Information Governance: Turning Data Into Business Value

A Proactive Approach To Managing Data

October 2011

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Executive Summary

Companies continue to invest more and more in business intelligence (BI) projects, but success is significantly lagging behind business goals and expectations. It is not only a matter of the analytical tools and technologies that can enable business users to make better informed business decisions; it's also about the way these tools are implemented and whether the business user trusts the data that he sees. An end-to-end information governance (IG) strategy and process establishes the necessary framework to turn data into business value. Successful information governance projects involve stakeholders from all departments with the strong involvement and sponsorship of C-level executives.

> The way analytics tools are implemented makes the difference to a successful business intelligence strategy.

In June 2011, IBM commissioned Forrester Consulting to explore current information governance practices, challenges, and ROI among US, UK, and German firms. In conducting an online survey of 200 information governance decision-makers — and follow-up in depth interviews with five of these respondents — Forrester found that companies that implement an information governance strategy across their enterprise achieve better business results than those that are less mature in their governance initiatives.

Key Findings

Forrester's study yielded four key findings:

- **Making better informed business decisions is the top business goal driving BI investments — and the area of lowest success.** Business goals are the main driver of BI projects today, but at the same time companies report the lowest success rate for these goals as compared with more technical achievements.

- **High-performing companies have implemented information governance strategies at far higher rates than low performers.** It is not simply the analytical tools and technologies that differentiate top performers from their peers, but the way these tools are implemented.

- **Most companies have achieved significant success in the area of data security and privacy.** The biggest investment so far has been in the areas of data security and privacy, and companies are generally satisfied with their achievements there. But future investments will need to go into other information governance areas, such as data quality, standardization, and data life-cycle management, to establish a successful end-to-end information governance strategy.

- **74% of companies are planning an information governance project in the near future.** While the implementation of an end-to-end information governance strategy is still relatively low (32% of companies have already implemented IG within their enterprise), there is a large wave of upcoming projects over the next 12 months and beyond.

The Use Of Business Intelligence Solutions Is Growing Fast — But Success Often Lags Behind Expectations

While most IT market segments were facing a strong decline in the recent recession between 2008 and 2010, one notable exception from this picture was the market for BI software and related services. In the context of this study, we are using the term BI in its broader definition, including data management for data collection,

integration, storage, cleaning, and security, plus data processing and consumption in the form of reporting, analytics, dashboards, and data sharing. The BI market showed a strong double-digit year-over-year growth during that same time. Companies realized that business transparency and timely information are imperative in making better business decisions — especially in economically challenging times. As such, the importance of BI has consistently increased over the past few years, and in 2011, for the first time in Forrester Forrsights surveys, BI has become the No.1 priority in companies' implementation plans (see Figure 1).

Figure 1

Business Intelligence Has Become The No. 1 Priority In Companies' Implementation Plans

"What are your firm's plans to adopt the following business applications?"
(Sum of Expanding/ upgrading implementation and Planning to implement in the next 12 months)
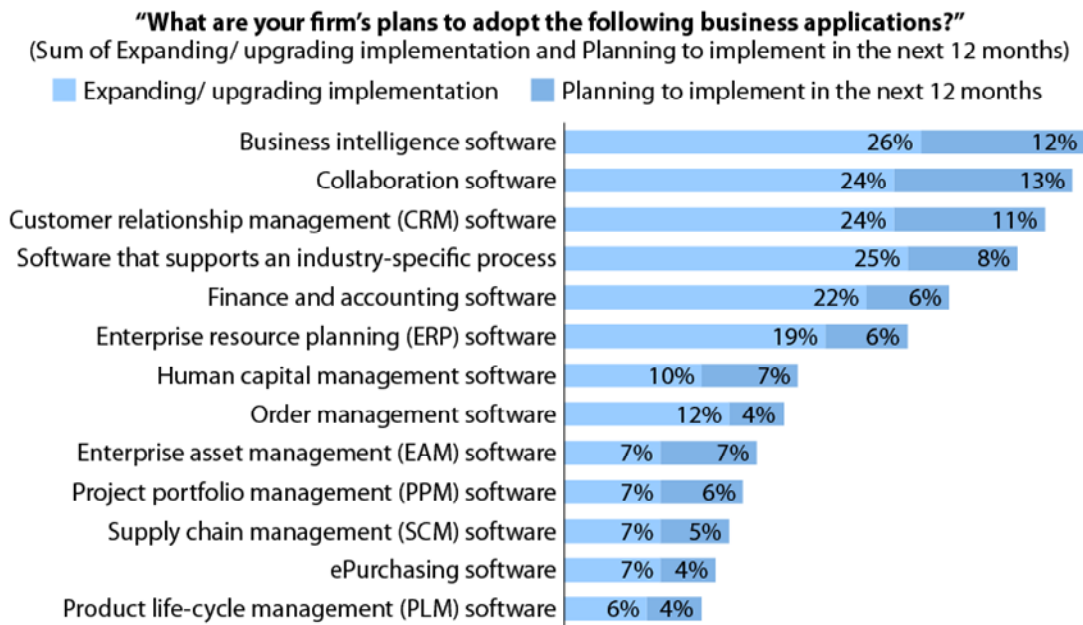
Base: 2,124 North American and European software decision-makers

Source: Forrsights Software Survey, Q4 2010

However, there seems to be a clear gap between the initial goals and expectations companies are putting into their BI investments and the outcome of their implementation projects. While making better business decisions was the top BI goal companies wanted to achieve, it had the lowest of all scores when we asked about the achievement of those BI goals. Only 16% rated themselves as very successful in this area. All other goals were considered to be more successful, with the highest successes seen in the area of compliance and risk reduction (see Figure 2). The successful achievement of business goals seems to be a big challenge for all companies, independent of the BI tools and technologies that are applied.

> Most companies don't achieve their business goals with their BI strategy..

Figure 2

Business Intelligence Goals And Achievements Are Not In Line

"What are the most important business goals your organization considers when orchestrating your business intelligence strategy?"

"How successful have you been thus far in achieving these business goals with your business intelligence strategy?"

	Make better informed business decisions	Ensure compliance and reduce risk
No. 2 ranked priority	11%	12%
No. 1 ranked priority	24%	11%

	Make better informed business decisions	Ensure compliance and reduce risk
Very successful	16%	23%
Successful	37%	51%

- ■ No. 2 ranked priority
- ■ No. 1 ranked priority
- ■ Very successful
- ■ Successful

Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

Information Governance Makes The Difference For A Successful Business Intelligence Strategy

Different BI tools and technologies are used for different BI use case scenarios. Only a few business processes benefit from "real" real-time streaming with CEP technologies, and not every performance analysis requires crawling big data in the form of unstructured web content. Advanced BI technologies open the door to the usage of additional valuable information, but it's not the tools that make a BI project successful — it is the way the tools are used.

The way business information tools are used is defined by what we call "information governance." Information governance is a holistic approach to managing and leveraging information for business benefits, encompassing information quality, standardization, security and privacy, and information life-cycle management. The concept of information governance is not new, although different wordings and definitions exist. Most companies (90% or more) understand what information governance is and its importance within a successful BI strategy; however, a much lower number have actually implemented an end-to-end information governance strategy and process (see Figure 3). Again, comparing high-performing companies to lower performers, we find that 36% of high-performing firms report such adoption — a disappointing number when we think about the high level of understanding that nearly all organizations report, but impressive when compared with just 21% of lower-performing firms that have implemented such a strategy.

> High-performing firms are more likely to have implemented an information governance strategy than lower performers.

Figure 3

Top Performers Are More Likely To Have Implemented An Information Governance Strategy And Processes

"How important is an end-to-end approach, combining all five aspects of governance, to the success of an information governance strategy?"
(*Rating of 4 and 5 shown, based on a scale of 1 to 5, where 1 = Not at all important and 5 = Critically important*)

■ 4 ■ 5 — critically important
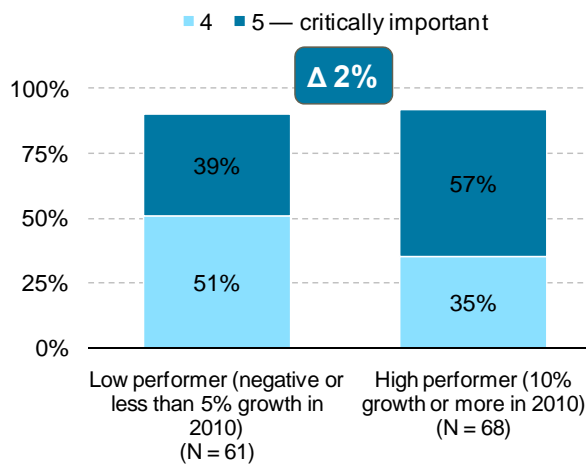
"What best describes your firm's plans to implement an end-to-end information governance strategy and related process?"
(*Selections indicating current implementation shown*)

■ Already implemented, not changing

Δ 2%

39%	57%
51%	35%

Low performer (negative or less than 5% growth in 2010) (N = 61)   High performer (10% growth or more in 2010) (N = 68)
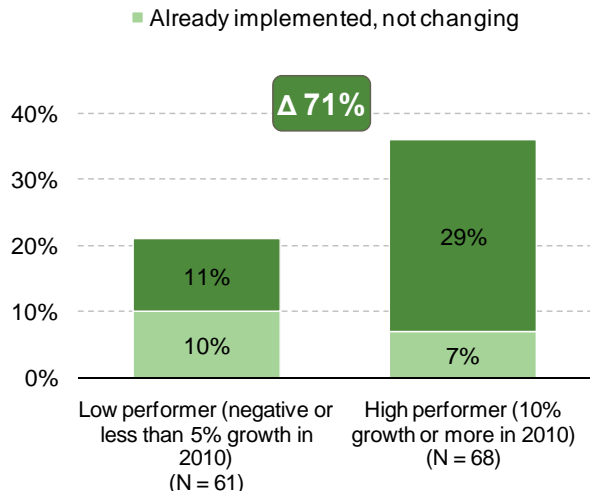
Δ 71%

11%	29%
10%	7%

Low performer (negative or less than 5% growth in 2010) (N = 61)   High performer (10% growth or more in 2010) (N = 68)

Base: 129 US and European enterprise decision-makers involved in data management and governance initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

Our interviewees had more to say about the definition and importance of information governance:

"Information governance is at the core of our information-based business." (Director, key clients, medium-size European HR management consulting firm)

"[Information governance] is a must-have. In large organizations, you need to create synergies across groups, especially when you work across multiple countries, to make sure you can keep things efficient across geographies and departments." (CFO, very large European utility subsidiary)

"We can get tools to do what we need — the art is implementing the tool in the right way so the people will use it." (Director, key clients, medium-size European HR management consulting firm)

"There's no one definition. It's about data management, warehousing . . . and the security of the data, as well as how we integrate that data. . . . One version of the truth is [also] an important component." (Head of audit and risk, medium-size global beverage distributor)

Companies Implement Information Governance In Different Ways

While most companies understand the importance of information governance, the approach of those that have implemented it varies across the key elements of information governance:

- **Data security and privacy** is the most advanced of all IG capabilities. Data security and privacy handles, for example, data sensitivity segmentation, access protection, as well as compliance auditing, data masking, and reporting.

- **Standardization and metadata management** handles the definition of data structures and communication across different data sources and applications.

- **Master data management** eliminates data redundancies and inconsistencies across heterogeneous IT architecture landscapes.

- **Information/data quality** includes all processes like data testing and validation to achieve "trusted data" or "a single version of the truth" across the enterprise.[1]

- **Data life-cycle management** handles the processes for data monitoring, testing, repository management, and archiving and retention.

From the total of 32% of all respondents that have implemented an information governance strategy, most have established the capabilities of data security and privacy. Data security and privacy is also the area that is implemented most consistently cross-enterprise on a corporate level — by 77% of all companies that have implemented it (see Figure 4). All other elements of information governance have far lower adoption rates and are implemented in a much more siloed approach on the line of business (LOB), department, or project levels.

Figure 4

74% Are Planning An Information Governance Project, But Implementation Is Not Always Enterprisewide
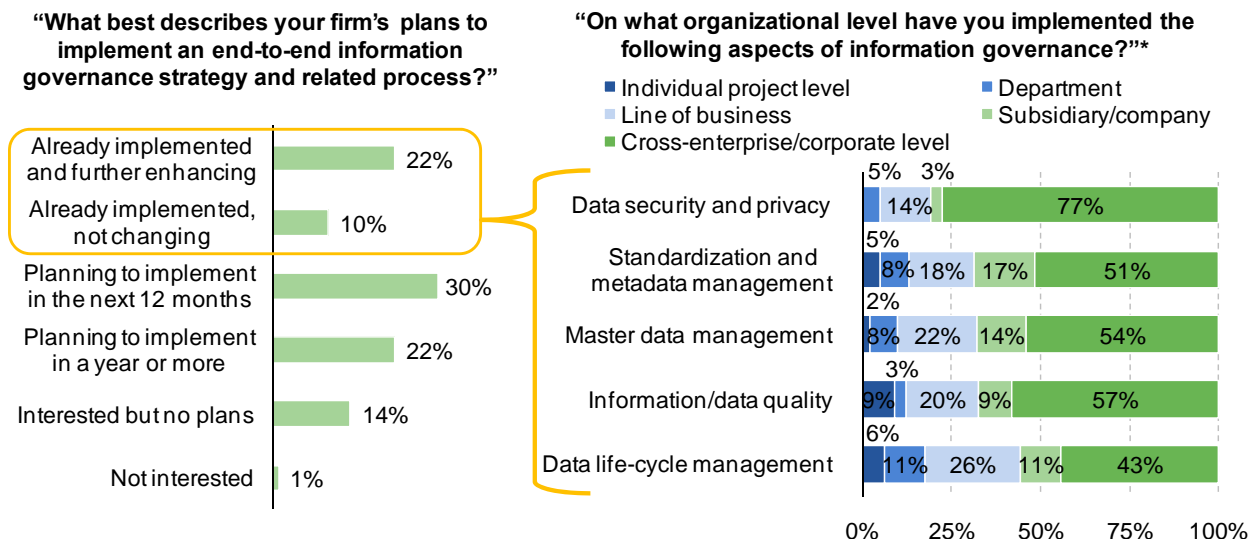
Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

*Base: 65 data management decision-makers who reported having already implemented an end-to-end information governance strategy

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

With data security and privacy being the most implemented of all IG capabilities, there is only a small difference between top performers (83%) and lower performers (72%) that consider themselves successful in this area. However, the overall level of success decreases and the difference in success between top and lower performer becomes much more significant when we look at other elements of information governance (see Figure 5): In the area of master data management, 77% more of the high performers have been successful as compared with

lower-performing firms, 104% more in data life-cycle management, and 111% more in the case of standardization and metadata management.

Another important element for a successful information governance strategy is the involvement of the appropriate stakeholders in IT and business. Due to its nature, information governance needs to involve stakeholders from both IT and business in all its phases. Based on the feedback from the respondents in this study, there seems to be an interesting correlation between the level of understanding of the topic and the level of involvement (see Figure 6). While IT stakeholders in general are more deeply involved in the companies' information governance projects, 43% of all respondents reported a strong involvement of C-level/executive management and a fairly good understanding of this top management (58%) for the topic.

Figure 5

Top Performers Have Successful Information Governance Implementations

"How would you rate your current level of success in the following aspects of an end-to-end information governance strategy?"

(Rating of 4 and 5 shown, based on a scale of 1 to 5, where 1 = Not at all successful and 5 = Very successful)

■ High performer (10% growth or more in 2010) (N = 68)
■ Low performer (negative or less than 5% growth in 2010) (N = 61)

	+15%	+16%	+104%	+77%	+111%
High performer	83%	59%	51%	46%	38%
Low performer	72%	51%	25%	26%	18%
	Data security and privacy	Information/data quality	Data life-cycle management	Master data management	Standardization and metadata management

Base: US and European enterprise decision-makers involved in data management and governance initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

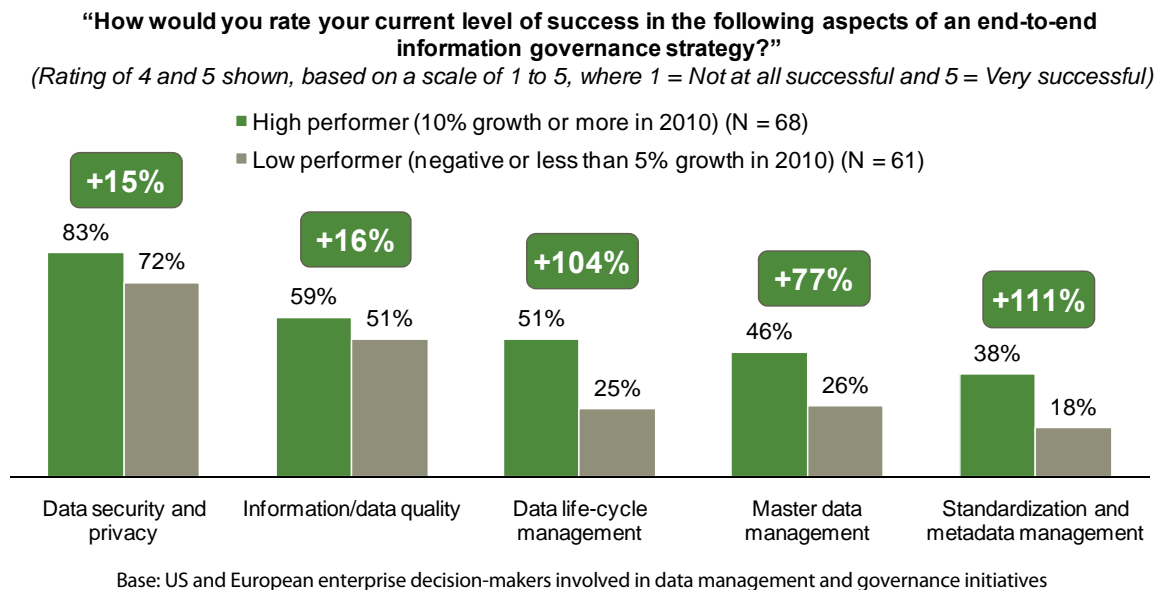Governance decision-makers we interviewed added more color to the view across governance goals and key elements:

> *"Security and privacy are the most talked about, but data quality is where the biggest issues lie."* (Director LOB, medium-size US management consulting firm)
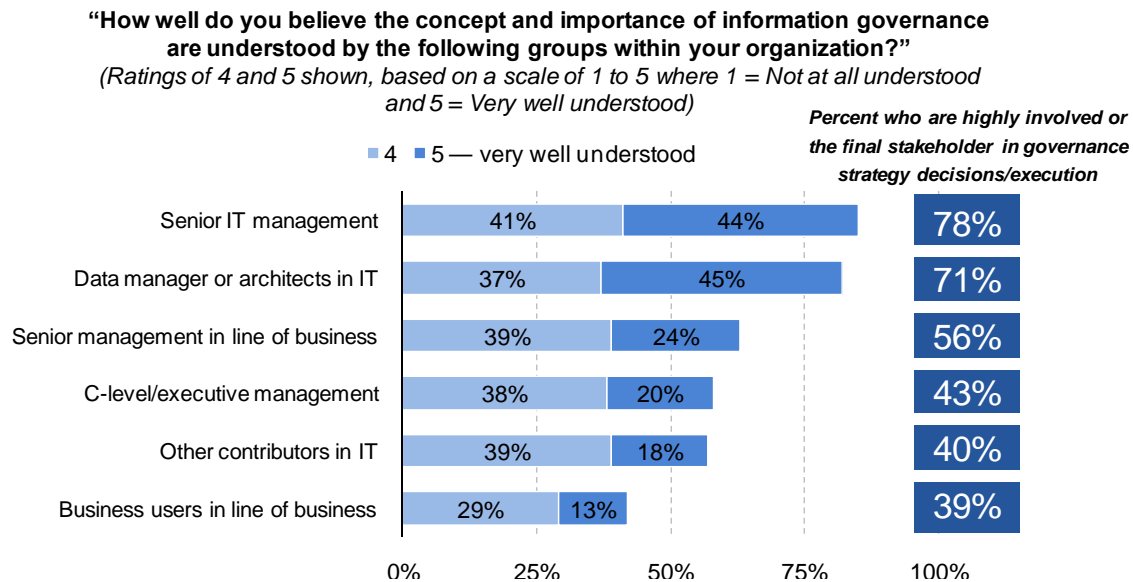
> *"The single version of truth is the cornerstone of the strategy. Then we want that data to be updated, accurate, and secure."* (Head of audit and risk, medium-size global beverage distributor)

> *"We are working to provide one version of the truth — that is the mission."* (Operations manager, large global publisher)

Figure 6

Many Stakeholders With Different Levels Of Understanding Are Involved In Information Governance

**"How well do you believe the concept and importance of information governance
are understood by the following groups within your organization?"**
*(Ratings of 4 and 5 shown, based on a scale of 1 to 5 where 1 = Not at all understood
and 5 = Very well understood)*

■ 4 ■ 5 — very well understood

*Percent who are highly involved or
the final stakeholder in governance
strategy decisions/execution*

	4	5	Percent involved
Senior IT management	41%	44%	78%
Data manager or architects in IT	37%	45%	71%
Senior management in line of business	39%	24%	56%
C-level/executive management	38%	20%	43%
Other contributors in IT	39%	18%	40%
Business users in line of business	29%	13%	39%

0%   25%   50%   75%   100%

Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

When asked in detail about the people and groups driving information governance strategy today, technology decision-makers replied:

> *"Our users really had to drive it by understanding the value of better data and then demanding it — that's what made the initiatives stick."* (Operations manager, large global publisher)

> *"This is all coming at the top level from IT. But the businesses from every unit are involved, and each has their own IT as well. Senior management is usually the ones involved from the business."* (CFO, very large European utility subsidiary)

> *"The driving force behind all the planning was directly for the strategy team. We started to ask the question around what intelligence would be needed to get the organization to the next level and uncovered the need for an information governance plan."* (Head of audit and risk, medium-size global beverage distributor)

> *"The business side is really driving this. We are driving the technology to meet the requirements of the business."* (Director, key clients, medium-size European HR management consulting firm)

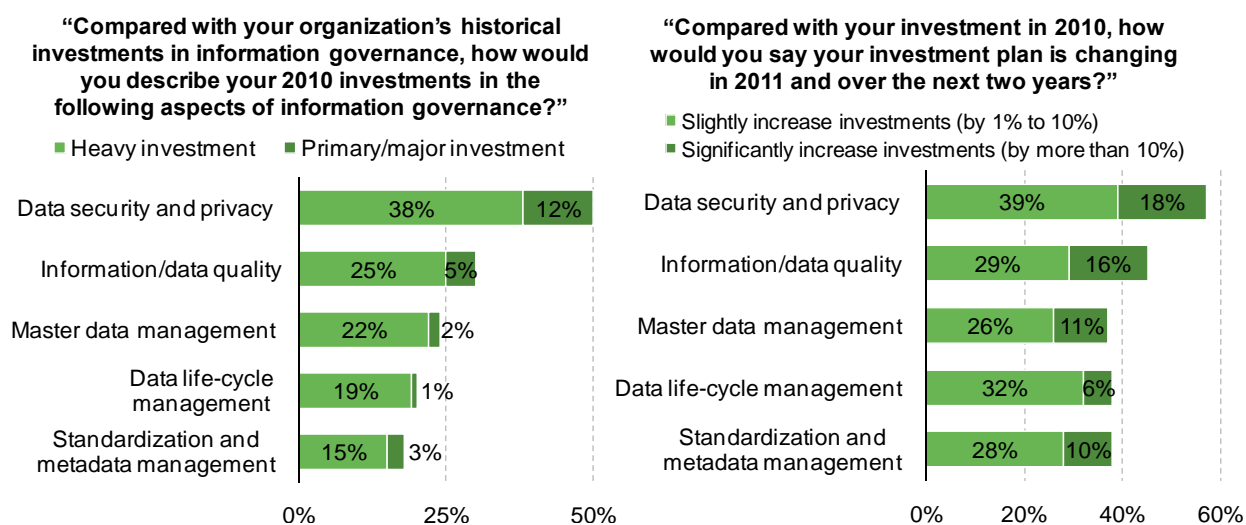## Investments In Information Governance Will Increase Strongly

The good news is that 74% of all companies are planning an information governance project in the near future: 22% are currently enhancing their existing capabilities, 30% are planning a new project within the next 12 months, and 22% are planning to implement IG in a year or more.

The companies that participated in this study clearly favored a phased approach to implement the various aspects of information governance over time. So far most companies have mainly invested in data security and privacy, well in line with the much higher adoption and success rates in this area (see Figure 7). However, while data security and privacy will continue to be the main investment area (57% of the respondents will further increase their investment in this area), 26% to 32% of all companies will also increase their budget for the other elements of information governance by 1% to 10% and 6% to 16% will increase it by more than 10%.

While a phased approach is a pragmatic start to implementing an information governance strategy and process, it is the consistent end-to-end approach that delivers the full benefits, and that is necessary to assure the overall success of companies' BI projects and turn data into business value. Or, to quote one of the governance decision-makers we interviewed:

> "If you focus on one but not the others [elements of information governance], you can leave holes and create new challenges, and there's still a lot of risk. You have to keep a helicopter view over the whole span of things." (Head of audit and risk, medium-size global beverage distributor)

Figure 7

Security And Quality Led Investment Priorities In 2010

"Compared with your organization's historical investments in information governance, how would you describe your 2010 investments in the following aspects of information governance?"

- Heavy investment
- Primary/major investment

	Heavy investment	Primary/major investment
Data security and privacy	38%	12%
Information/data quality	25%	5%
Master data management	22%	2%
Data life-cycle management	19%	1%
Standardization and metadata management	15%	3%

"Compared with your investment in 2010, how would you say your investment plan is changing in 2011 and over the next two years?"

- Slightly increase investments (by 1% to 10%)
- Significantly increase investments (by more than 10%)

	Slightly increase	Significantly increase
Data security and privacy	39%	18%
Information/data quality	29%	16%
Master data management	26%	11%
Data life-cycle management	32%	6%
Standardization and metadata management	28%	10%

Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

Other thoughts our interviewees had on their approach to investment in information governance were:

> "As you start peeling the layers, the more complex everything becomes. Information governance is a complex topic, and you need to take it layer by layer. It's important to do a phased approach, a pilot of specific areas." (Director LOB, medium-size US management consulting firm)

> "The phased approach is the way to go. If you try to do it all at the same time, you're likely to fail at all of them." (Head of audit and risk, medium-size global beverage distributor)

> "With security, we've come quite far. But with cost effectiveness/efficiency, we're a bit behind that mark. There is still a lot of room for improvement." (CFO, very large European utility subsidiary)

KEY RECOMMENDATIONS

Most companies understand the overall concept and importance of information governance. However, as it is a complex topic that consists of many different elements, it is a big challenge for companies to cover its full scope. We recommend that enterprises consider the following directives:

- **Involve executive sponsorship and stakeholder support from IT and LOBs.** As information governance changes roles and behaviors, it is important to get the support of top-level management to establish the necessary processes. With business users at the center of IG, and critical to success, the line of business needs to get involved in your information governance approach in all stages.

- **Tackle information governance in a phased approach.** As information governance consists of different elements, it makes a lot of sense to implement elements in a phased approach, while keeping a helicopter view of consistency across all elements.

- **Establish clear success factors and their measurement for your information governance strategy.** Analyze the current status of your information governance strategy (in the case of data security and privacy, e.g., number of user roles and authorizations as well as data security issues, breaches, or audit problems) and monitor the improvements over time. This will be an important element to quantify the benefits of your information governance investments.

- **Establish a consistent approach to and continuous improvement process for all elements of information governance.** While a phased approach is a pragmatic road map for information governance, keep in mind that only a consistent end-to-end implementation will deliver the appropriate results. Implement a regular cycle to address each element of information governance to establish a continuous improvement process.

- **Avoid BI implementation projects without information governance involvement.** Get your information governance experts involved early in every BI implementation project from the definition of clear project goals, through the application implementation that needs to follow, to the creation of IG processes to measure the project success and drive improvement as the project continues.

- **Make information governance your default approach to data-related initiatives.** While we highlighted the role of information governance for BI projects in this study, note that the same principles also apply to any other data-related activity, such as application migration, consolidation and retirement, or data warehousing. Make sure that the appropriate processes for information governance are implemented and followed consistently across your company's initiatives.
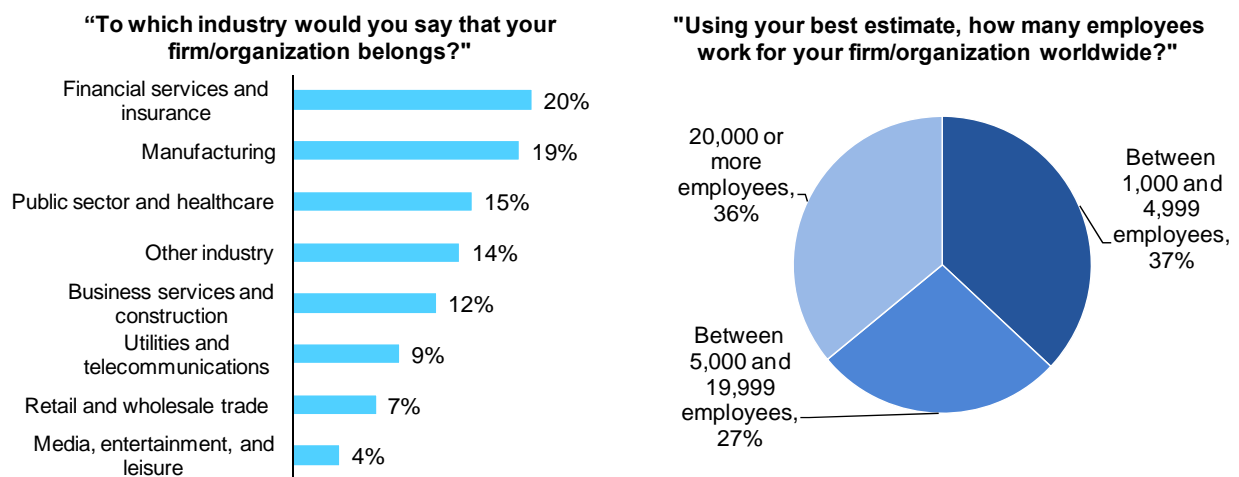
Appendix A: Methodology

In this study, Forrester conducted an online survey of 203 enterprises with 1,000 or more employees across the US, the UK, and Germany to evaluate the current state of BI and information governance strategy and initiatives. Survey participants included information governance decision-makers (manager level and above), in both business and IT roles. Questions provided to the participants asked about their current BI and information governance practices, challenges, successes, and plans for the future. The study began in July 2011 and was completed in August 2011.

Appendix B: Study Demographics

Figure B1

Organizational Demographics

"To which industry would you say that your firm/organization belongs?"

Industry	%
Financial services and insurance	20%
Manufacturing	19%
Public sector and healthcare	15%
Other industry	14%
Business services and construction	12%
Utilities and telecommunications	9%
Retail and wholesale trade	7%
Media, entertainment, and leisure	4%

"Using your best estimate, how many employees work for your firm/organization worldwide?"

- 20,000 or more employees, 36%
- Between 1,000 and 4,999 employees, 37%
- Between 5,000 and 19,999 employees, 27%

Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

Figure B2

Roles Surveyed

"Which of the following most closely describes your job title?"

Business roles

Executive in line of business	35%
Senior-most business leader	5%
Senior-most finance leader	4%
IT application owner/power user in line of business	4%

IT roles

Director/manager in IT	29%
Senior-most IT decision-maker in the firm	12%
Data manager or architect in IT	6%
VP in IT	3%
Application owner in IT	1%

"To what extent are you involved in your organization's data management and governance initiatives and strategy?"

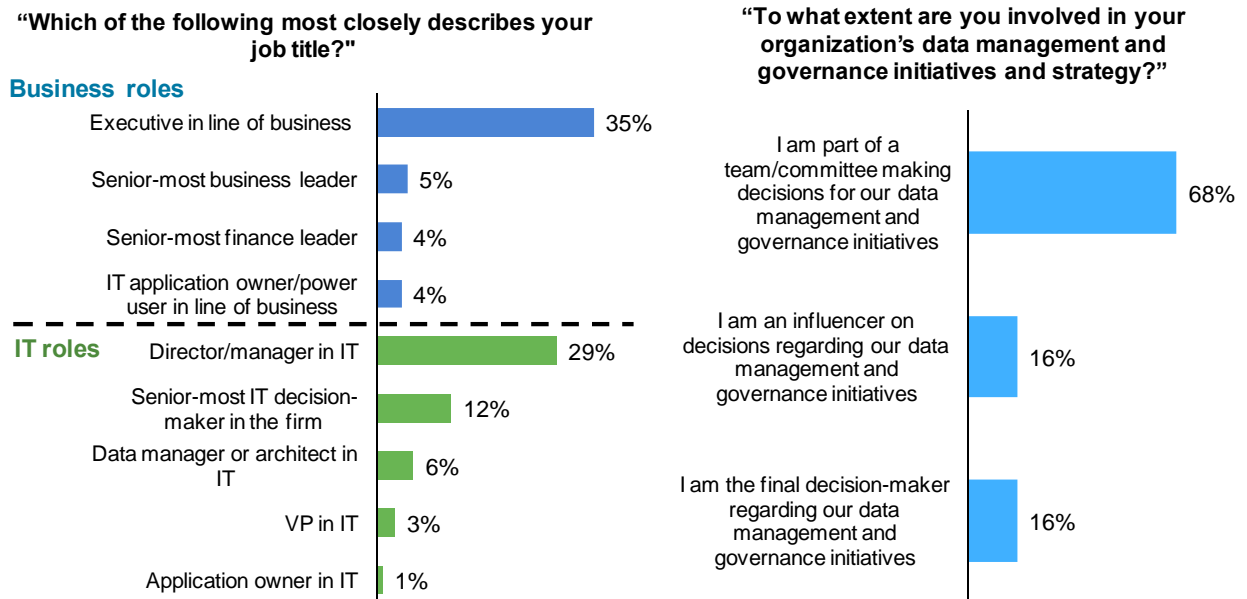|	
I am part of a team/committee making decisions for our data management and governance initiatives	68%
I am an influencer on decisions regarding our data management and governance initiatives	16%
I am the final decision-maker regarding our data management and governance initiatives	16%

Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

Appendix C: Endnotes

[1] Sometimes, master data management and/or standardization and metadata management are defined as subcategories and individual tools or capabilities within information/data quality.