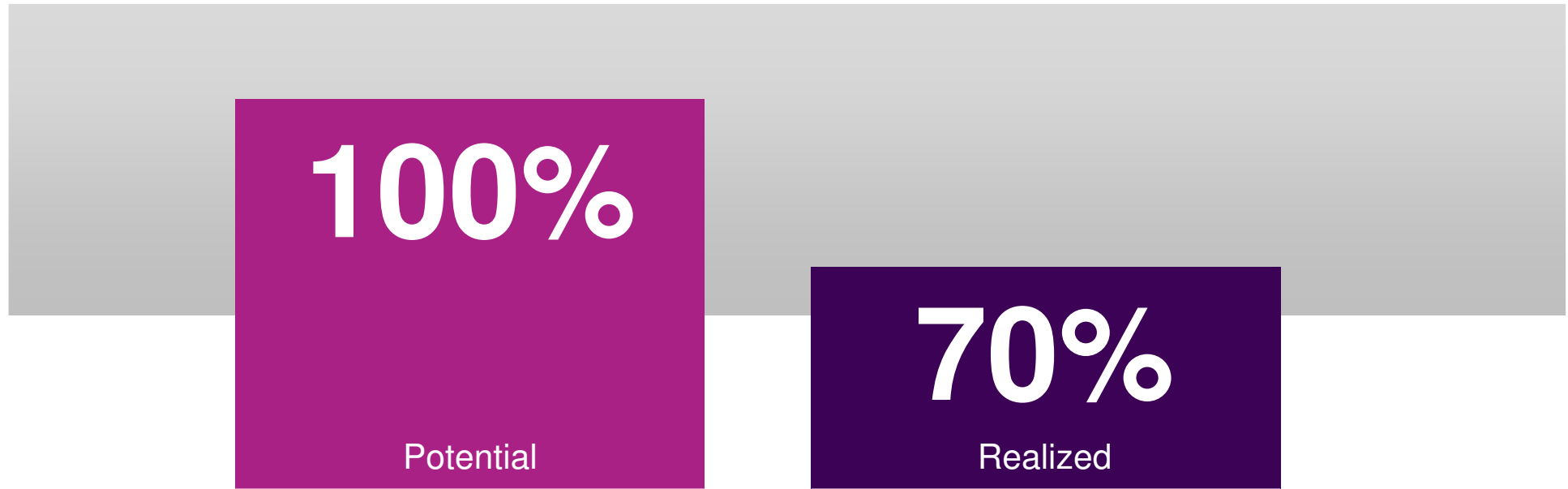


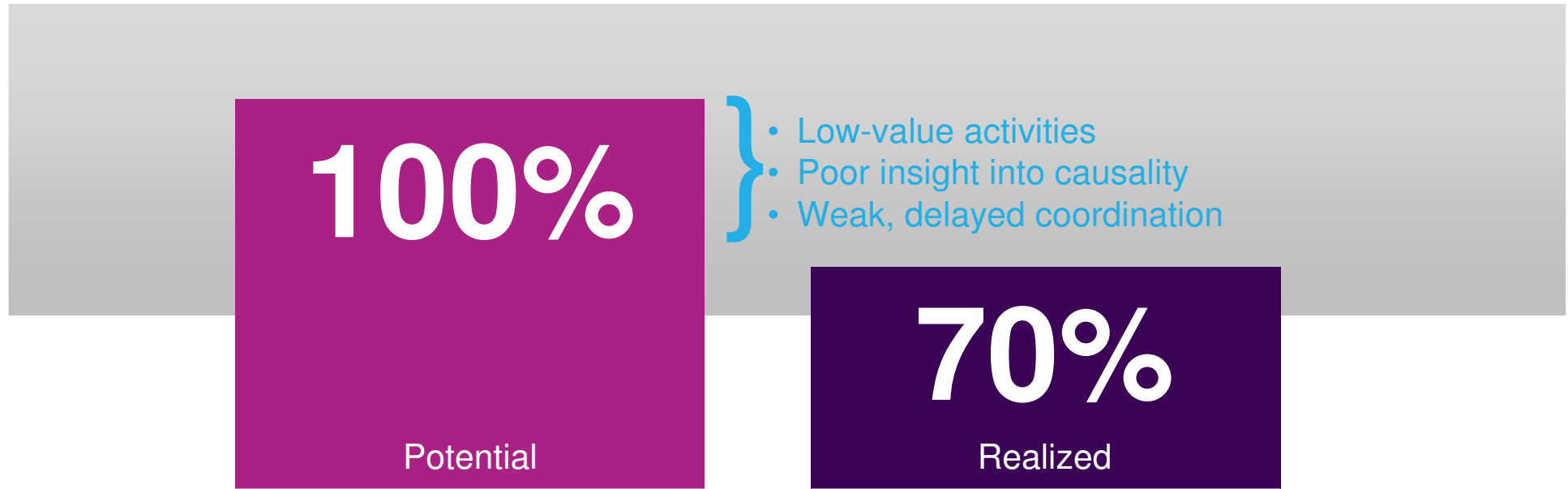
Bradley Driver, Business Analytics, South Africa
6 June 2013

Managing risk in the office of finance

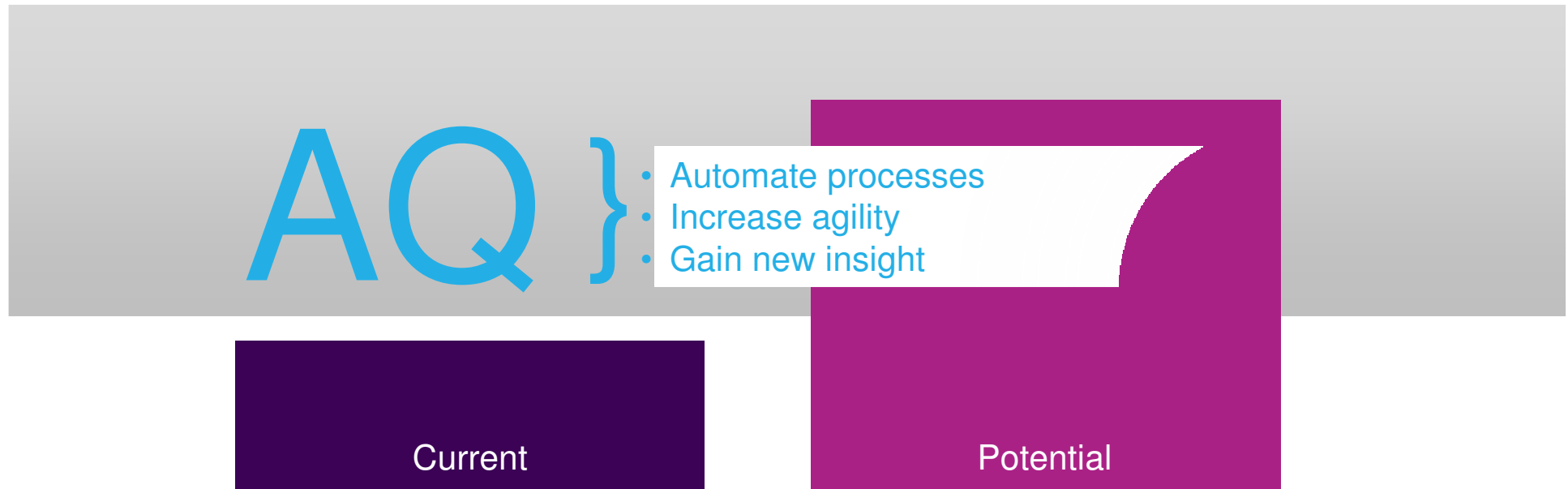




30 percent of performance potential is lost as a result of
subpar performance management



30 percent of performance potential is lost as a result of
subpar performance management



Gain time, control and confidence

The more you infuse analytics into your business, the higher your AQ and the better you and your business can perform

Transforming the decision process with smarter analytics



Transforming the decision process with smarter analytics

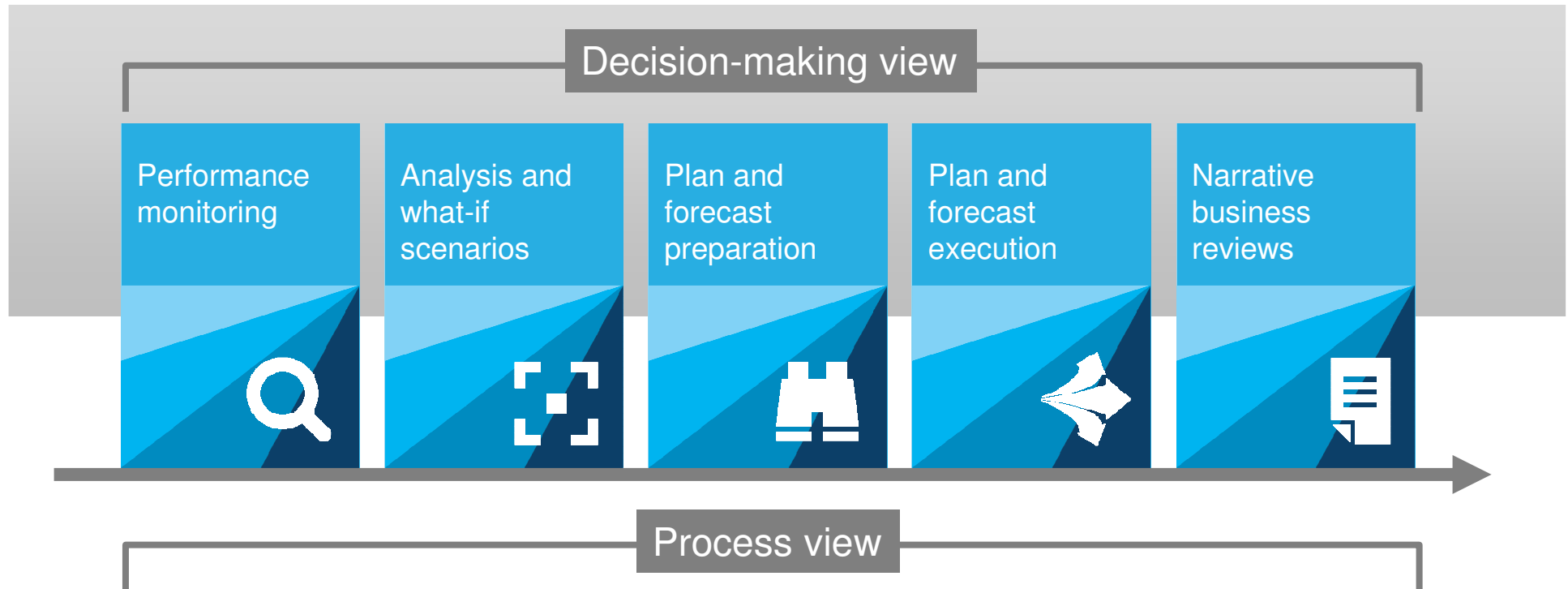
**Manage risk, regulation
and compliance**

**Increase operational
efficiency**

**Grow, retain and
satisfy customers**

**Transform financial
processes**

Transforming the decision process



- Performance reporting and scorecarding
- Planning, analysis and profitability analysis
- Disclosure management and financial close management
- Sales performance management
- Governance, risk and compliance

Increased regulatory oversight

Dodd-Frank Act

Capital charges

Risk information silos

Basel III

Solvency II

Risk exposure

Risk convergence

Sarbanes-Oxley Act (SOX)

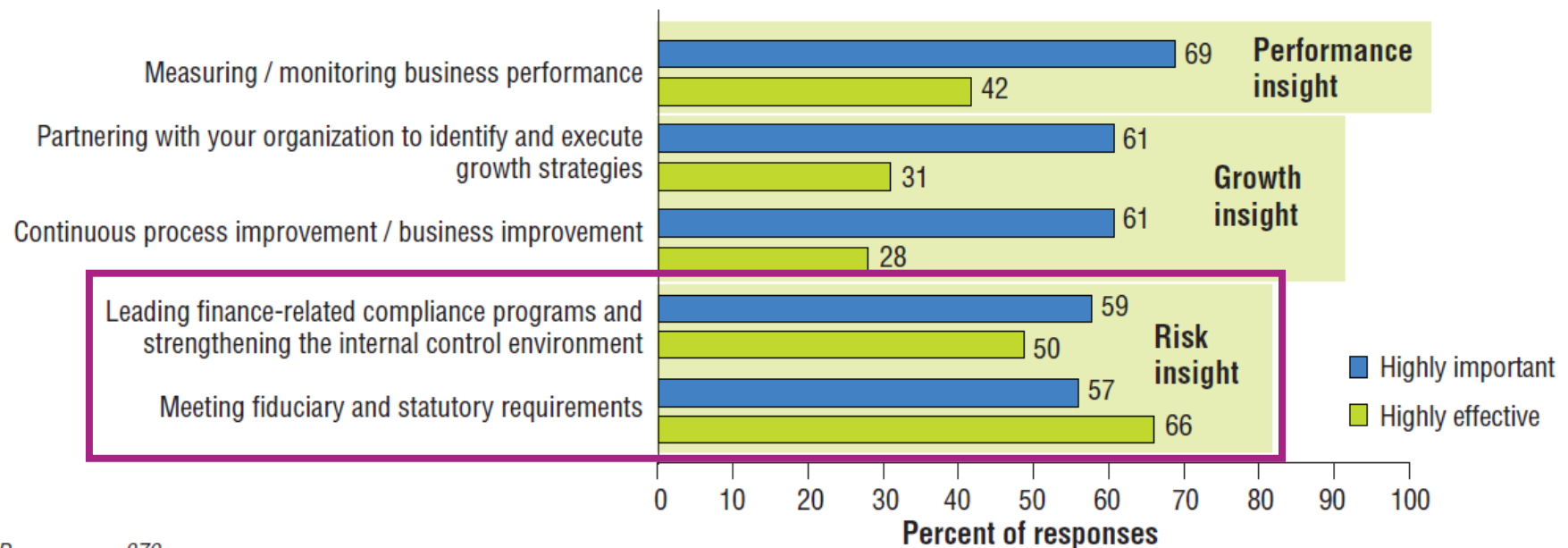
Rogue trading



Evolution of risk management in the office of finance

In 2005, the focus was on financial controls and regulatory compliance

Figure 2. Finance's top areas of importance and gaps in effectiveness.

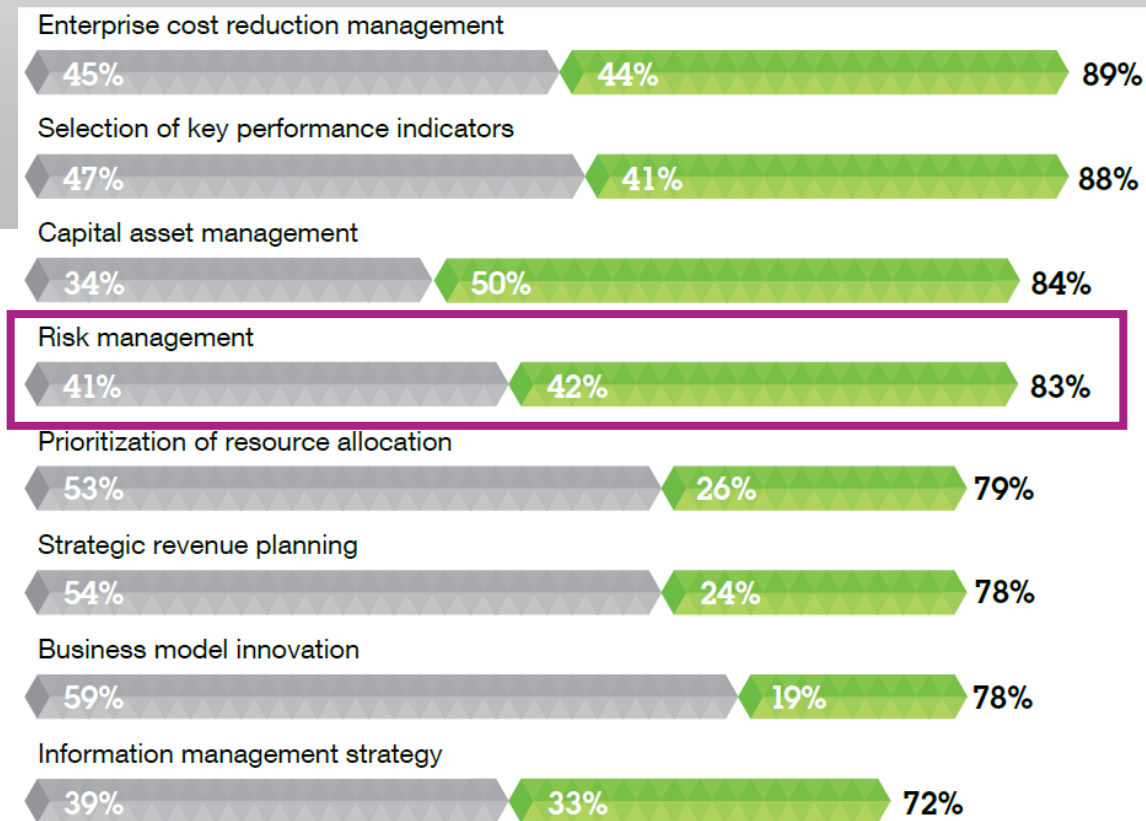


Responses = 870

Source: IBM Business Consulting Services, The 2005 Global CFO Study.

Evolution of risk management in the office of finance

In 2010, focus shifted to risk advisory and decision making

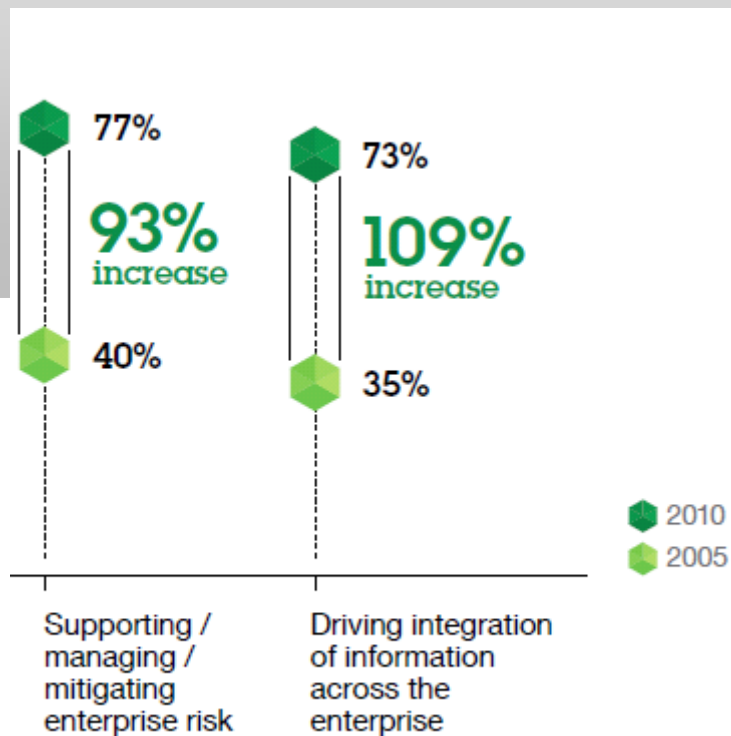


Eight out of ten value integrators say they have a high or very high **focus on risks** when helping their businesses **make decisions**.

Source: IBM, *The New Value Integrator: Insights from the Global Chief Financial Officer Study*, March 2010.

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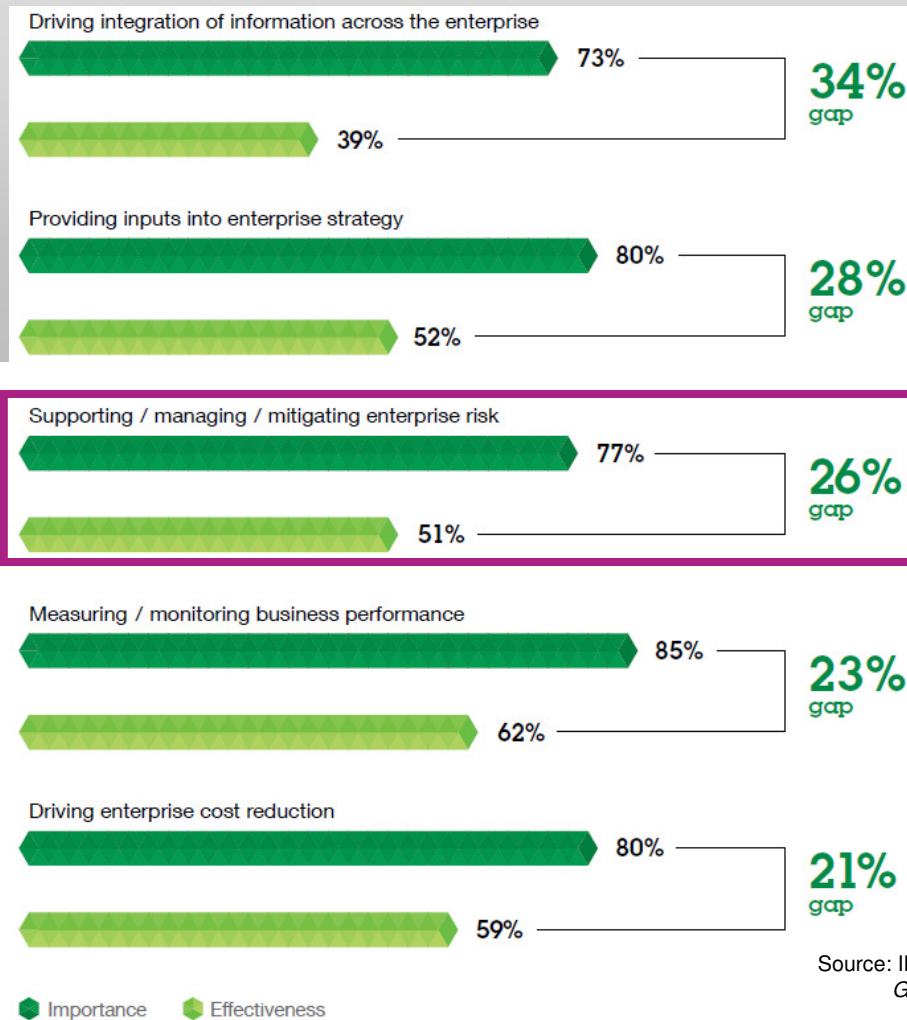
CFOs recognize the opportunity for analytics and risk management



Between 2005 and 2010, the IBM Global CFO study found a **93 percent** increase in how CFOs rated the importance of risk management, and a **109 percent** increase in information integration

CFO rating as very or critically important

CFOs feel risk management effectiveness needs improvement



Source: IBM, *The New Value Integrator: Insights from the Global Chief Financial Officer Study*, March 2010.

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Most companies are **rethinking** their approach to risk management, and while progress has been made, **there is more to be done**

In a survey of U.S. executives conducted by Deloitte and Forbes Insight, “**91 percent plan to reorganize and reprioritize their approaches to risk management** in some form in the coming three years.”

Risk management is now a strategic function that can provide competitive imperative.



Organizations must look beyond regulatory readiness ...

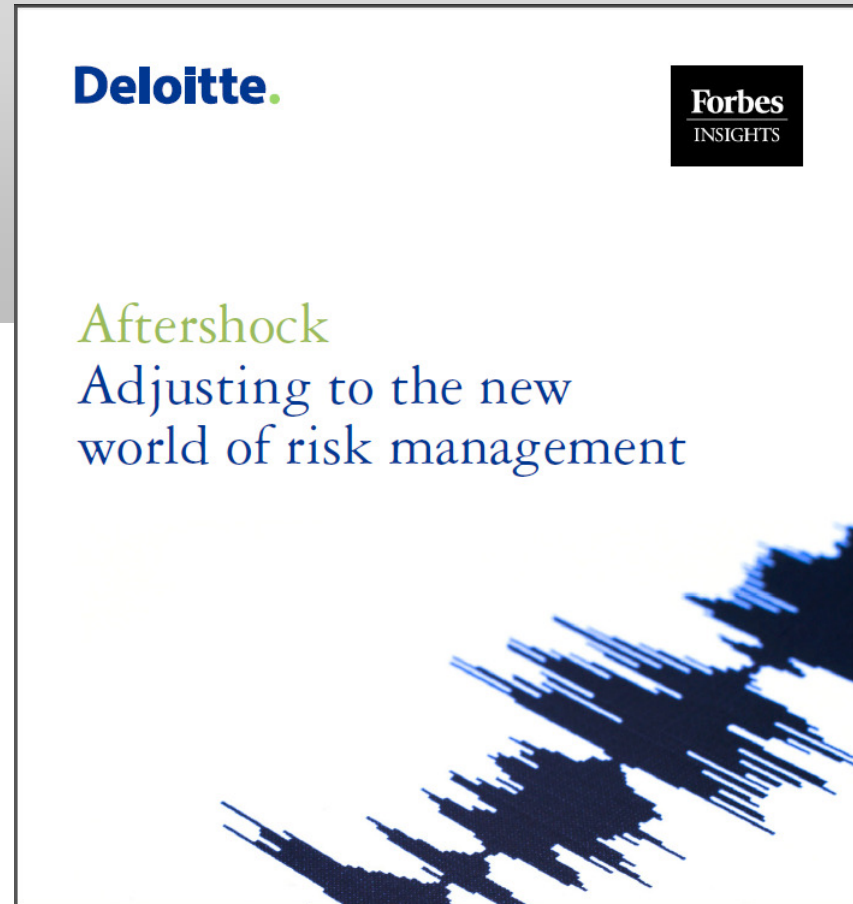


... to enabling risk-aware decision making across the enterprise...

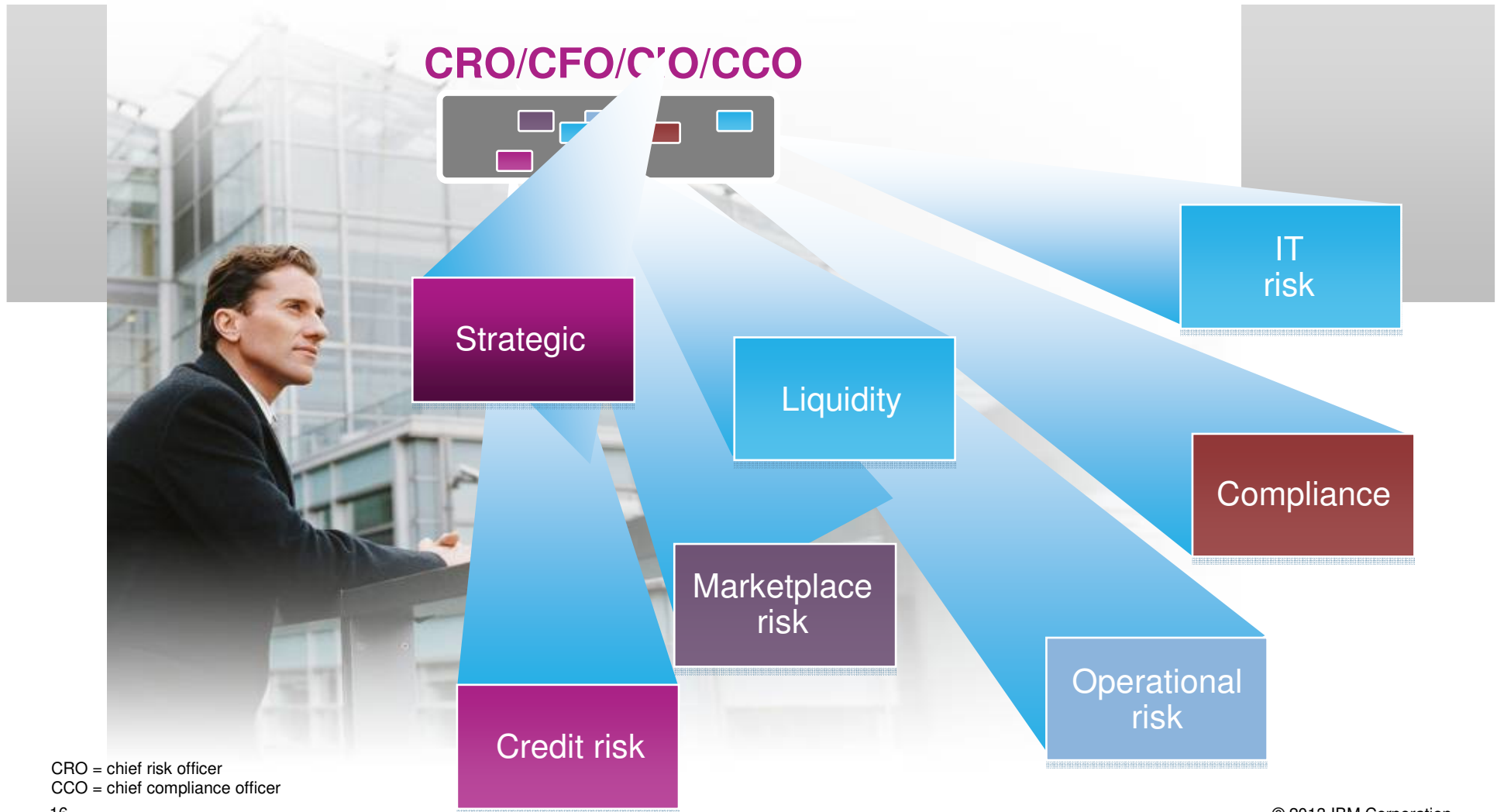


... to optimize the business and improve performance.

“From a pragmatic perspective, risk ownership and leadership must be with business leaders who are accountable for taking risk to pursue commercial gain. **You can’t have a silo mentality.** A more holistic view is required to manage risk effectively across the enterprise.”
—Luis Custodio, chief risk officer, IBM

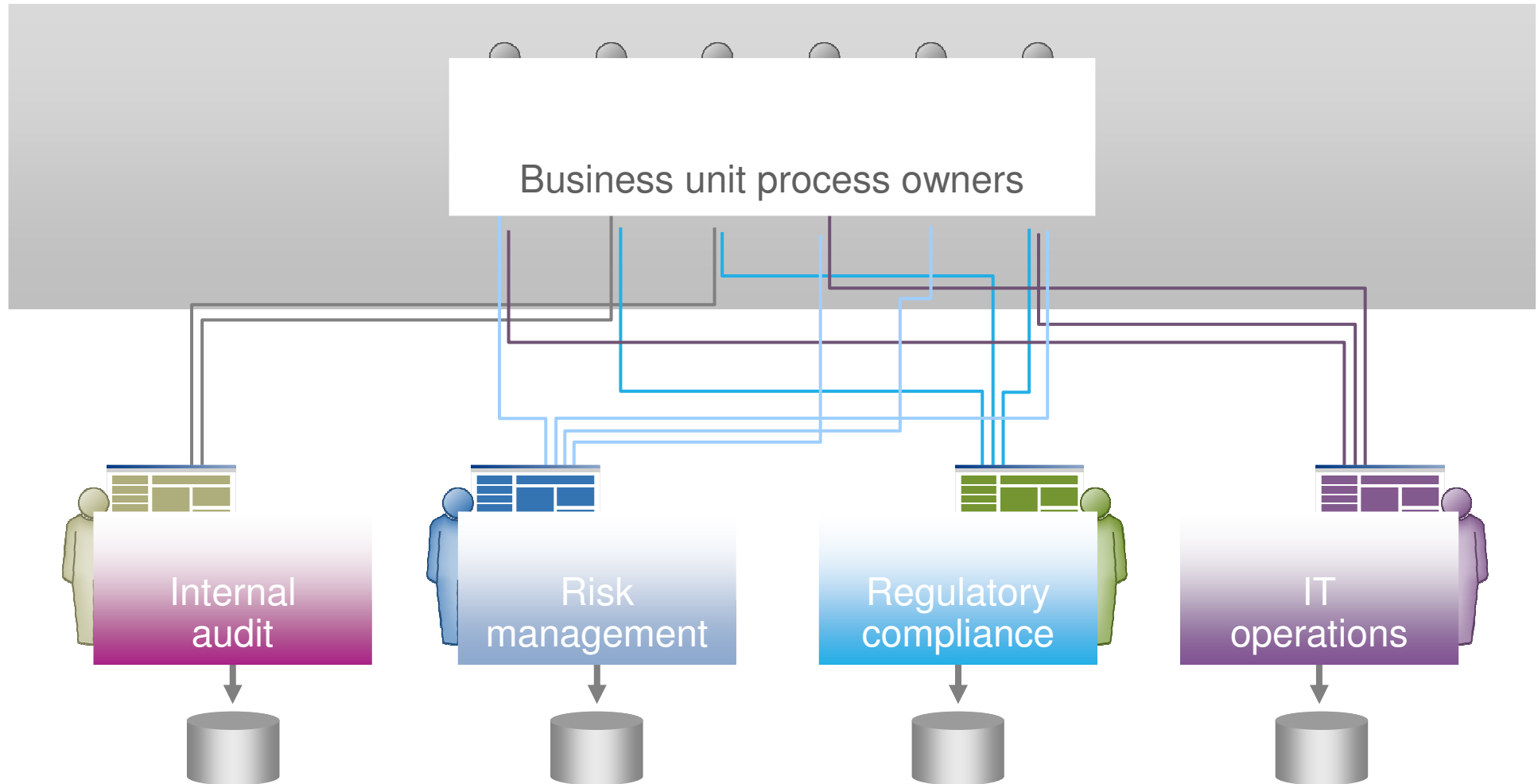


The challenge is that most companies have a fragmented view of risk *and have trouble leveraging risk information for better decisions*

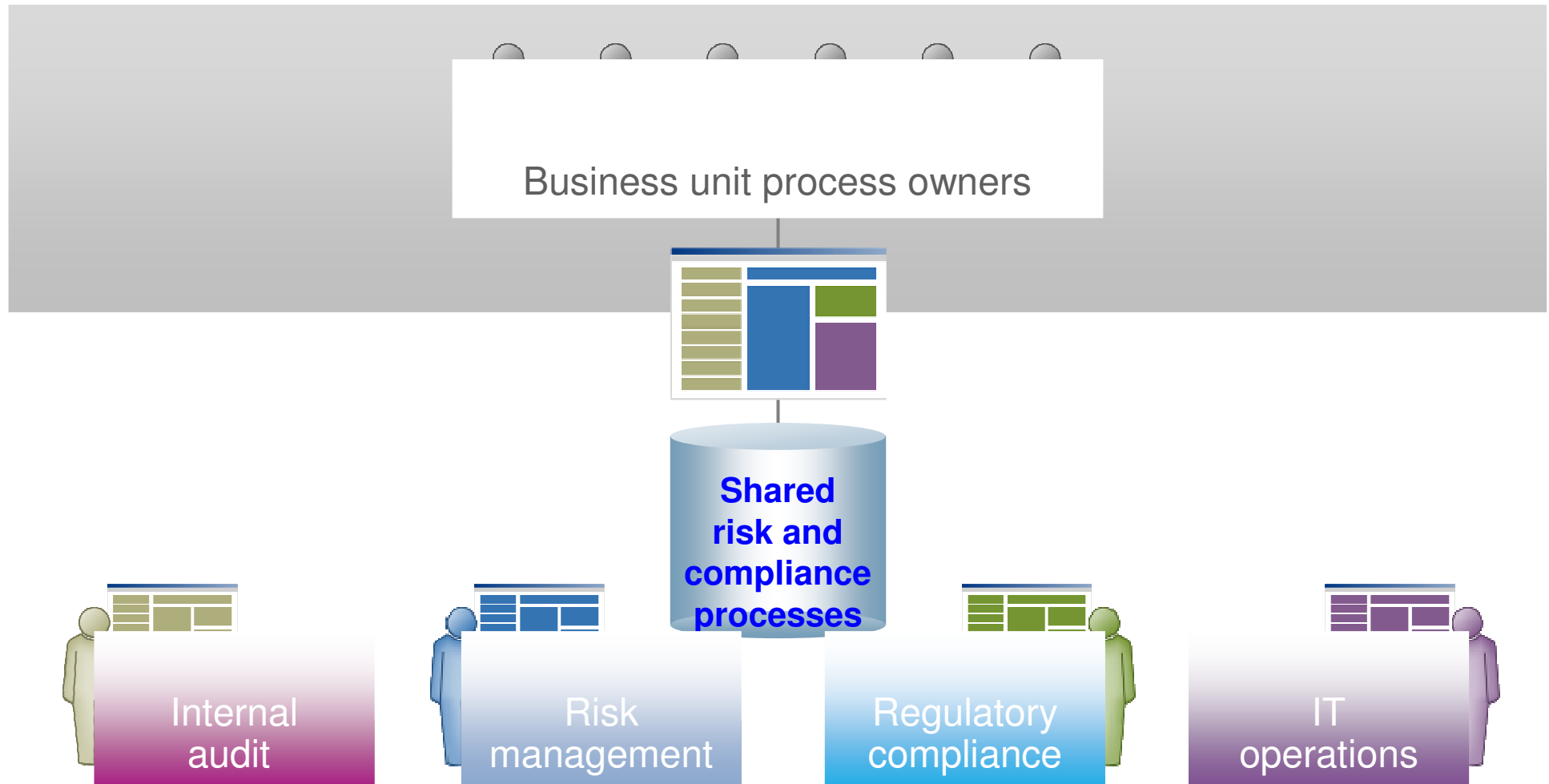


CRO = chief risk officer
CCO = chief compliance officer

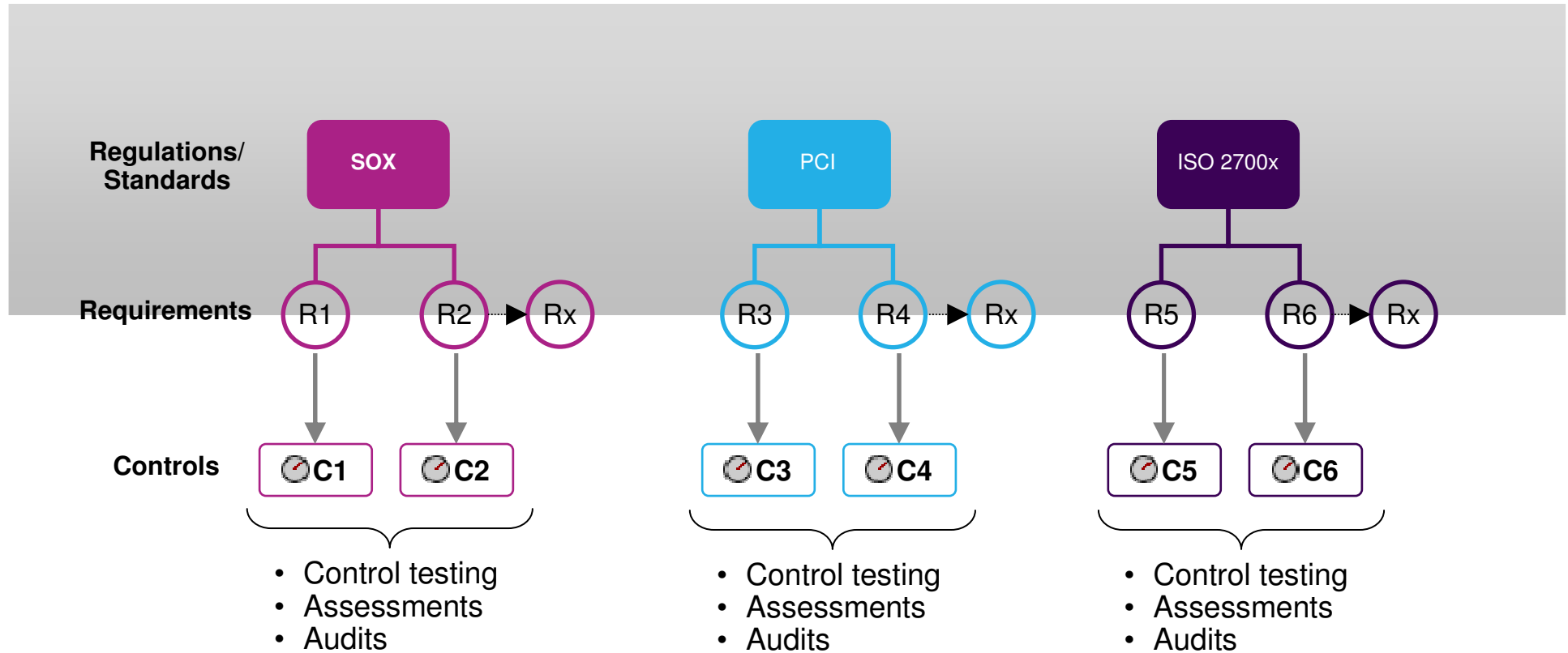
Risk and compliance management silos create huge redundancies



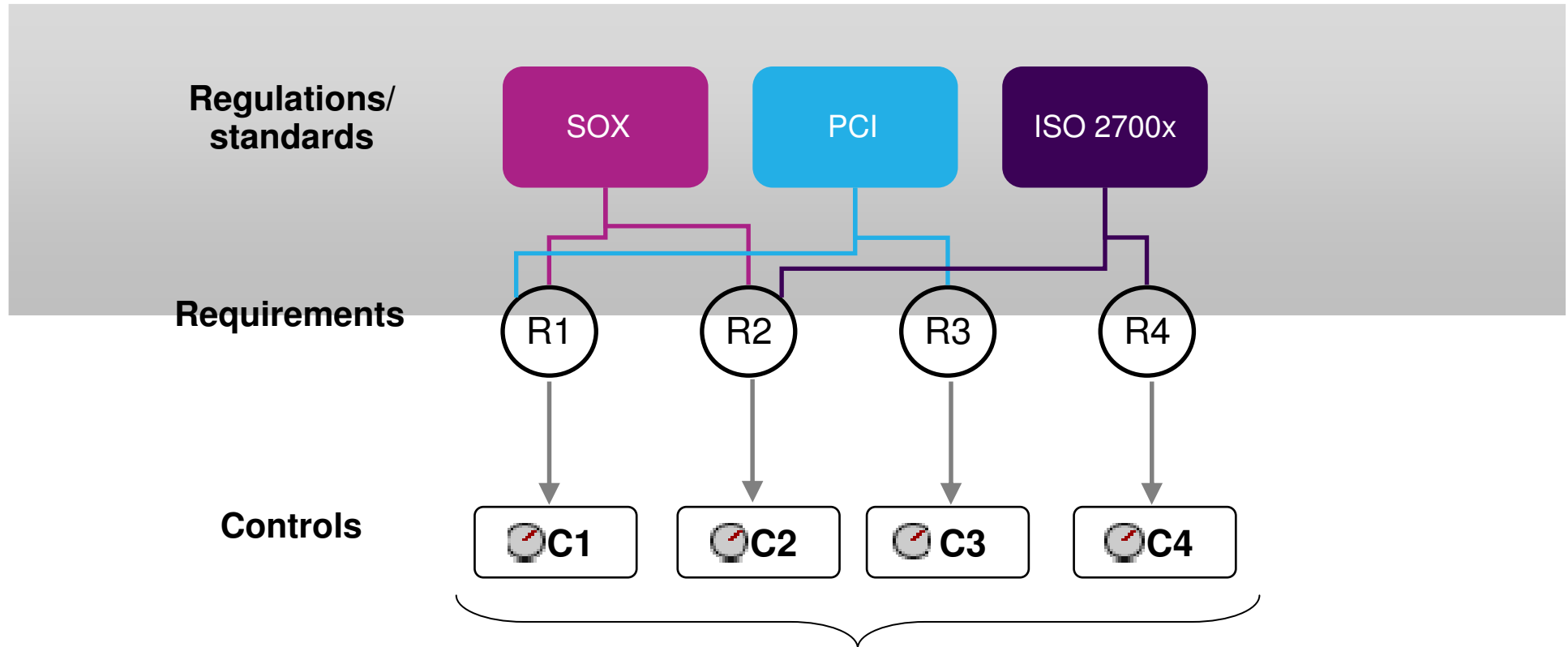
Integrating the silos creates efficiencies and business process improvement



Managing regulatory requirements in silos



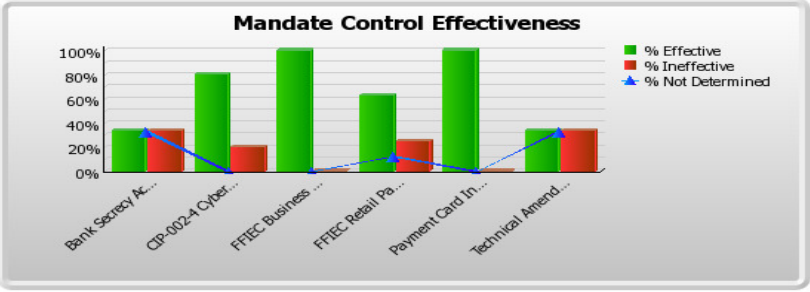
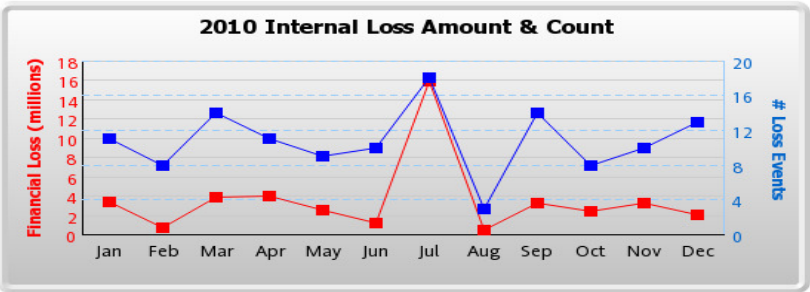
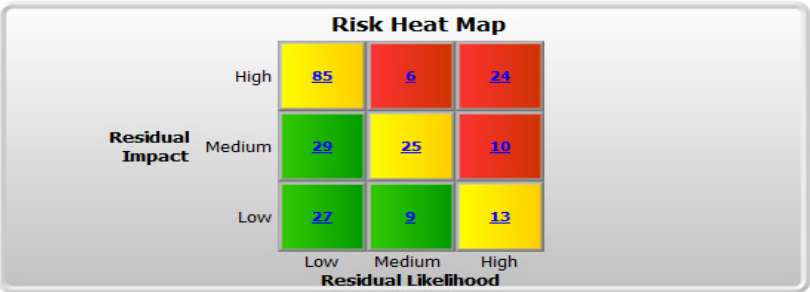
An integrated approach to control management



- Control testing
- Assessments
- Audits

Better management information through an integrated approach to risk management

Key Risks										
Name	Description	Residual Risk					Trend	Control Env	Open Critical Issues	Audit Rating
		10 Q1	10 Q2	10 Q3	10 Q4					
NA-CB-ERM-RSK-01	Failure to implement core client conversion (onboarding)	Medium	Medium	Medium	High	↘	Needs Improvement	> 5	Medium	
NA-CB-ERM-RSK-02	Failure to deliver services that meet the low risk tolerance of clients	Medium	Medium	Low	Low	↔	Satisfactory	> 5	Low	
NA-CB-ERM-RSK-03	Failure to establish robust internal control and governance structure	Medium	Medium	Low	Low	↗	Satisfactory	> 5	Low	
NA-CB-ERM-RSK-04	Failure to properly diversify product offerings and client base	Medium	Medium	Medium	High	↘	Needs Improvement	> 5	Medium	
NA-CB-ERM-RSK-05	Failure to retain and develop talented employees	Low	Low	Medium	Medium	↔	Satisfactory	> 5	Medium	



Issue Status

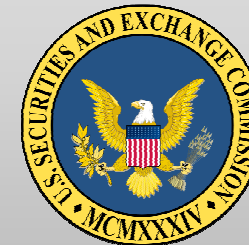
		High	Medium	Low	Not Determined
Asia Pac	Closed	0	1	2	1
	Open	0	2	0	0
Corporate	Closed	0	1	1	0
	Open	2	2	1	3
EMEA	Closed	3	5	3	1
	Open	0	0	0	2
North America	Closed	1	4	4	4
	Open	11	2	0	2

Effective compliance programs improve reputation (and reduce fines)

Situation

A director at a leading financial services organization was found to be bribing a foreign government official for his own financial benefit.

When it came to light, the executives contacted the U.S. Department of Justice (DOJ) and the U.S. Securities and Exchange Commission (SEC), made them aware of the situation, and then conducted a thorough investigation.

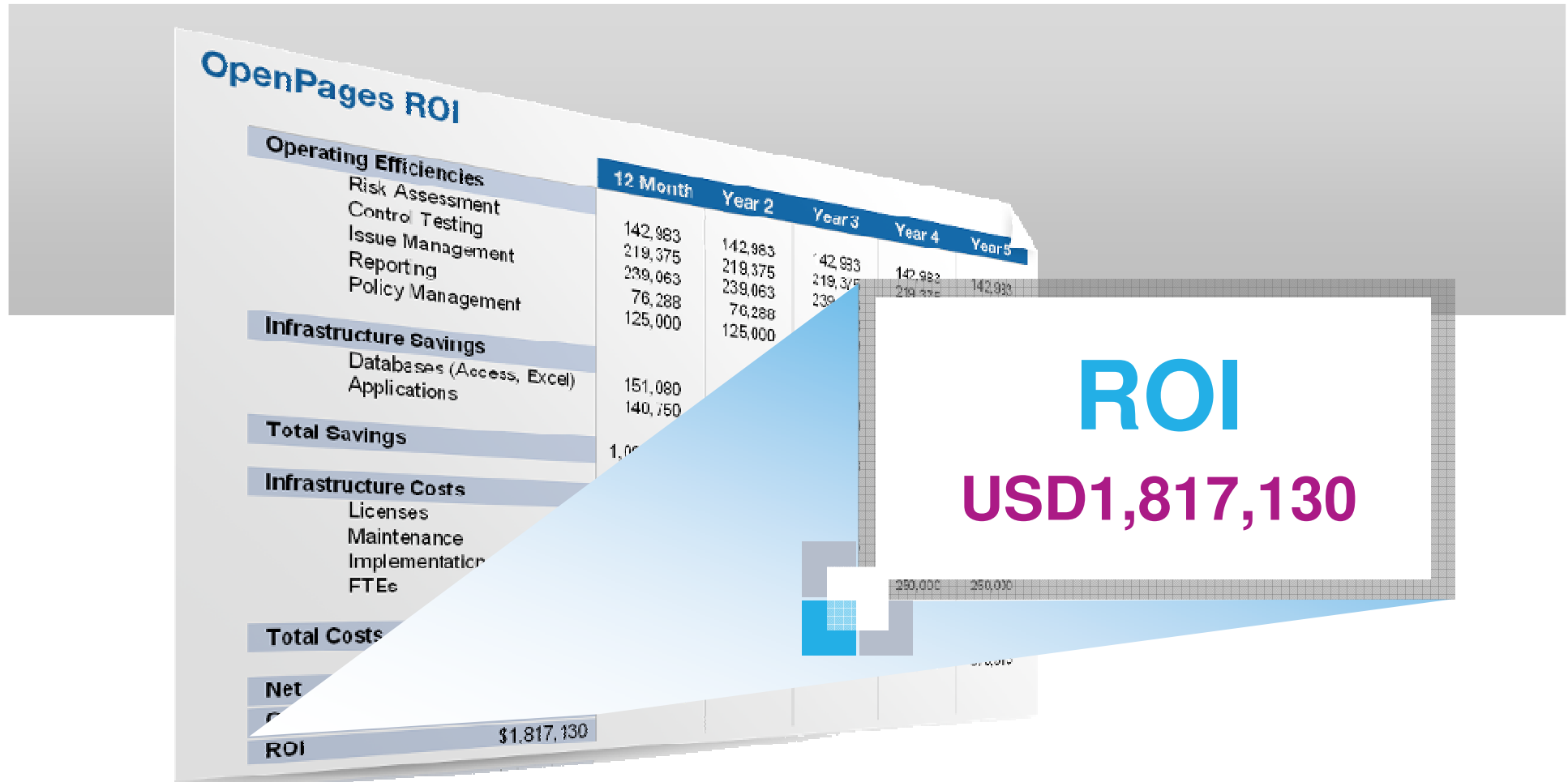


The DOJ and SEC decided not to bring any enforcement action.

The reason? The organization already had a strong compliance system:

- Maintained relevant internal controls
- Regularly updated controls to reflect risks of misconduct
- Provided extensive training to its personnel with continuous monitoring
- Conducted timely reporting and thorough investigation

Convergence promises a strong ROI and improved information



“Companies that integrate GRC do better and can demonstrate value of the improvement beyond enhanced compliance capability and risk management.”

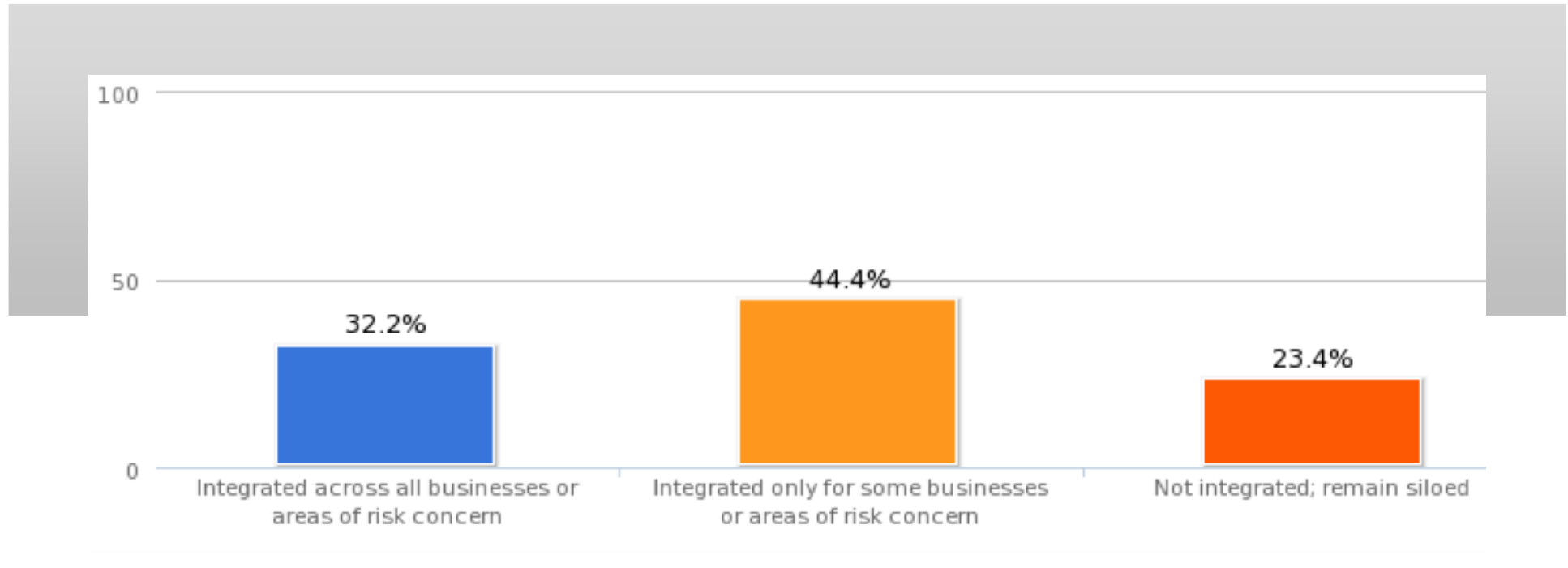
Download: www.oceg.org



GRC = governance, risk and compliance

Source: OCEG, *2012 GRC Maturity Survey*, October 2012.

Q. Are risk management activities in your organization integrated?



Q. What negative effects result from lack of integration of GRC activities?

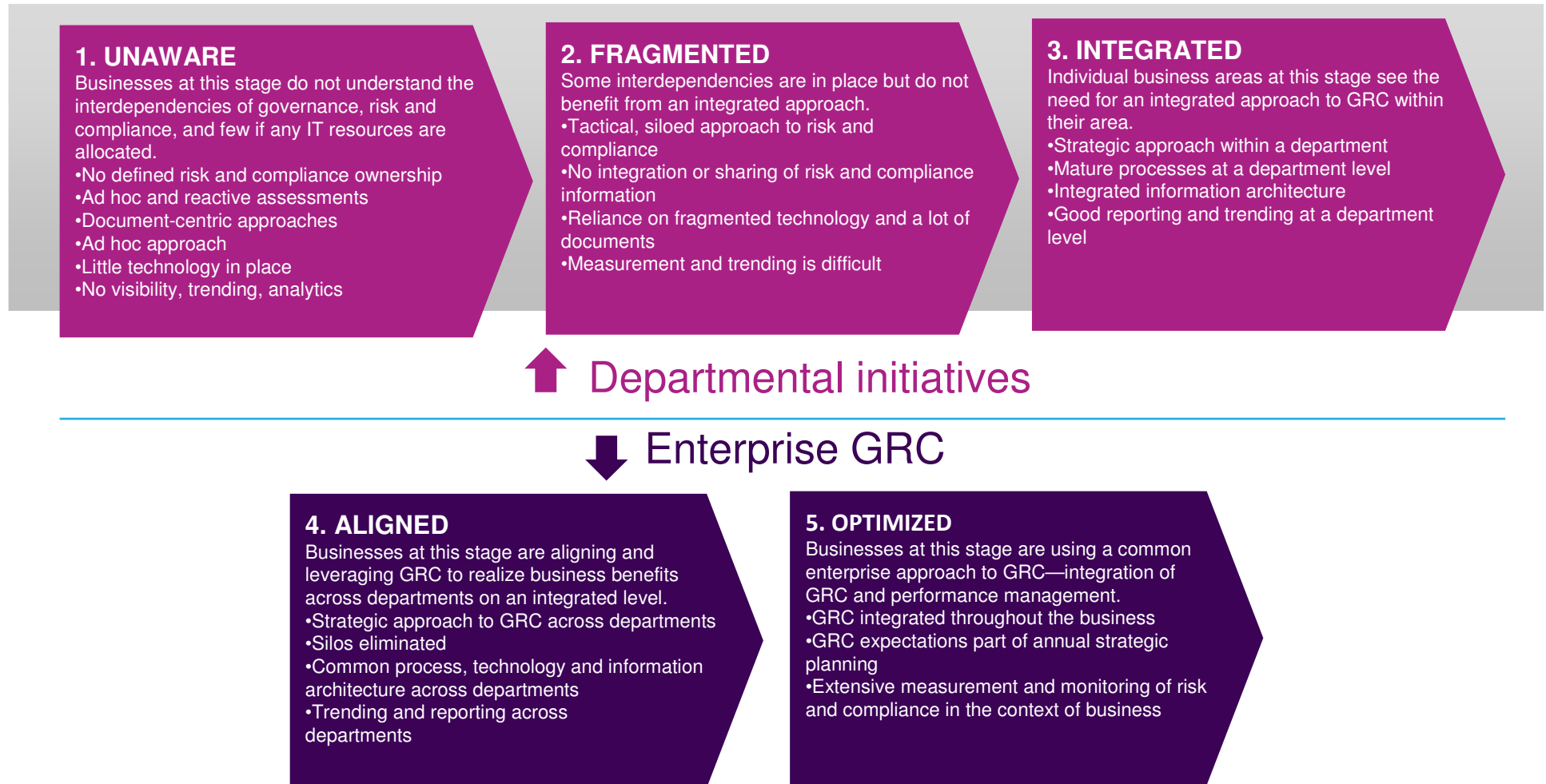
Value	Count	Percent
Inability to gain a clear view of risks on an enterprise-wide basis	286	57.1%
Difficulty and time for consolidating and conforming disparate data	269	53.7%
Failure to effectively understand compliance and operational risks	266	53.1%
Inability to measure effectiveness of efforts	246	49.1%
Duplication or redundancy of efforts	245	48.9%
Inability to measure and control performance (efficiency, responsiveness, flexibility) of risk and compliance efforts	236	47.1%
Difficulty of maintaining accurate data	191	38.1%
Unreliable or unreconcilable risk assessment results	186	37.1%
Failure to provide governing authority with needed information to support decision-making	171	34.1%
None of the Above	26	5.2%
Other	16	3.2%

Statistics	
Total Responses	501

Beneficial outcomes of integrating GRC processes across silos

Value	Count	Percent
Reduced gaps in risk and compliance processes	304	60.4%
Reduction in redundant or duplicative activities	213	42.4%
Greater ability to repeat processes in a consistent manner	199	39.6%
Greater ability to gather information quickly and efficiently	195	38.8%
Greater ability to present consolidated, meaningful information and analyses to the board and senior management	189	37.6%
Reduced impact on operations from siloed and uncoordinated risk assessments	174	34.6%
Reduced costs of GRC processes	103	20.5%
We have not integrated any GRC processes	98	19.5%
Reduced impact on operations from siloed training on compliance requirements	95	18.9%
Other	14	2.8%
None of the above	8	1.6%
Statistics		
Total Responses	503	

Where are you today in the maturity of your governance, risk and compliance processes?



Source: Corporate Integrity, *GRC Maturity: From Disorganized to Integrated Risk and Performance*, Michael Rasmussen, April 2012.

GRC maturity level 1—ad hoc/unaware

Situation

- No assigned risk owners or **accountability** for risk, control or compliance
- Risk, compliance and controls documented and **maintained only as needed**
- Assessments done **reactively** in response to mandates
- Risk and compliance data managed in **documents and spreadsheets** with little to no GRC technology in place
- **No trending or analytics** to track the state of risk and compliance



1. UNAWARE

Recommendation

- Skip level 2 and move to level 3—“integrated”
- Keep level 4 and 5 in mind during program design

Considerations for moving from level 2 to level 3

Situation

- Risk and compliance information **trapped in silos** of databases, spreadsheets and documents
- No **integration or sharing** of risk and compliance information at the department level
- Risk and compliance **assessments project-focused**—no ongoing monitoring
- **Limited** measurement and trending, consuming resources and taking a lot of time

2. FRAGMENTED

3. INTEGRATED

Objective

- Move from “fragmented” to “integrated”
- Reduce manual data aggregation and **improve visibility** into risk exposure

Considerations for moving from level 2 to level 3

What to consider

- An **integrated GRC platform** where multiple risk and compliance initiatives can be combined to deliver:
 - **Cross-module** reporting, workflow and security
 - Executive **dashboards** and reporting
 - Common repository
 - **Common processes** associated with risk assessments, control testing, policy management, issues management and reporting
 - **One assessment** that serves multiple purposes:
 - Operational risk control assessments, regulatory compliance assessments, SOX and group audit

2. FRAGMENTED

3. INTEGRATED

Considerations for moving from level 3 to level 4

Situation

- Defined processes and strategy for GRC **at the department level**
- **Clear accountability** and responsibility for risk and compliance at a department level
- Established processes and regular assessments for risk and compliance
- Defined **information architecture** supported by GRC technology at the department level



3. INTEGRATED

4. ALIGNED

Objective

- Move from “integrated” to “aligned”
- Leverage risk insights to improve investment, lending and planning decisions

Considerations for moving from level 3 to level 4

What to consider

- A **common governance model** across line of business, functions and geographies
- A **common language**, methodology and taxonomy for risk and compliance management
- Extensible and **configurable** product architecture
 - Supports any methodology, taxonomy
 - **Easily extended** to other solution areas
- Embedded business intelligence
 - To mine GRC data and **enable risk-aware decision making**
 - Allows business managers to explore risk data in an ad hoc way
- Ability to present relevant data to the user thru **role-based security** resulting in the right data to the right person at the right time



3. INTEGRATED

4. ALIGNED

Considerations for moving from level 4 to level 5

Situation

- Strategic approach to GRC **across departments**
- Silos eliminated
- **Common framework**, process, technology and information architecture across departments and domains
- **Clear accountability and ownership** of risk and control established across the organization
- Business able to **trend and report on GRC** across departments and across domains

Objective

- Move from “aligned” to “optimized”
- Align risk and performance



4. ALIGNED

5. OPTIMIZED

Considerations for moving from level 4 to level 5

What to consider

- **Shared technological platforms** for risk and compliance management, decision support and optimization
- **Integrated risk and finance data** to drive performance and maximize value creation
- Horizontal integration to eliminate “silos” and enable a **comprehensive view** of enterprise risk across firms
- Vertical integration to **enable better decision making** by taking into account risk and operational information—risk is a process
- While a technology platform can encourage certain behaviors, in the end, oversight and monitoring is a critical component of creating a risk-aware organization

4. ALIGNED

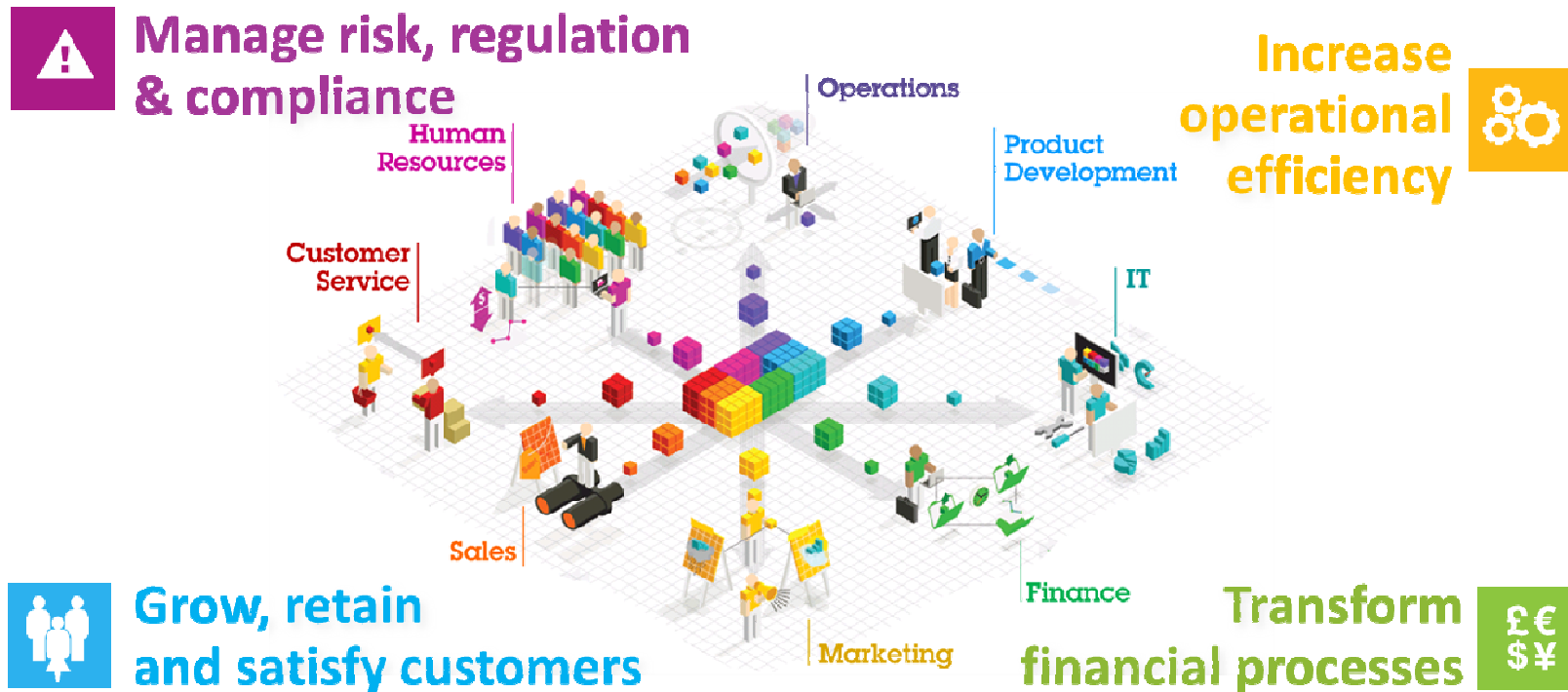
5. OPTIMIZED

Mature GRC

Mature GRC delivers better business outcomes because of stronger integrated information, which can:

- Lower costs, **reduce redundancy** and improve efficiencies by rationalizing the information architecture
- Deliver consistent and accurate information about the state of risk and compliance initiatives to **assess exposure**
- Improve decision making and business performance through **increased insight and business intelligence**

But the true potential for risk as an **engine of optimization** is to understand how the **unique challenges** faced across the business interact as part of a **holistic ecosystem**



IBM delivers leading GRC and treasury risk management solutions

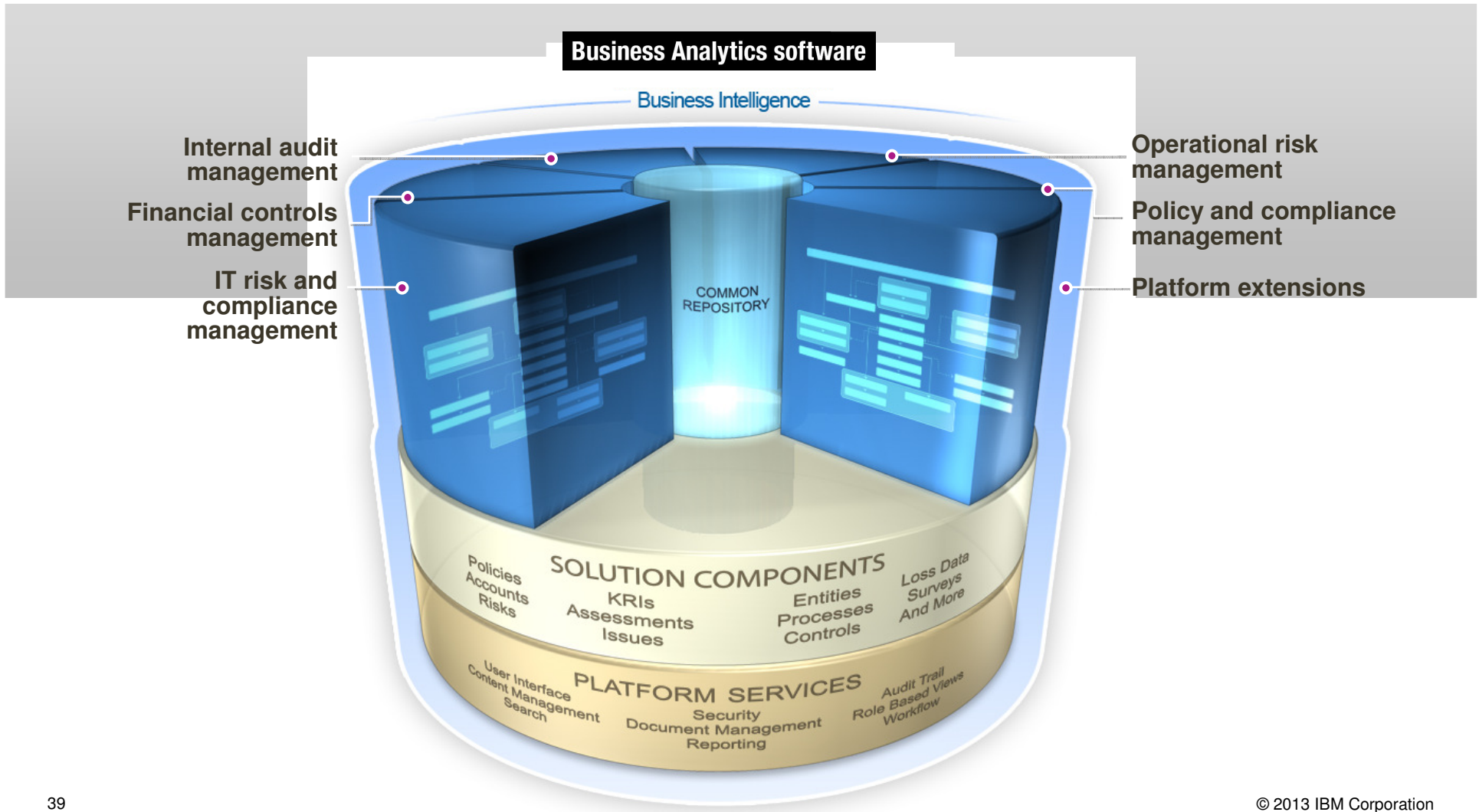
- Risk analytics solutions
 - IBM OpenPages® software
 - Operational risk and GRC
 - IBM Algorithmics® software
 - Financial risk management



Chartis Research RiskTech100 Rankings 2012

IBM ranked in first place for the second year running in the annual RiskTech100 ranking of risk technology vendors worldwide. IBM also won the Functionality, Innovation, North America, OpRisk & GRC, and Insurance categories.

IBM OpenPages GRC Platform integrates key risk and compliance functions



IBM OpenPages software offers integrated, cross-solution business intelligence, reporting, dashboards, workflow and security

IBM OpenPages Operational Risk Management

Identify, manage, monitor and analyze operational risk across the enterprise in a single, integrated solution

IBM OpenPages IT Governance

Manage internal IT controls and risk according to the business processes they support

IBM OpenPages Policy and Compliance Management

Consolidate the policy and compliance management process in a single solution and manage regulatory change

IBM OpenPages Financial Controls Management

Gain transparency into the state of financial controls and assurance that compliance demands are being addressed

IBM OpenPages Internal Audit Management

Automate internal auditing procedures and gain independent assessment of risk and compliance performance

IBM Algo[®] FIRST[®] Operational risk case studies

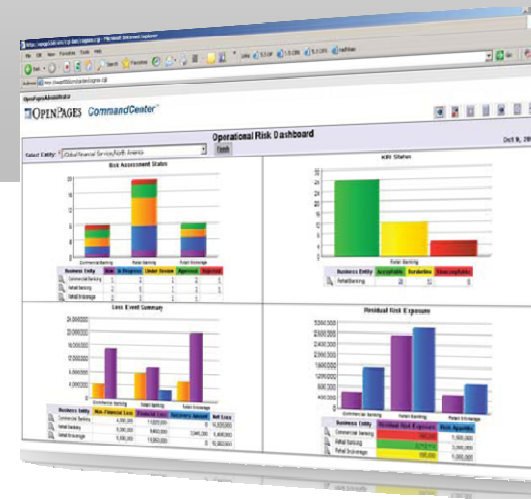
Database of more than 11,000 external risk loss case studies of exposures related to corporate governance, marketplace practices and business risk

IBM is deploying OpenPages software to manage IT security risks

*Top 2012 technology risks per World Economic Forum:
cyber attacks, critical system failure and massive data fraud/theft*

OpenPages solution:

A management system for key IT risks that monitors and measures effectiveness of risk mitigation actions



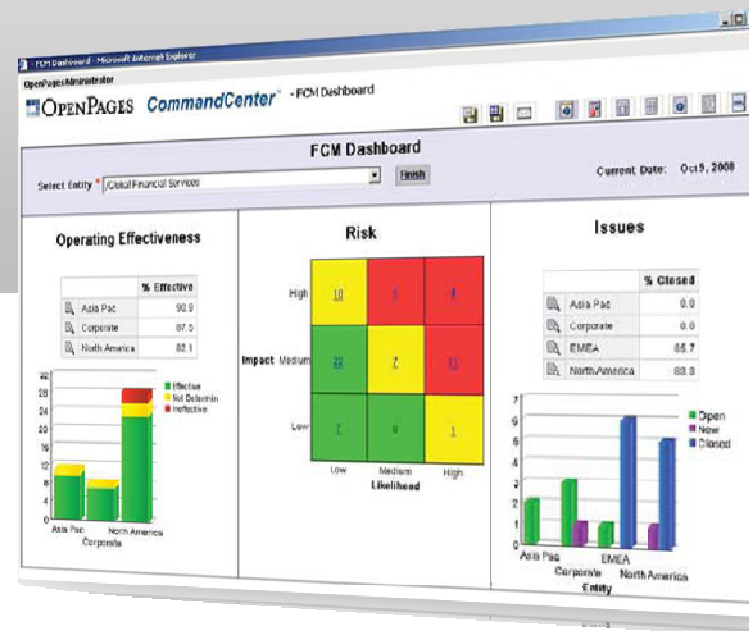
Benefits

- Enhance risk assessment with real-time risk identification, tracking, prioritization, analytics and reporting
- Improve IT risk data quality and ongoing data management
- Demonstrate how any given risk control can affect the IT risk map:
 - Effectiveness of control, improvement areas required and effectiveness of improvements

IBM OpenPages Financial Controls Management

Marketplace-leading solution for managing financial reporting risk

- Security-rich and centralized management of financial reporting compliance data
- Executive management with visibility into the state of internal controls
- Quick issue remediation



OpenPages Financial Controls Management dashboards, charts and reports deliver views on the state of financial reporting risk

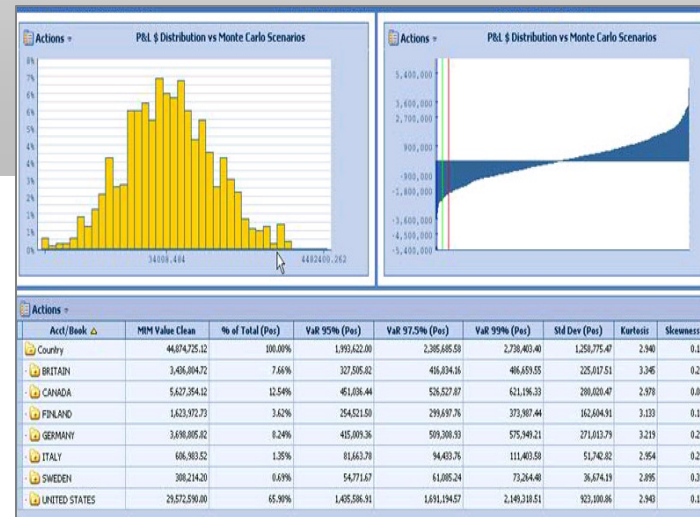
IBM has deployed Algo risk solutions for treasury risk management

Problem:

Marketplace risk variables are global and interrelated and change at high velocity

Algo risk solution:

Simulates various marketplace risk factors to optimize overall exposure and hedging strategy



Benefits

- Facilitates in-depth modeling of various marketplace risk factors
- Optimizes risk exposures, reports to management and hedging strategies

IBM Algo solutions for pension and credit

Pension capabilities

- Measures U.S. pension exposure across assets and funds
- Enhance scenario analysis on counterparty losses
- Simulates and correlates “tail risk” to assess portfolio risk
- Runs stress test and historical replays
- Enables real-time stochastic risk measures
 - V@R, distribution, tail loss ...



Credit capabilities

- Portfolio management
 - Quantify portfolio concentration risks
 - Quantify incremental portfolio risk on new deals
 - Improve portfolio stress testing
- Improve reporting

Benefits

- Improve decision making by adding risk insight and foresight and transparency
- Reduce risks and cost of compliance; gain cost savings by using internal solutions
- Accelerate and streamline risk processes; increase effectiveness and value

Carnival's operating environment posed some unique challenges for implementing a comprehensive GRC program

Decentralized organizational structure

- Twelve cruise line businesses, more than 80,000 employees, a majority of whom are at sea
- Individual cruise lines that operate in highly autonomous way
- GRC assessments, such as internal audits, compliance testing and risk mitigation analysis conducted periodically throughout the year
- Businesses that span different countries and cultures where employees speak different languages

Key challenges:

- Maintaining a comprehensive, consistent view of risk factors across separately branded operating companies
- Ensuring that financial, operating and compliance controls and procedures meet management expectations



Slide 46

4

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new, 2013/04/16

The GRC program resulted in key business outcomes



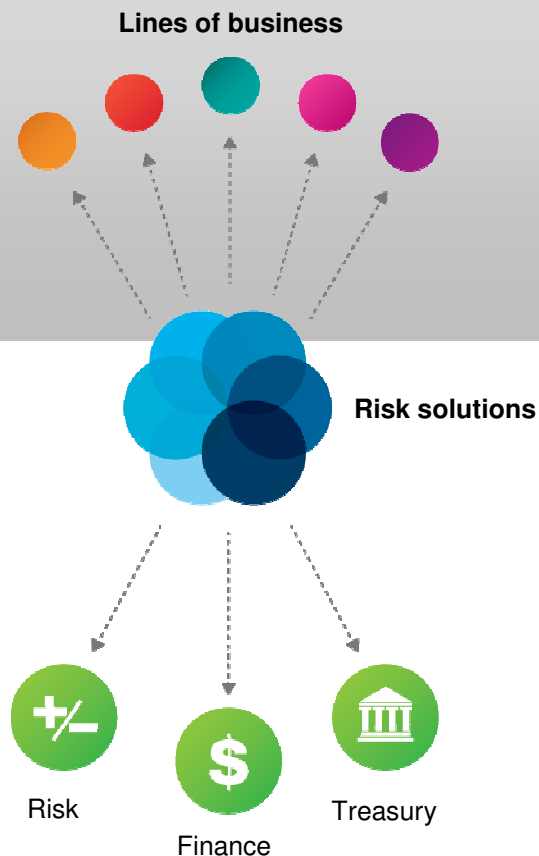
Objectives

- Provide board reporting on the most significant risks to the enterprise and the effectiveness of risk management for key risks
- Push risk management activities down to the operating company risk committees
- Integration of internal audit, financial controls management and enterprise risk management across business lines for improved business performance

Outcomes

- Improved risk response as issues surfaced to the board more clearly
- Gained clarity of risk mitigation actions for particular risks
- Reduced enterprisewide risk factors shared by audit, finance and enterprise risk management
- Achieved an all-hands-on-deck approach to risk management at the board level

An integrated approach can help improve decision making, reduce cost and prepare for the future



- **Improve decision making** by providing risk insight and transparency to business decisions
- **Increase your return on capital** by investing in the right opportunities
- **Reduce** the cost of compliance
- **Accelerate and streamline risk processes** to reduce cost and operational risk and transform our clients' customer business
- **Dynamically evolve** as risk practices and regulations change

IBM Software

Vision2013

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- **Learn** how IBM's integrated business analytics solutions help address financial governance, risk management and performance optimization
- **Enhance** financial planning & analysis, reporting, internal controls, risk management and sales performance management processes
- **Add value** to your organization by building analytical capabilities and finding more opportunities for growth
- **Discover** best practices from IBM experts and customer case studies across a variety of industries

Vision2013 Tracks:

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- Sales Performance Management
- Financial Governance and Disclosure Management
- Risk Management

Who Should Attend Vision2013:

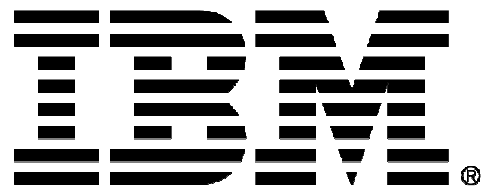
Finance & Accounting Professionals, External /SEC Reporting, Financial Analysts, Risk & Compliance Professionals, Sales Operations and Incentive Compensation Professionals

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Q & A



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