

Understand The True Value of Master Data Management

TechTarget MDM for the Enterprise Education Series



V E N T A N A
R E S E A R C H

Research Available for Education

Master Data Management

A Key Tool for Managing Business Information Initiatives

A Ventana Research Primary Research Study

Research Report

2007 Master Data Management

Business and Technology Trends

Research Report
Sponsored by
 siperian®

Product Information Management

Business and Technology Trends

Research Report



Aligning Business and IT to Improve Performance

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The Place of PIM and CDI in Master Data Management

Delivering consistent information for operational and analytic processes

White Paper

sponsored by



Aligning Business and IT to Improve Performance

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Customer Information Management

Business and Technology Trends

Research Report



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Understand True Value of MDM - Agenda

- **Gain insight into master data management and forms of technology that best meet your organizations needs.**
- **Understand how to build the business case and quantify the costs of bad data for justifying an investment.**
- **Determine the criteria for selecting technology and determining your organization's maturity for MDM.**



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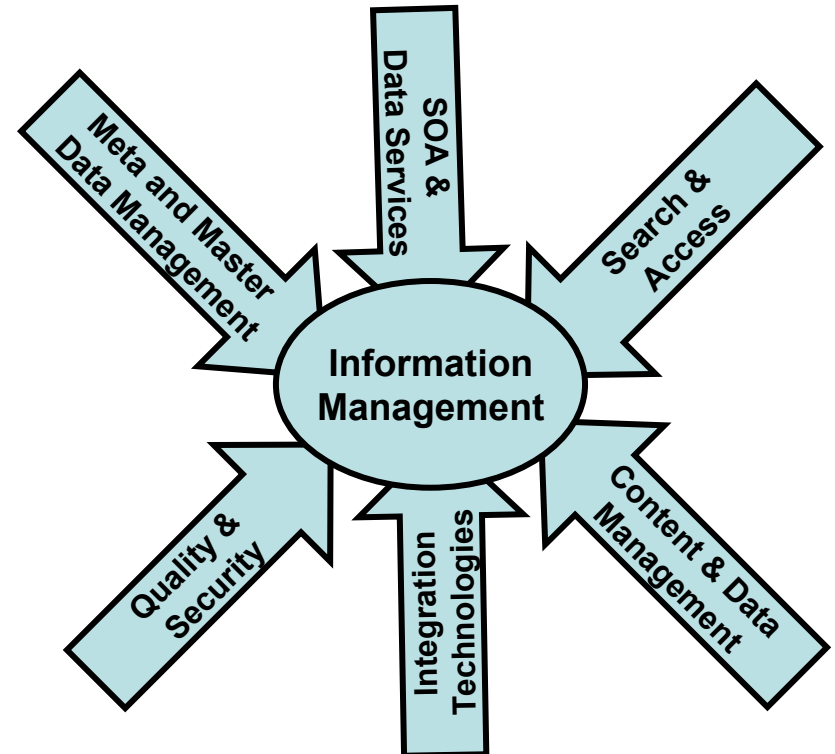
Building and Improving Information Highway in Business Today is Not Easy



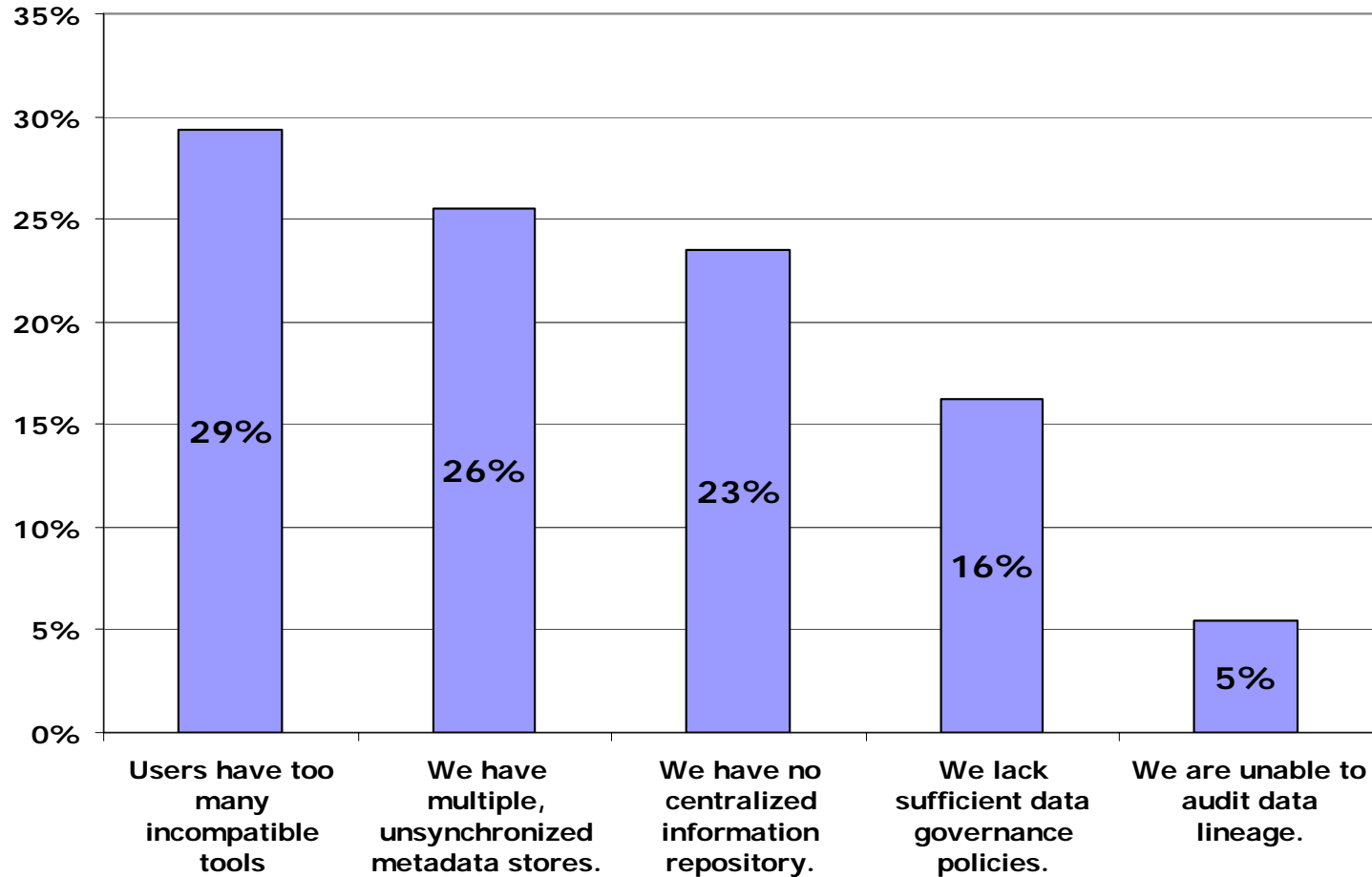
Information Management – The Intersection of Information Technologies

Ventana Research defines Information Management is the acquisition, organization, control, dissemination and use of information by organizations to create & enhance business value

The business goal of information management is to improve organizational performance on both an enterprise-wide and a departmental basis.



Barriers to Achieving Single Version of the Truth



Source: Ventana Research Information Management Research



Our Research Finds Information Management Plays Role for Business

Demanding nature of business requires investment on management of critical data assets

Growth and leverage of customers

Customer

Tracking and utilization of products

Product

Effective use of human capital assets


Employee

Consistent definition and financial view

Financials

Efficient asset use & supplier interaction

Suppliers



Drivers for Optimizing Business with Information

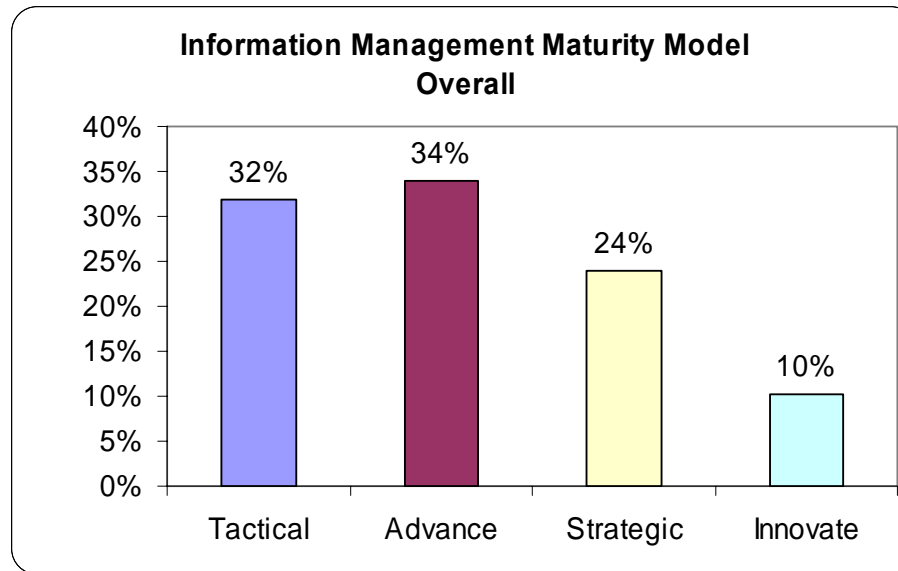
Operational Events, Activities and Processes need to be modeled, monitored and measured into information systems for supporting business objectives and requirements

Research Finds Critical Business Drivers

- Better quality decisions found in 41% of organizations
- 39% of organizations are focused on faster decision making
- Reduce IT costs was key priority in 47% of organizations
- Facilitate business processes important in 36% of organizations

Overall Maturity of Information Management – Industry Benchmark

All Respondents



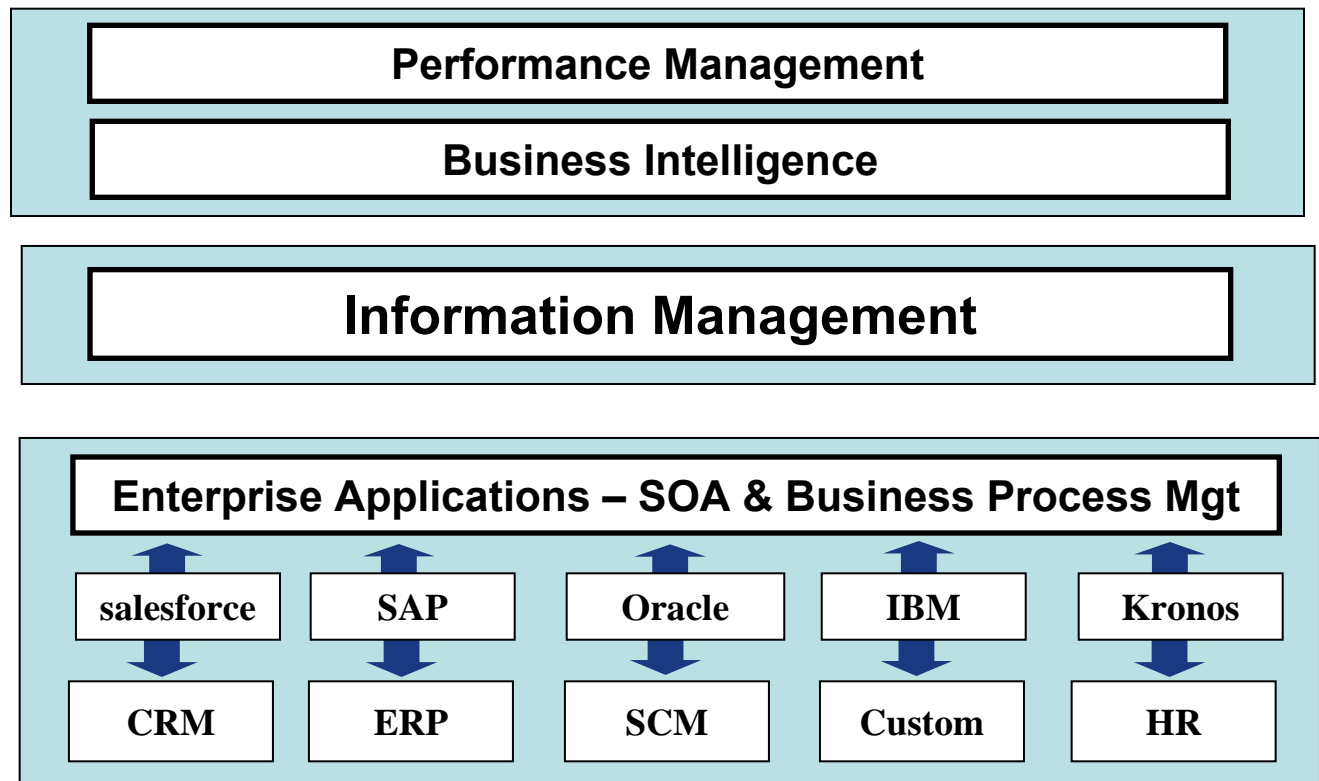
Source: Ventana Research Information Management Research

The maturity of industry is in early stages where majority of organizations are beginning to advance beyond data and content repositories to information centrality.

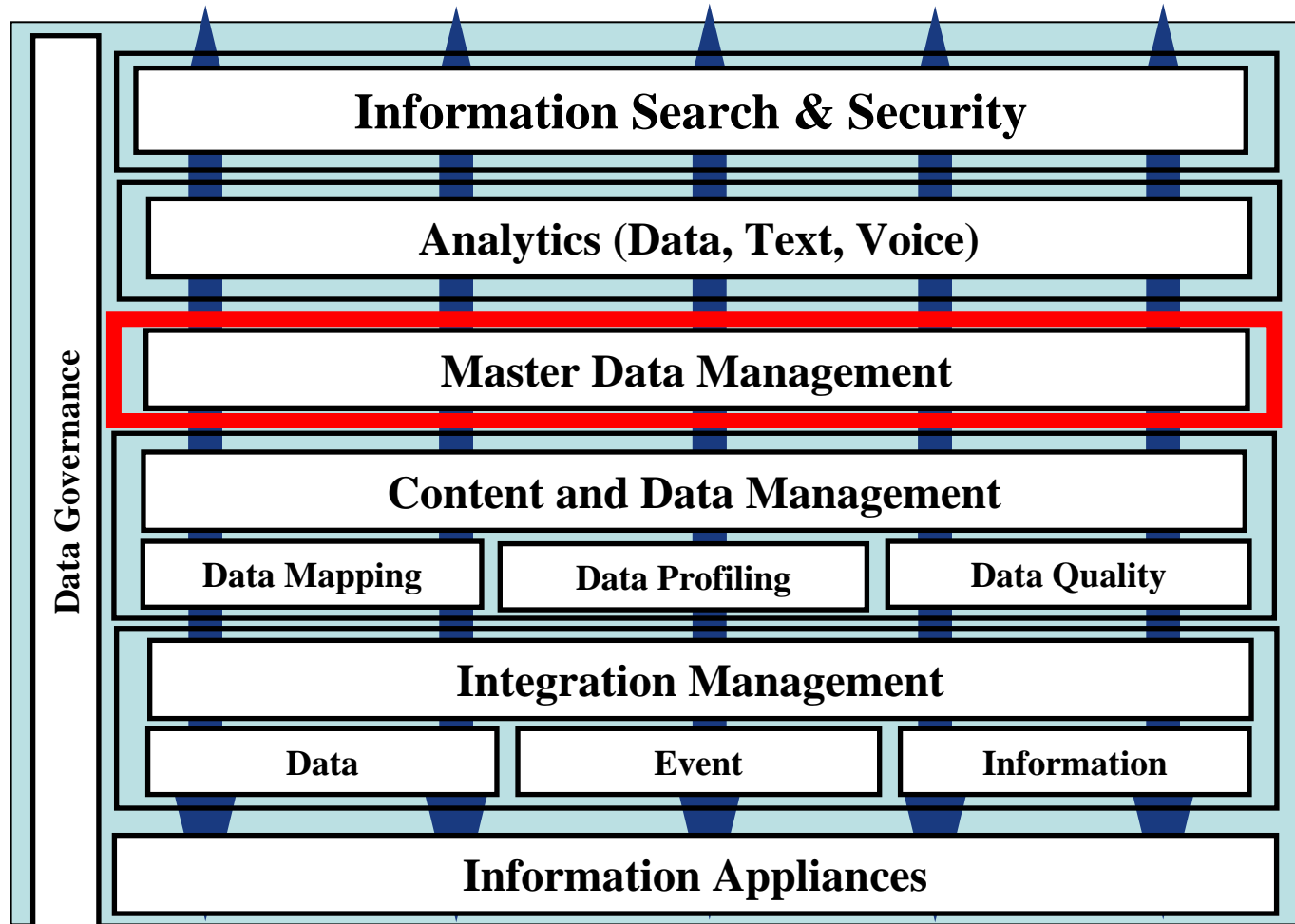
Information Management Foundation for Bridging Enterprise Applications

The usage of Information Management bridges Business Intelligence across Information Technologies

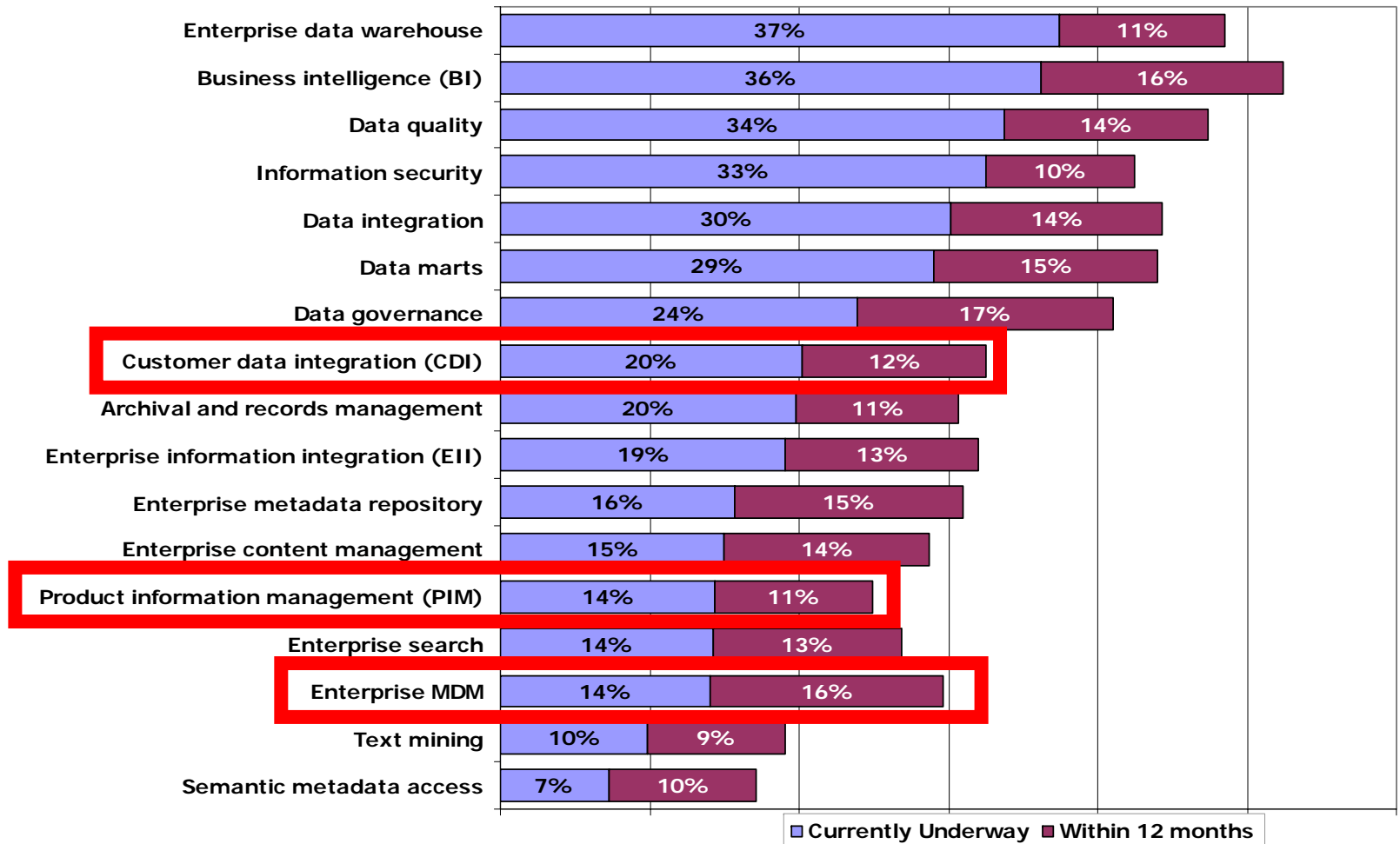
**Master Data
Management**



Blueprint and Technology Domains of Information Management



Information Management Technology Initiatives Show Growing Importance for MDM



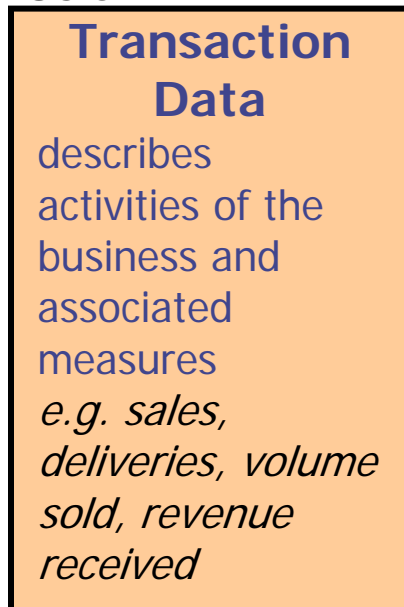
Source: Ventana Research Information Management Research

Master Data Management (MDM)

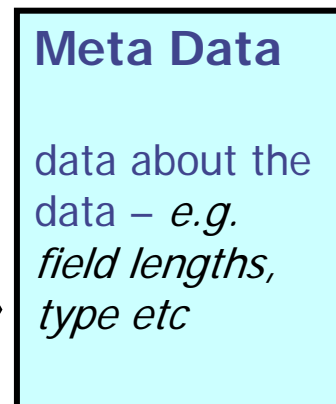
– What is it?

Ventana Research defines master data management as the process for governing master data and supporting information technologies to provide Business and IT the capability to define, integrate and manage enterprise-wide master data across the organization.

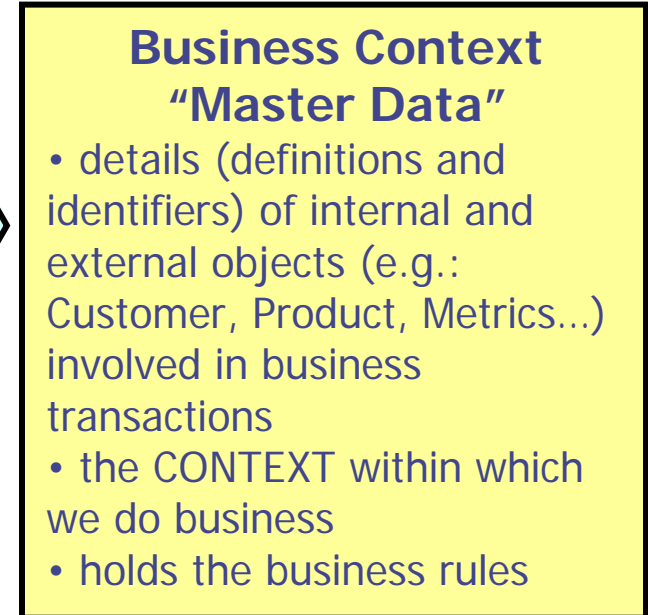
80's



90's



00's



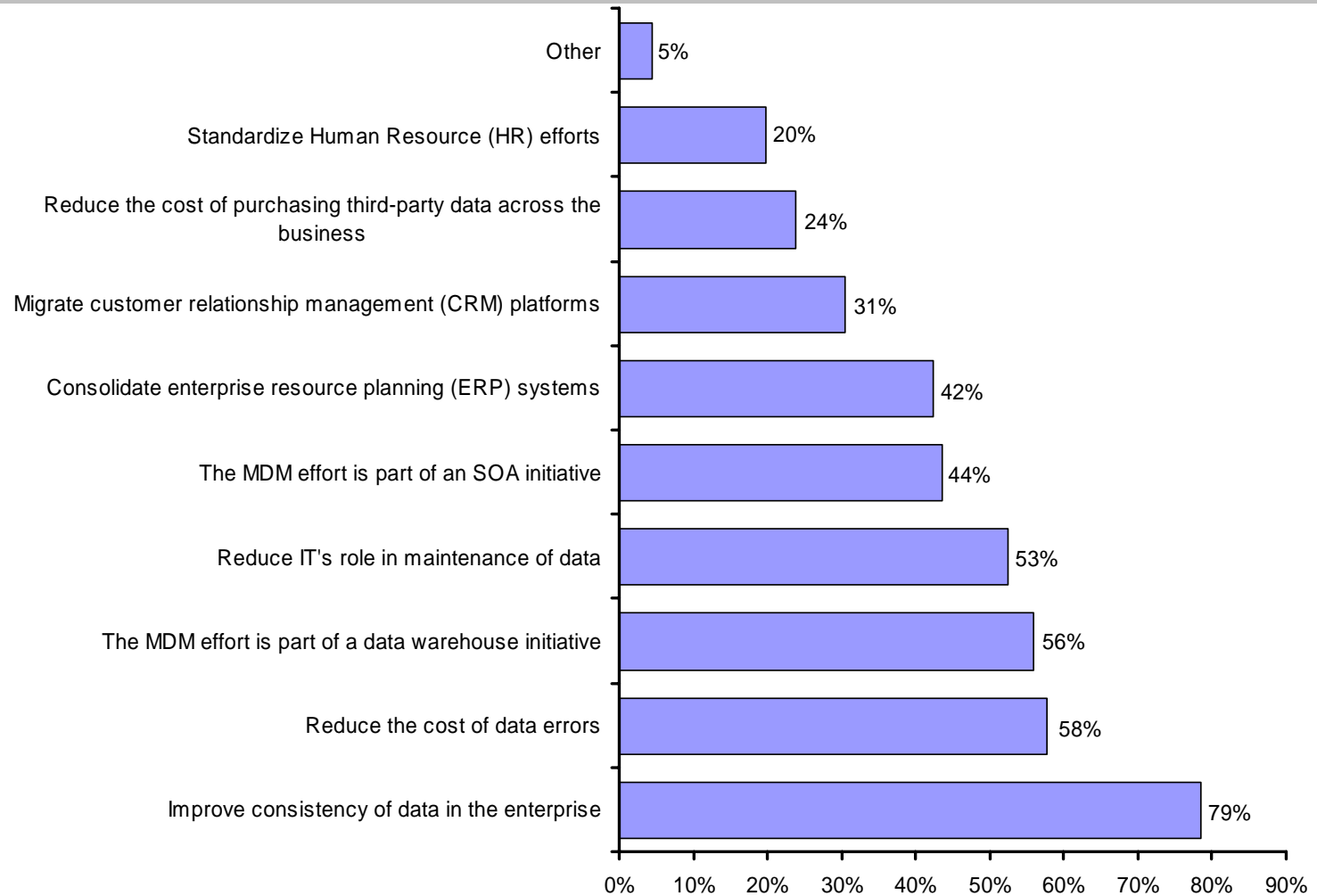
The Perfect Storm is Occurring – Organizations Find Master Data Chaos

Today's Master Data Management Situation

- Information Architectures have evolved into unwieldy living organisms
- Data repositories exist across application, systems and external sources
- Building Information Management programs has become a top priority
- Lack of common customer, product, employee master data
- M&A activity complicates management of data assets
- Data Management modernization is now becoming critical
- IT Organizations must respond to compliance and business needs



Technical drivers for MDM initiative



Source: Ventana Research 2007 MDM Research

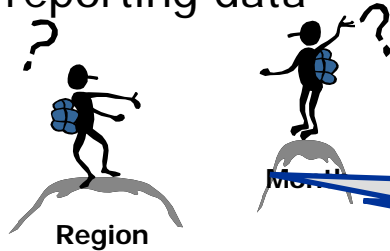


Why is Master Data “Reference Data” Important to Business?

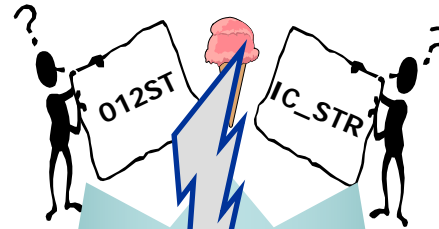


Why is Master Data Such a Challenge?

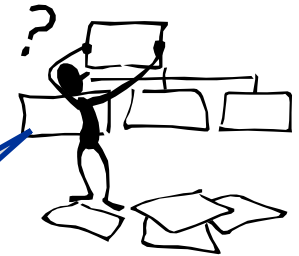
Companies have different ways of reporting data



Multiple codes exist for the same thing

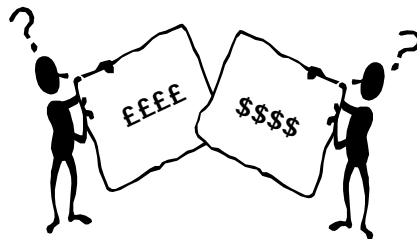


Organizations change rapidly

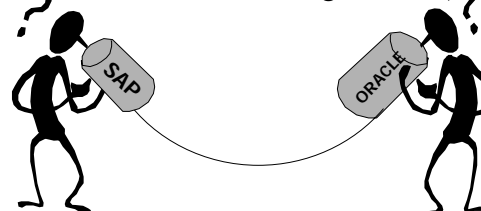


"Semantic Disconnect"

Data is in different Formats



Companies use different IT systems



IT systems change



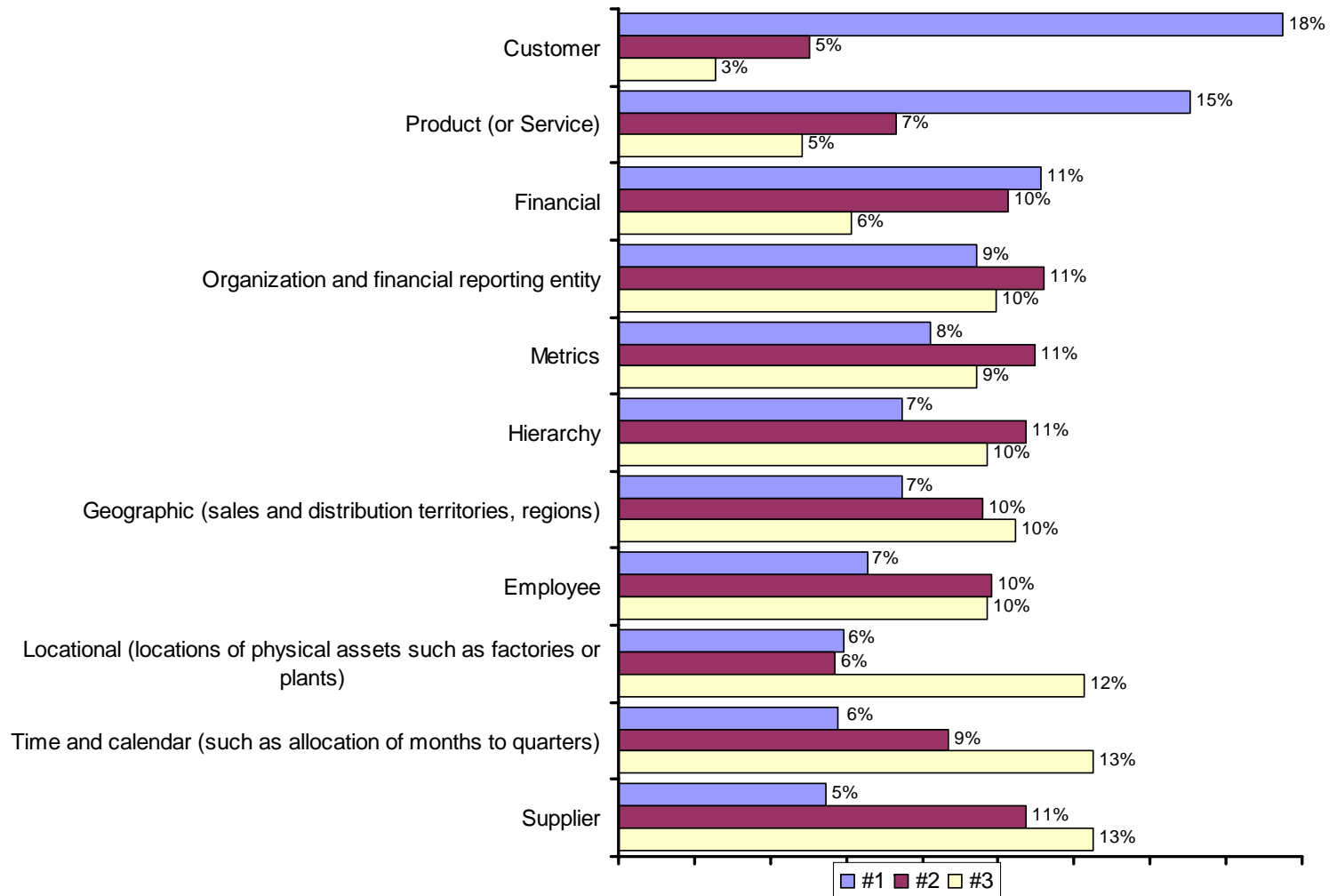


Top 5 Business Drivers for MDM – Top Ranked Response

1. We spend more time reconciling data than analyzing it (33%).
2. No one is accountable for the quality of information (17%).
3. We cannot determine which spreadsheet has correct data (12%).
4. It takes weeks to close our books (11%).
5. We duplicate R&D efforts (6%).

Source: Ventana Research 2006 Master Data Management

Most Important Master Data Items That Need to be Managed



Source: Ventana Research 2007 MDM Research

Master Data Is Everywhere

Reference data

Definitions

Defines the business
"context"

Needed for
accurate,
transparent
views of your
business

Western Regional Sales by District				
Regional Sales Manager	W/C RET RAM (U)			
District Sales Manager	(All)			
UOM Name	(All)			
Brand Family Intl	(All)			
Sum of Data_Item		Quarters/Months	Data_Item N	
		2003 Q1		
Sales Rep	District	Net Proceed		
EVAN CHARLES WORTM4	LOS ANGELES	69,825		925
	ORANGE COUNTY			139
	SAN DIEGO	1,162,023		856
	SAN JOSE	839,642	147,608	904,122
EVAN CHARLES WORTM4	Total	2,955,347	510,688	3,292,043
RENEE BORDEAU WORTM2	EAST BAY	84,478	13,904	117,280
	FRESNO	381,487	63,136	419,851
	SACRAMENTO	507,095	81,024	400,793
	SAN FRANCISCO	37,127	5,928	37,411
	SAN JOSE	1,643,131	265,952	1,934,929
RENEE BORDEAU WORTM2	Total	2,653,318	429,944	2,910,265
ANDREW CUTLER WORTM1	LOS ANGELES	94,543	17,280	913
	ORANGE COUNTY	354,727	58,904	435,122

Sales Rep
Names

Sales District
Names



Understanding Other Forms of MDM (CDI & PIM) and their Place in Enterprise

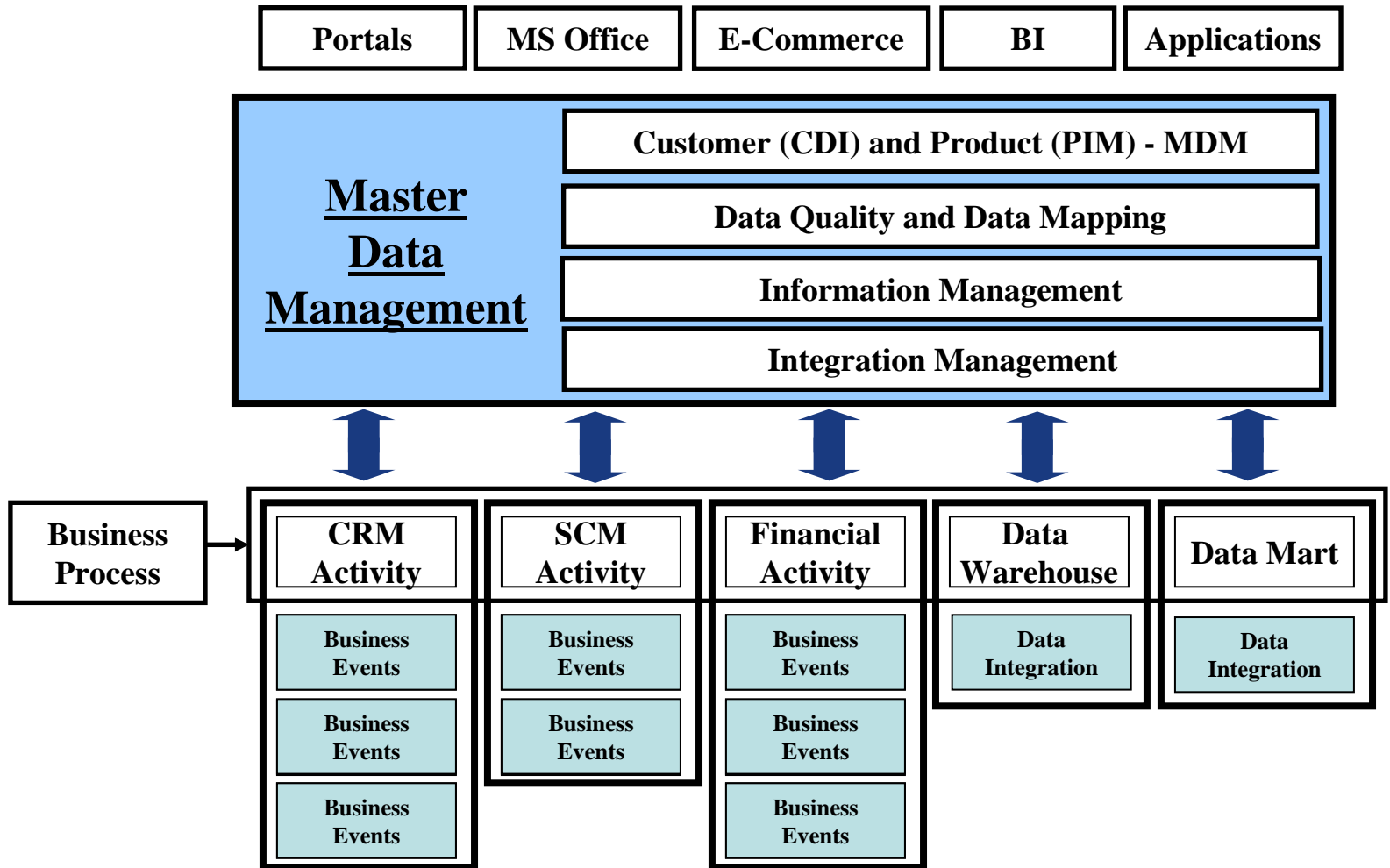
Customer Data Integration (CDI)

The practice and technology of managing integration of customer data from across the enterprise of applications, systems and databases.

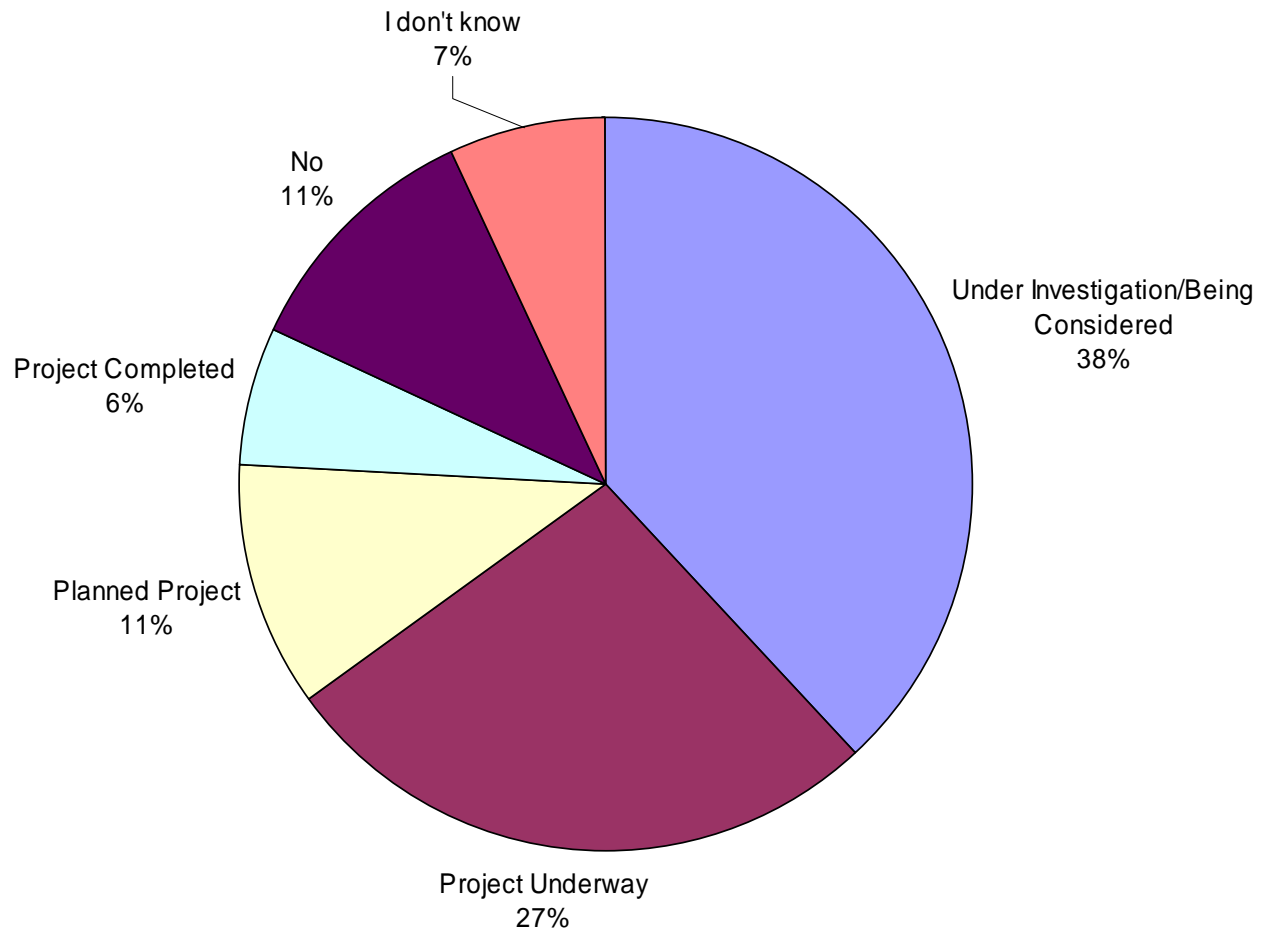
Product Information Management (PIM)

The practice and technology of managing product information from across the enterprise and ensuring the proper integration, storage and use across business and supply chain.

Role of CDI and PIM as Part of MDM in Enterprise

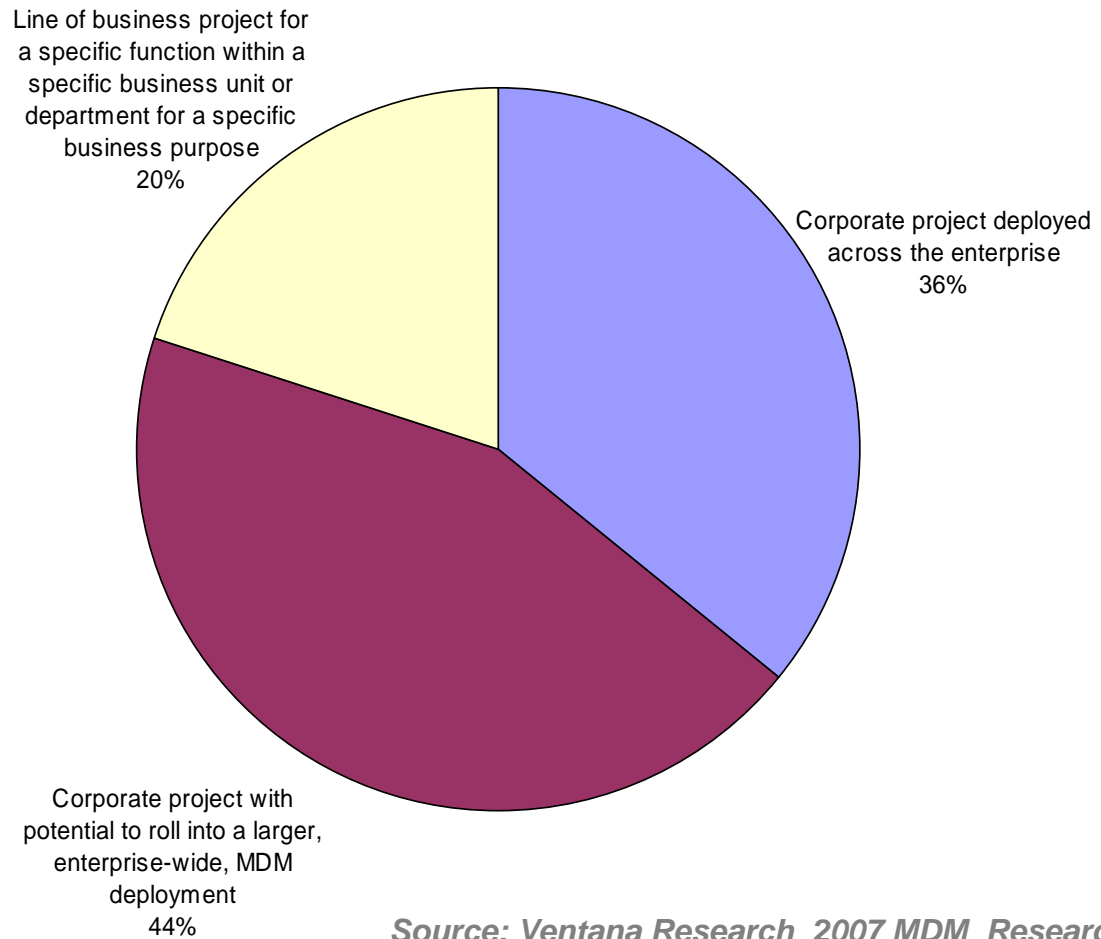


Status of MDM in Organizations Today



Source: Ventana Research 2007 MDM Research

Scope of MDM Initiatives

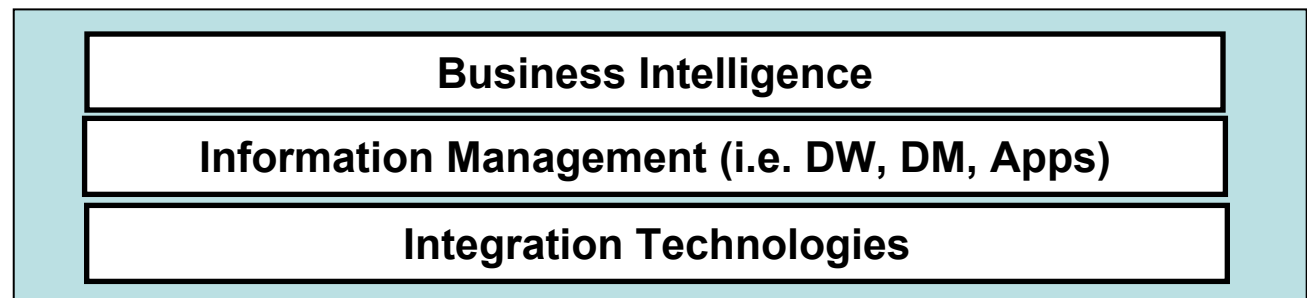


Source: Ventana Research 2007 MDM Research

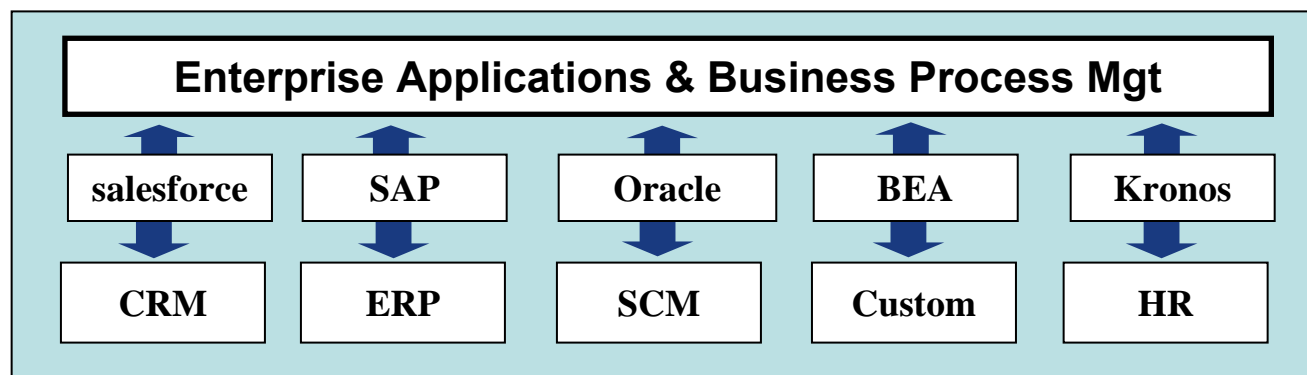
Master Data Management Analytical and Operational Forms

The usage of MDM operates across operational processes and systems to the analytical and decision centric processes and systems in the enterprise

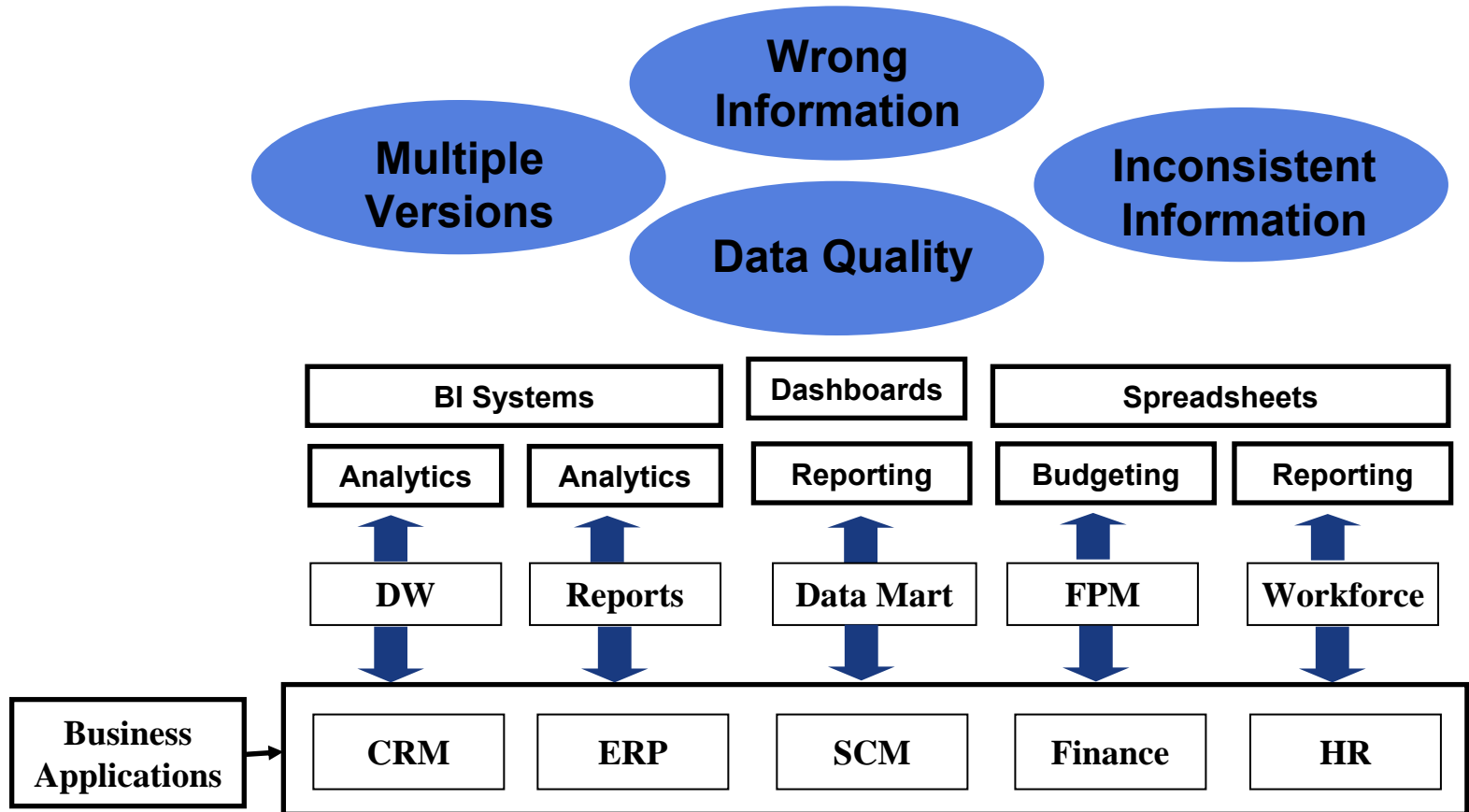
Analytical
MDM



Operational
MDM



Our Research Finds Complex Master Data Challenges



Spreadsheets are Large Source of Analytical MDM Issues



“Standalone spreadsheets” were designed for personal productivity

- Ad-hoc analysis and reporting
- Application prototyping

Spreadsheets are poorly suited to any collaborative, repetitive task

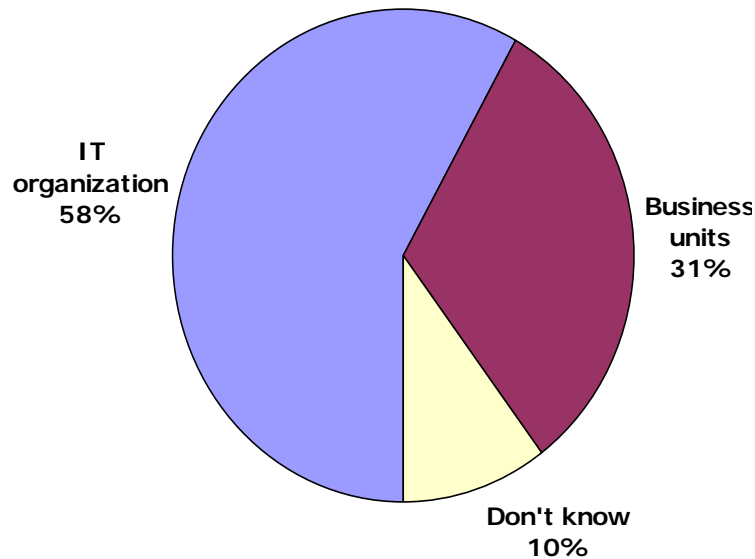
- Lack of referential- and data integrity
- Errors common; difficult to audit

A decade of dominance = limited innovation

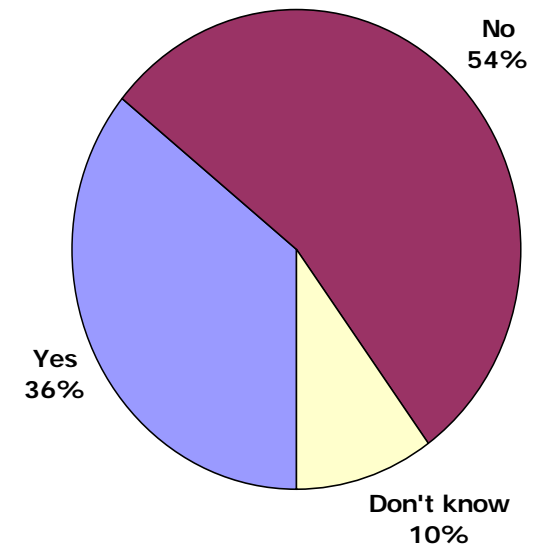
New technologies have appeared for discovery, management & control.

Stewardship and Governance of Information is Critical Success Factor

Stewardship
Responsibility



Publish Data
Governance Policies



Source: Ventana Research Information Management Research

Data Stewardship is a IT function but requires business involvement and lack of data governance policies can hinder information management.

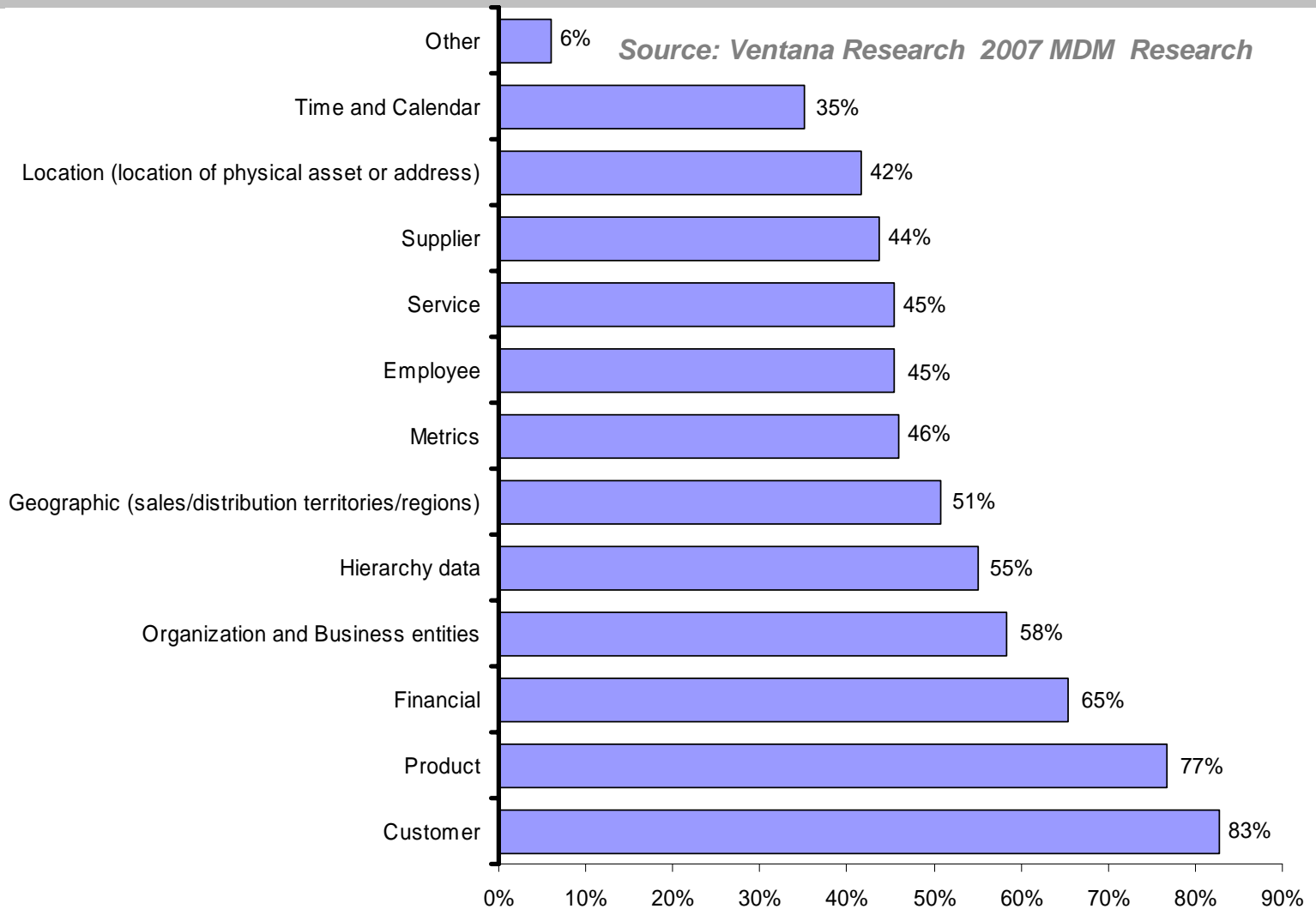


Top Areas of Impact of MDM for Business

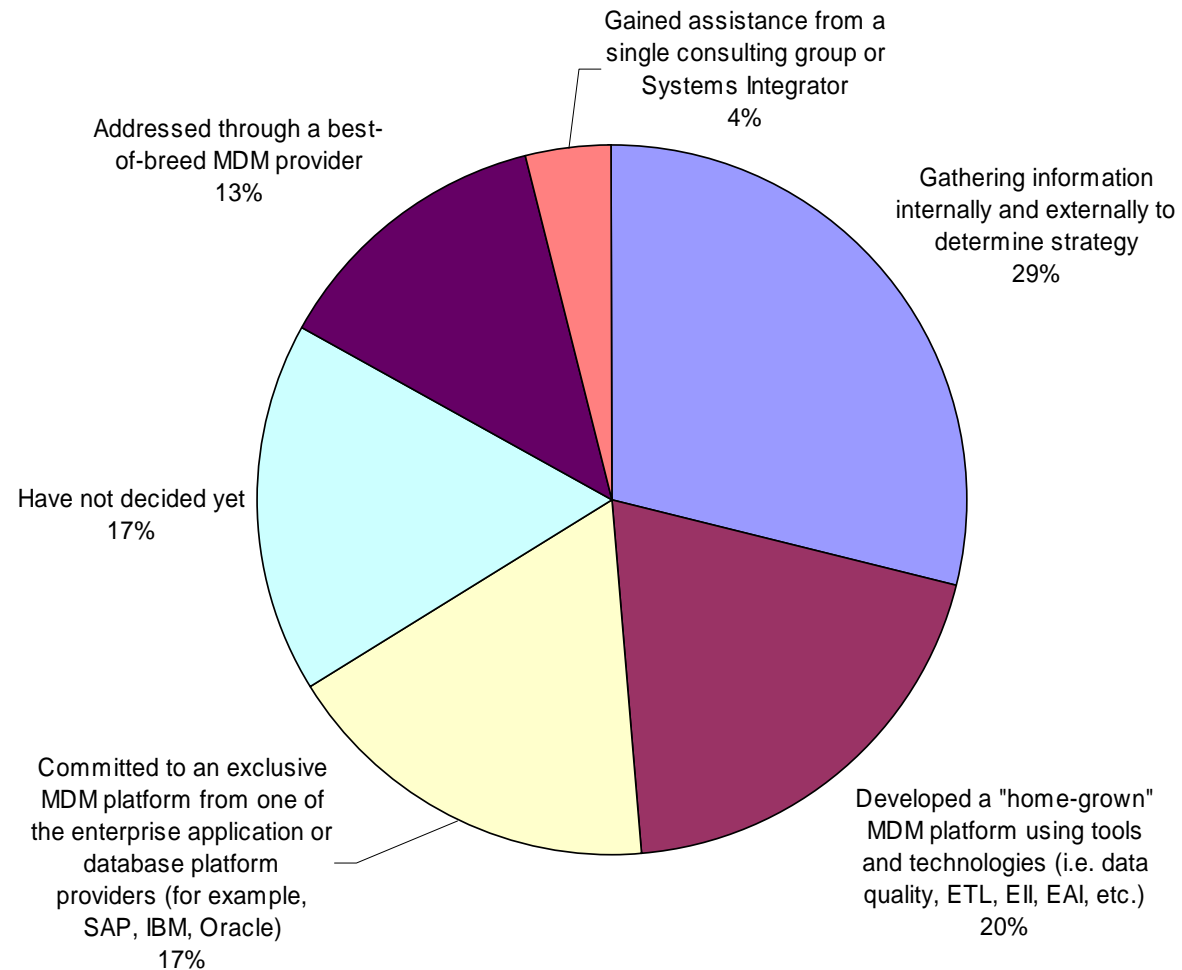
1. Sales & Marketing (31%).
2. Finance (22%).
3. Customer Service & Call Center (10%).
4. IT (10%).
5. Supply Chain – Manufacturing (7%).
6. Supply Chain – Distribution (6%).
7. Product Development and R&D (4%).
8. Field Service (3%).
9. HR (2%).

Source: Ventana Research 2007 MDM Research

Types of Master Data included in MDM initiative Today



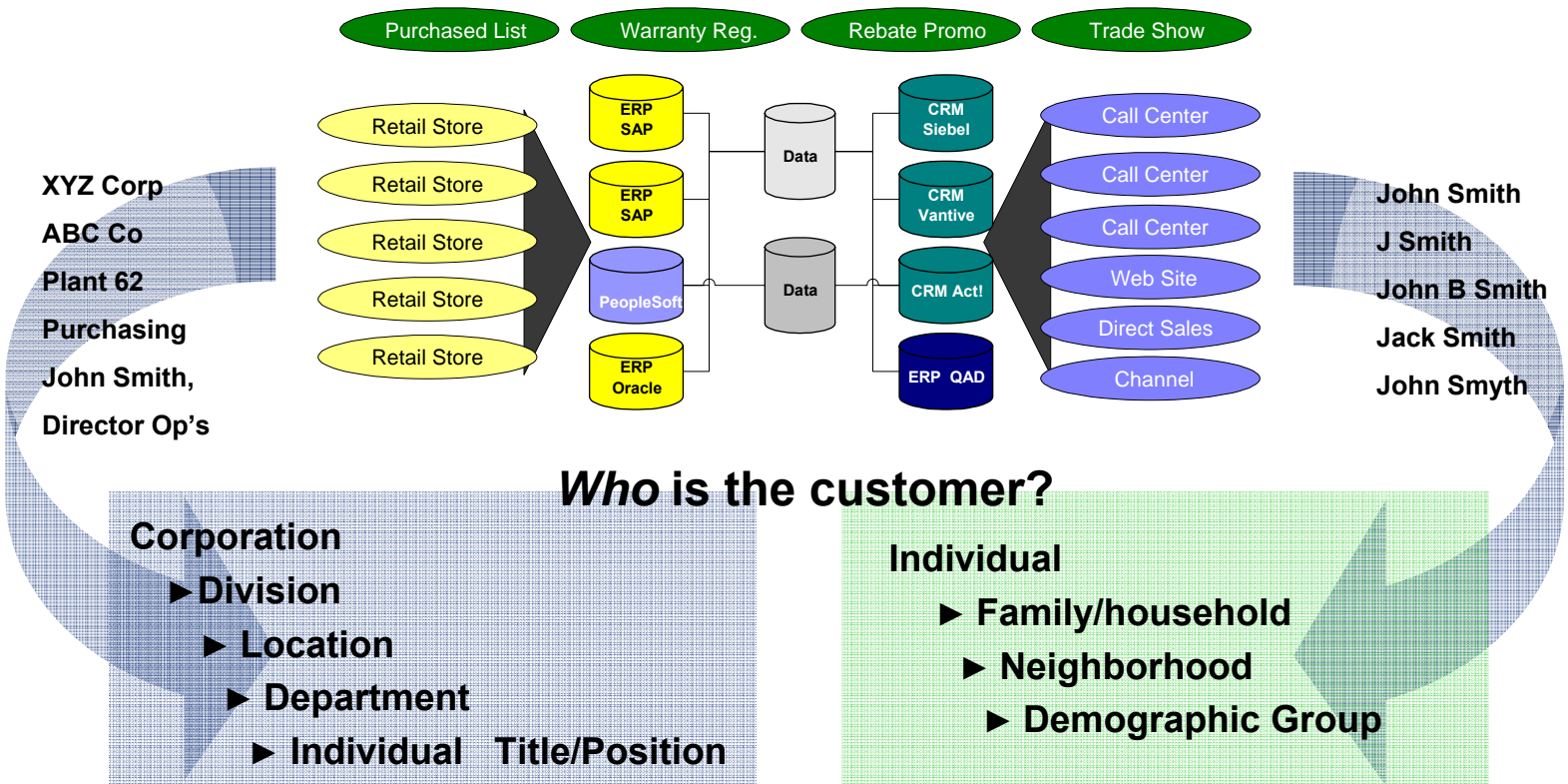
Approaches to Addressing MDM are Mixed and Not On Course for Improvement



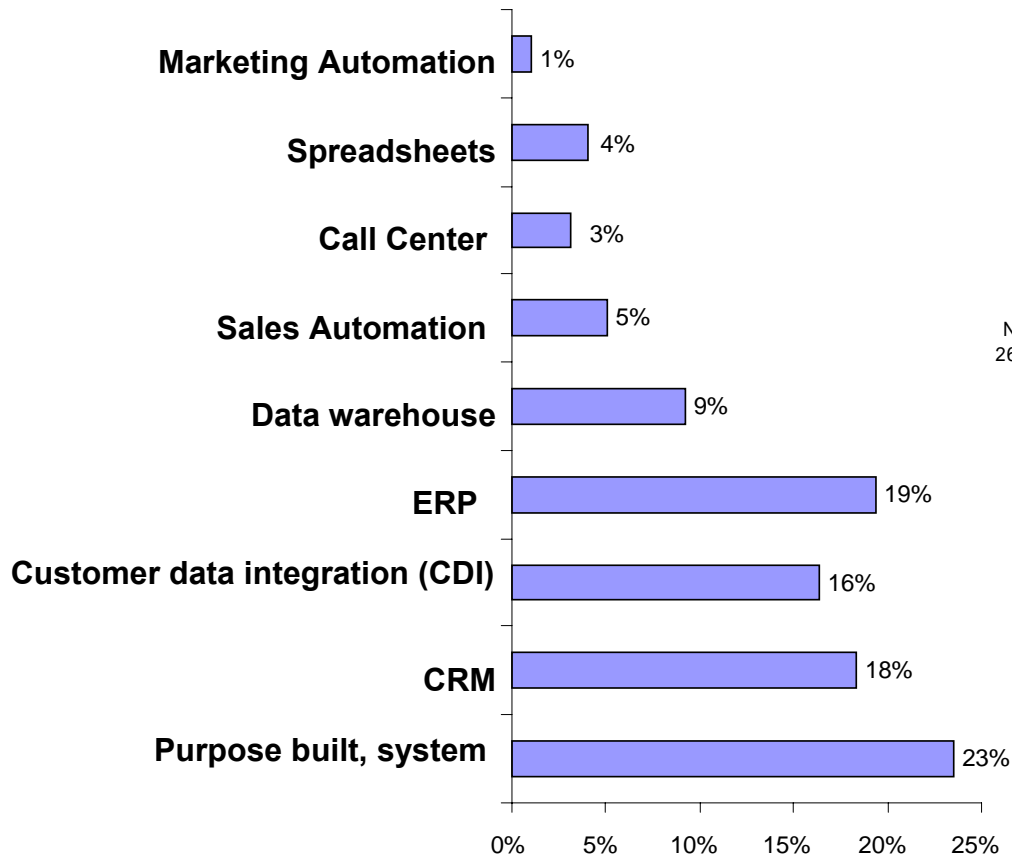
Source: Ventana Research 2007 MDM Research

MDM Example - Consistent Customer Information Throughout the Enterprise

Integrating multiple systems means having the right architecture/software/structure



Which system contains the ONE master source of customer data today?



How Many Synchronize with Master



Source: Ventana Research 2007 Customer Information Management Research



MDM Can Solve Many Problems in Business

It gives you consistent business definitions and information about customers, suppliers, products, etc.

Gives you a central place to store master data for easy access

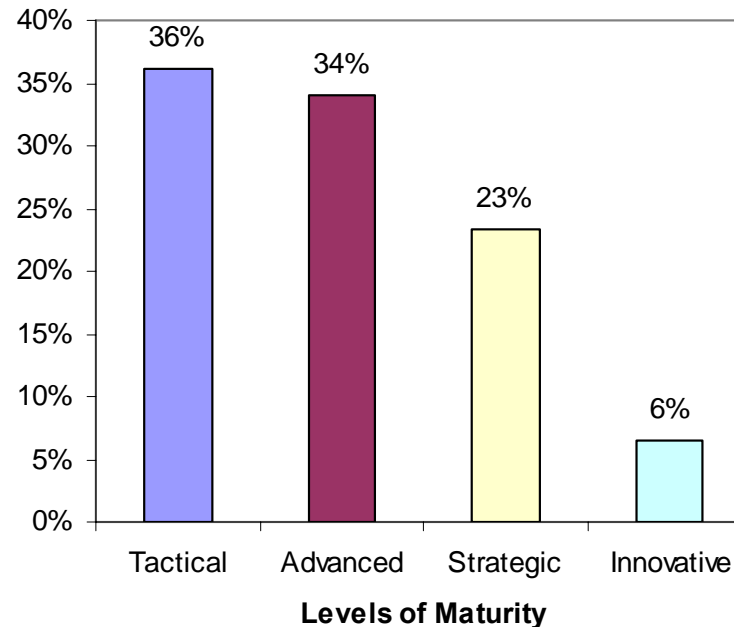
Puts business people in control of master data

- They understand the information the best
- Easy-to-use workflows enable them to collaboratively manage, authorize and share master data

Automatically records changes to master data over time

Overall Maturity of Master Data Management – Industry Benchmark

All Respondents



Source: Ventana Research Master Data Management Research

The maturity of industry is in early stages where majority of organizations are beginning to understand how to improve the consistency and quality of data



Understand True Value of MDM

- Gain insight into master data management and forms of technology that best meet your organizations needs.
- **Understand how to build the business case and quantify the costs of bad data for justifying an investment.**
- Determine the criteria for selecting technology and determining your organization's maturity for MDM.

Benefits of Adopting Master Data Management

Improving quality of information and unifying master data will improve value to business

Eliminate
Duplication of
Efforts

Lower TCO

Improve Quality
and Security of
Information

Effectiveness

Utilize IT
Investments
Efficiently

ROI



Activities that MDM can Improve

- **Speeding up implementation of a new data warehouse**
- **Support for executive reporting**
- **Prepare reorganizations of hierarchies for use within a Data Warehouse**
- **Provide a central repository of key Master Data for inter-system applications and e-Business**
- **Streamline operational systems by offloading Master Data management**
- **Manage shared Master Data that is not held within operational systems**
- **Migration projects**



MDM Indicators for Cost Reduction

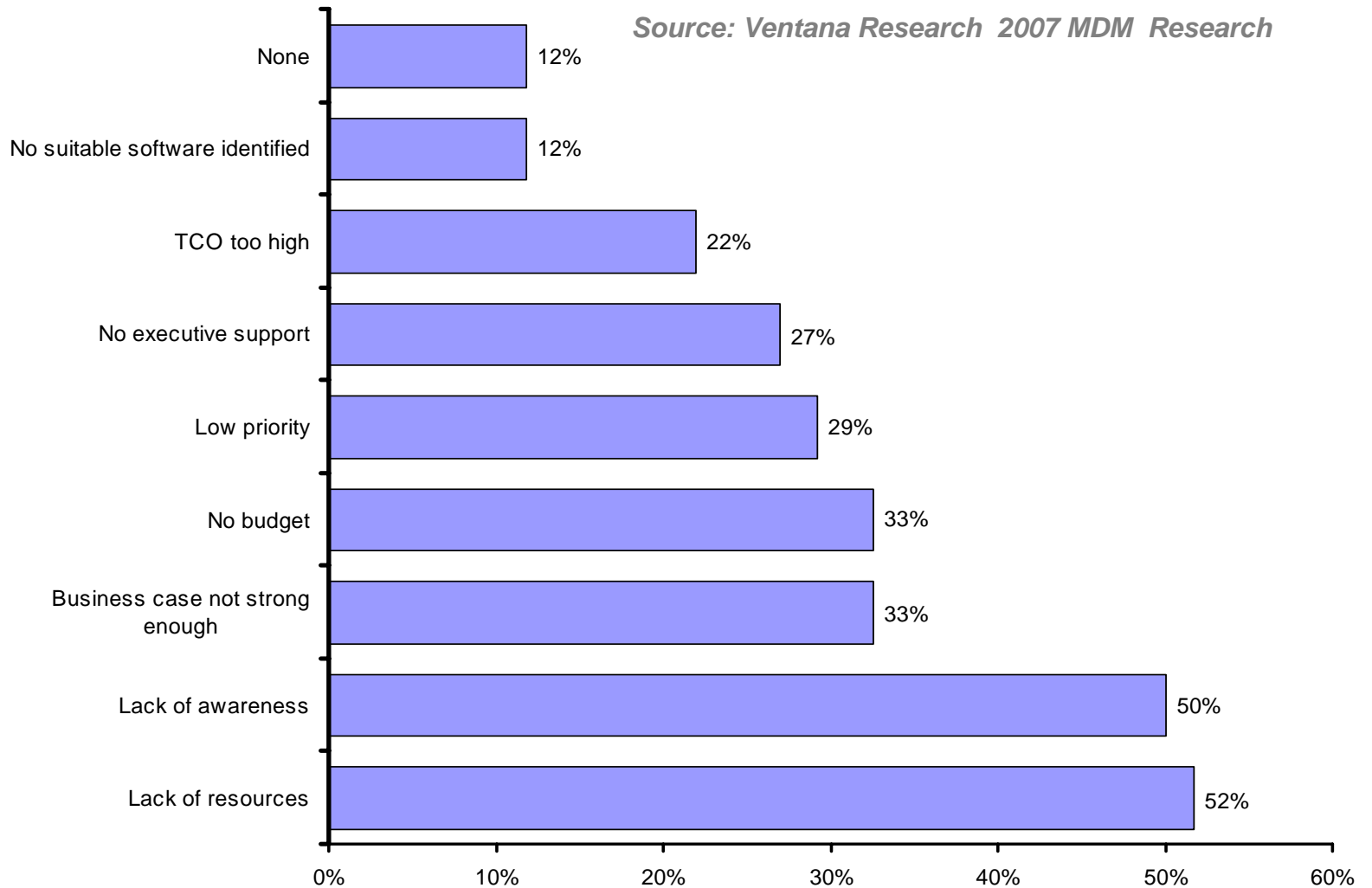
Information quality is low because ownership is unclear
High costs of paying analysts to reconcile information from different systems and organizations

Operational efficiency and profits are lower

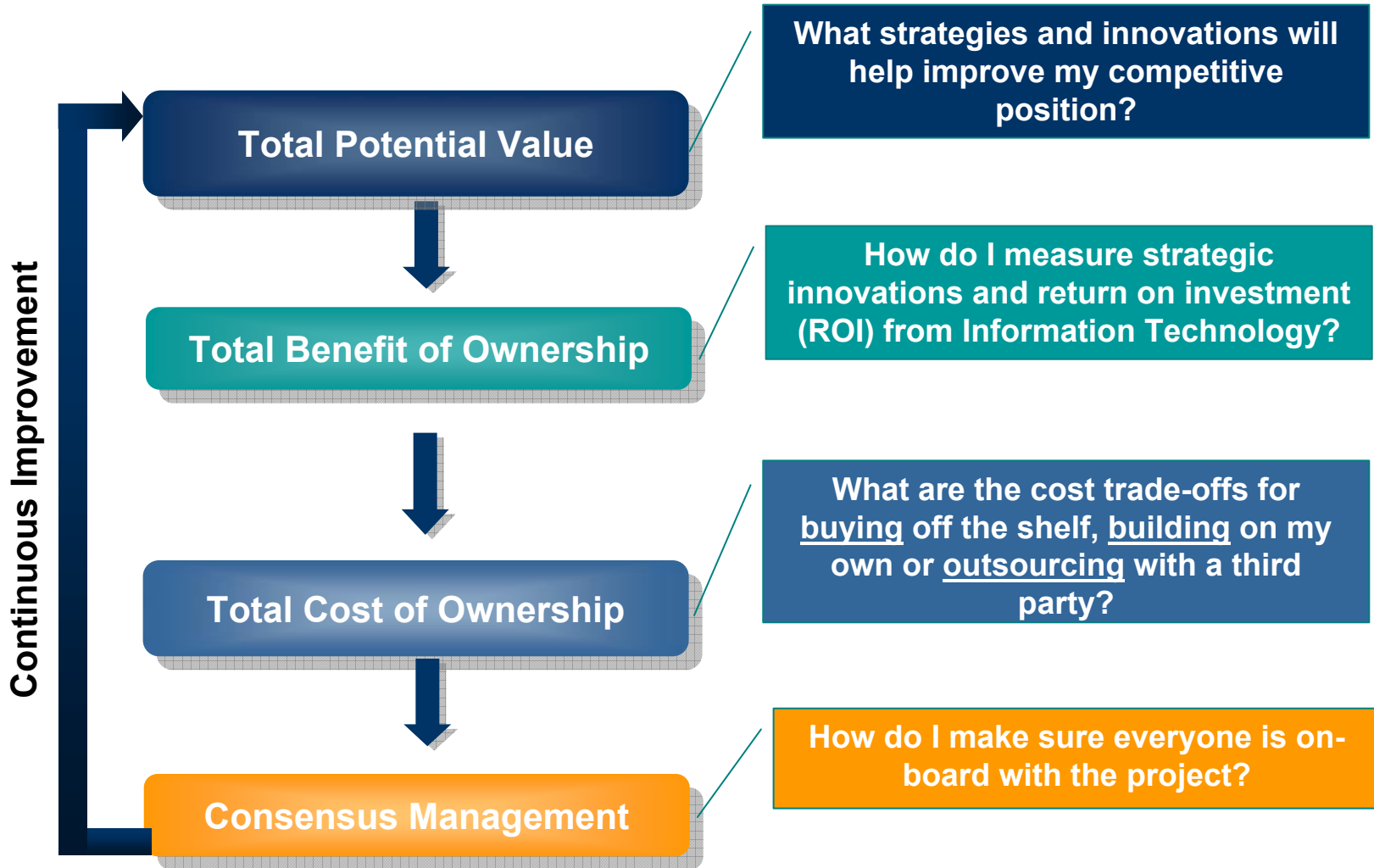
- Wrong Information – Wrong decisions
- Shipping wrong product
- Inventory management
- Can't segment/control market
- Can't attribute discounts correctly
- Wasting R&D—redundant development
- Wrong territory assignments/commission payments
- Loss of goodwill with customers, distributors, suppliers

Audit and payment dispute settlement costs are higher

Barriers to implementing MDM



Building Business Case & Value Assessment for Information Management





Anticipated Benefits from Implementing MDM - Top Ranked Response

1. Increase the accuracy of reporting and BI (42%).
2. Improve operational efficiency (16%).
3. Gain control over information needed to market and sell products effectively (6%).
4. Eliminate various sources of customer or product data that contain different versions of “the truth” (5%).
5. Reduce the costs of existing IT investments (3%).

Source: Ventana Research Master Data Management Research



Build or Buy MDM?

Build

- Complexity of technology interfaces and applications should not be underestimated
- 19% of organizations were planning to build MDM from 2006 survey
- Cost of failure could be significant to business
- Utilization of IT resources for building compared to improving business

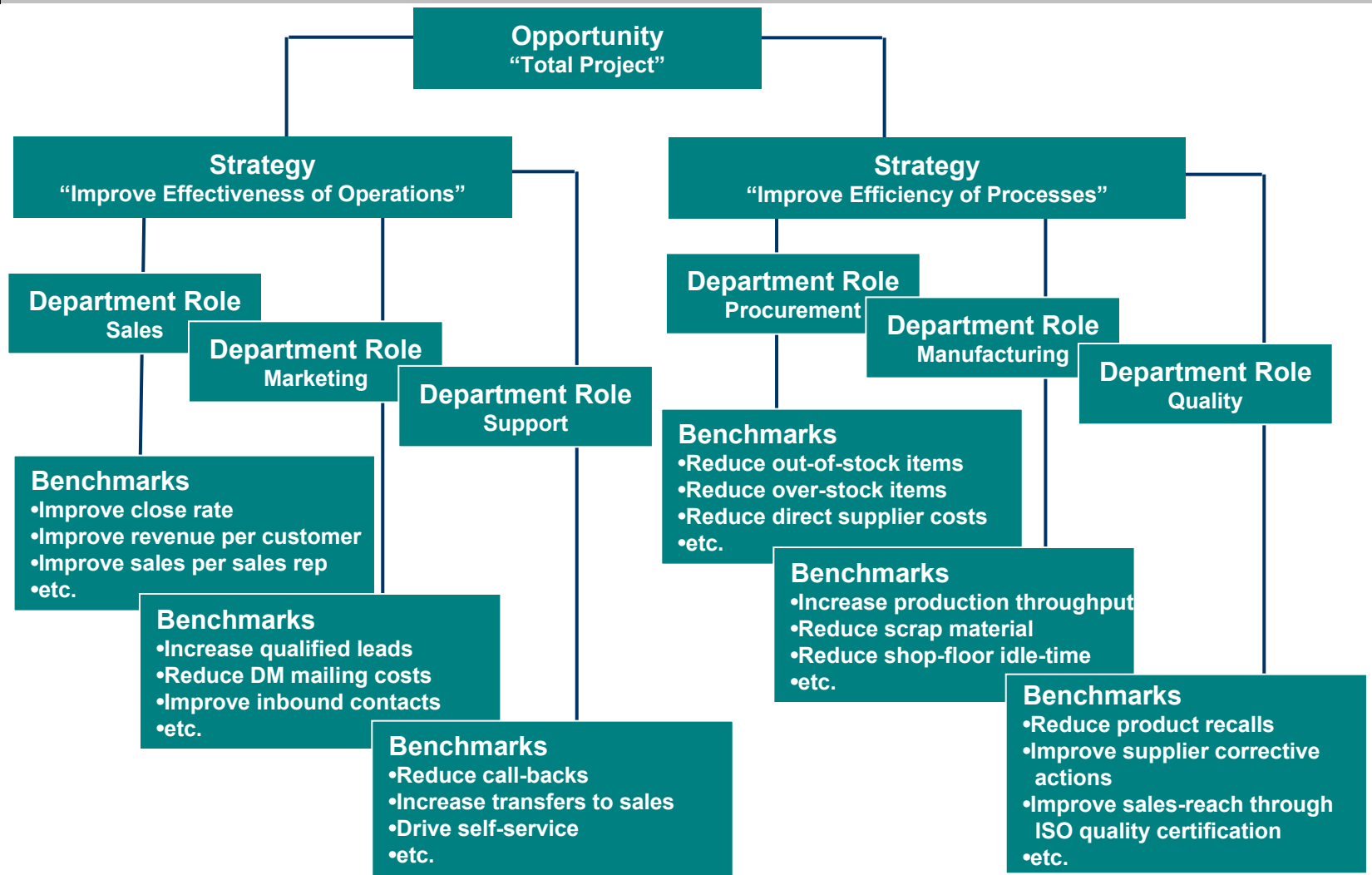
Buy

- Many different suppliers on the market
- Challenges in determining specific or enterprise level; operational or analytical
- Plan forward and anticipate the variety of needs over 3 to 5 years

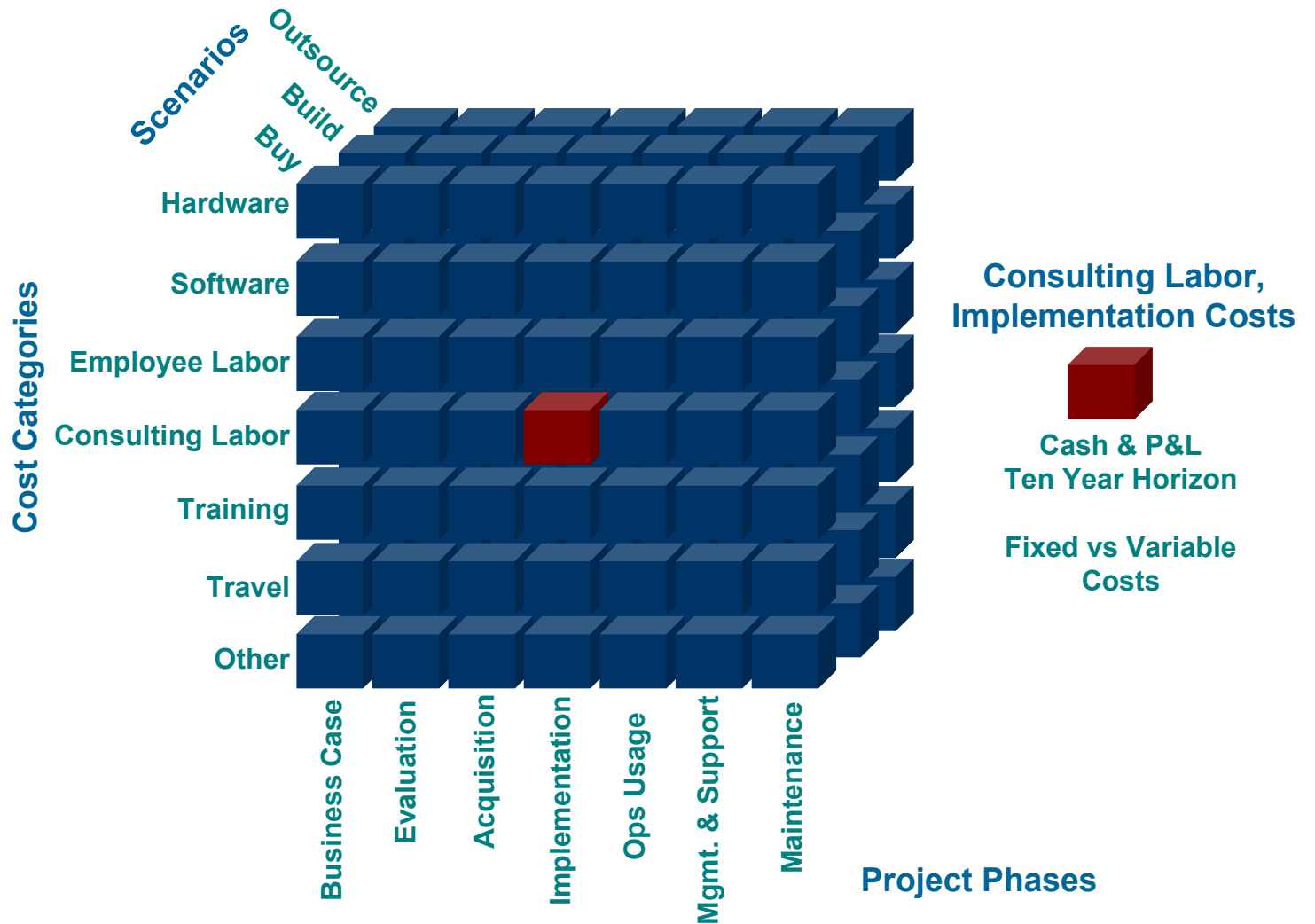
Comparison Points

- Initial vs Total Cost of Ownership
- Staff diversion costs
- Risk (Incorrect purchase, time, data quality, integration, upgrade, merger)

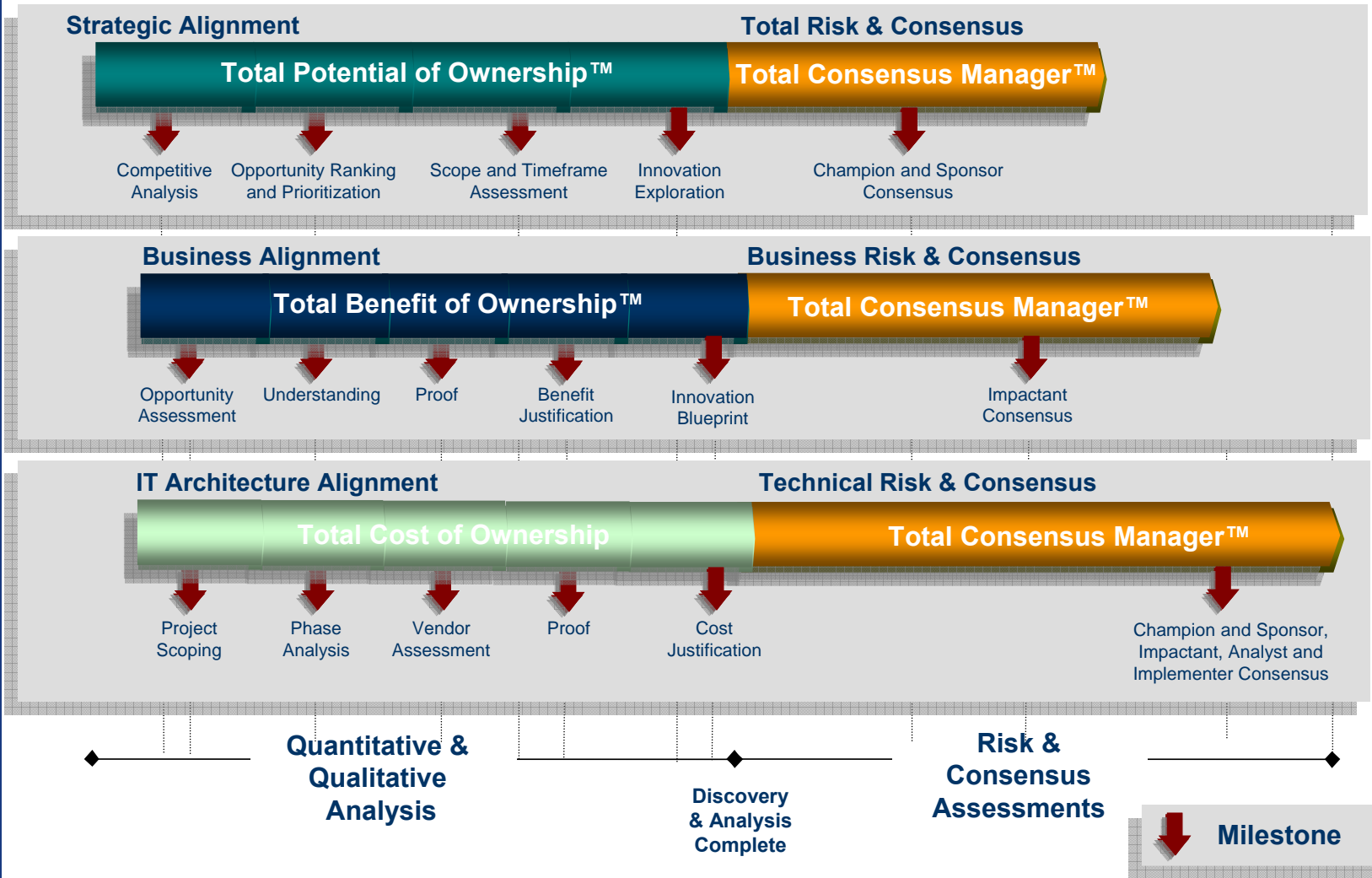
Leveraging Strategy and Benchmarks to Establish Importance of MDM



Costing the Business Value to Total Cost of Ownership (TCO)



Ensuring You Have Value, Benefits and Costs Linked Together





Requirements for Success for Business Case of Investment in Master Data Management

Key criteria for a successful governance review process that leverages consistent business case presentations:

Agreement

Organization believes it can improve the process by standardizing approach

Commitment

Progress and results are managed continuously by governance team

Technology

Information technology that will support maturity in organization

Dialogue

Support collaboration across organization with consistent and quality information

Trust

Standardize methods to review business and IT projects for ensuring success



Understand True Value of MDM

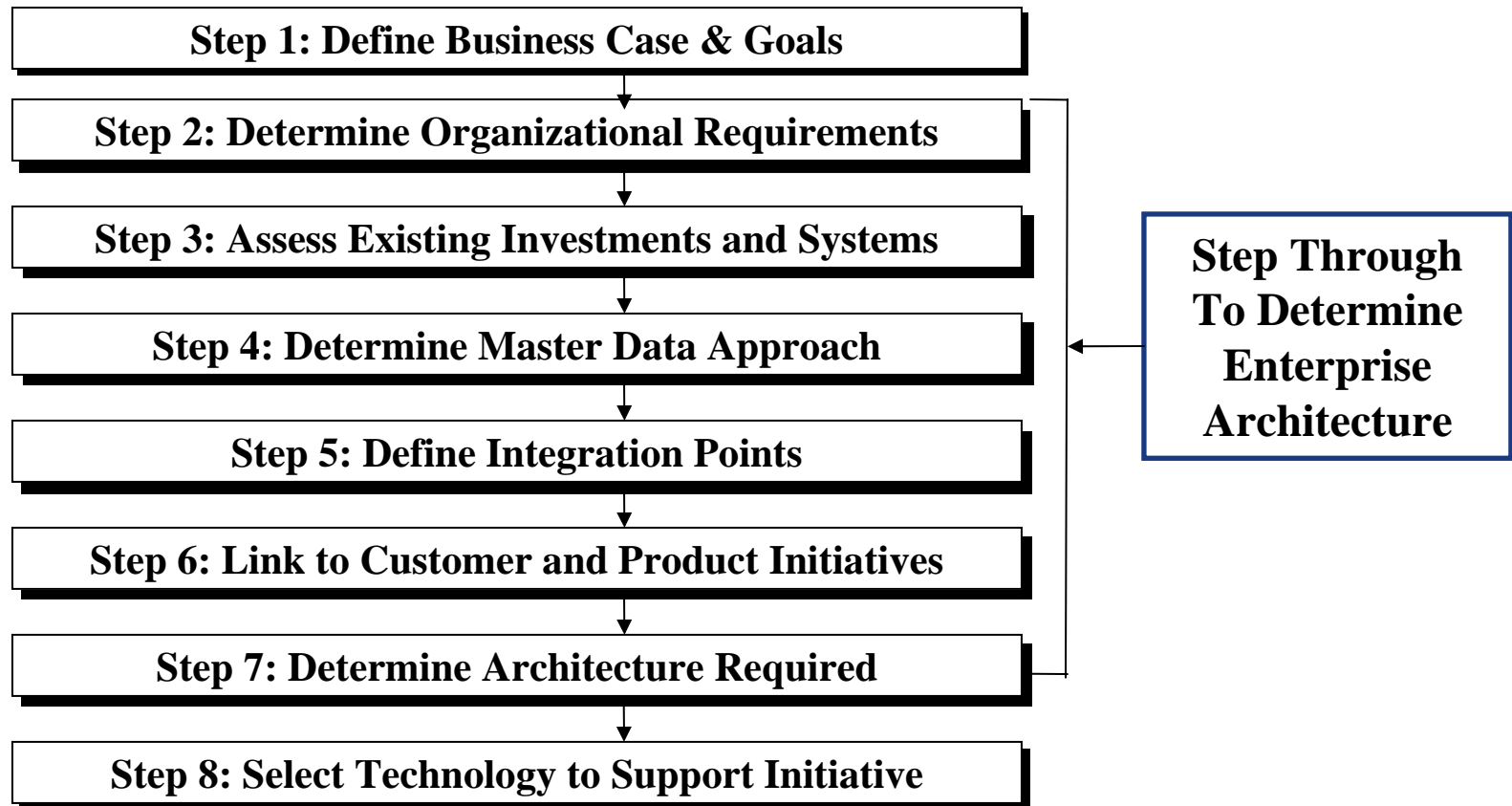
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Master Data Management in the Tornado of Technology Confusion

Significant level of politics and cultural issues drive un-justified or un-optimized investments



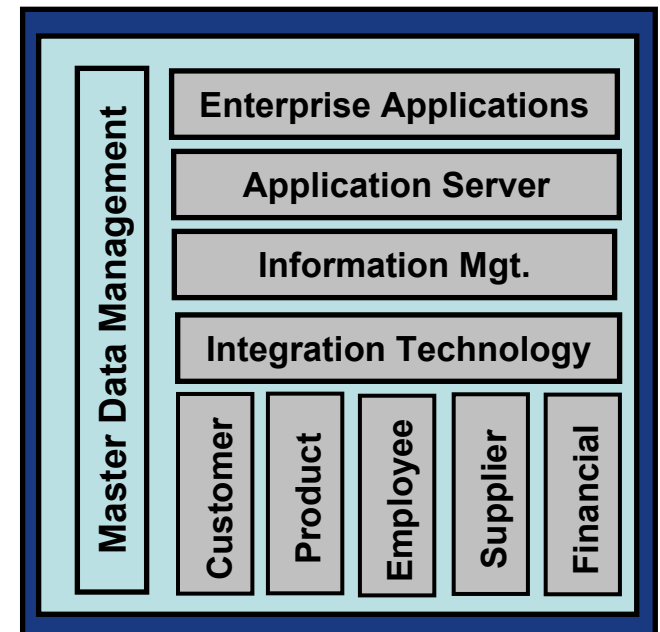
Utilizing a Process for Selecting Master Data Framework and Information Technologies



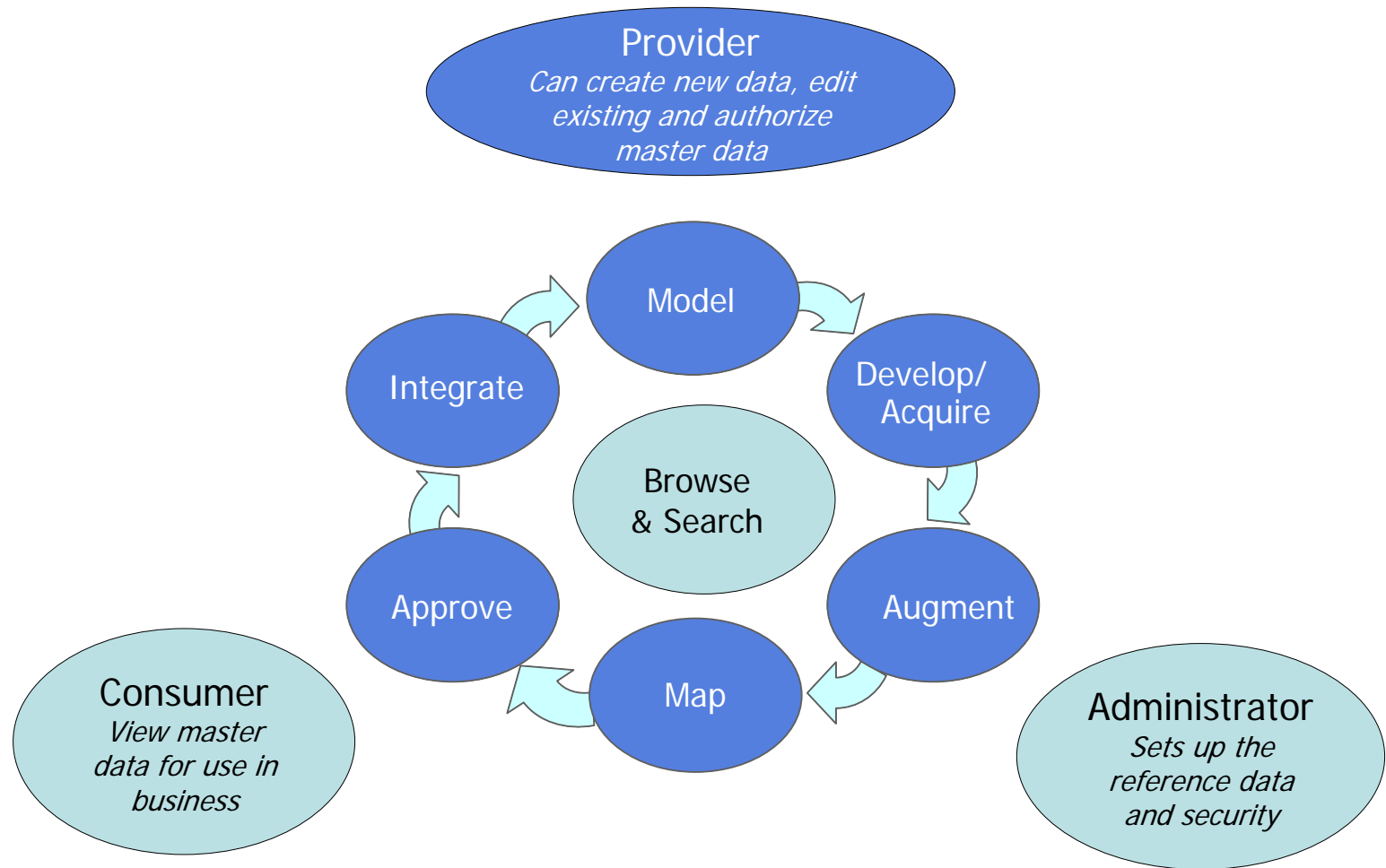
Our Research Finds Need for Enterprise Technology Strategy on MDM

- Integrated master data can help automate business processes and information systems
- MDM provides logical business abstraction and linkage to sub-systems and data
- MDM should be at the core of the data quality and stewardship processes
- Master Data Management is the center of addressing compliance and information management initiatives

MDM Blueprint



Expect MDM Lifecycle and Roles to Drive Processes in Technology





Traditional Layers & Capabilities of Master Data Management

Master Data Management

- Business Interface – Used by business users
- Search and Access Methods – Easily accessed and used
- Security and Governance – Controlling access to business definition
- Semantic & Hierarchy Management – Different methods to define master data
- Data Discovery & Mapping – Associate and match data for processing
- Data Quality – Improve the quality of fields and data
- Cataloging – Easily identify and leverage master data
- Centralized Repository – Central place to manage master data
- Workflow and Approval – Link and involve different users in organization
- Modeling & Versioning – Iterative model and deploy business reference data

Integration Technology

- Synchronization – Ability to synchronize master data across enterprise
- Data Profiling – Ensure proper use and interaction with data
- Replication – Ability to have master data moved across organization
- Transformation – Ability to change data into standard formats
- Data & Application Integration – Methods to integrate from applications & systems

Infrastructure Technology

- Data Management – Storage of data in RDBMS
- Network Management – Efficient transport of data across enterprise
- Hardware/Appliances – Place to efficiently process data



Technology Suppliers Supporting MDM

Master Data Management

- Capabilities - Business Interface, Search and Access, Security and Governance, Semantic & Hierarchy Management, Cataloging, Centralized Repository, Workflow and Approval, Modeling & Versioning
 - Vendors – IBM, Initiate, Kalido, Oracle, Purisma, SAP, Siperian, Tibco
 - PIM Specific – Full Tilt, Heiler

Data Discovery & Mapping – Associate and match data for processing

- Vendors – Exeros, Netrics, Silver Creek, Sypherlink

Data Quality – Improve the quality of fields and data

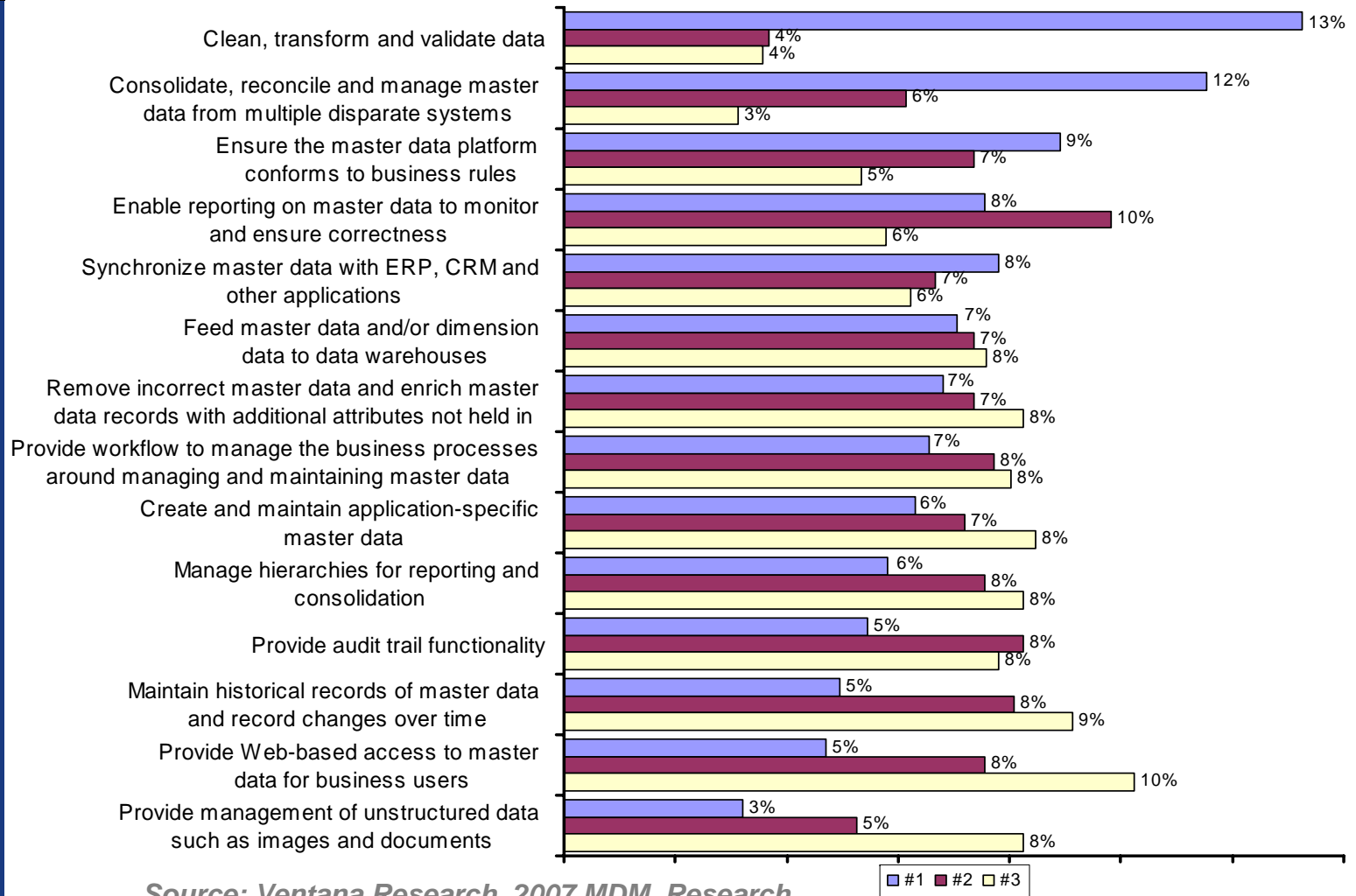
- Vendors – Business Objects, DataFlux, IBM, Informatica, Trillium

Integration Technology

Synchronization – Ability to synchronize master data across enterprise

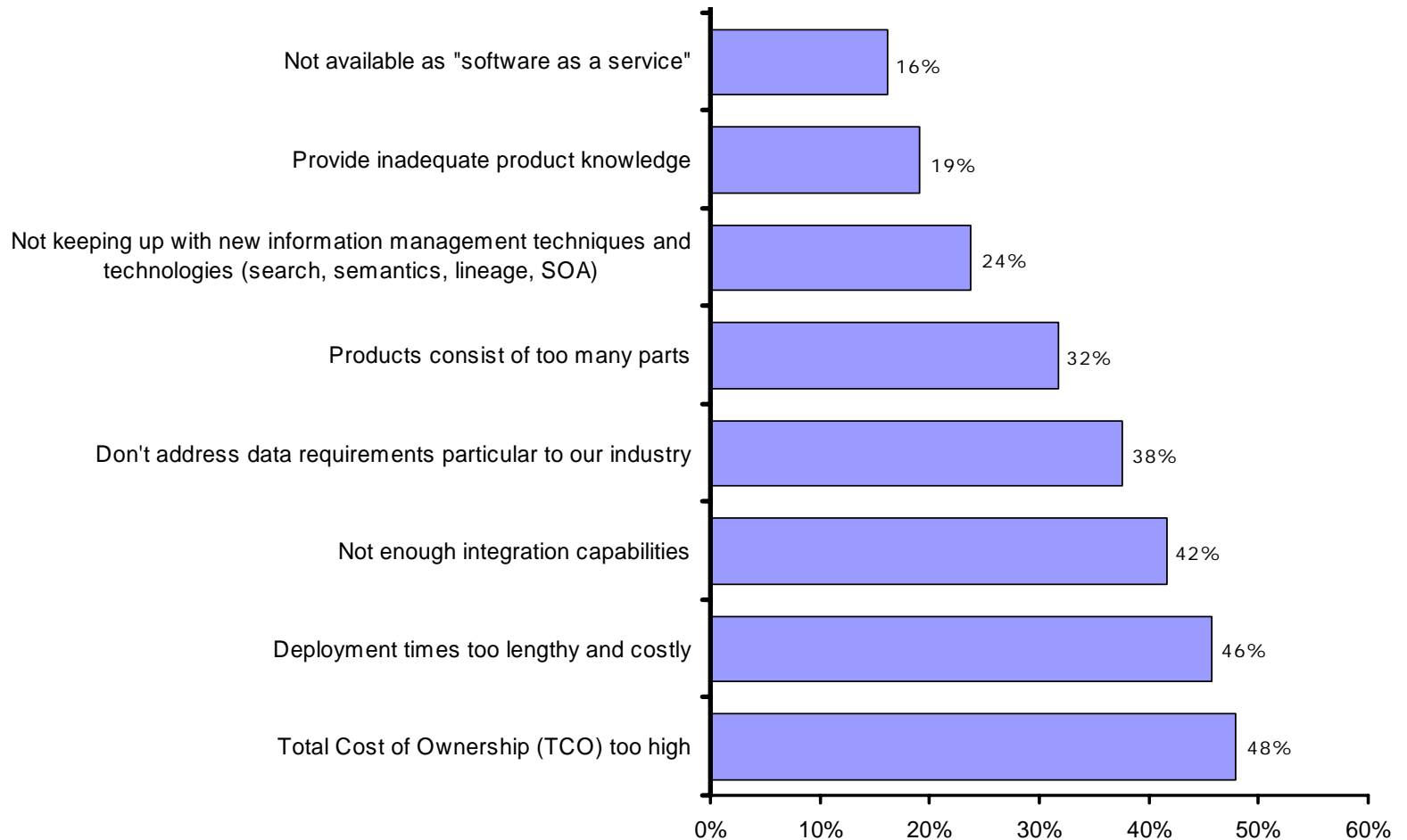
- Capabilities – Synchronize, Profile, Replicate, Transform, Integrate
 - Vendors – Attunity, Embarcadero, IBM, Informatica, iWay, Oracle, Pervasive, Talend, Tibco

Relative importance of MDM system requirements



Perceived shortcoming of MDM Vendors?

Source: Ventana Research 2007 MDM Research





Avoid Pitfalls in Adopting MDM in Enterprise

1. **Rushing Into Technology** - Perform business case and requirements assessment prior to assuming what technology is needed
2. **Focusing on Efficiency over Effectiveness** – Do not proceed to automate processes before ensuring information and analytics provide insight.
3. **Evaluation of Technology** – Do not rush to evaluate technology until requirements and gaps are defined.
4. **Technology & Application Providers** – Your ERP/CRM providers are not the only path for delivering your needs.
5. **Operating without a Program and Well Documented Plan** –Lack of articulated program and plan hinders improvement.



Best Practices from Our Research and Clients in Early MDM Deployments

- **Building a Program and Team** – Assess existing IT organizational approach and build a team dedicated to master data management as part of information management initiatives
- **Address Conflict/Resolution** - Deploy MDM for eliminating conflicts and exceptions in synchronization of data in information systems and applications
- **Link to Business Drivers** – Leverage defined business initiatives in performance, process, profitability and compliance management to advance MDM
- **Integrate into IT and Business Process** – Utilize MDM to drive integration and transformation for ensuring a single point of enterprise data stewardship and quality programs



Recommendations for You

Build a Business Case Assessment

- Build project justification from value to cost/benefit analysis to reduce risk of not adopting MDM

Perform a Master Data Management Assessment

- Assess existing data management portfolio maturity and determine best methods to build a MDM program and technology investment

Examine and Apply Best Practices

- Communication and knowledge of best practices in master data management like assessing cost of errors and establishing data governance processes

Compare Scenarios to Leverage Investments

- Examine methods to leverage existing application and data systems through MDM and ensure you examine business and architectural approaches



Why Now?

Master Data Management Binds People, Process, Information and Systems for Improving Quality and Use of Data across Enterprise

Opportunity

- Accelerate improvement in quality of data
- Leverage investments and manage data
- Address required consistency and single view
- Foundation for CDI and PIM initiatives

Questions and Answers

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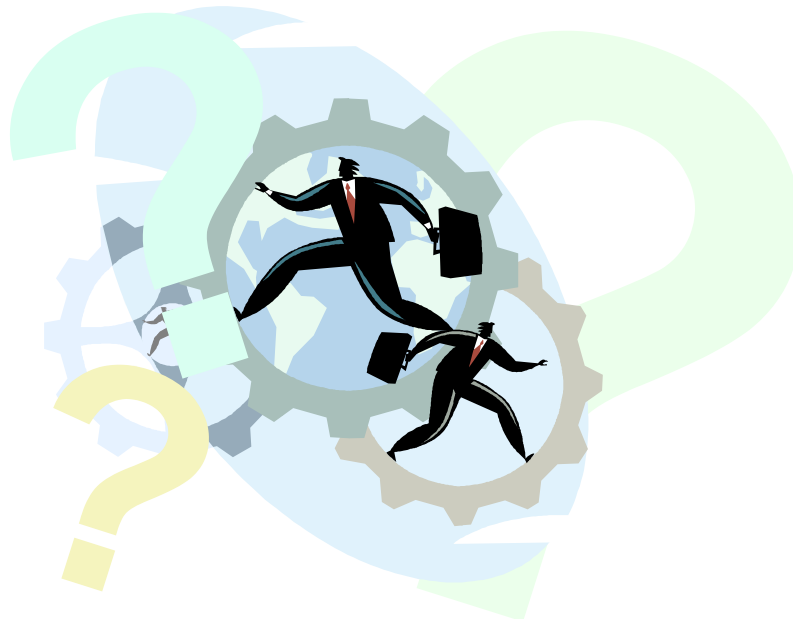
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V E N T A N A
R E S E A R C H

Ventana Research

650-931-0880

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www.ventanaresearch.com

About Ventana Research

We are the leading research and advisory services firm focused on helping organizations connect people, processes, information and technology in areas of Master Data Management for Information Management.

Consulting

Our research and advisory knowledge provides direct value for assessment and recommendations

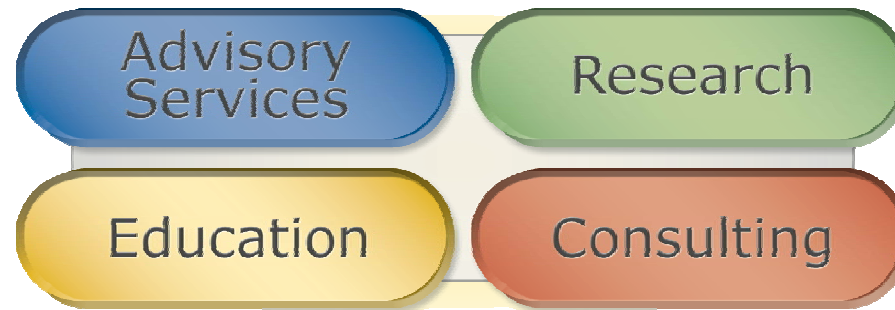
Advisory

Our research and experience is leveraged throughout a year for our clients to maximize investments

Research

Our research is the foundation that provides valuable insight to our knowledge of market

Ventana Research Master Data Management Services



MDM Advisory Services

Subscription performance planning service which includes research, inquiry and consulting services for MDM.

Online MDM Education Services

We provide MDM educational services ranging from on-demand and online training.

MDM Workshop

We provide on-site MDM workshops for deep insights on business and technology, best practices and must know education.

MDM Assessment Services

We provide business and IT assessment for MDM in your enterprise.



Master Data Management Research Agenda

Ventana Research defines master data management as the collection of practices and technologies for providing Business and IT the capability to define enterprise-wide master or reference data that is linked to the business.

Research Agenda

Understanding the Role of Master Data Management

- Reasons why BI Initiatives Fail
- Synchronizing Master Data with Other Systems
- Building Plan for MDM

Optimizing the Impact of Master Data Management

- How to Build Business Case for MDM
- What are Technologies and Requirements for MDM
- Setting up MDM Organization

Integrating Master Data Management as part of Business & IT

- What is Impact of Business Performance
- Building Federated Master Data Management
- What is Cost of ‘Doing Nothing’

* Partial Listing of Research Agenda

Research Available for Education

Master Data Management

A Key Tool for Managing Business Information Initiatives

A Ventana Research Primary Research Study

Research Report

2007 Master Data Management

Business and Technology Trends

Research Report
Sponsored by
 siperian®

Product Information Management

Business and Technology Trends

Research Report



Aligning Business and IT to Improve Performance

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The Place of PIM and CDI in Master Data Management

Delivering consistent information for operational and analytic processes

White Paper

sponsored by



Aligning Business and IT to Improve Performance

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Customer Information Management

Business and Technology Trends

Research Report



Aligning Business and IT to Improve Performance

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2006 MDM Research Benchmark

Number of total participants = **1647**

Qualified by ...

- Fully completed the survey
- Title/Role – Executive (CxO, Director) levels

Total Qualified Respondents = **515**

IT	68%
Business	32%

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Media Partners – AIIM, DM Review, BI.COM, Intelligent Enterprise, TechTarget – SearchDataManagement, SearchOracle and SearchSAP, IT Business Edge, Manufacturing.NET, Questex ICCM and TEC.



2007 MDM Research Benchmark

Number of total participants = 468

Qualified by ...

- **Fully completed the survey**
- **Title/Role – Executive (CxO, Director) levels**

Total Qualified Respondents = 230

IT	60%
Business	40%

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Media Partners – DM and BI Review, BI.COM



2006 Information Management Research Benchmark

Number of total participants = 1427

Qualified by ...

- Fully completed the survey
- Title/Role – Relevant to information management

Qualified Respondents = 747

(Target was 400 companies)

IT	56%
Business	44%

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Media Partners – AIIM, DM Review, BI.COM, Intelligent Enterprise, TechTarget – SearchDataManagement, IT Business Edge and TEC.



2007 Customer Information Management Research Benchmark

Number of total participants = 300+

Qualified by ...

- Fully completed the survey
- Title/Role – Executive (CxO, Director) levels

Total Qualified Respondents = 195

IT	46%
Business	54%

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Media Partners – DM and BI Review, BI.COM



2007 Product Information Management Research Benchmark

Number of total participants = 400+

Qualified by ...

- Fully completed the survey
- Title/Role – Executive (CxO, Director) levels

Total Qualified Respondents = 240

IT	46%
Business	54%

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Media Partners – DM Review, Intelligent Enterprise, Montgomery Research, TechTarget – SearchDataManagement, IT Business Edge.