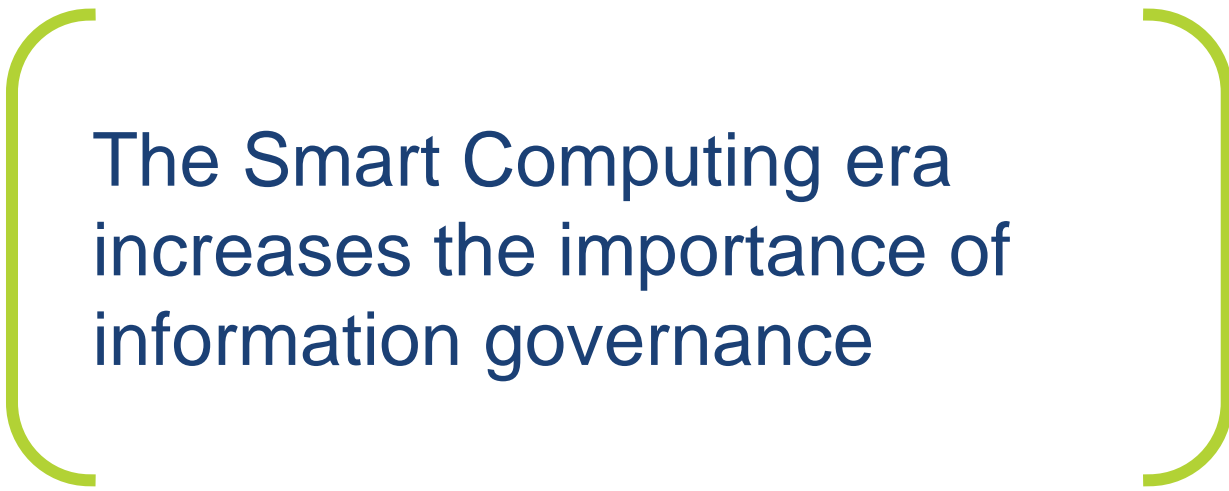


Smart Computing Will Create Information Management Challenges: Information Governance Can Help

Frank E. Gillett, Vice President, Principal Analyst

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FORRESTER®



The Smart Computing era
increases the importance of
information governance

Agenda

1. How will the Smart Computing era affect information?
2. What is Information Governance and how will it help?
3. What is the roadmap to successful Information Governance?

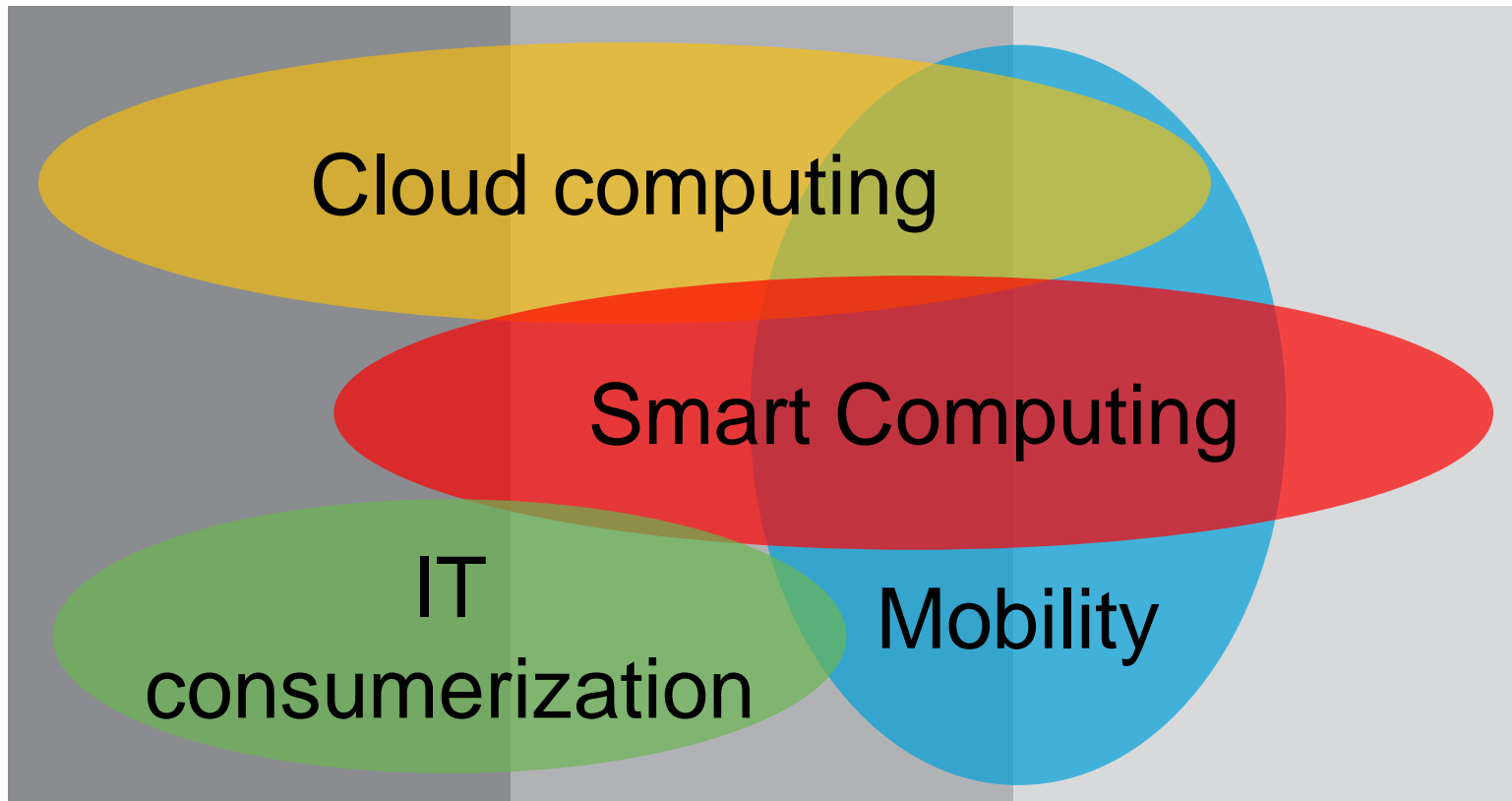
New technologies provide new opportunities – and challenges – for CIOs to meet their objectives

CIO objectives

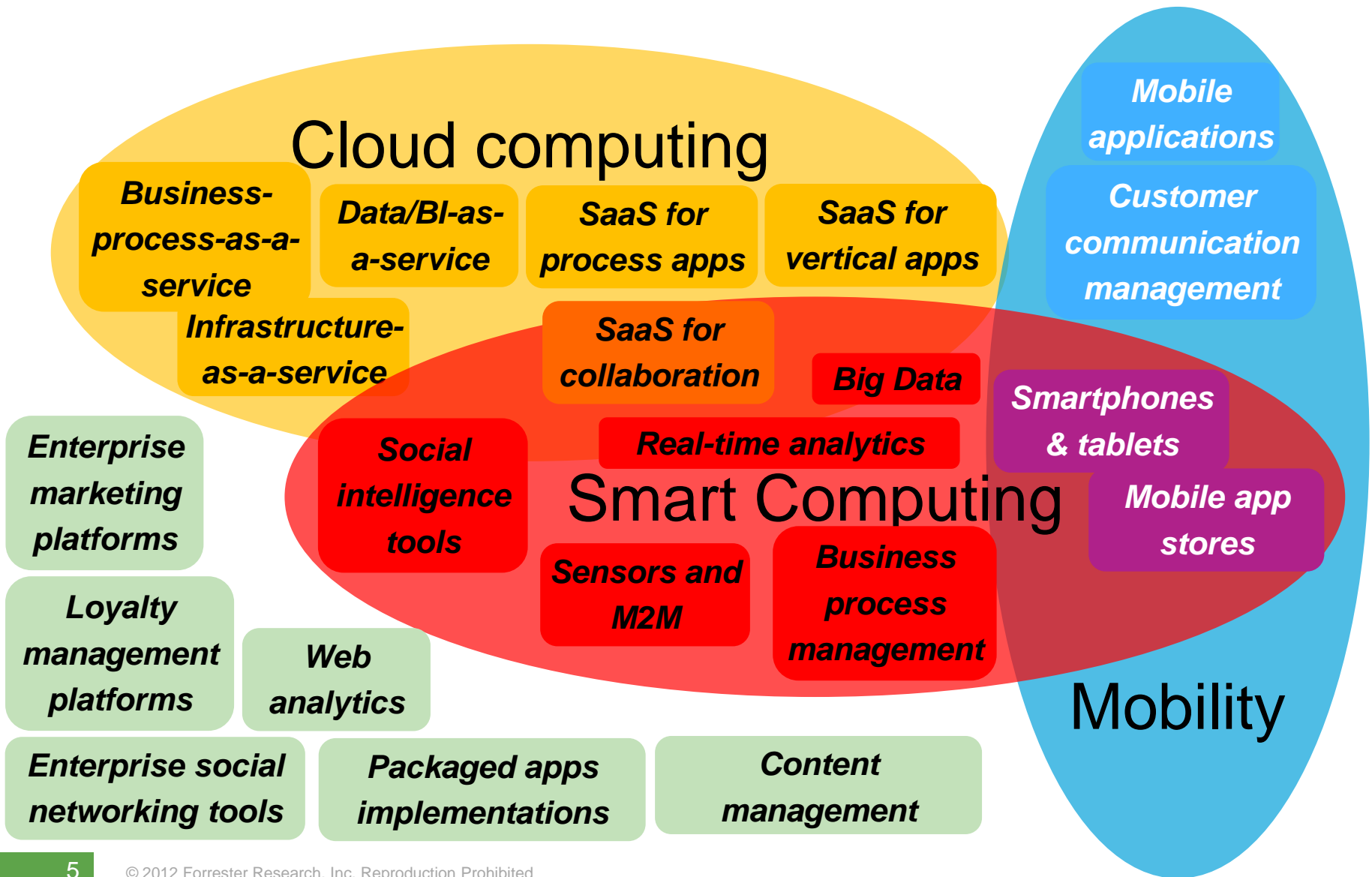
Support the business with secure, reliable and low cost ICT systems

Deliver new projects and IT capabilities on time and on budget

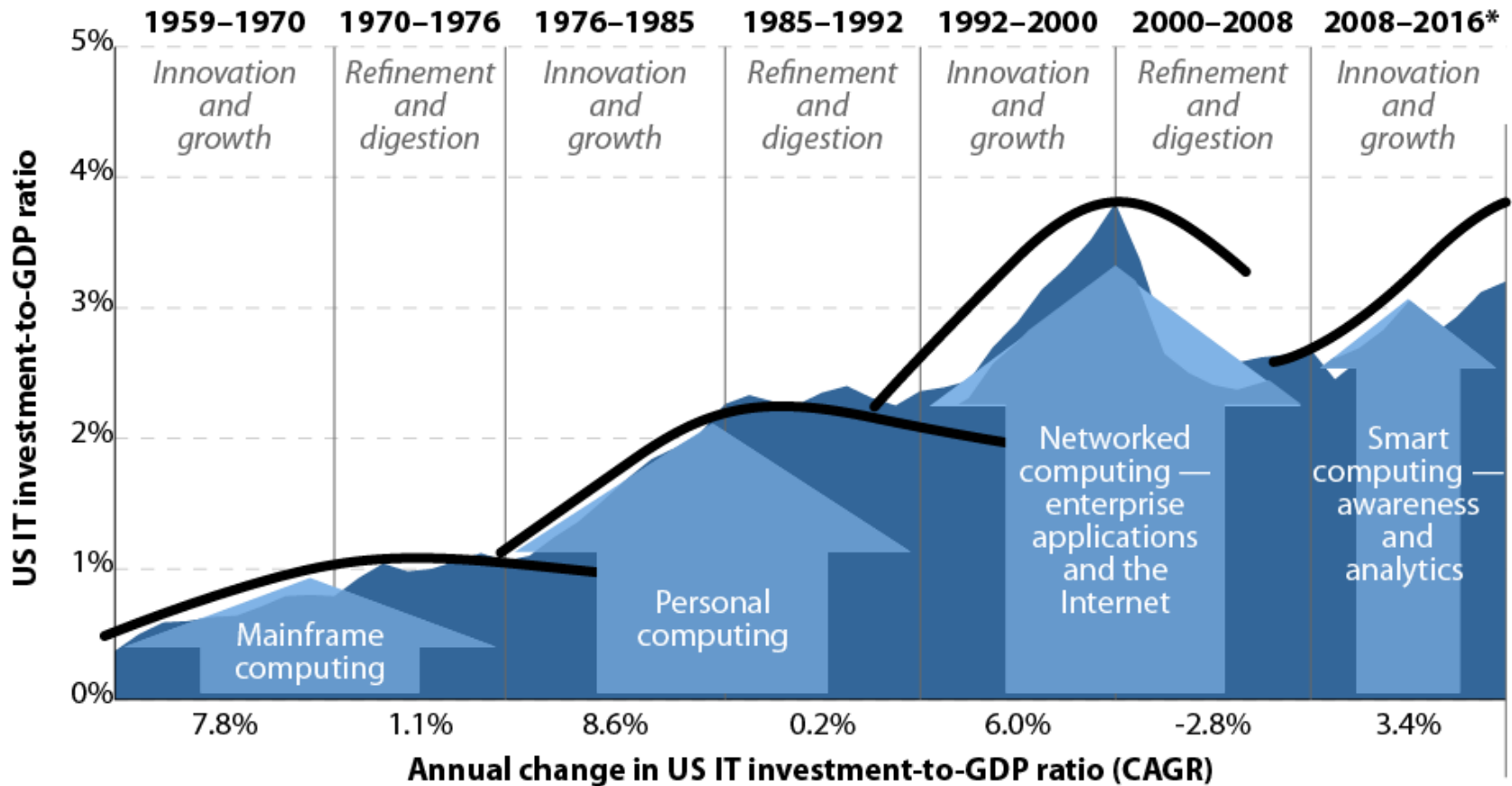
Transform the business by identifying and introducing new technologies



Smart Computing includes eight new technologies out of over 20 available for business



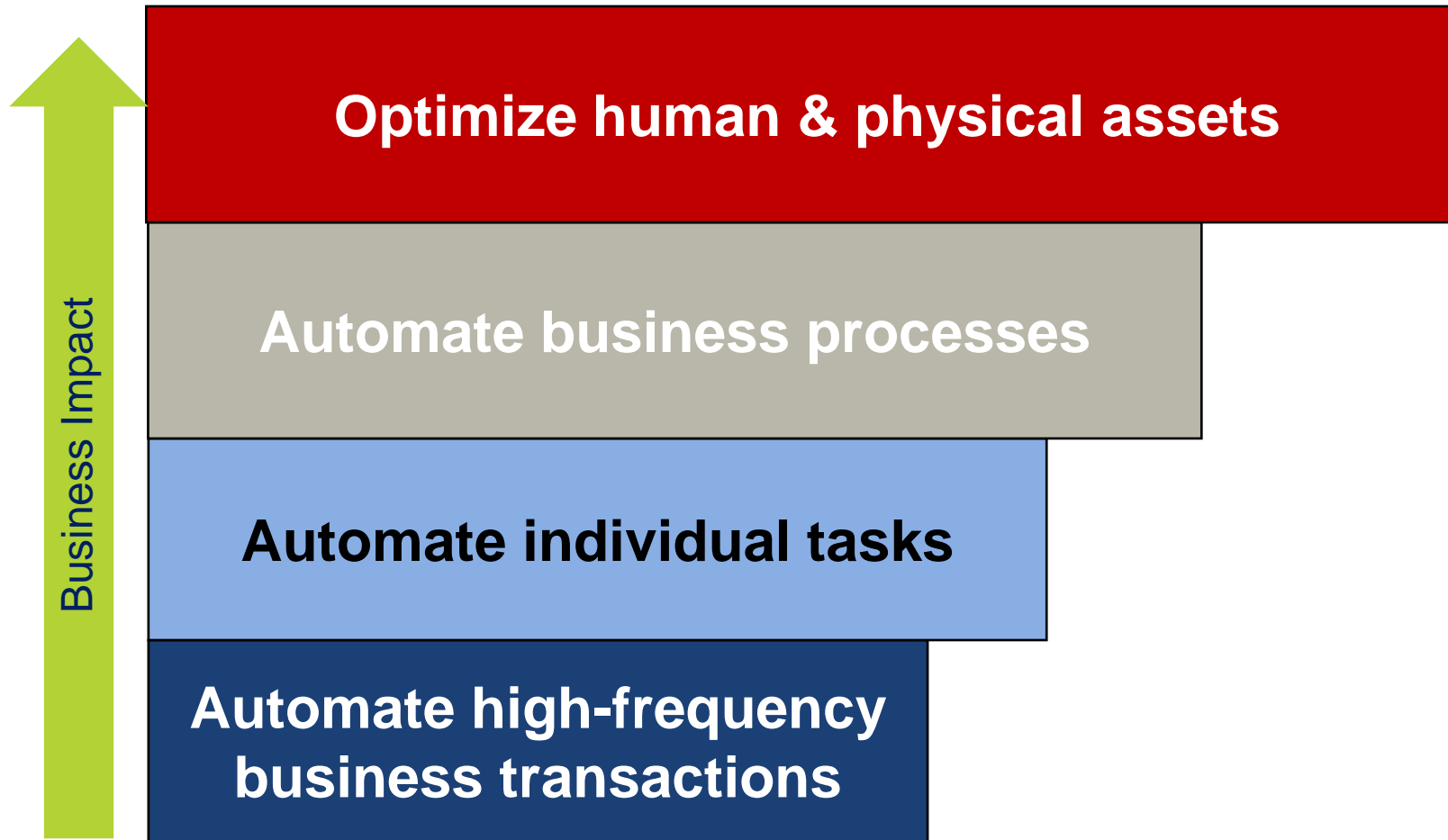
Smart Computing Is The Fourth Wave Of Tech Innovation And Growth



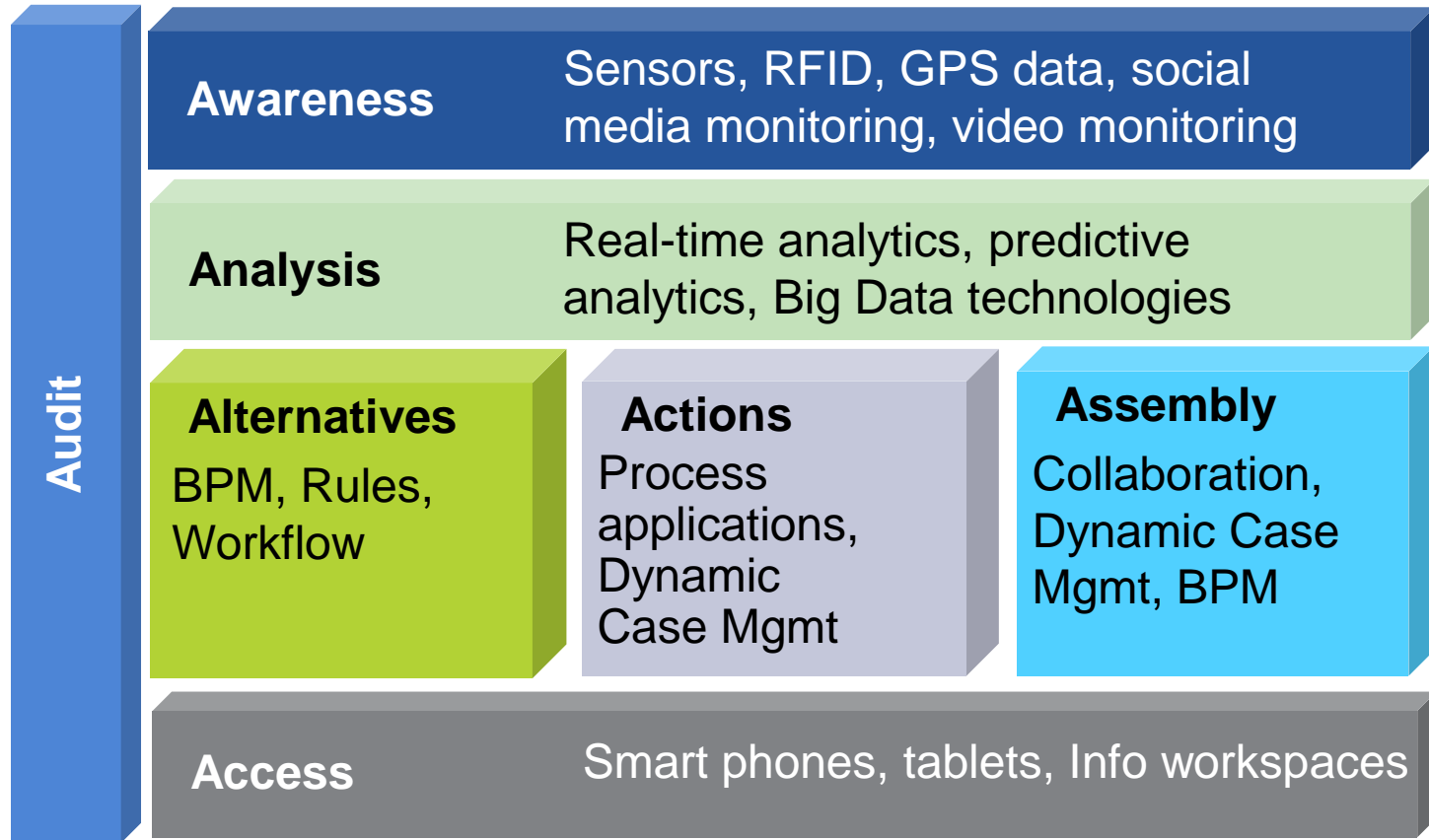
*Forrester Forecast

Source: Forrester Research based on US Department of Commerce data on annual nominal GDP and business and government investment in IT, adjusted to eliminate "Own Account" (internally built) software

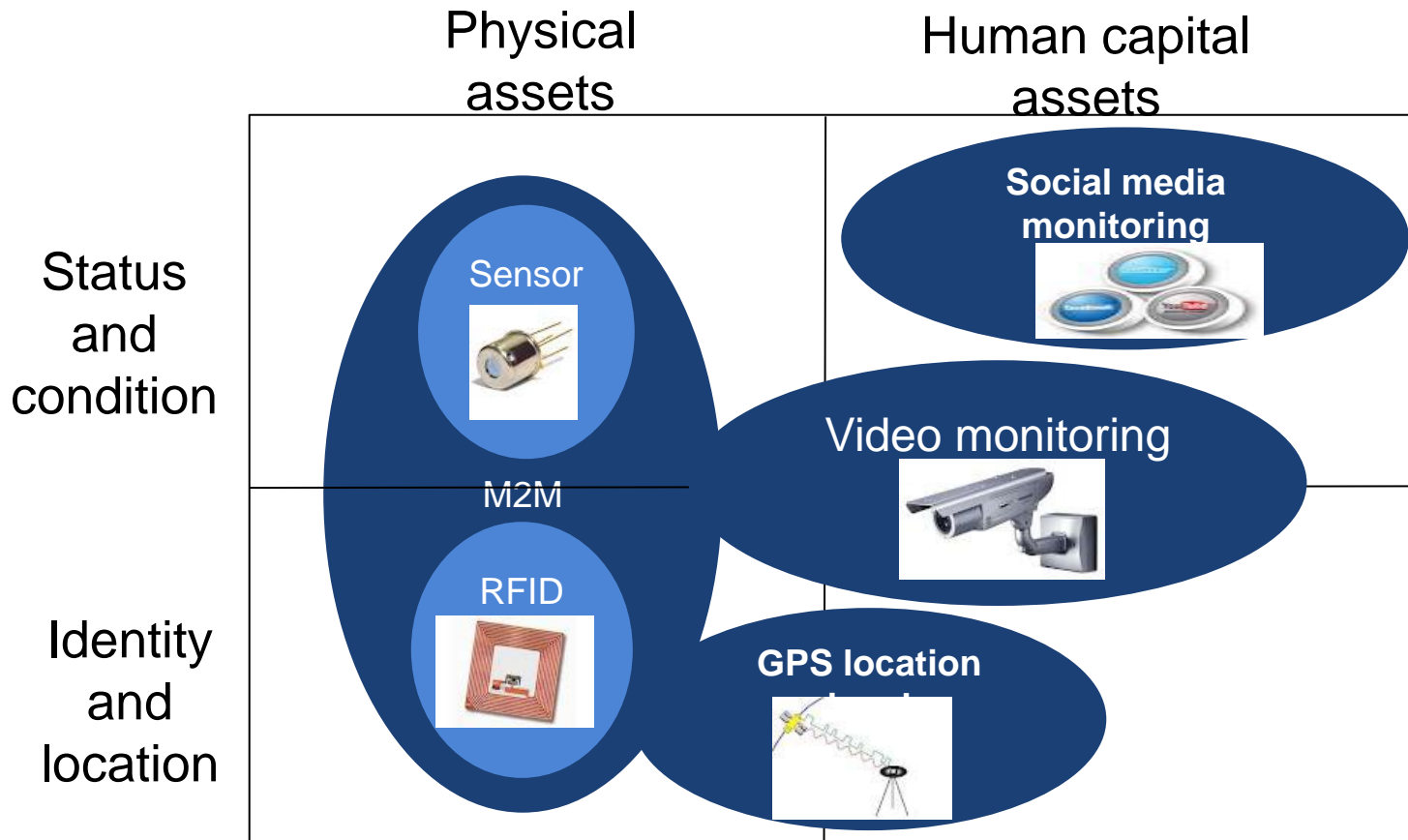
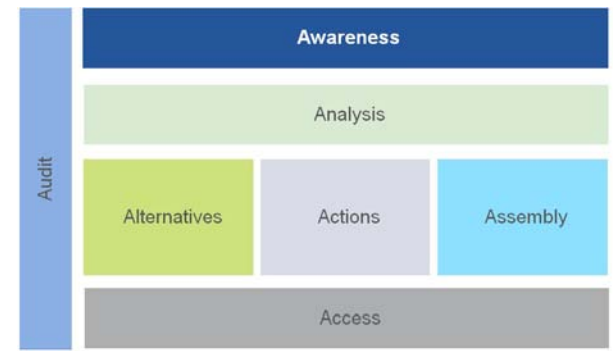
Smart Computing is a new generation of technology that helps solve unaddressed business problems



Smart Computing Architecture Stack – “The 7 As”



“Awareness” technologies matched with different business assets and business objectives



Defining big data – making extreme scale economical

Forrester's View of Big Data:

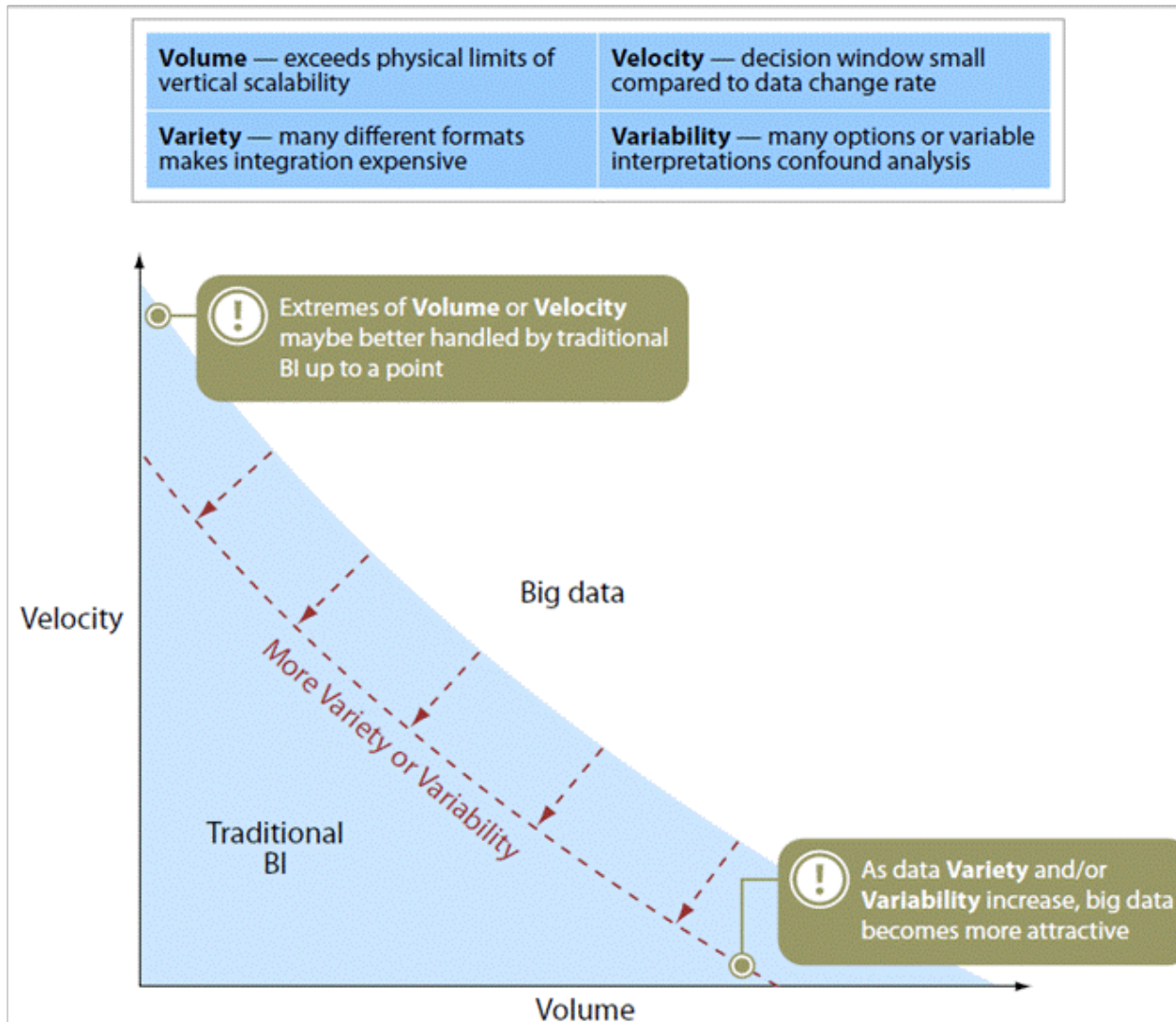
The techniques and technologies that make handling data at extreme scale economical

Big Data technology:

Can be characterized by:

- Massive parallel computing to divide and conquer huge workloads.
- Extremely flexible to allow unlimited data manipulation and transformation.
- Massively scalable in terms of both technology and cost.

Four dimensions of data at extreme scale



Big data is disruptive not incremental

Big data is not incremental solutions to old problems where data has grown bigger

- Big data is
 - New techniques and technologies
 - To handle what we can't do today
 - Using scalable and parallel technologies
 - That trade off consistency for software-based high availability and fault tolerance.
- Forrester definition excludes some solutions that other might call “big data”. Examples:
 - Massively parallel data warehouses
 - In-memory databases

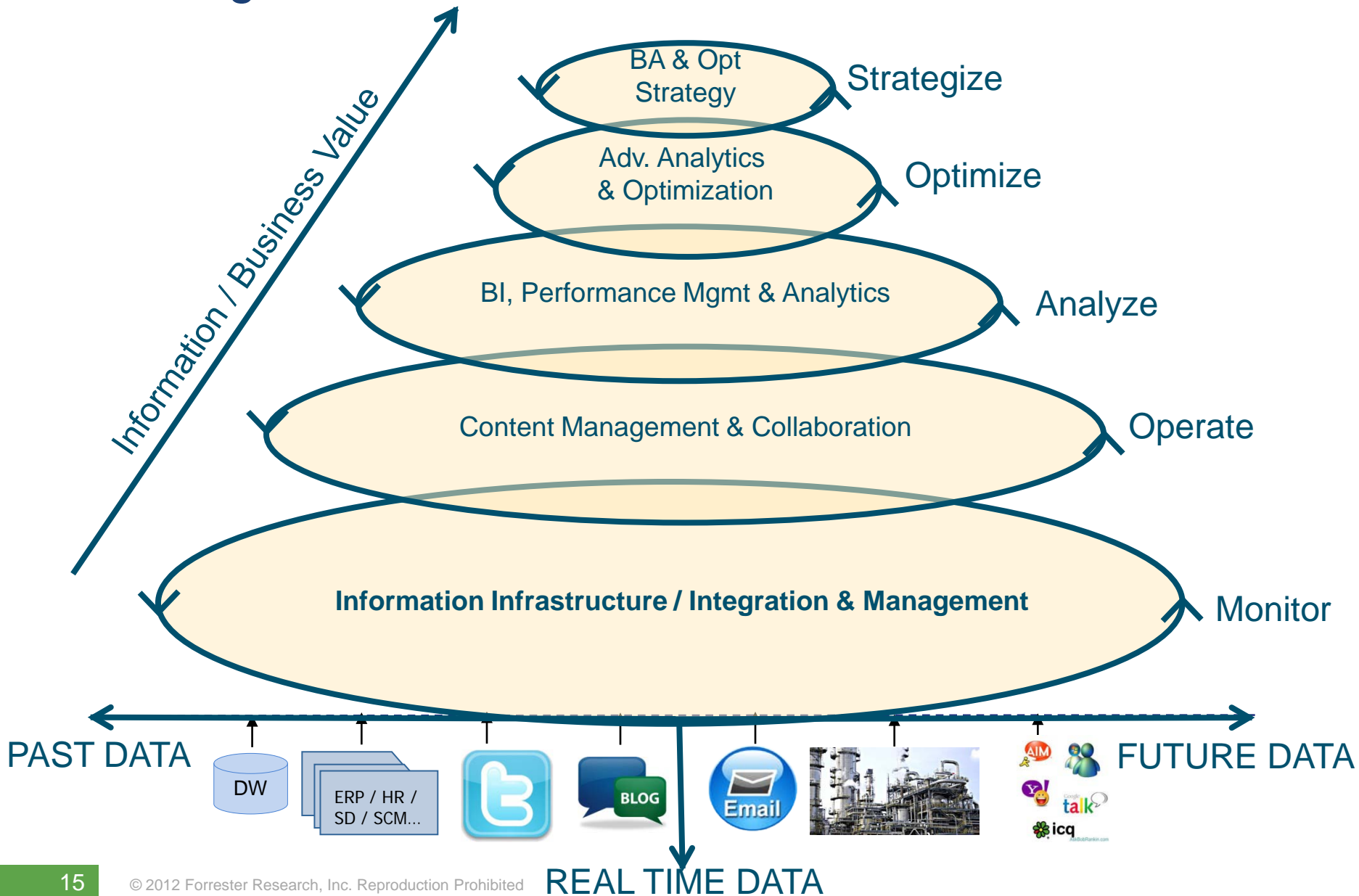
Smart Computing will vary by industry type

Industry categories	Examples	Smart Computing solution sets
Physical-asset-intensive industries	Mining, oil & gas, utilities, lodging, transportation, telecommunications	Sensors, M2M, RFID, video monitoring, GPS, mapping, routing analytics, predictive analytics, services management, Big Data
Human-asset-intensive industries	Professional services, software, insurance, regulatory agencies, investment banking	GPS, tablets and smart phones, case management, project management, collaborative tools, data repositories, Big Data tools
Physical & human-asset intensive industries	Education, health care, media, public safety agencies, public benefit agencies	GPS, RFID, M2M, mapping, video analysis, tablets and smart phones, case management, collaborative tools, predictive analytics
Transactional industries with physical assets	Discrete and continuous process manufacturing, wholesale, securities trading	RFID, sensors, M2M, video monitoring, customer information, predictive analytics, BPM, demand analytics, risk analytics
Transactional industries with human assets	Retail, commercial banking, consumer banking	Mapping, social media analysis, Big Data customer and predictive analytics, BPM, smartphones and tablets, service collaboration

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Turning data into business value

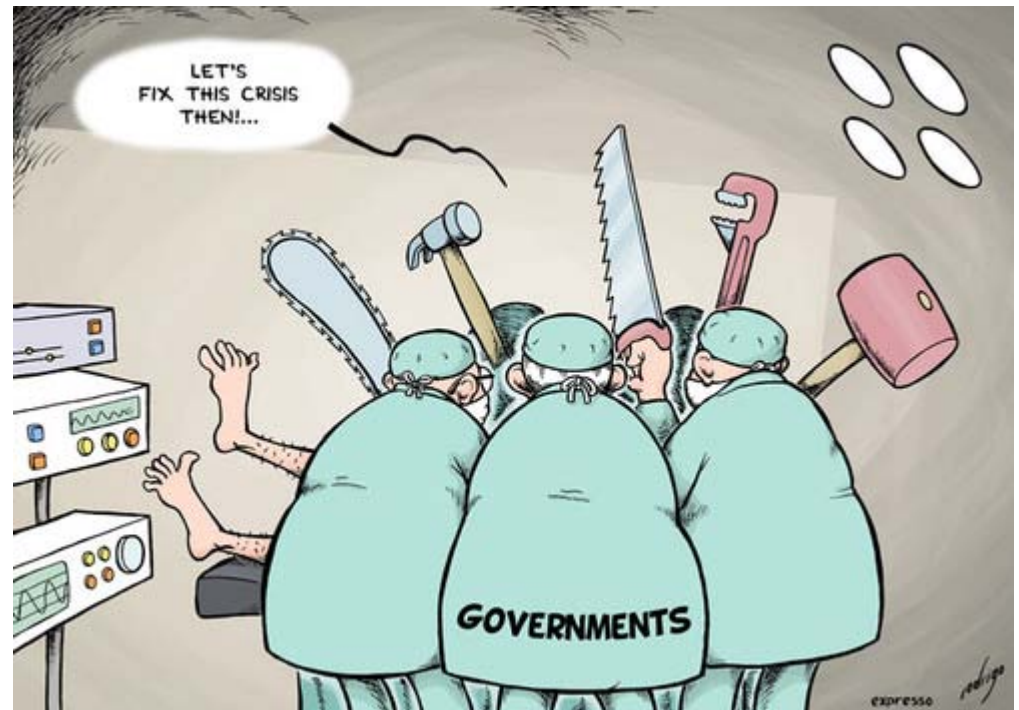


Using the right tools – and using the tools right!

“We can get tools to do what we need – the art is implementing the tool in the right way so the people will use it.”

(Director, Key Clients, mid-sized European HR management consulting firm)*

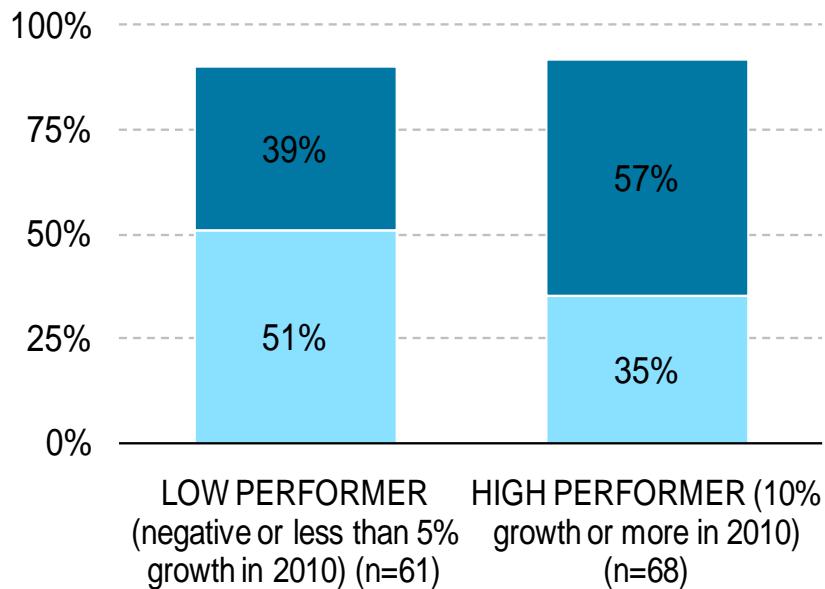
***Source: A commissioned study conducted by Forrester Consulting on behalf of IBM August 2011**



Top performers have implemented an Information Governance strategy & processes

“How important is an end to end approach, combining all 5 aspects of governance, to the success of an information governance strategy?”
Rating of 4 and 5 shown, base on a scale of 1-5, where 1=Not at all important and 5=Critically important

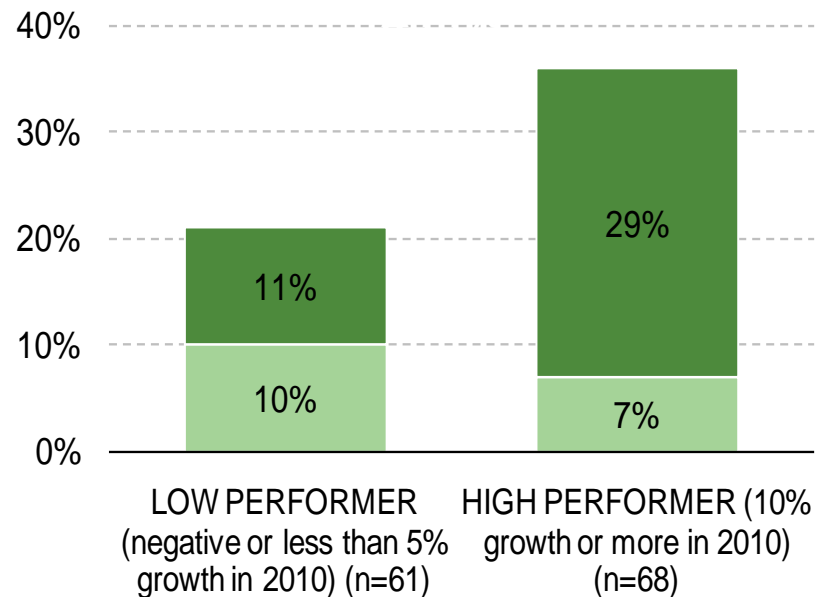
■ 4 ■ 5 - Critically important



“What best describes your firm’s plans to implement an end-to-end information governance strategy and related process?”

Selections indicating current implementation shown

■ Already implemented, not changing



Base: 129 US and European enterprise decision-makers involved in data management and governance initiatives
 Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

So what is Information Governance?

Information Governance is a holistic approach to managing & leveraging information for business benefits, encompassing:



Information security & privacy



Information quality



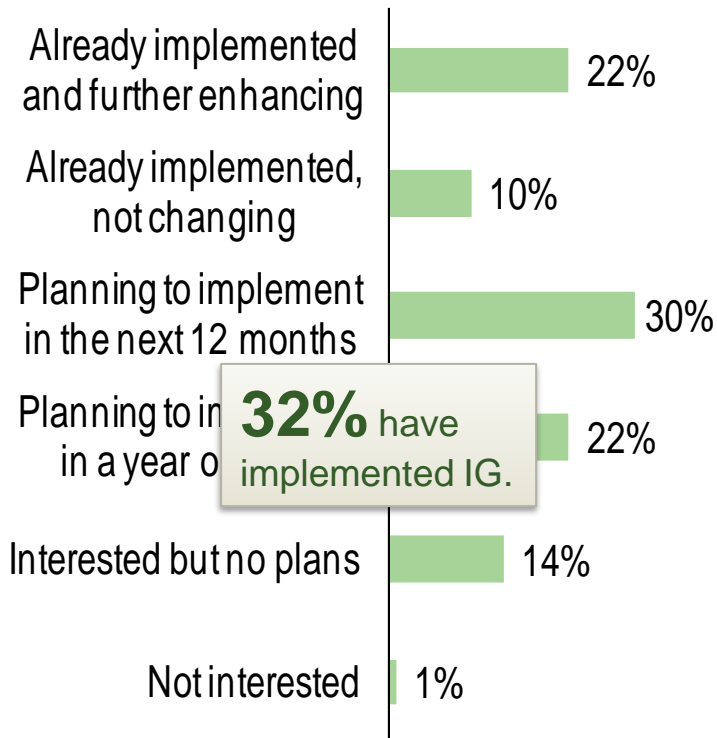
Information standardisation



Information life cycle management

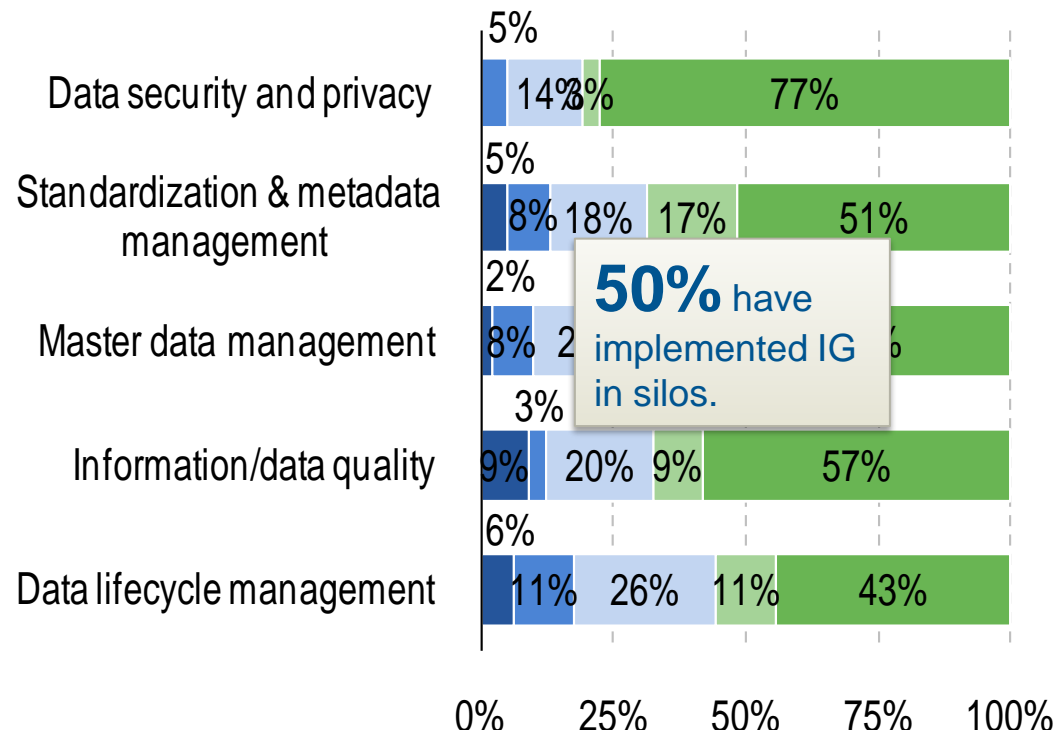
32% of companies have implemented Information Governance

“What best describes your firm’s plans to implement an end-to-end information governance strategy and related process?”



“On what organizational level have you implemented the following aspects of information governance?”*

- Individual project level
- Line of business
- Cross-enterprise / corporate level
- Department
- Subsidiary / company



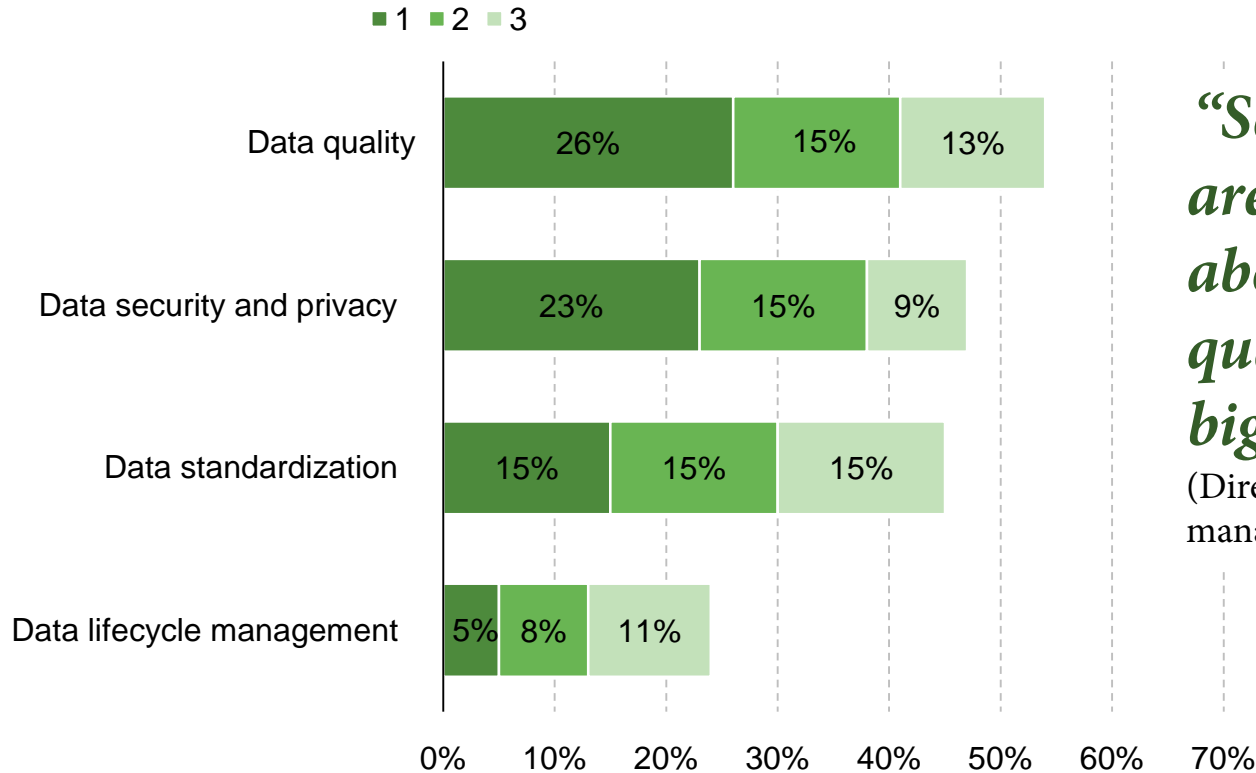
Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

*Base: 65 data management decision-makers who report having already implemented an end-to-end information governance strategy

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

Data quality and consistency are the most critical data management challenges

“Which, if any of the following are your biggest information/data management challenges today?”
(Rank up to 3, in order of most challenging)



“Security and privacy are the most talked about, but data quality is where the biggest issues lie.”

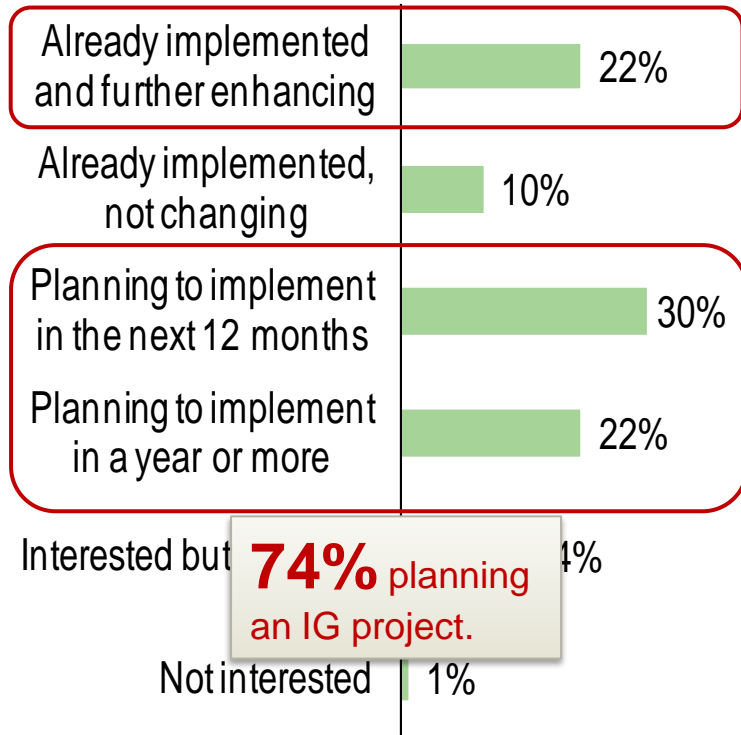
(Director LOB, mid-sized US management consulting firm)

Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

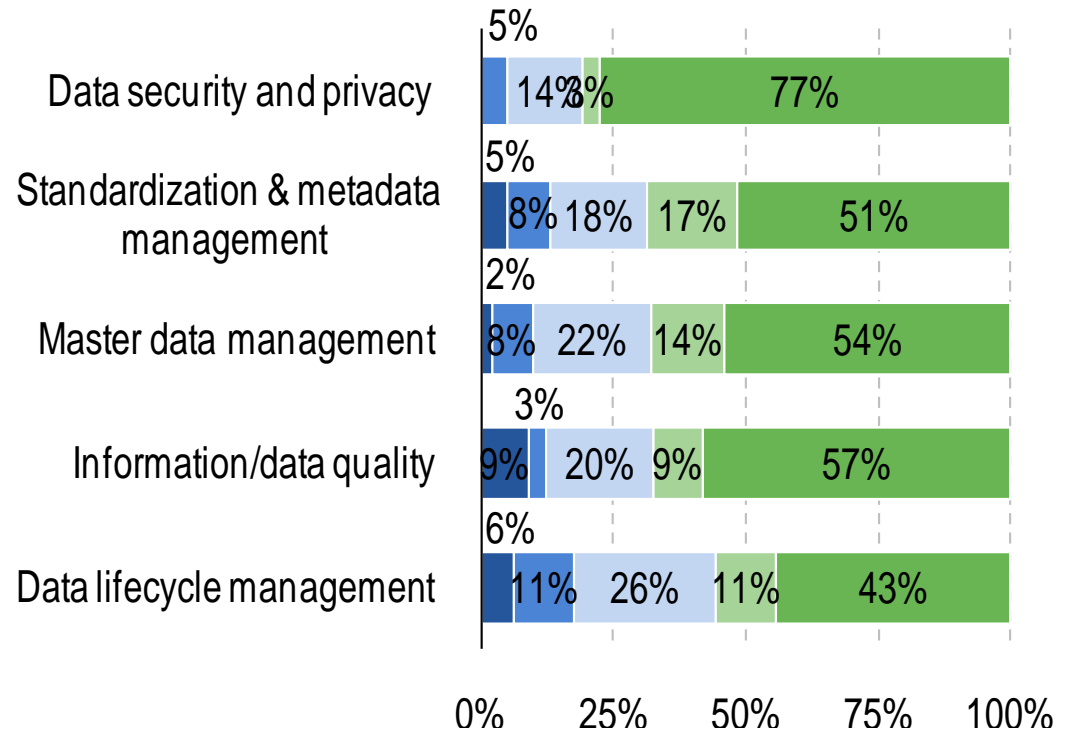
74% of companies are planning an Information Governance project

“What best describes your firm’s plans to implement an end-to-end information governance strategy and related process?”



“On what organizational level have you implemented the following aspects of information governance?”*

- Individual project level
- Line of business
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Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives

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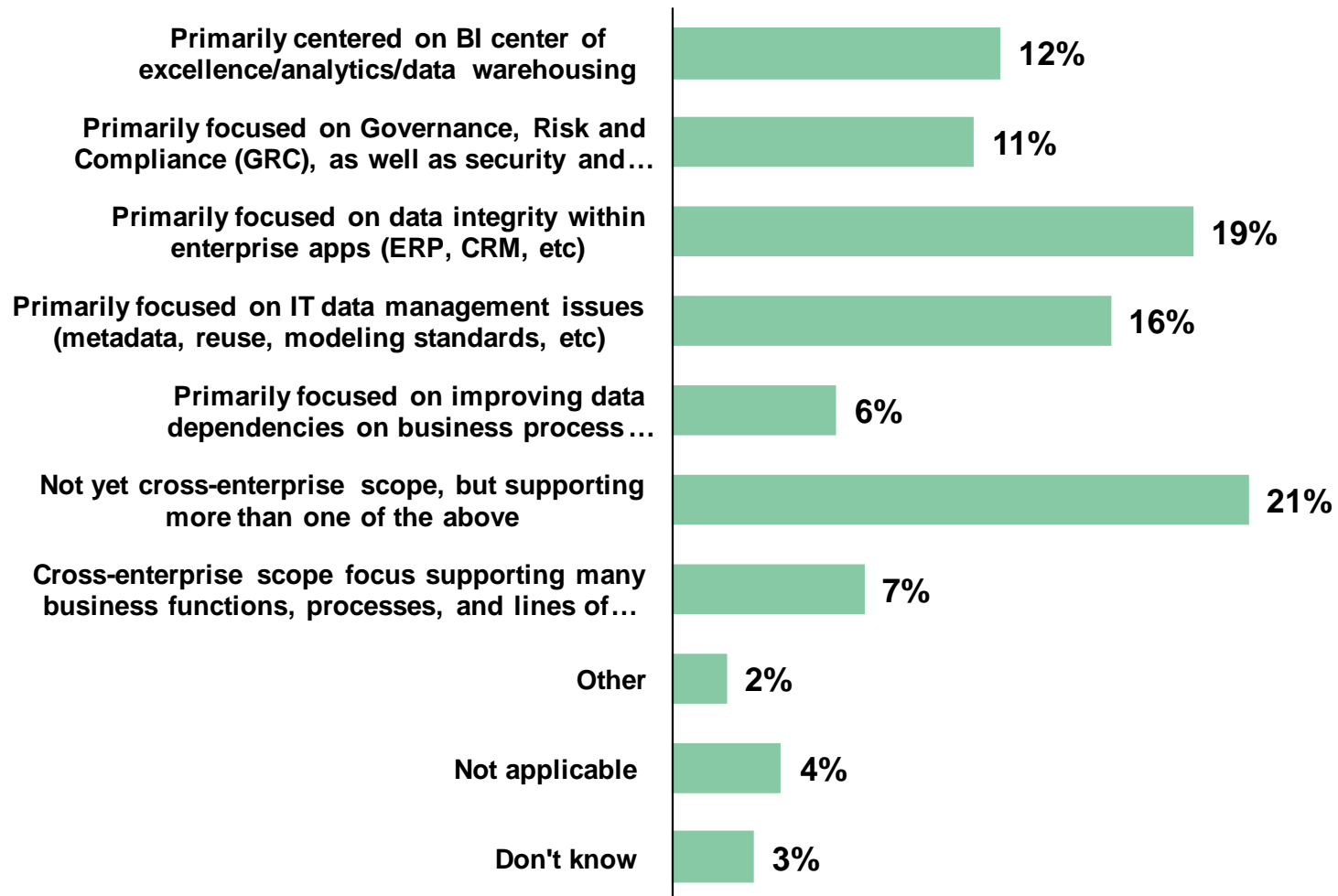
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

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Information governance has many different entry points

“Which most closely describes your data governance efforts?”



(percentages may not total 100 because of rounding)

Base: 188 MDM-savvy IT professionals

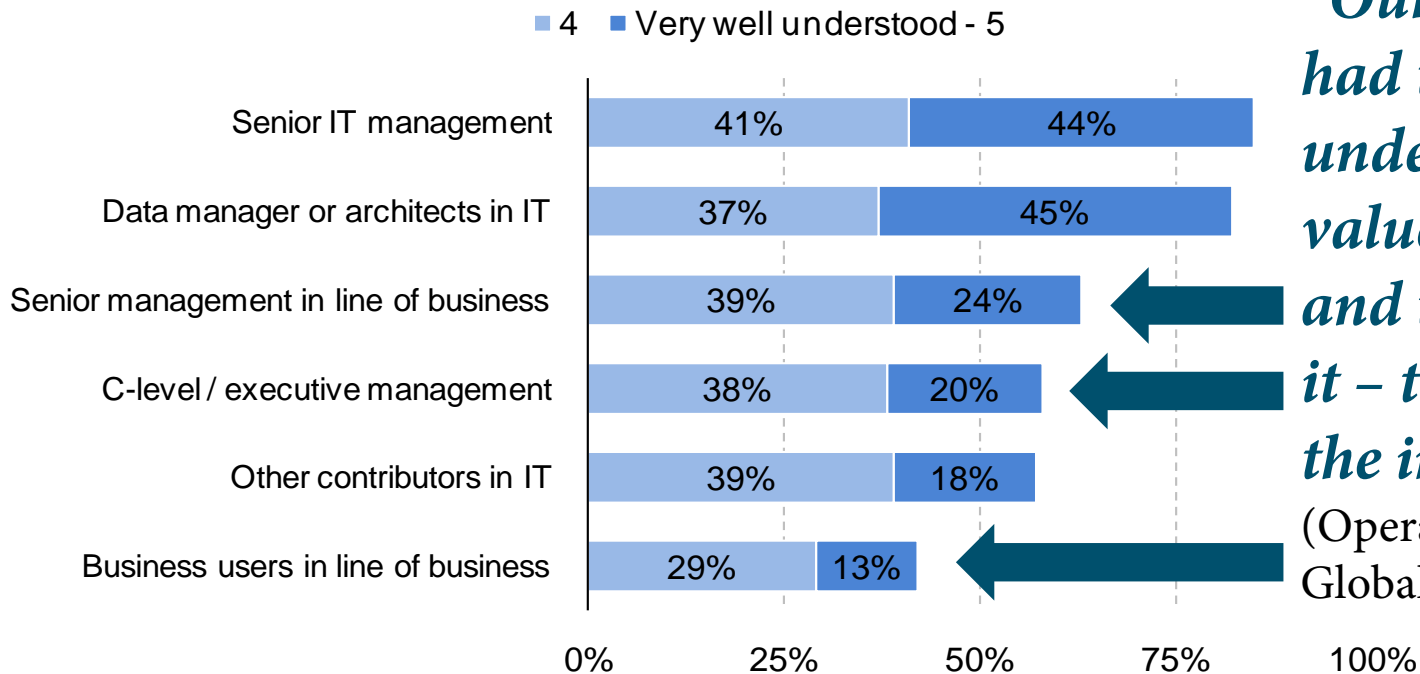
Source: November 2010 Global Master Data Management Online Survey

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Information Governance needs many hands

“How well do you believe the concept and importance of information governance are understood by the following groups within your organization?”

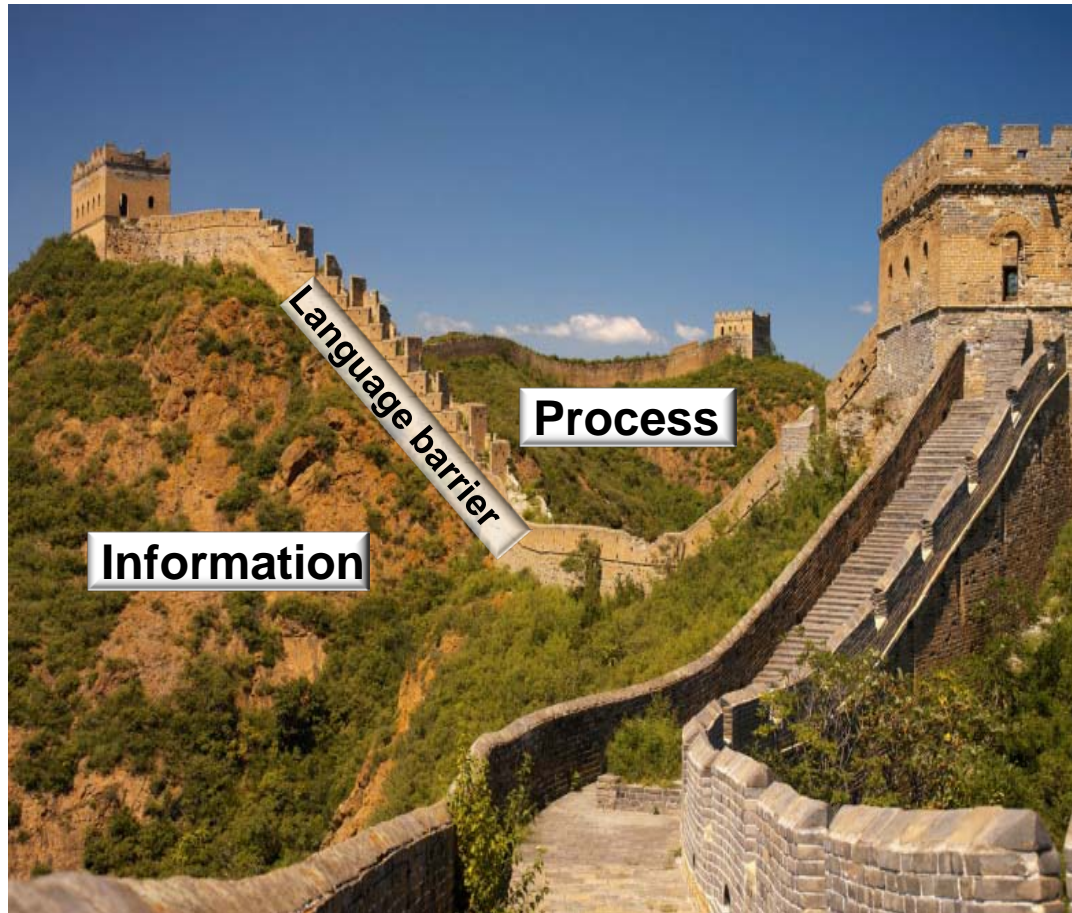
Ratings of 4 and 5 shown, based on a scale of 1-5 where 1=‘not at all understood’ and 5=‘Very well understood’



“Our users really had to drive it by understanding the value of better data and then demanding it – that’s what made the initiatives stick.”
 (Operations Manager, large Global publisher)

Base: 203 US and European enterprise decision-makers involved in data management and governance initiatives
 Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, August 2011

Successful data projects need to align information & process governance



Lack of cooperation between information governance and business process professionals...

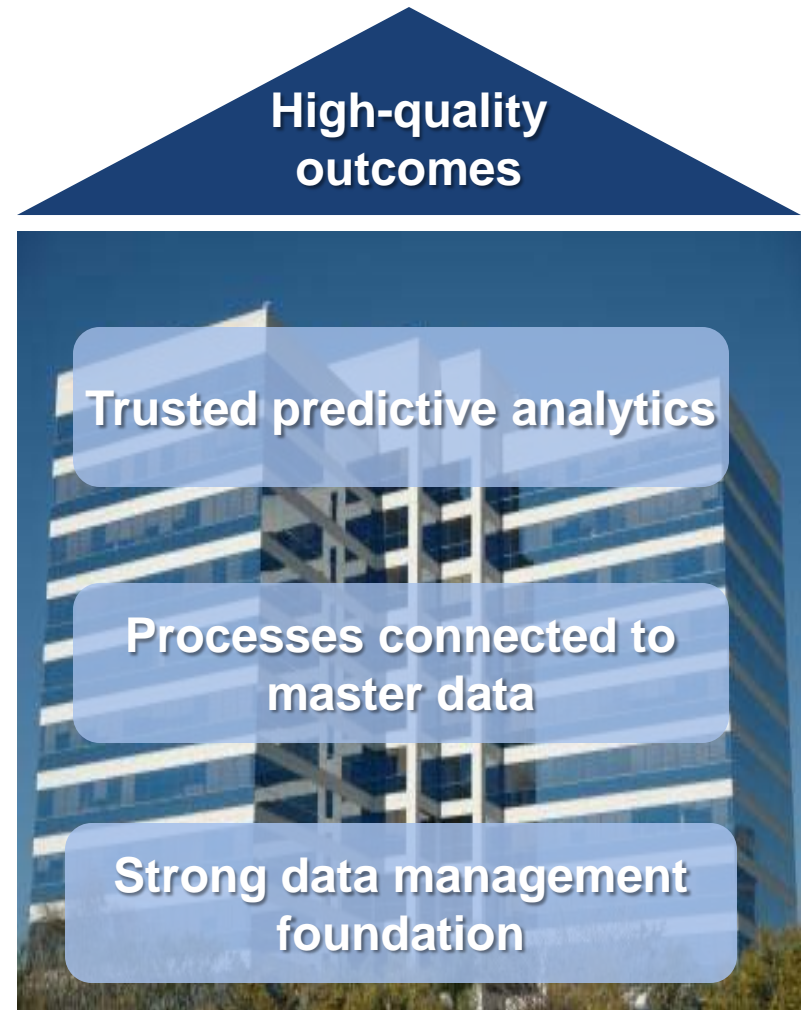
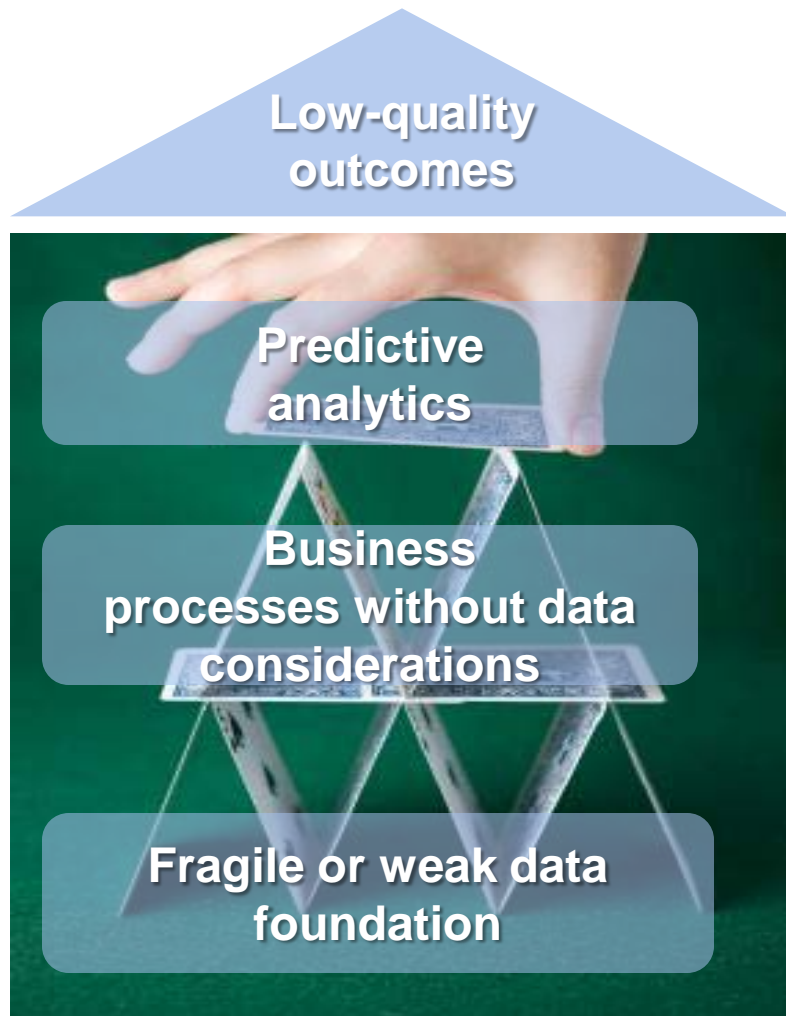
- 67% report minimal or no interaction.
- 17% say BPM and MDM are separate, but interact and coordinate regularly.
- 9% share the same cost center.
- 7% use a coordinated approach.

Base: 188 MDM-savvy IT professionals



Source: November 2010 Global Master Data Management Online Survey

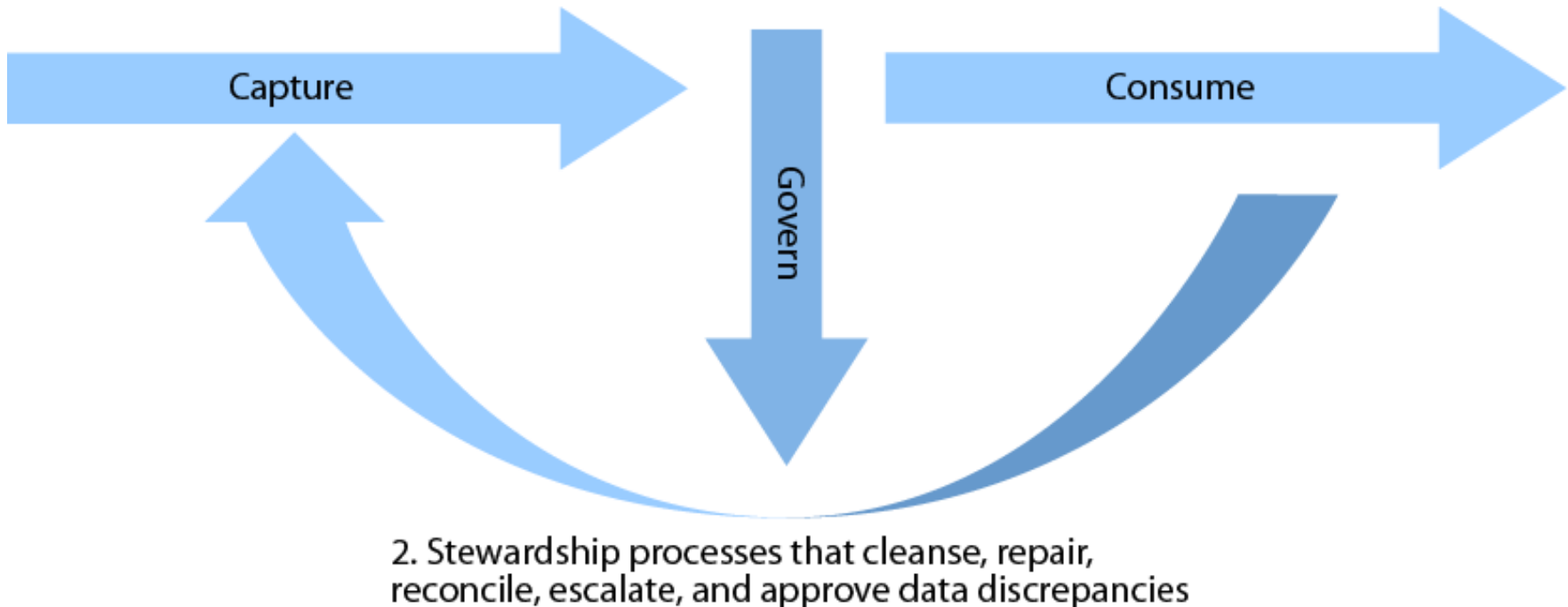
...presents high risk for data-centric initiatives not connecting quality data to process context



Three flavors of business process that must be scoped in all information governance efforts

1. Upstream business processes that create, update, purchase, or import data

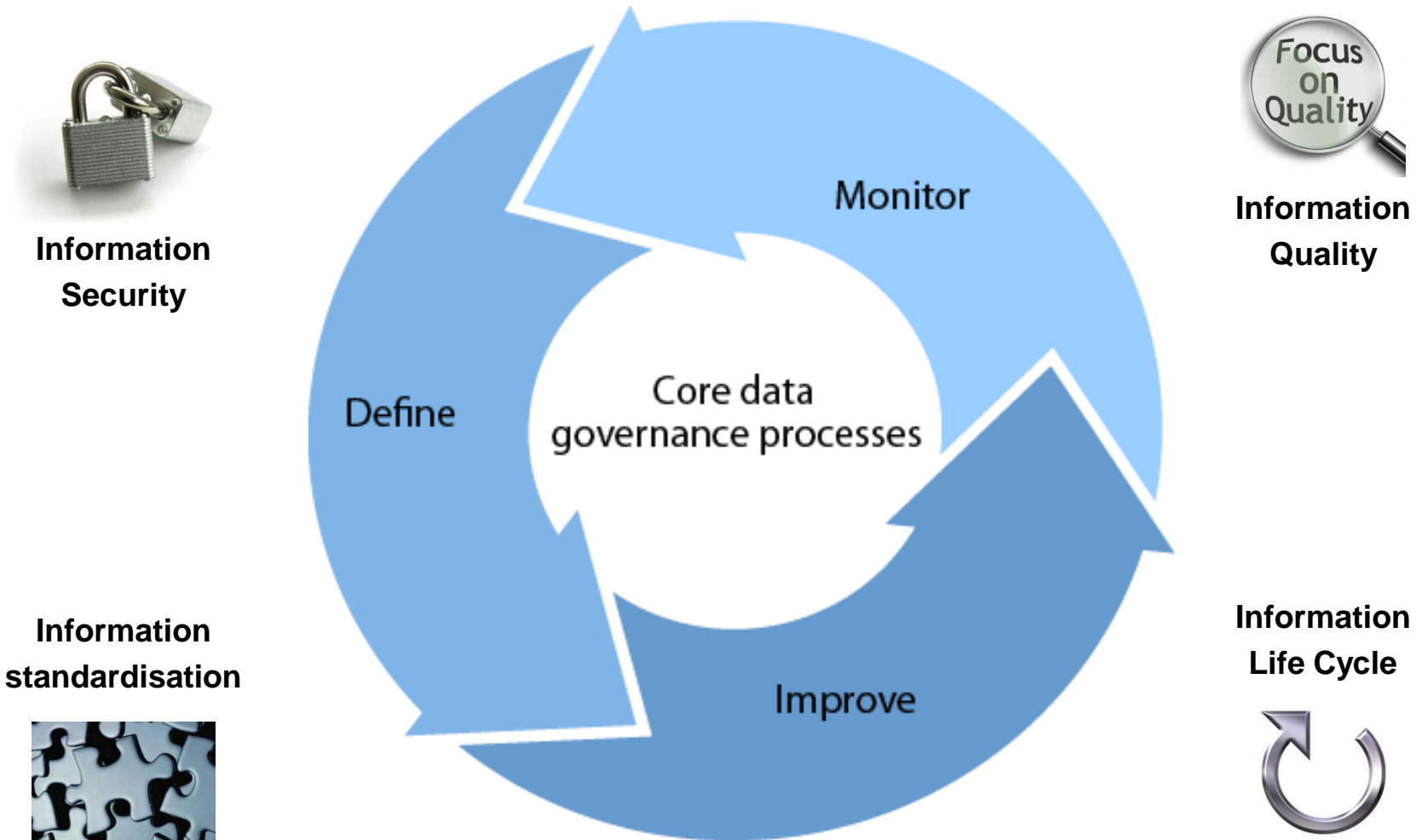
3. Operational and analytical processes that derive insight and value from data



2. Stewardship processes that cleanse, repair, reconcile, escalate, and approve data discrepancies

Source: May 4th, 2011, "Data Governance Must Bridge Business Process, Policy, Architecture, And Value" Forrester report

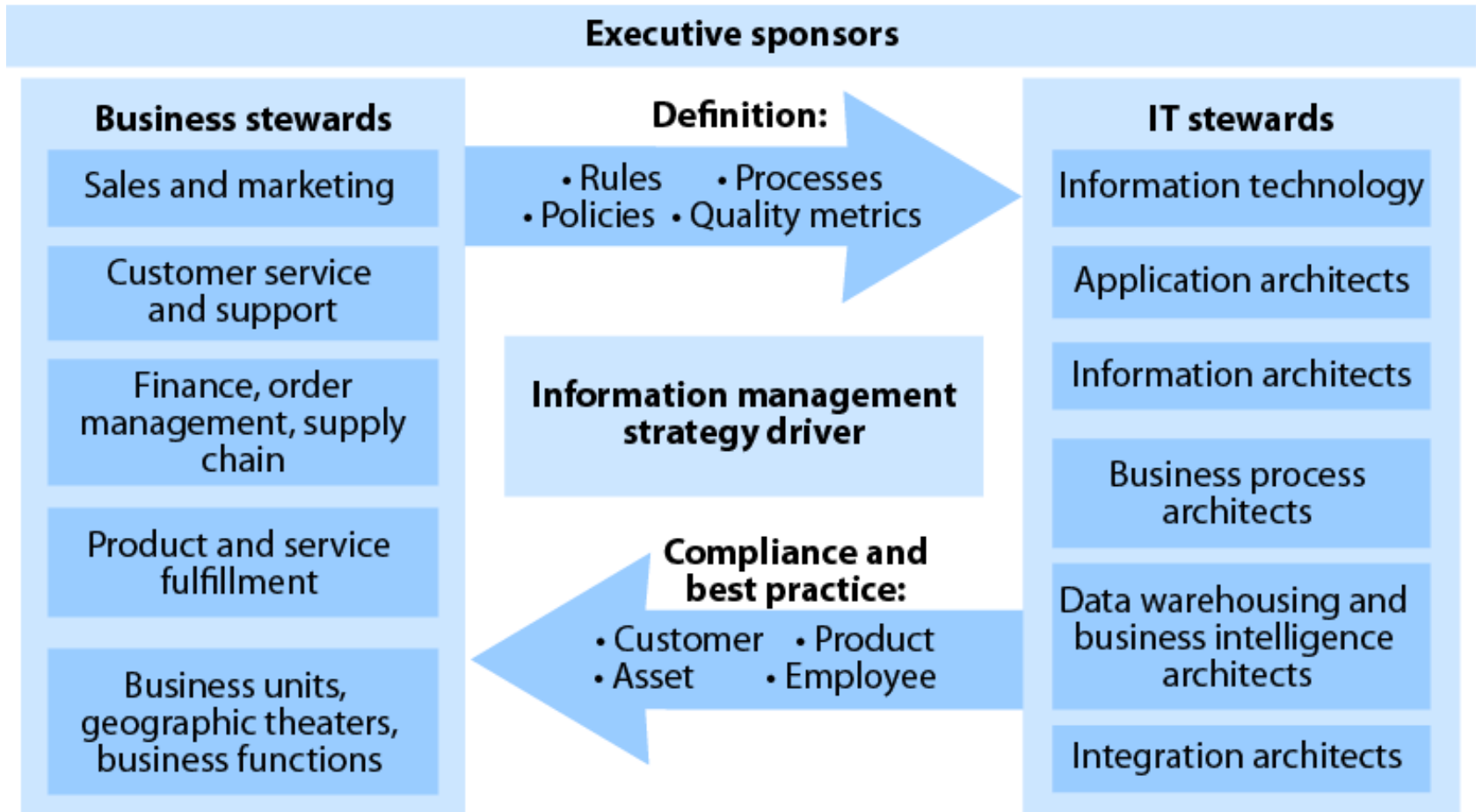
Information governance organisations must define and optimize operational processes as well



Source: May 4th, 2011, "Data Governance Must Bridge Business Process, Policy, Architecture, And Value" Forrester report

An enterprise information governance framework must match corporate culture

Enterprise data governance model



November 22, 2010, "Avoid Process Data Headaches: Align Business Process And Data Governance Initiatives" Forrester report

Executive sponsor

Must be:

- Identified early
- CXO-level
- An active participant
- An evangelist
- The final point of escalation

The CIO often assumes the executive sponsor role, evangelizing the need for governance across the organisation.

Steering committees are common.



Use business-driven KPIs to recruit business sponsors for information governance programs

Today IT Data Management Pros Focus on...

Eliminating duplicate/orphaned data

Standardizing and centralizing data/ metadata

Meeting operational SLAs

Data enrichment

Data integration and synchronization

...while business leaders really care about:

Increasing revenue

Identifying growth opportunities

Decreasing costs

Reducing risks

Spurring innovation

Improving customer experiences


Increasing operational efficiencies

Deliver measure business value, in the language of business

Common business-value-driven KPIs

Reduction in direct marketing postage costs	Reduction in average handle time in call center
Increase in customer self-service for order management, technical support, and customer service	Increase in campaign response rates
Reduction in customer privacy compliance risk exposure	Delivering a consistent cross-channel customer experience

Recommendations

- 
- 1. Accept the fact that process improvement and information governance are intimately linked and must work hand-in-hand.**
 - 2. Involve executive sponsorship and support from IT and LoB (align business process and data stewards).**
 - 3. Evangelize the benefits of information governance in the language of the business - it's NOT about the data.**
 - 4. Tackle Information Governance in a phased approach.**
 - 5. Establish a consistent approach and continuous improvement process for all elements of Information Governance.**
 - 6. Make Information Governance your default approach to all process and data related initiatives.**

Thank you

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