2024 Edition

## **Data and Analytics Governance Study**

Wisdom of Crowds' Series

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### **Definitions**

### **Business Intelligence Defined**

Business Intelligence (BI) is "knowledge gained through the access and analysis of business information."

Business Intelligence tools and technologies include query and reporting, OLAP (online analytical processing), data mining and advanced analytics, end-user tools for ad hoc query and analysis, and dashboards for performance monitoring.

Definition source: Howard Dresner, *The Performance Management Revolution:* Business Results Through Insight and Action (John Wiley & Sons, 2007)

### **Data and Analytics Governance Defined**

Data and analytics governance refers to the policies, controls, standards, decision rights / accountability, processes, procedures, and technologies organizations implement to maximize the value of data and analytic content (inclusive of ML and Al models, associated algorithms, and the data used to train them) while minimizing risk. It provides formal oversight of data and analytic content management and its usage across the enterprise and beyond.

Effective governance establishes clear roles and responsibilities for executive sponsorship and oversight, steering, ownership, stewardship (data and analytic content) and subject-matter experts. It facilitates collaboration to ensure quality, security, appropriate usage, and compliance. It creates standards for acquisition, generation, storage, integration, analytics, and more. The goals for organizational data and analytic content under governance are:

- Establish and maintain data and analytic content as a corporate asset
- Create common standards and definitions
- Reduce costs from duplications and errors
- Minimize organizational risk
- Provide trustworthy data and analytic content that generates value
- Enable ease of finding and ready, controlled access to data and analytic content

Overall, governance strives to align data and analytic content management with business objectives, regulatory mandates, and stakeholder expectations. It provides the framework for optimal handling and utilization of data and analytic content.

### Introduction

On behalf of Dresner Advisory Services, I am pleased to present the second annual edition of our Data and Analytics Governance Study Report. As we continue to grow and evolve, we extend our sincere thanks to our clients and the community whose support has been pivotal to our sustained success over the past 17 years.

This expanded edition of the Data and Analytics Governance Study Report includes indepth sections on crucial topics such as the relative importance of governance in technologies and initiatives, the difficulty in finding data and analytic content, and organization and practices related to data and analytic governance.

Furthermore, the report delves into detailed aspects of governance organizational models, structures, and reporting, as well as the scope and activities of data governance programs. It also examines the current use of data governance solutions and their features, industry and vendor analysis, and governance vendor ratings.

Since our founding, we have consistently aimed to set high standards, drive innovation, and lead the market, while continuously enhancing the value we deliver each year. This second annual edition of this report is a testament to our ongoing commitment and dedication to providing the most comprehensive and relevant research available.

We believe this milestone research report will furnish you with invaluable insights, aid in making well-informed decisions, and propel your organization toward greater success.

We hope you find it valuable in shaping your strategic initiatives.

With gratitude,

Chief Research Officer Dresner Advisory Services

### 2024 Data and Analytics Governance Study

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### **Benefits of the Study**

The 2024 Dresner Advisory Services Data and Analytics Governance Study provides a wealth of information and analysis, offering value to both consumers and producers of business intelligence technology and services. Our governance market study delivers valuable insights into the market landscape, vendor evaluation, technology trends, use case examples, and industry-specific insights. These benefits assist organizations in making informed decisions in support of program structure, policy generation, team composition, supporting processes, and selection of appropriate technology to maximize value generation from data and analytic assets.

### **Consumer Guide**

As an objective source of industry research, consumers use the Dresner Advisory Services Data and Analytics Governance Study to understand how their peers leverage and invest in data and analytic content governance and related technologies.

Using our unique vendor performance measurement system, users glean key insights into governance software supplier performance, which enables:

- Comparisons of current vendor performance to industry norms
- Identification and selection of new vendors

### **Supplier Tool**

Vendor licensees use the Dresner Advisory Services Data and Analytics Governance Study in several important ways:

### **External Awareness**

- Build awareness for governance and business intelligence markets as well as supplier brands—citing Dresner Advisory Services Data and Analytics Governance Study trends and vendor performance
- Gain lead and demand generation for supplier offerings through association with Dresner Advisory Services Data and Analytics Governance Study brand, findings, webinars, etc.

### **Internal Planning**

- Refine internal product plans and align with market priorities and realities as identified in the Dresner Advisory Services Data and Analytics Governance Study
- Better understand customer priorities, concerns, and issues
- Identify competitive pressures and opportunities.

### **About Howard Dresner and Dresner Advisory Services**

The Dresner Advisory Services Data and Analytics Governance Study was conceived, designed, and executed by Dresner Advisory Services, LLC—an independent advisory firm—and Howard Dresner, its President, Founder and Chief Research Officer.

Howard Dresner is one of the foremost thought leaders in business intelligence and performance management, having coined the term "Business Intelligence" in 1989. He

has published two books on the subject, *The Performance Management Revolution – Business Results through Insight and Action* (John Wiley & Sons, Nov. 2007) and *Profiles in Performance – Business Intelligence Journeys and the Roadmap for Change* (John Wiley & Sons, Nov. 2009). He lectures at forums around the world and is often cited by the business and trade press.

Prior to Dresner Advisory Services, Howard served as chief strategy officer at Hyperion Solutions and was a research fellow at Gartner, where he led its business intelligence research practice for 13 years.

Howard has conducted and directed numerous in-depth primary research studies over the past two decades and is an expert in analyzing these markets.

Through the Wisdom of Crowds<sup>®</sup> Business Intelligence market research reports, we engage with a global community to redefine how research is created and shared. Other research reports include:

- Wisdom of Crowds® Flagship BI Market Study
- Al, Data Science, and Machine Learning
- Active Data Architecture
- Analytical Data Infrastructure
- Analytical Platforms
- Data Engineering
- Embedded Business Intelligence
- Generative Al
- Master Data Management
- ModelOps

You can find more information about Dresner Advisory Services at <a href="https://www.dresneradvisory.com">www.dresneradvisory.com</a>.

### **About Michael Moran**

Michael Moran is a Research Director with Dresner Advisory. His area of focus is data



management at an enterprise level, spanning both Analytic Data Infrastructures (ADI) and Operational Data Infrastructures (ODI) focusing on the Chief Data Officer (CDO), data and analytic governance, and master data management (MDM).

Michael has more than 20 years' experience in the application of data to address business and mission requirements. He was a member of

the Data and Analytics Team of Gartner covering the topics of Chief Data Officer, Enterprise Information Management (EIM), Data Governance, and Master Data Management.

### **The Dresner Team**

### **About Elizabeth Espinoza**

Elizabeth is Research Director at Dresner Advisory and is responsible for the data preparation, analysis, and creation of charts for Dresner Advisory reports.

### **About Kathleen Goolsby**

Kathleen is Senior Editor at Dresner Advisory ensuring the quality and consistency of all research publications.

### **About Danielle Guinebertiere**

Danielle is the Director of Client Services at Dresner Advisory. She supports the ongoing research process through her work with executives at companies included in Dresner market reports.

### **About Michelle Whitson-Lorenzi**

Michelle is Client Services Manager and is responsible for managing software company survey activity and our internal market research data.

### **Survey Method and Data Collection**

As with all our Wisdom of Crowds<sup>®</sup> market studies, we constructed a survey instrument to collect data and used social media and crowdsourcing techniques to recruit participants.

### **Data Quality**

We carefully scrutinized and verified all respondent entries to ensure that only qualified participants were included in the study.

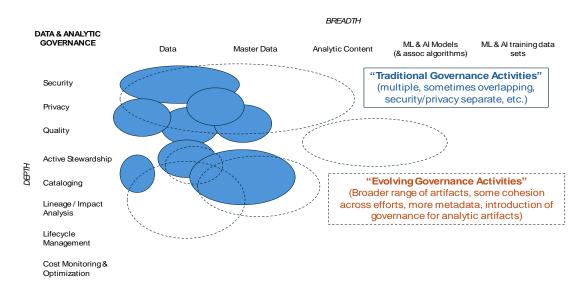
## Overview & Executive Summary

### **Overview**

In 2024, only 32 percent of survey respondents report having a formal governance organization. Given this, it should come as no surprise that 69 percent report some level of difficulty in finding data and analytic content (combined categories of *somewhat difficult*, *difficult* and *impossible*)—which is a nine percent increase from 2023. This presents an interesting paradox as organizations increasingly leverage data and analytics to drive business decisions and operations; so there is a commensurate dependency of high quality, high integrity, high trust data, and analytics. The rapid integration of Machine Learning and Artificial Intelligence (ML / AI) is expanding and accelerating dependency upon data and analytic content. Yet, relatively few organizations address governance on a deliberate and comprehensive basis.

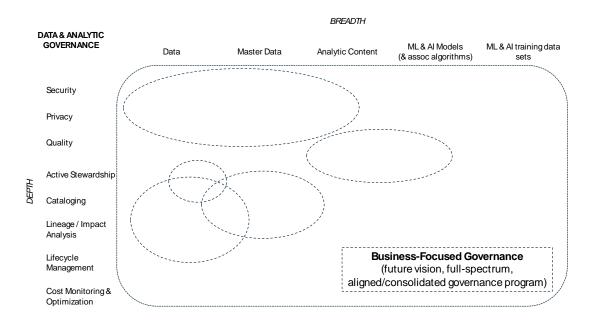
The realization of maximum value from organizational data, analytic content and ML / Al assets (models, associated algorithms and training data sets) while minimizing risk requires that all these elements be properly governed.

Governance exists today across these elements; however, it does so on a fragmented, siloed basis distributed across enterprise applications and select areas of organizational focus such as data governance (e.g., reference and master data). Too often, governance is left to best efforts on the part of dedicated individual professionals that understand the need—and the stakes of poor governance. The current solution landscape is comprised of a spectrum reflecting the history of the domain silo from which they originated, such as BI / advanced analytics, data integration, MDM and ML /AI.



Realizing the promise of becoming a data-driven organization with commensurate mitigation of risk will require standing up a holistic formal governance program, executed at the enterprise level, and enabling technology that spans organizational data, analytic content, and ML / Al assets.

In a recent Research Insight article, Dresner advocated for evolution of data governance towards business-focused governance. Progression down this evolutionary path requires increasing the depth and breadth of that currently recognized as data governance, while also realigning what are currently proximate, distinct domains within data and analytics.



Today there is no one vendor that can provide for the full spectrum of business-focused governance. The historic domain-centric approach resulted in governance capability being delivered by vendors within distinct domains (e.g., analytic content governance by BI / analytics vendors). Therefore, organizations wishing to implement a comprehensive, holistic governance capability need to engage different vendors to address the spectrum of enterprise governance requirements and orchestrate by means of people and process.

On a first-order basis, governance is a discipline and practice, with deliberate choice as to where it is exercised and to what degree (e.g., GRC, finance, master data, data and analytics, etc.). Governance continues to be about people (organization), process

(practice, procedures) and, lastly, (enabling) technology. There are no silver technology bullets.

As organizations pursue modern data architectures that implement data mesh and data fabric approaches—addressed by Dresner as Active Data Architecture<sup>TM</sup> —data and analytic content will become increasingly logically segmented from applications and data stores in the realization of semantic layers. Governance of data and analytic content is logically grounded within this objective semantic layer.

Demand signal for comprehensive governance capability will build as increasing numbers of organizations implement Active Data Architectures (including data mesh and data fabric) and move to address resultant governance requirements within that layer. Vendors will in turn respond by development and delivery of capability in response to customer requirements. Over time, as observed in prior technology development cycles, comprehensive enterprise governance platforms providing for full spectrum governance capabilities will come to market. Those vendors able to address the span of governance requirements within the semantic layer will prove successful in securing market share.

The first or next steps towards a purpose built, comprehensive governance capability is stand up of a dedicated program backed by resources sufficient to the required scope. From learned experience, there is the concurrent need to ensure the people charged with governance have both executive support / sponsorship as well as authority to effect change within the enterprise. The scope of governance can and should be adjusted over time, focused initially upon the minimal data and analytic content critical to business / mission objectives. Expansion should proceed only as required to ensure success of business / mission objectives. Equally, where value grounded in KPIs or measures and metrics associated with key value chains is not in play, the scope of governance should be revisited and perhaps reduced.

At all points, governance should be both dynamic and fit for purpose, aligned towards the realization of value by the enterprise.

### **Executive Summary**

- In 2024, governance ranks 15th among the 63 BI technologies / initiatives that Dresner surveys on an ongoing basis, and it consistently ranks around this level.
- Only a minority of survey respondents report governance organizations as being *in place* (32 percent).
- The majority of respondents (69 percent) report some level of difficulty in finding data and analytic content (combined categories of somewhat difficult, difficult, and impossible). From the outset of our surveying the level of difficulty in finding data and analytic content, we observed an inverse relationship between levels of difficulty reported and self-reported levels of success with BI.
- We observed strong patterns of correlation between respondents self-reporting their BI as completely successful or somewhat successful. Consistent patterns of positive correlation are noted in the data for presence of data and analytic content governance elements that we survey. The same is noted for negative correlation of BI success in the absence of data and analytic governance elements.
- Where data and analytic governance organizations are reported present:
  - There is a distribution of governance organizational models with centralized at the highest rate of frequency (53 percent), followed by hybrid (31 percent), and then distributed (16 percent).
  - Predominate governance organization structure is distributed governance team of dedicated roles embedded across the organization (26 percent), followed by best effort by motivated individuals with no formal governance responsibilities. Only 17 percent of respondents report having a distinct, stand-alone governance organization.
- The strongest pattern of organizational reporting for governance teams is to Chief Data Officers (CDOs).
- Of the elements of data and analytic governance program scope we survey, bias
  is strongly reflected by respondents towards governance of operational data,
  analytical data, and master data. Governance program scope inclusion for other
  elements such as analytical content, inclusive of ML / Al elements and life cycle
  management of all data and analytic content at much lower frequency.
- Respondents self-reporting their organization BI as completely successful are strongly differentiated in governance program scope including analytical data, master Data, master data life cycle management, analytical calculations and methods, ML and AI models, and associated algorithms, ML and AI training data sets, and life cycle management-ML and AI models and associated algorithms.

- A majority of survey respondents report no use of a data governance / catalog solution. Reinforcing governance is first a people and process discipline, supported by enabling technology.
- Across the data and analytic governance organization and practices we survey, we note higher incident rate and prioritization by larger and older organizations.
- A strong majority (82 percent) of survey respondents report no use of a data governance / catalog solution
- All 18 data and analytic governance features we survey rated at higher than 70 percent for the combined categories of *critical*, *very important*, and *important*. Of these, 14 were rated higher than 80 percent as critical or very important.
- Data and analytic content governance features and functions focused upon quality and security consistently rate most highly across all categories we survey.
- Current solution landscape and implementation in support of governance is comprised of a spectrum of solutions that reflect the history of the domain silo from which they originated (e.g., data quality, data governance, MDM, data catalog, etc.). We anticipate vendor offerings will evolve over time in the direction of more holistic, comprehensive governance capabilities.
- Get a formal governance program in place. Without it, success in the use of data and analytics will be constrained, whether BI, advanced analytics, or any other activity dependent upon data and analytic content.
- Recognize and identify the need for governance across the full data and analytic content spectrum within your organization. For those data and analytic elements assessed as critical, bring them under formal governance.
- Establish or further evolve formal governance programs (people, practice, and discipline). Empower the team by means of appropriate levels of executive sponsorship, decision-making authority, and organizational alignment appropriate to your organization.
- Establish or further evolve the practice of ownership for critical data and analytic content assessed to require governance (i.e., data / analytic content product owners).
- Adopt a business-centric perspective in the exercise of data and analytic governance, enabling a more unified approach to current disparate governance capabilities across your data / information / technology landscape. Establish or extend scope only to the extent required to achieve business or mission objectives.
- Concurrent with development of a unified approach to data and analytic governance flowing from adoption of a business-centric perspective, additionally

- develop an assessment as to whether and what degree further evolution towards Active Data Architecture (inclusive of data mesh and data fabric) is desirable in the future state objective modern data and analytics architecture.
- Recognize and implement catalog capability as critical path enabling governance more broadly.
- Recognize the need for and implement critical path enabling technology in support of broader data and analytic governance capability—quality assurance, MDM, and cataloging—to serve as foundational elements in progress towards increasingly platform-based solution(s) over time.

## Study Demographics

### **Study Demographics**

Study participants provide a cross-section of data across geographies, functions, organization sizes, and vertical industries. We believe that, unlike other industry research, this supports a more representative sample and better indicator of true market dynamics. We constructed cross-tab analyses using these demographics to identify and illustrate important industry trends.

### **Geography**

North America, which includes the United States, Canada, and Puerto Rico, represents the largest group with 63 percent of all respondents, followed by EMEA with 22 percent. Asia Pacific and Latin America account for the balance of respondents (fig. 1).

### **Geographies Represented**

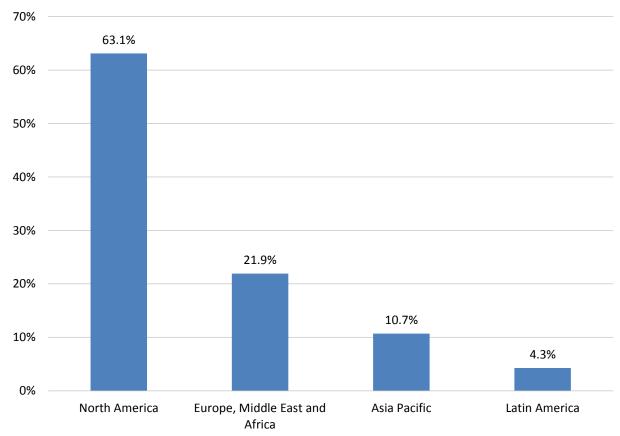


Figure 1 – Geographies represented

### **Functions**

In 2024, information technology respondents account for 29 percent of our sample, followed by executive management (22.5 percent) (fig. 2). The Business Intelligence / Analytics Competency Center (BICC) and finance are the next most represented functions in the sample. In many organizations, IT or the BICC fulfill data and analytic requirements, which could account for their higher level of participation. Executive management and finance tend to have broader data and analytic governance requirements than most, generating greater interest in governance capabilities.

### **Functions Represented** 35% 28.9% 30% 25% 22.5% 20% 14.4% 13.9% 15% 9.1% 10% Research and Development, Read Partning Function 3.7% 2.7% 2.1% 2.1% 0.5%

Figure 2 – Functions represented

### **Vertical Industries**

In 2024, business services (21 percent) respondents lead vertical industries represented in the sample, followed by technology (17 percent), manufacturing (16 percent), and financial services (15 percent) (fig. 3). Consumer services, healthcare, and education are the next most represented industries in our sample.

### **Vertical Industries Represented**

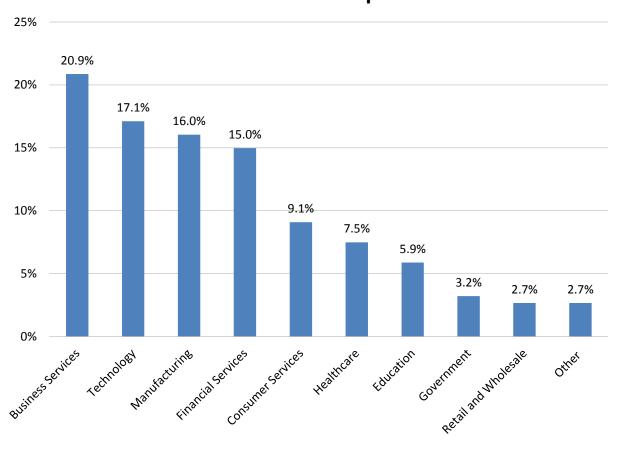


Figure 3 – Vertical industries represented

### **Organization Size**

In 2024, our survey includes small organizations (1-100 employees), midsize organizations (101-1,000 employees), and large organizations (>1,000 employees) (fig. 4). This year, small and midsize organizations account for 26 percent of our sample respectively. Larger organizations (> 1,000 employees) organizations account for over 49 percent of the survey sample. Twenty-eight percent of the respondents are from organizations with 1,001 - 10,000 employees. High-quality, high-integrity, trusted data and analytic content is important to every organization regardless of size.

### **Organization Sizes Represented**

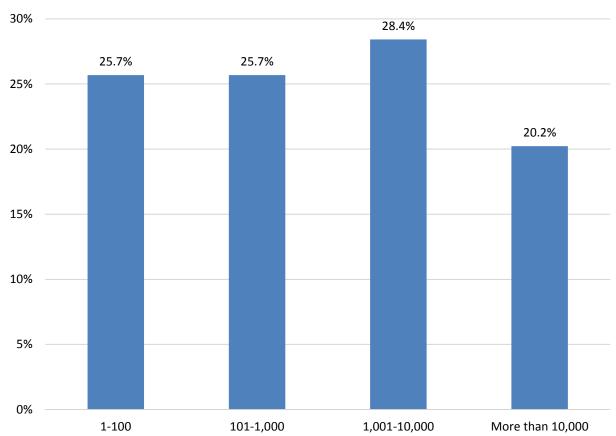


Figure 4 - Organization sizes represented

## Analysis & Trends

### **Analysis and Trends**

### Relative Importance of Governance in Technologies and Initiatives

In 2024 governance ranks 15th among the 63 technologies / initiatives under our study (fig. 5).

### **Technologies and Initiatives Strategic to Business Intelligence**

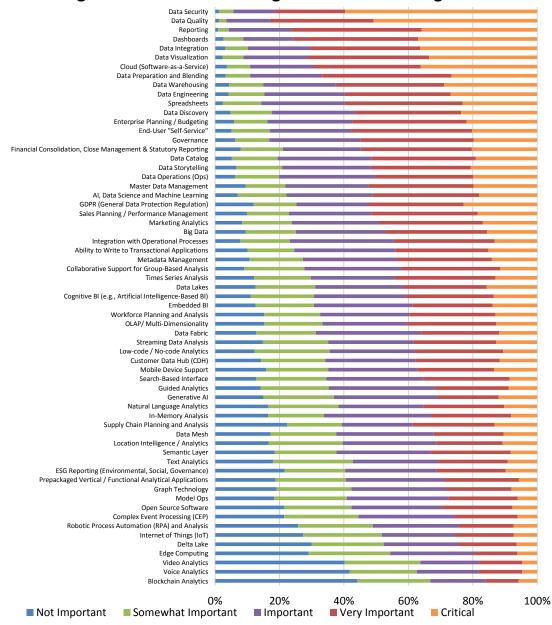


Figure 5 - Technologies and initiatives strategic to business intelligence

### **Difficulty Finding Data and Analytic Content**

The majority response is 43 percent for *somewhat difficult* within a normal distribution curve across the other categories (fig. 6). However, of the total number of survey respondents, 69 percent report some level of difficulty in finding data and analytic content (combined categories of *somewhat difficult*, *difficult*, and *impossible*).

### **Difficulty Finding Data and Analytic Content**

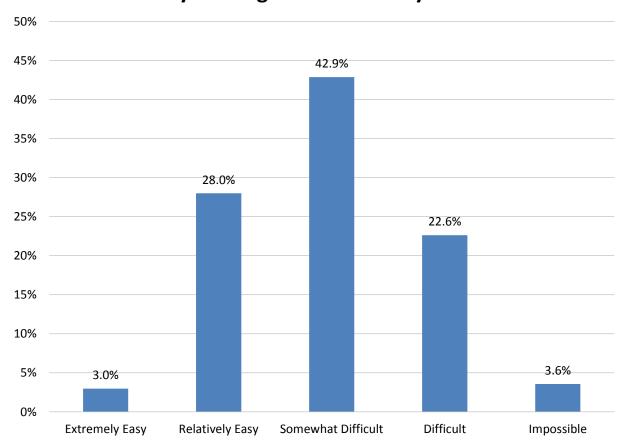


Figure 6 – Difficulty finding data and analytic content

From the outset of our surveying the level of difficulty in finding data and analytic content, we observed an inverse relationship between level of difficulty reported and self-reported level of success with BI (fig. 7). Those reporting BI as *completely successful* consistently reflect a weighted mean in rating difficulty of finding data and analytic content between *relatively easy* and *somewhat difficult* (2.5). Higher levels of difficulty are reflected in the weighted averages for respondents reporting BI as

somewhat successful (2.9) and combined categories of somewhat unsuccessful & unsuccessful (3.7).

### Difficulty Finding Data and Analytic Content by Success with BI

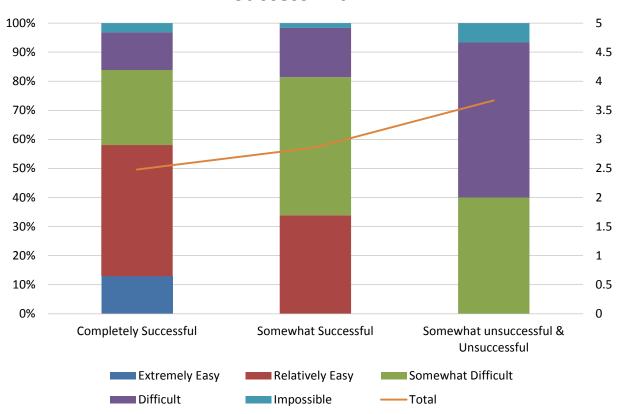


Figure 7 – Difficulty finding data and analytic content by success with BI

In 2024, we observe for the first time the rating of *extremely easy* reflected solely by those respondents reporting their BI as *completely successful*. Also, the spread between weighted averages high to low is the greatest observed to date (2.5 vs 3.7). Although survey respondents across all levels of self-reported success with BI report ratings of *difficult* and *impossible* in finding data and analytic content, they are greatest for those self-reporting BI as *somewhat unsuccessful* & *unsuccessful* (53 and 7 percent respectively).

### **Organization and Practices**

### **Data and Analytic Governance Organization**

In 2024, only 32 percent of organizations surveyed report any formal governance organization as *in place* (fig. 8). The fact that the vast majority of organizations have no formality around roles for governance is a substantial concern and significantly out of alignment with the expressed need for better data and analytics governance. We note the lack of a formal organization for governance does not mean governance is non-existent. It is likely being performed in a less-than-rigorous, inconsistent, and spotty manner around the organization, likely not optimally effective nor impactful at an enterprise level.

### **Governance Organizations**

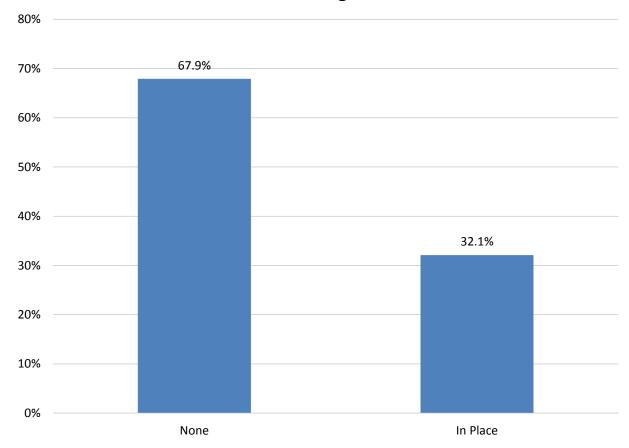


Figure 8 – Governance organizations

Our 2024 survey reveals substantial regional differences in the rate of establishment of formal governance organizations. *Latin America* organizations reflect the highest rate of adoption at 37 percent (fig. 9). *Asia Pacific* and *North America* organizations follow with about one-third of the sample in those regions showing adoption. *EMEA* organizations reflect the lowest rate of adoption at 28 percent. These disparities highlight the need for targeted improvements in data governance strategies based on regional trends and differences in data governance and management practices.

### **Governance Organizations by Geography**

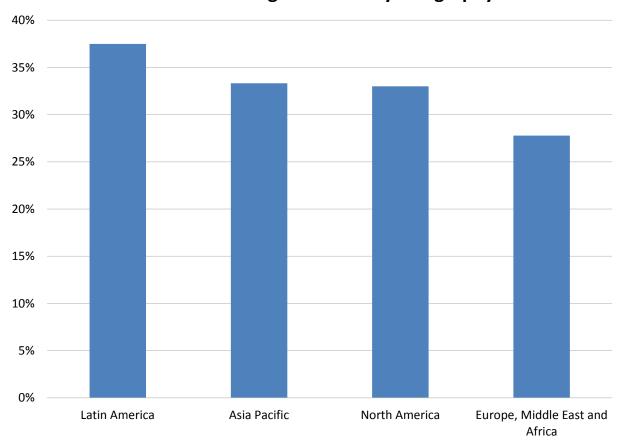


Figure 9 – Governance organizations by geography

From a functional perspective, we observe significant trends in establishment of formal governance organizations. The 2024 survey data indicates that *BICC* is the most likely function for a governance capability in which to reside, with 43 percent of respondents indicating this is the case (fig. 10). *Executive management* and *IT* are next most likely to host a formal governance organization, at 30 percent and 28 percent adoption rates respectively. Survey respondents report *finance* with a 21 percent hosting rate, remaining a likely place for governance responsibility to reside given the criticality of accurate and controlled data for financial reporting needs.

### **Governance Organizations by Function**

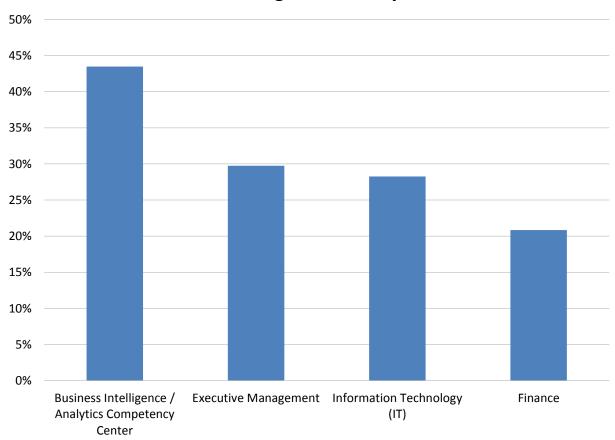


Figure 10 – Governance organizations by function

Looking at the 2024 survey data from an industry perspective yields some interesting trends. Sectors viewed as somewhat less progressive and innovative as it relates to digital business actually exhibit a greater tendency to have formal governance organizations. *Healthcare* (45 percent), *manufacturing* (43 percent), and *financial services* (40 percent) lead the formal governance trend (fig. 11). Faster-moving business types, such as *consumer services*, *technology*, and *business services* lag, with less than one-third of organizations in those sectors reflecting a formal governance structure.

### **Governance Organizations by Industry**

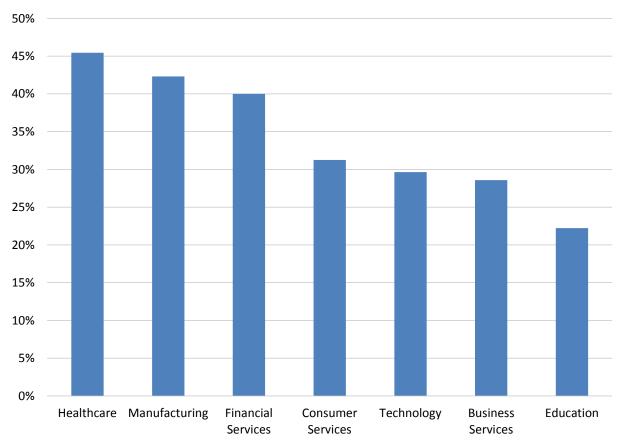


Figure 11 – Governance organizations by industry

Governance organization formalization varies significantly by organization size. Smaller and midsize organizations (everything from 1 to 10,000 employees) have the lowest adoption rates at 30 percent or less (fig. 12). The largest organizations (more than 10,000) reflect significantly higher adoption rates, with 53 percent expressing the existence of a formal governance structure. While critical for larger organizations due to increased volumes and complexity of data and analytic content, promoting governance among smaller organizations could enhance their data and analytic governance and management strategies. In turn, this could serve to accelerate their ability to achieve data-driven decision making earlier and sustain as they grow.

### **Governance Organizations by Organization Size**

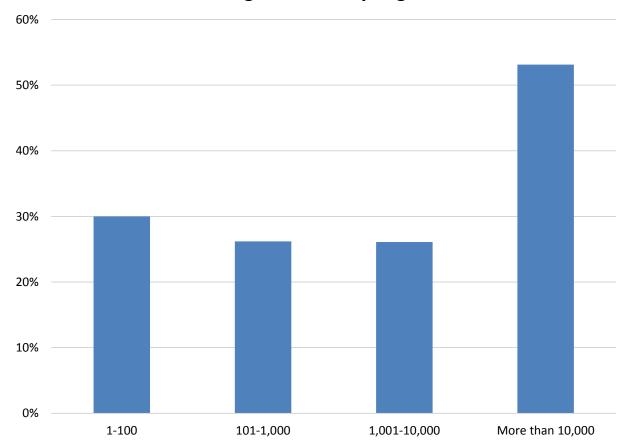


Figure 12 – Governance organizations by organization size

Formal governance organization adoption also varies by the age of the organization. However, survey data does not reflect a clear correlation trend between company age and propensity to establish a formal governance organization (fig. 13). Among those less than five years old, 40 percent have a data governance organization, compared to 18 percent for 5-10 years, 38 percent for 11-16 years, and 33 percent for 16 or more years. However, a key insight is that in all company age categories, a majority of organizations still lack a formal governance structure.

### **Governance Organizations by Company Age**

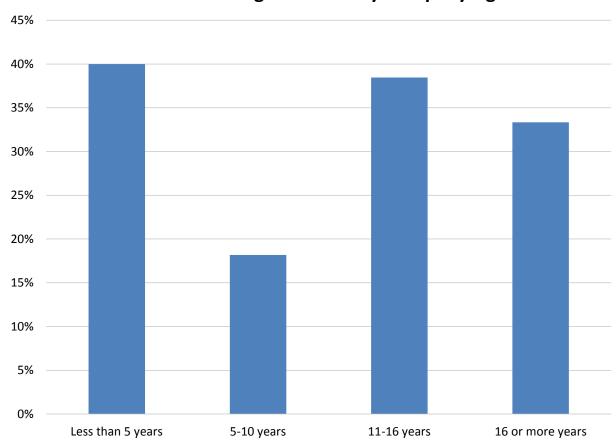


Figure 13 – Governance organizations by company age

Formal governance organization adoption varies based on the success with business intelligence. Among organizations reporting *completely successful* with BI, 37 percent have a formal governance organization, compared to only 27 percent for *somewhat successful* and *somewhat unsuccessful* or *unsuccessful* organizations (fig. 14). This shows a strong correlation between existence of a formal governance focus and BI success. However, a majority of organizations in each category report a lack of formal data governance organization. Though without explicit correlative data, we believe the predominance of no formal data governance organizations contribute to the difficulty in finding data and analytic content observed in Figure 6.

### **Governance Organizations by Success with BI**

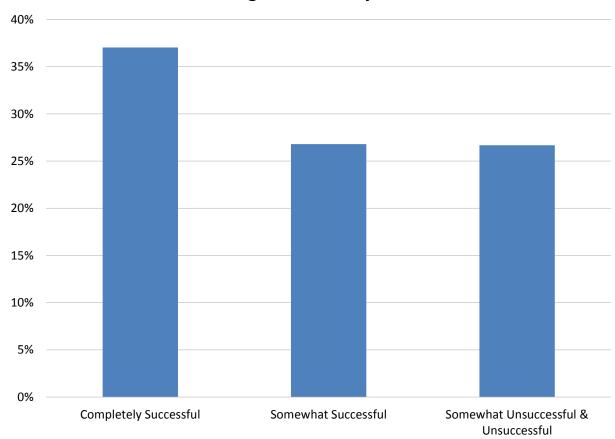


Figure 14 – Governance organizations by success with BI

### **Governance Organizational Model**

2024 survey data reflects rather traditional organizational models for governance. The majority of organizations with a formal governance structure take a centralized governance team approach (fig. 15), with 53 percent of organizations report having adopted a *centralized* model. A *hybrid* organizational model with centralized leadership and distributed roles embedded within business functions has been adopted by 31 percent of respondents. Sixteen percent of respondents report a purely *distributed* organizational model. Through the combination of Dresner survey data and market conversations, we observe a trend away from purely centralized models and toward hybrid and distributed models.

# Governance Organization Model 52.9% 50% 40% 31.4% 30% 15.7% 10% Centralized Hybrid (centralized function with Distributed

embedded governance roles)

Figure 15 - Governance organizational model

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Despite a trend toward more distributed governance functions—driven by critical data residing in and cutting across many business functions—survey data show a greater degree of centralization for organizations also reporting the highest level of success with BI. Of those organizations reporting BI as *completely successful*, 70 percent have a centralized governance organizational model (fig. 16). In contrast, only 20 percent of respondents reporting the same level of success exhibit a hybrid model, and 10 percent report a distributed model of governance. Organizations self-reporting BI as *somewhat successful* report less centralization and greater diversity of organization models.

### **Governance Organization Model by Success with BI**

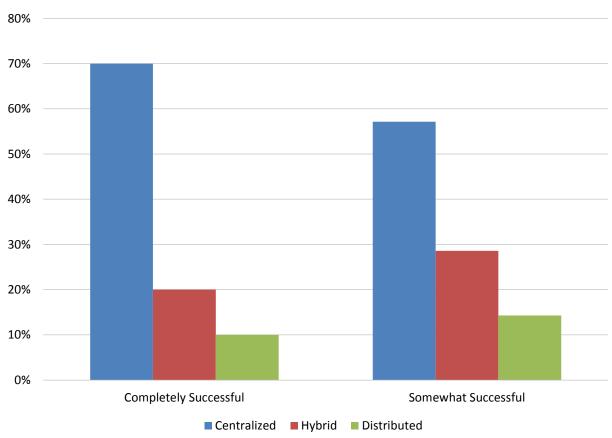


Figure 16 – Governance organizational model by success with BI

### **Governance Organization Structure**

Taking a deeper look at common governance organization structures, the survey data for 2024 show a substantial segment (45 percent) of enterprises with no formal governance organization (fig. 17). Of these respondents, 25 percent report no governance at all in place, and almost 20 percent report best effort by motivated individuals with no formal governance responsibilities. Of those that have governance-focused roles, 26 percent of respondents report having distributed governance team of dedicated roles embedded across the organization. Only 17 percent of respondents report having a distinct, stand-alone governance organization, and 12 percent report virtual governance team comprised of members with only secondary responsibilities.

### **Governance Organization Structure**

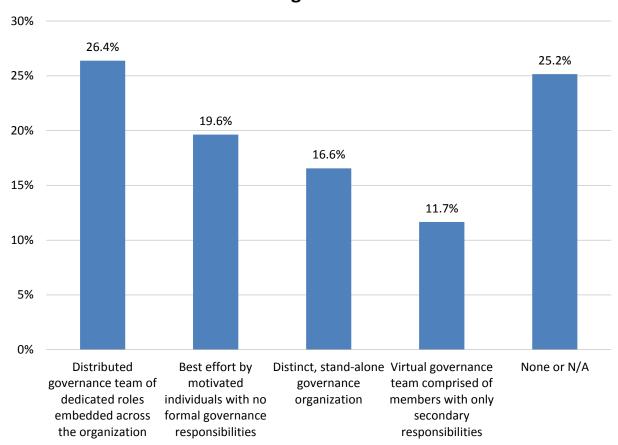


Figure 17 – Governance organization structure

We observe substantial differences in governance organization structure from a geographic perspective. *Asia Pacific* organizations more often apply distributed (44 percent) and virtualized (25 percent) approaches (fig. 18). *North America* organizations tend to most often adopt the approach of a physical, stand-alone governance team (20 percent) or no formal responsibilities at all (27 percent). *EMEA* organizations exhibit a mix of approaches with the most common (32 percent) being distributed roles embedded within various business functions.

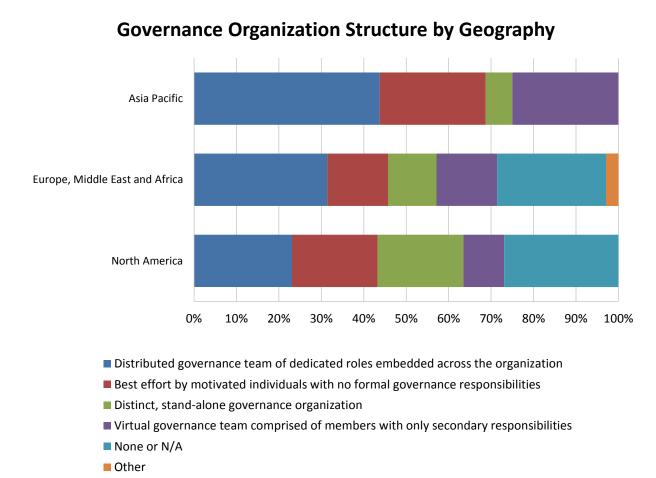


Figure 18 – Governance organization structure by geography

Approaches to governance organization structure vary significantly by business function. *BICC* tends to drive a distributed approach, with nearly 50 percent applying governance through a distributed governance team of dedicated roles embedded across the organization (fig. 19). *IT* tends to rely most often (21 percent) on a virtual governance team comprised of members with only secondary responsibilities. Other functions such as *finance* and *executive management* reflect a wider range of approach across the whole of the survey sample.

#### **Governance Organization Structure by Function**

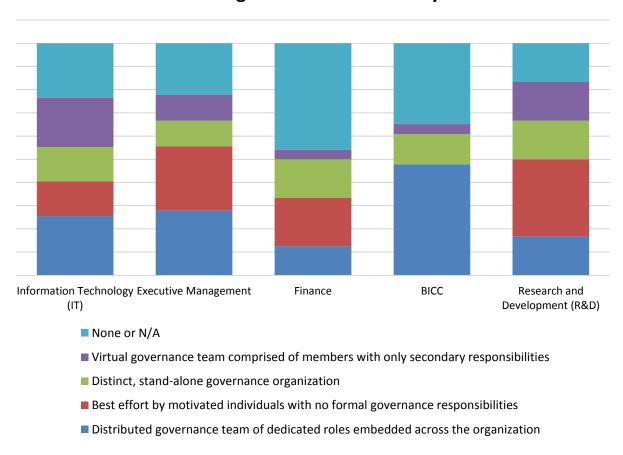


Figure 19 – Governance organization structure by function

Governance organization structure also varies significantly by industry sector. Standout trends include a strong tendency (50 percent) of *education* sector respondents reporting adoption of a *distributed governance team of dedicated roles embedded across the organization* (fig. 20). *Financial services* organizations are most likely (30 percent) to make use of a *virtual governance team comprised of members with only secondary responsibilities. Business services* organizations often have no formal governance roles at all, and other sectors employ a blend of different approaches.

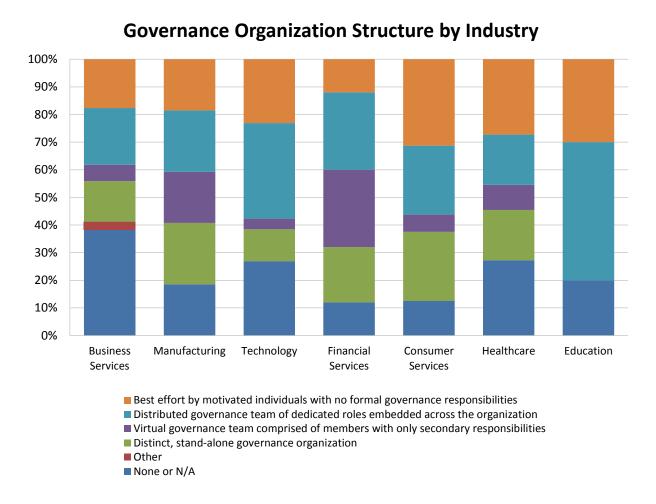


Figure 20 – Governance organization structure by industry

Organization size is also an influencing factor on the governance organization structure. The smallest organizations, 1---100 employees, unsurprisingly report no formal governance roles (32 percent) (fig. 21). Small enterprises in the 101-1,000 employee range report adoption of a distributed governance team of dedicated roles embedded across the organization (32 percent) or best effort by motivated individuals with no formal governance responsibilities (18 percent). Respondents from midsize enterprises of 1,001-10,000 employees report adopting a range of approaches led by best effort by motivated individuals with no formal governance responsibilities (26 percent). Respondents from organizations of more than 10,000 employees report the highest use of a distributed governance team of dedicated roles embedded across the organization (36 percent).

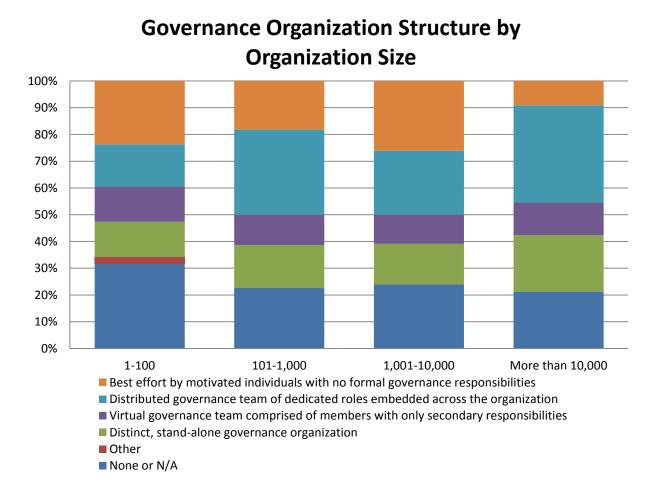


Figure 21 – Governance organization structure by organization size

Company age also tends to influence governance organization structure, with respondents from companies of *less than 5 years* reporting most often (21 percent) adopting a *virtual governance team comprised of members with only secondary responsibilities* (fig. 22). Respondents from older companies have more variance in their approaches. Those from organizations of *5-10 years* report adoption most often of a *distributed governance team of dedicated roles embedded across the organization* model (27 percent), followed by *best effort by motivated individuals with no formal governance responsibilities* (23 percent), and then *distinct, stand-alone governance organization* (18 percent each).

### **Governance Organization Structure by Company Age** 16 or more years 11-16 years 5-10 years Less than 5 years 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% ■ Distributed governance team of dedicated roles embedded across the organization ■ Best effort by motivated individuals with no formal governance responsibilities ■ Distinct, stand-alone governance organization ■ Virtual governance team comprised of members with only secondary responsibilities ■ None or N/A Other

Figure 22 – Governance organization structure by company age

Respondents from companies 11-16 years reflect a strong preference toward the best effort by motivated individuals with no formal governance responsibilities model (38 percent). Respondents from companies 16 or more years exhibit bimodal preference for

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no formal roles or distributed governance team of dedicated roles embedded across the organization (29 percent respectively).

Respondents reporting their BI as *somewhat unsuccessful and unsuccessful* report both the highest rate of no formal governance organization (40 percent) and lowest rate of *distinct, stand-alone governance organization* (7 percent) (fig. 23).

### **Governance Organization Structure by BI Success** Somewhat unsuccessful & Unsuccessful Somewhat Successful Completely Successful 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.9 8.0 1 1.1 ■ Best effort by motivated individuals with no formal governance responsibilities ■ Distributed governance team of dedicated roles embedded across the organization ■ Distinct, stand-alone governance organization ■ Virtual governance team comprised of members with only secondary responsibilities ■ None or N/A Other

Figure 23 – Governance organization structure by BI success

Conversely, respondents from organizations reporting their BI as *completely successful* report governance models of either *best effort by motivated individuals with no formal governance responsibilities* (33 percent) or *distinct, stand-alone governance organization* (22 percent). We observe two patterns of note: strong negative correlation between reported success with BI and use of formal governance organization models and convergence of organizations reporting success with BI in employing formal governance organization models.

#### **Data Governance Organizational Reporting Structure**

Among respondents reporting a data governance organization, survey data show that 52 percent report into the *Chief Data Officer (CDO)*, with 18 percent reporting into *IT* (fig. 24). The balance of distribution in organizational reporting structure is 10 percent report into *BICC* and 4 percent report into *finance* and *sales* respectively. The remaining 12 percent reflect report into "*Other*" functions. These findings indicate a diverse range of reporting structures for data governance organizations, with the *CDO* and *IT* departments being the most common reporting functions.

#### **Data Governance Organizational Reporting Structure**

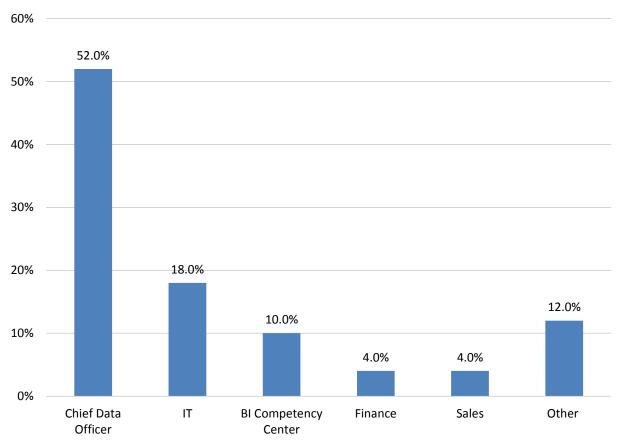


Figure 24 – Data governance organizational reporting structure

When comparing 2023 and 2024 data, we see evolving trends over the last year. Survey data show an even stronger trend for the CDO to have responsibility for governance, with 52 percent of data governance organizations reporting to that role in 2024 compared to only 32 percent in 2023 (fig. 25). Another key development is a significant reduction in the number of organizations where data governance reports into *IT*, dropping to 18 percent in 2024 from 29 percent in 2023. This is a positive trend and a reflection that governance is not a technology / IT issue.

#### **Data Governance Organizational Reporting Structure**

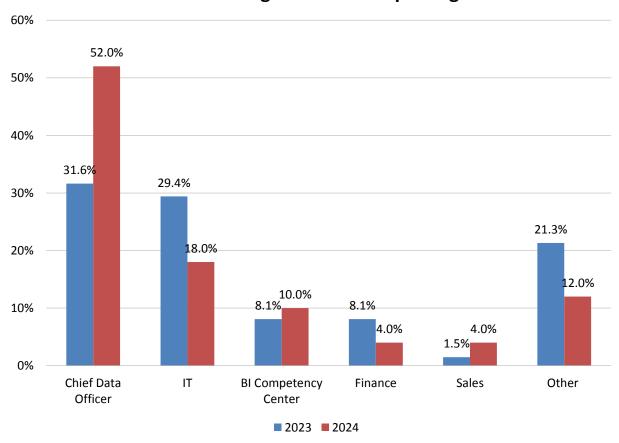


Figure 25 – Data governance organizational reporting structure

The reporting structure for the data governance organization varies by business function. When hosted within IT, it most often (47 percent) reports to the *CDO* (fig. 26). When hosted by *executive management*, there is an even stronger tendency for reporting into the *CDO*, at 55 percent. Similarly, when governance is hosted within *BICC*, there is a 40 percent rate of reporting into the *CDO*. These data clearly reflect the fast-moving trend of the existence of CDO roles and their purview across multiple business functions.

# Data Governance Organizational Reporting Structure by Function

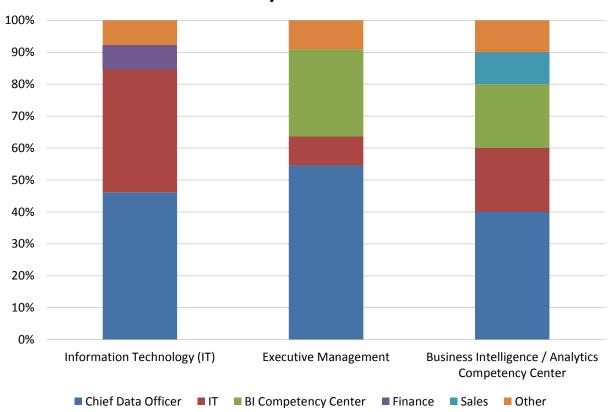


Figure 26 – Data governance organizational reporting structure by function

There are variations in data governance reporting structures by industry. Reporting of data governance organizations to the *Chief Data Officer (CDO)* is most prevalent, with 70 percent reporting to the CDO in *business services* and 30 percent in *manufacturing*, while *financial services* and *technology* have 56 percent and 62 percent reporting respectively (fig. 27). Organizational reporting into *IT* remains a prevalent pattern, particularly in *manufacturing* and *technology*, with 20 percent and 25 percent respectively.

# Data Governance Organizational Reporting Structure by Industry

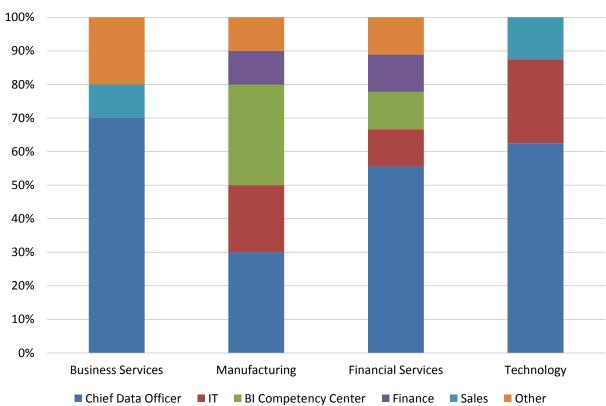


Figure 27 – Data governance organizational reporting structure by industry

Data governance reporting structures vary with organization size. In smaller organizations (1-100 employees), 64 percent report to the *Chief Data Officer*. Larger organizations (*more than 10,000* employees) have the second highest adoption at 56 percent (fig. 28). *IT* plays a significant role in reporting of data governance organizations across larger organizations, with the highest adoption (31 percent) in organizations of *more than 10,000* employees. *BI Competency Centers* have a limited role in all sizes over 100 employees.

# Data Governance Organizational Reporting Structure by Organization Size

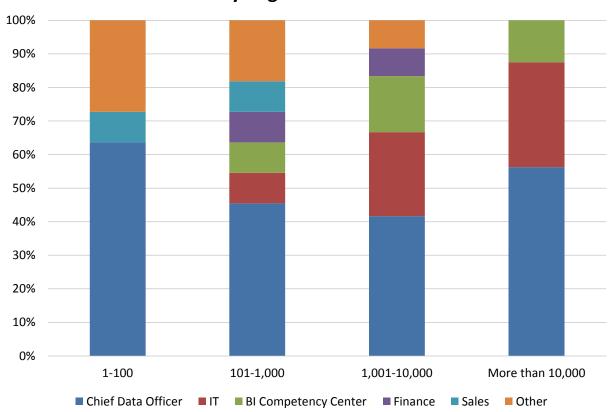


Figure 28 – Data governance organizational reporting structure by organization size

From a company age perspective, the 2024 survey data show a strong tendency (83 percent adoption rate) for young organizations of *less than 5 years* to have data governance organizations report to the *Chief Data Officer* (fig. 29). While older organizations are also moving data governance organizations under the CDO, they do so with less frequency, at 22 percent for companies of *5-16 years* and 53 percent for *16 or more years*. *IT* remains a common reporting point for data governance organizations in those same categories, at a significant 33 percent for companies *5-16 years* and 17 percent for *16 or more years*. Likewise, the *BI Competency Center* remains a common area for data governance organizations to report, at 22 percent for companies of *5-16 years* companies and 9 percent for *16 or more years*.

# Data Governance Organizational Reporting Structure by Company Age

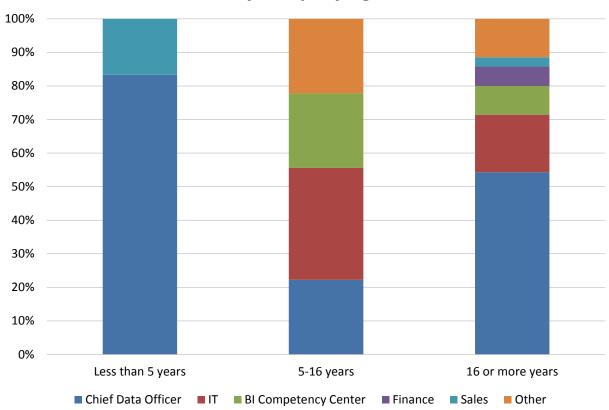


Figure 29 - Data governance organizational reporting structure by company age

Across all degrees of self-reported BI success, we observe the *Chief Data Officer* being the most frequent reporting point for data governance organizations. This is reflective of the general trend of the CDO role rising in frequency and visibility across the industry in general. That viewpoint is strongest, at 78 percent, for organizations expressing they are *completely successful* with BI (fig. 30). It is predominant, but less strong, at 50 percent for organizations reporting both *somewhat successful* and *somewhat or unsuccessful* with BI. Another important trend observed is *IT* as a reporting point for data governance organizations continues to grow less common in general, but specifically for those organizations reporting their BI as *completely successful*, at 0 percent in this sample.

# Data Governance Organizational Reporting Structure by Success with BI

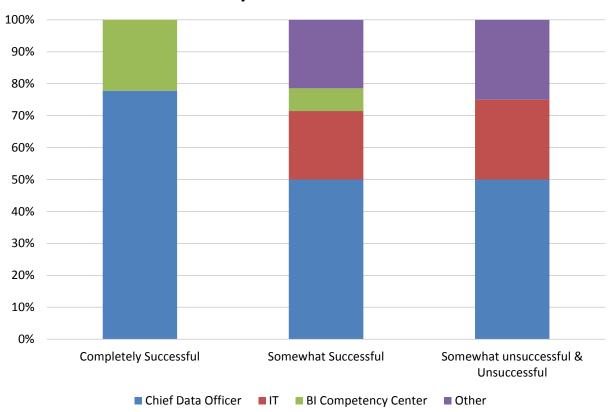


Figure 30 - Data governance organizational reporting structure by success with BI

#### **Data and Analytics Governance Program Scope**

Organizations have many different types of data and analytic content they should govern or choose to govern. Our 2024 survey data show the most common areas of scope for governance programs in the industry. Most often, organizations focus their governance programs on *operational data* (77 percent), *analytical data* (72 percent), and *master data* (68 percent)—the largest and most critical segments of data in the enterprise (fig. 31). This is positive, as the greatest opportunities and risks reside in those data areas. However, there is much more that needs to be governed to drive additional value and mitigate organizational risk. Lower focus rates appear for many analytic artifacts, such as *analytical reports* (55 percent), *ML and AI models and associated algorithms* (36 percent), and *ML and AI training data sets* (23 percent). With the rapid rise of ML / AI deployments, this represents a point of significant risk for many organizations.

### **Data and Analytic Governance Program Scope**

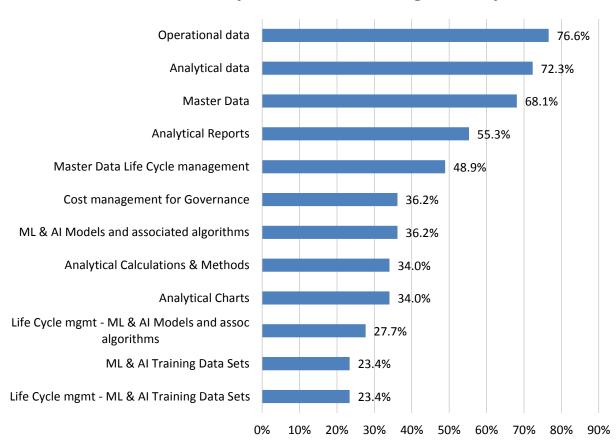


Figure 31 – Data and analytic governance program scope

Looking at governance program scope by business function shows a similar pattern, but with some variation. While operational data, analytical data, and master data are most important for all functions (fig. 32), IT and executive management focus most heavily (92 percent and 90 percent respectively) on operational data, while the BICC prioritizes analytical data (70 percent) and master data (80 percent). A positive point is that executive management shows some awareness of the importance of governing analytical and AI-related artifacts, with a focus rate of 40 percent on analytical calculations and methods, 50 percent on analytical charts, and 60 percent on life cycle mgmt. - ML and AI Models and assoc algorithms, for example. These rates are substantially higher than for IT and even BICC.

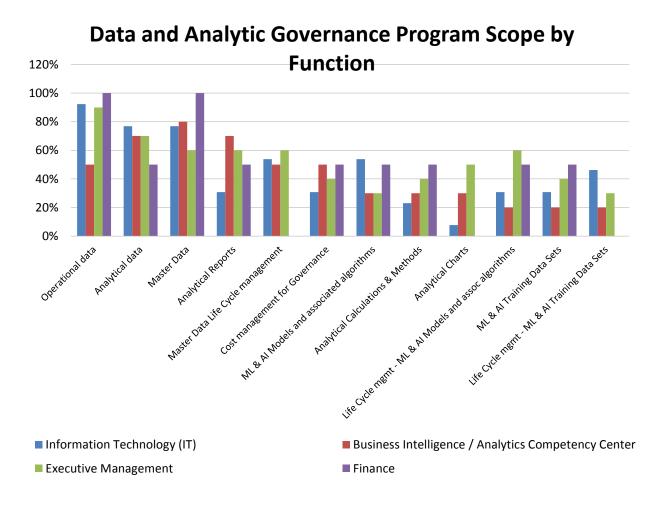


Figure 32 – Data and analytic governance program scope by function

Perhaps not surprisingly, the largest organizations tend to show more breadth and diversity of governance program scope. Those with *more than 10,000* employees have a higher focus rate across nearly all governance program scope areas, led by the mainstays of *operational data*, *analytical data* (93 percent respectively), and *master data* (75 percent) (fig. 33). These largest organizations also show a substantial focus on governance of analytical artifacts such as reports, charts, Al models, and Al data sets, where smaller organizations often tend not to focus.

### Data and Analytic Governance Program Scope by Organization Size

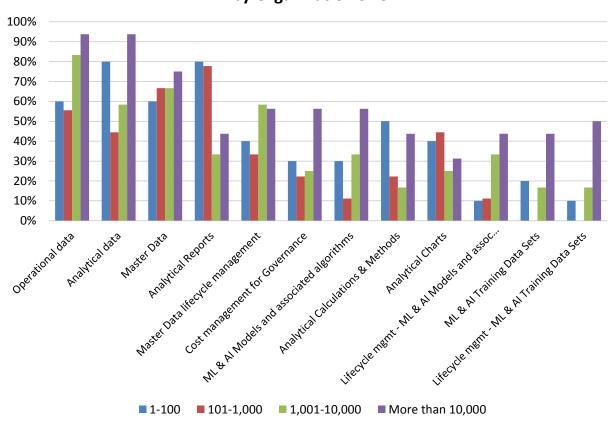


Figure 33 – Data and analytic governance program scope by organization size

Older companies tend to show greater adoption rates in their governance program scope across all data and analytic content types, at a rate difference of 10 percent or more in most cases relative to their younger (*less than 16 years*) peers (fig 34). While this holds true for all the traditional areas—*operational data*, *analytical data* and *master data*—and most analytical artifacts, a notable exception is *life cycle mgmt.. - ML and Al models and associated algorithms*, where both company age groups reflect about 28 percent.

### Data and Analytic Governance Program Scope by Company Age

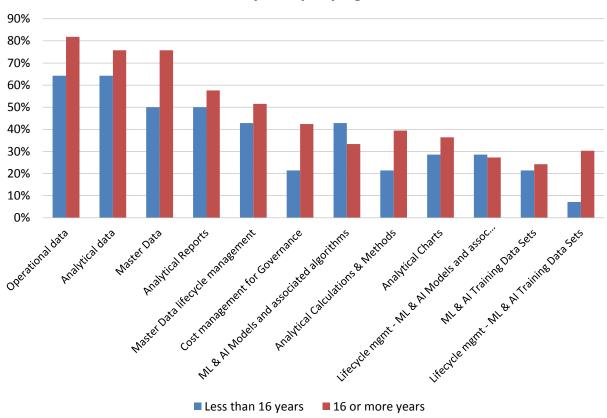


Figure 34 – Data and analytic governance program scope by company age

A similar dichotomy exists in terms of self-reported success with BI. Those organizations reporting their BI as *completely successful* also show governance program scope focus rates at a higher level across nearly all data and analytic content types, often to a degree 10+ percent plus or higher (fig. 35). This difference is highest where organizations reporting their BI as *completely successful* reflect 20+ percent higher focus rate on *analytical data*, *master data*, *master data life cycle management*, *analytical calculations and Methods*, *ML and AI models and associated algorithms*, *ML and AI models and associated algorithms*.

### Data and Analytic Governance Program Scope by Success with BI

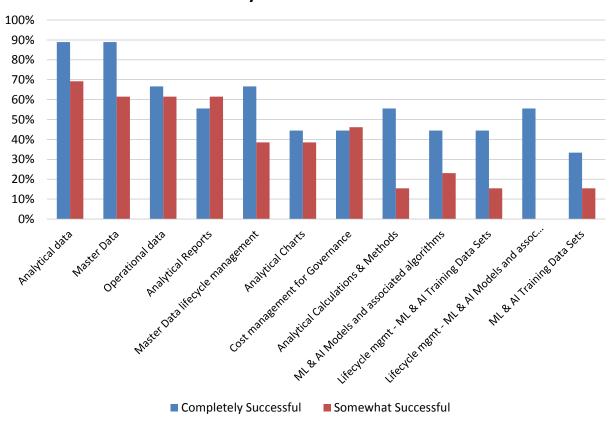


Figure 35 – Data and analytic governance program scope by success with BI

#### **Data Governance Organization Activities**

In examining the activities of data governance organizations, our user data reveal key priorities and their significance (fig. 36). Data and analytics quality ensuring the quality of data and of analytic artifacts stands out as a top priority, with 45 percent of respondents considering it critical and 35 percent viewing it as very important. Other key activities include controlled access to data appropriate to role (protection of data, data privacy) (37 percent critical, 39 percent very important), documentation of data objects, definitions, models, associations, algorithms, calculations and related, to include ownership / responsibility by role (cataloging) (33 percent critical, 35 percent very important), and capture and curation of meta data (cataloging) (29 percent critical and very important respectively).

#### **Data Governance Organization Activities**

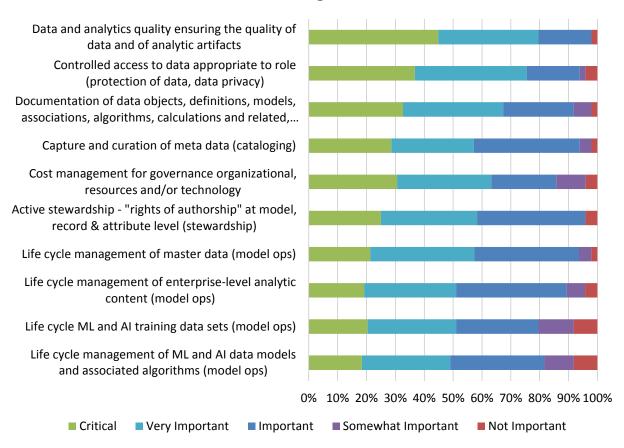


Figure 36 – Data governance organization activities

From a geographic perspective, survey data show a similar pattern. Data and analytics quality ensuring the quality of data and of analytic artifacts is the top priority for North America and EMEA organizations (fig. 37), with a slightly higher priority for North America. The same holds true for controlled access to data appropriate to role (protection of data, data privacy), although the priorities are more consistent between the two regions. And they are equally aligned on degree of priority for documentation of data objects, definitions, models, associations, algorithms, calculations and related, to include ownership / responsibility by role (cataloging).

#### **Data Governance Organization Priorities by Geography**

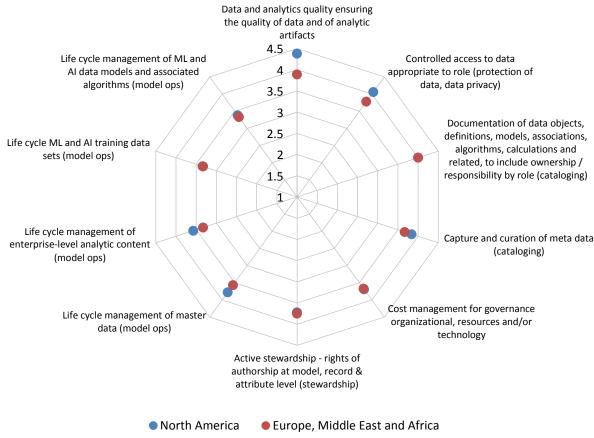


Figure 37 – Data governance organization priorities by geography

Across key business functions responsible for data governance organizations, there is limited difference in priorities. *IT*, executive management, and *BICC* all prioritize data and analytics quality ensuring the quality of data and of analytic artifacts first and controlled access to data appropriate to role (protection of data, data privacy) second (fig. 38). However, *IT* and executive management are somewhat more likely to prioritize documentation of data objects, definitions, models, associations, algorithms, calculations and related, to include ownership / responsibility by role (cataloging) and capture and curation of meta data (cataloging) than is *BICC*.

#### **Data Governance Organization Priorities by Function**

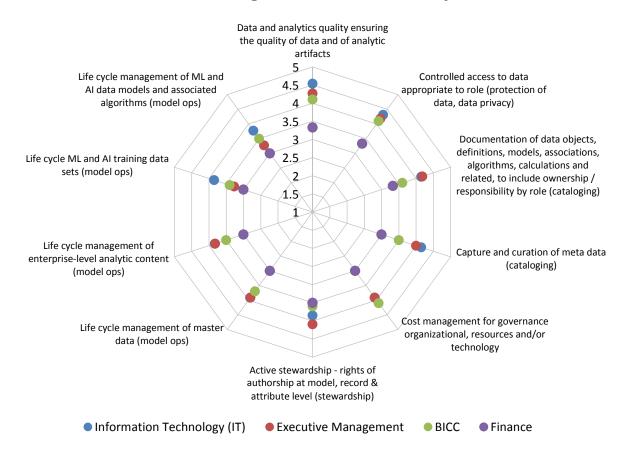


Figure 38 – Data governance organization priorities by function

We see much more variation in priorities when looking at the 2024 survey data by industry sector. Respondents from *financial services* organizations prioritize *data and analytics quality ensuring the quality of data and of analytic artifacts* higher than all other sectors (fig. 39). Respondents from *manufacturing* prioritize *controlled access to data appropriate to role* (*protection of data, data privacy*) much higher than other industries such as *business services*. Other notable differences include respondents from *technology* organizations prioritizing *documentation of data objects, definitions, models, associations, algorithms, calculations and related, to include ownership / responsibility by role (cataloging*) higher than other sectors, and those from *manufacturing* organizations focusing more heavily on life cycle of *life cycle management of ML and Al data models and associated algorithms* (model ops) versus other industries.

#### **Data Governance Organization Priorities by Industry**

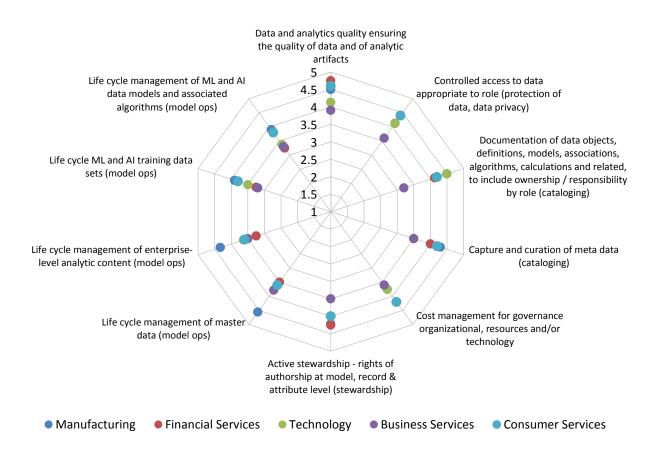


Figure 39 - Data governance organization priorities by industry

Little variance exists across organization size categories for their two highest priorities—data and analytics quality ensuring the quality of data and of analytic artifacts and controlled access to data appropriate to role (protection of data, data privacy) (fig. 40). Subsequent priorities vary more substantially, with larger organizations expressing nearly equally high priority across a larger number of other activities and smaller organizations tending to be more focused in their governance work. For example, smaller organizations (1,000 employees and below) show only limited prioritization of life cycle management for data and analytic content.

# Data Governance Organization Priorities by Organization Size

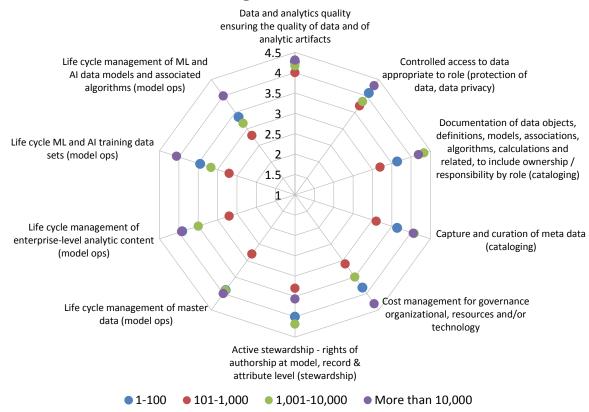


Figure 40 – Data governance organization priorities by organization size

A similar pattern appears based on respondent company age, where the two top priorities are consistent for all company age categories: data and analytics quality ensuring the quality of data and of analytic artifacts and controlled access to data appropriate to role (protection of data, data privacy). Differences are then reflected for subsequent priorities (fig. 41). Organizations 16 or more years prioritize most other governance activities at a less frequent level than newer organizations (less than 5 years and 5-16 years).

# Data Governance Organization Priorities by Company Age

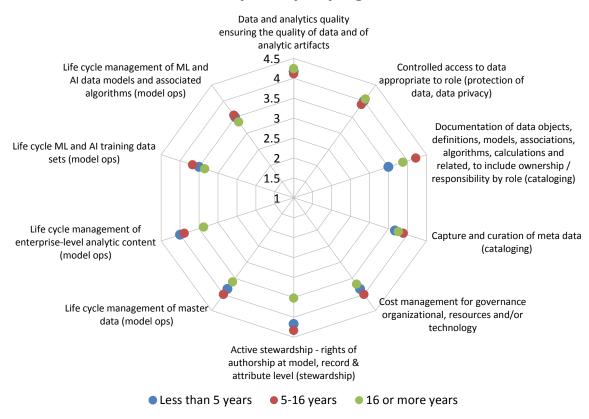


Figure 41 – Data governance organization priorities by company age

We observe relatively high and consistent prioritization by organizations self-reporting across all levels of self-reported success with BI for data and analytics quality ensuring the quality of data and of analytic artifacts and controlled access to data appropriate to role (protection of data, data privacy) (fig. 42). Organizations reporting their BI as completely successful also prioritize at a higher level all other governance activities than those reporting their BI as somewhat successful.

# Data Governance Organization Priorities by Success with BI

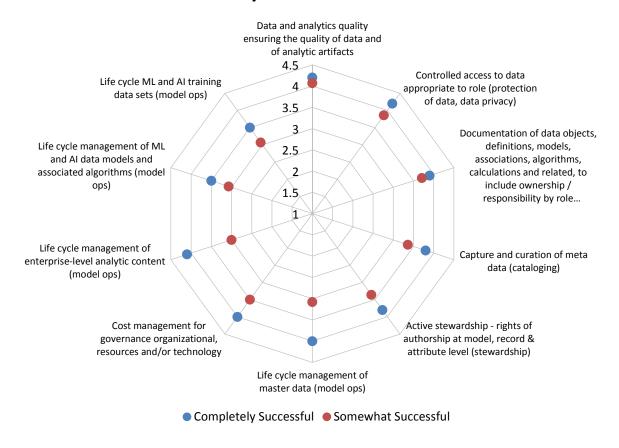


Figure 42 – Data governance organization activities by success with BI

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#### **Current Use of Data Governance or Catalog Solutions**

The application of technology is increasingly a key part of governance programs and practices. Our 2024 survey looked at the frequency with which governance programs included governance and cataloging solutions. A significant majority (82 percent) of organizations have no data governance/catalog solution in place as part of their governance program (fig. 43). This reflects the relative immaturity of the market for such solutions and the lack of clarity and understanding on the part of governance teams about where such solutions can add significant value.

### **Data Governance or Catalog Solution Use**

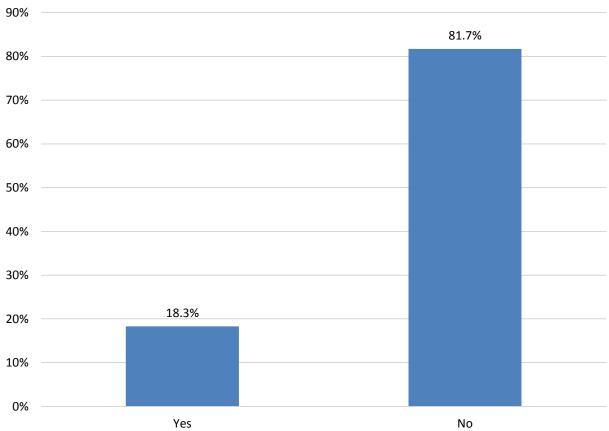


Figure 43 – Data governance or catalog solution use

While still a minority of organizations in all geographic regions, respondents from *EMEA* report being most likely to have implemented data governance/catalog solutions, with a 22 percent adoption rate (fig. 44). This is followed closely by *North America* organizations with a 19 percent rate. *Asia Pacific* organizations lag substantially in adoption with only a 13 percent rate of deployment of these solutions.

## Data Governance or Catalog Solution Use by Geography

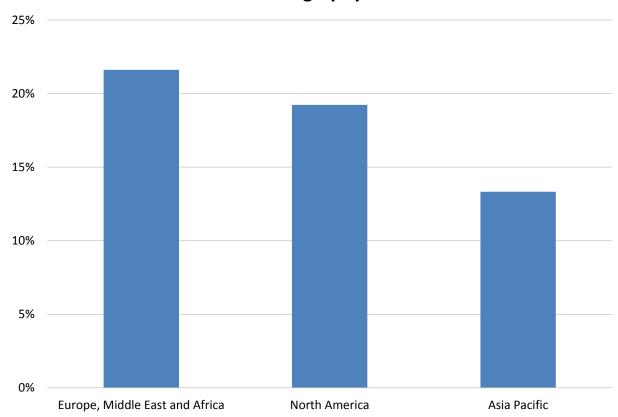


Figure 44 – Data governance or catalog solution use by geography

#### **Governance Solution Features**

#### **Data and Analytic Governance Features**

Beginning in 2024, we identified 18 governance features assessed as top-level requirements for business focus. We asked respondents to describe the importance of each of these requirements. Consistent with Dresner survey findings in proximate data and analytic domain surveys, the top four requirements center upon the security and quality of data (fig. 45).

### **Data and Analytic Governance Feature Requirements**

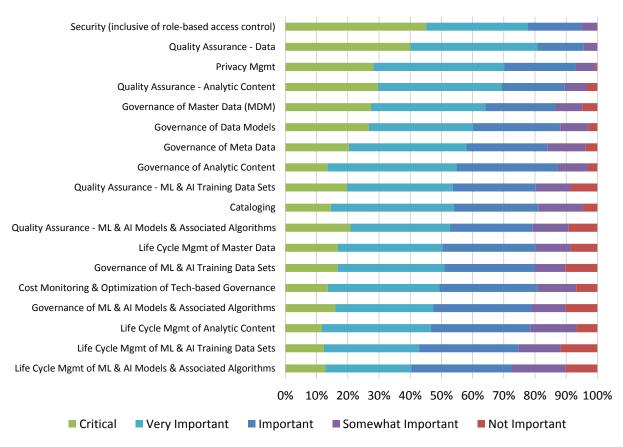


Figure 45 – Data and analytic governance feature requirements

Security, quality assurance – data, privacy management and quality assurance – analytic content all rate at or above 90 percent for the combined categories of *critical*, *very important*, and *important*. The next four priorities focus upon governance of master data, data models, metadata, and analytic content respectively, on a combined category

basis (*critical*, *very important* and *important*) ranging from a high of 88 to a low of 84 percent. Ratings for requirements focused upon ML and AI, life cycle and cost management respectively rated lower.

Respondent preference for governance feature requirements varies by geography with overall highest interest almost exclusively in Asia Pacific and lowest in Latin America (fig. 46). The one exception for Asia Pacific is *quality assurance – ML and AI models* and associated algorithms, which it rates lowest to all other geographies. North America and EMEA tend to cluster in terms of feature requirement prioritization except for *cataloging*, for which EMEA interest is lowest.

## Data and Analytic Governance Feature Requirements by Geography

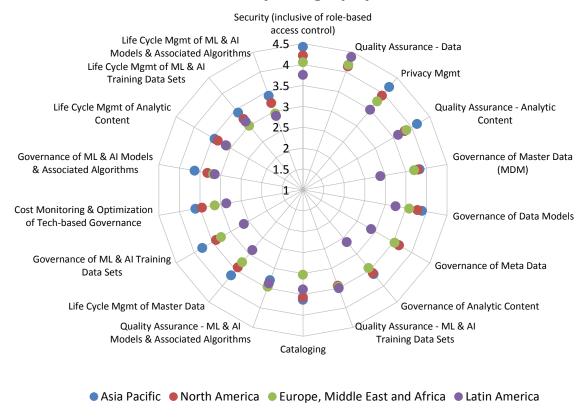


Figure 46 – Data and analytic governance feature requirements by geography

The importance of data and analytic governance feature requirements reveals an interesting difference in perceived importance principally between *IT* and *BICC* (clustered responses) and *R&D* (fig. 47). *IT* and *BICC* tend to reflect similar prioritization for governance feature requirements focused upon data and analytics. *R&D* reveals sharp difference in prioritization in favor of governance feature requirements focused upon ML and AI across the spectrum of those features. *Executive management* reflects a pattern of rating lowest those priorities of highest interest to *IT* and *BICC* (data and analytics governance features and highest those of highest interest to *R&D* (ML and AI governance features, though at lower rating levels).

Security, privacy management, and quality assurance feature requirements are highly rated by all functions. *IT* most highly rates *cataloging*.

#### **Data and Analytic Governance Feature Requirements** by Function Security (inclusive of role-based access control) Life Cycle Mgmt of ML & AI 4.5 Quality Assurance - Data Models & Associated Algorithms Life Cycle Mgmt of ML & AI 4 Privacy Mgmt **Training Data Sets** 3.5 3 Life Cycle Mgmt of Analytic Quality Assurance - Analytic Content Content 2.5 Governance of ML & AI Models & Governance of Master Data 1.5 Associated Algorithms (MDM) 1 Cost Monitoring & Optimization Governance of Data Models of Tech-based Governance Governance of ML & AI Training Governance of Meta Data **Data Sets** Life Cycle Mgmt of Master Data Governance of Analytic Content Quality Assurance - ML & Al Quality Assurance - ML & Al Models & Associated Algorithms **Training Data Sets** Cataloging Research and Development (R&D) Information Tech (IT) Executive Mgmt Finance BICC

Figure 47 – Data and analytic governance feature requirements by function

Respondent preferences for governance feature requirements reflect consensus across industry participants surveyed by means of clustering in the areas of security, quality assurance – data, quality assurance – analytic content and governance of analytic content (fig. 48). Responses for the other governance feature requirements reflect a diverse spread of interest across respondents by industry.

Except for *governance of master data*, *healthcare* participants report the highest levels of interest across governance feature requirements. Except for *security* and *cataloging*, *education* participants report the lowest levels of interest.

## Data and Analytic Governance Feature Requirements by Industry

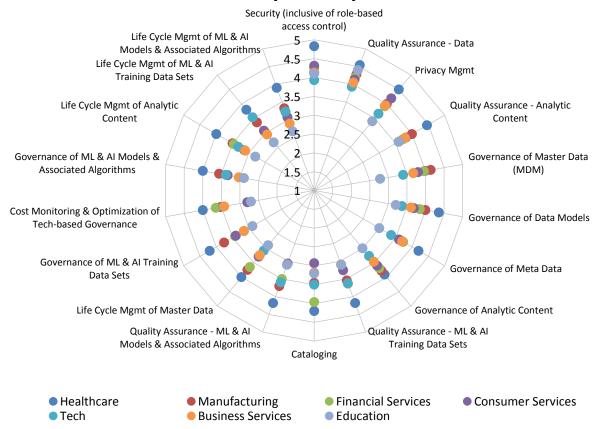


Figure 48 – Data and analytic governance feature requirements by industry

Consistent with overall prioritization of governance features, respondents reflect consensus (by means of clustered responses) for features focused upon security, quality assurance, and governance (of analytic content) (fig. 49). More broadly, governance features are of greater interest to larger organizations (1,001 and more employees) than to smaller organizations (less than 1,000 employees). We note differentiated interest on the part of organizations of more than 10,000 employees in terms of governance of data models, life cycle management of master data, governance of ML and AI models and associated algorithms, life cycle management of analytic content, life cycle management of ML and AI training data sets, and life cycle management of ML and AI Models.

## Data and Analytic Governance Feature Requirements by Organization Size

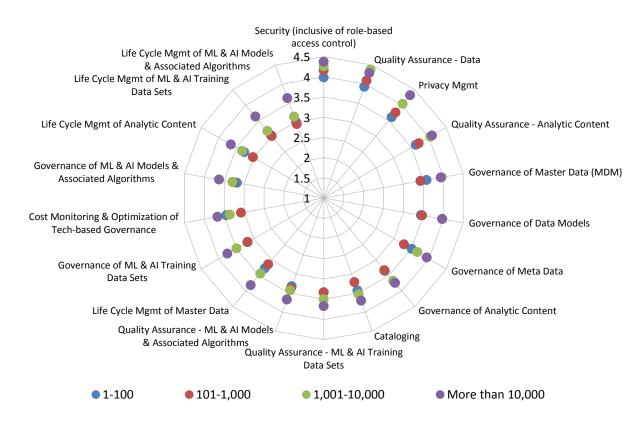


Figure 49 - Data and analytic governance feature requirements by organization size

#### **Data and Analytic Administrative Governance Features**

The overall importance of governance is reflected in the consistently high importance ascribed to data and analytic administrative governance features. Each of the 10 administrative governance feature requirements exceed 75 percent for the combined categories of *critical*, *very important*, and *important* (fig. 50). Consistency in relative importance of data and analytic security is reflected in the top three administrative governance features, which on a combined category basis exceed 80 percent: *role-based and policy-based access control* (87 percent), *define levels of access to shared documents*, *data*, *analytics*, *etc.* (86 percent), and *integration with access/identity management systems* (86 percent). Respondents ascribe lower importance to *ability to analyze and audit decision processes* and *check in/out with promote-ability*.

## Data and Analytic Administrative Governance Feature Requirements

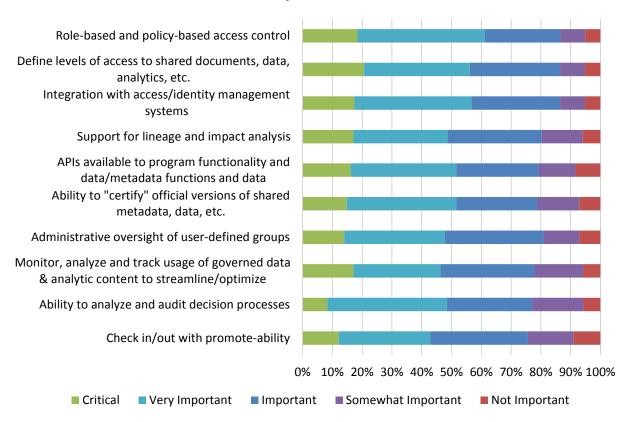


Figure 50 – Data and analytic administrative governance feature requirements

Since we began surveying for *role-based and policy-based access control*, respondents rated it of highest importance (fig. 51). *Define levels of access to shared documents, data, analytics, etc.* was previously rated of highest importance by survey respondents (2019- -2021) and remains consistently important, posting second in overall importance in 2024. Of note is a relative increase in importance over time for *integration with access/identity management systems* and *ability to analyze and audit decision processes* moving to third and fourth in overall importance of administrative governance features.

### Data and Analytic Administrative Governance Feature Requirements 2019-2024

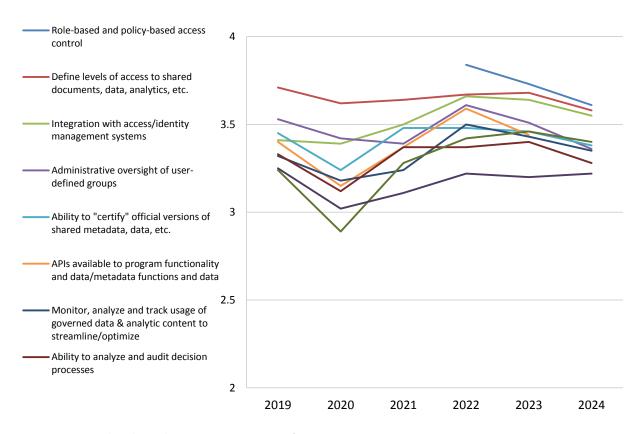


Figure 51 – Data and analytic administrative governance feature requirements 2019-2024

We note consensus of interest among respondents (by way of clustering) among all geographies for *support for lineage and impact analysis* and on a bi-modal basis (*Asia Pacific* and *North America* cluster and *EMEA* and *Latin America* cluster) for *ability to analyze and audit decision processes* (fig. 52). Overall, *Asia Pacific* rates data and analytic administrative governance feature requirements highest across all geographies. Except for *support for lineage and impact analysis* and *APIs available to program functionality and data/metadata functions and data, Latin America* rates all administrative feature requirements lowest.

### Data and Analytic Administrative Governance Feature Requirements by Geography

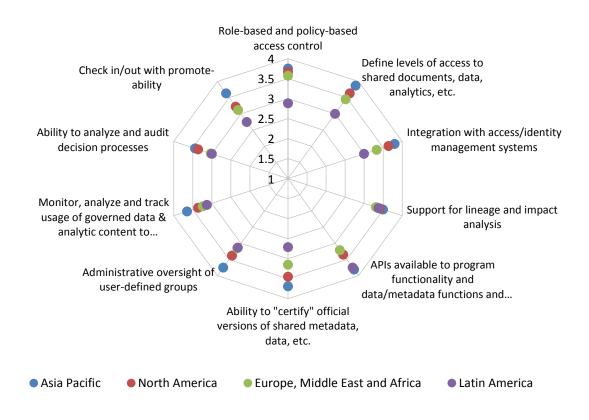


Figure 52 – Data and analytic administrative governance feature requirements by geography

We observe relatively uniform consensus of preference across respondent functions for data and analytic governance feature requirements. The exceptions noted are *APIs* available to program functionality and data/metadata functions and data and monitor, analyze and track usage of governed data and analytic content to streamline/optimize (fig. 53). Finance rates both of substantively lower importance.

# Data and Analytic Administrative Governance Feature Requirements by Function

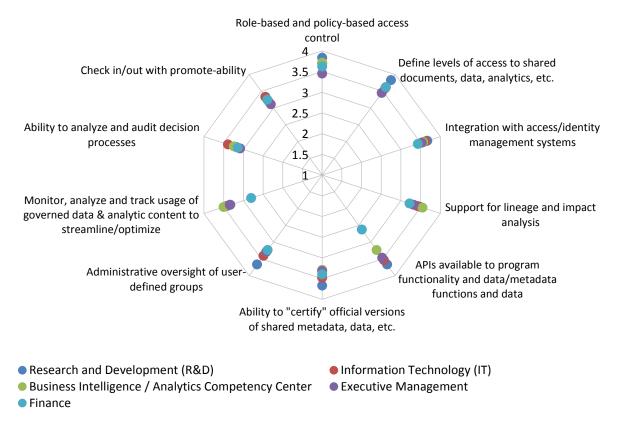


Figure 53 – Data and analytic administrative governance feature requirements by function

With exception for role-based and policy-based access control and APIs available to program functionality and data/metadata functions and data, respondents reflect disparity of preferences across the surveyed industries (fig. 54). Healthcare respondents display a preference in favor of role-based and policy-based access control, define levels of access to shared documents, data, analytics, etc., ability to "certify" official versions of shared metadata, data, etc., and administrative oversight of user-defined groups—all of which reflects the requisite need for security and privacy in that domain. Manufacturing respondents show preference for integration with access/identity management systems, support for lineage and impact analysis, monitor, analyze, and track usage of governed data and analytic content to streamline/optimize, and ability to analyze and audit decision processes.

# Data and Analytic Administrative Governance Feature Requirements by Industry

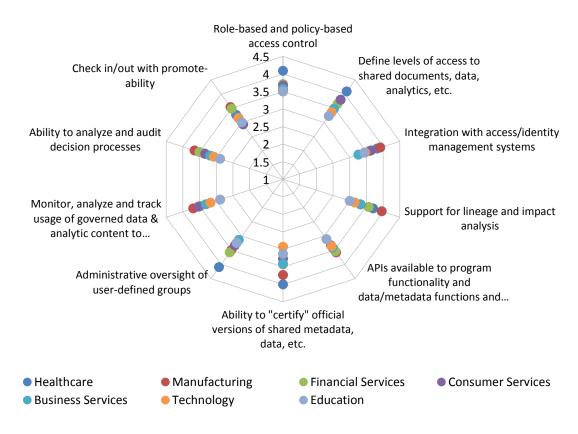


Figure 54 - Data and analytic administrative governance feature requirements by industry

Preference for administrative governance feature requirements reveals a relative split between larger organizations (1,001 employees and greater) and those that are smaller (1,000 and fewer employees) (fig. 55). Organizations of *more than 10,000* employees reflect the highest preference across all administrative governance features, with emphasis upon those that are security and control oriented: *role-based and policy-based access control, define levels of access to shared documents, data, analytics, etc., integration with access/identity management systems,* and *ability to "certify" official versions of shared metadata, data, etc.* Organizations of 1--100 employees consistently reflect the lowest levels of preference across all administrative governance features that we survey. We observe a measure of consensus in interest for *role-based and policy-based access control* and *APIs available to program functionality and data/metadata functions and data.* 

# Data and Analytic Administrative Governance Feature Requirements by Organization Size

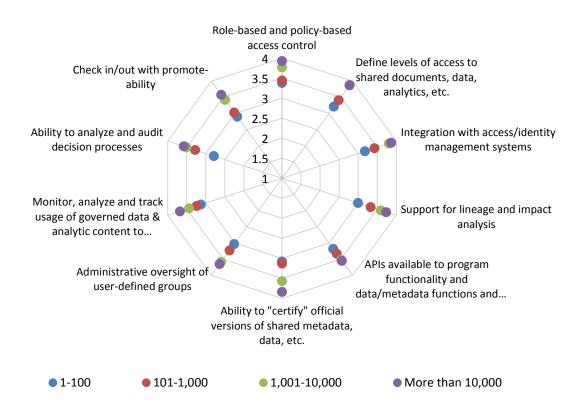


Figure 55 – Data and analytic administrative governance feature requirements by organization size

#### **Data and Analytic Collaborative Co-Creation and Sharing Features**

The overall importance of collaborative feature requirements in support of data and analytic (D&A) governance is reflected by three quarters rated at 70 percent or higher in the combined categories of *critical*, *very important*, and *important* (fig. 56). Those features aligned to searching, finding, and following governed data and analytic content rate most highly—above 85 percent for combined categories above and above 50 percent for combined categories of *critical* and *very important*. The next highest rated grouping of collaborative features is comprised of *author analytic content* (e.g., reports, charts, etc.), share content and commentary with other users, annotate data and analytic content with comments and data and content tagging and classification, all which rate above 80 percent in the combined categories of *critical*, *very important*, and *important*.

## **Data and Analytic Collaborative Feature Requirements**

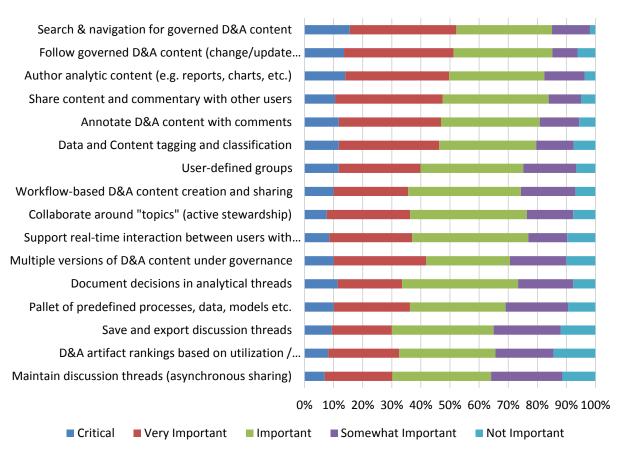


Figure 56 – Data and analytic collaborative feature requirements

There is relative consistency over time in terms of data and analytic collaborative feature requirements since we began surveying for them in 2019 (fig. 57). Search and navigation for governed data and analytic content rates as the top collaborative feature requirement since 2020. Overall, the collaborative feature requirements we survey increased in relative importance from 2020. That which manifests the greatest variability in importance over time is workflow-based data and analytic content creation and sharing.

# Data and Analytic Collaborative Feature Requirements 2019-2024

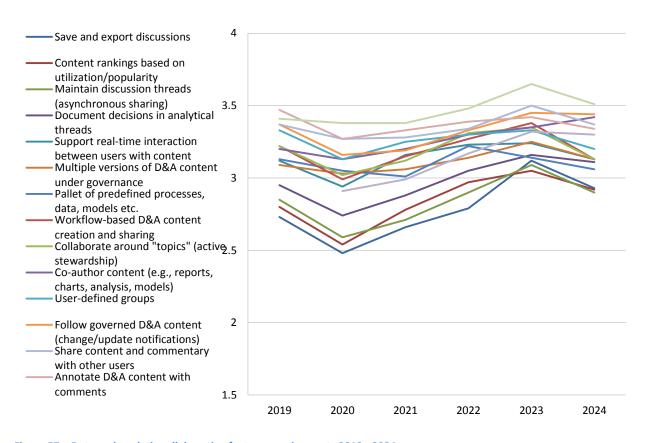


Figure 57 – Data and analytic collaborative feature requirements 2019 - 2024

With the exceptions of support real-time interaction between users with content and pallet of predefined processes, data, models, etc., respondents from Asia Pacific rate data and analytic collaborative feature requirements most highly (fig. 58). Conversely, respondents from Latin America rate most collaborative feature requirements lowest with exception of follow governed data and analytic content (change/update notifications) and workflow-based data and analytic content creation and sharing. We observe consensus in relative importance across the geographies with follow governed data and analytic content (change/update notifications), workflow-based data and analytic content creation and sharing, and pallet of predefined processes, data, models, etc.

# Data and Analytic Collaborative Feature Requirements by Geography

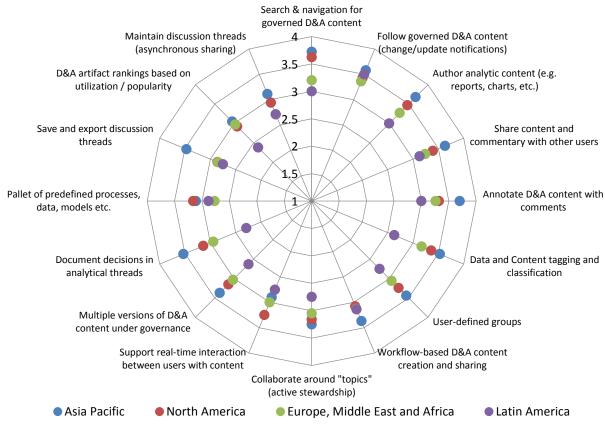


Figure 58 – Data and analytic collaborative feature requirements by geography

Observed relative to data and analytic governance and administrative governance feature requirements respectively, respondents report overall lower levels of importance for collaborative feature requirements (fig. 59). The exception to this observation is R&D that rates author analytic content (e.g., reports, charts, etc.) and annotate data and analytic content with comments in a highly differentiated basis—and on par with ratings in the other feature domains. Flowing from the two exceptions noted above, we observe general consensus in relative importance across the data and analytic collaborative feature requirements that we survey.

# Data and Analytic Collaborative Feature Requirements by Function

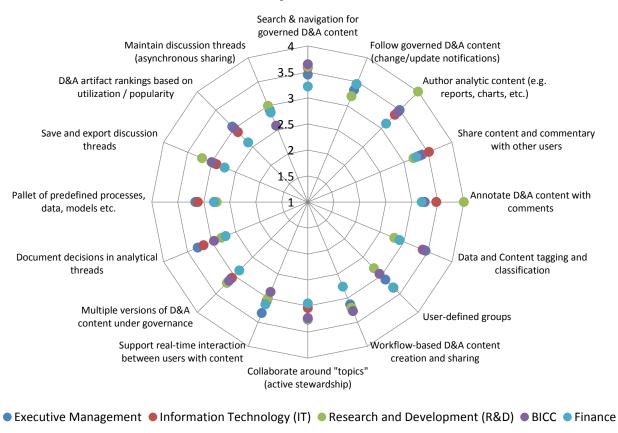


Figure 59 – Data and analytic collaborative feature requirements by function

Data and analytics governance collaborative feature requirement preferences across industries reflect more consistency than not. Exceptions noted are *Search and navigation for governed data and analytic content* (more consensus observed by tighter spread) and *collaborate around "topics" (active stewardship)* (less consensus observed by wider spread) (fig. 60). More broadly, respondents within *manufacturing*, *financial services*, and *healthcare* tend to manifest higher preferences for governance collaborative features. Respondents within *business services* and *education* tend to manifest lower preferences.

# Data and Analytic Collaborative Feature Requirements by Industry

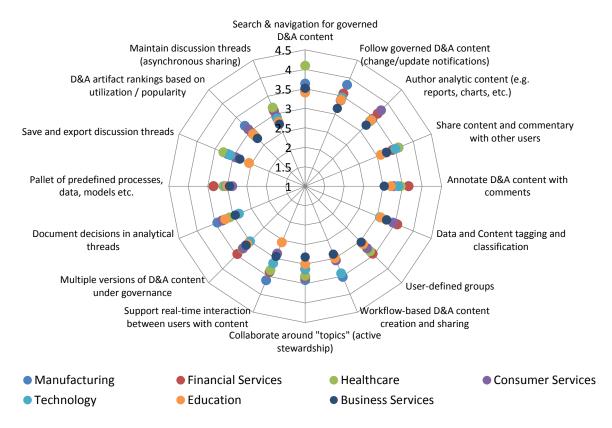


Figure 60 – Data and analytic collaborative feature requirements by industry

Consistent with governance and administrative governance features, we note bi-modal distribution within data and analytic governance collaborative feature requirements based upon organization size (fig. 61). Respondents from larger organizations (1,001 and more employees) reflect higher preferences across all 14 features we survey. Respondents from smaller organizations (1,000 and fewer employees) reflect lower preferences. We note a degree of consensus across organization sizes by convergence of responses for *follow governed data and analytic content (change/update notifications)*, author analytic content (e.g., reports, charts, etc.) and multiple versions of data and analytic content under governance.

# Data and Analytic Collaborative Feature Requirements by Organization Size

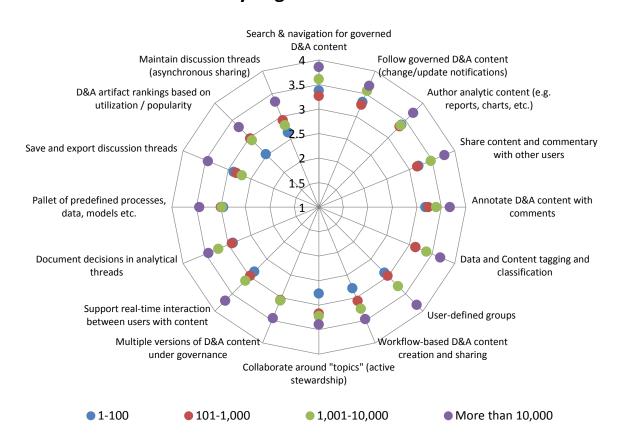


Figure 61 – Data and analytic collaborative feature requirements by organization size

#### **Data Catalog Features for Data and Analytic Governance**

While we recognize cataloging extends beyond the context of governance, catalog capability and functions are integral to the ability of organization to effectively exercise governance of data and analytic content. Therefore, we opt to include data catalog feature requirements within the context of governance. This importance is exhibited by respondents rating at greater than 70 percent (combined categories of *critical*, *very important*, and *important*) for the top five feature requirements (fig. 62). The fifth requirement, *automated source system crawling to catalog technical metadata*, *e.g.*, *creation of an inventory*, heavily depends upon ML and AI capabilities. We believe the different allocation of preference across the rating categories of *critical*, *very important*, and *important* reflects the dynamism associated with ML and AI technologies and their adoption more widely within the market. We note the requirement for *catalog Hadoop-based sources* rated substantively below the others.

## **Data Catalog Feature Requirements**

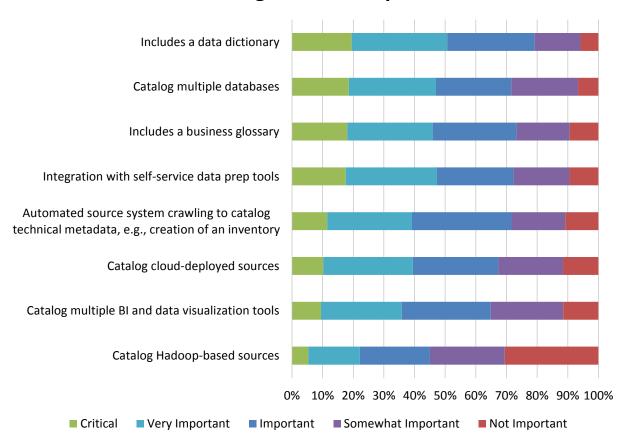


Figure 62 – Data catalog feature requirements

Since 2020, data catalog feature requirements generally trended upwards from the assessed level of important towards very important (fig. 63). We note a downward trend across the board in 2024 but are as yet without confident explanation. The data catalog features includes a data dictionary and catalog multiple databases consistently rate as highest importance. The feature includes a business glossary succeeded integration with self-service data prep tools in prioritization over time. Respondents consistently rate catalog Hadoop-based sources as lowest priority.

# Data Catalog Feature Requirements 2019-2024

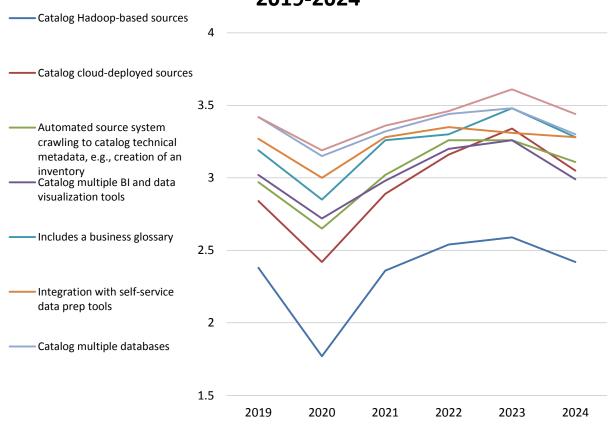


Figure 63 – Data catalog feature requirements 2019-2024

http://www.dresneradvisory.com

Catalog Hadoop-based sources (and lowest rated) is the one data catalog feature requirement that manifests substantive difference in preference across the geographies. The other features surveyed reflect fairly tight consistency in terms of importance (fig. 64). As with other feature requirements surveyed for governance, Asia Pacific tends to prioritize data catalog features higher than other geographies. Latin America—typically reflecting lower prioritization for features—rates the features includes a data dictionary and catalog multiple databases most highly. EMEA by contrast with respect to other governance features reflects consistently lower prioritization for data catalog features than other geographies.

# Data Catalog Feature Requirements by Geography

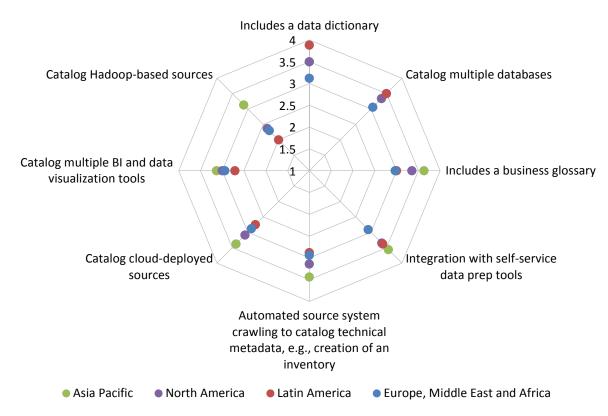


Figure 64 – Data catalog feature requirements by geography

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Rating data catalog feature requirements by function, *finance* respondents differentiate themselves by consistently rating all data catalog feature requirements notably lower than those of other functions (fig. 65). This is particularly noted for the features *includes* a data dictionary, integration with self-service data prep tools, and catalog cloud-deployed sources. This possibly stems from *finance* being self-sufficient to a greater degree than other organizational functions.

IT and BICC respondents reflect a high degree of consensus, with IT favoring includes a business glossary to a higher degree. Respondents of all functions rate catalog Hadoop-based sources much lower than other data catalog functions.

# **Data Catalog Feature Requirements by Function**

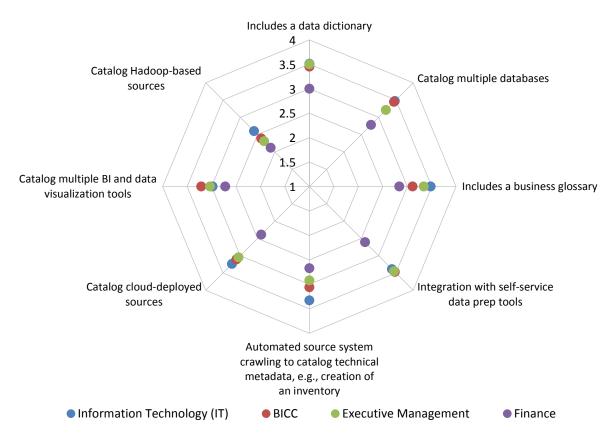


Figure 65 – Data catalog feature requirements by function

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Consensus of prioritization for the data catalog features of *includes a data dictionary* and *catalog multiple databases* manifests by respondents of all industries surveyed (fig. 66). Across the remaining features, the verticals show difference of prioritization by the spread of scores. Respondents from *healthcare* tend to prioritize *includes a data dictionary*, *catalog multiple databases*, and *includes a business glossary* while deprioritizing the other features surveyed. Respondents from *manufacturing* and *financial services* consistently rate higher all data catalog features. Respondents from all industry verticals rate *catalog Hadoop-based sources* much lower than other data catalog features.

# **Data Catalog Feature Requirements by Industry**

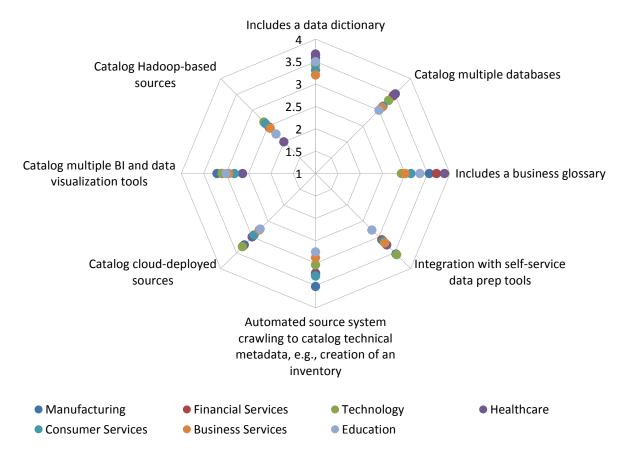


Figure 66 – Data catalog feature requirements by industry

Respondents from organizations of *more than 10,000 employees* consistently rate every data catalog feature requirement most highly, and for several on a differentiated basis than respondents from other organization sizes (fig. 67). Respondents from organizations of *1,001-10,000 employees* are also consistent in rating every feature second highest. Smaller organizations (1,000 and fewer employees) reflect consensus in rating every data catalog feature lower in priority. Respondents from every size organization rated *catalog Hadoop-based sources* lowest priority.

# Data Catalog Feature Requirements by Organization Size

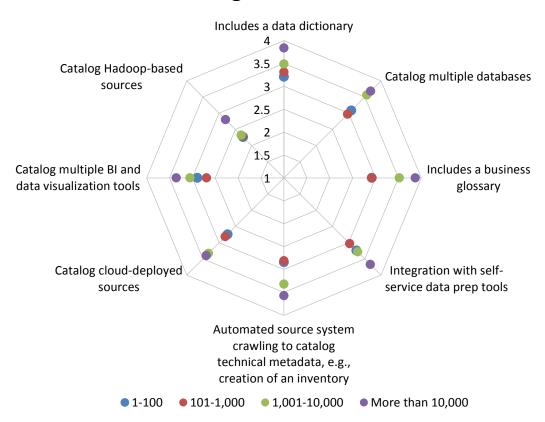


Figure 67 – Data catalog feature requirements by organization size

# Industry and Vendor Analysis

## **Industry and Vendor Analysis**

#### **Industry Importance of Governing Analytic Content**

We asked our vendor respondents about the importance of governing analytic content creation and sharing in the industry across the years 2017 to 2024 (fig. 68). Overall, the data indicate most respondents consider governing BI / analytic content creation and sharing as very important or critical to their industry strategies.

The level of critical rating was lowest at 62 percent in 2020 and saw a notable uptick to an all-time high of 83 percent in 2024. For the combined categories of *critical*, *very important*, and *important*, the low was 91 percent in 2018 and consistently reflected 100 percent (2020, 2021, 2023, and 2024). The result is a weighted average consistently rated as *very important*.

#### **Industry Importance of Governing Content Creation** and Sharing 100% 5 4.5 90% 80% 4 70% 3.5 3 60% 50% 2.5 2 40% 30% 1.5 20% 1 10% 0.5 0% 0 2017 2019 2023 2024 2018 2020 2021 2022 Critical ■ Very Important Important Somewhat Important Not Important -Weighted mean

Figure 68 – Industry importance of governing content creation and sharing

#### **Industry Support of Governance Capabilities**

The prioritization given to data and analytic content security, quality, and privacy by end-user respondents is reflected in the industry support of these governance capabilities. For each of these capabilities, a minimum of 94 percent of vendors support them today (fig. 69). Disparity across vendors in supporting the other governance capabilities we survey is reflected by the range of vendor responses. We observe three themes: plans for increasing organic capability delivery over time, outsourcing of capability delivery by means of third-party integration, and strategic decision not to support a given capability. *Active stewardship* and *cost management* appear to be capabilities most considered by vendors of lesser importance to deliver organically.

# **Industry Support of Governance Capabilities**

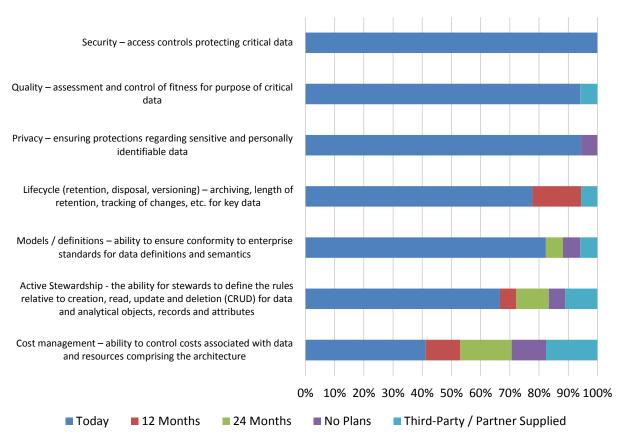


Figure 69 - Industry support of governance capabilities

#### **Industry Support of Governance Features**

In our survey of vendors for governance features we observe a high level of support among vendors for most of those surveyed—more than 70 percent deliver today seven of 12 detailed features. The highly supported features center around data and analytic security (four of seven), certification, and APIs (fig. 70). Support for lineage and impact analysis appears to be the governance feature of highest interest in plans for future delivery by vendors, with 29 percent of vendors indicating support within the next 12 months. We observe in the consistent response of no plans by vendors across every governance feature the current siloed nature of governance capability within the market. Our hypothesis is this will change as vendors re-orient themselves to delivering integrated governance capability within the context of a semantic layer—which will serve to collapse silos across what are currently considered distinct domains.

## **Industry Support of Governance Features**

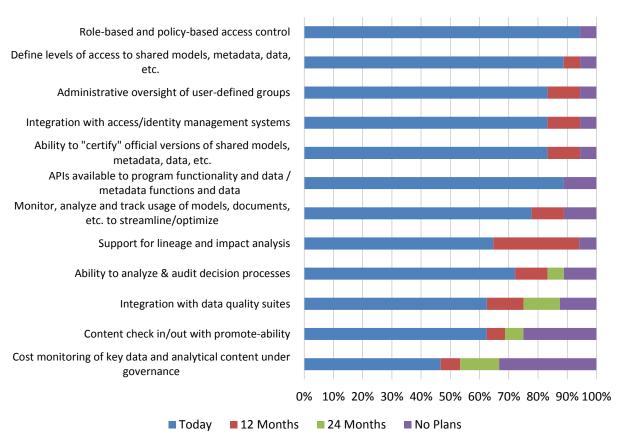


Figure 70 - Industry support of governance features

#### **Industry Support of Data and Analytic Governance - Security**

Vendor support for security appears to be focused in the areas of *analytic content*, *data* and *master data* with 77 percent or more of vendors delivering capability today (fig. 71). While the security of ML and AI elements is of equal importance, vendor support is less expansive. Note the absence of vendor participant plans for delivery within *12 months*.

We attribute the higher level of support for *ML* and *AI* training data sets to vendor capability in providing for data security more generally. We further assess the relatively consistent and higher levels of *no plans* for domains other than *analytic content* and data reflect current specialization across the vendor participants surveyed. We believe this will change over time due to the consistently high rating of security as a requirement and as end-users and markets coalesce around implementation of semantic layers within information / data architectures.

## **Industry Support of Security**

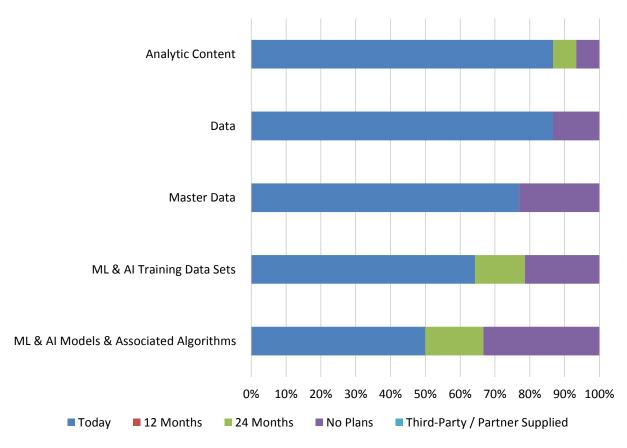


Figure 71 – Industry support of security

#### **Industry Support of Data and Analytic Governance - Quality Assurance**

Predictably, vendor respondents report highest support for quality assurance of *analytic content* and *data*—more than 85 percent of participating vendors report current support (fig. 72). This falls to 64 percent for *master data*, also predictable given history of the MDM market being largely a distinct market segment. Quality assurance capability is reported by participating vendors at lower levels for both *ML and AI training data sets* (54 percent) and *ML and AI Models and Associated Algorithms* (42 percent). While noting the absence of vendor plans in the near term (*12 months*), both also exhibit the greatest extent of planned future delivery at 23 and 25 percent respectively (within *24 months*). We believe this reflects the energy and dynamism within what is an early-stage market.

## **Industry Support of Quality Assurance**

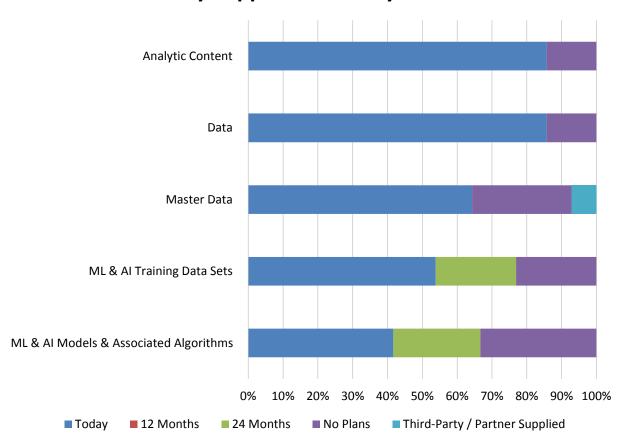


Figure 72 – Industry support of quality assurance

#### **Industry Support of Data and Analytic Governance - Privacy**

As with security and quality assurance, current industry support reported by vendor respondents is greatest for *analytic content* and *data* (87 percent respectively), followed by *master data* (64 percent) (fig. 73). Like quality assurance for data and analytic governance, vendors report directing future investment towards providing privacy support for *ML* and *AI training data sets* (54 percent) and *ML and AI models and associated algorithms* in the future. The combined categories planned delivery of *12 months* and *24 months* are 23 percent for *ML and AI models and associated algorithms* and 21 percent for *ML and AI training data sets*. Similarly, we assess the broad and selectively relatively deep pockets of *no plans* reflect projected specialization mentality formed from currently segmented markets.

## **Industry Support of Privacy**

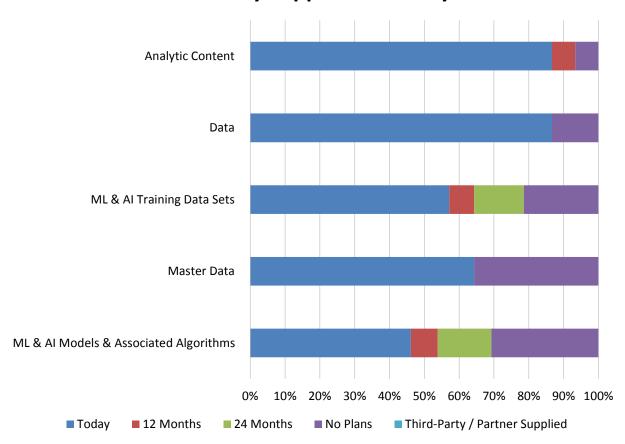


Figure 73 – Industry support of privacy

#### **Industry Support of Data and Analytic Governance - Life Cycle Management**

Participant vendor support for governance by data and analytic content life cycle management reflects more dynamism than other areas (fig. 74). As with other dimensions, vendor respondents report greatest current support for *data* and *analytic content* (79 and 71 percent respectively), followed to a lesser degree by *master data* (64 percent), and the least for *ML and AI models and Associated Algorithms* (38 percent), and *ML and AI training data sets* (33 percent). Respondent vendors report plans to deliver future support across all governance areas with the majority directed towards ML and AI. We believe this reflects responsiveness on the part of vendors to increasing demands within the market for life cycle management of data and analytic content across the board.

# **Industry Support of Lifecycle Management**

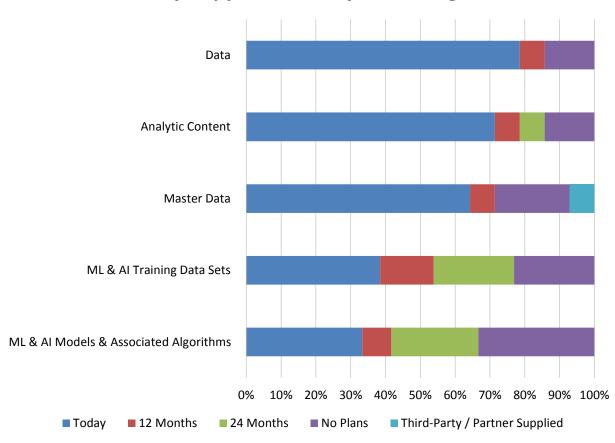


Figure 74 – Industry support of life cycle management

#### **Industry Support of Data and Analytic Governance - Models/Definitions**

Vendor respondents reported current support governance of models/definitions in the areas of *data* (87 percent), *analytic content* (86 percent), and *master data* (71 percent) (fig. 75). Interestingly, vendors report current support for *ML and AI training data sets* (50 percent) is higher than *ML and AI models and associated algorithms* (33 percent). We believe this is due to an increased number of traditional data governance vendors claiming capability in this area as "data is data." Vendors report the majority of future plans (*12 and 24 months* respectively) in those areas with least coverage of support today. We note the higher levels of *no plans* for future delivery across *master data*, *ML and AI training data sets* and *ML and AI models and associated algorithms*.

# **Industry Support of Models/Definitions**

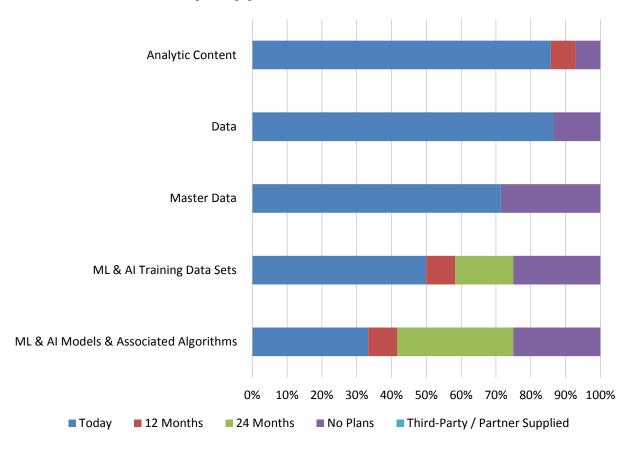


Figure 75 - Industry support of models/definitions

#### **Industry Support of Data Cataloging and Metadata Management Features**

Vendor respondents self-reporting support for data cataloging and metadata management features in support of governance reveal current support for the least complex features dropping in a more-or-less linear manner as feature complexity increases (fig. 76). Those features supported most prominently by vendors today are *ML and AI models and associated algorithms* (83 percent) and *lineage visualization* (76 percent). Those least supported today are *impact analysis reporting* (53 percent) and use of metadata to optimize the infrastructure (dynamic decisions on how requests are served) (47 percent). Interestingly, self-reported future plans appear to suggest a "leveling up" across all areas we survey with the exception of infrastructure optimization over the course of the next two years. Greatest immediate plans for increased delivery are reflected in *impact analysis reporting* in both 12 and 24 month time frames.

# Industry Support of Data Cataloging and Metadata Management Features

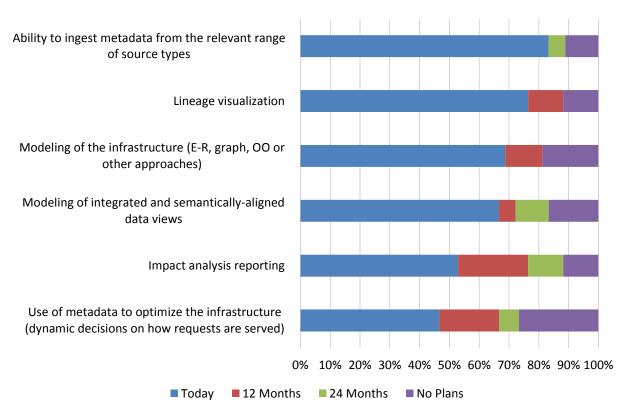


Figure 76 – Industry support of data cataloging and metadata management features

#### **Industry Support of Cataloging**

The importance of cataloging data and analytic content is reflected in vendor participant reporting high levels of current support in the cataloging of *analytic content* (93 percent), *data* (87 percent), and *master data* (71 percent), each of which of historically focus within historically discrete markets (fig. 77). Current support for *ML and AI training data* sets and *ML and AI models and associated algorithms* is much lower, at 54 and 36 percent respectively. Similar to reported future plans with respect to data cataloging and metadata management features, vendor participants report future plans that, if executed, would deliver parity of capability across the areas we surveyed. Vendors report their greatest focus of future plans (*12* and *24 months* respectively) for cataloging of *ML and AI models and associated algorithms*.

## **Industry Support of Cataloging**

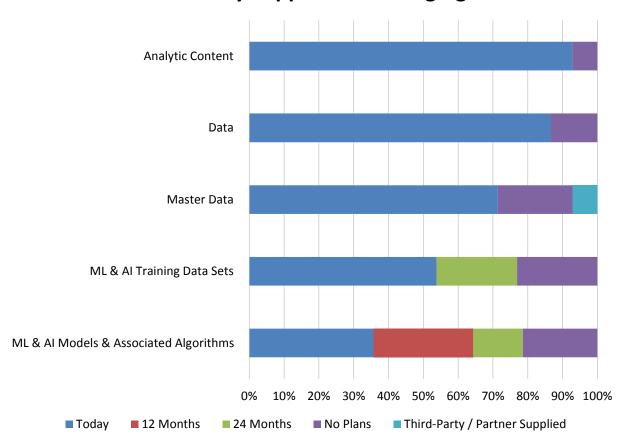


Figure 77 – Industry support of cataloging

#### **Industry Support of Active Stewardship**

Vendor participant reporting for active stewardship reveals a pattern different from the other areas surveyed by Dresner. Vendors report current support greatest for active stewardship of data (87 percent), analytic content (86 percent), and ML and AI training data sets (75 percent) (fig. 78). Support for master data falls fourth but is still strong at 69 percent. The lowest level of current support recorded for active stewardship is that for ML and AI models and associated algorithms at 54 percent. Vendors report plans for support within 12 months for data (6 percent), ML and AI training data sets (8 percent) and, most strongly, ML and AI models and associated algorithms (27 percent). Consistent with a mature distinct market, future plans are most weak for master data—8 percent and over 24 months. Master data also reflects the only capability reported to be delivered by third-party / partner supplied.

## **Industry Support of Active Stewardship**

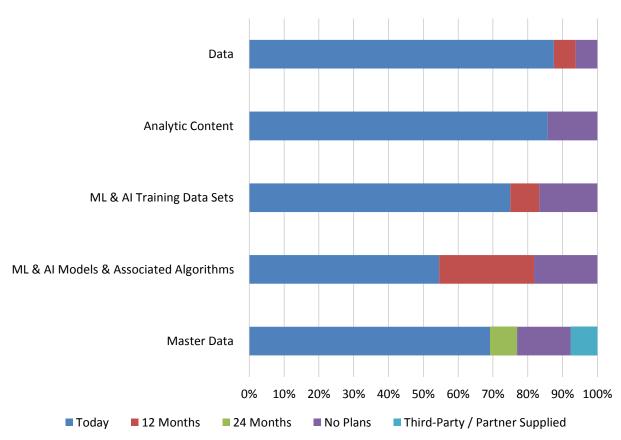


Figure 78 – Industry support of active stewardship

#### **Industry Support of Cost Management**

Mirroring the low prioritization of cost management for governance activities and technology as reported by end-users, vendor participants reflect low levels of support—current or future. *Cost management* exhibits the highest levels of *no plans* reported for any of the areas we survey, ranging from 38 to 42 percent (fig. 79). Vendors report future plans across the board, with focus first upon *analytic content* and *data* (combined categories of 12 and 24 months of 23 percent respectively; emphasis in next 12 months), followed by *ML* and *AI* training data sets and *ML* and *AI* models and associated algorithms (31 percent respectively; emphasis in next 24 months). As with active stewardship, *MDM* has the lowest level of future plans delivery—15 percent over the next 24 months.

# **Industry Support of Cost Management**

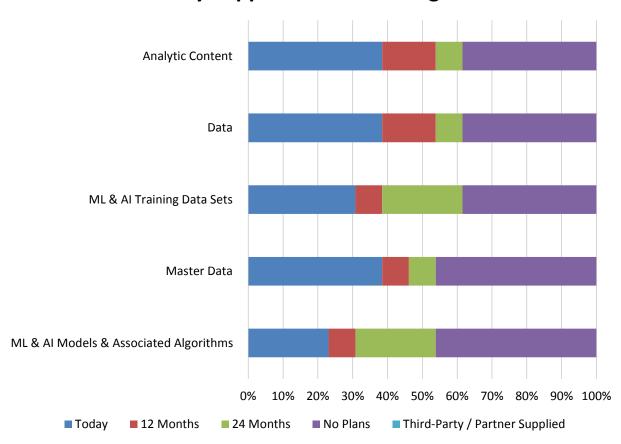


Figure 79 – Industry support of cost management

#### **Industry Support of Governance Solution Capabilities**

Most vendor participants report the governance capabilities we surveyed as *integral to the solution*, near 80 percent and above for all but *cost management* (fig. 80). Our assessment is this reporting reflects the current state of capability within the distinct domains (BI and analytics, data governance, MDM, etc.) of the solutions versus *comprehensive* governance capabilities that can span the areas we believe comprise business-focused governance: *data*, *analytic content*, *master data*, *ML and AI models and associated algorithms, and ML* and *AI training data sets*. This is evident in the broad spectrum of *not applicable* responses reported across all areas ranging from 7 to 21 percent. *Cost management* is uniformly poorly supported by vendors (only 29 percent report current capability). We believe the vendor landscape currently reflects the history over which it emerged more than the likely future towards which it will develop. We believe this will change over time in realization of distinct semantic layers.

#### **Governance Solution Capabilities**

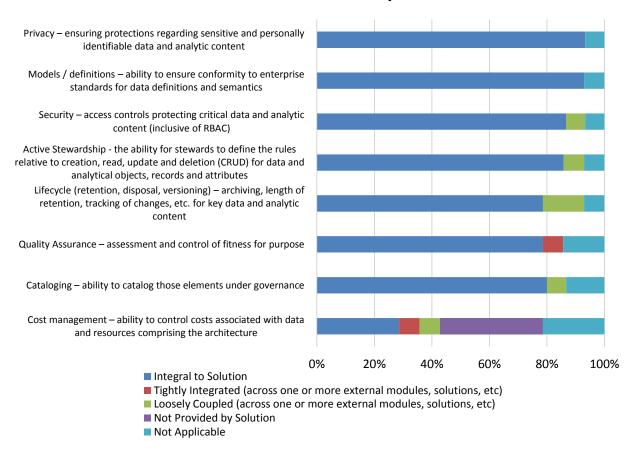


Figure 80 - Industry support of governance solution capabilities

#### **Governance Vendor Ratings**

In rating the vendors, we considered ability of solutions to provide capability along two axes as reported by vendors and weighted by users: depth of governance (capabilities and features across governance and cataloging respectively) as well as span of governance (capabilities of a solution to provide select governance across data, master data, analytic content, ML and Al and associated algorithms, and ML and Al training data sets). Separately, we assessed as reported by vendors the degree of governance capability solution integration.

This chart (fig. 81) represents the vendors with the strongest (or most complete) capabilities and features along the two axes measured and degree of solution integration.

Top vendors include Alation (1<sup>st</sup>), Informatica (2<sup>nd</sup>), Atlan (3<sup>rd</sup>), Palantir (4<sup>th</sup>), BigID (5<sup>th</sup>), Domo (5<sup>th</sup>), Qlik (5<sup>th</sup>), and Select Star (5th).

## **Data Governance Vendor Ratings**

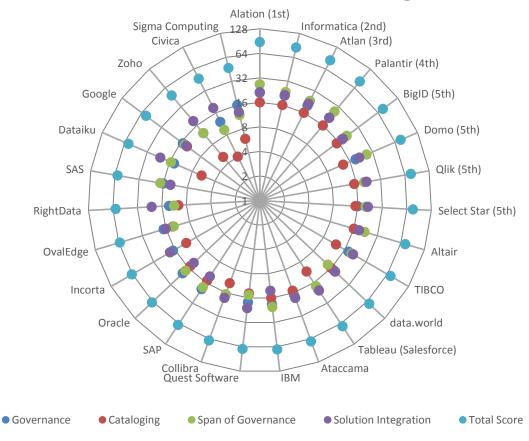


Figure 81 – Governance vendor ratings

<sup>\*</sup>A logarithmic scale is used for the scoring chart to address skewness towards larger values

## **Other Dresner Research Reports**

- Wisdom of Crowds<sup>®</sup> "Flagship" Business Intelligence Market Study
- Active Data Architecture TM
- AI, Data Science, and Machine Learning
- Analytical Data Infrastructure
- Analytical Platforms
- Cloud Computing and Business Intelligence
- Collective Insights<sup>®</sup>
- Data Engineering
- Embedded Business Intelligence
- Enterprise Performance Management
- ESG Reporting
- Financial Consolidations, Close Management, and Reporting
- Generative AI
- Guided Analytics<sup>®</sup>
- Master Data Management
- ModelOps
- Sales Performance Management
- Self-Service Business Intelligence
- Small and Mid-Sized Enterprise Business Intelligence
- Small and Mid-Sized Enterprise Performance Management
- Supply Chain Planning and Analysis
- Workforce Planning and Analysis

# **Appendix: Governance Survey Instrument**

First Name*:
Last Name*:
Title:
Company Name*:
Street Address:
City:
State:
Zip:
Country:
Email Address*:
Phone Number:
URL:
May we contact you to discuss your responses and for additional information?
() Yes
( ) No
What major geography do you reside in?*
( ) North America
( ) Europe, Middle East and Africa
( ) Latin America
( ) Asia Pacific

Please identify your primary industry*
( ) Advertising
() Aerospace
( ) Agriculture
() Apparel & accessories
( ) Automotive
() Aviation
( ) Biotechnology
() Broadcasting
() Business services
() Chemical
( ) Construction
() Consulting
( ) Consumer products
() Defense
( ) Distribution & logistics
() Education (Higher Ed)
() Education (K-12)
() Energy
( ) Entertainment and leisure
() Executive search
( ) Federal government
( ) Financial services
( ) Food, beverage and tobacco
() Healthcare

( ) Hospitality
() Insurance
() Legal
( ) Manufacturing
() Mining
() Motion picture and video
( ) Not for profit
() Pharmaceuticals
() Publishing
() Real estate
() Retail and wholesale
() Sports
() State and local government
() Technology
( ) Telecommunications
( ) Transportation
() Utilities
() Other - Please specify below
Please type in your industry

Tiow many employees does your company employ worldwide:
( ) 1-100
( ) 101-1,000
( ) 1,001-2,000
( ) 2,001-5,000
( ) 5,001-10,000
( ) More than 10,000
What function do you report into?
() Business Intelligence Competency Center
() Executive management
( ) Faculty (Education)
() Finance
() Human resources
( ) Information Technology (IT)
( ) Manufacturing
() Marketing
( ) Medical staff (Healthcare)
() Operations
() Research and development (R&D)
() Sales
( ) Strategic planning function
() Supply chain
() Other - Write In

How important is it to achieve common trust in data and analytic content (models and analyses, inclusive of ML & AI) across decision makers?

- () Critical
- () Very Important
- () Important
- () Somewhat Important
- () Not Important

How important is it to ensure the quality, security, privacy, lifecycle management of data, models and analytic artifacts (reports, queries, ML models, etc.) shared across decision makers?

- () Critical
- () Very Important
- () Important
- () Somewhat Important
- () Not Important

Please prioritize the following features for a data/analytical content governance solution.

	Critical	Very Important	Important	Somewhat Important	Not Important	Don't Know
Security (inclusive of role-based access control)	()	()	()	()	()	()
Privacy Management	()	()	()	()	()	()

Quality Assurance - Data	()	()	()	()	()	()
Quality Assurance - Analytic Content	()	()	()	()	()	()
Quality Assurance - ML & AI Models & Associated Algorithms	()	()	()	()	()	()
Quality Assurance - ML & AI Training Data Sets	()	()	()	()	()	()
Governance of Data Models	()	()	()	()	()	()
Governance of Master Data (MDM)	()	()	()	()	()	()
Governance of Analytic Content	()	()	()	()	()	()
Governance of ML & AI Models & Associated Algorithms	()	()	()	()	()	()
Governance of ML & AI Training Data Sets	()	()	()	()	()	()

Governance of Meta Data	()	()	()	()	()	()
Lifecycle Management of Master Data	()	()	()	()	()	()
Lifecycle Management of Analytic Content	()	()	()	()	()	()
Lifecycle Management of ML & AI Models & Associated Algorithms	()	()	()	()	()	()
Lifecycle Management of ML & AI Training Data Sets	()	()	()	()	()	()
Cataloging	()	()	()	()	()	()
Cost Monitoring & Optimization of Technology- based Governance Activities	()	()	()	()	()	()

How important are the following features for BI and analytics co-creation and sharing (i.e., collaboration) governance of data and analytic artifacts?

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		nt		Importan t	nt	Kno w
"Follow" governed data and analytic content (change/update notifications)	()	()	()	()	()	()
Annotate data and analytic content (e.g., reports, dashboards, charts, data tables) with comments	()	()	()	()	()	()
Author analytic content (e.g., reports, charts, analysis, models)	()	()	()	()	()	()
Collaborate around "topics" (active stewardship)	()	()	()	()	()	()
Data and analytic artifact creation and sharing using structured workflow (active stewardship)	()	()	()	()	()	()
Data and analytic artifact rankings based on utilization/popularity	()	()	()	()	()	()
Data and Content tagging and classification	()	()	()	()	()	()
Document decisions in analytical threads	()	()	()	()	()	()

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Save and export discussions	()	()	()	()	()	()
Maintain a discussion "thread" (history) of interactions/discussi ons (asynchronous sharing)	()	()	()	()	()	()
Maintain multiple versions (history) of data and analytic content under governance	()	()	()	()	()	()
Pallet of predefined processes, data, models etc.)	()	()	()	()	()	()
Search and navigation for data and analytic content under governance (e.g., data, models, metadata)	()	()	()	()	()	()
Share content and commentary with other users	()	()	()	()	()	()
Support real-time (synchronous) interaction between users with content	()	()	()	()	()	()
User-defined groups	()	()	()	()	()	()

Using current systems, how difficult is it to find content (e.g., models, data sets, reports, dashboards) created by others?

() Impossible

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- () Somewhat Difficult
- () Relatively Easy
- () Extremely Easy

How important are the following administrative features for governing data and analytical content?

	Critica I	Very Importa nt	Importa nt	Somewh at Importan t	Not Importa nt	Don' t Kno w
Check in/out with promote-ability	()	()	()	()	()	()
Ability to "certify" official versions of shared metadata, data, etc.	()	()	()	()	()	()
Ability to analyze and audit decision processes	()	()	()	()	()	()
Support for lineage and impact analysis	()	()	()	()	()	()
Define levels of access to shared documents, data, analytics, etc.	()	()	()	()	()	()
Integration with access/identity management systems	()	()	()	()	()	()

APIs available to program functionality and data/metadata functions and data	()	()	()	()	()	()
Monitor, analyze and track usage of governed data & analytic content to streamline/optimi ze	()	()	()	()	()	()
Administrative oversight of user-defined groups	()	()	()	()	()	()
Role-based and policy-based access control	()	()	()	()	()	()

How important are the following data cataloging features for governing data and analytic artifacts?

	Critical	Very Important	Important	Somewhat Important	Not Important	Don't Know
Automated source system crawling to catalog technical metadata, e.g., creation of an inventory	()	()	()	()	()	
Catalog cloud-	()	()	()	()	()	()

deployed sources						
Catalog Hadoop- based sources	()	()	()	()	()	()
Catalog multiple BI and data visualization tools	()	()	()	()	()	()
Catalog multiple databases	()	()	()	()	()	()
Integration with self- service data prep tools	()	()	()	()	()	()
Includes a business glossary	()	()	()	()	()	()
Includes a data dictionary	()	()	()	()	()	()

Do you currently have a formal	il governance organization	۱?
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( ) No

Is your formal governance organization centralized or distributed?

- () Centralized
- () Distributed

() Hybrid (we have a centralized function but also embedded governance roles
( ) Other - Write In:
150) What best characterizes your Governance Organization?
() Distinct, stand-alone organization (analogous to Sales, Marketing, BI, etc.)
() Distributed team of dedicated roles embedded across the organization (e.g. Data Product Owners, Data Stewards, etc.)
() Virtual team comprised of organization members with secondary responsibilities for Governance
() Informal, best effort by dedicated individuals with no formal Governance responsibilities
( ) None or N/A
( ) Other - Write In:
What function does your Data Governance organization report into?
( ) Chief Data Officer
() Finance
( ) IT
() BI Competency Center
() Sales
() Marketing
( ) Other - Write In:
At the level of "enterprise" what does the scope of your Governance Program include? (check all that apply)
[] Operational data
[ ] Analytical data

[] Master Data
[ ] Master Data – lifecycle management
[] Analytical Calculations & Methods
[] Analytical Reports
[ ] Analytical Charts
[] ML & Al Models and associated algorithms
[] ML & Al Models and associated algorithms – lifecycle management
[] ML & Al Training Data Sets
[] ML & Al Training Data Sets – lifecycle management
[] Cost management for Governance – organizational, resources and/or technology
[1 Other - Write In:

Please prioritize the following Data Governance Organization activities

	Critical	Very Important	Important	Somewhat Important	Not Important
Data and analytics quality – ensuring the quality of data and of analytic artifacts	()	()	()	()	()
Controlled access to data appropriate to role (protection of data, data privacy)	()	()	()	()	()
Documentation	()	()	()	()	()

of data objects, definitions, models, associations, algorithms, calculations and related, to include ownership / responsibility by role (cataloging)					
Active stewardship - "rights of authorship" at model, record & attribute level (stewardship)	()	()	()	()	()
Capture and curation of meta data (cataloging)	()	()	()	()	()
Lifecycle management of master data (model ops)	()	()	()	()	()
Lifecycle management of enterprise- level analytic content (model ops)	()	()	()	()	()
Lifecycle management of ML and AI data models and associated	()	()	()	()	()

algorithms (model ops)					
Lifecycle ML and AI training data sets (model ops)	()	()	()	()	()
Cost management for Governance – organizational, resources and/or technology	()	()	()	()	()

Do you current use any data governance or catalog solutions?

- () Yes
- ( ) No

Please type in the governance solutions in use and your satisfaction with each.

Exceeds Meets of Expectations Expectations		Exceeds Expectations	Meets Expectations	_ ·
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