IBM Fast Track for your data warehouse
Add momentum to your data warehouse implementation

Data warehouses have the power to change businesses. They can help companies gain insight into customer behavior, predict sales and determine the profitability of a set of customers or products. However, implementing a data warehouse has traditionally been a long, risky process. A recent Web-based survey published in *DM Review* revealed that 51 percent of respondents said their number one obstacle in creating a data warehouse was the lack of appropriate data[1] caused by three key factors.

- **Distribution across application silos**
  Most organizations implement a variety of special-purpose systems for daily operations. Each of these systems has customers, generates revenue and is integral to the operation of the company. However, these systems are not focused on cross-enterprise functionality. For example, if the company wants to determine customer profitability or lifetime value, there are no agreed-upon data items or definitions on which to base that calculation.

- **Inconsistent data definition and usage**
  Without agreement on data terms and definitions, there can be multiple answers to the same question. Calculating revenue, costs and liabilities all require consistent business rules and terms to enable the data to be understood in context, which facilitates fact-based decision making.
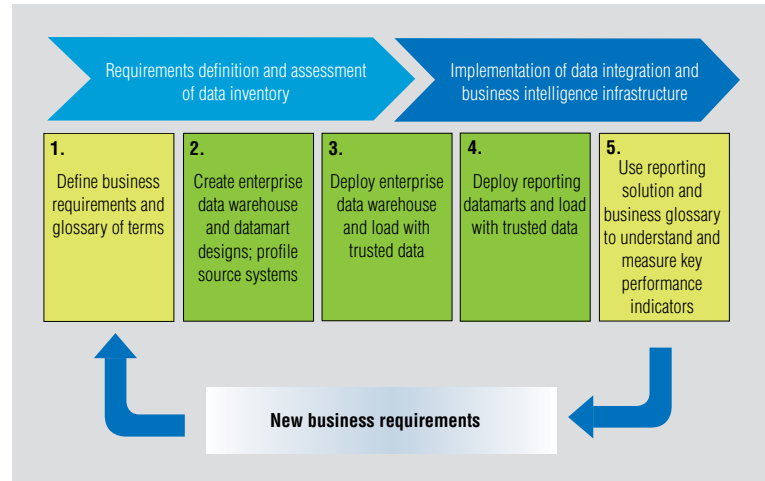
- **Lack of currency**
  Whether a company is cross-selling additional products to a customer or determining the right levels of inventory to maintain, current data is fundamental to making sound business decisions. Although not all data must be up-to-date at every moment, current data can often help boost the bottom line by enabling businesses to maximize the lifetime value of customer relationships.
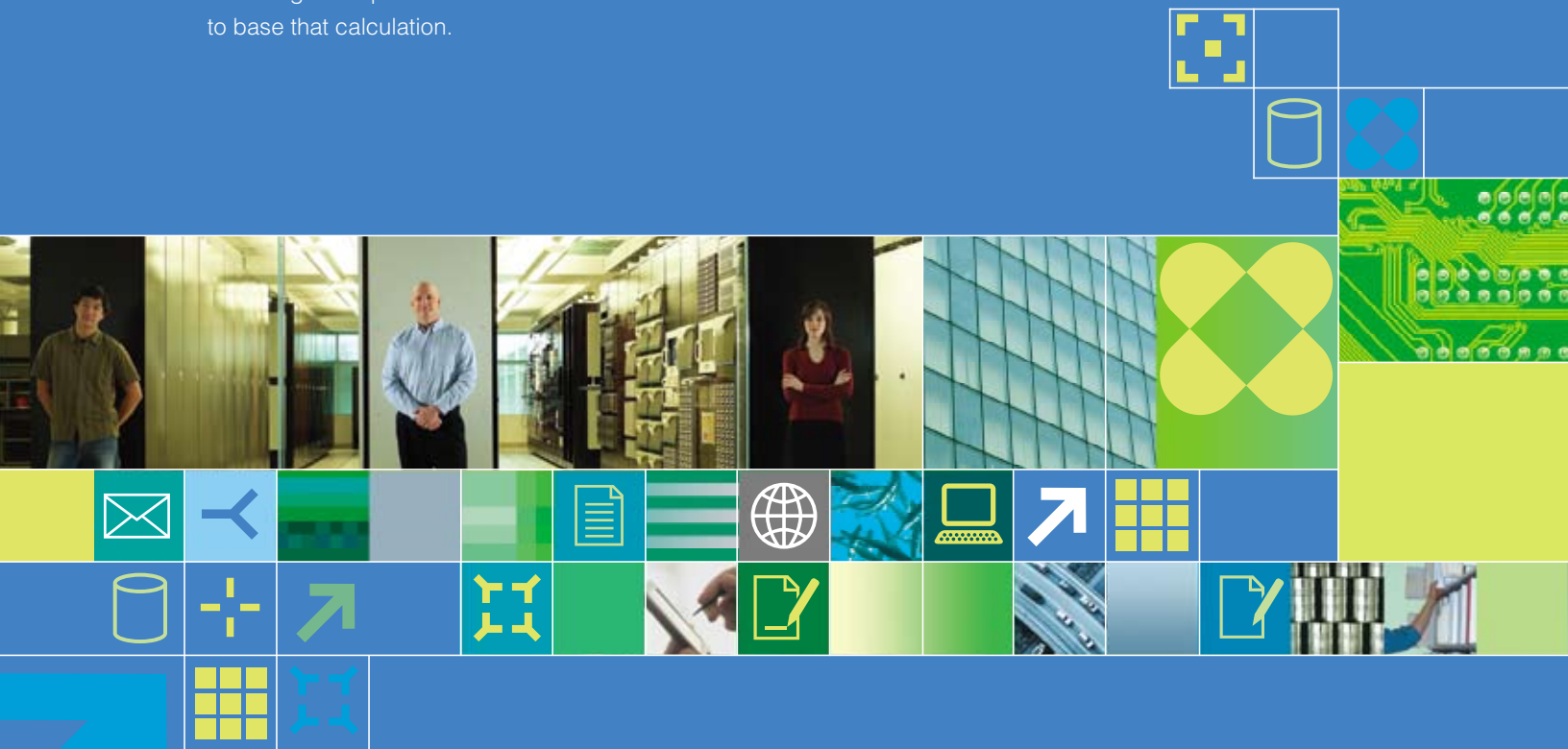
That is where IBM comes in. By helping companies fast-track their data warehousing initiatives using a set of products and services designed to get data warehouses up and running rapidly, IBM can help deliver dramatically better information that enables innovation and responsiveness. Clients stand to save months of effort and hundreds of thousands of dollars by fast-tracking their data warehouses. In addition, an IBM Fast Track project can lay the foundation for both dynamic warehousing and master data management.
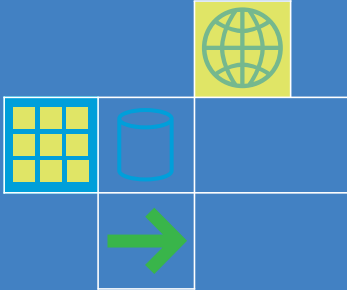
The IBM Fast Track approach to data warehousing offers a series of services and products designed to accelerate each step of the data warehouse development process.

Requirements definition and assessment of data inventory		Implementation of data integration and business intelligence infrastructure	

1. Define business requirements and glossary of terms	**2.** Create enterprise data warehouse and datamart designs; profile source systems	**3.** Deploy enterprise data warehouse and load with trusted data	**4.** Deploy reporting datamarts and load with trusted data	**5.** Use reporting solution and business glossary to understand and measure key performance indicators

New business requirements

IBM Fast Track offerings help companies complete data warehousing projects quickly

Surveys show that project cost overruns are often due to data integration problems. The reason is generally a lack of understanding of what data is required and where that data resides. In addition, there is no consensus across the organization on definitions and business rules required to bring the data to a given status.

The IBM Fast Track approach to data warehousing involves more than just delivering technologies. Based on more than 25 years of data warehouse experience, IBM has developed methodologies, tools and best practices that can help transform a company's organizational data into a strategic corporate asset. This strategy positions the organization to leverage the power of information across all of its applications and data integration initiatives.

Guidelines for fast-tracking the data warehouse

Six guidelines can help companies evaluate their prog-
ress as they fast-track their data warehousing initiatives:

1. **Streamline requirements gathering and design.**
   Companies often have difficulty in determining which
   data is important, which can cause them not to leverage
   valuable unstructured information to drive key business
   processes. Organizations should examine whether IT
   managers have a strong understanding of the initiative
   and the information required to support the initiative.
   Where is the source data located? What transformations
   are required to make it usable for key applications?

2. **Enable business and IT users to collaborate.**
   Incomplete, out-of-date or inaccurate data can lead
   to a lack of trusted information. Does the company
   have a business glossary that users can view, use for
   collaboration and adjust based upon their collective
   view of the business?

3. **Avoid costly downstream errors and rework.** Does
   the company have an implementation strategy with a
   well-defined data model that will supply information to
   both current and future applications?

4. **Identify matching data to create a single view.**
   Multiple versions of the truth can result in problems
   managing customer, product and partner
   interactions—and increase the risk of compliance
   breaches. Does all data across the organization
   have an enterprise definition?

5. **Use the fastest and most scalable approach to
   transformation and delivery.** Does the organization
   have an automated process that can capitalize
   on parallel processing and enable reuse of the work
   completed in previous transformations? Can the
   company's systems deliver that data to users and
   applications in a timely manner that meets
   their requirements?

6. **Extend information availability with information
   services.** Can the enterprise truly leverage information
   as a corporate asset? Can IT professionals inventory
   that asset and make it available to those who are
   authorized to use it? Can information be delivered at the
   right time to the right place and in the right context?

IBM Industry Data Models provide a blueprint for data integration projects

An essential component of any data warehouse infrastructure—and the key to breaking down information silos—is the data model that specifies how data is structured and how it is accessed for analysis and reporting. The model provides technical and business data definitions that become the blueprint for a successful data warehouse. Traditional data warehouses are often built upon homegrown or application-specific data models that fall short of dynamic data warehousing requirements. However, in the IBM approach, companies establish an enterprise-wide data model to avoid a situation where new applications disrupt existing applications as the data is redefined.

It is important to note that although an enterprise model describes all of the organization's data, it is not necessary to load all of the data at one time. Data is only populated to the model sections to address the initiatives required to meet the organization's goals at the moment. The model then becomes the roadmap for subsequent projects, enabling each new project to build upon the success of the prior project.

As part of an IBM Fast Track project, the IBM Industry Data Models are designed to deliver breakthrough productivity by helping businesses rapidly achieve dynamic data warehousing. This productivity starts with the initial business requirements analysis of key performance metrics that align with the business objectives. It then extends to data consolidation and cleansing, to the deployment of reporting online analytical processing (OLAP) cubes and to the business intelligence (BI) tool of choice. The resulting end-to-end data warehouse infrastructure enables information to be used in new ways to drive innovation, increase operational efficiency and help reduce risk.
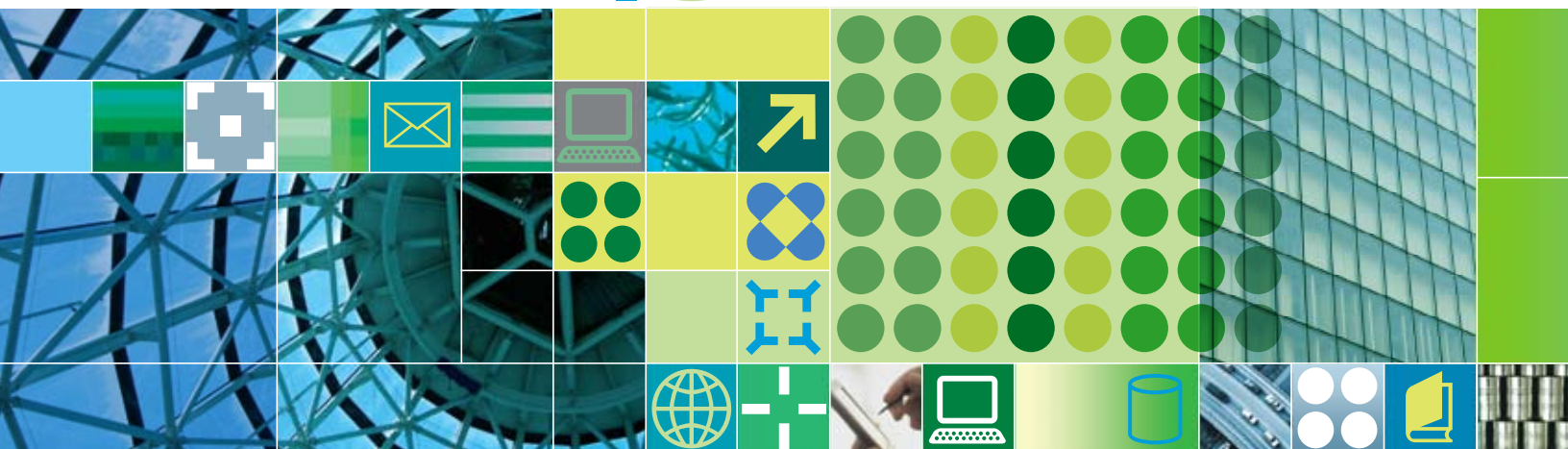
A data warehouse built using IBM Industry Data Models encapsulates extensive best practices in delivering effective data warehouse solutions to some of the world's leading institutions. Tailored to address the specific needs of an industry, the integrated, interlinked and customizable IBM Industry Data Models represent thousands of person hours of IBM experience in delivering hundreds of data warehouse solutions for organizations of all sizes around the world. In addition, IBM has a selected set of data integration models that define the source system and transformations for many common sources in a given industry—further accelerating data warehouse implementation.

Extend the dynamic data warehouse with master data

Dynamic warehousing can play a critical role in developing and using master data for the enterprise. A master data management (MDM) solution gathers and manages the common information for core business entities such as customers, products and locations. When combined with historical information in the data warehouse, master data can provide an in-depth view of a customer's behavior and preferences. Operational systems and applications also can use MDM systems to gain a single operational view of crucial data, which enables companies to verify the accuracy and consistency of information used in routine transactions such as opening an account.

IBM Information Server provides trusted data to the data warehouse

IBM® Information Server is a proven platform for helping companies create trusted data for the data warehouse. The platform is designed to provide a reliable, repeatable foundation for understanding, cleansing, integrating and delivering trusted information from complex source environments to other enterprise systems. IBM Information Server also enables organizations to integrate disparate data and deliver critical information wherever and whenever needed—in line and in context—to specific people, applications and processes.
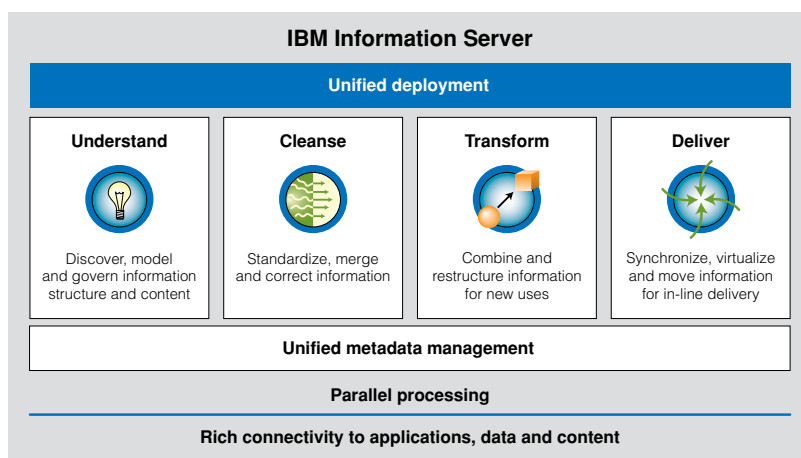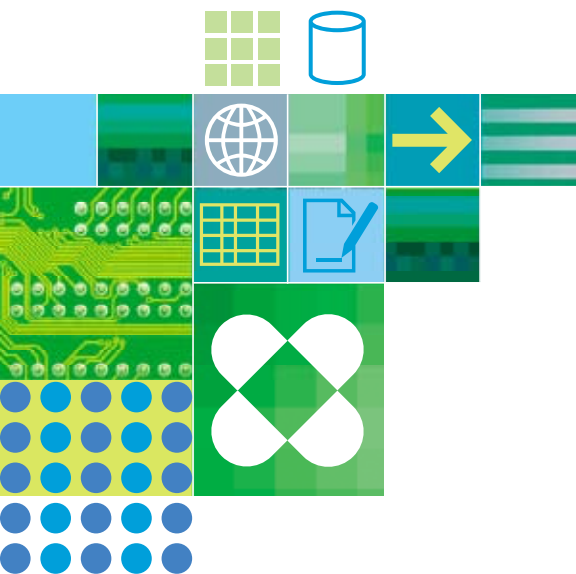
IBM Information Server platform components can be used separately, but their combined capabilities provide all the required steps to create trusted data for a wide range of applications and uses. This integrated set of functions embeds data quality into the information integration process and helps organizations raise the bar on data quality.

IBM Information Server is designed to help companies perform four key tasks:

- **Understand information within the right context.** Data profiling helps organizations understand and analyze the meaning, relationships and lineage of information. Subject matter experts and data analysts can use this information to ensure that the integration of data sources is based on a thorough understanding of the available data. By automating data profiling and data quality auditing within systems, IBM Information Server can facilitate enhanced productivity and help reduce the risk of using or proliferating inaccurate or inconsistent data.

| IBM Information Server			
Unified deployment			
Understand	**Cleanse**	**Transform**	**Deliver**
Discover, model and govern information structure and content	Standardize, merge and correct information	Combine and restructure information for new uses	Synchronize, virtualize and move information for in-line delivery
Unified metadata management			
Parallel processing			
Rich connectivity to applications, data and content			

The four functional areas of IBM Information Server are unified by a single metadata layer that can be deployed on highly parallel systems to help reduce costs and increase data processing speed.

- **Cleanse information to identify, correct, match, standardize and reconcile inaccurate or redundant data.** Data cleansing capabilities help ensure auditable data quality and consistency by standardizing, validating, matching and merging information to create comprehensive and authoritative information. By improving the quality of information, IBM Information Server can help boost user confidence, facilitate efficient and effective business decisions, improve customer individualization, help identify revenue-generating opportunities and assemble the auditable, trusted information needed to comply with regulations such as the Sarbanes-Oxley Act and Basel II.

- **Transform data of any complexity, from any source, into actionable information.** IBM Information Server includes hundreds of prebuilt, metadata-driven transformation functions that can combine, restructure and aggregate key data from its original application-centric form into entirely new contexts. Information can then be used in new ways to suit evolving business needs. By transforming and standardizing data so it can be used in multiple business systems, IBM Information Server can automate and remove the complexity of integrating data from heterogeneous data sources, assure that information is in a form that is appropriate for its intended use and provide critical information on the business at any time and to any authorized user.

- **Deliver actionable insight to any target, within or outside the enterprise—at the right time.** With IBM Information Server, companies can exploit a wealth of options for delivering information at the right time, at the right place and in the right context. Data can be placed into the warehouse through a batch process and retrieved via a simple query. It can be captured in a wide variety of formats from multiple vendors with a robust set of connectivity capabilities, or by replicating a source system or using change data capture (CDC) to update only data that has recently changed. The federation capabilities of IBM Information Server also allow transient data—such as data that is available on the Web—to be captured.

Once data is captured, it can be delivered as a service within a Service Oriented Architecture (SOA). From a simple call, a single piece or a set of information can be delivered to an application—without that application being required to understand where or how the data was organized. In this manner, IBM Information Server provides data accessibility and consistency for self-service operations and helps reduce latency for right-time visibility into operational information.
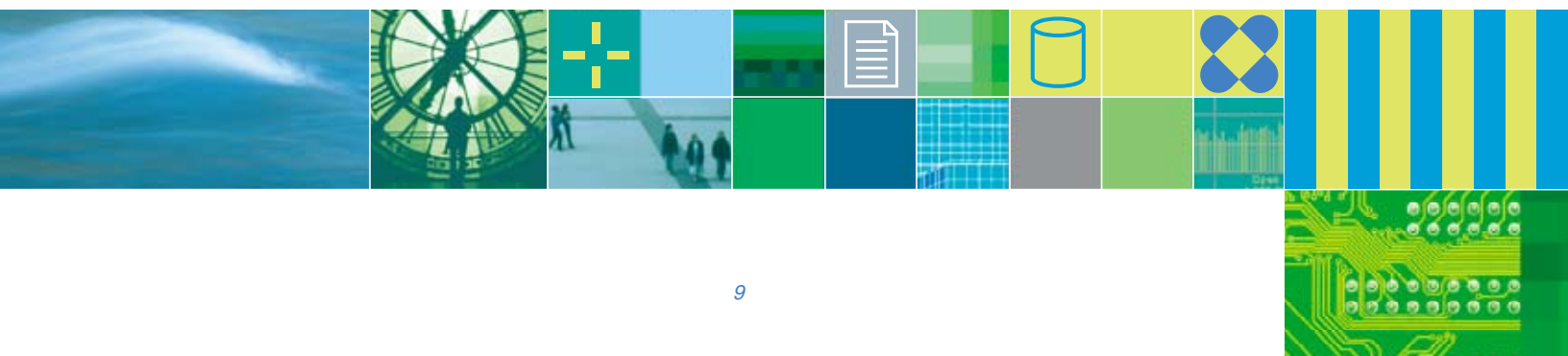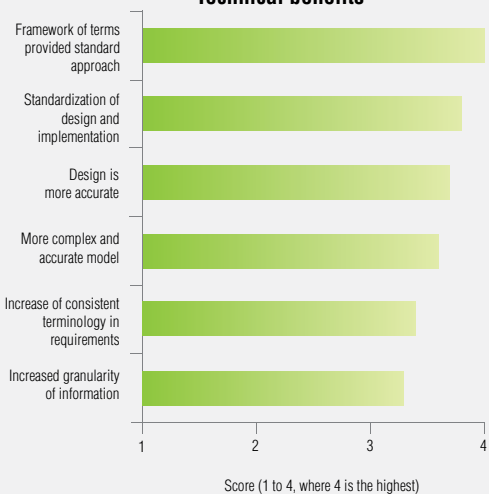
IBM Fast Track in action

A major insurance company wanted to differentiate itself from its competitors with targeted offerings and respond to the growing information needs of customers and providers to keep satisfaction levels high. To accomplish these goals, company executives realized they needed a single view of information across all lines of business, as well as business intelligence capabilities.
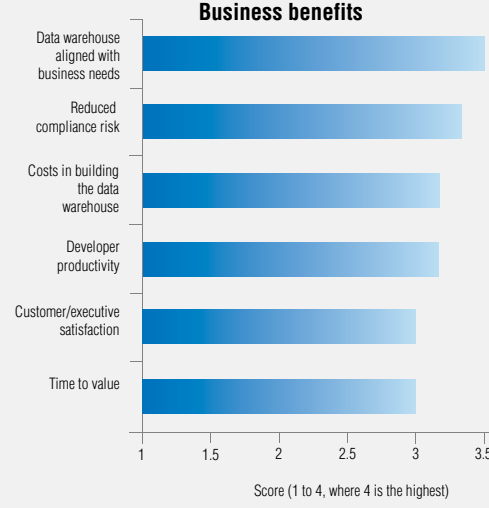
Through IBM Fast Track offerings, the organization was able to improve customer and provider satisfaction by allowing both groups to run their own analytics and manage their healthcare more effectively. This capability allowed providers to immediately show cus-tomers which issues were impacting their costs—something the company's competitors were unable to provide. In addition, the company reduced risk by improving data movement tracking to comply with healthcare regulations.

Technical benefits

Framework of terms provided standard approach
Standardization of design and implementation
Design is more accurate
More complex and accurate model
Increase of consistent terminology in requirements
Increased granularity of information

Score (1 to 4, where 4 is the highest)

Data warehouse project savings
30–40% decrease in modeling phase
20–25% decrease in design phase
15% decrease in deployment phase
10–15% cost savings in building the warehouse

Business benefits

Data warehouse aligned with business needs
Reduced compliance risk
Costs in building the data warehouse
Developer productivity
Customer/executive satisfaction
Time to value

Score (1 to 4, where 4 is the highest)

Improved decision making
67% stated that it helps business and IT speak a common language
67% stated that information is comparable across silos
44% stated that users get the reports they need faster

Source: Hurwitz & Associates GreenPaper Study, October 2007

A Hurwitz & Associates study[2] determined that there are significant potential benefits and savings associated with using IBM Industry Data Models to fast-track data warehousing projects.

A unified, metadata-driven infrastructure forms the foundation for future success

The final component of a unified data integration platform is a common metadata repository that links data modeling tools to the industry data model. Metadata, which contains the definition and history of the data, creates a shared understanding across business and technical domains while helping to reduce the time between specification and build. Furthermore, it provides a transparent and persistent record that can help to reduce future project delivery times and improve overall insight and confidence in information.

IBM Fast Track deployment options put companies on the fast track to data warehousing

IBM can help companies reduce the time to value for data warehousing projects through Fast Track deployment options for IBM Information Server. The key to a successful, rapid deployment is automating much of the traditional source-to-target mapping through the use of metadata. IBM offers a single managed infrastructure for data integration that allows IT managers to track requirements for deployment and create required transformation rules for source-to-target mappings. Using Fast Track offerings, companies also can define and link business terms to physical structures and generate historical documentation for tracking.

Real-time data access and dynamic data warehousing have become increasingly critical to powering innovation through information—which is why a robust integrated warehousing architecture is vital for enterprises trying to differentiate themselves from the competition. Information on Demand is the IBM approach to delivering the right information, at the right time, in the right context to drive business responsiveness and innovation. It provides a framework for the organization to deliver trusted data in a distributed manner by understanding, cleansing, transforming and delivering the diverse information found in an organization. For companies looking to speed the time to value for their data integration initiatives, the IBM Fast Track approach can provide a reliable, tested roadmap to get data warehouses running—fast.

For more information

To learn more about the IBM Fast Track approach as well as IBM dynamic warehouse solutions and products, please visit **ibm.com**/informationondemand or **ibm.com**/software/data/ips

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