Brian Kordelski – Business Unit Executive, Information Management

bkordels@us.ibm.com +1-857-204-0542

IBM

Information Integration & Governance
How trusted information
can deliver smarter decisions

INFORMATION INTEGRATION & GOVERNANCE FORUM 2011

Delivering Trusted Information for Smarter Business Decisions

INFORMATION INTEGRATION & GOVERNANCE FORUM 2011

What is Data Governance?

Data governance is an emerging discipline with an evolving definition. The discipline embodies a convergence of data quality, data management, data policies, business process management, and risk management surrounding the handling of data in an organization.
Wikipedia

What is Data Governance?

"Data Governance is a system of decision rights and accountabilities for information-related processes, executed according to agreed-upon models which describe who can take what actions with what information, and when, under what circumstances, using what methods." **– The Data Governance Institute**

Until you understand and embrace data governance, your information management initiatives won't deliver their promised value. Effective governance requires defining organizational roles and responsibilities, including ownership of the processes and policies by which information is captured, maintained, and consumed. Unfortunately, no single governance model works for everyone, so your first challenge will be to develop the unique governance model that will be successful for your unique organization. **– Rob Karel, Forrester**

Data governance is a quality control discipline for adding new rigor and discipline to the process of managing, using, improving and protecting organizational information. – **IBM DG Maturity Model 2007**
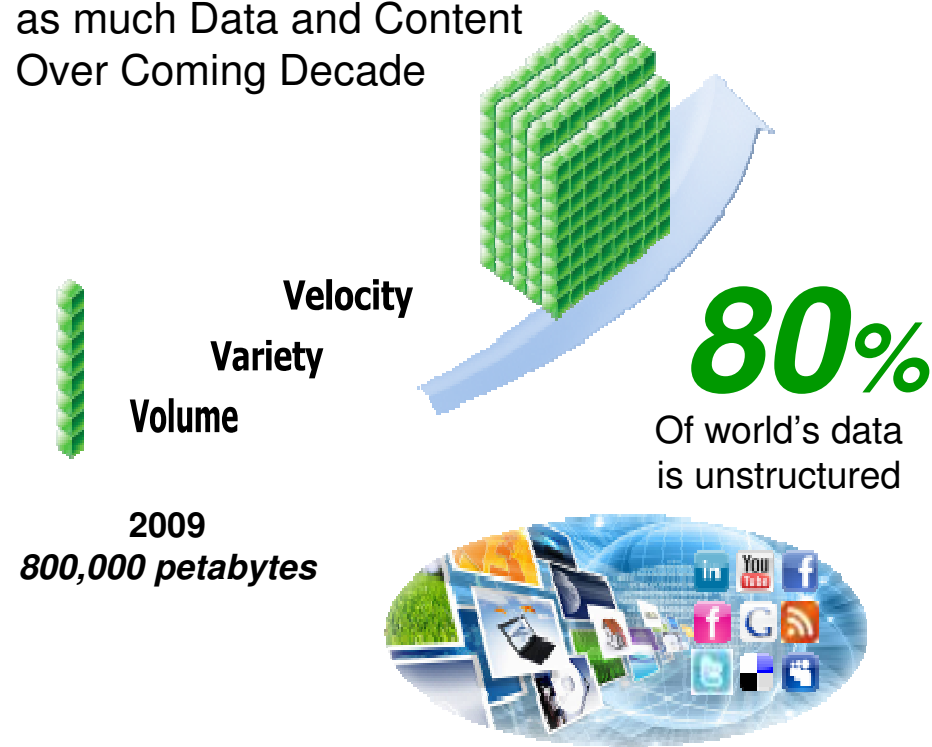
We're all information businesses now

From the largest F500 companies to the shop on the corner

44x

as much Data and Content
Over Coming Decade

Velocity
Variety
Volume

2009
800,000 petabytes

2020
35 zettabytes

80%
Of world's data
is unstructured

… And Organizations Need reliable information …

1 in 3 Business leaders frequently make decisions based on information they don't trust, or don't have

1 in 2 Business leaders say they don't have access to the information they need to do their jobs

83% of CIOs cited "Business intelligence and analytics" as part of their visionary plans to enhance competitiveness

60% of CEOs need to do a better job capturing and understanding information rapidly in order to make swift business decisions

Information is a vital resource to today's businesses …
But do you treat it as a vital resource?

- Can you deliver information …
  - Consistently ?
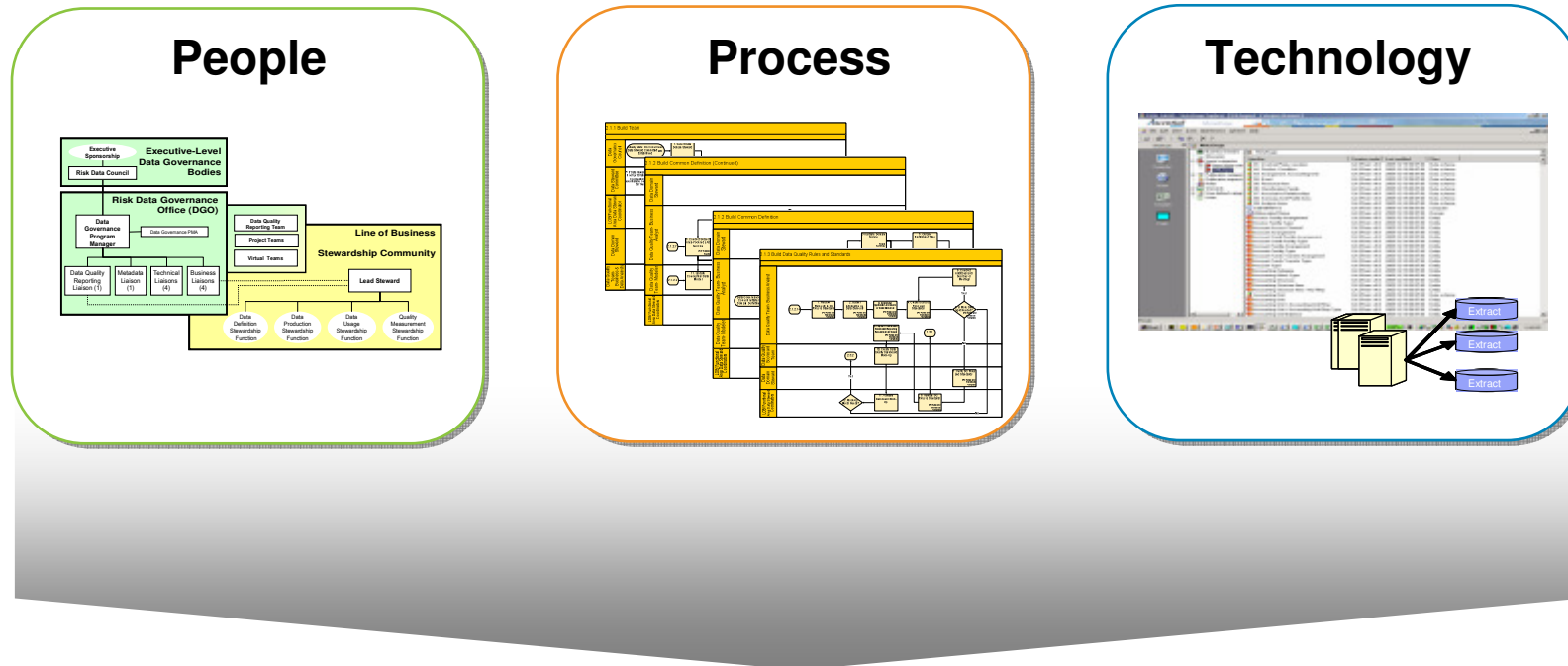 - Reliably ?
  - Cost effectively ?

- What would happen if the flow of information was disrupted?

- Are you leveraging the best and latest innovations to increase your return on investment in Information ?
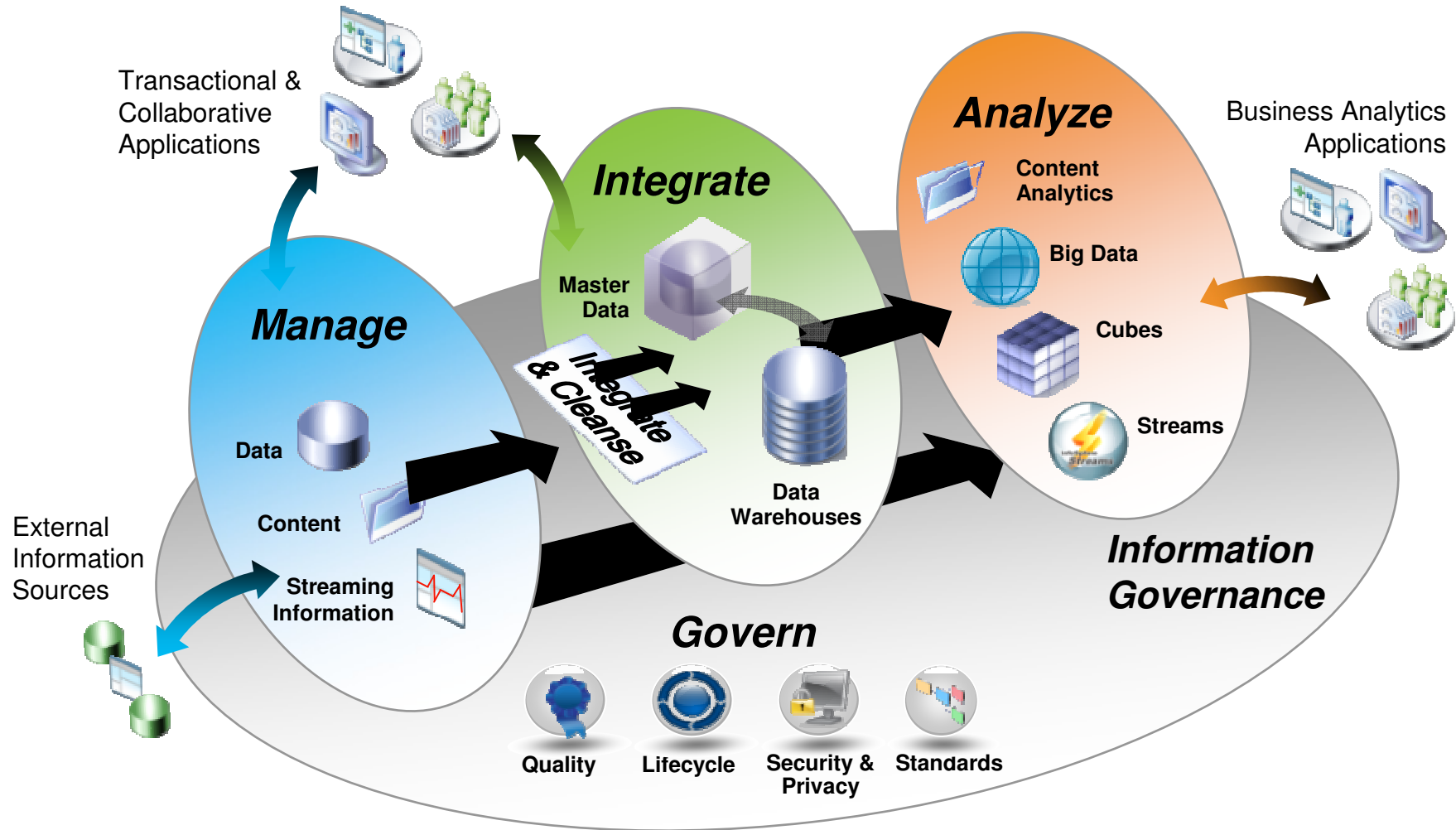
It starts with Information Governance
## Proactively leveraging information to unlock value and manage risk

People

Process

Technology

Ensure information is understood and consistently defined.

Increase the use and trust of information as an enterprise asset.

Protect information, reduce risk and comply.

Success requires governance across the "Information Supply Chain"

Successful organizations focus on Information Governance

Information Governance Levels

14%
32%
54%

3X

42%
25%
33%
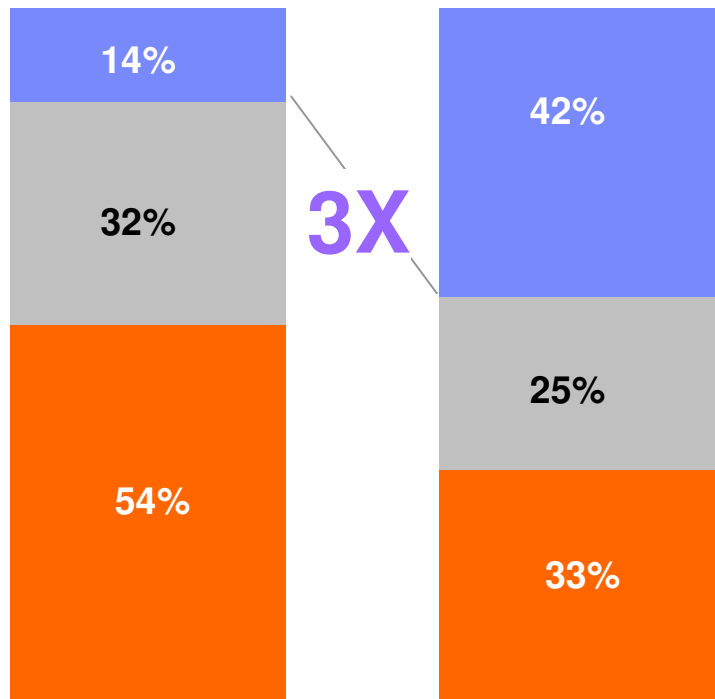
Lower performers
(i.e., 4th and 5th quintiles)

Top performers
(i.e., 1st quintile)

Sophisticated
Processes and management systems that are strong with some supporting automation

Competitive
Defined processes and management systems that are adopted by most

Rudimentary
Basic processes and the beginnings management systems

… But most organizations continue to struggle

Increasing Complexity	Declining Quality	Protecting Privacy	Ensuring Compliance
1 trillion	**$8.2 million**	**$204**	**$29.8 billion**
Connected devices in the world	Annual loss by average organization due to poor data quality	Cost per compromised record	U.S spending on governance, risk and compliance
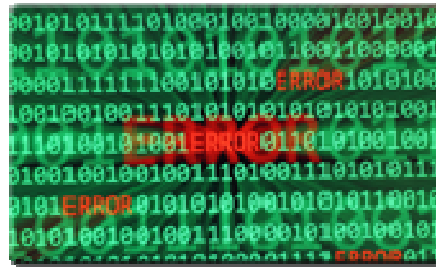
> *CIOs must determine whether your Information Governance strategy adequately reflects the relationship to your overall information management initiative. If the relationship is unclear, or the stated goals are different, work with the business to refactor your strategy.*
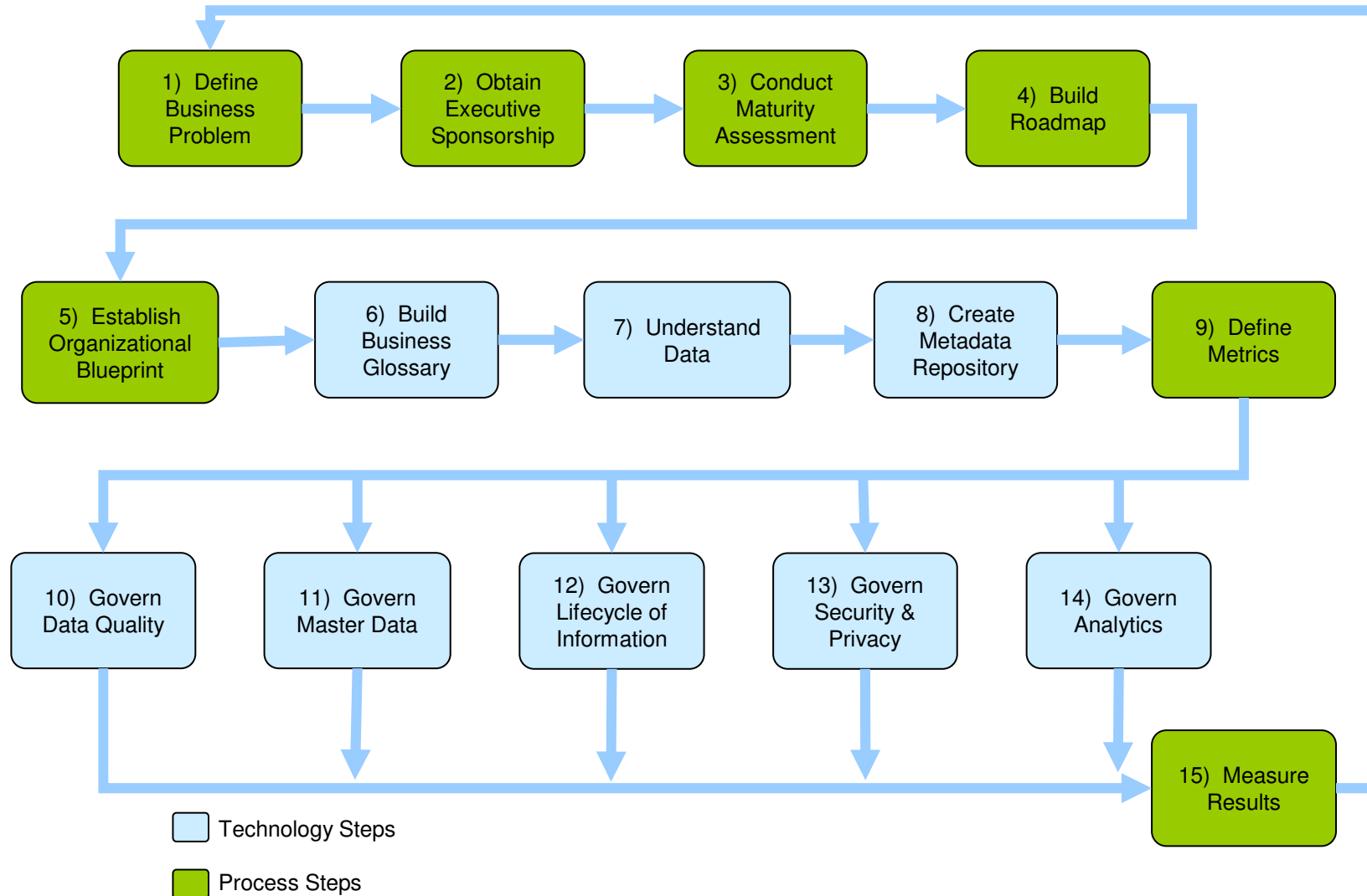>
> *Gartner Research, Q&A: Information Governance, Anne Lapkin, Debra Logan, Jan 19, 2011*

Successful projects require methodology to succeed

- How the customer explained it
- How the project leader understood it
- How the analyst designed it
- How the programmer wrote it
- How the business consultant described it
- How the project was documented
- What IT installed
- How the customer was billed
- How it was supported
- What the customer really needed

Good governance requires process and accountability
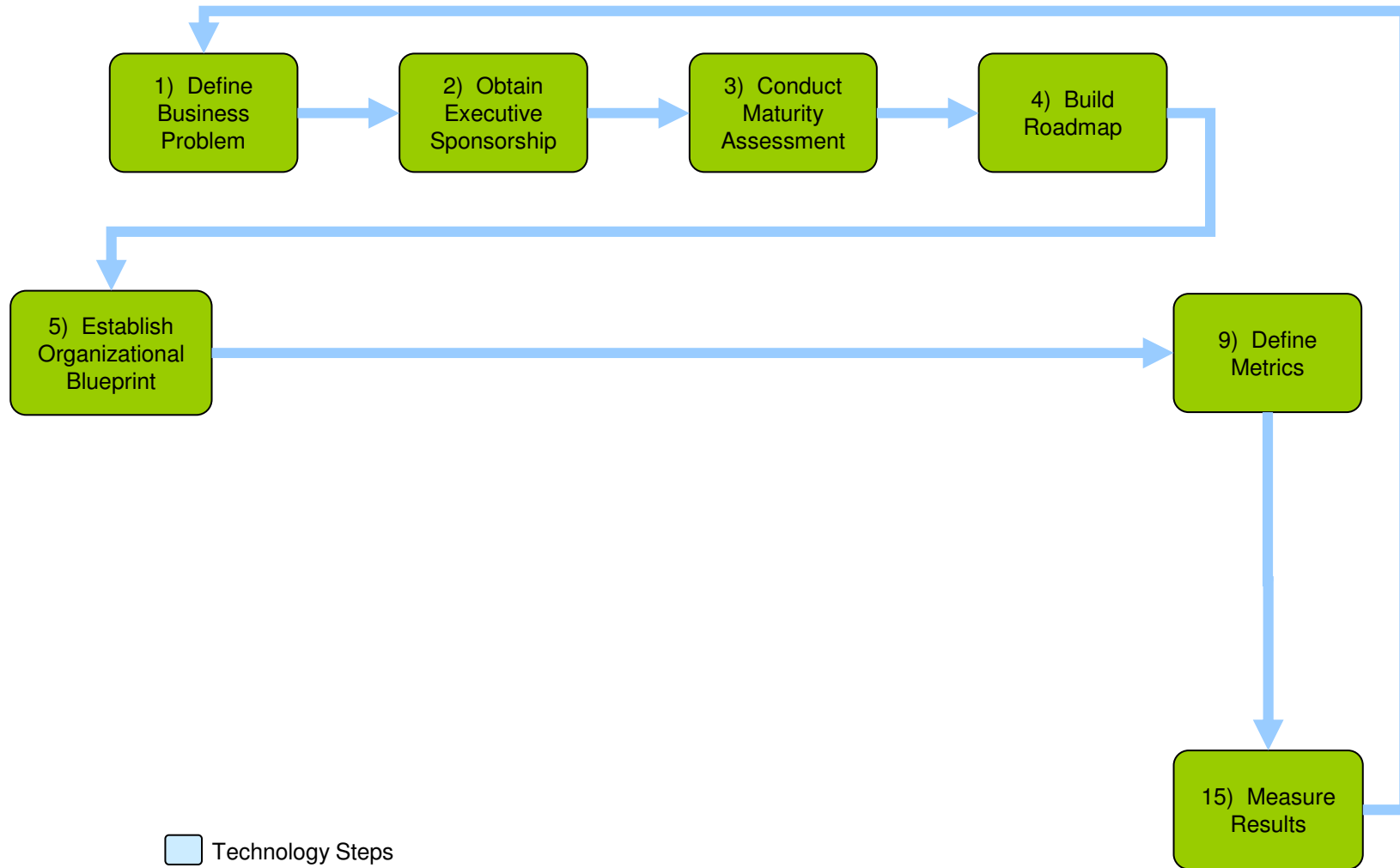## IBM Information Governance Unified Process

| 1) Define Business Problem | → | 2) Obtain Executive Sponsorship | → | 3) Conduct Maturity Assessment | → | 4) Build Roadmap |

| 5) Establish Organizational Blueprint | → | 6) Build Business Glossary | → | 7) Understand Data | → | 8) Create Metadata Repository | → | 9) Define Metrics |

| 10) Govern Data Quality | 11) Govern Master Data | 12) Govern Lifecycle of Information | 13) Govern Security & Privacy | 14) Govern Analytics |

15) Measure Results

☐ Technology Steps

■ Process Steps

Outcomes
- Data Risk Management & Compliance
- Value Creation

Enablers
- Organizational Structures & Awareness
- Stewardship
- Policy

Core Disciplines
- Data Quality Management
- Information Life-cycle Management
- Information Security & Privacy

Supporting Disciplines
- Data Architecture
- Classification & Metadata
- Audit Information Logging & Reporting

- Established Information Governance Council over 6 years ago
- Developed Maturity Model for Information Governance as an independent group by:
  - Customers
  - Analysts
  - IBM
  - Partners
- Community now exceeds 1500 members around the world
- Free to join and share ideas and information with your peers
- www.infogovcommunity.com

We start with the processes

1) Define Business Problem → 2) Obtain Executive Sponsorship → 3) Conduct Maturity Assessment → 4) Build Roadmap

5) Establish Organizational Blueprint → 9) Define Metrics

15) Measure Results

Technology Steps

Process Steps

Define the business problem

- **Banking:** Lender could not easily quantify the overall exposure to corporate entities with multiple subsidiaries in different countries that had individual lines of credit causing issues in understanding risk   <<VP of Credit Risk>>

- **Insurance:** As a result of impending Solvency II, an insurer must be able to tell their members who has seen their data in the past x number of days <<Chief Risk Officer>>

- **Retail:** PCI regulations require specific protections on credit card transactions and lack of compliance can lead to fines and inability to process credit cards <<Chief Information Security Officer>>

- **Government:** Child Welfare Services agencies must track children who do not have a name, address and social security number <<Agency Director>>

- **Healthcare:** Information about new members is entered into as many as ten different screens causing member information that is inconsistent and scattered across these siloed systems <<SVP of Customer Service/COO>>

- **Telecom:** Significant increase in the amount of incoming data that must be stored due to retention regulations is causing runaway storage costs eating into the rest of the IT budget <<VP IT Infrastructure>>

Obtain executive sponsorship

- Information Governance will only succeed if the process engages the right stakeholders from IT and the business
- Identify an owner of the Information Governance program
  - Processes will generally fail if it isn't an owned responsibility
- Identify additional stakeholders
  - As a general rule, it is any function that relies on information for effective performance
- Establish the business case
- Focus on "quick hits", measure outcomes and show success
  - Improve data quality to support better marketing to customers
  - Manage data lifecycle to reduce costs of storage
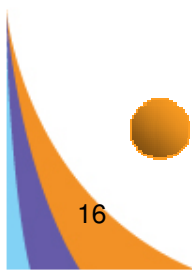 - Monitor database activity to protect data and enhance compliance
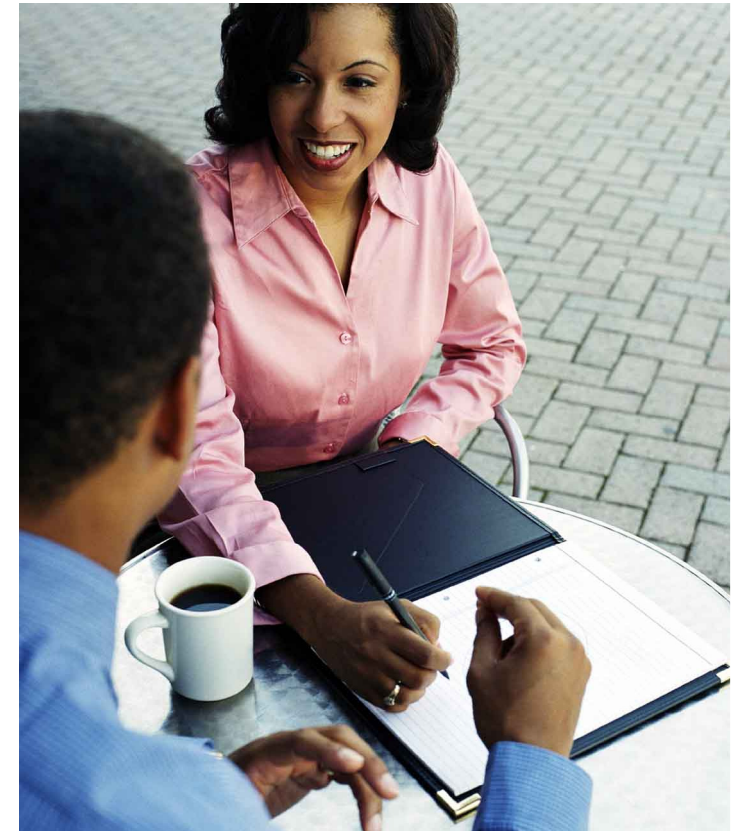
Conduct an assessment
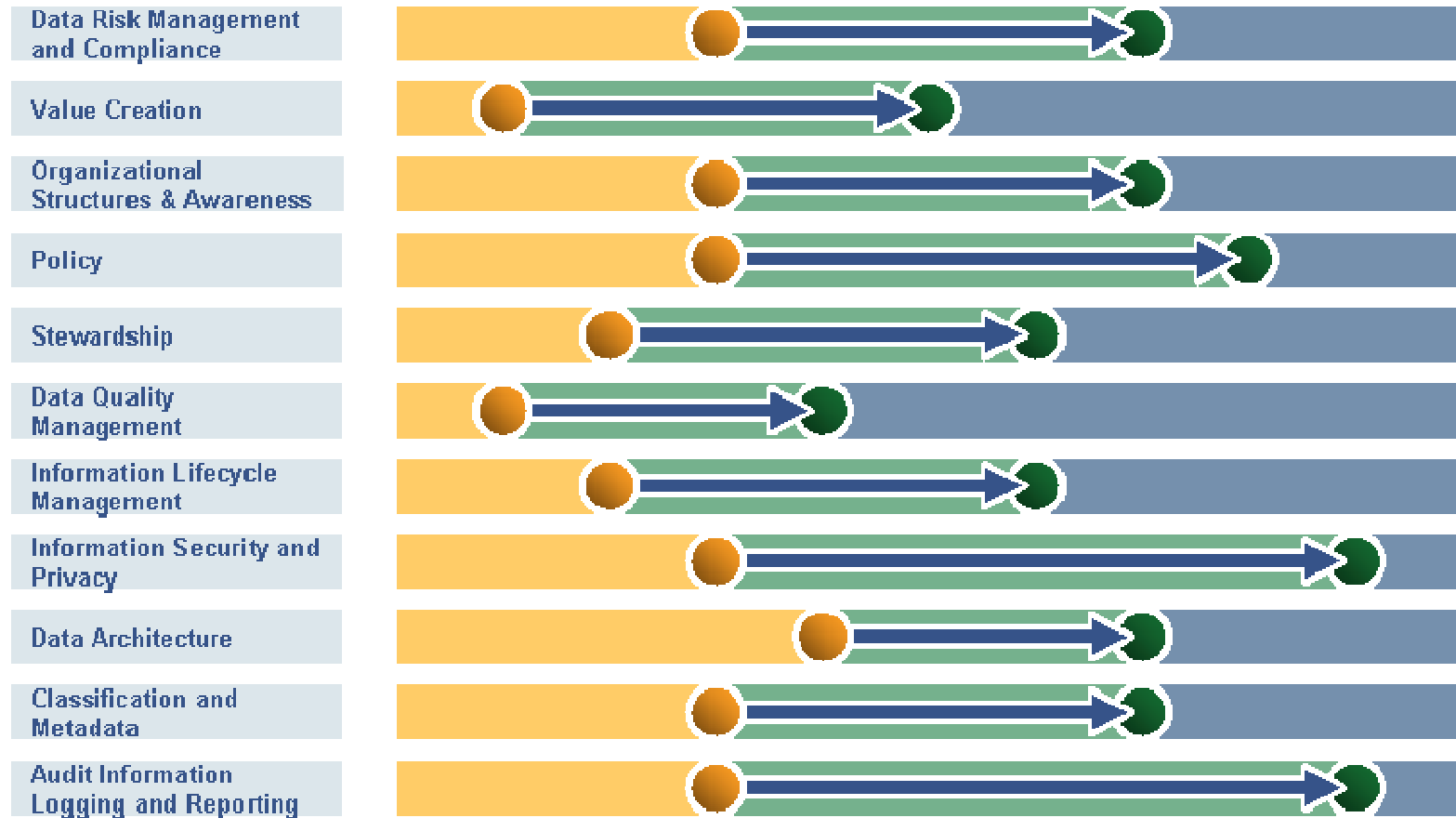
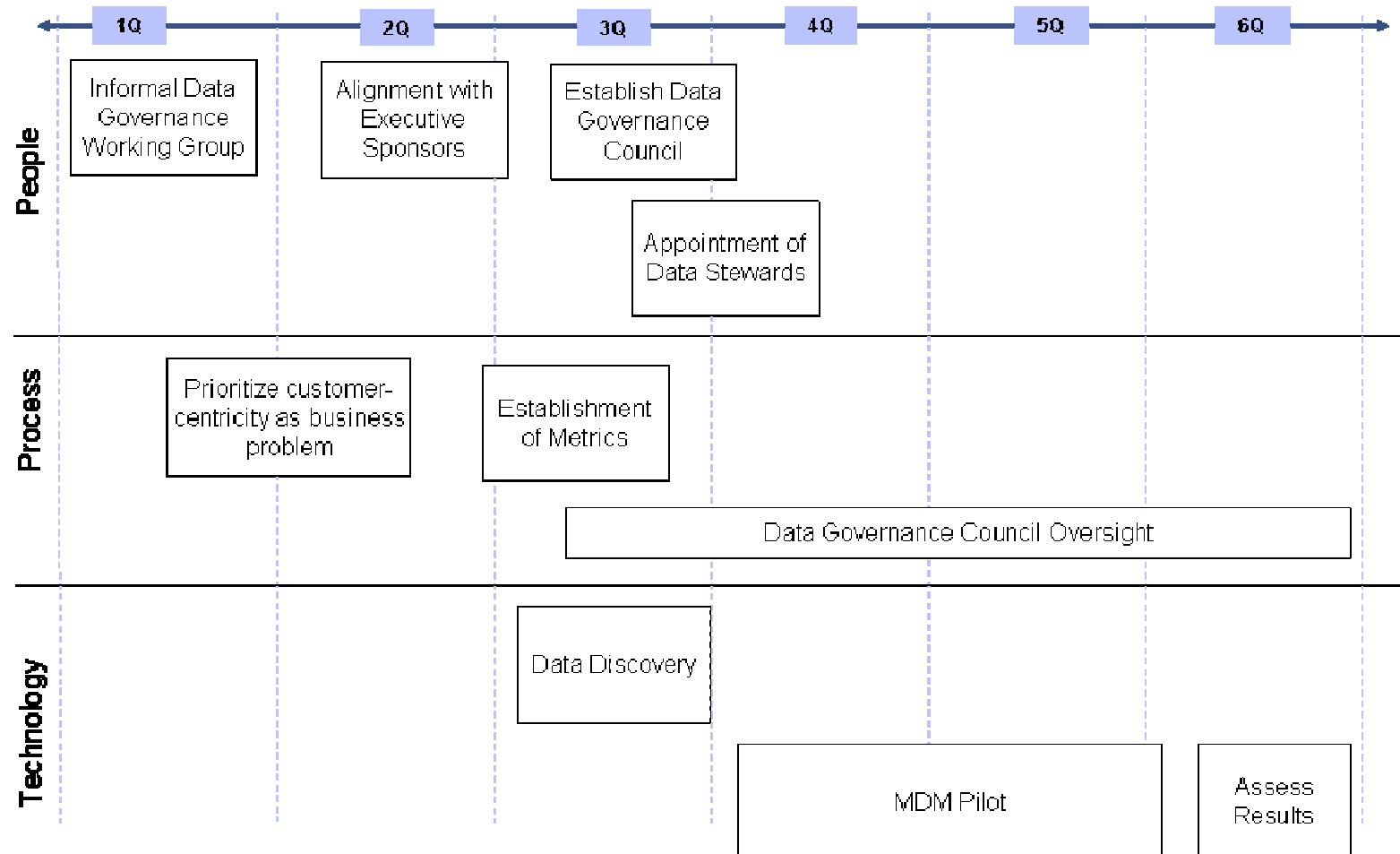|	Initial	Managed	Defined	Quantitatively Managed	Optimizing

Scope of services

Legend:
- 🟠 Assess current state
- 🟢 Determine future state
- 🟩 Identify required capabilities and initiatives
- ➡ Develop roadmaps

Categories:
- Data Risk Management and Compliance
- Value Creation
- Organizational Structures & Awareness
- Policy
- Stewardship
- Data Quality Management
- Information Lifecycle Management
- Information Security and Privacy
- Data Architecture
- Classification and Metadata
- Audit Information Logging and Reporting

# Example business case for data quality in marketing

A. Total number of customers in the marketing list	950,000
B. Number of individual party matches	40,000
C. Additional duplicate individuals who are double-counted as part of a household	50,000
D. Total number of duplicate matches	90,000
E. Number of annual marketing mailings per customer	2
F. Cost per mailing	$3.25
G. Total avoidable cost of duplicate mailings (DxExF)	$585,000
H. Outbound telemarketing calls per customer per year	4
I. Cost per outbound telemarketing call	$1.50
J. Total avoidable cost of outbound telemarketing calls (DxHxI)	$540,000
K. Total avoidable cost of duplicate matches (G+J)	$1,125,000
L. Cost to implement data quality tools	$500,000
M. Annual Cost of full-time customer data steward	$200,000
N. Total cost of data quality solution (L+M)	$700,000
O. Payback period	7.5 months

Build a roadmap

Establish organizational blueprint

Sample Manufacturer

Information Governance Council		
Chief Information Officer (lead)	Chief Financial Officer	Chief Risk Officer
SVP Supply Chain	SVP Business Unit A	SVP Business Unit B

Information Working Group		
Enterprise Data Architect (lead)	Finance	Risk
Supply Chain	Content Management	Chief Data Steward

Data Stewards
Finished Goods, Raw Materials, Customers, Vendors, Employees, Accounts

- Define the Information Governance charter

- Define the organization structure for information governance

- Establish the Information Governance council

- Establish the Information Governance working group

- Identify data stewards

- Conduct regular meetings

  – Information Governance council

  – Information Governance working group
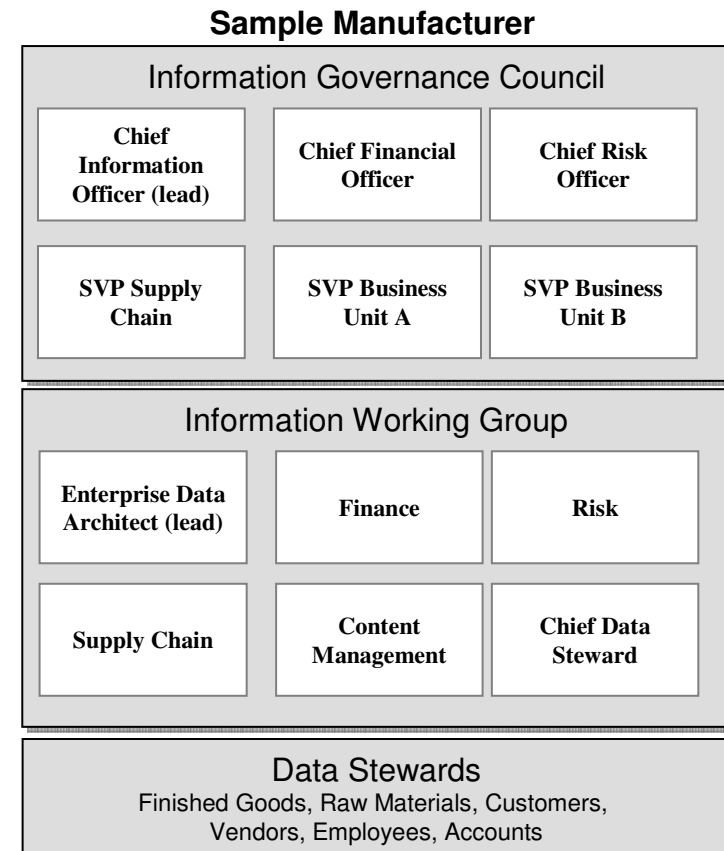
" *Remember that when Information Governance roles are created, they should be explicitly made part of the job, and the individuals assigned to them must be accountable for their performance in those roles. It's not good enough to say 'we know you have a day job, but we'd like you to be responsible for this information as well'.* "

Gartner Research, Q&A: Information Governance, Anne Lapkin, Debra Logan, Jan 19, 2011

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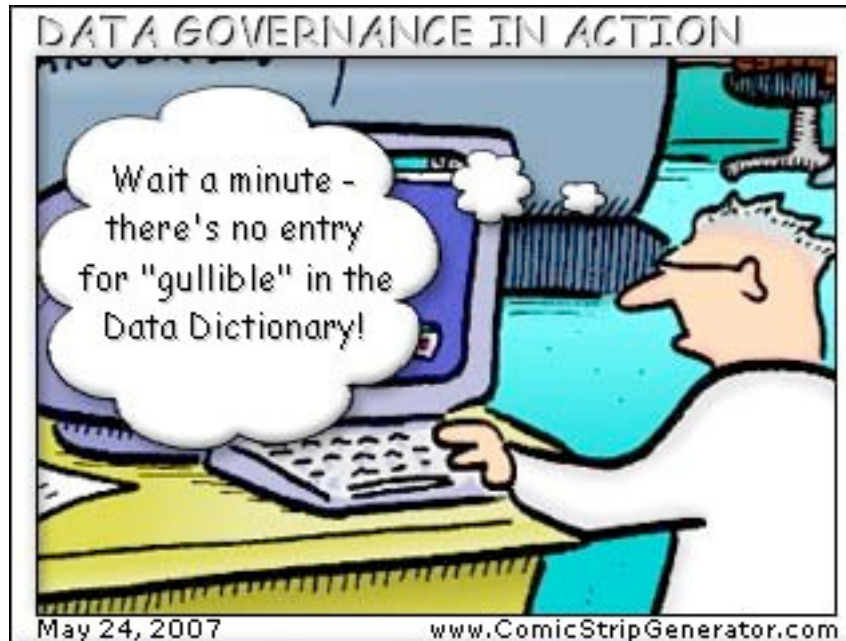# Define metrics, measure and communicate their results

Business

- **Banking:** Percentage of customer records with null Standard Industry Classification (SIC) codes

- **Insurance:** Percentage of policy holder records with null zip codes or postal codes, which will improve the trustworthiness of the insurer's Solvency II calculations for catastrophic risk
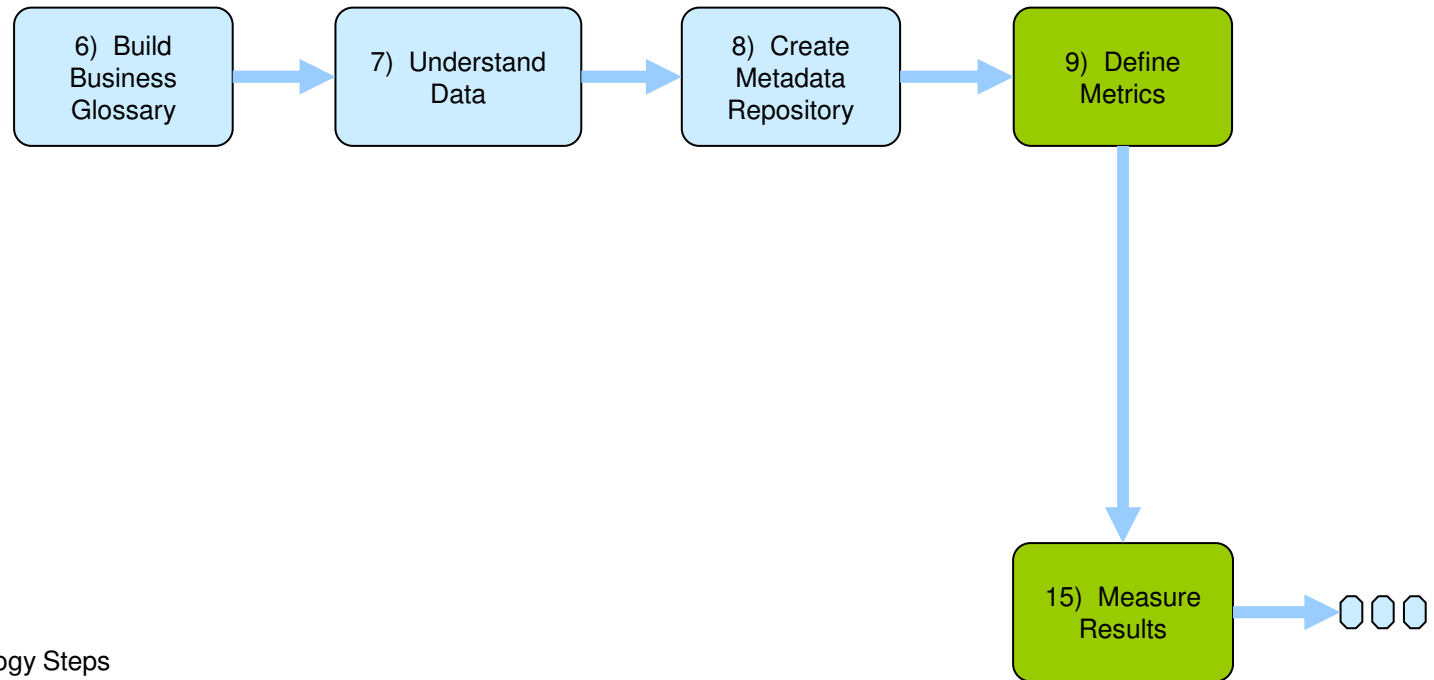
Technical

- **Metadata:** Percentage of business terms with agreed-upon definitions (by domain such as Risk and Finance) that have been populated within the data dictionary, and the number of "orphaned assets"

- **Content Management:** Percentage of paper, electronic and email documents by business unit that have been digitized, and are under records management

- **Archiving:** Total storage in gigabytes, total cost of storage, average application response time and average time in days to turn around audit queries

- **Security and Privacy:** Number of failed audits for regulations such as SOX, PCI, HIPAA, EUDP…

- **Database Auditing:** Number of tests conducted within the previous twelve months to test sensitive data for vulnerabilities
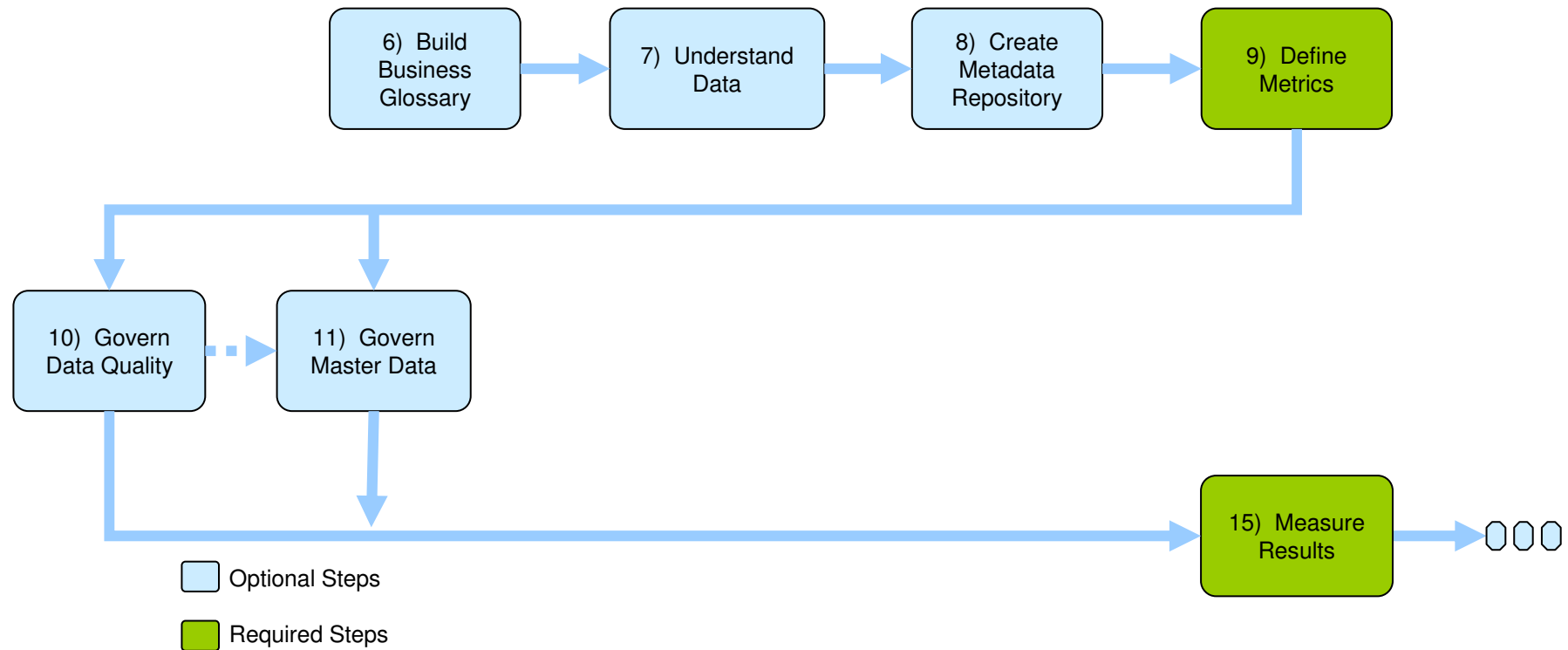
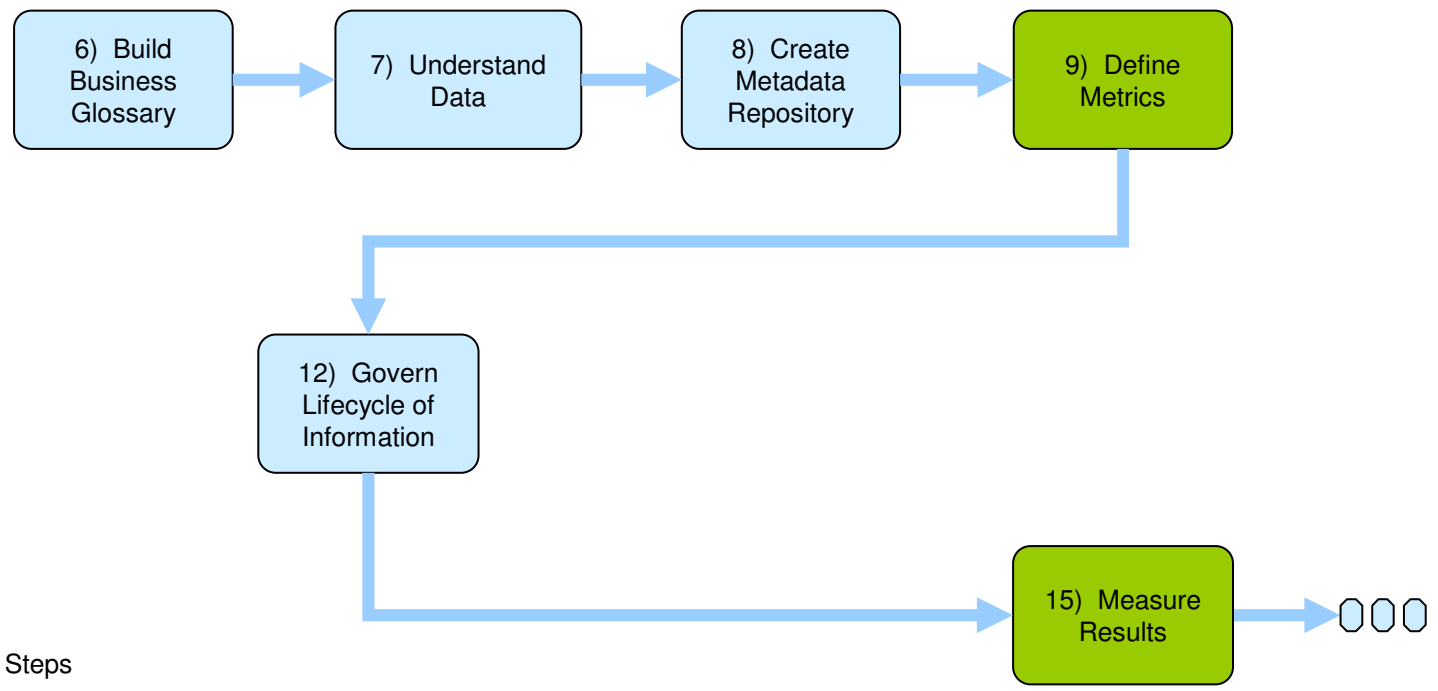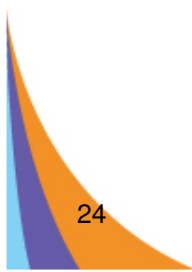# Miscommunication happens

Put the right standards in place

```
┌──────────────┐      ┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│ 6)  Build    │ ───▶ │ 7)  Understand│ ───▶ │ 8)  Create   │ ───▶ │ 9)  Define   │
│ Business     │      │     Data     │      │  Metadata    │      │  Metrics     │
│ Glossary     │      │              │      │  Repository  │      │              │
└──────────────┘      └──────────────┘      └──────────────┘      └──────────────┘
                                                                          │
                                                                          ▼
                                                                  ┌──────────────┐
                                                                  │ 15)  Measure │ ───▶ ☐☐☐☐
                                                                  │   Results    │
                                                                  └──────────────┘
```

☐ Technology Steps

■ People Steps

Master Data Governance

```
┌─────────────┐      ┌─────────────┐      ┌─────────────┐      ┌─────────────┐
│ 6)  Build   │      │ 7) Understand│     │ 8)  Create  │      │ 9)  Define  │
│  Business   │ ───▶ │    Data      │ ──▶ │  Metadata   │ ──▶ │   Metrics   │
│  Glossary   │      │             │      │ Repository  │      │             │
└─────────────┘      └─────────────┘      └─────────────┘      └─────────────┘
```

```
┌─────────────┐      ┌─────────────┐
│ 10)  Govern │┈┈┈▶ │ 11)  Govern │
│ Data Quality│      │ Master Data │
└─────────────┘      └─────────────┘
```

```
┌─────────────┐
│ 15)  Measure│ ──▶  □ □ □
│   Results   │
└─────────────┘
```

□ Optional Steps

■ Required Steps

6) Build Business Glossary → 7) Understand Data → 8) Create Metadata Repository → 9) Define Metrics

12) Govern Lifecycle of Information

15) Measure Results

Optional Steps

Required Steps

Manage Security and Privacy

9) Define Metrics

12) Manage Security & Privacy

14) Measure Results

Govern Analytics

```
6) Build          7) Understand      8) Create          9) Define
   Business           Data              Metadata            Metrics
   Glossary                             Repository
```

```
                                                         14) Govern
                                                             Analytics
```

```
                                                         15) Measure
                                                             Results
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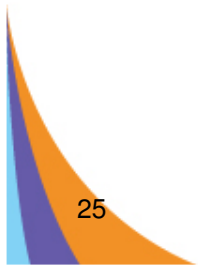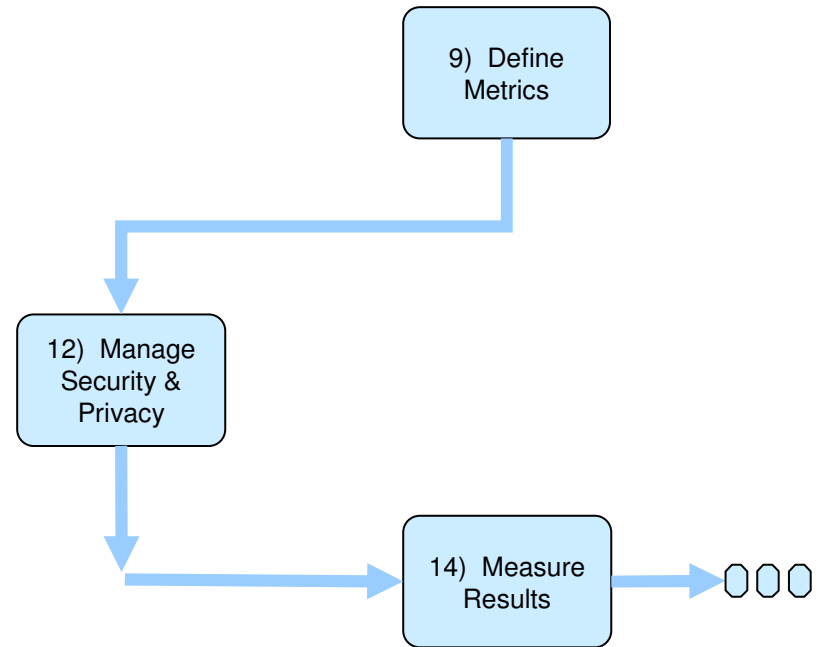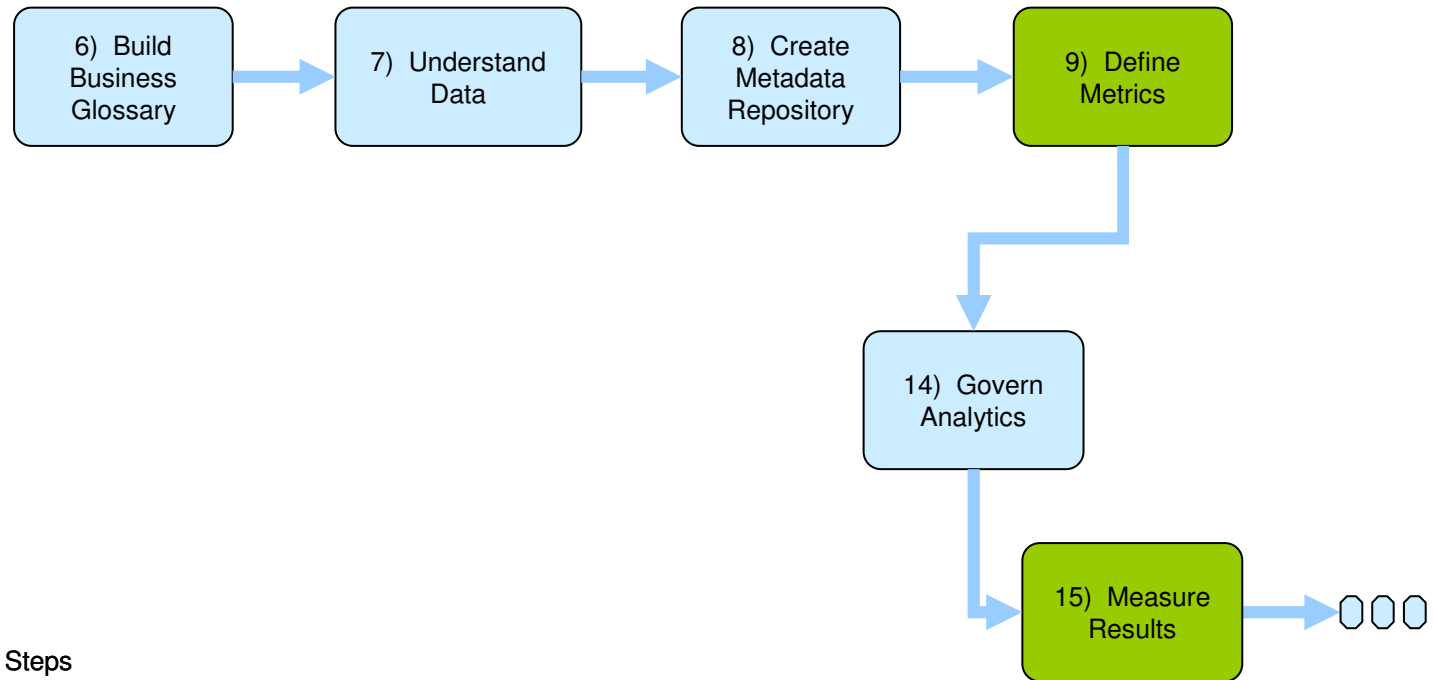
☐ Optional Steps

☐ Required Steps
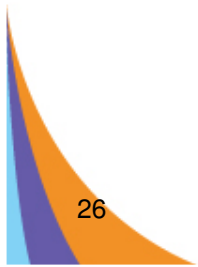
Results from good Information Governance

- **Understand your information**
  - Know what exists
  - How is it related
  - Ensure common understanding and definitions
- **Contain costs**
  - Manage costs with continuous growth
  - Retain information without growing retention costs
- **Maximize value from your information**
  - Make decisions that you can trust
  - Increase revenues
  - Reduce costs
- **Secure and Protect**
  - Keep information safe from internal and external threats
  - Know who is accessing what information and why
- **Comply with regulatory requirements**
  - Retention
  - Security
  - Filings
  - Audits

IBM Information Governance Workshops

IBM conducts Information Governance Workshops as a no-fee 2 to 3 day engagement to help clients

▪ Conduct a Information Governance Maturity Assessment

▪ Establish a Roadmap

▪ Identify the Business Value to justify an Information Governance Program

▪ Discuss common KPIs for measuring success

▪ For more information
www.ibm.com/informationgovernance

▪ Join the community (+1500 members)
www.infogovcommunity.com

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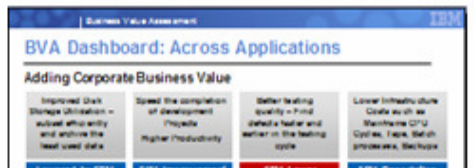
Customer Validation & Feedback

"We cannot operate any longer without such a tool."
Chief Information Architect, Financial Institution

"This is the most compelling idea that I've seen from IBM [in the Customer Advisory Board session] today. The value that I see is primarily to reduce risk and align business objectives with actual information integration solution."
VP Enterprise Applications, Healthcare

"I'm very pleased that IBM is building a product we've been looking for since we made the purchase of Information Server."
Information Architect, Retailer

"The ability to define repeatable processes and reusable building blocks is of high value to us. Include this in the purchase of the Information Server software."
SVP and Deputy CIO, Financial Institution

Thank you

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& GOVERNANCE FORUM 2011**

Delivering Trusted Information for Smarter Business Decisions