status	Active

Attribute Name	Value
DUNS	19-732-9691
CapIQ ID	391687
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Dow Jones Profile ID	1074476
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FIGI	BBG0016YYS5
Enigma ID	E00003e6400002036
Companies House #	01763297

	Retail	Online	Salesforce	Hubspot
Retail	30,250	50,123	61,412	65,984
Online	50,123	20,124	30,444	55,842
Salesforce	61,412	30,444	19,831	77,841
Hubspot	65,984	55,842	77,841	29,984



## Seeing is believing: Tamr in action at Western Union

Western Union is transforming from a retail-first organization to a digital-first one. Their goal? To consolidate records from online and retail channels to form a 360-degree customer view. But when 200 million people used Western Union's services to send and receive money in the past two years alone, this straightforward task immediately became very complex.

That's when Western Union knew they needed a better approach. Using Tamr B2C Customers data product, Western Union deduplicated and enriched 375 million customer records in a matter

of months (not years), providing agents with a holistic, 360° view of the customer which allowed them to identify top customers, tailor experiences, and reduce marketing spend.

### **Hear from Western Union's Chief Data Officer,**

Harveer Singh, to learn more about Western Union's journey to deliver better customer experiences using holistic, trustworthy data.

With so much talk about data products, it's important to remember that, at their core, data products are reusable data assets that make

data tangible for everyone across the organization. By providing consumable data sets that are high-quality, trustworthy, and accessible, data products form the foundation for analytical and operational use cases so that people throughout the business can use them to solve business challenges.

## Ready to make your data better?

**Schedule a demo** and we'll show you how Tamr data products can help you work smarter.



As the leader in data products, Tamr enables customers to accelerate their time-to-value by delivering validated, trustworthy insights. Tamr's data products are the first of their kind to unite AI with human intelligence to improve data quality and enrich data with first- and third-party data so businesses can revolutionize customer experiences, drive greater ROI, boost operational efficiency, and avoid risks. Using Tamr's cloud-native and SaaS solutions, industry leaders such as Toyota, Western Union and Novocure uncover the insights they need to stay ahead of the competition in a rapidly-changing business environment.