

The Forrester Wave™: Data Governance Tools, Q2 2014

by Henry Peyret and Michele Goetz, June 24, 2014

KEY TAKEAWAYS

Vendors Are Emerging To Support The Strategic Side Of Data Governance

Data is taking center stage for businesses looking to stay competitive. Data governance has shifted from a technology management endeavor to a business imperative. Vendors offer new tools and capabilities to support the business-oriented program of data governance rather than merely automating data governance tasks.

Data Governance Must Support Planning, Operations, And Transparency

As business data stewards become accountable for data governance success, they need solutions to support their activities. It is not enough to collect data policies and rules; business data stewards need capabilities that align to the processes and management of data as a “new” business asset.

Collibra Shows The Direction; IBM and Informatica Have Broad Coverage

Collibra sets itself apart by providing a single workbench that unifies the view and workflow for data governance management across three of the five data governance domains. IBM and Informatica currently support the five current data governance domains but in a less unified fashion.

The Forrester Wave™: Data Governance Tools, Q2 2014

Data Governance Vendors Are Preparing Data Governance 2.0 Management Tooling

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WHY READ THIS REPORT

Data-driven opportunities for competitive advantage abound. As a consequence, the importance of data governance — and the need for tooling to facilitate data governance — is rising. In Forrester's 25-criteria evaluation of data governance tooling vendors, we identified and evaluated the 10 most significant software providers — Adaptive, ASG Software Solutions, Collibra, Global IDs, IBM, Informatica, Information Builders, SAP, SAS Institute, and Trillium Software — in the category. This report details how well each vendor fulfills our criteria and where they sit according to the data governance 2.0 journey. It will help enterprise architecture professionals select the right partner to meet their data governance needs.

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Notes & Resources

Forrester conducted demo- and questionnaire- based evaluations in December 2013. Forrester interviewed 26 vendor and user companies, including Adaptive, ASG Software Solutions, Collibra, Global IDs, IBM, Informatica, Information Builders, SAP, SAS Institute, and Trillium Software.

Related Research Documents

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[The Transformation Of Data Governance](#)

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May 20, 2013



DATA GOVERNANCE TOOLS MUST TRANSITION INTO BUSINESS SOLUTIONS

As organizations begin to exploit the value of data for strategy and operations, they recognize that data governance has to be about helping the business realize the value potential in data. As such, stakeholders in marketing, sales, customer service, and finance are becoming much more involved and accountable. Forrester Research has identified an emerging category of tools to support data governance management involving business users.¹ It defines this category as:

Data governance tools provide capabilities that support the administrative tasks and processes of data stewardship. These tools support the creation of data policies, manage workflow, and provide monitoring and measurement of policy compliance and data use.

Data governance tools to date have emphasized the automation and processing of data according to rules and standards. These techy data management tools have been off-putting and confusing to business stakeholders. Furthermore, the tools have lacked capabilities to support the business governance of data, such as its use in impact assessment, budgeting, planning, and process management.² Technology management professionals have shouldered the burden of educating the business on the data, since the tools don't communicate what the business wants to know. Likewise, there hasn't been an easy way for business stakeholders to convey to technology management how the business wants to collect, aggregate, and use data more freely and in self-service.

Data Governance Vendors Are Following Their Customers' Governance Evolution

Data management vendors are on a "fast follow" path of maturing data governance practices within organizations. Early efforts to support data governance through messaging, thought leadership, and consulting offerings are giving way to investments in profiling, reporting, workflow, and business-friendly user interfaces to enable the business to collaborate with technology management. Data governance workbenches and functionality in tools such as master data management (MDM), data quality, and metadata management are now better equipped to link to data policies (i.e., consistency, correctness, completeness, relevancy, etc.). This gives business data stewards better operational control to validate and manage data compliance with data policies. Still missing, however, is a single solution to govern data across the five areas of data governance — data quality, MDM/reference, metadata management, security, and information life-cycle management — and, more importantly, the ability to tie data compliance to quantifiable business impact. Some increasingly important domains like privacy will require collaboration across the five typical and historical domains.

DATA GOVERNANCE MANAGEMENT TOOLING IS AN EMERGING MARKET

Although aspects of data governance management, such as data modeling and quality, have been addressed by tools for decades, the concept of data governance management is an emerging market need. This emerging market includes several categories of vendors:

- **The data management platform vendors.** IBM, Informatica, and SAP represent the category of vendors that have assembled a broad data governance offering from the multiple products they acquired or developed over years. Rationalizing these separate products into a foundational platform is a work in progress.
- **The business intelligence (BI) platform vendors.** Information Builders and SAS are approaching data governance from the BI market space. Knowing the BI space, they have integrated some data governance capabilities in their products to cover quality or master data, for example. Since these vendors offerings are more organically developed, they often already have the foundational platform elements (such as a repository, collaboration tools, and dashboards) for data governance management. Due to demanding customers, data governance is a “should have” in their existing offerings, and they possess many of the new data governance capabilities.
- **The data governance specialists.** Collibra and Global IDs represent privately held data governance specialists. Several years ago, they each identified a market need not served by the existing players, and they are expanding from there. Collibra is offering stewardship management for data governance, partnering with multiple other vendors in this space. Global IDs chose to instrument a technical data governance platform specifically addressing technology management concerns.
- **The metadata repository vendors.** Adaptive and ASG Software Solutions are two well-known repository vendors that support not only metadata but also enterprise architecture models. They both provide data glossary and data lineage capabilities. More recently, they added collaboration as well as some dashboarding, making them candidate solutions for data governance.
- **The quality governance specialist.** Trillium Software represents a data governance execution platform specialist making efforts to address data governance management capabilities to ease quality remediation and profiling, including for business users.

Other categories of vendors at the periphery of data governance include data modeling vendors, such as Embarcadero ER Studio. While not data governance management solutions as Forrester defines them, many customers are using these repository, modeling, and collaboration products to develop data governance management capabilities.

As this is the beginning of the big shift toward data governance 2.0, it is normal to see such heterogeneous vendors in the data governance category. We expect to see more change in this market in the future. For example, governance, risk, and compliance (GRC) platform or enterprise architecture management suite (EAMS) vendors may develop offerings, as they have the experience of adding management capabilities to their existing respective risk assessment or enterprise architecture modeling functionality.

DATA GOVERNANCE TOOL EVALUATION OVERVIEW

To assess the state of the data governance tool market and see how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of top data governance tool vendors.

As this is an emerging market, Forrester considered multiple products in the vendors' offerings covering two or more of the five data governance domains.

Evaluation Criteria: Current Offering, Strategy, And Market Presence

After examining past research, user need assessments, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria. We evaluated vendors against 25 criteria, which we grouped into three high-level buckets:

- **Current offering.** We focused on data governance management coverage within the five domains of quality, reference, life-cycle management, security/privacy, and metadata, looking at the two aspects of content and dashboards. Then we included additional criteria for collaboration, stewardship, and advanced capabilities.
- **Strategy.** We reviewed each vendor's strategy, evaluating its platform architecture, market development efforts, and product and company strategies. The development of a foundational product architecture and strategy supported by heavy investments is required to move forward to data governance 2.0.
- **Market presence.** To determine a vendor's market presence, we took into consideration each vendor's installed base, community, professional services, partners, and global presence. In an emerging market, the current market presence is less important than being a thought leader on the domain.

Selected Vendors Are Strong In Data Governance 1.0 Capabilities

Forrester included 10 vendors in the assessment: Adaptive, ASG Software Solutions, Collibra, Global IDs, IBM, Informatica, Information Builders, SAP, SAS Institute, and Trillium Software. Each of these vendors has:

- **Thought leadership for data governance 1.0.** Included vendors are thought leaders in the existing data governance execution market. They cover at least partially two of the five primary domains for data governance: quality, reference, life-cycle management, security/privacy, and metadata management.
- **Enterprise interest and track record.** Enterprise customers — defined as those with more than \$500 million annually in revenue — deploy the products offered by the included vendors, whether through enterprisewide deployments or department-level deployments.

- **Forrester client interest.** Forrester clients express interest in learning more about the evaluated vendors, frequently asking about the evaluated vendors within the context of inquiry, advisory, and/or consulting.

Due to the heterogeneity of the vendors included in our assessment — different vendors come from different domains, and many vendors have distinct products for different domains — we let the vendors propose different products covering the different criteria (see Figure 1). This aligns with how customers currently buy and implement governance tooling — starting with a module and then expanding with other purchases.

Figure 1 Evaluated Vendors: Product Information

Vendor	Product	Version	Generally available date
Adaptive	Business Glossary Manager	6.3	9/19/2013
	Metadata Manager	6.3	9/19/2013
	Enterprise Architecture Manager	6.3	9/19/2013
	IT Portfolio Manager	6.3	9/19/2013
ASG Software Solutions	ASG-Rochade Server	7.60.003	8/2013
	ASG-metaGlossary	3.0.001	10/2013
Collibra (These three products are often sold as a fully integrated [technically one and the same platform] product suite, which is called Data Governance Center.)	Business Semantics Glossary	4.2	12/2013
	Reference Data Accelerator	4.2	12/2013
	Data Stewardship Manager	4.2	12/2013
Global IDs	Metadata Governance Suite	8.1	4/2013
	Master Data Governance Suite	8.1	4/2013
	Enterprise Data Governance Suite	8.1	4/2013
	Big Data Governance Suite	8.1	4/2013
	Enterprise Information Management Suite	8.1	4/2013
	LEI Integration Suite	8.1	10/2013
IBM	InfoSphere Information Server	9.1.2	8/2013
	InfoSphere MDM	11	6/2013
	InfoSphere Optim	9.2	11/2013
	InfoSphere Guardium	9.2	11/2013
	IBM OpenPages	6.2.1	4/2013
Informatica	Data Masking	9.5.2	5/2013
	Data Archive	6.2	5/2013
	Data Quality	9.5.1	12/2012
	MDM	9.6.1	6/2013
	Metadata Manager and Business Glossary	9.5.1	12/2012

Source: Forrester Research, Inc.

Figure 1 Evaluated Vendors: Product Information (Cont.)

Vendor	Product	Version	Generally available date
Information Builders	iWay Data Quality Suite	8.0.2	6/18/2013
	iWay Master Data Suite	8.0.2	6/18/2013
	iWay Data Steward Portal	8.0.2	6/18/2013
	iWay Data Profiler	8.0.2	6/18/2013
SAP	SAP Data Services Enterprise includes the following: A) SAP Data Services B) SAP Information Steward C) SAP PowerDesigner	Data Services — 4.2 Information Steward — 4.2 PowerDesigner — 16.5	Data Services — 5/13/2013 Information Steward — 5/13/2013 PowerDesigner — 2/7/2013
	SAP Information Lifecycle Management includes the following capabilities: A) Archiving B) Retention management C) System decommissioning D) Test data management	7.02	5/12/2013
	SAP Master Data Governance	7.0	11/12/2013
		6.1	9/14/2012
	SAP Access Control	10.1 10.0	6/14/2013 12/12/2010
SAS Institute	SAS Master Data Management Advanced	9.4M1	12/2013
	SAS Data Management Advanced	9.4M1	12/2013
	SAS Data Quality Advanced	9.4M1	12/2013
	SAS Data Governance	9.4M1	12/2013
Trillium Software	The Trillium Software System	14.5	9/1/2013
	The Trillium Software Series	7.14	9/1/2013
	Trillium Software Director	Third-party connectors — no individual GA date	
	Trillium Software On-Demand		1/1/2013
	Trillium Claims Data Quality Trillium CCAR		1/1/2013 1/1/2013

Source: Forrester Research, Inc.

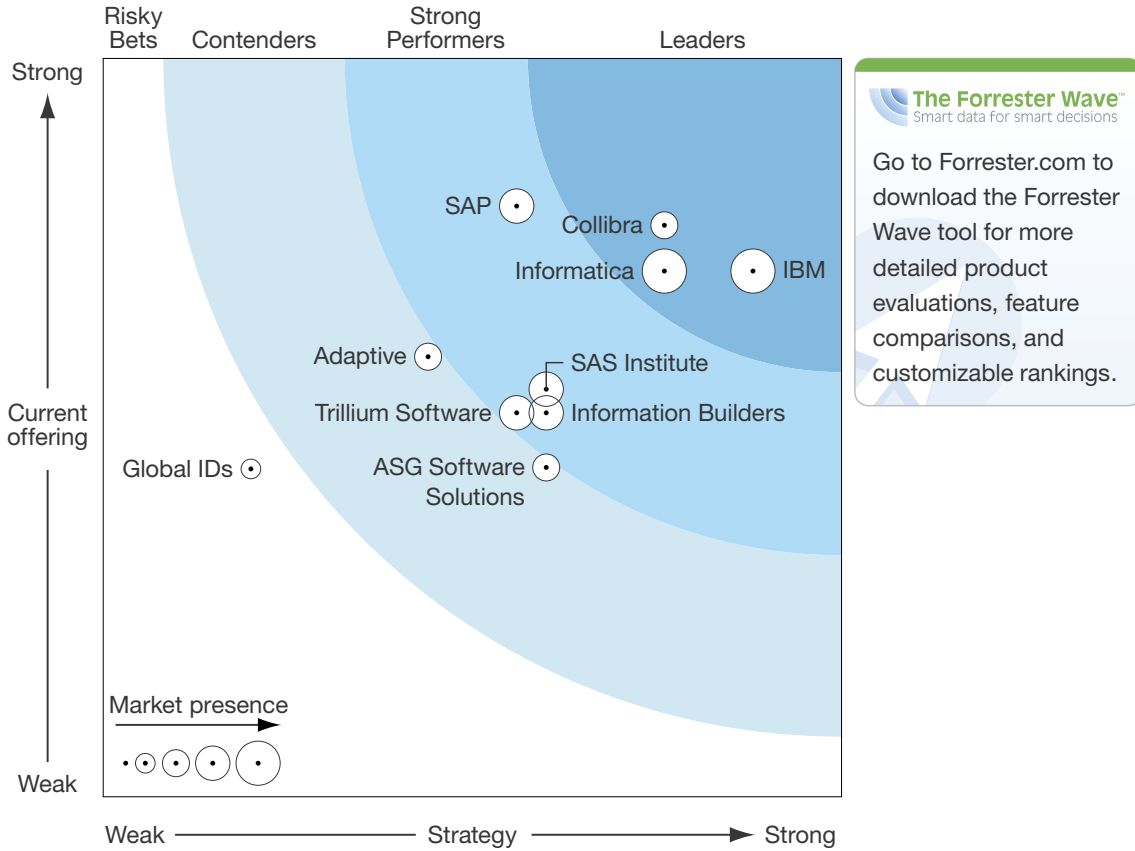
THE EVALUATION REVEALS A MARKET IN TRANSITION

The evaluation uncovered a market in which (see Figure 2):

- **None of the vendors provides full data governance management coverage and collaboration.** Next-generation data governance requires: 1) broader coverage beyond just data quality or metadata; 2) more flexible collaboration than predefined workflows; and 3) providing value to business users with specific capabilities like business-oriented dashboards. None of the reviewed solutions fully offers these three sets of capabilities in a single product or even within an integrated offering.
- **Three vendors — Collibra, IBM, and Informatica — lead the pack.** The data governance tooling market is in transition, and most vendors are working on consolidating platforms, integrating the existing tool set, and developing advanced collaboration capabilities and dashboards out of the box — without a real endorsement of data governance 2.0. At this moment in time, the best offering aligned with this direction comes from a specialist vendor Collibra that understands the new needs of the market, particularly for business users. IBM and Informatica are not far behind, thanks to coverage of the five current domains of data governance.
- **Several vendors, led by SAP, show strong offerings but are still in transition.** A group of four vendors — SAP, SAS Institute, Information Builders, and Trillium Software — have strong offerings and show what well-known vendors have at present. In general, they are either lacking on strategy or lagging behind in terms of platform consolidation and collaboration capabilities.
- **Two vendors are Contenders but would require a change of strategy to move up.** Adaptive is a typical small vendor with limited investment capability, and its strategy is to stay within its niche markets. ASG Software Solutions is only starting to understand the evolution of data governance from IT-centric to business-centric.
- **Data profiling is a critical element but not enough on its own for holistic data governance.** Global IDs excels at data profiling, providing a detailed perspective of data conditions and compliance with business rules in any environment for data developers. Additional workflows, data visualization, policy management, and an improved user interface are needed to support business data stewardship.

This evaluation of the data governance tooling market is intended to be a starting point only. We encourage clients to view detailed product evaluations and adapt criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool.

Figure 2 Forrester Wave™: Data Governance Tools, Q2 2014



Source: Forrester Research, Inc.

Figure 2 Forrester Wave™: Data Governance Tools, Q2 2014 (Cont.)

	Forrester's Weighting	Adaptive	ASG Software Solutions	Collibra	Global IDs	IBM	Informatica	Information Builders	SAP	SAS Institute	Trillium Software
CURRENT OFFERING	50%	2.98	2.23	3.87	2.22	3.56	3.56	2.60	4.00	2.76	2.60
Content	15%	3.17	2.27	3.61	2.90	5.00	5.00	3.32	4.40	3.78	3.46
Dashboards/metrics/outcomes	35%	2.70	1.96	2.97	2.54	4.19	3.74	3.00	4.28	3.47	2.41
Data governance development	35%	3.60	3.00	4.40	1.70	1.70	3.00	3.00	4.40	1.95	3.10
Advanced capabilities	15%	2.00	1.00	5.00	2.00	5.00	3.00	0.00	2.00	2.00	1.00
STRATEGY	50%	2.20	3.00	3.80	1.00	4.40	3.80	3.00	2.80	3.00	2.80
Platforms and partner strategy	30%	3.00	3.00	5.00	1.00	3.00	5.00	3.00	1.00	5.00	3.00
Market development strategy	10%	3.00	3.00	1.00	1.00	5.00	5.00	3.00	3.00	5.00	5.00
Product strategy	40%	1.00	3.00	3.00	1.00	5.00	3.00	3.00	3.00	1.00	1.00
Company strategy	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Company investment priorities	20%	3.00	3.00	5.00	1.00	5.00	3.00	3.00	5.00	3.00	5.00
MARKET PRESENCE	0%	2.80	2.60	2.45	1.40	5.00	4.40	4.00	3.90	3.50	3.90
Installed base	10%	1.00	3.00	1.00	1.00	5.00	5.00	1.00	5.00	3.00	5.00
Community	20%	3.00	3.00	3.00	3.00	5.00	3.00	3.00	3.00	3.00	3.00
Product revenues	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Service offering	10%	3.00	1.00	2.00	1.00	5.00	3.00	3.00	5.00	3.00	3.00
Partners	35%	3.00	1.00	3.00	1.00	5.00	5.00	5.00	3.00	3.00	5.00
Global presence	25%	3.00	5.00	2.00	1.00	5.00	5.00	5.00	5.00	5.00	3.00

All scores are based on a scale of 0 (weak) to 5 (strong).

Source: Forrester Research, Inc.

VENDOR PROFILES

Leaders

- IBM works to stitch together all five data governance categories.** IBM fully covers all five data governance domains in support of data policy, business rules, and standards. Individual tools are robust and complete, managing across the physical and business needs and expectations of data. There is significant cohesion between InfoSphere MDM, data quality, reference data management, metadata management, and business glossary when MDM is the focal point of data governance. These tools are bundled and integrated with a single repository and workflow for MDM via InfoSphere Information Governance Catalog. Guardium and ILM/Legal operate

independently but go beyond data management objectives and incorporate reference data and content specific to regulatory, legal, and business processes. Stewardship environments are still oriented toward data management rather than data governance. However, IBM plans to release a data governance workbench for business data stewards to centrally manage, monitor, and act upon data governance objectives. Versioning is another area of weakness. Individually within products, versioning is well supported through robust metadata capture for policies, rules, standards, and processes. However, coordination across products outside of metadata changes is still a challenge unless associated specifically with a fully implemented InfoSphere MDM suite. The platform strategy focusing on modularity is good for customers' implementation flexibility but represents a challenge going toward data governance 2.0.

- **Collibra shows the direction for tool-enabling data governance 2.0.** Collibra covers three domains: metadata with Business Semantics Glossary, data quality (through its relationship with Harte Hanks Trillium Software), and reference data with the Reference Data Accelerator product offering. In addition, Collibra provides a collaboration environment called Data Stewardship Manager. These three products benefit from working on the same platform and can be grouped in a suite called Data Governance Center. Despite its modest coverage of some capabilities, like life-cycle management and security/privacy, Collibra is currently the vendor that is the closest to data governance 2.0 — associating a coherent data governance management platform with a clear business orientation. It is separating quality capabilities management from quality execution. (Partner Trillium handles execution.) Partnering is a critical facet to its growth and the completeness of its current offering. Collibra's governance 2.0 solution is built on strategic relationships and certified connectors. However, its leadership position could be at risk without further development or acquisition of capabilities to process data governance rules, if larger competitors such as IBM, Informatica, and SAP stick with their road maps for data governance enhancements. Overall, this growing company has a clear strategy and is the front-running vendor on the data governance 2.0 journey, but it would need to partner further toward security and life-cycle management and add privacy as a new complete data governance domain.
- **Informatica enables data governance via connectivity expertise.** Breadth of data policy and rule creation and management are Informatica's strengths, providing the granularity required and aggregating and informing the relationship between data and business consumption. The combination of Informatica Data Quality, MDM, Metadata Manager and Business Glossary, Data Masking, and Data Archive cover the five data governance areas today. Informatica Metadata Manager and Business Glossary are central to all four products to capture and manage a central repository of data standards. Informatica's Data Quality, MDM, and Metadata Manager and Business Glossary tools share a common repository for standards, rules, and models to maintain data consistency and accuracy in data processing. Additionally, workflow can be integrated across these products for development and ongoing management of data governance policies, rules, and standards. Product integration is not always as smooth as customers expect, but those that have built their data governance capabilities over time report that this is getting

easier. Supporting the stewardship organizational structure and responsibilities is a challenge. While all Informatica products in the data governance offering have a rich metadata foundation for roles, responsibilities, security, access, and workflow tasks, it is primarily in the hands of technology management to administer. Overall, Informatica has a strong data governance strategy and supports customer needs through communities, online tools, thought leadership, and business-oriented consulting. The product road map is positioned to address more of the program aspects of data governance and takes into account the wider data ecosystem (cloud, big data, open data, etc.) of modern data strategies.

Strong Performers

- **SAP moves governance to the business.** SAP Master Data Governance (MDG), PowerDesigner, Data Services, and Information Steward make up SAP's data governance offering. The inclusion of SAP PowerDesigner makes SAP's solution unique compared with the other vendors'. SAP incorporates the enterprise architecture view of data, putting data sources in the context of business capabilities. This goes beyond the repository that metadata management tools provide, by linking data policies and business rules to points of consumption. It creates a universal library for syndication through SAP Data Services. SAP PowerDesigner stops at the edge of the business data steward and unfortunately is not integrated to the rest of SAP offering. Here, customers need to switch over to SAP MDG and Information Steward to develop data policies and business rules, profile and monitor data processes, and manage remediation workflow. Business data stewards use these tools to govern the quality of data, manage reference data sources, and oversee master data domains. While these environments are user-friendly, SAP business solution customers also have the ability to infuse data governance administrative capabilities and tasks into SAP's customer relationship management and enterprise resource planning systems or its BI environment. Most compelling are a total cost of ownership and return on investment calculator and an accuracy percentage within reports. SAP provides data stewards the ability to input business metrics and model outcomes based on data conditions and business rules to test and optimize policies and data processes. SAP does not include its information life-cycle management tools in its data governance offering, and security support is constrained to capabilities within the data governance offering itself, rather than over broader data security and access strategies. SAP's biggest challenges are its strategy and ability to communicate capabilities in the context of data governance administrative and strategic responsibilities. The products are presented individually and lack a cohesive story and value proposition, which creates confusion between technology-management-oriented tools and the data governance capabilities being added for business data stewards.
- **SAS Institute creates transparency.** Data profiling capabilities are the backbone of SAS's data governance workbench. It emphasizes reference data profiling to understand the state of data and linkage at the source as well as to track lineage and provenance. Customers cite the ability of business users to explore, visualize, and understand the data as a key differentiator. Metadata

management is also strongly supported: capturing metadata and classifying data form factors, business glossary of terms, taxonomies, and data relationships such as hierarchies. These strengths help data scientists and business data analysts know what is available and how to best model the data for business intelligence and analytics. SAS provides support for life-cycle and legal management (FACTA, HIPAA, Basel II/III, legal hold, etc.), but demonstrations and client feedback indicate that this is limited. Additionally, setting up and managing roles and responsibilities is still an administrative task managed by technology management. It is important to recognize that SAS Data Governance is incorporated into the overall SAS Data Management platform and is well positioned to manage data governance for the SAS Analytics and Marketing solutions. This is both a strength and point of caution because data governance 2.0 requires connecting operational business users and not only BI users. However, the SAS Analytics and Marketing solutions provide a direct link to understanding the impact of data conditions against data policies, with the ability to measure that impact on business outcomes. In a SAS environment already in place, SAS Data Governance represents a strong offering with a business-focused data governance capability — one that is managed at the point of consumption versus deep within the data infrastructure.

- **Information Builders is developing data governance 2.0 vertical solutions.** Well-known for its business intelligence products and iWay data integration solutions, Information Builders also offers a suite of products called iWay Master Data Suite, which includes iWay Data Steward Portal, iWay Data Quality Server, and iWay Data Profiler. With these different products, Information Builders covers the quality, reference, and metadata management data governance domains while the security/privacy domain remains weak and life-cycle management is nearly nonexistent. The dashboards remain limited to technical users. Information Builders is adept at executing business rules and processes. The ability to support the management-related, strategic aspects of data governance is still in the early stages. Promising investments in and early rollout of new MDM solutions for the healthcare and pharmaceutical industries are setting the stage for advanced data governance enablement. As these and other planned solutions come to market and capabilities on the road map are released, Information Builders will realize its potential as a data governance tool for data stewardship processes, planning, and management.
- **Trillium Software links data quality to business outcomes.** Trillium Software places data quality at the heart of data governance, providing a consistent strategy for Trillium Software's solution capabilities and professional services. The user environment takes into account the roles and responsibilities of different users, guiding governance activities across management, policies, and data processing to support and enforce collaboration between business and technology management professionals. Because not all remediation processes can be designed in advance, Trillium provides a case management approach that greatly improves quality process agility and would become a great must-have for data governance 2.0 to let business users solve future challenges like privacy. Business data rules are organized by business processes, industry, and regulatory data policy categories. Content (i.e., business rule library, prebuilt data processes,

and packaged reporting) is provided through business solutions specifically for financial services firms. Content is also available through Trillium Apps, its developer community. TS Discovery, the data profiling capability in the Trillium Software solution performs out-of-the-box assessment of data quality conditions to monitor and alert data stewards of issues. Through a partnership, Trillium offers a shared repository with Collibra's Data Governance Center workbench. The business impact of data quality conditions can be measured through reporting integration with business intelligence solutions QlikTech and Tableau. While Trillium Software has the strategic and administrative building blocks of a data governance tool, the solution requires significant professional services involvement compared with other data governance tools to implement the full range of capabilities. In addition, Trillium's emphasis on data quality and its focused relationship with Collibra for metadata and a user-friendly workbench create a data governance silo from other key governance areas of security, information life-cycle management, and MDM. Even with these gaps in data governance coverage, Trillium's strategy to align data quality governance to business impact and to translate this impact into transparent business outcomes sets it apart.

Contenders

- **Adaptive brings the best independent metadata management offering.** Adaptive provides its Business Glossary Manager and Metadata Manager built around a repository. These three data governance products taken together cover quality and reference pretty well, but they are weaker on security and life cycle. They cover metadata very well, of course, but could be better with out-of-the-box dashboards. For the collaboration aspects, Adaptive provides a workflow engine and a good version management feature. Its weakest point is that its strategy relies on maximizing the use of standards. Standards ease integration (which is critical for a metadata repository), but the evolution toward data governance 2.0 requires a greater business orientation through, for example, more business-oriented dashboards and outcomes and more flexible collaboration capabilities. The two products assessed in this Forrester Wave can be completed by two additional offerings based on the same repository: Enterprise Architecture Manager and IT Portfolio Manager. Today they provide Financial Industry Business Ontology (FIBO) metamodels for the financial services vertical. Linking data assets to business, risk, or infrastructure models will become important to continuously assess the “risks versus rewards” of data usage. For this version of the Forrester Wave, we did not account for this potential, but it could represent an interesting differentiator for the future. Adaptive's strategy then would require more focus on out-of-the-box business dashboards to exploit this potential.
- **ASG Software Solutions offers metadata repository and glossary toward data governance 2.0.** ASG's data governance offering is based on ASG-Rochade Server and ASG-metaGlossary, providing a strong metadata repository. Other governance domains covered are quality and security. ASG's global dashboards capabilities are weak. ASG provides a governance workflow with a voting system — interesting for consensus-based decisions — and a good versioning

capability. This provides a good foundation as the central point to create and manage data policies, business rules, and standards across all five areas of data governance. While ASG's opportunity is similar to Collibra's — that is, if it deepens the integration of its repository with data processing, customers will have holistic monitoring and coordination between data governance and development — its current strategy is focused on being a global reference point for metadata. ASG's management board changed recently and decided to rationalize the product portfolio: Information and content including Rochade is one of the top three priorities. Big data support, information quality, and reference data management are upcoming enhancements in a new offering called MetaRDM. This offering has not been scored in the current Forrester Wave, as ASG released the product after the end of product evaluations at the end of March 2014. Risk computation for data usage is also planned for future product development as well as a partnership with Collibra for 2-way integration, which moves ASG a good way toward data governance 2.0.

Risky Bet

- **Global IDs supports IT-driven data governance.** Global IDs derives its offering from four products, ranging from the least complete to the most complete, with a repository, reference, and reports/dashboards. The most complete is called Big Data Governance Suite and is the one offering assessed in the present Forrester Wave. In addition to the repository, Global IDs provides a portal, advanced search, and a data portfolio management capability. Global IDs' strength is its robust capabilities to profile data across all data sources and analyze all facets of quality, dependencies, relationships, and consistency in real time. It has the most scalable reverse engineering engines for collecting data models to populate its metadata repository. This “reverse engineering in real time” capability is a must-have for reacting to changing conditions in data governance 2.0. The data governance development capabilities remain weak for collaboration and version management. Despite progress on its strategy to support big data, the company has a limited strategy to meet emerging data governance requirements to involve business users with collaboration, dashboards, and adapted user interfaces. It supports data profiling for quality, reference, and security. The tool provides an intuitive interface to navigate across any data profiling activity and monitor over time. However, the environment is geared toward the technology management community. The challenge for Global IDs as a data governance tool is its technology management focus.

Forrester clients use other vendors, not assessed in this Forrester Wave, to support their data governance activities. These other vendors include:

- Ataccama is a data quality specialist providing different products for data quality, master data and reference data management, embedding processes management, and dashboarding. The company has offices in Europe and North America.

- CA Erwin provides a modeling environment and metadata management based on a multi-user and collaborative environment. It partners with Collibra for stewardship management. Embarcadero has purchased the CA Erwin product.
- DAG provides MetaCenter for information asset management. MetaCenter offers a real-time connection to databases, major applications, and BI environments and stores metadata in a repository to produce dashboards for data stewards.
- Diaku is a consulting and software vendor offering two products: 1) Axon Data Insight, which supports the community of users to develop and broadly share knowledge about data, and 2) Axon Regulation Insight to capture and decompose regulations and assess their impacts.
- Embarcadero ER/Studio is a specialist in data modeling and database development and administration. It offers the well-known modeling environment ER/Studio Data Architect, cross-platform metadata integration, a repository, and a new collaboration and metadata management product called Connect. It has a global presence with 29 offices.

SUPPLEMENTAL MATERIAL

Online Resource

The online version of Figure 2 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave Evaluation

Forrester used a combination of three data sources to assess the strengths and weaknesses of each solution:

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.
- **Product demos.** We asked vendors to conduct demonstrations of their product's functionality. We used findings from these product demos to validate details of each vendor's product capabilities.
- **Customer reference calls.** To validate product and vendor qualifications, Forrester also conducted reference calls with two of each vendor's current customers.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then score the vendors based on a clearly defined scale. These default weightings are intended only as a starting point, and we encourage readers to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve. For more information on the methodology that every Forrester Wave evaluation follows, go to <http://www.forrester.com/marketing/policies/forrester-wave-methodology.html>.

Integrity Policy

All of Forrester's research, including Forrester Wave evaluations, is conducted according to our integrity policy. For more information, go to <http://www.forrester.com/marketing/policies/integrity-policy.html>.

ENDNOTES

- ¹ Line-of-business executives are thinking about data in new ways — it is not just something to be collected and stored, but a resource for competitive advantage. As business leaders gain a greater understanding of how data is used, the level of trust required, and the myriad security considerations, they get more involved in driving data governance. Business participation is transforming data governance from an IT program to a business best practice for planning, strategy, budgeting, and operational oversight of data and data management. As with any other business process, data governance needs to be efficient and effective, creating a new category of management tools that support data governance operations. See the March 3, 2014, "[Consider New Data Governance Software To Support Business-Led Efforts](#)" report.
- ² Forrester clients describe their data governance work as long on effort, but limited in success. Clients describe an inability to sustain data governance beyond a project, feel it is too bureaucratic, or unable to show business value. Yet, there is strong evidence that competency in data governance leads to both operational efficiency and tangible business outcomes. Top-performing organizations are using data for competitive advantage and digging deeper into internal and external data. It is not technology that separates top performers from the rest of the pack; it is data governance and the alignment of data process and business process that makes the difference. See the May 20, 2013, "[Data Governance Equals Business Opportunity. No, Really](#)" report.

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