

**IBM Information**  
On Demand **2009**  
>>> Comes To You

## Intelligent Information Integration

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# Data Explosion In A Smarter World

New Data For New Information For a Smarter Planet

## Volume of Digital Data

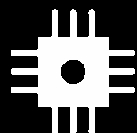
- 57% CAGR for enterprise data through 2010<sup>1</sup>
- Machine generated data : Sensors, RFID, GPS..

## Variety of Information

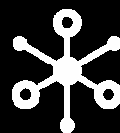
- 80% of new data growth is unstructured content<sup>1</sup>
- Emails, images, audio, video..

## Velocity of Decision Making

- Rapidly changing business climate
- Need to get ahead of the curve : predict issues and fix them



**INSTRUMENTED**



**INTERCONNECTED**



**INTELLIGENT**

<sup>1</sup> Source: IDC, The Expanding Digital Universe, March 2007

# Leverage Information For Smarter Business Outcomes: How To Get Started!

## Software

### Business Optimization



**INTELLIGENT**



**Cognos.**  
software



**INTERCONNECTED**



**InfoSphere™**  
software



**INSTRUMENTED**

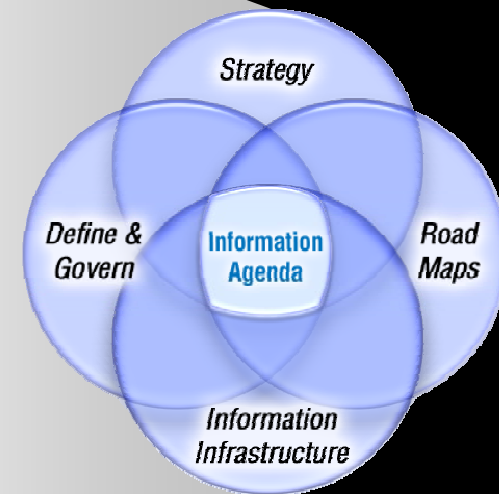


**FileNet.**  
software

**DB2.**      **Informix.**  
software      software



## Proven Approach

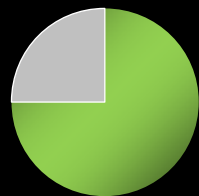


# Data Management

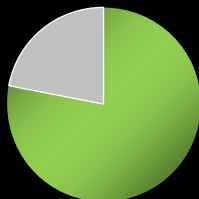


# Data Management Must Drive Competitive Advantage

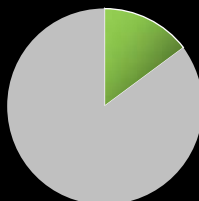
## Survey: CIO's want to strengthen competitive advantage by better managing enterprise data



75% of CIO's believe they can strengthen their competitive advantage by better using and managing enterprise data.



78% of CIO's want to improve the way they use and manage their data.



...but **only 15%** believe that their data is currently comprehensively well managed.

Data management must drive competitive advantage

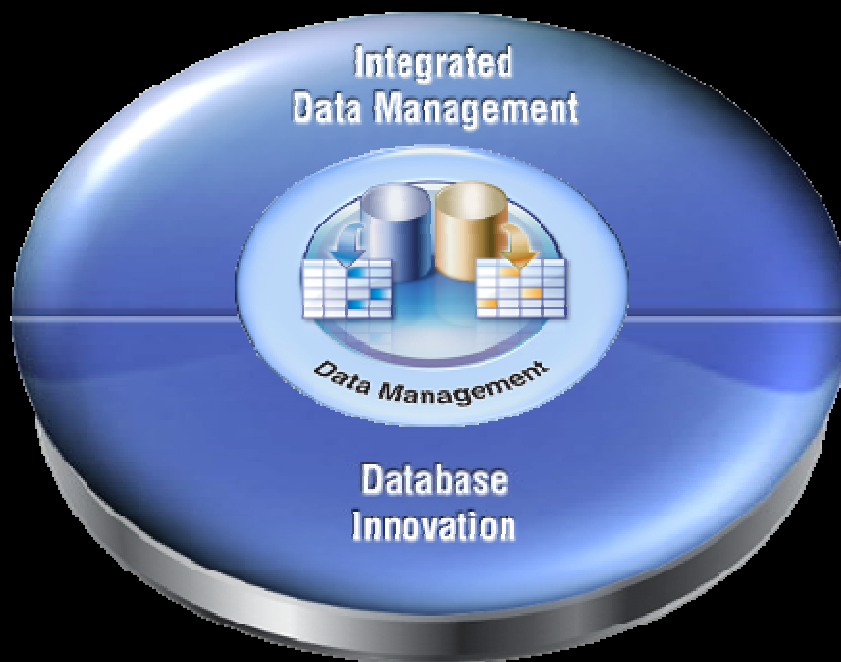
- Tailor application data models to support differentiable business processes
- Service-enable data assets for business process agility
- Empower teams to collaborate seamlessly, improve productivity from design to delivery to management

Source: Accenture CIO Data Management Survey 2007. n=167 CIOs

# Data Management

## Manage data over its lifecycle

Improve performance, cut costs and reduce risks  
IBM Optim, DB2/IMS tools



Lower the cost of data and  
improve service levels

Free information to create  
new business value

IBM DB2, IMS, Informix, solidDB, U2

## Integrated Data Management – What's Different?

Produce enterprise-ready applications faster

- Improve data access, speed iterative testing
- Empower collaboration between architects, developers & DBAs

Consistently achieve service level targets

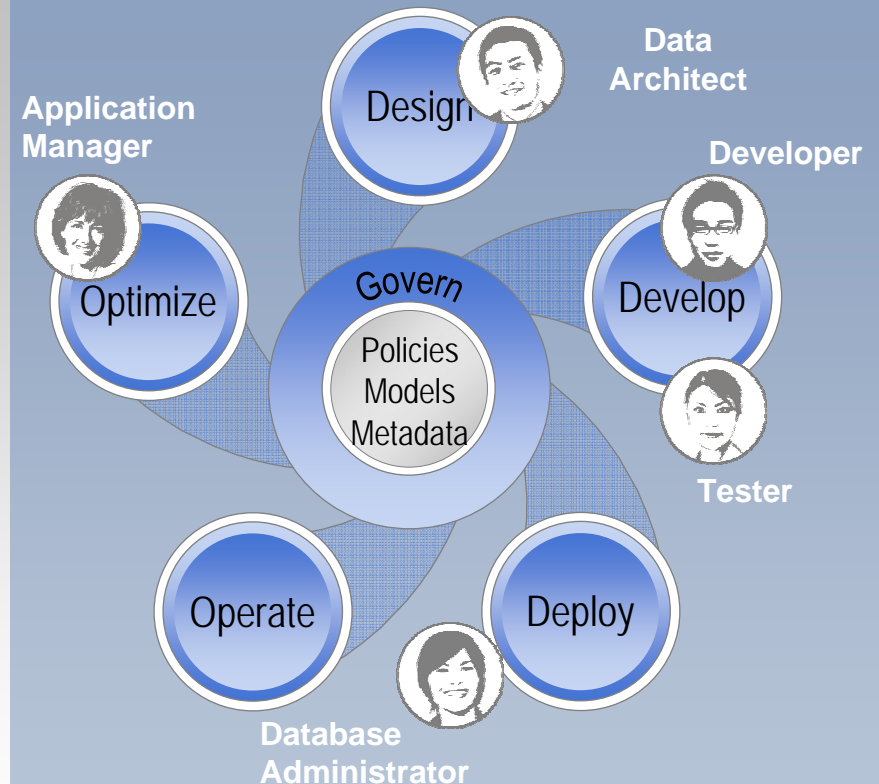
- Automate and simplify operations
- Provide contextual intelligence across the solution stack

Support business growth

- Accommodate new initiatives without expanding infrastructure
- Simplify application upgrades, consolidation & retirement

Facilitate alignment, consistency & governance

- Define business policies and standards up front; share, extend, and apply throughout the lifecycle



## Integrated Data Management Today - Powerful Capabilities

### Optim Solutions for Data Growth, Data Privacy and Test Data Management

- Improve performance, control costs, reduce risks
- Control data growth, streamline test data management, mask confidential data, manage data retention and destruction
- Speed application upgrades, enable safe application retirement

### InfoSphere Data Architect

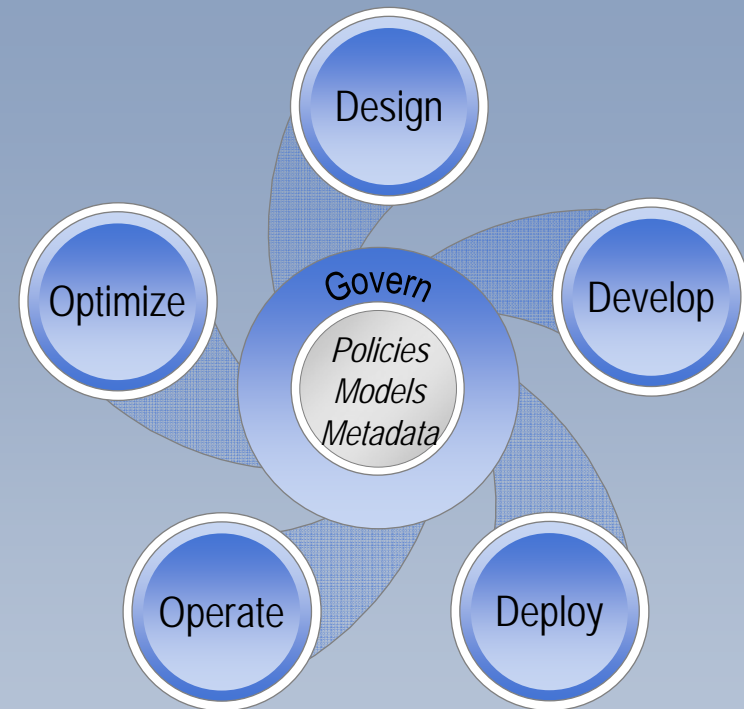
- Collaborative data design to improve data quality and enterprise consistency

### Optim Development Studio and pureQuery Runtime

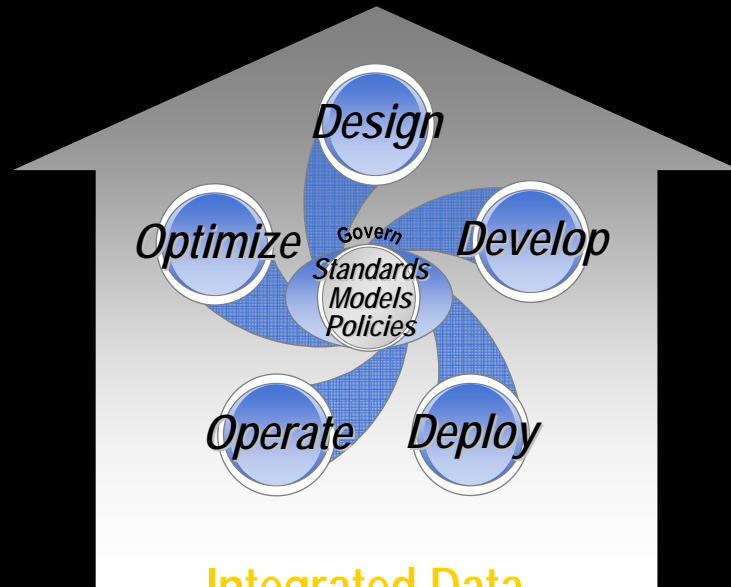
- Enhance productivity up to 50% while improving code quality and providing expert-equivalent performance for Java data access

### Optim Studio Administrator, Performance Expert, Encryption Expert, ...

- Administration and security management tools

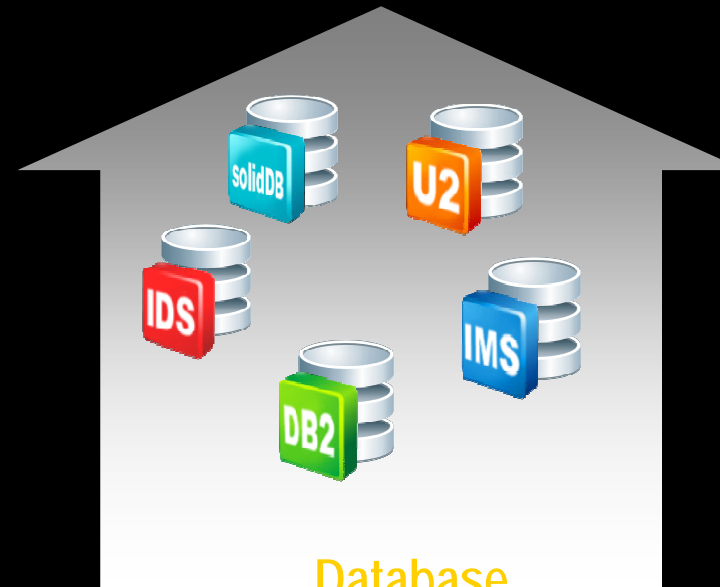


# Integrated Data Management & Databases



**Integrated Data Management**

Manage enterprise application data, from requirements to retirement



**Database Innovations**

Create business value your data faster and at lower cost



## IBM DB2 Reduce Operational Costs



### Low Operational Costs

*Automate DBA tasks,  
optimize storage,  
leading performance.*

### Reliability

*Strong heritage of proven  
reliability, availability,  
and security.*

### Ease of Use

*Developer support,  
XML data management,  
virtual appliances.*



***“We ended up choosing DB2 for several reasons. One was reliability, second was performance and perhaps the most important factor was ease of use”***

*– Bashir Khan, Director of Data Management and Business Intelligence*

## Top Performance For SAP

### DB2 is Optimized for SAP

- Average 40% better performance
- World record SAP benchmark, outperforming Oracle Database by 18% and needing only half the processing power!

### Lower Cost with DB2

- Average 40% Storage Savings
- Average 25% DBA Labor Savings



33% Growth in SAP clients choosing DB2 since 2006

>100 clients migrated from Oracle to IBM in past 12 months

“We expected an improvement of around 20% in terms of system response time, but we found that the new system was actually 40% faster. The DB2 database is even more efficient than we anticipated.” —*Peter Boegler, SAP*

## SunTrust Saves \$2M With Compression



“We’re seeing compression rates up to 83% on the data warehouse tables. The projected cost savings are more than \$2million initially with ongoing savings of \$500,000 a year”  
 —Michael Henson, SunTrust Bank, Inc.

### Lower storage costs

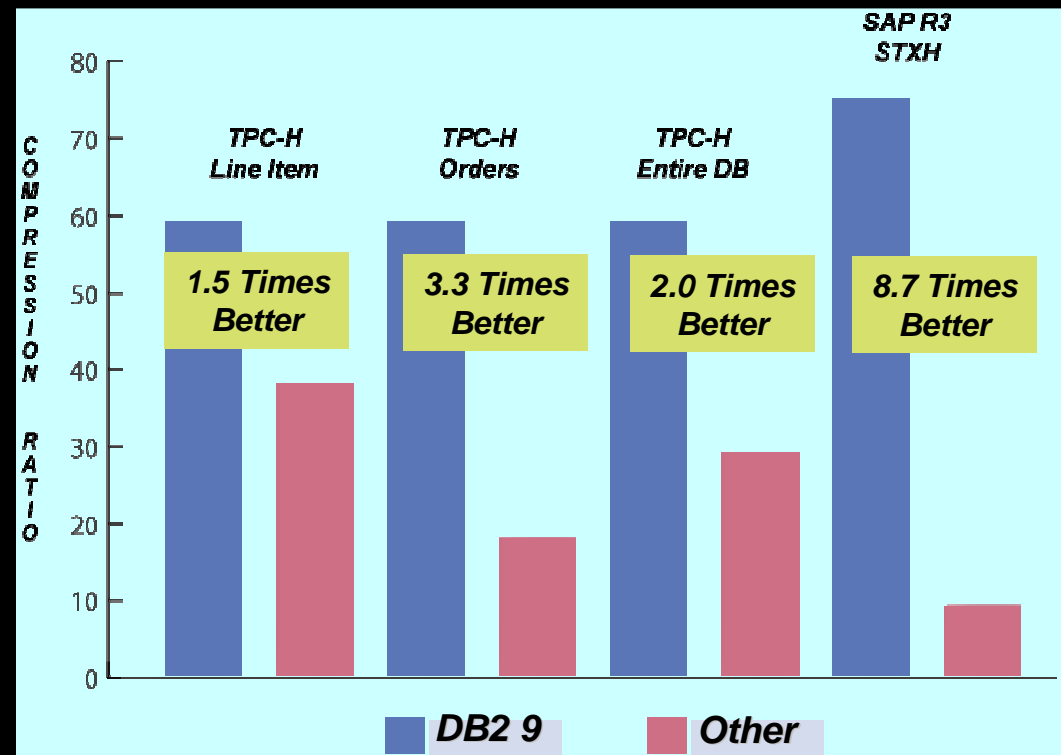
- Save 30% on storage costs compared to Oracle Database

### Improve performance

- Increase buffer pool hit ratios and decrease I/O

### Speed backup and recovery

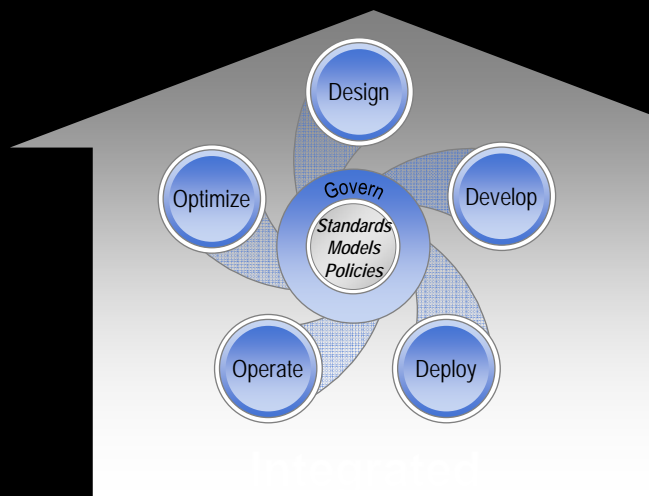
- Less storage means faster backup and recovery



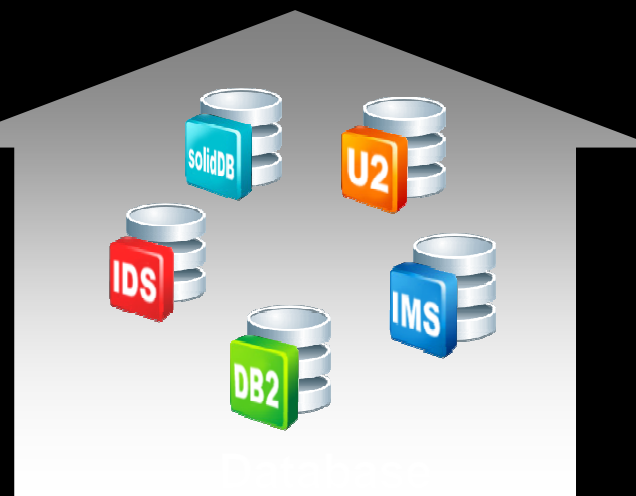
# IBM Data Management Software

Greater business value from your data faster and at lower cost

## Business Value!



Data Management



Innovations



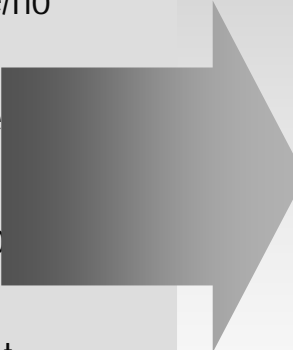
# Enterprise Content Management



## What is Needed?

### Evolving from traditional ECM to Agile ECM

#### Traditional ECM

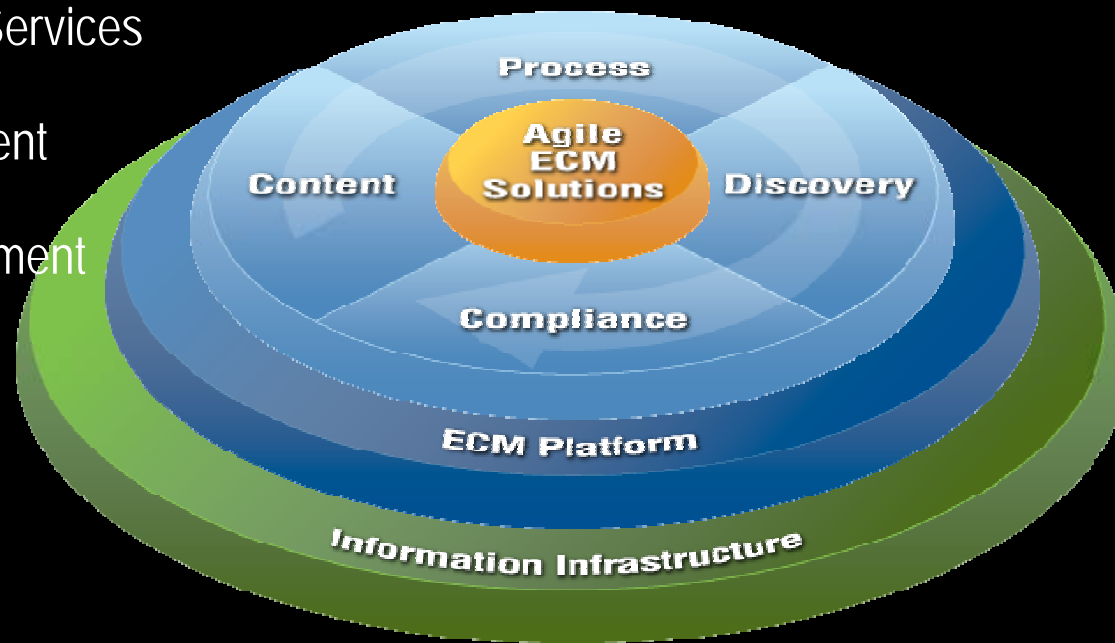
- Information locked in siloed repository-specific applications
  - Unfriendly / difficult / proprietary user experiences
  - Many specialized ECM products, little/no integration between them
  - ECM investments and solutions limit the scope of content management
  - Difficult, complex and protracted complex implementations
  - Lengthy development and deployment cycles
  - Content passively stored in repositories
  - Business processes maintained by IT almost exclusively
- 

#### Agile ECM

- **Standards-based** and **open** repositories and services that span multiple application and content types
- Familiar, **easy-to-use** frameworks, attractive and **flexible** experiences for any business user
- **Active content** brings content to life in critical business processes
- Powerful tools to derive **intelligence** from content for valued business use
- Business value **delivered rapidly** - in days instead of months
- **Collaborative** tooling empowers business users as process stake holders
- Support for a **proactive** and **prescriptive** compliant information management strategy

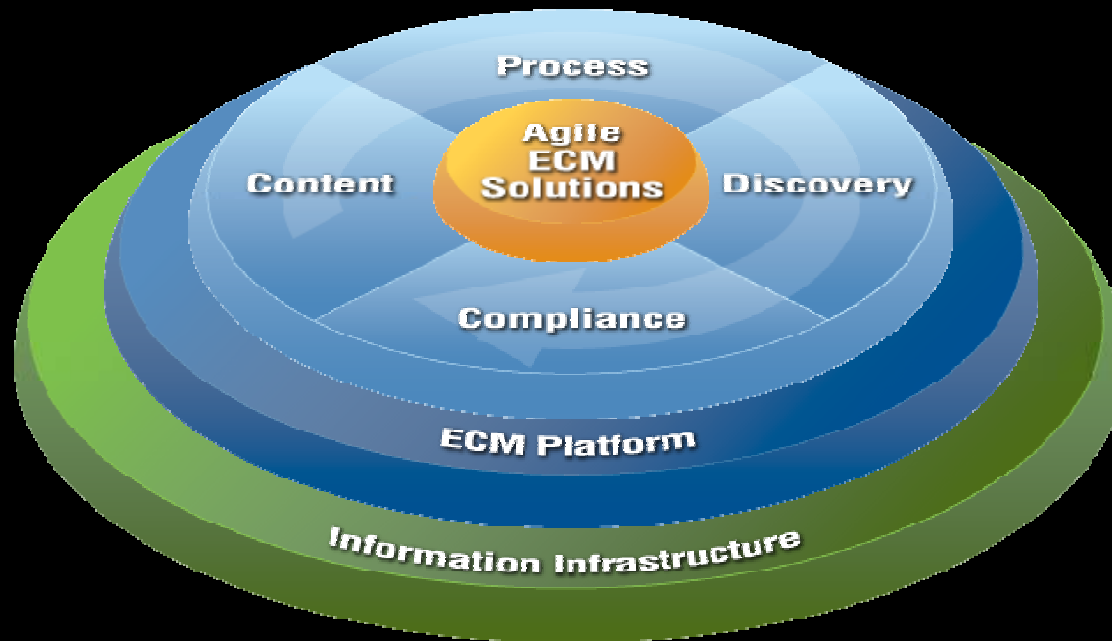
# Agile ECM: Content Management

- Business Content Services
- Transactional Content
- Document Management
- Content Integration

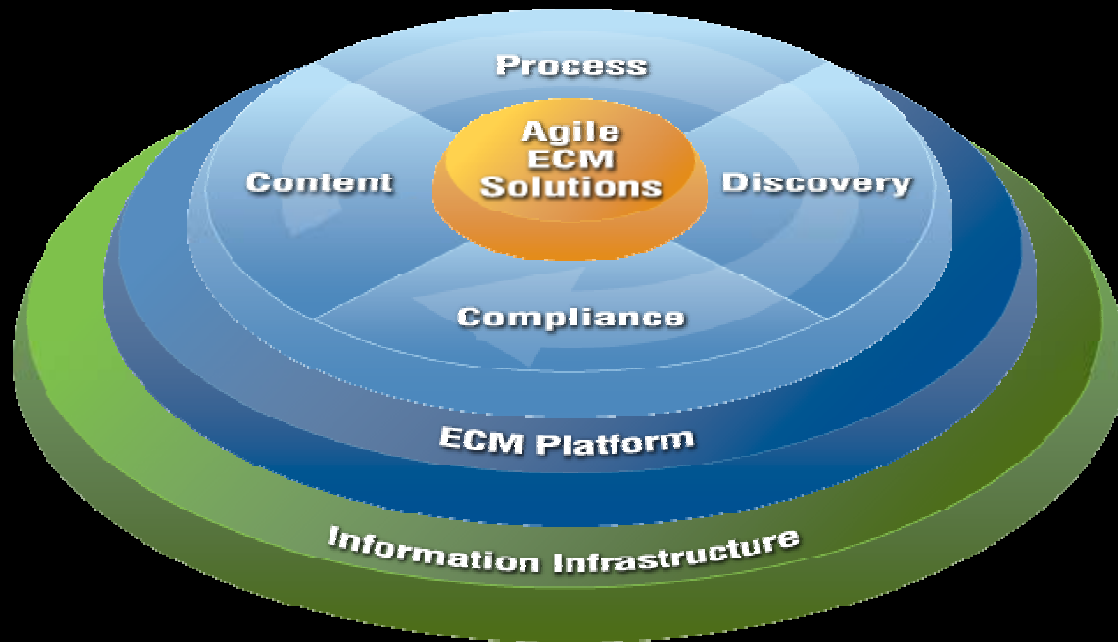


## Agile ECM: Content-centric BPM

- Design
- Simulate
- Execute
- Monitor
- Optimize

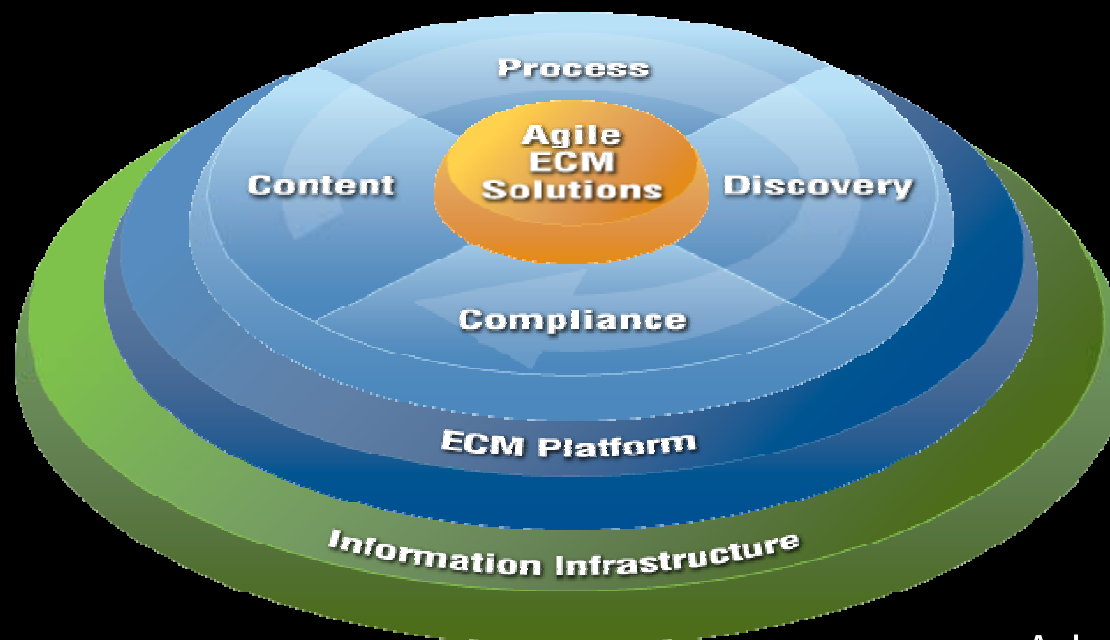


## Agile ECM: Information Access & Discovery



- Content Search & Access
- Content Classification
- Content Analytics & Insight

## Agile ECM: Compliance & eDiscovery



- Content Collection & Archiving
- SAP Archiving
- Advanced Classification
- Records Management
- eDiscovery Search & Analytics



# Enterprise Content Management

Software

Optimize content, process and compliance management

Optimize content-centric business processes

IBM FileNet BPM

Capture, manage & leverage your enterprise content

IBM FileNet Content Manager,  
IBM Content Manager,  
IBM Content Manager OnDemand



Create insight from unstructured information

IBM OmniFind Search & Content Analytics

Manage regulatory compliance

IBM Content Collection & Archiving, IBM Classification Module, IBM Records Management, IBM eDiscovery Search & Analytics

## Enterprise Content Management

Optimize content, process and compliance management

### Capabilities

- Eliminate paper-based, manual processes
- Automate content-centric processes to reduce processing lead times and errors
- Address compliance needs through an integrated content solution
- Increase business agility with greater control over enterprise content

### Business Value

- **Reduce costs** associated with paper records
- **Increase productivity** of employees in sales, billing, HR and scheduling by automating manual processes and reducing errors and exceptions
- **Reduce risk** by addressing information storage, auditability and retrieval needs from regulations



# Trusted Information Management

# Key Challenge is Unlocking the Value of Information

**Information  
Silos**

**Volume  
& Variety**

**Business  
Velocity**

**Enterprise  
Alignment**

**52%** of users  
**don't have  
confidence**  
in their information<sup>1</sup>

**59%** of managers  
**miss  
information**  
they should have used<sup>2</sup>

**42%** of managers  
**use wrong  
information**  
at least once a week<sup>2</sup>

<sup>1</sup>AIIM 2008 Survey

<sup>2</sup>Accenture 2007 Managers Survey

# Leaders Investing to Optimize Information Assets

Clients Tell Us What They Are Looking For ...



## Insightful

Comprehensive information management to drive new meaning from your data



## In Context

Real-time delivery of relevant information when and where it's needed



## Complete

Related information reconciled into a single and holistic view



## Accurate

Complex and disparate data transformed, cleansed and delivered



## The Value of Trusted Information

- 27x increase in speed to market
- 50% reduction in application development costs
- 45% increase in productivity, and 18 month ROI
- 10% improvement in on-time deliveries
- 2%-12% improvement in direct mail response

*Trusted Information*

*IBM Customer Studies - 2009*

# Trusted Information Across The Enterprise

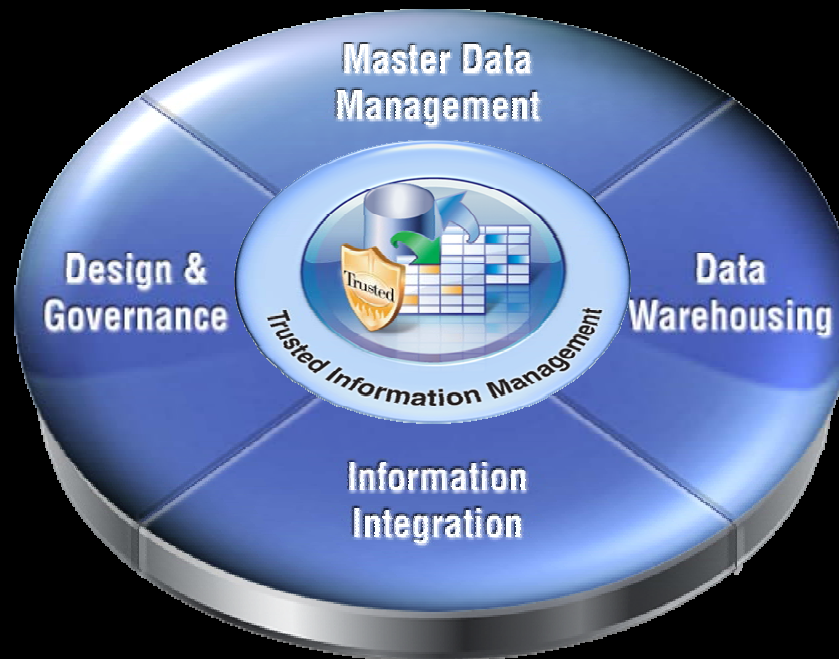
A Range Of Capabilities Are Needed

Get a single view of your business ...  
with Trusted Information

Delivered with IBM InfoSphere Master Data Management

Discover, design and  
govern your data ...  
for Trusted Information

Delivered with  
IBM InfoSphere  
Foundation Tools, IBM  
Industry Models



Deliver better business  
intelligence faster ...  
with Trusted Information

Delivered with IBM  
InfoSphere  
Warehouse

Consolidate your application infrastructure ...  
with Trusted Information

Delivered with IBM InfoSphere Information Server

# The InfoSphere Vision

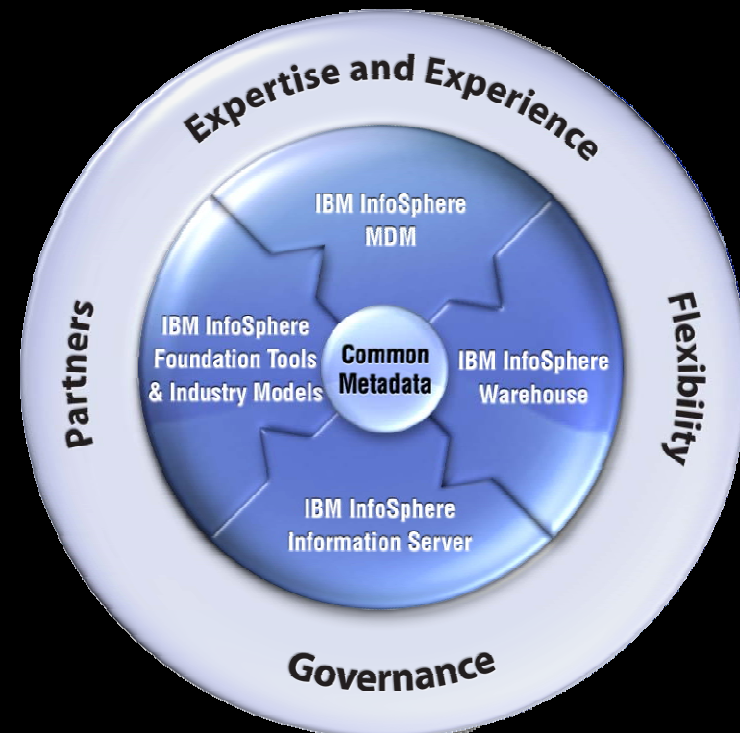
## *An Industry Unique Information Platform*

- Simplify the delivery of Trusted Information
- Accelerate client value
- Promote collaboration
- Mitigate risk
- Reduce costs
- Modular but integrated
- Scalable from project to enterprise

→ *Align Business & IT*

→ *Reduce Costs*

→ *Accelerate Value*



## InfoSphere Foundation Tools



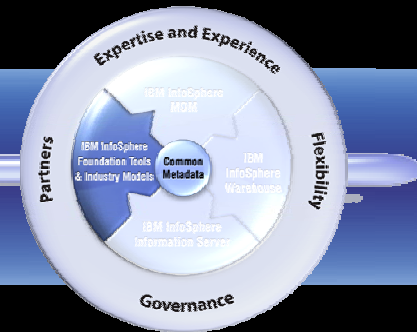
### *Discover, design and govern your data ... for Trusted Information*

- Enhance Business & IT Collaboration
  - Create, manage, and share an enterprise vocabulary
- Discover, understand and map your data
  - Gain a true understanding of your data sources
- Govern your information over time
  - Ensure information stays trusted, across the enterprise



*The complete capabilities to establish your Information Agenda*

## InfoSphere Foundation Tools



### The Facts:

- Increased statistical accuracy of research through a **four-fold increase in sample sizes**

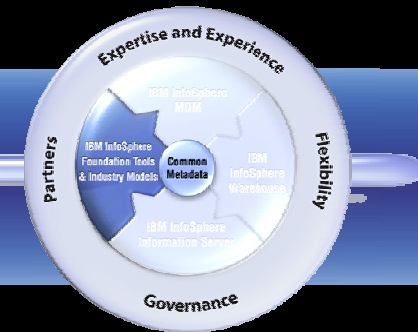
### Bottom line:

- Won 17 million AUD in project grants
- Won 2.2 million AUD in research grants









## InfoSphere Industry Models

InfoSphere  
Foundation  
Tools



### *Design your industry data structure and processes ... for Trusted Information*

- Business & IT Collaboration
  - Complete business templates provide industry content and KPIs
  - Key accelerators for business optimization & integration projects
- Integrated with information infrastructure
  - Accelerates Information Server & Cognos 8 BI

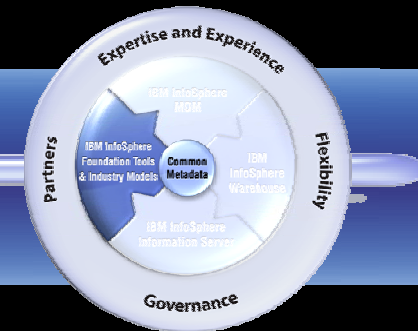
IBM Industry Models		
 <p><b>Banking</b> (Banking data warehouse)</p> <ul style="list-style-type: none"> <li>• Profitability</li> <li>• Relationship marketing</li> <li>• Risk management</li> <li>• Asset and liability management</li> <li>• Compliance</li> </ul>	 <p><b>Financial markets</b> (Financial markets data warehouse)</p> <ul style="list-style-type: none"> <li>• Risk management</li> <li>• Asset and liability management</li> <li>• Compliance</li> </ul>	 <p><b>Health plan</b> (Health plan data warehouse)</p> <ul style="list-style-type: none"> <li>• Claims</li> <li>• Medical management</li> <li>• Provider and network</li> <li>• Sales, marketing and membership</li> <li>• Financials</li> </ul>
 <p><b>Insurance</b> (Insurance information warehouse)</p> <ul style="list-style-type: none"> <li>• Customer centricity</li> <li>• Claims</li> <li>• Intermediary performance</li> <li>• Compliance</li> <li>• Risk management</li> </ul>	 <p><b>Retail</b> (Retail data warehouse)</p> <ul style="list-style-type: none"> <li>• Customer centricity</li> <li>• Merchandising management</li> <li>• Store operations and product management</li> <li>• Supply chain management</li> <li>• Compliance</li> </ul>	 <p><b>Telco</b> (Telecommunications data warehouse)</p> <ul style="list-style-type: none"> <li>• Churn management</li> <li>• Relationship management and segmentation</li> <li>• Sales and marketing</li> <li>• Service quality and product lifecycle</li> <li>• Usage profile</li> </ul>

*Industry expertise and best practices*



## InfoSphere Industry Models

InfoSphere  
Foundation  
Tools



### The Facts:

- Leveraged reusable information and business processes to shorten development time and minimize errors

### Bottom line:

- Reduced administrative and development costs
- Accelerated decisions to be more competitive in 12 countries

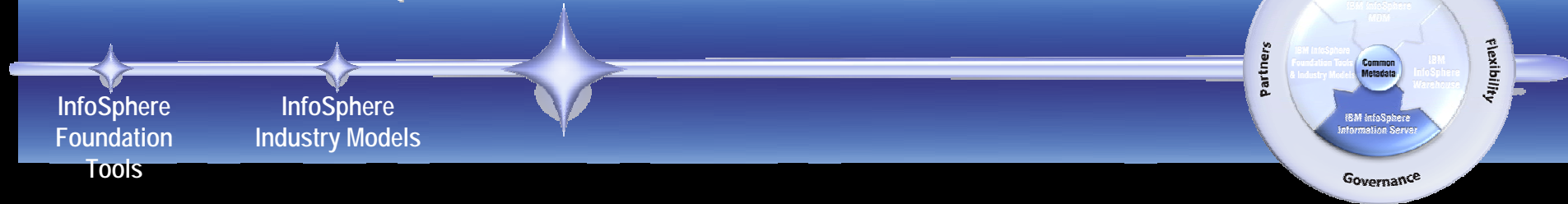


*"IBM IAA makes business users—such as underwriters and analysts—more efficient. It only takes a day to train the average business worker to navigate through IBM IAA to understand their own data and process requirements. This is a superb development, because it means that our lines of business can communicate more effectively with IT—which in turn can create and provision business solutions far faster than before."*

— Shannon Murphy, Chief Technology Officer,  
ING Insurance Asia Pacific

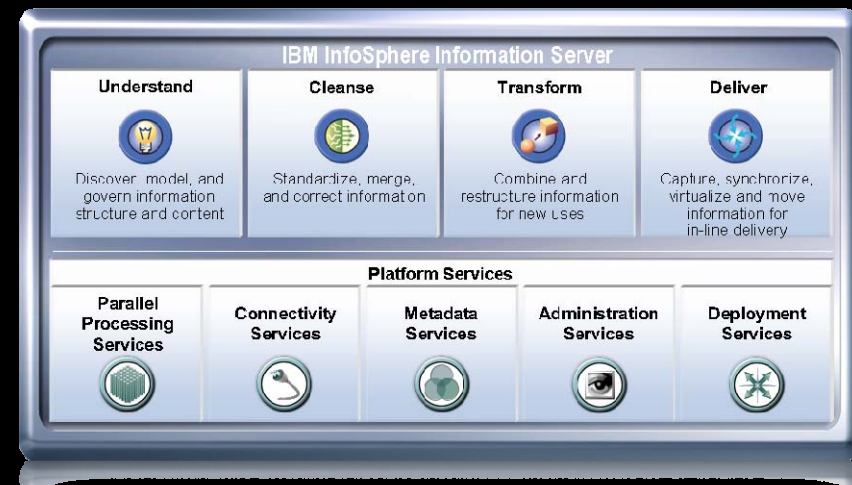


## InfoSphere Information Server



### **Consolidate your application infrastructure ... with Trusted Information**

- Accelerate data integration projects
  - Metadata-driven design
  - Business - IT alignment
- Leverage Existing Resources
  - Broad native connectivity
- Architected for Growth
  - Massive scalability
  - Parallel processing



*Full range of capabilities to make information  
Trusted across heterogeneous systems*

## InfoSphere Information Server



InfoSphere  
Foundation  
Tools

InfoSphere  
Industry Models

## IBM InfoSphere Information Server

### Unified Deployment

#### Understand



Discover, model, and govern information structure and content

#### Cleanse



Standardize, merge, and correct information

#### Transform



Combine and restructure information for new uses

#### Deliver



Synchronize, virtualize and move information for in-line delivery

### Unified Metadata Management

Parallel Processing

Rich Connectivity to Applications, Data, and Content

## InfoSphere Information Server



InfoSphere  
Foundation  
Tools

InfoSphere  
Industry Models

## IBM InfoSphere Information Server

### Unified Deployment

#### Understand



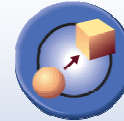
Discover, model, and govern information structure and content

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Standardize, merge, and correct information

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Combine and restructure information for new uses

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Replicate, virtualize and move information for in-line delivery

### Unified Metadata Management



Parallel Processing



Rich Connectivity to Applications, Data, and Content

## InfoSphere Information Server



InfoSphere  
Foundation  
Tools

InfoSphere  
Industry Models

## IBM InfoSphere Information Server

### Unified Deployment

*Information Services Director*

#### Understand



*Information Analyzer  
Business Glossary  
Industry Models*

#### Cleanse



*Quality Stage  
Address Verification  
Global Name Recognition*

#### Transform



*Data Stage  
Fast Track  
Balanced Optimization*

#### Deliver



*Federation Server  
Replication Server  
Changed Data Capture*

*Metadata Server*

**Unified Metadata Management**

*Metadata Workbench*

Parallel Processing

Rich Connectivity to Applications, Data, and Content

# Leveraging Information for Smarter Business Outcomes



## InfoSphere Information Server

InfoSphere  
Foundation  
Tools

InfoSphere  
Industry Models



**Business  
Users**



**Subject Matter  
Experts**



**Architects**



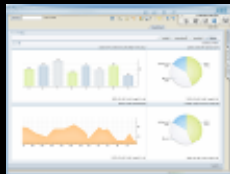
**Data  
Analysts**



**Developers**



**DBAs**



### Unified Metadata Management



**Design    Operational**

- *Simplify Integration*
- *Increase trust and confidence in information*
- *Facilitate change management & reuse*
- *Increase compliance to standards*

## InfoSphere Information Server

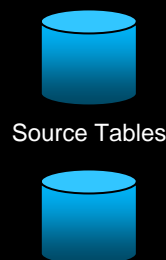


InfoSphere  
Foundation  
Tools

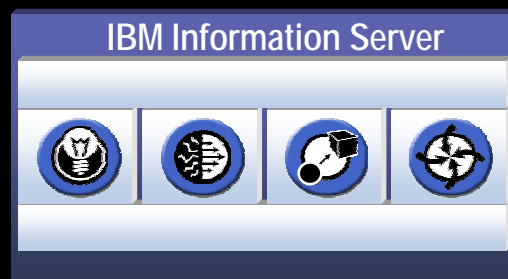
InfoSphere  
Industry Models

### End-to-End Data Lineage with Cognos

- Import & Browse Full BI Report Metadata
- Navigate through report attributes
- Visually navigate through data lineage across tools
- Increases trust and understanding of business information

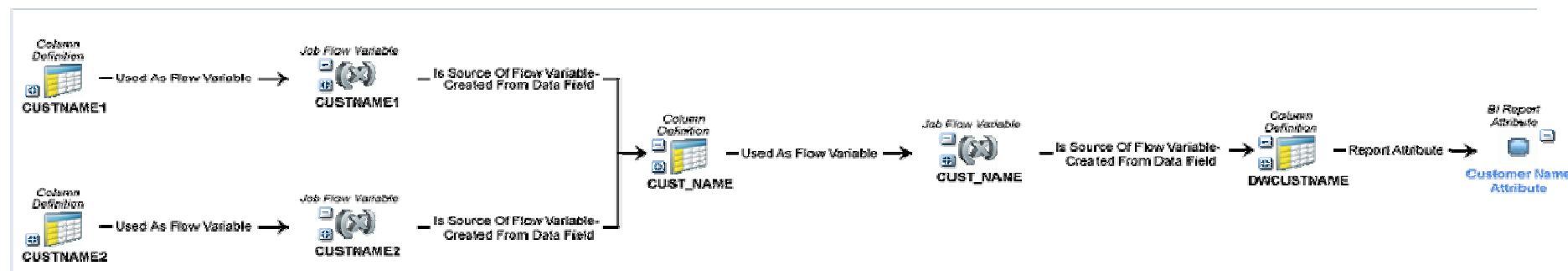


Source Tables



**Cognos.**  
software

Data Movement for: Customer Name Attribute





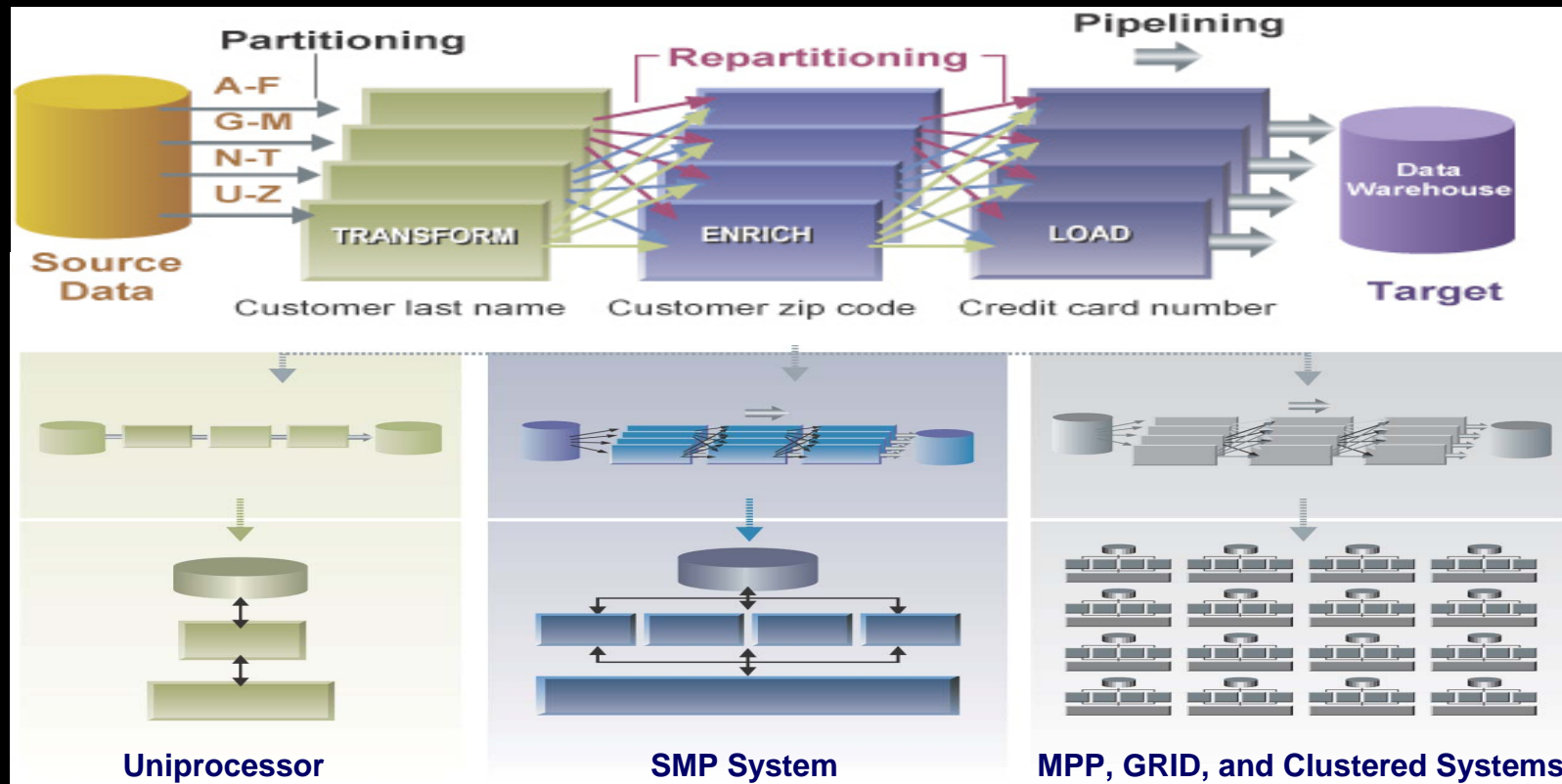
## InfoSphere Information Server

InfoSphere  
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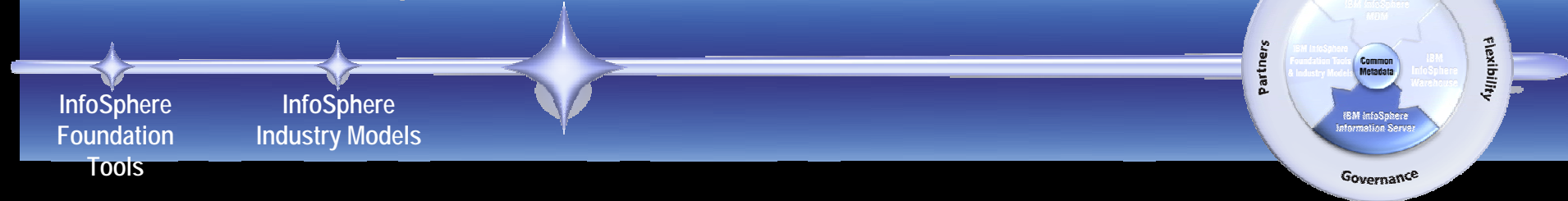
InfoSphere  
Industry Models



### Parallel Processing for linear scalability



## InfoSphere Information Server



### The Facts:

- **45% increase** in workforce productivity
- **18 month ROI**

### Bottom line:

- Project live in only **9 months**
- Information modeling reduced from **2 ½ months to 2 weeks**





## InfoSphere Warehouse



**IBM Information Server Blade: Quickly, easily and with a great ROI!**



*Deeply optimized by IBM experts*

*Flexible growth to meet changing business needs*

### **A Simplified Grid Development!**

- IBM HS21 BladeCenter
- Red Hat Linux 4
- DataStage and QualityStage Pre-loaded, pre-optimized, configured, tested and optimized
- Parallel engine infrastructure and Metadata Server

### **Grid Infrastructure Software (resource management):**

- Tivoli Workload Schedule LoadLeveler

### **Completely expandable in single blade increments**

- Can run additional operating systems
- Can run additional applications

## InfoSphere Warehouse



### ***Deliver better business intelligence faster ... with Trusted Information***

- Combining software, hardware and services, IBM expands warehousing offerings with new IBM Smart Analytics System
- Unified, powerful data warehouse foundation
  - Advanced partitioning, data mining, retention & cubing features
- Flexible environment
  - Optimized performance for operational & transactional use
  - As big or as small as your business needs



*Powerful, real time analytics for both structured and unstructured information*

## InfoSphere Warehouse



### The Facts:

- **10,000 to 15,000 queries** per day
- **15 trillion rows** read from warehouse each week

### Bottom line:

- Query times reduced from days and weeks to **less than 3 minutes**
- Warehouse has grown **from 2.5 TB to 24 TB** with zero impact on performance

## INGENIX



## InfoSphere Warehouse



### **IBM Smart Analytics System: Delivering results in days instead of months!**

*Deeply optimized by IBM experts*

*Flexible growth to meet changing business needs*

#### **Analytics Software Options**

- Business Intelligence capabilities
- Cubing Services
- Text Analytics & Data Mining

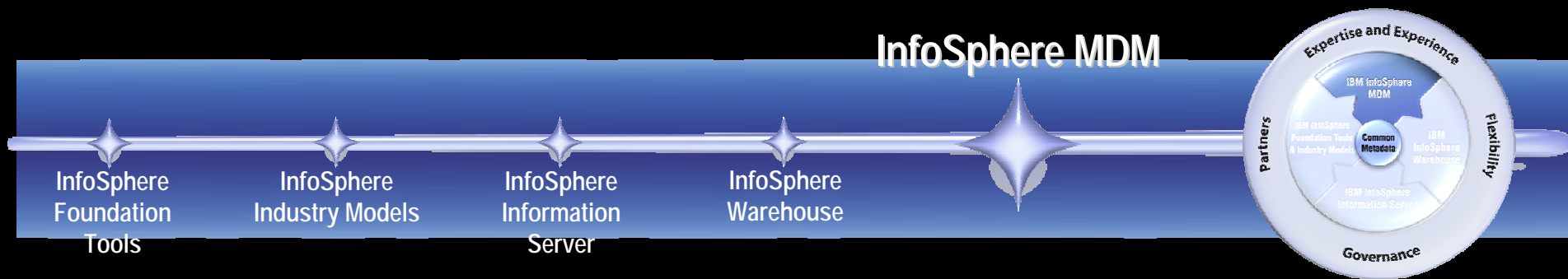
#### **Powerful Data Warehouse**

- Warehousing Platform
- Advanced Workload Management
- System Automation

#### **Hardware & Services**

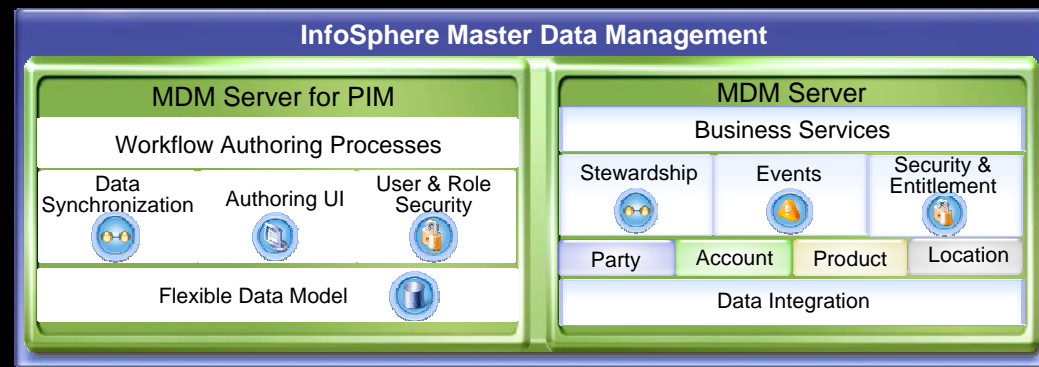
- Server Platform
- Storage capacity
- Build, Deploy, Health Check & Premium Support Services





## Get a single view of your business ... with Trusted Information

- Meets Business Needs
  - Addresses multiple data domains – customer, product, location
  - Functionality across the full spectrum of use cases
- Flexible Deployment
  - MDM functionality supported with User Interfaces, Workflow, Business Services
  - Scales as MDM needs evolve



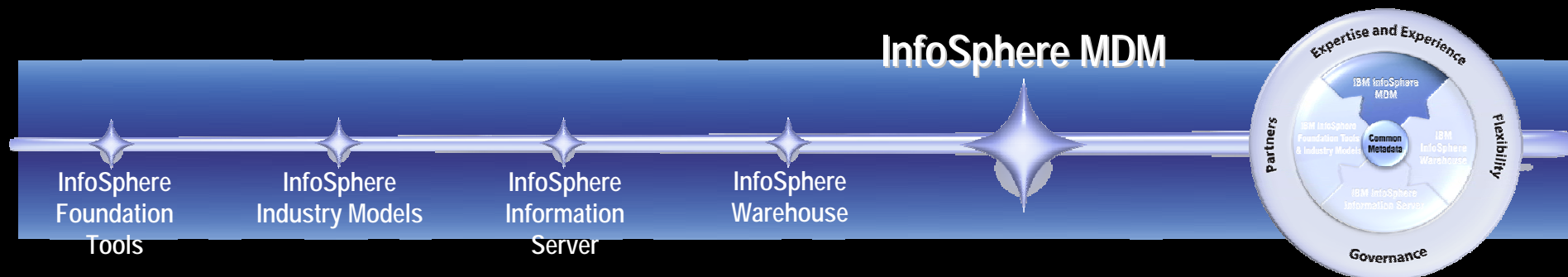
*Providing end-to-end master data management*



# Leveraging Information for Smarter Business Outcomes



## InfoSphere MDM



### The Facts:

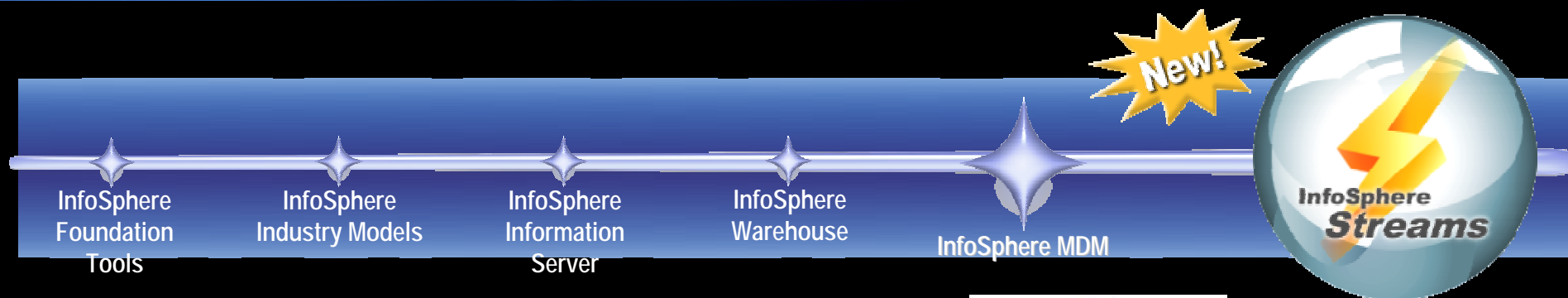
- Create and maintain product information **10% faster**
- Data entry errors reduced **from 5% to 0.1%**

### Bottom line:

- Anticipated operational **savings of €5 million** annually
- Partners **reduce costs by 25%**
- Two additional weeks of sales for new products leading to **3.5% increase** in

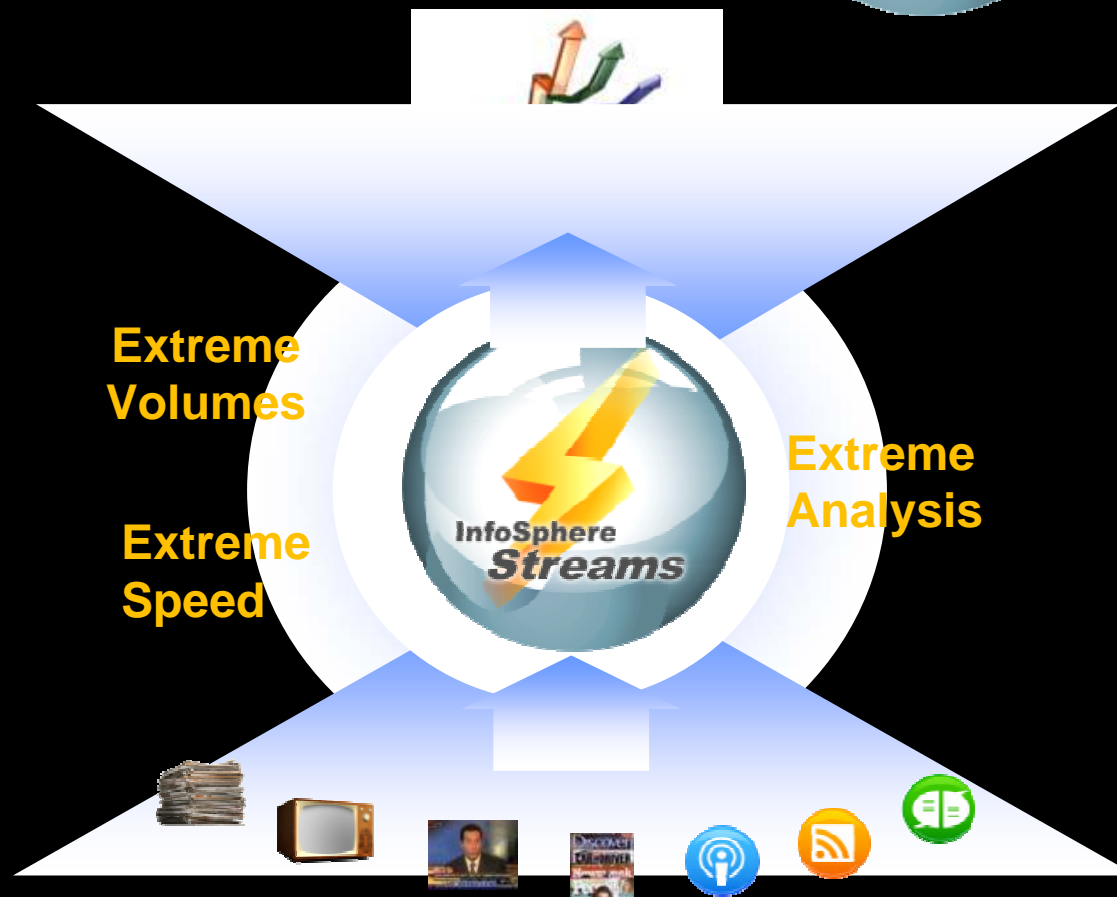
# Panasonic



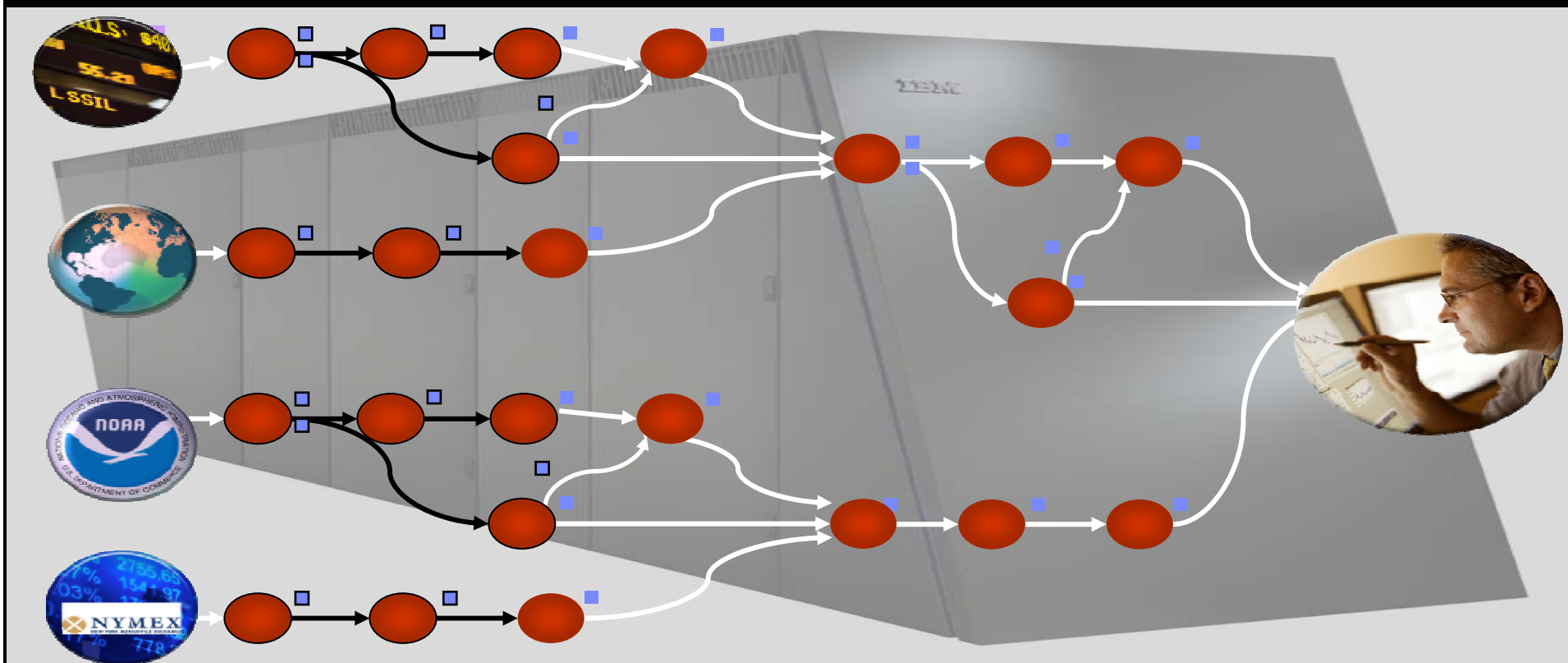


## What is Stream Processing?

- Extreme Computing for Extreme volumes and speeds
- Analysis of information in motion in real time to improve business response
- Stream Computing is an extreme evolution in data analytics



# Leveraging Information for Smarter Business Outcomes

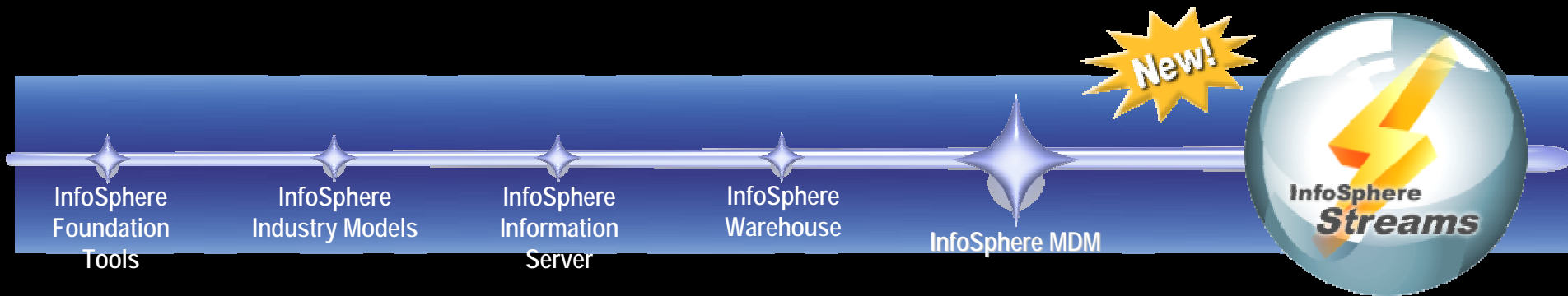


→ Continuous Ingestion

→ Continuous Complex Analysis in Microseconds



# Leveraging Information for Smarter Business Outcomes



## Law Enforcement and Security

Detect & respond to illicit activity based on analysis of large volumes of structured and unstructured information



## Trading Advantage

Sub-millisecond identification of and response to opportunities in real-time market data



## Healthcare – Neonatal ICU

Correlate information from multiple monitors to detect illnesses 6 to 24 hours earlier



## Radar Astronomy/Satellites

Correlate Satellite information to monitor radio sky for pulsars or to detect transient information such as cosmic ray showers



# The Value of Synergy - You Have a Choice...

## Point Products

? + TRILLIUM SOFTWARE + INFORMATICA + siperian + ORACLE + Business Objects + ?

Models	Cleansing	ETL	MDM	Warehouse	BI	Mashups
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IBM® + IBM® + IBM® + IBM® + IBM® + IBM® + IBM®

## Integrated Platform



## The Bottom Line

*Platform synergy has delivered over 50% reduction in project deployment times*

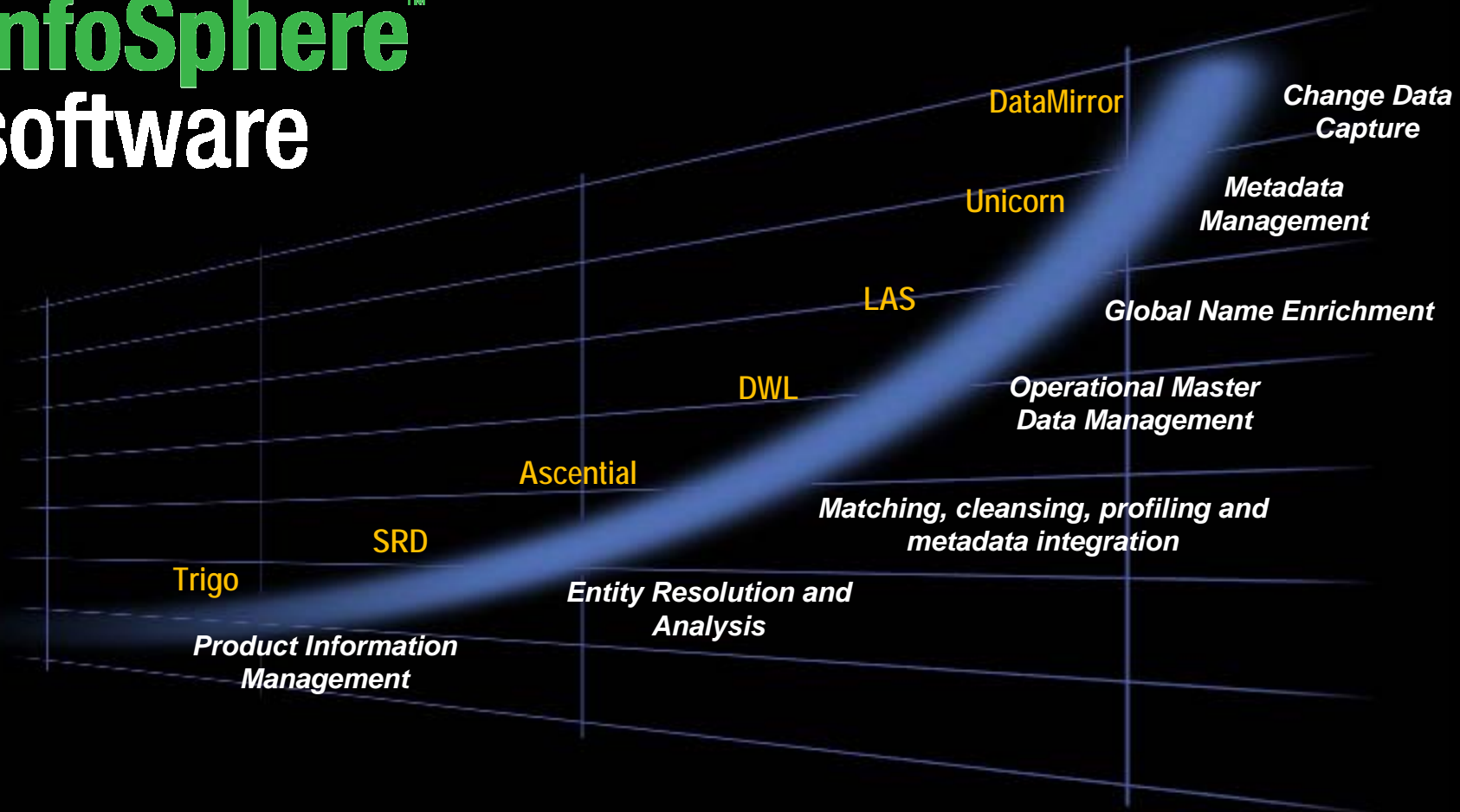
### Unified Platform Benefits:

- Decreased risk by 53%
- Improved business alignment by 83%
- Improve time to value by 75%
- Reduce project staffing by 90%

*IBM Customer Studies - 2009*

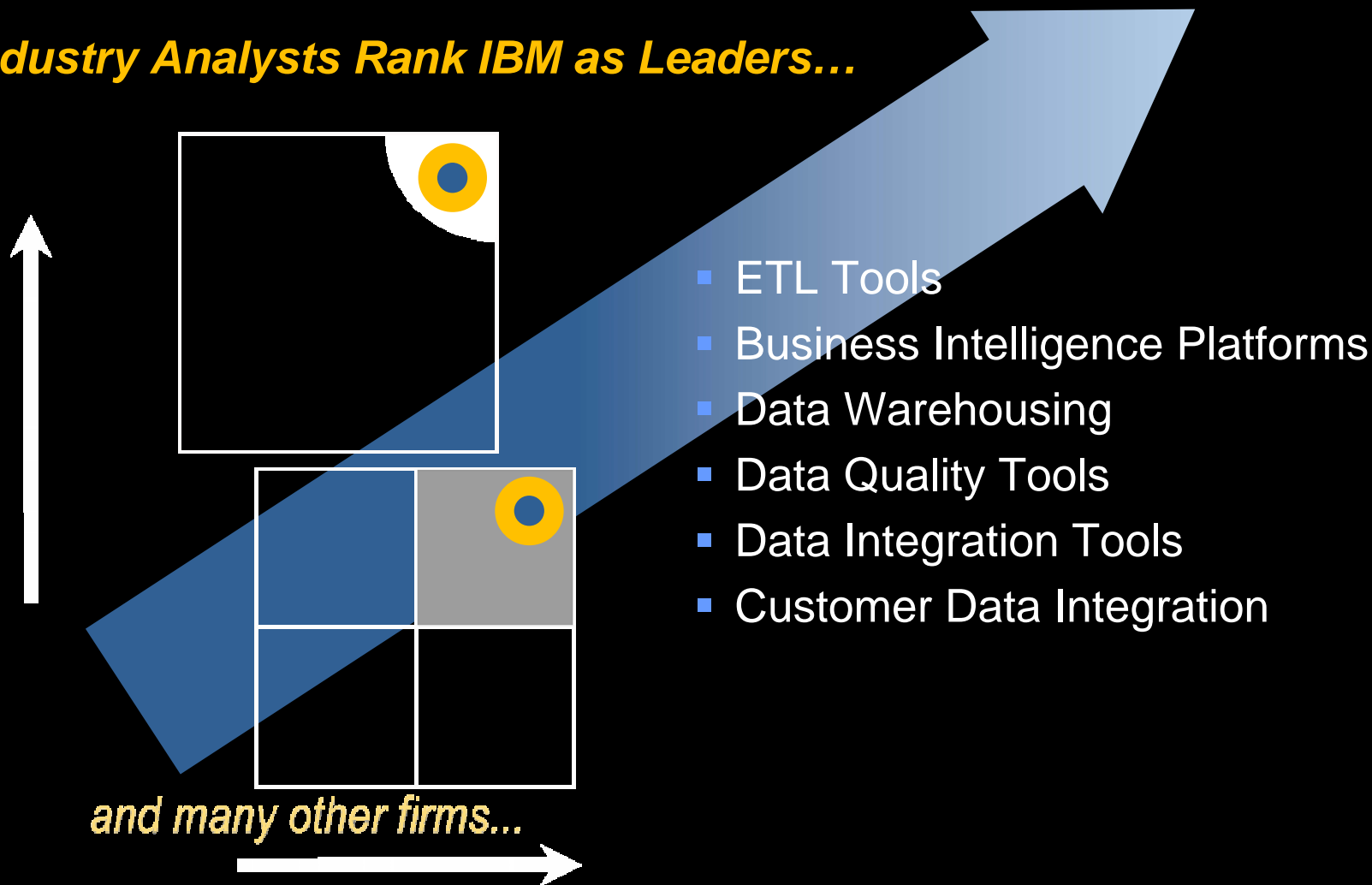
# The InfoSphere Software Evolution

# InfoSphere<sup>TM</sup> software

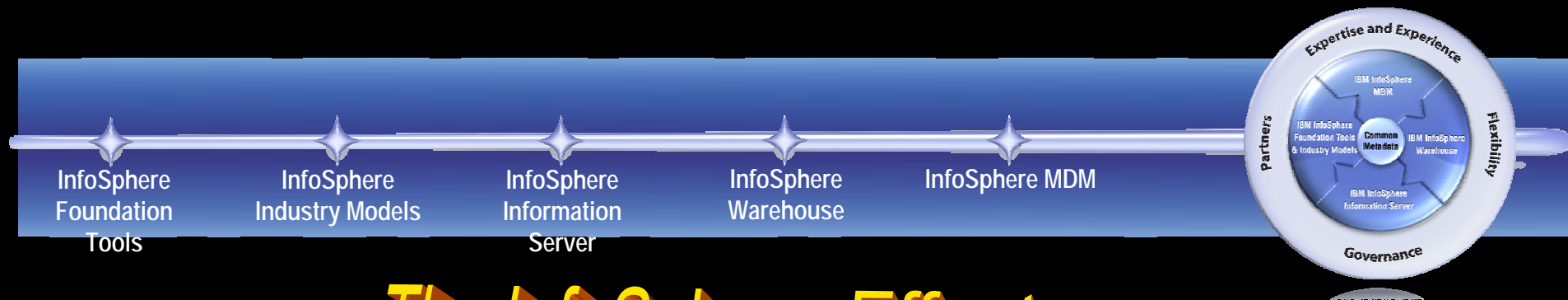


## No Compromises

*Industry Analysts Rank IBM as Leaders...*



*and many other firms...*



## The InfoSphere Effect

- The InfoSphere portfolio addresses the majority of requirements companies face in managing their information
- There is no more integrated portfolio on the market
- IBM has the only portfolio which also leads in each and every category
- IBM invests \$1B each year on this portfolio and its integration
- By choosing a more complete InfoSphere solution, organizations can reduce their risk & improve time to value and ROI

**Leading The Market In Innovation**

**Accelerate Value  
Total Flexibility  
Align and Simplify**

**IBM Information**  
On Demand **2009**  
>>> Comes To You



# Thank You!

**Informix. DB2.**

Integrated  
Data  
Management

**InfoSphere™**

Trusted  
Information

**FileNet.**

Optimized  
Content,  
Processes,  
& Compliance

**Cognos.**

Optimized  
Business  
Performance