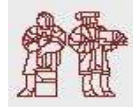


LEAN AND AGILE ENTERPRISE INFORMATION MANAGEMENT

Niels Weigel

SAP AG

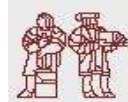
niels.weigel@sap.com



Objectives of this presentation

- **Traditional evolution of Enterprise Information Management**
 - **Provide a quick overview on evolution of EIM**
- **External influence on the market and customers reactions**
 - **Changes due to the Financial Crisis, how market responds**
- **Meeting current demands and expectations**
 - **How SAP looks at a Lean and Agile Enterprise Information Management**

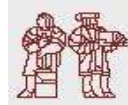
“Beyond Accuracy, Cleansing and ETL”



“The majority of small data quality software vendors will be acquired by bigger players within the next years”, 2004



Date	Acquisition of	Segment	Buyer
05/2000	Data Flux	Data Quality	SAS
03/2002	Vality	Data Cleansing	Ascential
03/2004	Avellino	Data Profiling	Harte-Hanks Trillium
07/2004	Evoke	Data Profiling	CSI
08/2004	Group1	Data Quality	Pitney Bowes
06/2005	Ascential	DQ / DI	IBM
04/2006	Firstlogic	Data Quality / Data Profiling	Business Objects
07/2005	CSI	Data Profiling	Similarity Systems
01/2006	Similarity Systems	Data Quality / Data Profiling	Informatica
09/2007	FUZZY! Informatik	Data Quality / Data Profiling	Business Objects
10/2007	Business Objects	BI / EIM	SAP
06/2009	AddressDoctor	Address Cleansing	Informatica



Was this kind of intuition?



IQ at MIT
MITIQ program
IQ Certification
Exec IQ Course
UCB-ICIQ Workshop
ICIQ Conference
TDQM Program
Publications
FAQs
News
Sponsors

Information Quality (IQ) Proj

[MIT](#) > [IQ at MIT](#) > Publications > Books * Papers * IQ

Selected IQ-1 Completed Projects - Nov 2003 partic

Frank Ponzio

Authoritative Data Source (ADS) Framework

Niels Weigel & Joachim Schmid

DQ Quality Assessment on Business Partner Data in a SAP environment

Dr. Marcus Gebauer

Cross-department solving of data quality weaknesses

Karolyn Kerr

The Development of a Data Quality Framework and Strategy for the New Zealand Ministry of Health

Selected IQ-1 Projects Proposal - May 2003 participants

Robert Zerby

Improving Quality in Information Product Manufacturing: A Financial Services Company Ca

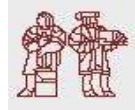
Data quality assessment on business partner data in a SAP environment

Niels Weigel (niels.weigel@fazi.de)
Joachim Schmid (joachim.schmid@fazi.de)

FUZZY! Informatik AG,
Eglosheimer Strasse 40, 71636 Ludwigsburg,
GERMANY

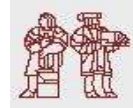
Description of the project

In a recent survey by PWC managers cite data quality as a major reason that 88% of CRM, e-business and system migration projects fail to deliver on time and within budget. Even inside existing and long running CRM systems one can not be sure that all information stored in the database are completely "fit for use". For that reason one of our customers decided to start a project for data quality assessment. During the data quality



Challenges and surrounding conditions that make ideal world tough?

ENTERPRISE INFORMATION MANAGEMENT



NO INSIGHT – Can we trust our data?

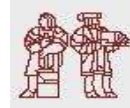
Rule of the thumb

I guess something like 200 or 250, roughly.

“Our primary target is in retail, how many accounts does that represent in EMEA?”

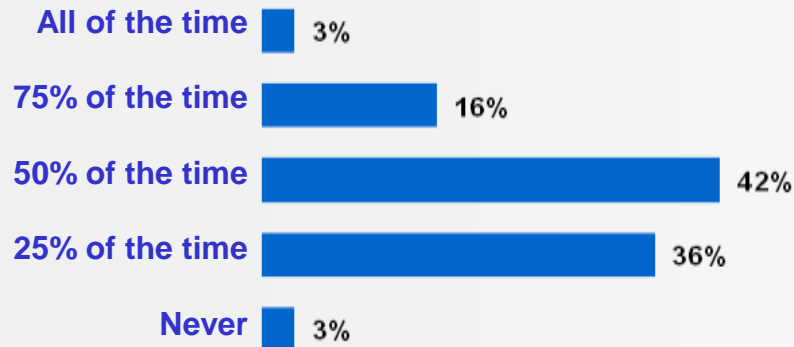
Let’s be conservative, say 200 and we move on.

Instinct feel decision



How do we do without Insight?

‘Instinct-Feel’ Decisions



“Guts feel”

> 60% of people

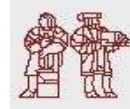
➤ 50% of the time

Aware of bad decisions made due to insufficient information



77% aware of bad decisions





LOST PRODUCTIVITY – Do we have necessary data available at the fingertip?

I'll ask Bob to send me their spreadsheet, it should contain some of the info we need and I'll see if I can collate the rest

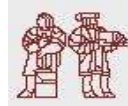
Ok, but we'll have to take this offline

Time to execution

Delays

"No, we need the data!

I want to know the number of accounts, by country along with revenue and market share for the past 3 years."



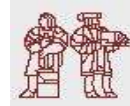
INCREASED COST – Are we working efficient?



Lack of responsiveness

“We don’t have too much time, competition is on our tail. Ask the IT to pull out this report for us asap. And let’s reschedule this meeting for next week. Thanks”

Increased costs



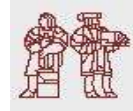
Effects of Inadequate Access to Information

What is the impact on you and your company of inadequate access to the information you need to get your job done?
(Choose the top three)



**Lost productivity is #1
impact of inadequate
access to information**

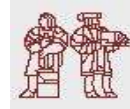
**Need for responsiveness
causes much higher
costs in environment not
meant to be agile by
design.**



Business strategies evolve ... but silos create gap between strategy and execution

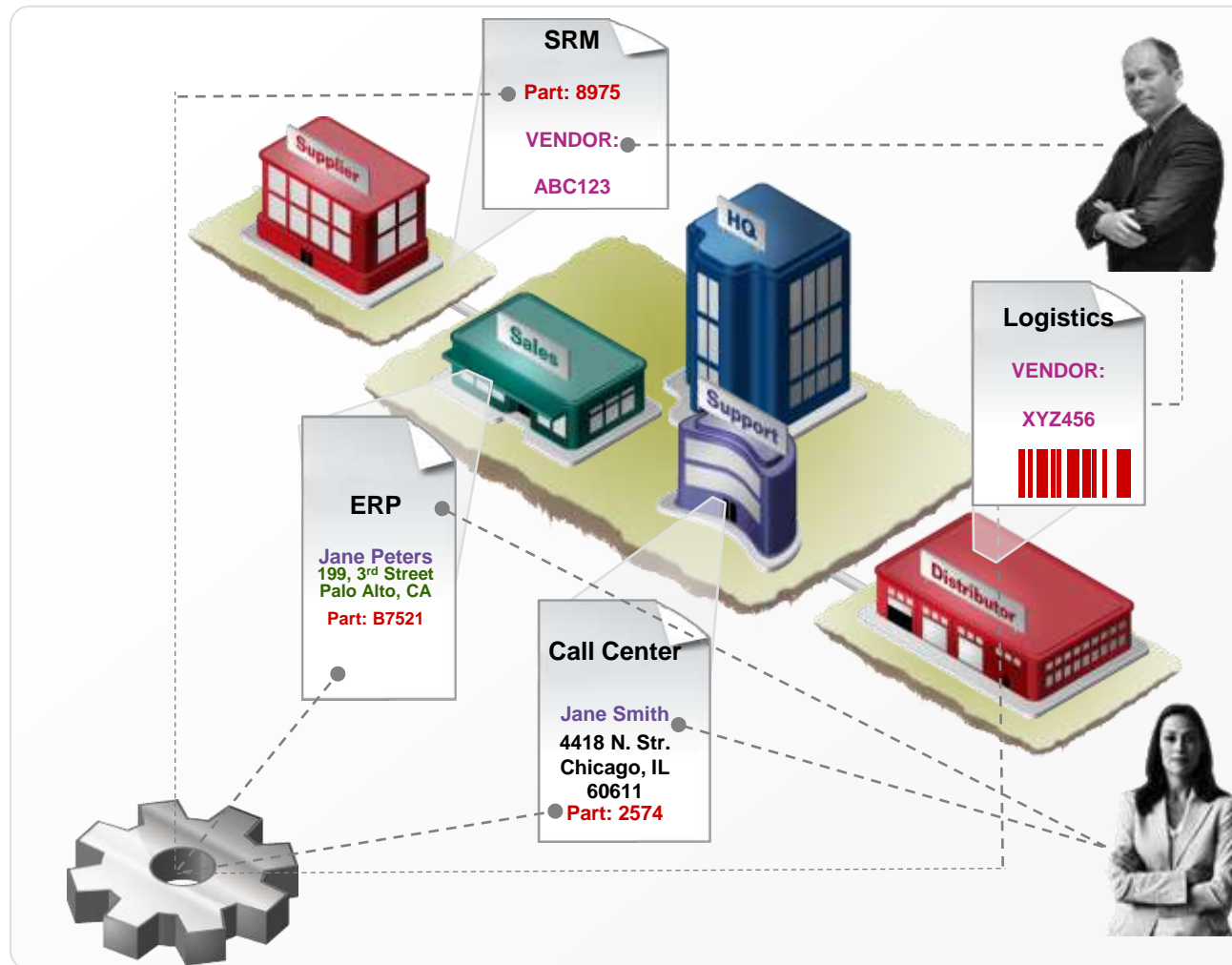


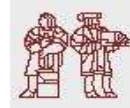
Functional silos and non-integrated systems reduce agility and undermine growth



Complex processes create separated silos of Master Data

YOUR VALUE CHAIN





IT Departments are drowning in complexity



Non-compliant

- Lack of governance
- Not meeting global or local compliance requirements



PACKAGING
SUPPLIERS



MANUFACTURING



CORPORATE
HQ



DISTRIBUTION
CENTERS



Expensive

- Maintain data silos
- Additional costs associated with bad data



RAW MATERIAL
SUPPLIERS



Inflexible

- Not able to share forecast or planning data with supplier / business partner



CUSTOMER



CUSTOMER



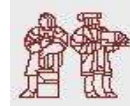
Incomplete

- Lack of single view
- Unable to analyze key business metrics



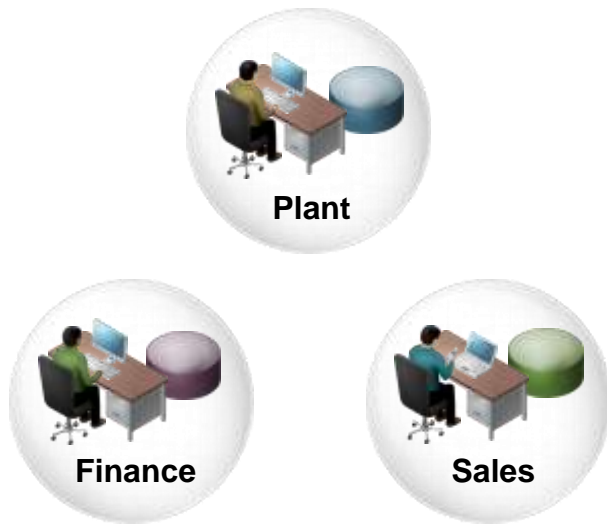
Out of context

- Information not available in context needed for decision



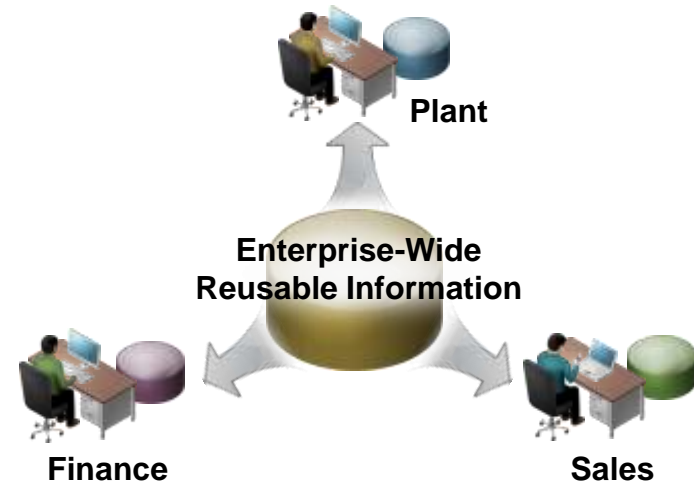
Establish EIM strategy to manage fragmented information

Information Managed in Silos

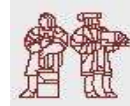


- Each department creates and stores their own data
- Data inconsistencies and errors impact organizational results
- Information management rework and redundancies escalates IT costs

Enterprise Information Management



- Formal enterprise-wide information architecture, governance, and reuse
- Information asset readily available, understood, useful and trusted for all users



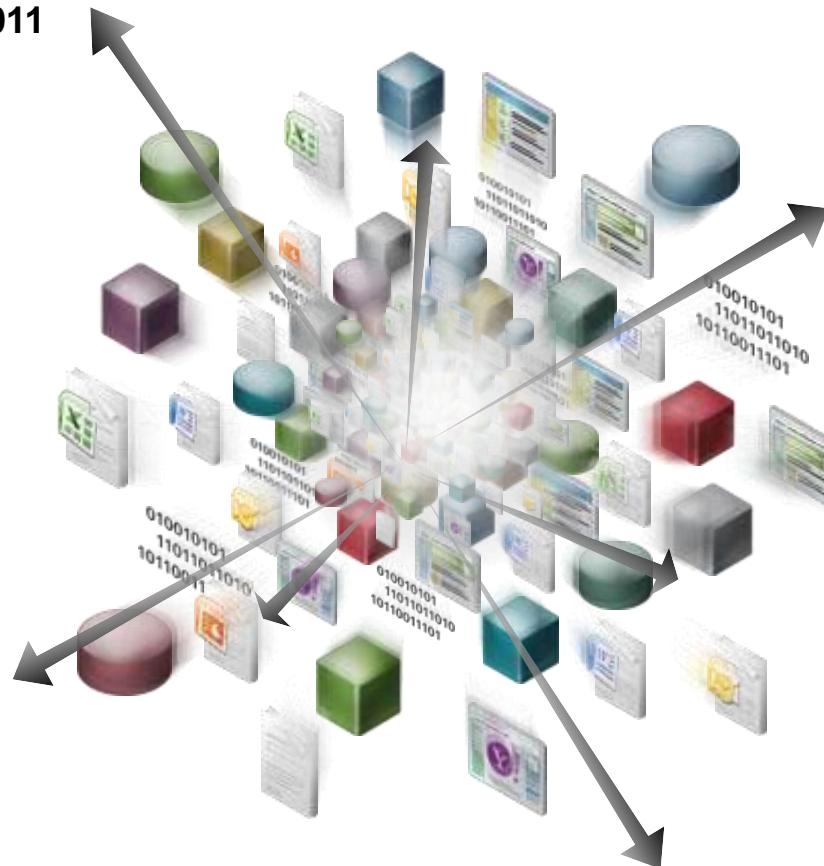
Data Explosion: A Natural Result of Modern Societies, Businesses and the Internet

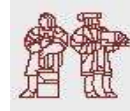
10X data
growth 2006 - 2011

**281 billion
gigabytes**
of digital data created in
2007

93% data
stored in digital form

**Business IP traffic
grows by 35%**
2007 to 2012

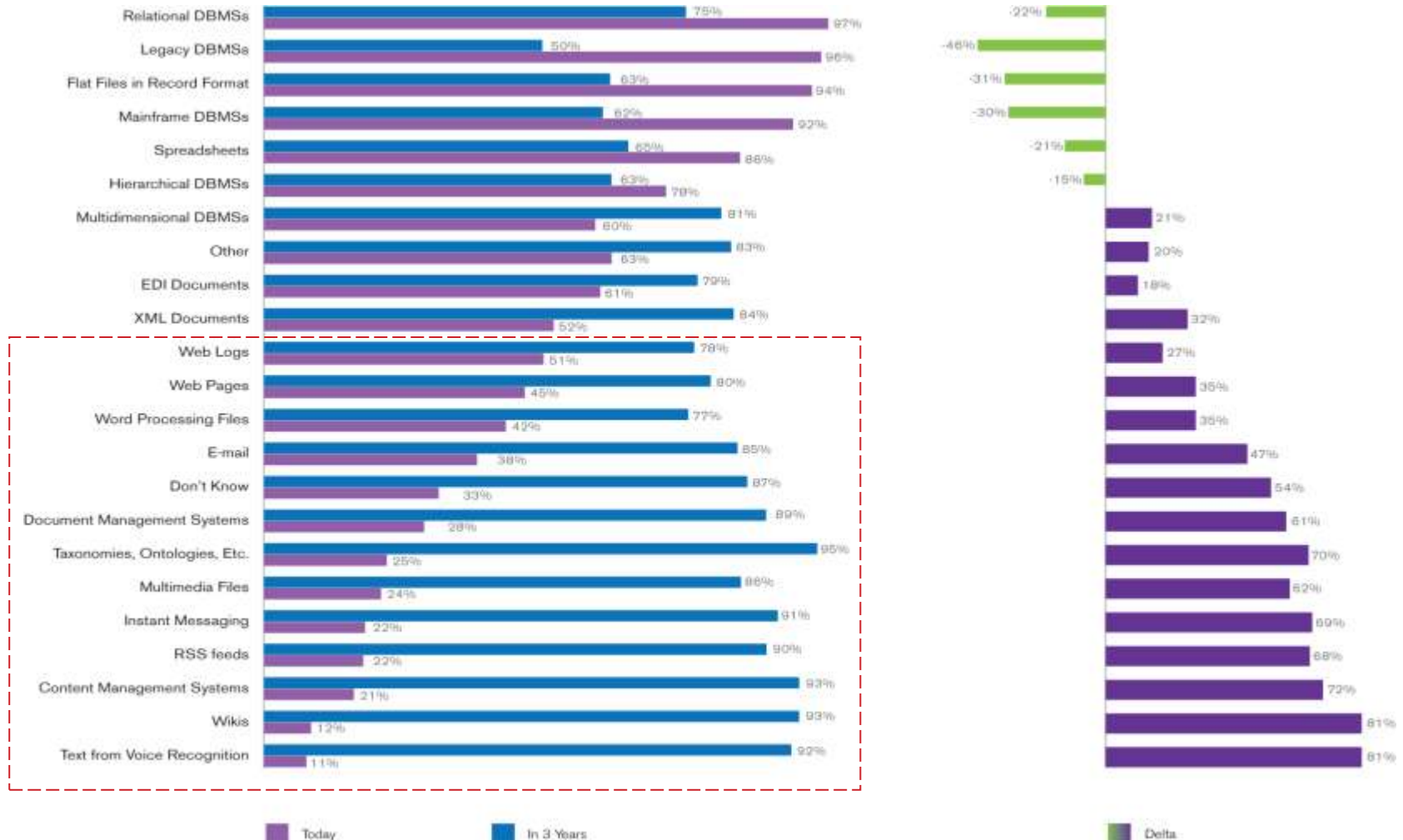


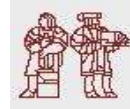


Increasing demand: Need for Access to all type of data

STRUCTURED

UNSTRUCTURED





Automatically analyze unstructured content

http://cdi6boe:3000/support/edit/596 - Windows Internet Explorer

http://cdi6boe:3000/support/edit/596

OFFICE SUPPLIES } THE BEST

HOME PAGE ABOUT

Customer Support

customer satisfaction
is priority #1
at Office Supplies
learn more

Date: 2008 May 18 07:11

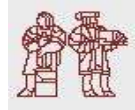
Severity: Critical Status: Open

Comment:
Thank you for your recent shipment. I am facing big problems with some of your products. The shelf labels tear too easily, and my customers return them. Can I get a replacement? This is urgent, please contact me asap. This is Julie at Sapphire.

Update

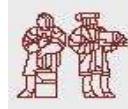
Thank you for your recent shipment. I am facing big problems with some of your products. The shelf labels tear too easily, and my customers return them. Can I get a replacement? **This is urgent, please contact me asap.** This is Julie at Sapphire.

Urgency



A tool, a project, a change process, ...?

ENTERPRISE INFORMATION MANAGEMENT



Enterprise Information Management: One of many definitions

Enterprise information management - Wikipedia, the free encyclopedia - Windows Internet Explorer

http://en.wikipedia.org/wiki/Enterprise_information_management

File Edit View Favorites Tools Help Links IM Community PdM SAP Technology Group Temp SAP - Remote Access Solution Center

W Enterprise information management - Wikipedia, the f... Try Beta Log in / create account

article discussion edit this page history

Enterprise information management

From Wikipedia, the free encyclopedia

Enterprise Information Management is a particular field of interest in the **Information Technology** and Management Consultancy area. It specializes in finding solutions for optimal use of information within organizations, for instance to support decision-making processes or day-to-day operations that require the availability of knowledge. It tries to overcome traditional IT-related barriers to managing information on an enterprise level.

Contents [hide]

- 1 Definition
- 2 Solutions
- 3 See also
- 4 References

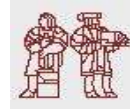
Definition

Enterprise information management (ECM). E... that it approaches the i... structured and unstruct... information from the per... choose a denominationalised approach, since they only cover part of the information within an organization. This results in a lack of available information during decision making processes, market analysis or procedure definition.

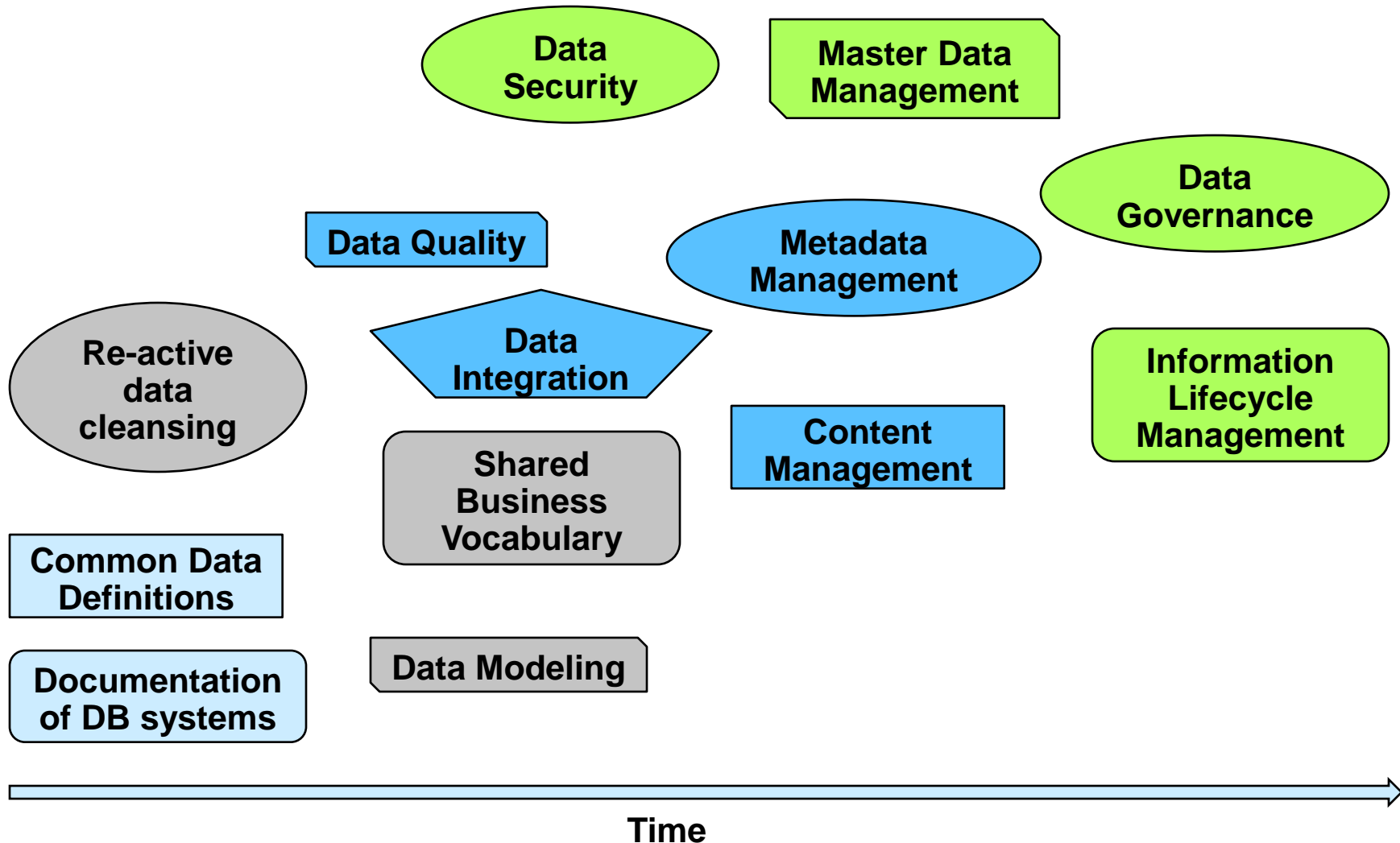
Solutions

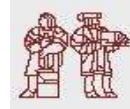
[edit]

Enterprise Information Management is a particular field of interest in the **Information Technology and **Management Consultancy** area. It specializes in finding solutions for optimal use of information within organizations, for instance to support decision-making processes or day-to-day operations that require the availability of knowledge. It tries to overcome traditional IT-related barriers to managing information on an enterprise level.**

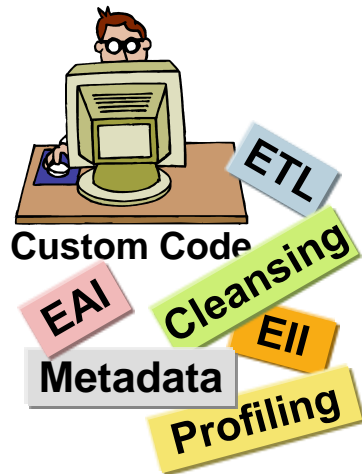


From the Technology side: Puzzle pieces of Information Management

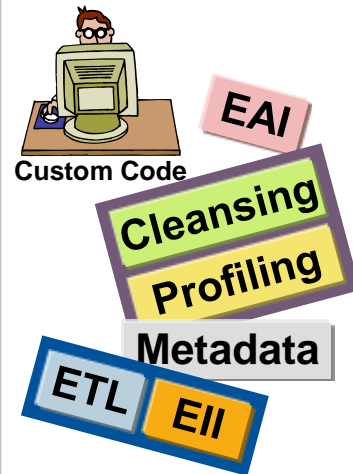




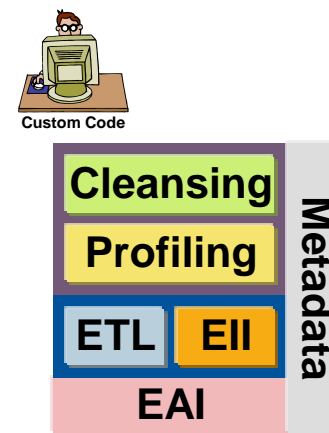
Gartner: Data Integration & Quality Technologies and Markets



- Custom code dominates
- Single-purpose tools
- Market fragmentation
- Tactical deployments



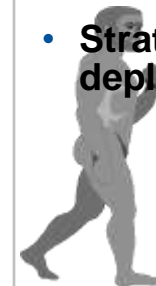
- Custom code remains
- Vendor consolidation around related tools
- Cross-project usage

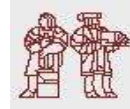


- Custom code minimized
- Continued tools convergence
- Importance of metadata
- Strategic intent

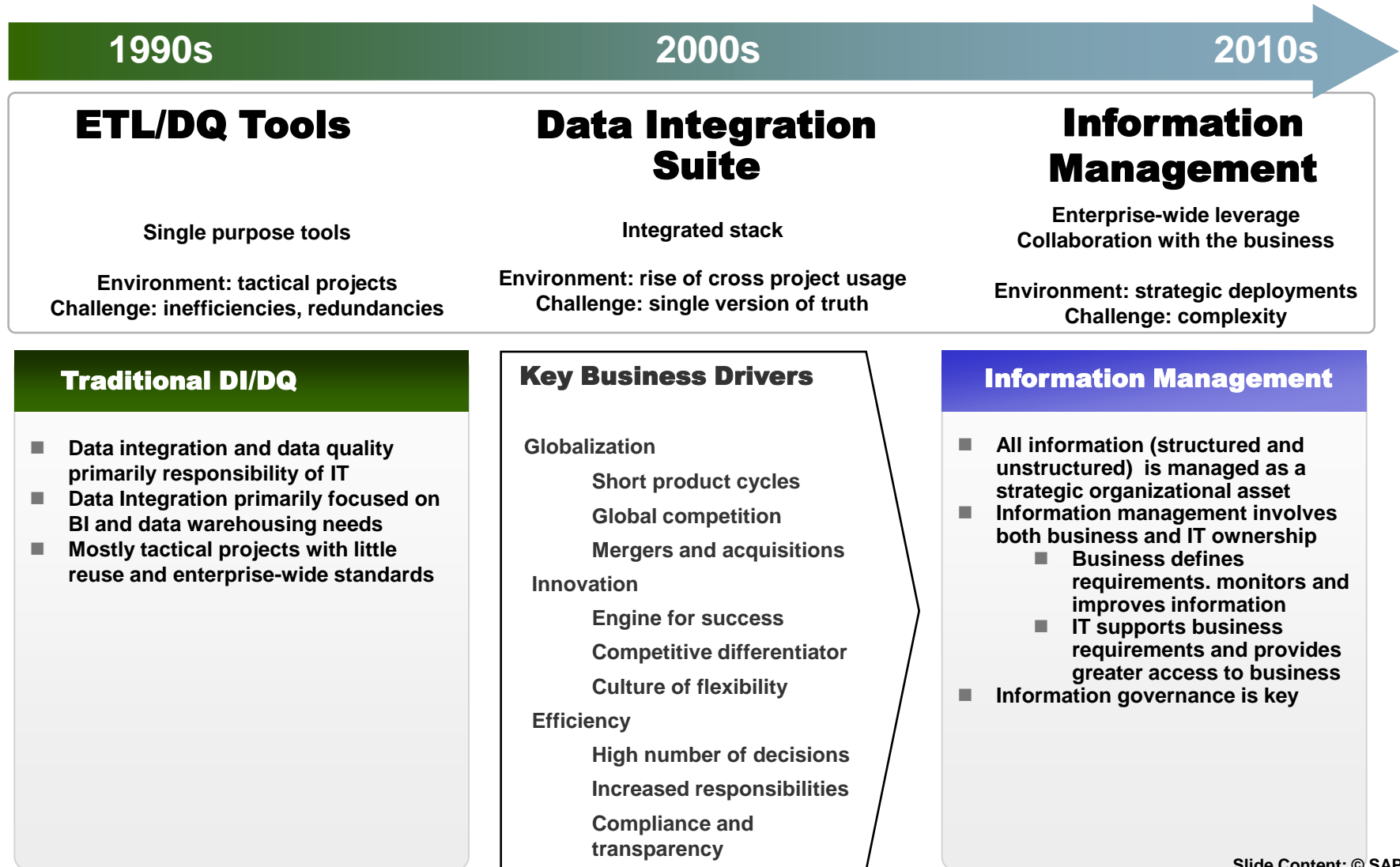


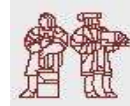
- No custom code
- Convergence complete
- Service orientation
- Strategic deployments



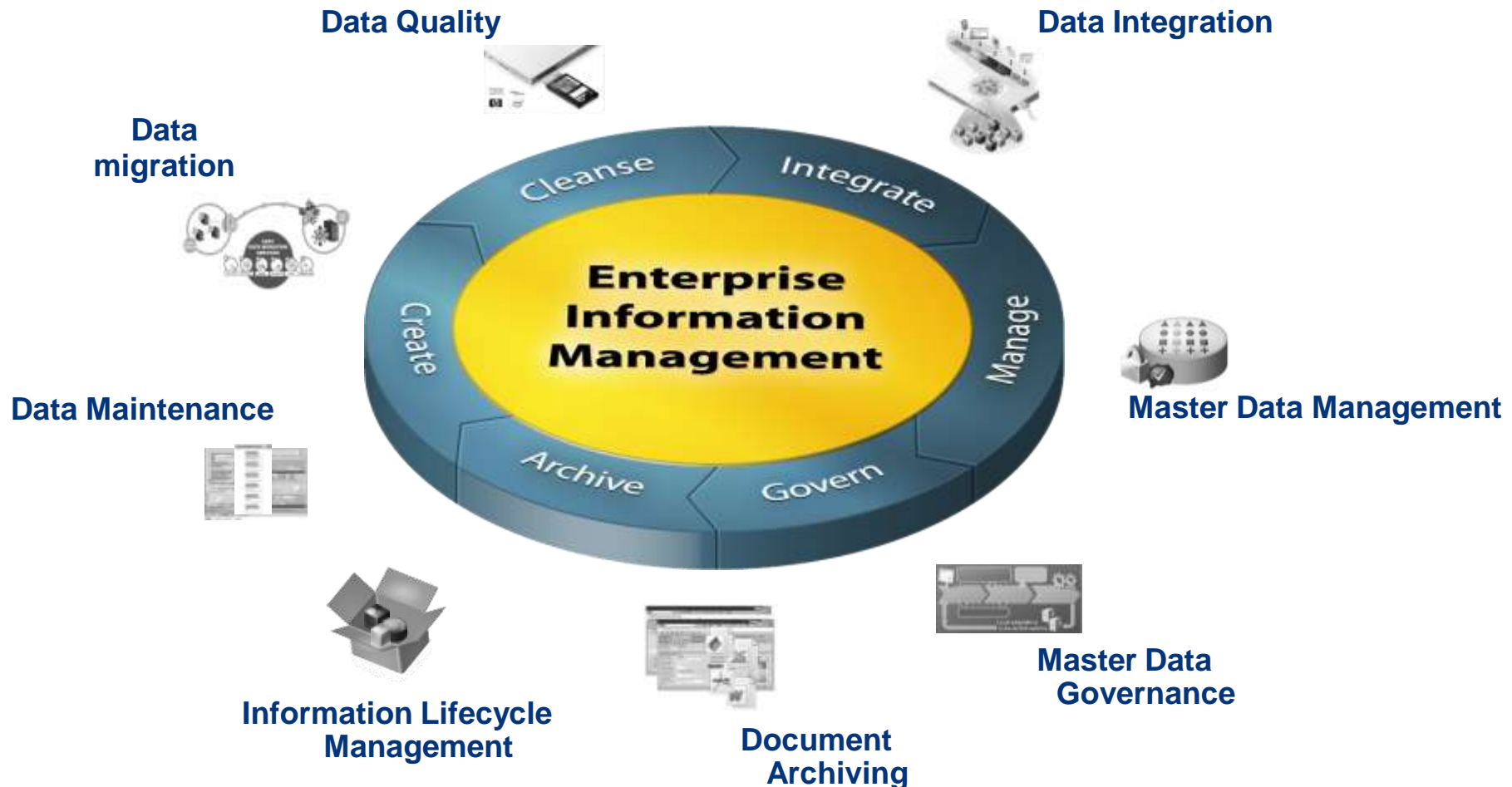


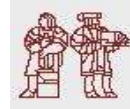
Overview: Evolution of Information Management





One of SAP's perspective on EIM: Bringing together more technology pieces in a bigger landscape





Enterprise Information Management can help you manage information as a strategic asset

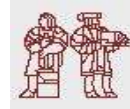
Affects all information assets used by an organization

Improves information consistency, transparency for enterprise wide use

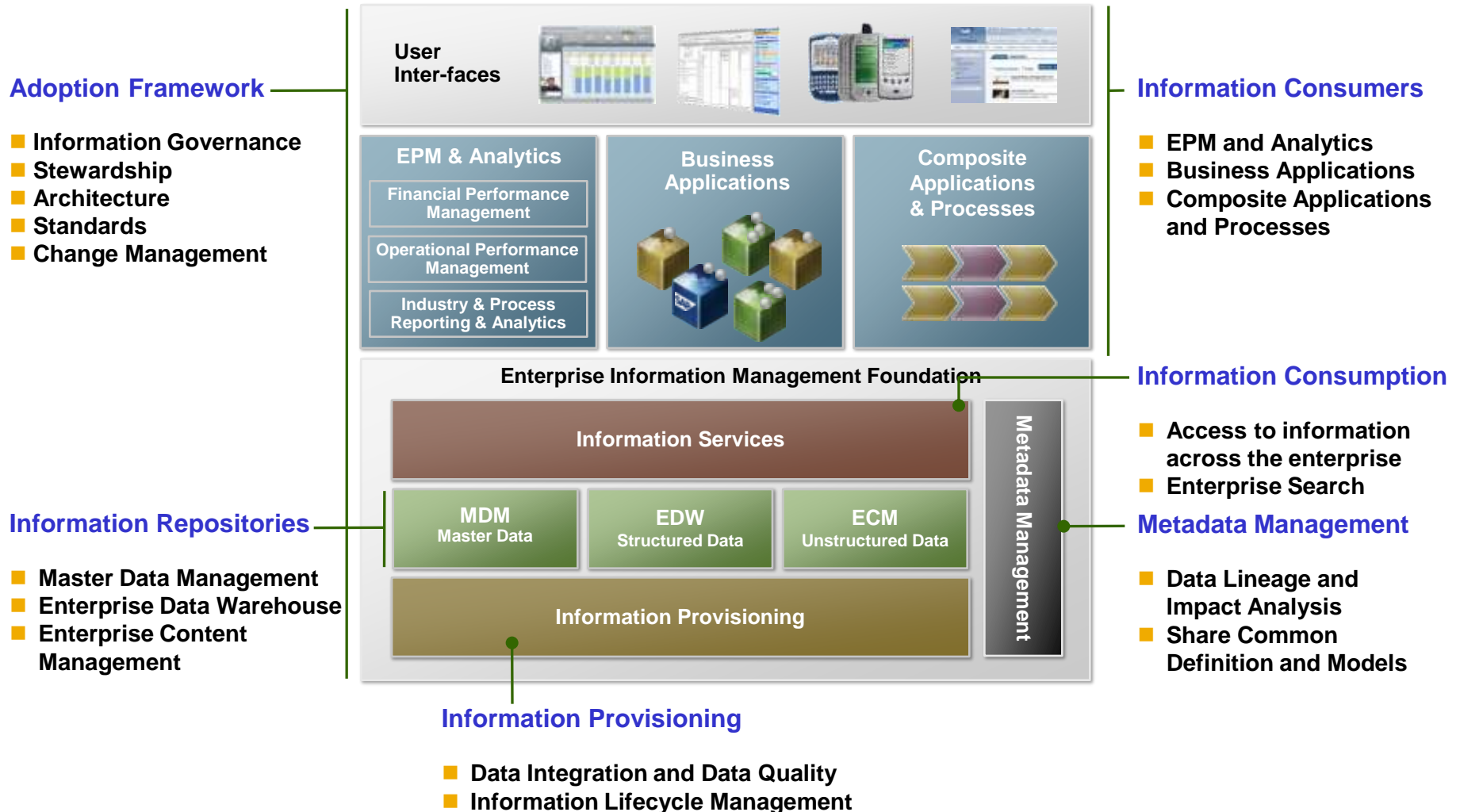


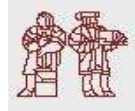
Enables operational and analytical initiatives such as:

- Business transaction processing
- Information governance
- Master data management
- Data migration
- Business intelligence
- Performance Management
- Data warehousing
- Data Quality Management



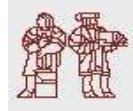
The EIM Foundation is essential for all system landscapes





What has changed with the Financial Crises?

CHANGING ENVIRONMENT

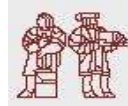


Take action to survive and thrive

“ One of the top priorities of senior management during the next five years is managing information as a strategic asset.”

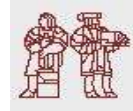
Survey from Gartner/Forbes,
Published December 5, 2008



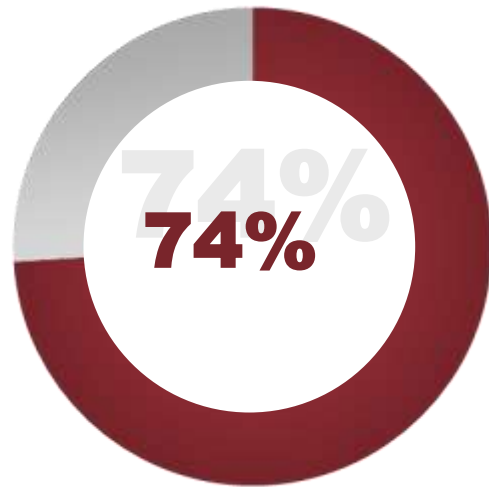


“ In this **global downturn**,
I need **clarity** to ensure
economic survival. ”

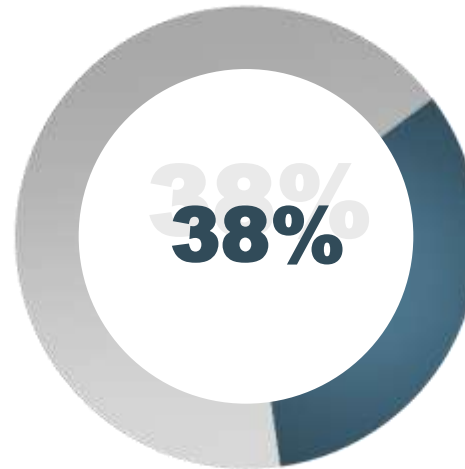
- Uncertain on **what is next**
- Governments **interventing**, but it's not enough
- Increasing risks: internally & externally. **Lack of visibility** into risk and operations got us into this mess
- Raw materials and energy **costs declining** – this is helping, but not enough
- From crisis comes **increased** regulation and scrutiny – expect more
- Companies must take action now, this is a time for leadership



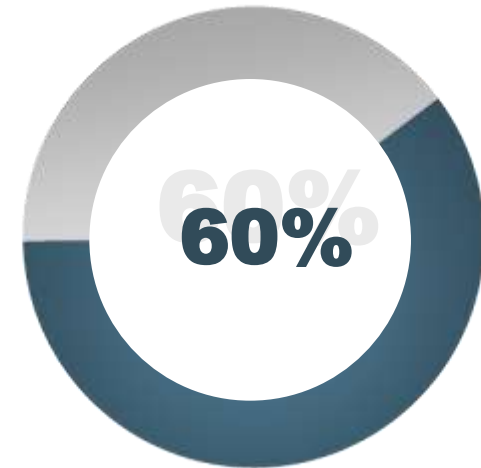
How do you lead through challenging times? Focus on the basics, cut costs



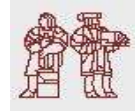
Will **reduce operating costs**



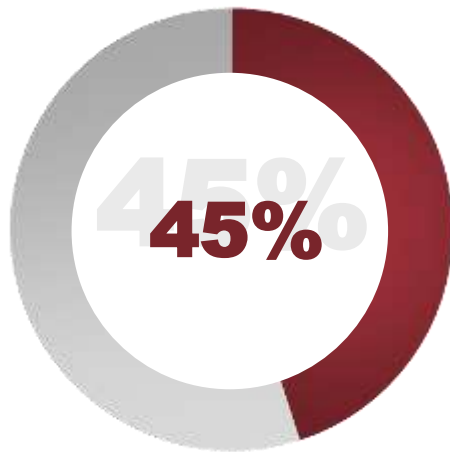
Will **reduce capital investments**



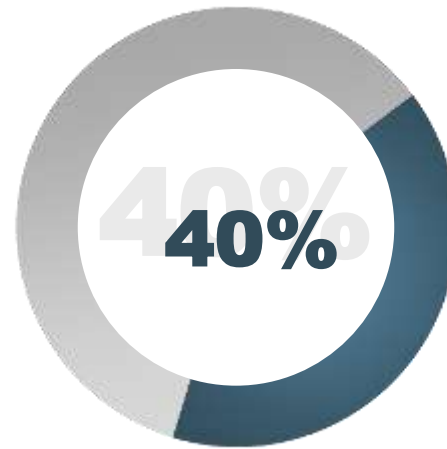
Had layoffs in 2008,
>50% plan layoffs in 2009



How do you lead through challenging times? Innovate the business model

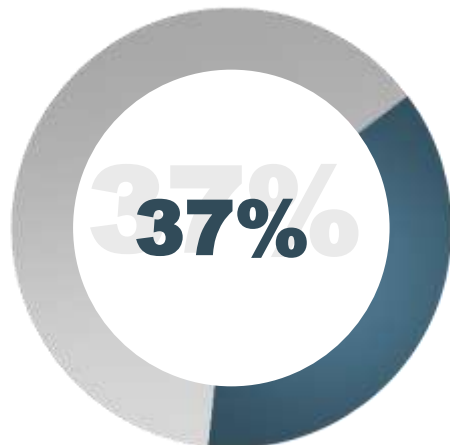


**Will increase
productivity**

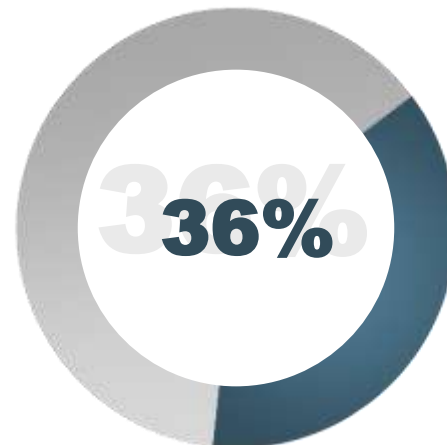


**Will change their
enterprise
model to be
more
collaborative**

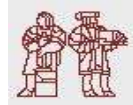
Source: IBM global CEO study
'the enterprise of the
future' 2008



Will restructure



**Will introduce
new Products/
Services to
gain market
share**



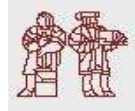
Question on Economics and EIM: Stop or Continue?



- Stop all investment
- Reduce cost wherever possible
- Focus investment on direct operational income
- Data and Information are still a valuable asset
- Decisions need to be made faster and closer adapted to market

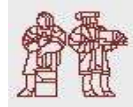


→ “If not now, when then?”



How can organizations react on changing environment and continue being successful?

LEAN & AGILE ENTERPRISE INFORMATION MANAGEMENT



Questions from Market: How to achieve the strategic agility? Enable insight, efficiency, and flexibility

How can your company help us to
develop effective business strategies?

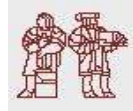
➔ **INSIGHT**

How can your company help us to
navigate through economic challenges?

➔ **EFFICIENCY**

How does your company enable us to
support the quickly changing needs of the
business?

➔ **FLEXIBILITY**



Focus on three business driver for EIM initiatives



Ensure trust in data to be complete, accurate and accessible

Increased efficiency from high quality information for BI and operations



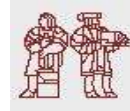
Accelerate access to all essential business information

Optimized business performance through superior decision making



Manage operational information throughout its lifecycle

Enhanced governance and compliance via policy-based data management



Be aware of different dimensions for EIM implementations

Enterprise Information Management

People, process, and technology that controls information management functions across the enterprise

Executive Sponsor



Line of Business



Owners



IT



Data Steward

Define

Manage

Monitor

Data Integration &
Quality
Management

Data Warehouse
Management

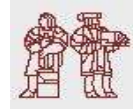
Master Data
Management

Content &
Information
Life-Cycle
Management

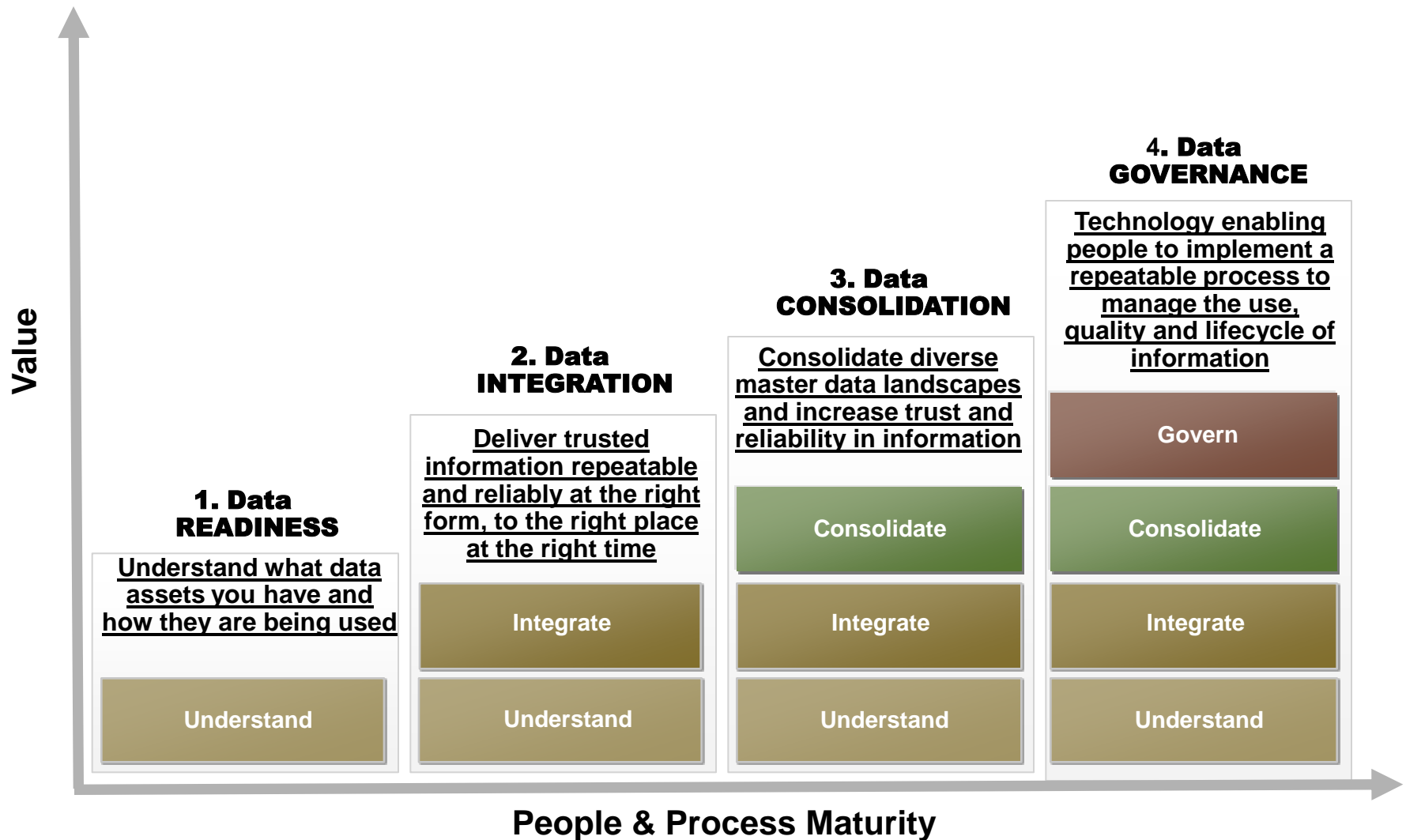
PEOPLE

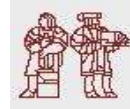
PROCESS

TECHNOLOGY



A general roadmap for Enterprise Information Management





Phase 1: Understand Content and Usage of your Data

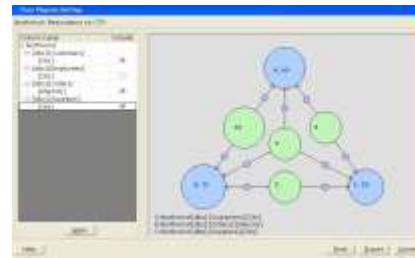
Data Profiling

- Inspecting the data for compliance to business rules
- Comparing heterogeneous data sources
- Discovering any defects
- Measuring their impact on your business
- Communicating business rules to be used in cleansing
- Automated profiling and referential integrity testing
- Scheduled analysis, with threshold notifications
- Trend analysis and continuous monitoring

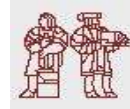
1. Data READINESS

Understand what data
assets you have and
how they are being used

Data Profiling &
Metadata Management



- Clear Insight into individual systems and processes
- Decide about next data assets and processes / applications



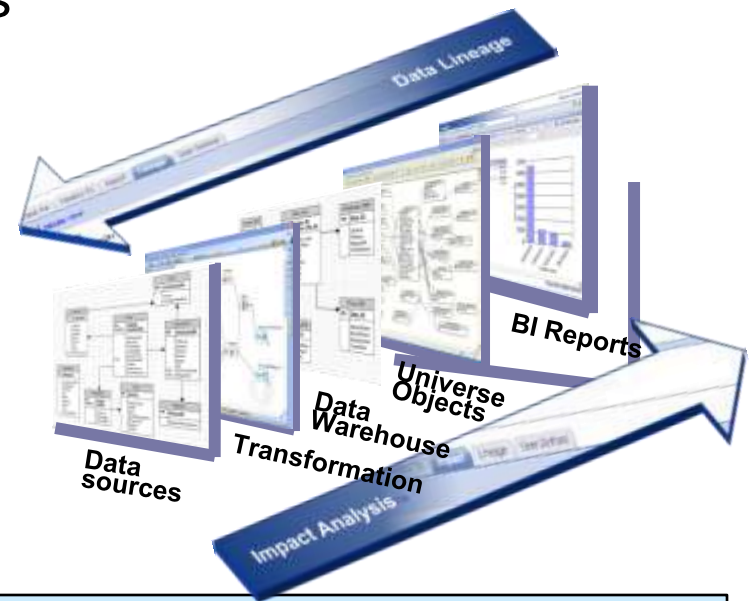
Phase 1: Understand Content and Usage of your Data Metadata Management

- Impact and data lineage analysis
- Create an encyclopedia that translates metadata into business definitions
- Lower your TCO by tracking usage of data and reports

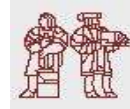
1. Data READINESS

Understand what data
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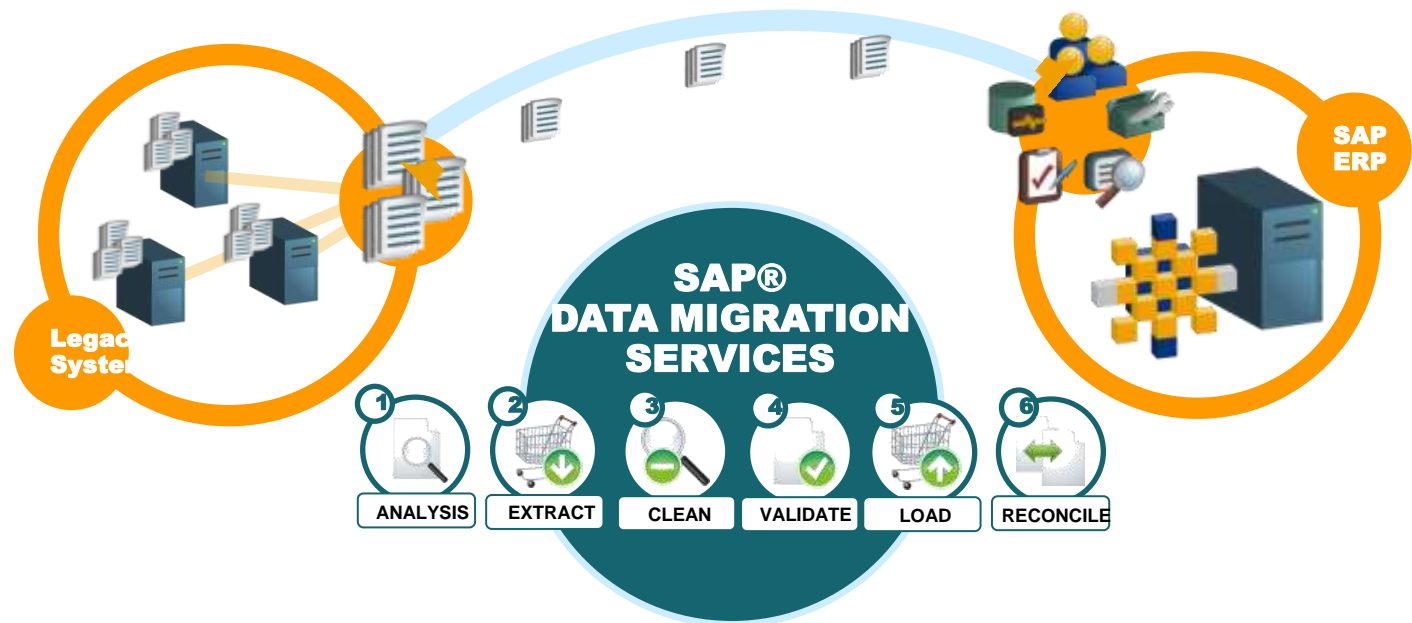
Data Profiling &
Metadata Management



- Clear Insight into individual systems and processes
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Phase 2: Integrate and Timely Deliver your Data from Different Sources to any Data Consumer



2. Data INTEGRATION

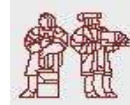
Deliver trusted information repeatable and reliably at the right form, to the right place at the right time

Data Migration & Integration

Data Profiling & Metadata Management

Provide a framework, templates, methodology, tools and expertise to migrate legacy data into a target environment.

- Necessary processes established to move data into single target
- Decide about next data assets and processes / applications



Phase 2: Integrate and Timely Deliver your Data from Different Sources to any Data Consumer

Data Integration

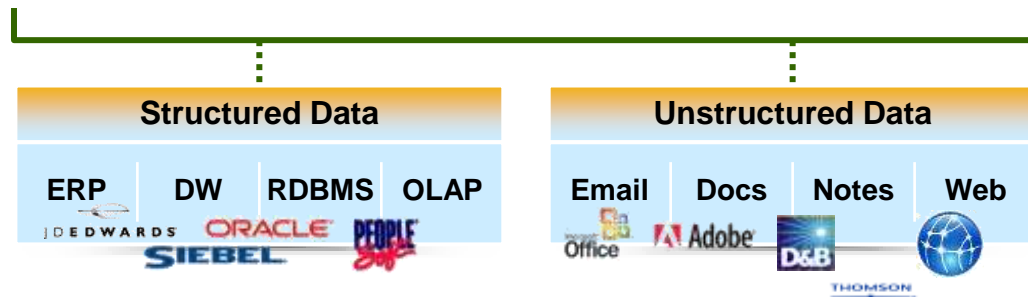
- Access, transform, cleanse, and deliver any type of data from anywhere at any frequency
- Establish repeatable processes for moving and transferring the data
- Prepare the separated data and improve the quality of the data

2. Data INTEGRATION

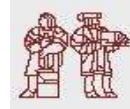
Deliver trusted
information repeatable
and reliably at the right
form, to the right place
at the right time

Data Migration &
Integration

Data Profiling &
Metadata Management



- Necessary processes established to collect data from multiple sources
- Decide about next data assets and processes / applications



Phase 3: Consolidate Data from Different Sources and Produce Valuable Information Across the Systems

3. Data CONSOLIDATION

Consolidate diverse master data landscapes and increase trust and reliability in information

Master Data
Management

Data Migration &
Integration

Data Profiling &
Metadata Management

Consolidate and Harmonize Your Master Data

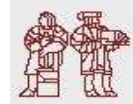
- Extract, load and de-duplicate master data from several systems
- Provide key mapping information and align key data across the entire organization

Build Processes on Consistent Master Data

- Create and maintain master data to support key business process and decision making

Increase Data Quality

- Use single data target as master and propagate back to sources
- Decide about next data assets and processes / applications



Phase 4: Enable Your Employees to Manage Usage, Quality and Complete Lifecycle of your Data

4. Data GOVERNANCE

Technology enabling people to implement a repeatable process to manage the use, quality and lifecycle of information

Data Governance

Master Data Management

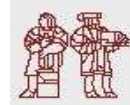
Data Migration & Integration

Data Profiling & Metadata Management

Data Governance

- Govern Data centrally across the enterprise using process-centric applications
- Leverage consolidated data
- Eliminates manual maintenance of data in multiple systems, but allows for controlled de-central adaptations
- Enables compliance and transparency through integrated staging, approval and central audit trail
- Delivers consistent definition, authorization and replication to corporate systems.

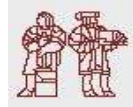
• Established all necessary business processes to actively manage your data along the complete production process



Lean and Agile: Navigating your EIM project

- Know where you are
- Define your ultimate EIM target as a vision
- Generate rough path, follow high-level milestones
- Start detail planning for initial step
- Adjust your path when you reach a milestone



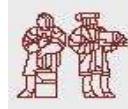


Conclusion

- Mature methodologies and tools for establishing an Enterprise-wide Information Management have been **developed and proven success** at several organizations
- **Adoptions** of those “full” models are generated to **fit into scalable demands** of the market
- Lean processes and methods allow **step by step** implementation, focusing initially on the most efficient components
- Short planning cycles **allow flexibility and agility** to reach given Milestones quickly with success and continue with the next most important step.



Ready to go ON



Thank You!



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