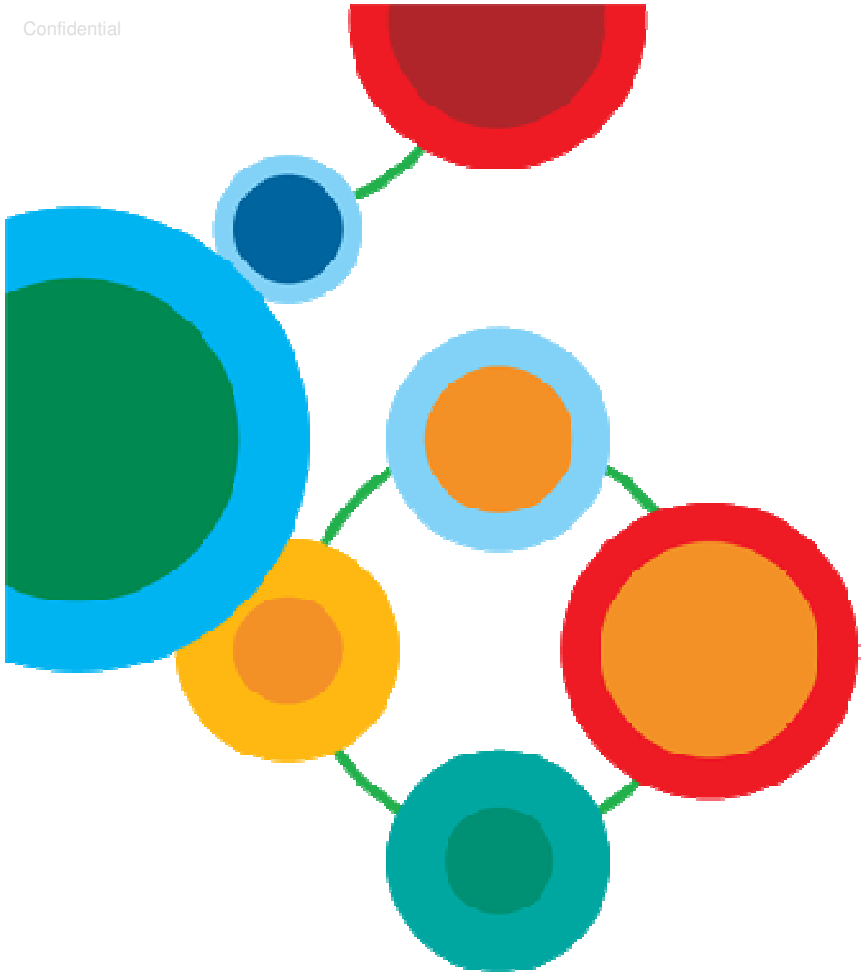


Data Governance at Chartis Using IBM InfoSphere Information Server

INT-2196A

John Housen, Chartis Insurance
Kevin D'Silva, IBM

Global Insurance Company

Emphasis on Europe Regional Program of Work-InfoSphere & Governance

IBM Software
Information On Demand 2011

Table of Contents

- Objective of Presentation and Chartis Inc. & Chartis Europe Regional Overview 2 mins
- Chartis Key Data Improvement & Governance Drivers (Business & IT) 3 mins
- Industry & Chartis Core Global, Regional & Local Challenges 5 mins
- Chartis Data Management Roadmap & Strategic Initiative Alignment 10 mins
- Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas 15 mins
- Chartis Data Governance Framework, Regional Pilot and Technology Use 10 mins
- Core Data Governance and IBM InfoSphere Benefits & Observations Summary 5 mins
- Lessons Learned & Recommendations for Others 5 mins
- Q & A 5 mins

Presentation Objective & Chartis Inc. & Chartis Europe Regional Overview

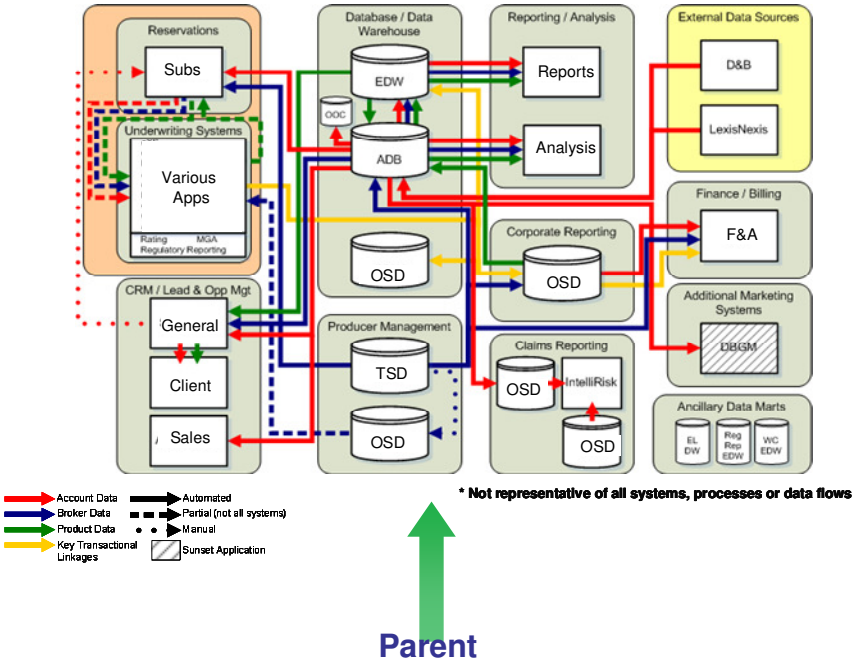
- **Presentation Objective**

Share portions of our data management improvement strategy within the framework of our enterprise data management governance enabled by technology such as IBM InfoSphere Information Server supporting strategic initiatives specific to our European Region.

- **Provide some insights to our Data Management Strategy**
- **Link Strategy to Strategic Global Program of Work**
- **Review Framework of Enterprise Data Governance**
- **Examine Technology Enablement-IBM InfoSphere**

Chartis Europe Regional Overview

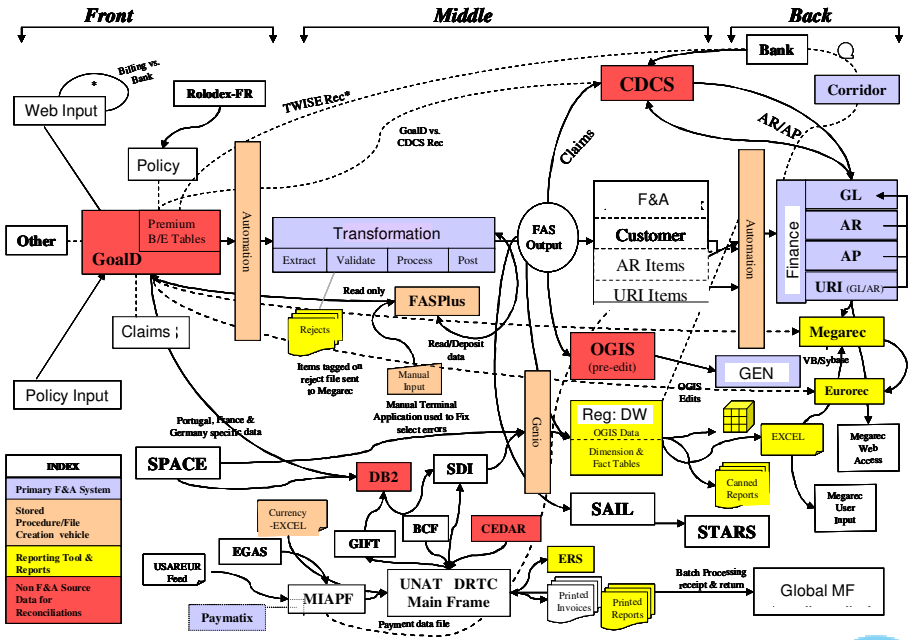
- Chartis Technology Landscape Example Summary:



Parent

Non uniform data capture, definitions and integration are represented in the key systems and processes.

Child



- Multiple Front End Applications
- Multiple Transaction Data Stores
- Multiple Operational Data Stores
- Multiple Data Warehouses
- Multiple Business Glossaries/Data Dictionaries

Diagrams do not represent actual systems, network or capabilities.

Chartis Key Data Improvement & Governance Drivers (Business & IT)

Within the company there were four key prioritized business data/information areas.

Global and Regional Business and Support Functions focused on the following drivers:

- Improved Management Information Needs
- Global Decentralized ODS/Data Warehouse Environment
- Multiple Data Model and Related Governance Practices
- Global & Local Regulatory Transparency Requirements
- Cost Reduction & Containment
- Advanced & Focused Business & IT Resource Skill Sets

Consult and Motivate Organization & Resources ← **Guidance Items** → **Guide, Direct & Align Enterprise Organization & Resources**

- External Data Influence
- Enterprise Strategy Integration
- Data Management Principles
- Enterprise Planning and Guidance
- Data Policy/Standards & Compliance
- Data Governance Execution Oversight

Industry & Chartis Core Global, Regional & Local Challenges

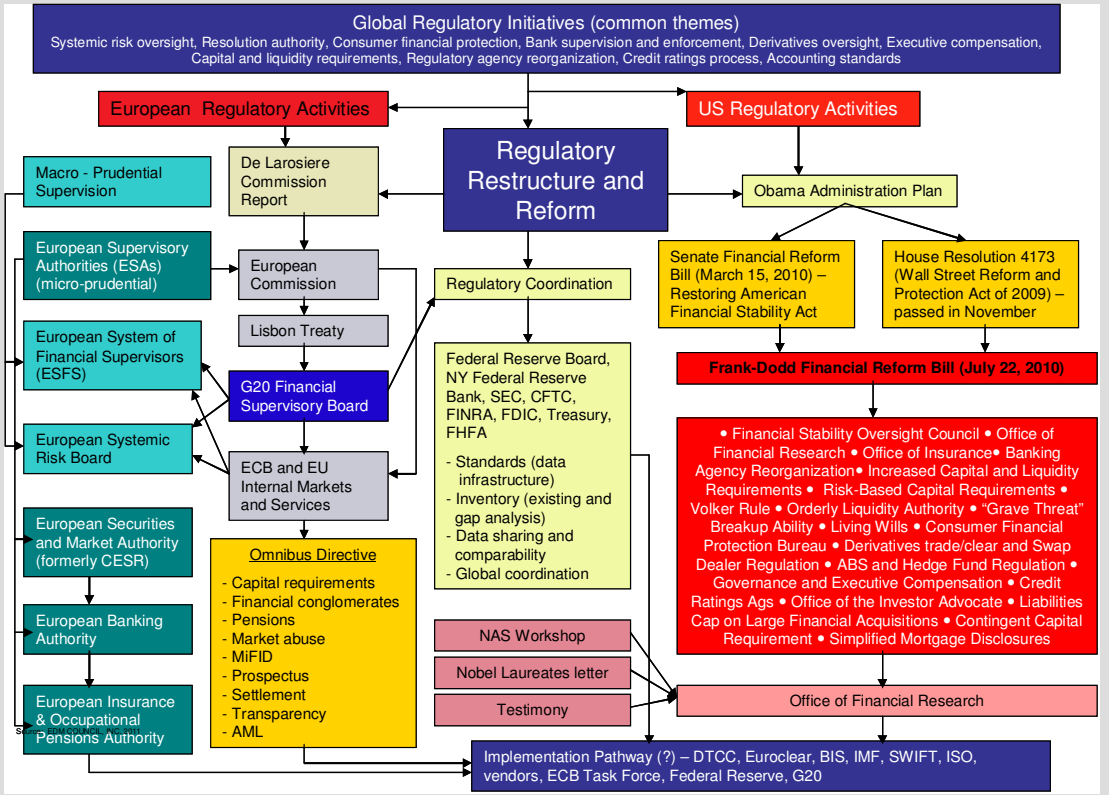


Diagram complements of EDMC 2011

- Data as an Asset
- Data Management Maturity
- Data Ownership/Stewardship
- Funding/Investment Model
- Competition with Traditional IT Projects
- Non Uniform & Consistent Data Profiling/Analysis
- Technology & BA Skill Set Improvements

Both in Europe and in the U.S. data and information management requirements, capabilities and solutions are being challenged and are challenges.

Chartis Data Management Roadmap Summary & Strategic Initiative Alignment

The enterprise global strategy and roadmap is focused on 6 critical components.

Chartis Commercial, Consumer, Distribution and Functional Support Maturity Strategy & Practice Alignment

Chartis Data Management Core Components

Data Strategy
- Data Management Goals & Objectives
- Data Management Scope
- Corporate Culture & Alignment
- Governance Model
- Governance Structure & Implementation
- Communications Strategy
- Measurement
- Ongoing Value Proposition
- Total Cost of Ownership
- Business Case & Funding Model

Data Policy & Standards
- Data Management Policy
- Process Standards
- Data Standards
- IT Standards
- Governance Standards

Data Operations
- Requirements Definition & Life Cycle
- Tolerance for Operational Disruption
- Data Life Cycle
- Resource & Requirements Strategy
- Standards & Procedures
- Standards Promulgation
- Business Process & Data Flows
- Data Attribute Requirements
- Dependencies Lifecycle

Data Platform & Technology
- Architectural Framework
- Architectural Standards
- Data Distribution Platform
- Application Integration
- Ontology and Business Semantics
- Historical Data Management
- Release Management

Data Quality
- Data Quality Strategy
- Quality Assurance
- Data profiling & Quality Assessment
- Acquisition Data Quality
- Data Cleansing
- Measurement & Analysis
- Change Requests & Exception Management

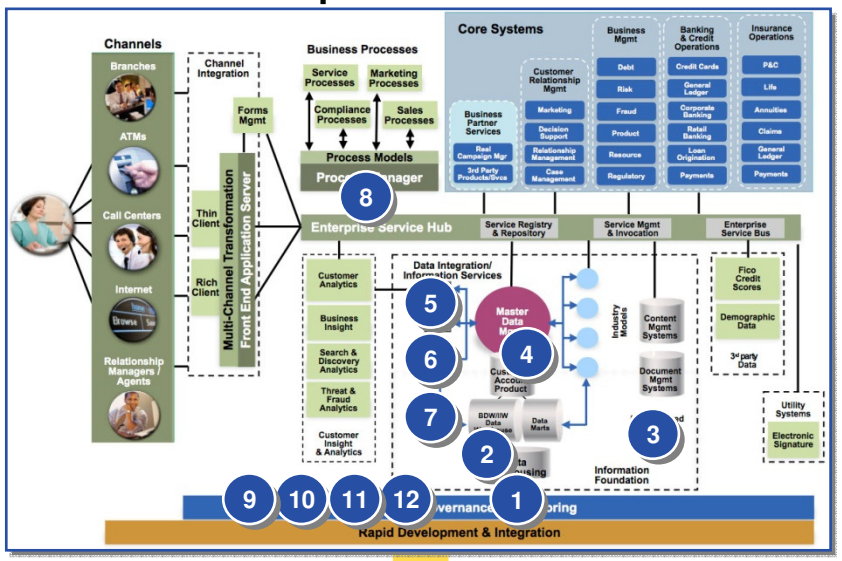
Data Sourcing
- Data Procurement
- Data Supply Chain
- Data Exchange Management

Not all components attributes included.

Information is for demonstration purposes and is not all inclusive or intended for reuse.

Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas

IBM Software Capabilities

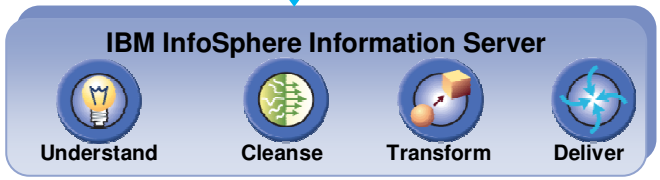


IBM Software Capabilities

1	Insurance Information Warehouse
2	IIW Data Models for Governance
3	InfoSphere Master Content Server
4	InfoSphere Master Data Management Server
5	InfoSphere Classification Server
6	IIW Data Models for Quality
7	InfoSphere Business Glossary Pack for Insurance
8	iLog Rules Library
9	Cognos Reporting
10	Cognos Performance Blueprints
11	Cognos Dash-boarding
12	SPSS Predictive Analytics

Europe Regional InfoSphere Information Server Adoption Items:

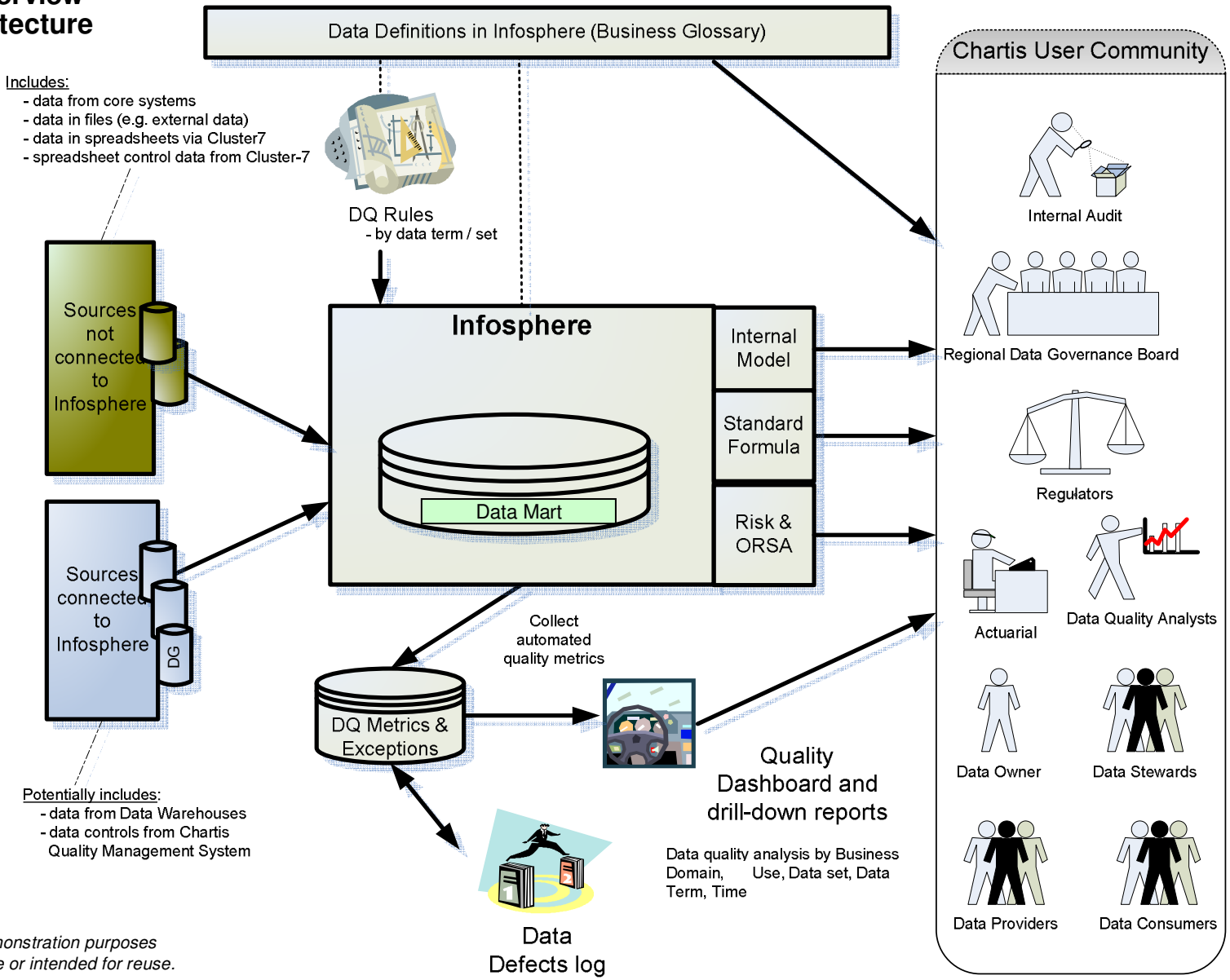
- IBM InfoSphere DataStage
- IBM InfoSphere QualityStage
- IBM InfoSphere Information Analyzer
- IBM InfoSphere Business Glossary



Information is for demonstration purposes and is not all inclusive or intended for reuse.

Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas

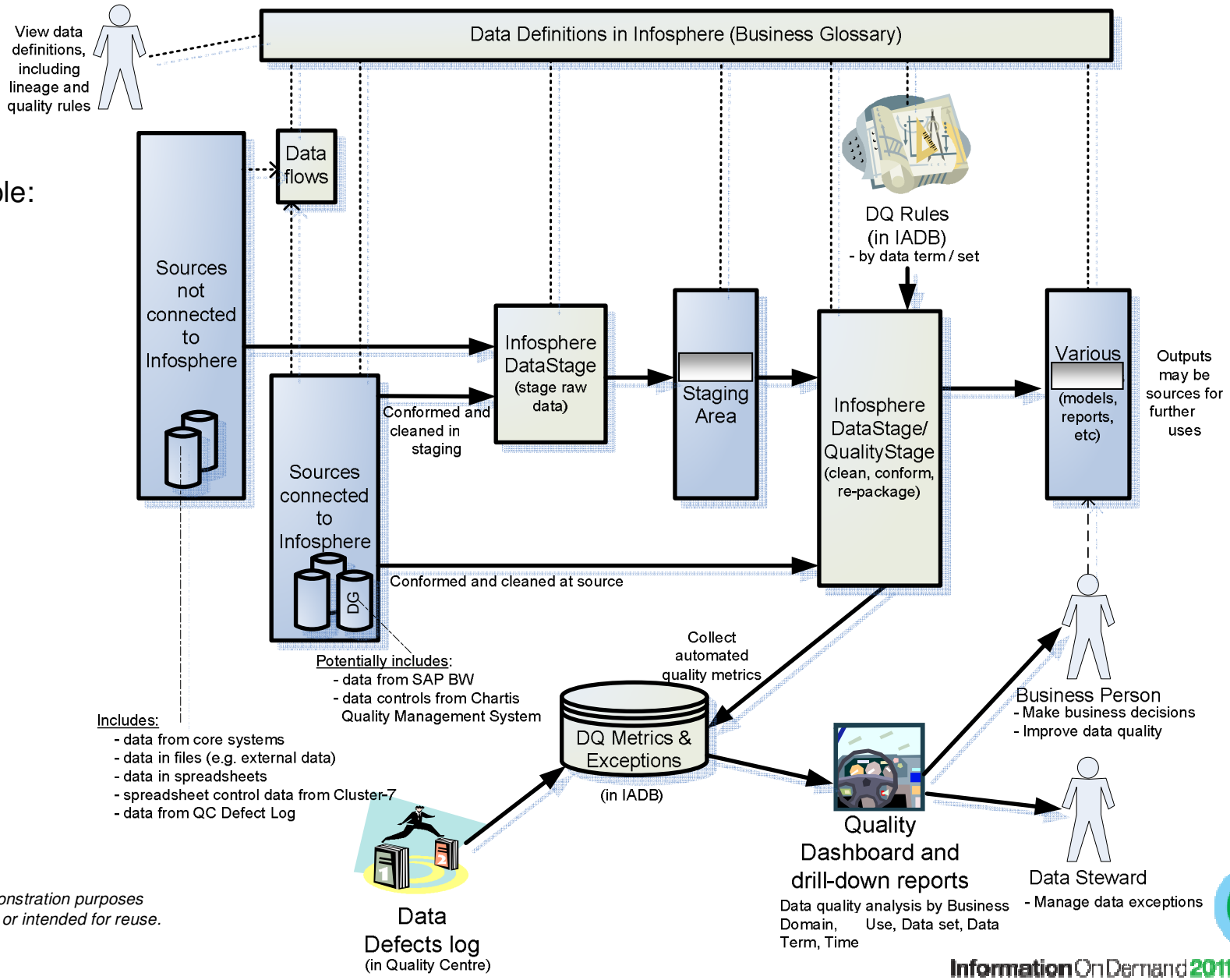
Example Overview DQMS Architecture



Information is for demonstration purposes and is not all inclusive or intended for reuse.

Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas

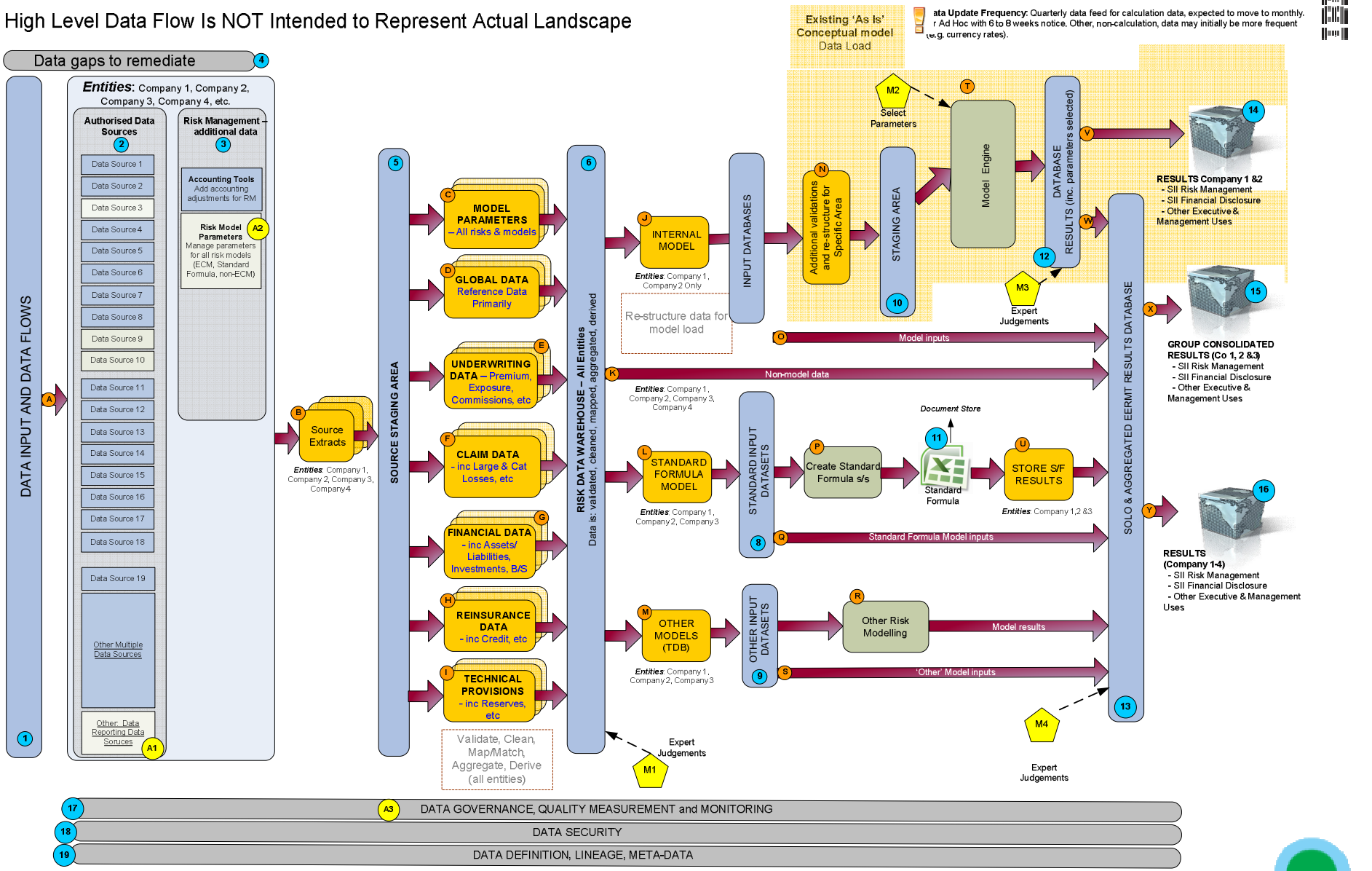
Use Example:



Information is for demonstration purposes and is not all inclusive or intended for reuse.

Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas

High Level Data Flow Is NOT Intended to Represent Actual Landscape

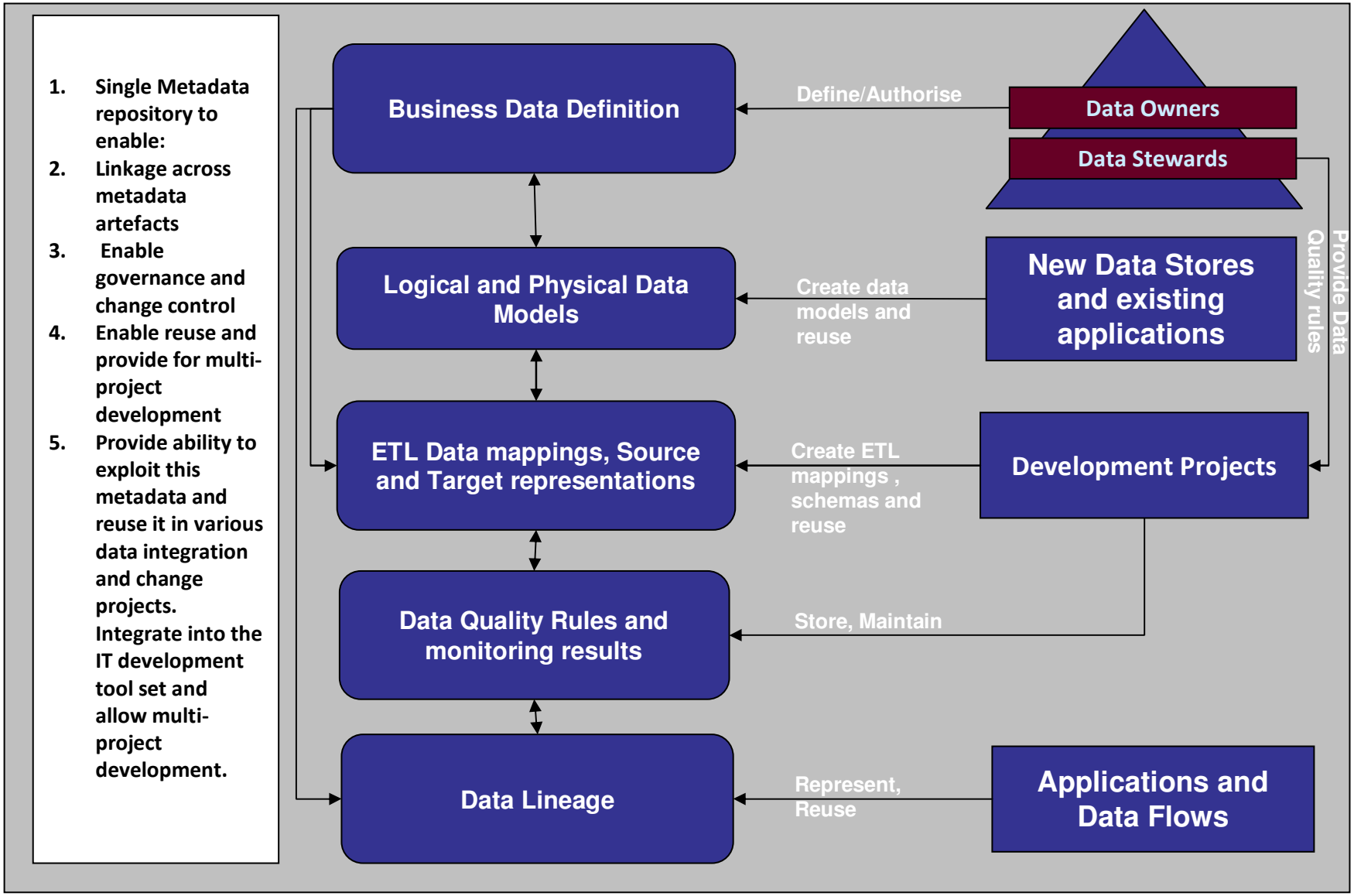


High Level Data Flow (Logical Level)-For DEMONSTRATION PURPOSES ONLY

Information is for demonstration purposes and is not all inclusive or intended for reuse.

Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas

Chartis Europe: Metadata Management Framework



Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas

Data Artefacts: Definitions & Benefits

		Value
Corporate Business Glossary	• Business definition of terms used within the organization. Will never refer to a technical term • E.g. Corporate or Global Business Glossary	• Business & IT Alignment • Empowers Business Agility • Enables Growth
Data Dictionary	• Recording of the definition of data, the relationships of data to each other. Attributes, keys and groups of data are all captured. • E.g. Program Data Dictionary, Corporate Data Dictionary, Global Data Dictionary	• Single Source of Information • Consistent Reporting
Domain Model	• High Level Information Subject Domain Areas of the enterprise representing the business data assets • E.g. Finance, Underwriting Models	• Business Building Blocks • Competition Comparison • Future proof Data Design • Business Flexibility
Logical Model	• Information Areas and data assets used to represent business functions, topics and aggregated business objects (entities) • E.g. Claims Model, Policy Model	• Faster Functional Analysis • Better Integration & Reuse
Physical Model	• Physical model describes the physical representation of data includes data model and flow.	• Best Practise Application Design & Development • Drives Consistency • Pick Best Fit Tools

Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas

Enterprise Data Approach & Artefacts

Enterprise

Business Term	Description
Domain	A pool of values from which one or more attributes draw their values.
Dimensional model	A model, developed from the top down, used for depicting .
Data warehouse	A collection of integrated subject-oriented databases.
Alias	An alternative label used to refer to a data element.

Business Glossary

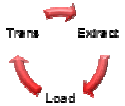
Business Term	Description	Length	Type
Domain	A pool of values from which one or more attribu	100	Char
Dimensional model	A model, developed from the top down, used fo	30	Char
Data warehouse	A collection of integrated subject-oriented datat	22	Integer
Alias	An alternative label used to refer to a data elem	02/02/2011	Date

Global Data Dictionary

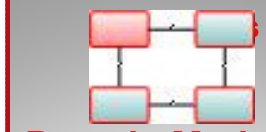
Business Term	Description	Length	Type
Domain	A pool of values from which one or more attribu	100	Char
Dimensional model	A model, developed from the top down, used fo	30	Char
Data warehouse	A collection of integrated subject-oriented datat	22	Integer
Alias	An alternative label used to refer to a data elem	02/02/2011	Date

Data Dictionary

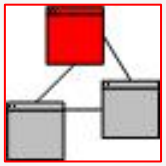
Programme



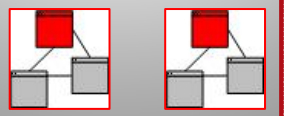
E T L



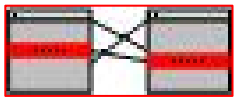
Domain Models



Logical Models



Physical Models

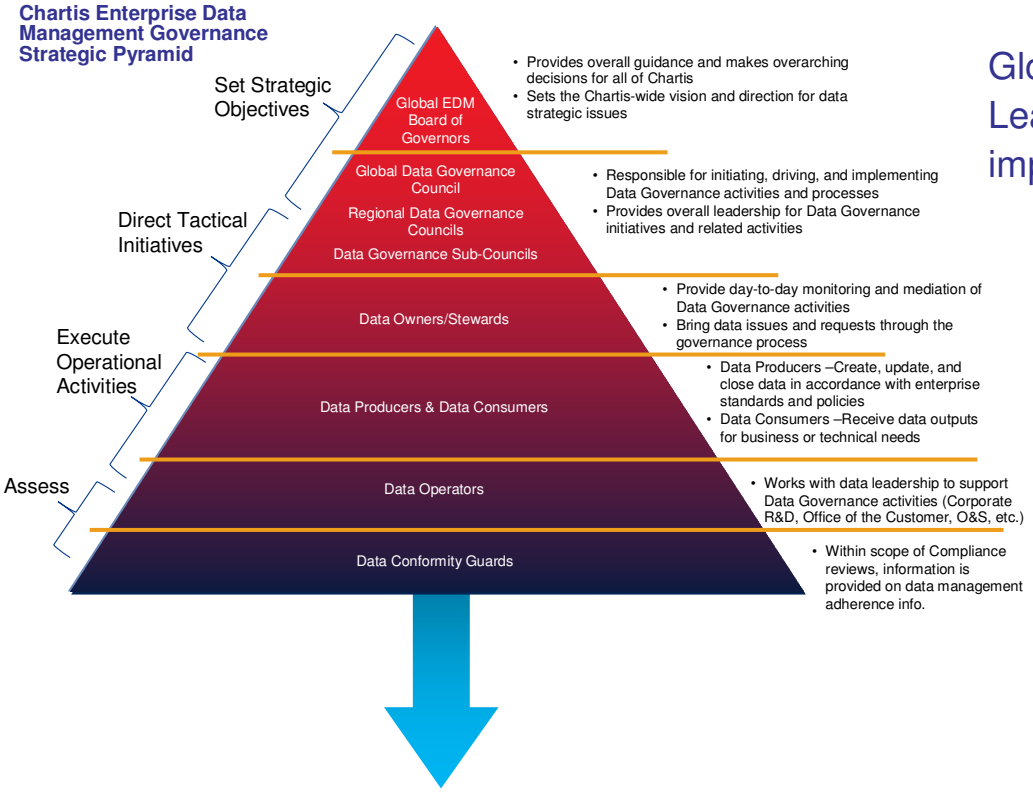


Mappings

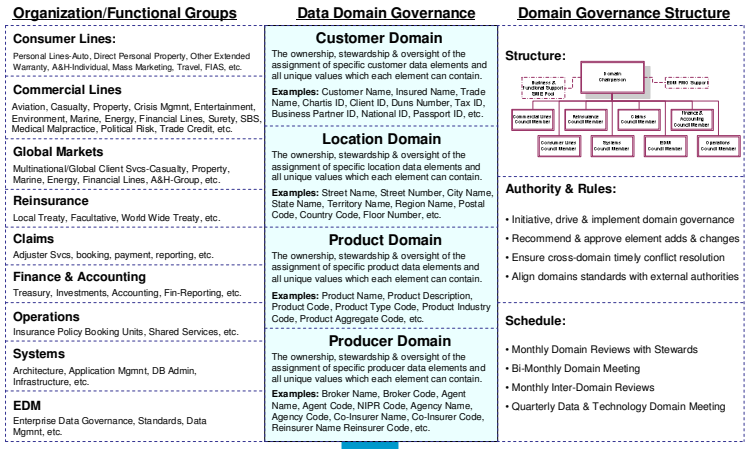
- Business Glossary (BG) created by consistent definition of all terms used in the organization.
- Domain Models (DM) are usually constructed at the highest level in the organization.
- Logical Models (LM) are created from DM and a fully defined data dictionary.
- Global Data Dictionary is derived from the BG. Data Dictionary can be created locally by specific applications/regions.
- Physical Models are created from Data Dictionaries and LMs. These physical models make up the Enterprise Data Model.
- Mappings are created between two Physical Models in the enterprise. Lineage can be traced throughout the stack by following data standards and principles.
- ETL jobs are created based on the PMs and the mappings between the various physical models e.g. ETL from Source to Abstraction to Staging to Target systems.

Information is for demonstration purposes and is not all inclusive or intended for reuse.

Chartis Data Governance Framework, Regional Pilot and Technology Use



Global & Regional Business, IT and Data SME and Leadership working within a defined framework to improve data management disciplines.



- Key Enterprise Data Management Governance Framework
- Prioritized Data Domain and Initiative Alignment
- Data Ownership, Stewardship and Target Enablement Items
- Enterprise versus Regional Governance Body Overview
- Core Initial Technology Foundation for Governance

Common areas of initial focus included use of IBM InfoSphere to help with:

-Data Profiling

-Data Analysis

-Data Cleansing

-Business Glossary

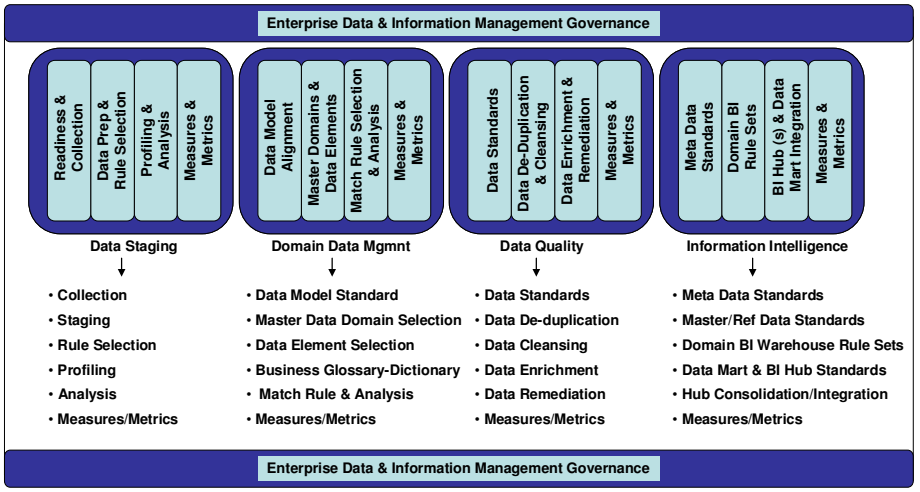
Information is for demonstration purposes and is not all inclusive or intended for reuse.

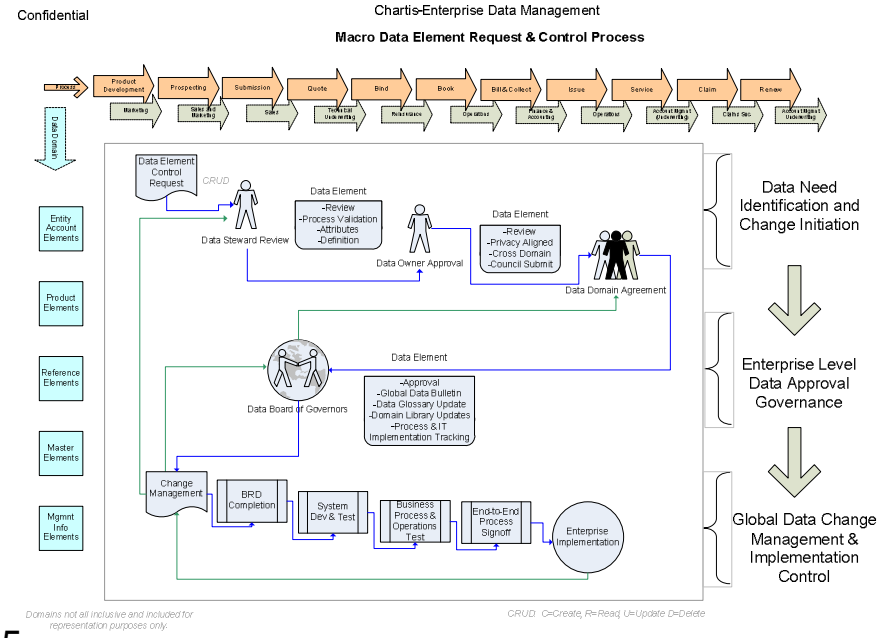
Core IBM InfoSphere Platform Assessment, Adoption and Core Focus Areas

Integrated with the utilization of the various components of IBM InfoSphere Information Server is the core pillars of data management infrastructure:

- Data Staging
- Domain Data Management
- Data Quality
- Information Intelligence

Enterprise Data Management: Chartis Information Management Infrastructure Pillars

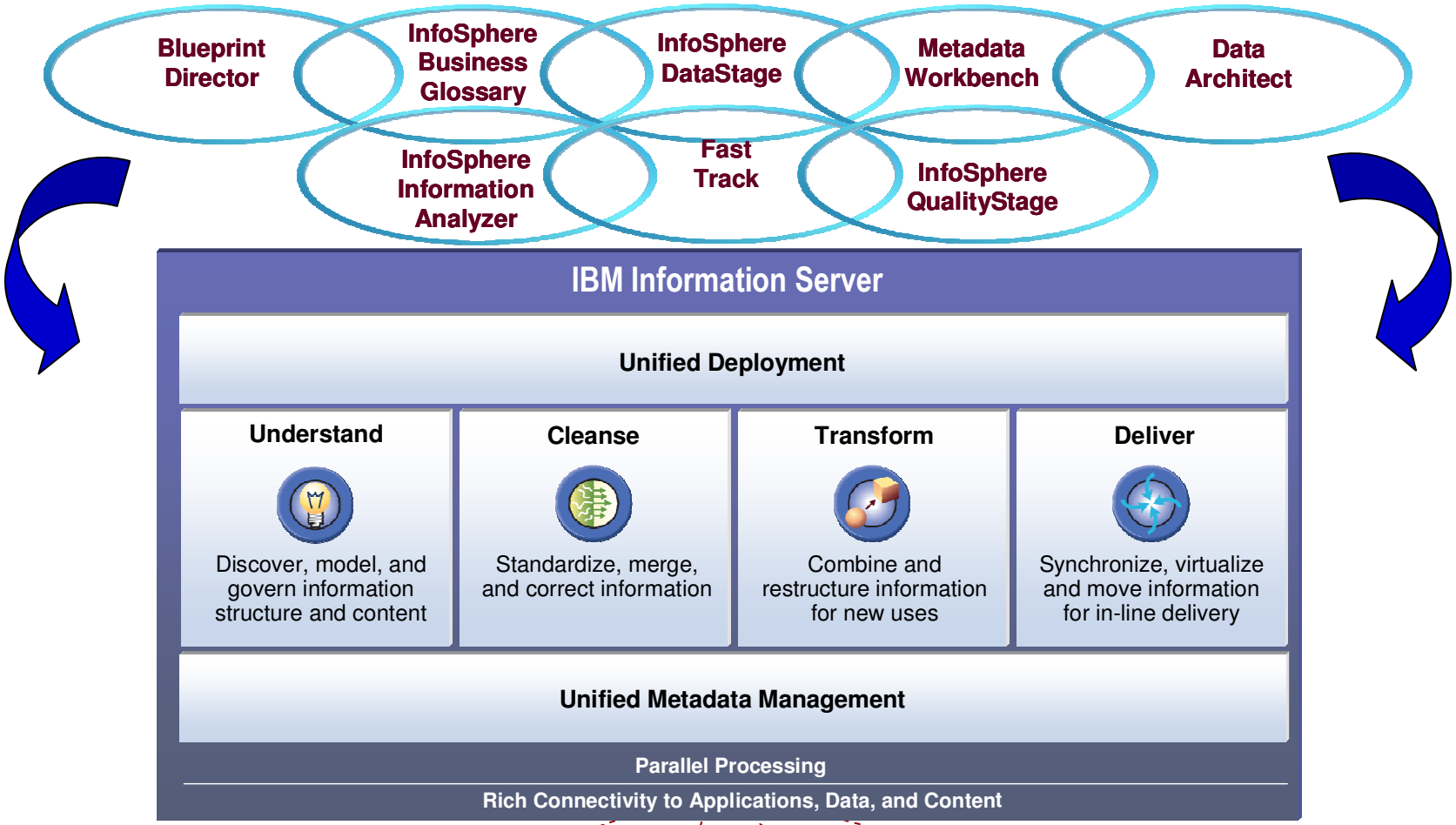




Regional and global process flow for governing data elements supported by use of IBM InfoSphere.

Information is for demonstration purposes and is not all inclusive or intended for reuse.

Core Data Governance and IBM InfoSphere Benefits Summary



- Data Improvement Benefits
- Governance Benefits
- Process Improvement Benefits
- Technology & Tool Benefits

Lessons Learned & Recommendations for Others

- Primary Lessons Learned Summary:
  - **Technology Related:** Purchase of entire toolset provides for obtaining consistent data lineage. We had left out business glossary initially then realized the benefits & need for a consistent & systematic way of standardizing data dictionary terms/definitions between business & IT.
  - **Process Related:** Define the data release and promotion process early on especially if the organization is new to IBM tool set. This will help with rework and version control.
  - **Data Related:** Start from bottom up (data models of existing databases) and top down business definitions of terms. This will assist to end up meeting in the middle to get a easy win on metadata management.
  - **People Related:** Engage Data Stewards early. Prime them with a set of draft definitions.
- Recommendations Summary
  - **Technology Related:**

    -Recommendation to IBM: Better integration between Data Architect and Business Glossary required. Functionality for 'Google' like search on business glossary would be beneficial.

    -Recommendation to industry/community: XML standard for Data Quality definition required across different tool sets and technology providers to facilitate easy import/export of DQ definitions.
  - **Process Related:** Ensure to obtain business agreement on critical business processes in-scope, clearly defined and included in governance. This will assist in requirements, DQ and benefits realization.
  - **Data Related:** Definitions of the terms should include practical examples. This will assist in reuse and accelerating common understandings across multiple domains.
  - **People Related:** Well defined and planned approach to meeting Data Stewards and Owners for best use of their time.

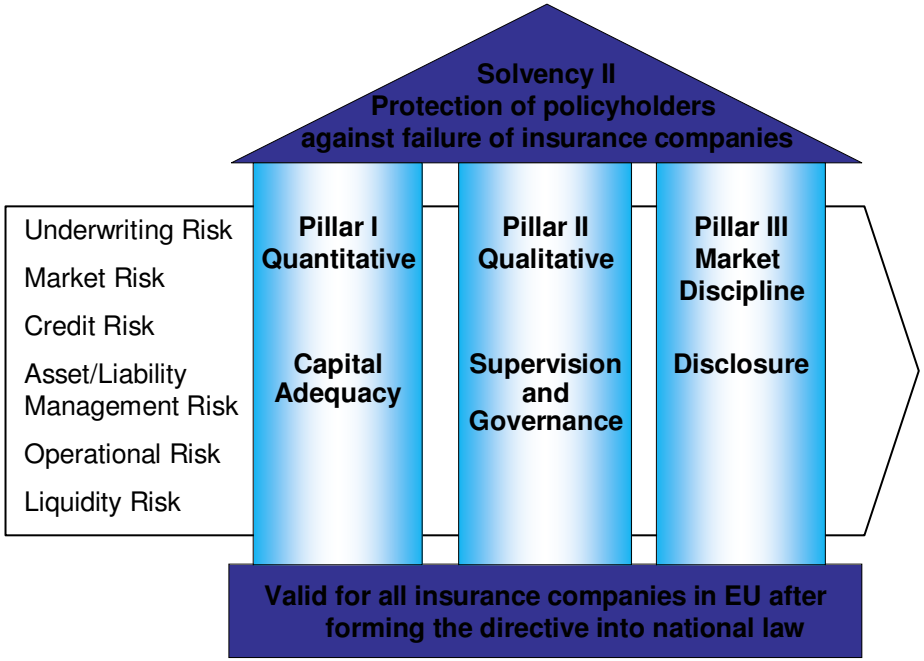
Q & A

- Open Discussion, Questions & Some Answers

Backup Slides – Solvency II

What is Solvency II?

"The aim of Solvency II is to more accurately reflect the true economic risks facing insurance companies, by taking into account both asset- and liability-side risks, and the interactions within and between those risks. In addition, the new regimen [Solvency II] aims to promote more efficient supervision, especially for large groups, and should translate into improved financial soundness of insurance companies, allowing them to better survive difficult periods." ***Fitch Ratings, March 2008***



Pillar I Quantitative

- Demonstrate adequate quantitative financial resources
- Technical rules for valuation of assets, liabilities and required solvency margins
- Establishment of a basic and an advanced capital requirement:
  - Minimal Capital Requirement (MCR)
  - Solvency Capital Requirement (SCR)
  - Concentration Risk
  - Liquidity Risk

Pillar II Qualitative

- Enhanced supervisory review process
- Ability to set bespoke capital requirements in addition to SCR/MCR
- Will reflect firms' internal model of risk management and corporate governance capabilities

Pillar III Market Discipline

- Public and regulatory disclosures
- Comprehensive timely reporting (internal and external)
- Public disclosures should be consistent with IASB (1) IFRS (2) Phase II disclosures

(1) IASB: International Accounting Standards Board
(2) IFRS: International Financial Reporting Standards

Source: Moodys; Fitch Ratings; Tillinghast; Swiss Re

Comité Européen des Assurances (CEA) Solvency II Glossary

Solvency II Briefing from KPMG

Table of Contents

European Market Forces Drive Investment in Solvency II Solutions

Regulatory Challenges	Business Impact	IT Requirements
• European Union Solvency II Project • International Accounting Standards (IAS) and EU Insurance Accounting Directives (IAD) • International Financial Reporting Standards (IFRS) for insurance contracts • Pension legislation shifting risk from state to private sector – impacting solvency margins	• Improved Management of Business Profitability • Proactive Financial Reporting • Effective Risk Management Capabilities • Asset/Liability Management (ALM) • New Solvency Margin Systems	• Ready access to consistent and accurate data • Identification, tracking and analysis of key performance indicators (KPI) • Compliant financial reporting for regulators • Identification and assessment of financial and operational risks • Use of risk models (e.g., Dynamic Financial Analysis (DFA), Risk Adjusted Return on Capital (RAROC) • Gather reliable and complete data on company's risk exposures

Table of Contents