

The Data Management Survey 24

The voice of the data management community

Sample, Products, Methodology and KPIs

This document provides background information to help gain a clearer understanding of The Data Management Survey 24

BARC

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Introduction

The Data Management Survey 24 is the largest and most thorough fact-based analysis of the data management software market currently available. It is not based on anecdotal accounts or personal opinions, unlike much analyst research, neither is it intended to be a measure of market shares. Instead, it sets out to analyze market trends and produce meaningful comparisons of competing products across a wide range of critical software and vendor-related criteria. The Data Management Survey also provides a detailed quantitative analysis of why customers buy data management tools, what they are used for, what problems they experience with the tools and how successful they are.

This is the fifth edition of The Data Management Survey. It employs the same proven methodology as The BI & Analytics Survey, which has been conducted annually since 2000. Based on the real-world experiences of 960 respondents, much of its value lies in the effective analysis of such an impressive, well-distributed sample.

The Data Management Survey 24 features 21 data management products from 16 different vendors. It includes not just products from well-known global giants such as Microsoft, Oracle and SAP, but also tools from much smaller vendors that ordinarily don't get much press but which, in many cases, offer outstanding value to customers.

After data cleansing and removing responses from participants unable to answer specific questions about their use of data management products, we were left with a sample of 576 end users, 194 consultants and 98 vendor and reseller employees. Participants from all over the world took part in The Data Management Survey 24.

The findings from The Data Management Survey 24 are presented in several documents, each focusing on a specific set of the survey results.

Document	Description
The Data Management Survey 24 – The Results	An overview and analysis of the most important findings and topical results from The Data Management Survey 24. Includes advice to buyers of data management software as well as users of existing data management solutions based on the results of our analysis.
The Data Management Survey 24 – Sample, Products, Methodology and KPIs	Provides details of the sample, the products included and an overview of our methodology. Descriptions of the KPIs used in The Data Management Survey 24 are also provided, including details of our calculation methods.
The Data Management Survey 24 – Vendor Performance Summaries	A series of executive reports on each of the products featured in The Data Management Survey 24. Each report contains a short vendor and product overview by BARC's analyst team plus a summary of the relevant product-related results from The Data Management Survey 24.

Data Decisions. Built on BARC.

BARC is one of Europe's leading analyst firms for business software, focusing on the areas of data, business intelligence (BI) and analytics. The company was founded in 1999 as a spin-off of the chair of Business Administration and Information Systems at the University of Würzburg, Germany. Today, BARC combines empirical and theoretical research, technical expertise and practical experience, and a constant exchange with all market participants to provide market-leading research publications, events and advisory.

Research

BARC user surveys, software tests and analyst assessments in blogs and research notes give you the confidence to make the right decisions. Our independent research gets to the heart of market developments, evaluates software and providers thoroughly and gives you valuable ideas on how to turn data, analytics and AI into added value and successfully transform your business.

Consulting

The BARC Advisory practice is entirely focused on translating your company's requirements into future-proof decisions. The holistic advice we provide will help you successfully implement your data & analytics strategy and culture as well as your architecture and technology. Our goal is not to stay for the long haul. BARC's research and experience-founded expert input sets organizations on the road to the successful use of data & analytics, from strategy to optimized data-driven business processes.

Events

Leading minds and companies come together at our events. BARC conferences, seminars, roundtable meetups and online webinars provide more than 10,000 participants each year with information, inspiration and interactivity. By exchanging ideas with peers and learning about trends and market developments, you gain new impetus for your business.

For further information see:

www.barc-research.com

The sample

Most surveys are conducted or sponsored by an organization based in, and focused on, one country. However, data management is a worldwide market and we wanted to capture a larger international sample.

The net result was an extraordinarily international panel. Respondents were located in 61 countries. The regions with the most respondents are Europe, North America and Asia Pacific.

The online questionnaire was published in two languages: English and German.

Sample size and make-up

Many thousands of people around the world were invited to participate in The Data Management Survey 24, using BARC’s online research panel and the support of vendors and various websites. As in previous years, the questionnaire offered different sets of questions for vendors and users (or consultants answering on behalf of users).

The results of the online data collected are shown in the following chart, with the numbers of responses removed also displayed.

Table 1: Responses to the survey

Vendor profile	
Total responses	960
Filtered during data cleansing	-48
Remaining after data cleansing (total answering questions)	912
Non-users (did not answer questions about products)	-44
Vendors (did not answer questions about using products)	-98

The number of responses is split between users, consultants, vendors and non-users. Vendors answered a different set of questions to those answered by users. This document focuses on the analysis of the user results.

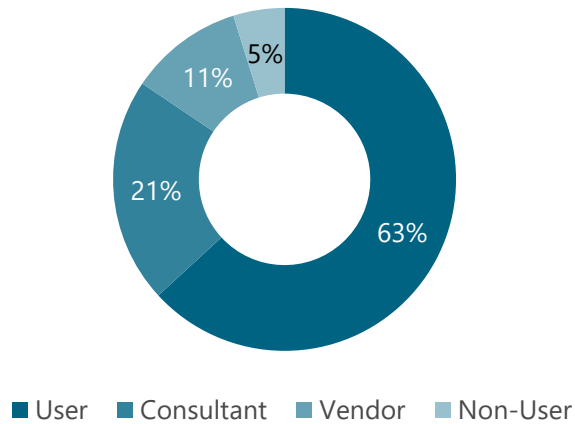


Figure 1: Does your business use data management technologies? (n=912)

Organization sizes by headcount

Specialized data management software is most commonly found in medium and large organizations (see Figure 2). A high percentage of the responses we received were from users in companies with more than 1,000 employees (see Figure 3).

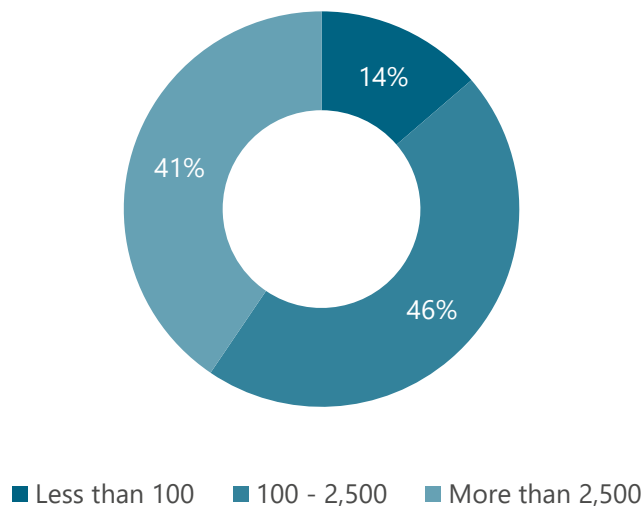


Figure 2: How many employees are there in your entire organization, including all of its branches, divisions and subsidiaries? (n=701)

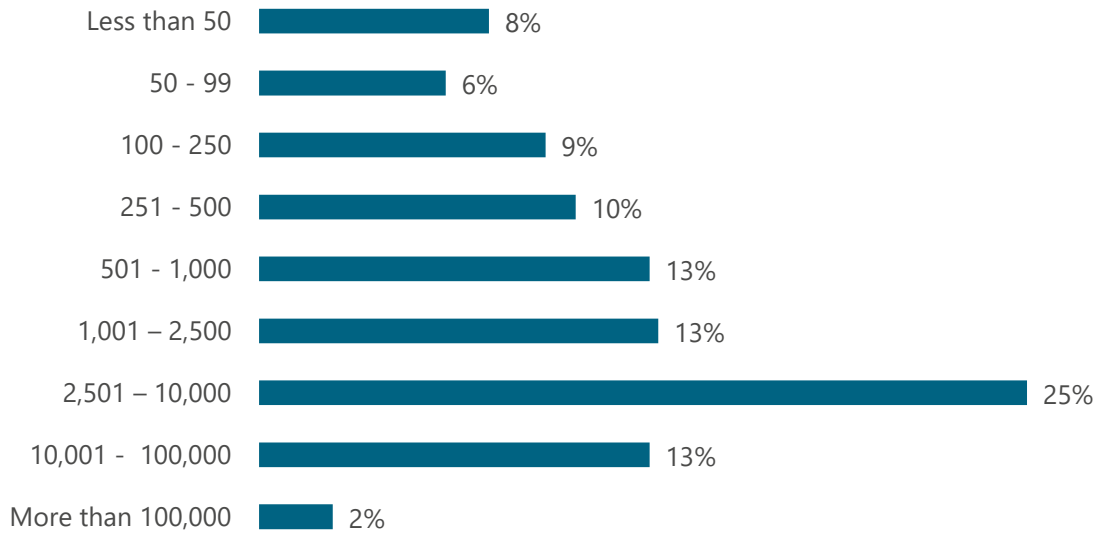


Figure 3: How many employees are there in your entire organization, including all of its branches, divisions and subsidiaries? (n=701)

Vertical markets

We asked all respondents which industry sector their company operates in. The chart below shows the results of this question. Most respondents have a manufacturing background, followed by services and then financial services.

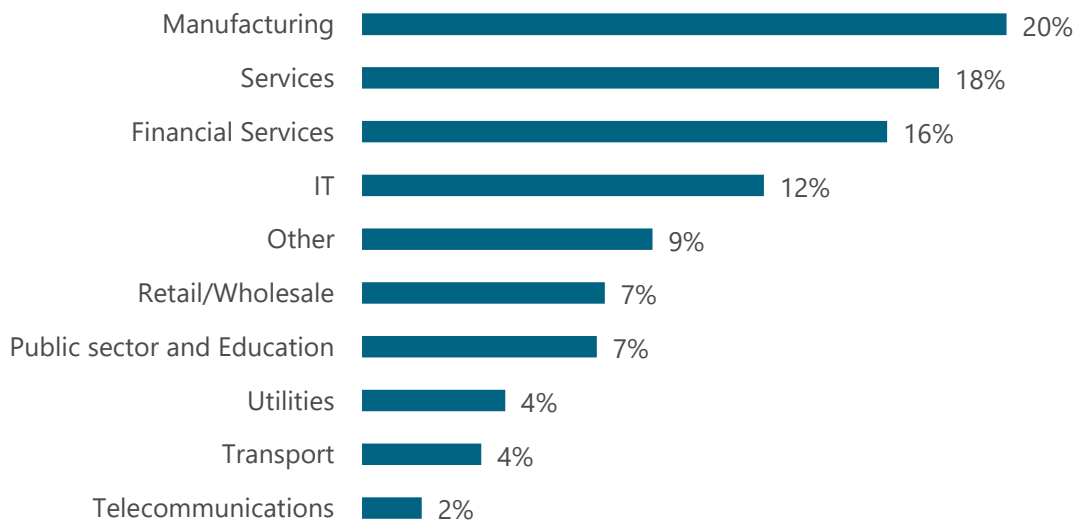


Figure 4: Which of the following best describes your organization's industry sector? (n=814)

Featured products

When grouping and describing the products featured in The Data Management Survey, we did not strictly follow the naming conventions the vendors use. Note that the names we use in this document are our own and are not always the official product names used by the vendors.

One of the key reasons for this is that the products we analyze are not necessarily the latest version of the tool. Vendors often change the product name between versions, making it difficult to have a single official name for several versions of the same product. The point is not to challenge the naming conventions of the vendor, but simply to reduce the complexity of the survey findings for the convenience of the reader. In some cases, we also shorten the names of the products to improve the formatting of the charts.

We asked respondents explicitly about their experiences with products from a predefined list, with the option to nominate other products. Our predefined list can be found at the end of this document. In cases where respondents said they were using an 'other' product, but from the context it was clear that they were actually using one of the listed products, we reclassified their data accordingly.

The following table shows the products included in the detailed analysis. In this edition of The Data Management Survey, a minimum of 20 responses is required for a product to be included in the detailed analysis. The number of responses about 'other' products is not included in the following table.

Table 2: Products included in the sample

Product label	Product name	Respondents
Alation Data Catalog	Alation Data Catalog	33
Amazon Glue	Amazon Glue	21
Amazon Redshift	Amazon Redshift	22
AnalyticsCreator	AnalyticsCreator	22
Collibra DI Cloud	Collibra Data Intelligence Cloud	21
dataspot.	dataspot.	34
Datavault Builder	Datavault Builder	28
Exasol Database	Exasol Database	21
Google BigQuery	Google BigQuery	21
MS Azure Data Factory	Microsoft Azure Data Factory	26
MS Azure Synapse	Microsoft Azure Synapse Analytics	28
MS SQL Server	Microsoft SQL Server	94
Oracle Database	Oracle Database	20
PostgreSQL	PostgreSQL	22
Qlik Data Integration	Qlik Data Integration	24
SAP BW/4HANA	SAP BW/4HANA	30
SAP Datasphere	SAP Datasphere	24
SAP HANA	SAP HANA	20
SAS Data Mgmt.	SAS Data Management	24
Snowflake CDP	Snowflake Cloud Data Platform	21
TimeXtender	TimeXtender	23

The products in the sample vary in their market focus and origin. Most feature in our detailed analysis every year, especially those from the large players.

Peer groups

The Data Management Survey 24 features a wide range of data management tools so we use peer groups to help readers identify and compare competing products. The peer groups are defined using the criteria outlined in Table .

The peer groups are designed to help readers compare similar tools in terms of the scenarios the products are used in. See Table for an overview of the products in each peer group. These functional peer groups are mainly data-driven and based on how customers say they use the product.

Table 3: Peer group descriptions

Peer group	Description
Cloud Data Warehousing	Data warehouse platforms provided as a service in the cloud.
Analytical Database Products	Relational database technologies optimized for analytical workloads.
Data Warehouse Automation	Tools to automate data or requirements-driven data warehouse design and implementation.
Data Catalogs	'Yellow pages' to support search for data and to support governance leveraging metadata in a highly user-friendly environment.
Data Intelligence Platforms	Platforms that support search & discovery, data governance, data collaboration and data access through the automated integration, preparation and analysis/usage of metadata.
Data Platforms	Mainly SaaS platforms that provide integrated end-to-end functionality from data integration to analysis with a special focus on business user support to cover self-service requirements.
Data Pipelining Products	Tools that support various integration patterns to get data connected and make it usable for business purposes.

Table 4: Products by peer group matrix

	Cloud Data Warehousing	Analytical Database Products	Data Warehouse Automation	Data Catalogs	Data Intelligence Platforms	Data Platforms	Data Pipelining Products
Alation Data Catalog				X	X		
Amazon Glue		X	X	X	X		X
Amazon Redshift	X					X	
AnalyticsCreator			X				
Collibra DI Cloud				X	X		
dataspot.				X			
Datavault Builder			X				
Exasol Database	X	X					
Google BigQuery	X	X				X	
MS Azure Data Factory			X				X
MS Azure Synapse	X	X				X	
MS SQL Server		X					
Oracle Database		X					
PostgreSQL		X					
Qlik Data Integration			X	X	X		X
SAP BW/4HANA		X					
SAP Datasphere	X	X	X	X	X	X	X
SAP HANA		X					
SAS Data Mgmt.			X	X	X		X
Snowflake CDP	X	X				X	
TimeXtender			X				

Overview of the key calculations in The Data Management Survey 24

Measuring business benefits

Business benefits are the real reason for carrying out any data management project. The BI & Analytics Survey (formerly known as The BI Survey) and The Planning Survey have been studying them directly for years. The Data Management Survey includes business benefits for the first time this year. We asked respondents the extent to which they have realized a list of benefits.

For each potential benefit, respondents were asked to indicate the level of achievement, if any, with five levels. We use a weighted scoring system, as shown in Table 5 below, to derive a composite score for each of the possible benefits, based on the level of benefit achieved. We call this the BBI (Business Benefits Index).

Table 5: The Business Benefits Index weighting system

Level of benefit reported	Weighting
High	10
Moderate	6
Low	2
Not achieved	-2
Don't know	0

This rating system is the basis of the most important index in The Data Management Survey. It is a dimensionless number with an arbitrary value, but as long as the weighting system remains constant, it can be used for comparisons between segments of the sample, such as the sample for individual products or regions, to name just two.

Participants were asked to rate each benefit. Business Benefits were calculated by counting the number of each reported level of benefit and multiplying this number by the corresponding weighting. The results were then divided by the number of responses for each particular benefit to find the average response.

Figure 5 shows that ‘increasing value from data’, ‘improved decision support’ and ‘increased trust in data’ are the top three benefits companies have achieved through the use of their data management products.

In contrast to the main benefits, ‘improved supplier or partner relationships’, ‘reduction of costs’ and ‘improved customer relations/service’ are seen as relatively minor benefits.

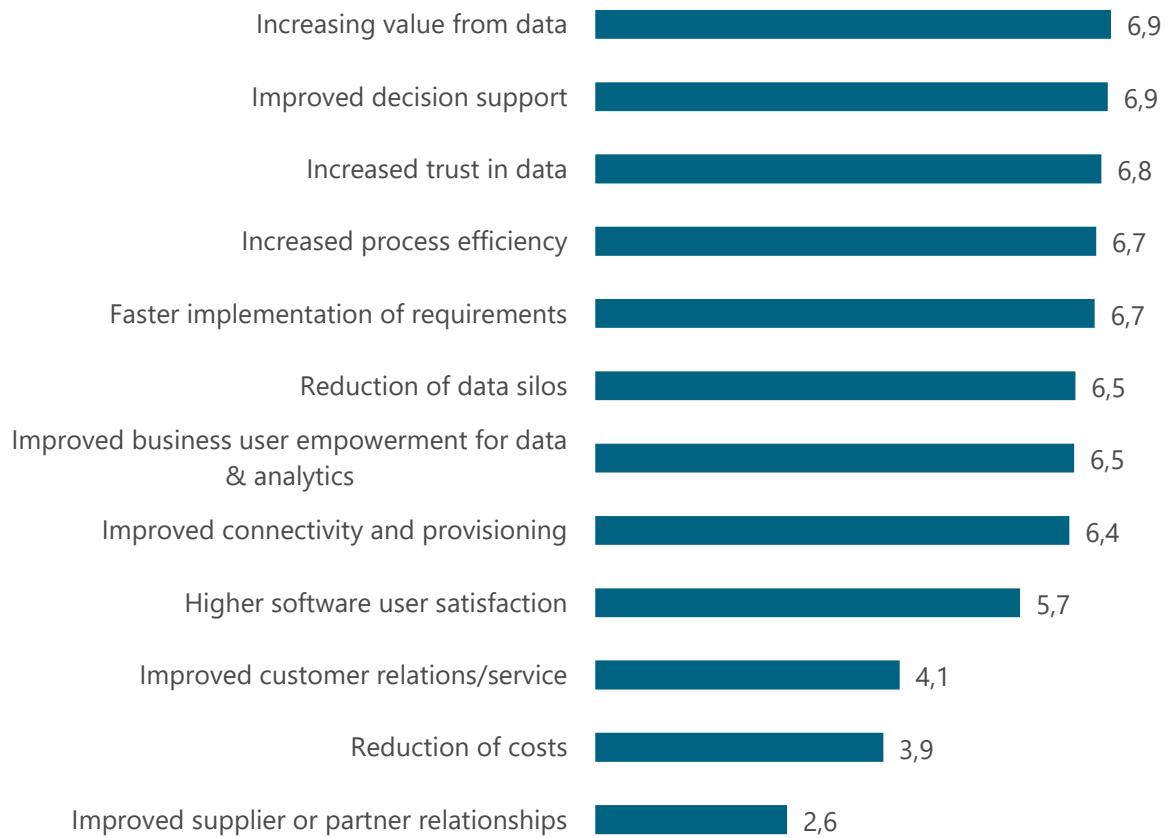


Figure 5: Evaluated business benefits with calculated value (BBI) (n=660)

Project success

The *Project Success* KPI is based on three factors. We asked participants to judge their satisfaction level with their implementations. We also asked the level of success with which their projects were completed on time and on budget and weighted the responses to calculate project success.

The weightings of the possible responses are shown in the following chart.

Table 6: Responses and weightings for *Project Success*

Level of project success reported	Weighting
Good	10
Moderate	5
Poor	0

Means and medians

The Data Management Survey makes frequent references to different forms of averages — means and medians. Just in case your statistical knowledge is a little rusty, here’s a quick reminder of the definition of the terms:

The mean is the usual arithmetic average. Its value is affected by every value in the sample, so a single large outlier can materially affect the mean, particularly with small samples.

The median is the value in the middle of the sample; that is, half of the sample is larger than the median, and the other half is smaller. It could be regarded as the ‘typical value’, and is affected by the number, but not the value, of outliers. One or two large or small outliers therefore do not affect the median.

Understanding multiple response questions

Several questions in The Data Management Survey 24 allow the user to make multiple responses. For example, we asked users what problems (if any) they encountered in their projects. Because many users had more than one problem, the number of responses is larger than the number of respondents.

This means that there are two ways to calculate the percentage of a given response: based on the total number of responses or based on the total number of respondents. We present The Data Management Survey results based on the number of respondents.

Calculating percentages based on the number of respondents tells us how likely a given respondent is to have the problem, but results in percentages higher than 100 percent when all the problems are added together (e.g., 47 percent of all respondents reported that they have no significant problems). Conversely, calculating percentages based on the total number of responses would result in a total of 100 percent.

Survey data collection

The Data Management Survey 24 was conducted by BARC from January to May 2023. All data was captured online from a total of 960 respondents.

Respondents were solicited individually via BARC's own research panel and from dozens of vendor and independent lists, as well as websites from many different countries, with emailed invitations being sent to the lists in a staggered fashion.

At our request, most of the vendors notified their customers about The Data Management Survey using either their regular newsletters or websites. We also asked some bloggers to mention it. Each list and website had a different survey URL, though in all cases, the same questionnaire (in English, German or French) was used.

Understanding the KPIs

The goal of this section is to help the reader spot winners and losers in The Data Management Survey 24 using well-designed dashboards packed with concise information. The Data Management Survey includes a set of 26 normalized KPIs (which we refer to as 'root' KPIs) and 6 aggregated KPIs for each of the 21 products.

We have calculated a set of KPIs for each of the seven peer groups. The values are normalized on the whole sample. Peer groups are used to enable fair and useful comparisons of products that are likely to compete.

The KPIs all follow these simple rules:

- Only measures that have a clear good/bad trend are used as the basis for KPIs.
- KPIs may be based on one or more measures from The Data Management Survey.
- Only products with samples of at least 15 - 30 (depending on the KPI) for each of the questions that feed into the KPI are included.
- For quantitative data, KPIs are converted to a scale of 1 to 10 (worst to best). A linear min-max transformation is applied, which preserves the order of, and the relative distance between, products' scores.

KPIs are only calculated if the samples have at least 15 - 30 data points (this varies from KPI to KPI) and if the KPI in question is applicable to a product. Therefore, some products do not have a full set of root KPIs. It is important to exclude KPIs based on small (and therefore not representative) samples to ensure that the graph scales are not distorted by outlier KPIs. In such cases, the product is still shown in the tables, but with a blank KPI value and no bar in the bullet graph or bar chart.

Table 7: Aggregated and root KPIs

Aggregated KPIs	Root KPIs
Business Value	Business Benefits
	Project Success
	Project Length
Customer Satisfaction	Price to Value
	Recommendation
	Vendor Support
	Implementer Support
	Product Satisfaction
	Sales Experience
	Time to Market
	Product Enhancement
Functionality	Functional Coverage
	Self-Learning
	Active Metadata
	Security & Privacy
User Experience	Ease of Use
	Adaptability
	Deployment & Operations
	Development & Content Creation
Competitiveness	Considered for Purchase
	Competitive Win Rate
Technical Foundation	Performance
	Platform Reliability
	Connectivity
	Scalability
	Extensibility

Reading the KPI charts

We provide two different types of dashboards for viewing the KPIs:

1. A 'Product Dashboard' displays all the KPIs for a single product
2. A 'KPI Dashboard' displays the KPI values for each product in a peer group using simple bar charts. The products are sorted by value in descending order.

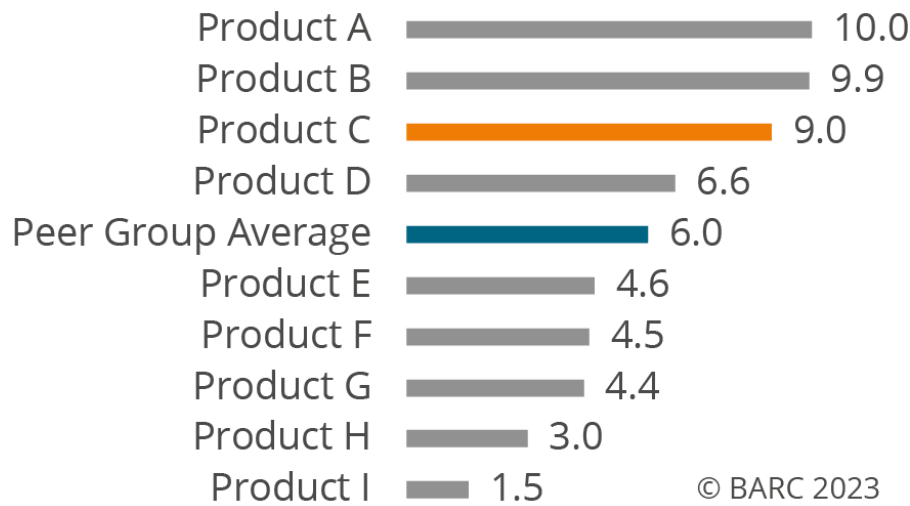


Figure 6: KPI dashboard used for displaying KPIs

In the KPI Dashboards (see Figure 6), the peer group average is indicated by a blue bar.

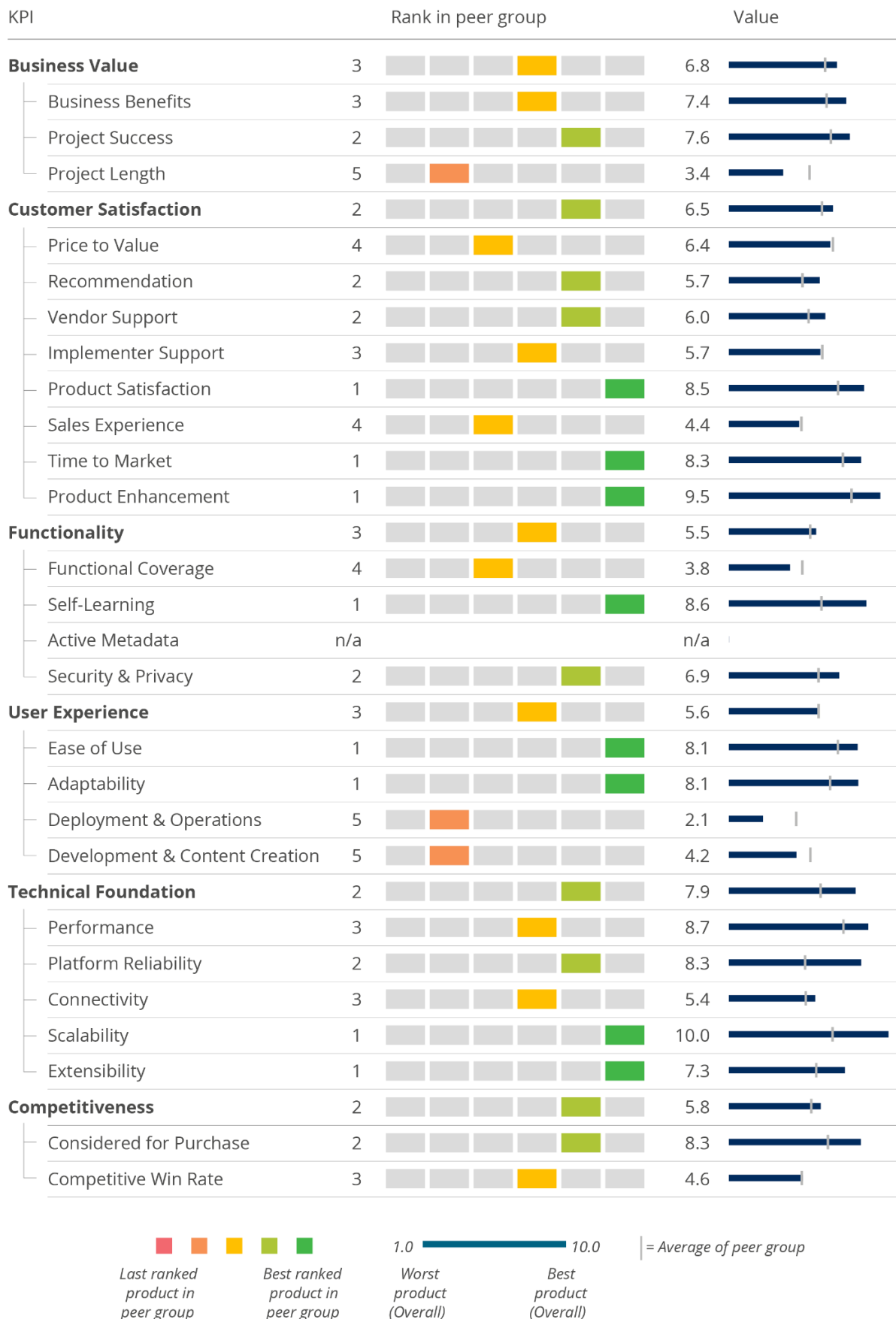


Figure 7: Product dashboard used for displaying KPI results for a single product in a peer group

In Figure 7, the first column shows the KPI name and the middle column indicates the product rank in the specific peer group. As previously mentioned, not every product is represented by the complete set of KPIs. The gray squares show how many products in the peer group have an adequate sample to be classified in each KPI. The next column shows the KPI values for the product in question in each KPI and the blue bars in the final column represent those KPI values against the peer group average, which is indicated by a vertical gray line.

The KPIs (overview)

The following section provides the entire list of KPIs calculated for The Data Management Survey 24, as well as a description of the calculations.

KPIs are only calculated if the samples have at least 15 or 30 data points (depending on the KPI), so some of the products do not have a full set of KPIs. It is important to exclude KPIs based on small (and therefore unreliable) samples to ensure that the graph scales are not distorted by outlier KPIs based on small data samples. In such cases, the product is still shown in the tables, but with a blank KPI value in the bar chart.

Different readers will have their own views on which of these KPIs are important to them. For example, some people will regard *Security & Privacy* as vital, while others may consider *Recommendation* or *Ease of Use* to be more important.

The KPIs below provide a good selection from which readers can choose the ones that best fit their own organization's requirements.

Business Benefits

What we measure

We measure the real benefit of projects after implementation whereas other surveys limit their questions to technical or organizational issues.

Why it is important

Business Benefits is possibly the most important KPI, focusing on bottom-line benefits of software projects, rather than individual technical aspects.

A software project that does not deliver business benefits is superfluous. Unlike core transaction systems, data & analytics software projects are optional, not mandatory, so they must pay their way in terms of delivering business benefits.

How we measure

We ask users to judge each benefit based on a scale of achievement ranging from "high" to "not achieved". Using this information, we weight their responses and calculate the Business Benefits Index (BBI). The KPI is a normalized version of this index.

See Figure 7 for a list of the benefits evaluated by survey participants.

Project Success

What we measure

This KPI is based on a combination of three measures: the level of general user and administrator satisfaction with implementations, as well as the frequency with which projects are completed on time and on budget.

Why it is important

The initial success of a data management project can have a great bearing on the business benefits achieved over time. Our surveys in previous years have consistently found that long-running projects are likely to become costlier than first anticipated, deliver less business benefits and often lead to other significant problems. Therefore, the speed with which a product is implemented can be crucial. User and administrator satisfaction are also an important indicator that the tool has been adopted as envisaged at the outset of the project.

How we measure

Similar to our *Business Benefits* calculations, we ask participants to judge their satisfaction level with their implementations. We also ask the level of success with which projects were completed on time and on budget and weight the responses to calculate *Project Success*. The KPI is a normalized version of this index.

Project Length

What we measure

We measure how long it takes to implement projects.

Why it is important

Rapid implementation is a key measure of project success. Our research over the years has shown that projects with about a three-month implementation time deliver the most business benefits.

How we measure

We divide the number of projects implemented in under three months by the total number of projects.

Business Value

Business Value is a combination of the *Business Benefits*, *Project Success* and *Project Length* KPIs.

Price to Value

What we measure

We ask participants to judge the price-performance ratio of their chosen product.

Why it is important

Data management software has evolved beyond mere cost-saving for data processing. Today, it plays a crucial role in swiftly implementing business requirements, thereby unlocking substantial value from data. This value is particularly evident in the empowerment of business users, granting them flexible access to data.

How we measure

We ask participants to rate the price-performance ratio of their chosen product. To obtain the final KPI, we calculate an average weighted score per product.

Recommendation

What we measure

We measure whether customers already using a product would recommend that product to others.

Why it is important

No one knows more about how a product performs in the real world than the customers already using it. All too often, they find that products don't live up to expectations, or that the vendor does not support the product properly. Therefore, if existing users say they would recommend the product, we regard this as a positive indicator of its value.

How we measure

Users are asked whether they would recommend the product they are most familiar with. This measure is based on the degree and proportion of positive responses.

Vendor Support

What we measure

We measure user satisfaction with the level of support provided for the product by the vendor.

Why it is important

Product support from the vendor is a key determinant for project success. This is an area where there are major differences between vendor ratings.

How we measure

We ask participants to rate the quality of the vendor's support. To arrive at the final KPI, we calculate an average weighted score per product.

Implementer Support

What we measure

We measure user satisfaction with the level of support provided for the product by the implementer.

Why it is important

Product support is a key determinant for project success. As with *Vendor Support*, this is an area where we see major differences between products. The implementer's role can be just as important as that of the vendor.

How we measure

We ask participants to rate the support they received from the implementer. To obtain the final KPI, we calculate an average weighted score per product.

Product Satisfaction

What we measure

We measure the level of satisfaction with the product.

Why it is important

If a product proves unreliable at a critical time, the results can be debilitating, and can even render an application unusable.

However, not all customers have the same dependency on reliability, as some applications are not mission critical or time critical.

How we measure

We ask participants to rate their satisfaction with the product. We calculate an average weighted score per product to arrive at the final KPI.

Sales Experience

What we measure

We measure how companies describe their sales experience with the vendor.

Why it is important

In a competitive space like the data management software market, a highly professional sales organization is essential in order to become successful and continue to win new customers. In an increasingly complex, competitive and digitalized world, vendors that can quickly understand organizations' needs, provide industry-specific knowledge, and offer competitive pricing and contract flexibility are more likely to create a positive sales/purchasing experience for the customer. A positive experience in this regard can be as important to making the right software decision as functional and technical considerations.

How we measure

We ask users to rate their dealings with their vendor in the following seven aspects of the sales/acquisition experience.

- Overall impression of the software selection process and contract negotiations
- Timely and thorough response to product-related questions
- Ability to understand the needs of our business
- Flexibility in terms of pricing/contract
- Industry/domain-specific knowledge
- General conduct
- Marketing/sales promises kept or met expectations

Using this information, we weight the responses and calculate a *Sales Experience* index. The KPI is a normalized version of this index.

Time to Market

What we measure

This KPI is based on how users rate their tool in terms of the time it takes to implement new use cases and changes.

Why it is important

This gives an indication of how easily and quickly changes and innovations can be implemented and then made available in the tool.

How we measure

We ask participants to rate the time-to-market (tool support to reduce the development and implementation time of applications, e.g., data pipeline, predictive model) of their chosen product. To obtain the final KPI, we calculate an average weighted score per product.

Product Enhancement

What we measure

This KPI is based on how users rate their tool in terms of product enhancement.

Why it is important

Efficiency in data management can be significantly improved by using innovative technologies such as AI. The development and adoption by users of new, useful features as well as a robust, well-thought-out and transparent vendor roadmap are important indicators for companies wanting to leverage a tool in the best and most efficient way in the medium to long term.

How we measure

We ask participants to rate the product enhancement (frequency of product innovations, roadmap quality) of their chosen product. To obtain the final KPI, we calculate an average weighted score per product.

Customer Satisfaction

We combine the *Price to Value*, *Recommendation*, *Vendor Support*, *Implementer Support*, *Product Satisfaction* and *Sales Experience* KPIs to calculate this aggregated KPI.

Functional Coverage

What we measure

This KPI is based on how users rate their tool in terms of its functional coverage (i.e., capabilities and functional scope).

Why it is important

Ensuring a close functional alignment with use case requirements is essential. The product must offer comprehensive functional coverage, addressing the diverse use cases it is designed for. Any critical functionality gaps are simply not acceptable. But this is not just about offering an extensive array of features

and functions; it is also important that the software supports various user types in efficiently and intelligently performing their data-related tasks.

How we measure

We ask participants to rate their chosen product's functional coverage. To obtain the final KPI, we calculate an average weighted score per product.

Self-Learning

What we measure

This KPI is based on how users rate the self-learning capabilities of the tool for automation and/or to enhance user experience.

Why it is important

Automation saves resources by pushing workloads to machines and speeds up time-to-market by using intelligent algorithms. It can also be seen as an enabler for data management (e.g., by automating data management tasks or by supporting users to manage data or enabling them to access data). This becomes critical, particularly where data landscapes are growing and becoming increasingly spread across different systems and locations (e.g., on-premises, cloud, edge) and business users continue to become more involved in data management tasks.

How we measure

We ask participants to rate their chosen product's self-learning capabilities (support for automation, e.g., by ML). To obtain the final KPI, we calculate an average weighted score per product.

Active Metadata

What we measure

This KPI is based on how efficiently users can work with active metadata.

Why it is important

In contrast to passive metadata (such as documentation), active metadata focuses on the active use and application of metadata. This can generate benefits, for example, by automating processes based on metadata or by actively notifying users of deviations in data pipelines.

How we measure

We ask participants to rate their chosen product's features for active metadata ((as automated as possible) integration, preparation, analysis and utilization of metadata). To obtain the final KPI, we calculate an average weighted score per product.

Security & Privacy

What we measure

This KPI is based on how users rate their tool in terms of options to secure data and anonymize sensitive data.

Why it is important

Protection against unauthorized data access, both from internal users and external users, can be business critical, especially in times of highly distributed data landscapes and cloud applications. Survey respondents rated this as one of the most important trends in data and analytics.

How we measure

We ask participants to rate their chosen product's security and privacy features (supporting functions for security compliance, especially privacy by design). To obtain the final KPI, we calculate an average weighted score per product.

Functionality

We combine the *Functional Coverage*, *Self-Learning*, *Active Metadata* and *Security & Privacy* KPIs to calculate this aggregated KPI.

Ease of Use

What we measure

We measure the degree to which respondents consider their data management software to be easy to use.

Why it is important

Ease of use is often considered the holy grail of software. It is an important consideration for any vendor seeking to expand its footprint within enterprise sites. Business decision-makers don't want to have to spend a lot of time in training or attempting to learn new interfaces.

How we measure

We ask participants to rate their chosen product's usability. To obtain the final KPI, we calculate an average weighted score per product.

Adaptability

What we measure

This KPI is based on how users rate their tool in terms of adaptability.

Why it is important

The simple integration of the tool into processes and data landscapes is essential. It must be possible to react quickly and easily to changes through configuration or parameterization, ideally without complex programming. This ranges from simple adaptations of the user interface to adapting functions, workflows and security concepts, to flexibility in the adaptation of interfaces.

How we measure

We ask participants to rate the adaptability (tool administration and customization) of their chosen product. To obtain the final KPI, we calculate an average weighted score per product.

Deployment & Operations

What we measure

This KPI is based on how users rate the level of support the tool provides for deployment and operations.

Why it is important

Data-driven work requires robust, reliable data applications. For that, administrators must be supported by functions for deployment and operations, such as versioning, deployment, monitoring, error handling and more.

How we measure

We ask participants to rate their chosen product's support for deployment and operations (deployment of applications and operation of the solution, for example, through scheduling, monitoring, alerting). To obtain the final KPI, we calculate an average weighted score per product.

Development & Content Creation

What we measure

This KPI is based on how users rate the level of support provided by the tool for development and content creation.

Why it is important

Facilitating developers and content creators in crafting data assets is vital for streamlining data provisioning processes. This support encompasses a spectrum of functions aimed at boosting efficiency, such as integrated test management, object reusability and multi-developer environments. It extends to automating repetitive data management tasks and applying machine learning algorithms, including automatic data object classification and PII detection.

How we measure

We ask participants to rate their chosen product's support for development and content creation (e.g., ETL process development, metadata maintenance). To obtain the final KPI, we calculate an average weighted score per product.

User Experience

The *User Experience* aggregated KPI is based on a combination of the *Ease of Use, Adaptability, Deployment & Operations* and *Development & Content Creation* KPIs.

Considered for Purchase

What we measure

We measure how often products are considered for purchase, regardless of whether they are eventually purchased or not.

Why it is important

There are myriad reasons why a product might be considered for purchase by an organization. Factors such as vendor marketing, a pre-existing relationship with the vendor and word-of-mouth can all have an influence. Taking all these factors into account, this KPI provides an interesting indicator as to the strength of a product's market presence.

How we measure

The KPI scores in this category are based on the relative frequency with which products are considered for purchase.

Competitive Win Rate

What we measure

We measure how well products perform against other products in head-on competitions to win customers.

Why it is important

Recognizing which products to evaluate entails understanding which of them have fared well in other organizations' product selections. Eliminating 'losers' at an early stage is important.

The BI & Analytics Survey (formerly known as The BI Survey) and The Planning Survey have consistently found that products from some large vendors are often bought with little or no evaluation and therefore

appear to have an artificially high win rate compared to products from smaller, independent vendors, who have to fight for every sale.

How we measure

We calculate the win rate for products chosen by organizations that have evaluated more than one other product. We divide the frequency with which the product was chosen by the frequency with which the product was evaluated.

Competitiveness

Competitiveness is a combination of *Considered for Purchase* and *Competitive Win Rate* KPIs.

Performance

What we measure

This KPI is based on how users rate their tool in terms of performance.

Why it is important

Performance satisfaction is crucial when loading or querying (large) datasets or when calculating data. In some ways, complaints about performance are more important than performance measured in seconds, because acceptable delays can vary depending upon how the system is used.

How we measure

We ask participants to rate the performance (query performance, load performance, processing performance) of their chosen product. To obtain the final KPI, we calculate an average weighted score per product.

Platform Reliability

What we measure

This KPI is based on how users rate their tool in terms of platform reliability.

Why it is important

A tool brings benefits if it works reliably and is always available. Tool failures are not only annoying, but they can also lead to time-consuming troubleshooting or even threats to the business. This KPI indicates how robust and stable the tool is in everyday use, and therefore how reliable it is.

How we measure

We ask participants to rate the platform reliability (i.e., stability, functional reliability, monitoring capabilities) of their chosen product. To obtain the final KPI, we calculate an average weighted score per product.

Connectivity

What we measure

This KPI is based on how users rate their tool in terms of its connectivity to data sources/targets and interfaces to integrate in ecosystems.

Why it is important

This KPI considers the amount and quality of connectors available to connect to source and target systems. It is always helpful to have the logic in place (and maintained) that enables users to extract and load data or metadata efficiently.

How we measure

We ask participants to rate their chosen software's connectivity (connection to source/target systems). To obtain the final KPI, we calculate an average weighted score per product.

Scalability

What we measure

This KPI is based on how users rate their tool in terms of scalability.

Why it is important

It is vital to be able to adapt the software technically (hardware), functionally and commercially to current needs at any time. This encompasses flexibility and granularity in both scaling up and scaling down as required.

How we measure

We ask participants to rate their chosen product's scalability (with regard to number of users, CPU performance, data volume, processing frequency and functional scope). To obtain the final KPI, we calculate an average weighted score per product.

Extensibility

What we measure

This KPI is based on how users rate their tool in terms of extensibility.

Why it is important

Tools must be open and extensible to fit customer needs. Extensibility encompasses the general ability to integrate with the existing data landscape, the ability to make functional enhancements and the capacity to extend the schemas or metadata models.

How we measure

We ask participants to rate the extensibility of their chosen product in terms of flexibility/openness to add functions or content (e.g., metadata model). To obtain the final KPI, we calculate an average weighted score per product.

Technical Foundation

The *Technical Foundation* aggregated KPI is based on a combination of the *Performance*, *Platform Reliability*, *Connectivity*, *Scalability* and *Extensibility* KPIs.

Product picklist used in The Data Management Survey 24

Action Avance Cloud Data Platform	Action DataConnect
Alation Data Catalog	Amazon Glue
Amazon Redshift	AnalyticsCreator
Anomalo	Anzo Platform
Astera Centerprise	Astro
Ataccama ONE Platform	Atlas
biGENIUS	Bigeye
Boomi AtomSphere Platform	cData Sync
CelerData Cloud	Cloudera Data Platform
Co>Operating System	Collibra Data Intelligence Cloud
Data Catalog 360°	Data Loader
Data Productivity Cloud	Data Virtuality Platform
Databand	Databricks Lakehouse Platform
Databuck	DataOps.live
dataspot.	Datavault Builder
dbt Labs dbt	Denodo Platform
Dremio Lakehouse Platform (Sonar + Arctic)	erwin Data Intelligence
Exasol Database	Fivetran

Google BigQuery	Greenplum Database
Hitachi Lumada Data Platform	IBM Cloud Pak for Data
IBM Db2 Database	IBM Db2 Warehouse on Cloud
IBM InfoSphere Federation Server	IBM InfoSphere Information Server
IBM Watson Knowledge Catalog	Intelligent Data Management Cloud
Kensu	MariaDB Server
MariaDB SkySQL	Matillion ETL
Microsoft Azure Data Factory	Microsoft Azure Synapse Analytics
Microsoft Purview	Microsoft SQL Server
Monte Carlo	OneLogic ONE DATA Cartography
Oracle Autonomous Data Warehouse Cloud	Oracle Cloud Infrastructure Data Catalog
Oracle Data Integrator	Oracle Database
Orion Enterprise Information Intelligence Graph (EIIG)	Palantir Foundry
PostgreSQL	Precisely Data Integrity Suite
Qlik Catalog	Qlik Data Integration
Raw Labs RAW	Rivery Enterprise
Rocket Data Intelligence	SAP BW/4HANA
SAP Data Intelligence	SAP Data Warehouse Cloud
SAP Datasphere	SAP HANA
SAP HANA Cloud	SAS Data Management
SAS Federation Server	SAS Information Governance

Simba n ³ DataWarehouseBuilder	SnapLogic Intelligent Integration Platform
Snowflake Cloud Data Platform	Soda Enterprise
Starburst Enterprise	Starburst Galaxy
Synabi D-QUANTUM	Talend Data Fabric
Talend Stitch	Teradata Vantage
TIBCO Data Virtualization	TIBCO Metadata Management
TimeXtender	Unravel Enterprise
VaultSpeed	Vertica Analytics Platform
WhereScape 3D	WhereScape Data Vault Express
WhereScape RED	Y42
Yellowbrick Data Warehouse	Zeenea Data Discovery Platform (formerly Data Catalog)

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