State of Auditing in 2014

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US Postal Service Office of Inspector General
November 12, 2014

US Postal Service at a Glance

$1.3 Trillion	The U.S. Postal Service is the core of a more than $1.3 trillion mailing industry that employs more than 8 million people
40%	Of the world's mail volume is handled by the Postal Service
20.1 billion	Stamps were sold in 2013
1.2 billion	Miles driven each year by letter carriers and truck drivers.
1.1 billion	Annual visitors to *usps.com*; averaging 3.6 million visits per day
$67.3 Billion	Annual revenue
200 miles	Of conveyors within postal processing facilities
35,434	35,434 retail facilities - larger than McDonald's, Starbucks, and Walmart combined, domestically.
33 petabytes	Of storage capacity equivalent to playing 83,000 years of songs on an MP3 — no repeats.

State of Auditing in 2014

Themes:
1. Business environment is changing
2. Perceptions of Audit's value are diverging
3. Expectations of Audit are changing, and Audit is struggling to meet expectations
4. Is Continuous Assurance the future?

State of Auditing in 2014

Theme 1:
Business environment is changing

Technology is changing business in a major way, and the pace of change is accelerating.

Information technology now is an indispensable factor of production.

Photo by Marc-Alexander Heckert

Enabling global trade.

Photos by Deutsches Bundesarchiv, Dachan Bay Modern Port Development Co. Ltd.

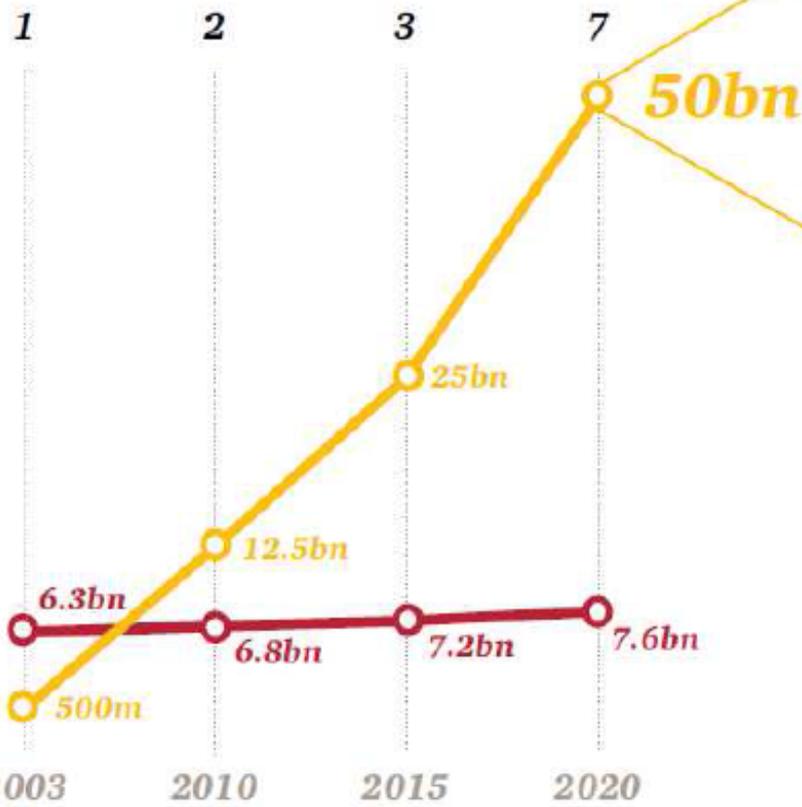Driving mass customization.

Photo by BMW AG

Allocating capital.

Photos by U.S. Library of Congress, Wikimedia Commons

Connected Devices

The number of connected devices is increasing dramatically

Connected devices per person: 1, 2, 3, 7

By 2020 there will be nearly 7 times more networked devices than people in the world

50bn (2020), 25bn (2015), 12.5bn (2010), 500m (2003)

World population: 6.3bn (2003), 6.8bn (2010), 7.2bn (2015), 7.6bn (2020)

2003, 2010, 2015, 2020

The Nexus of Forces: People…

want to connect to…
- share experiences
- find answers
- engage with the community
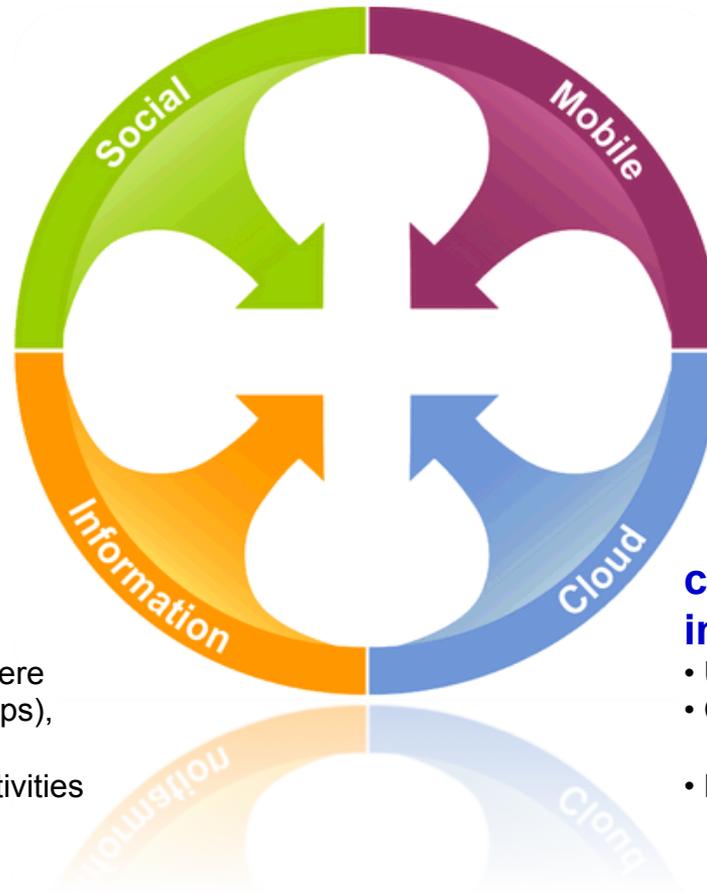
want to be mobile…
- using devices of their choosing
- staying connected with people
- being able to switch easily between work and non-work

want a seamless experience to…
- access anything from anywhere
- use multiple devices (and apps), sometimes simultaneously
- blend work and non-work activities

consume and generate information
- Ubiquitous access to info and apps
- Contextually relevant info to augment their activities
- Don't care how it works, only that it does.

Social

Mobile

Information

Cloud

Gartner 2013

Which of the following global trends do you believe will transform your business the most over the next five years?

Technological advances
- 81 (% ranking 1st, 2nd or 3rd)
- 50
- 30
- 19

Mean rank: 2.31

Demographic shifts
- 60
- 28
- 39
- 33

Mean rank: 1.95

Shift in global economic power
- 59
- 30
- 37
- 34

Mean rank: 1.96

Resource scarcity and climate change
- 46
- 29
- 30
- 41

Mean rank: 1.87

Urbanisation
- 40
- 25
- 34
- 41

Mean rank: 1.84

Legend:
- % ranking 1st
- % ranking 1st, 2nd or 3rd
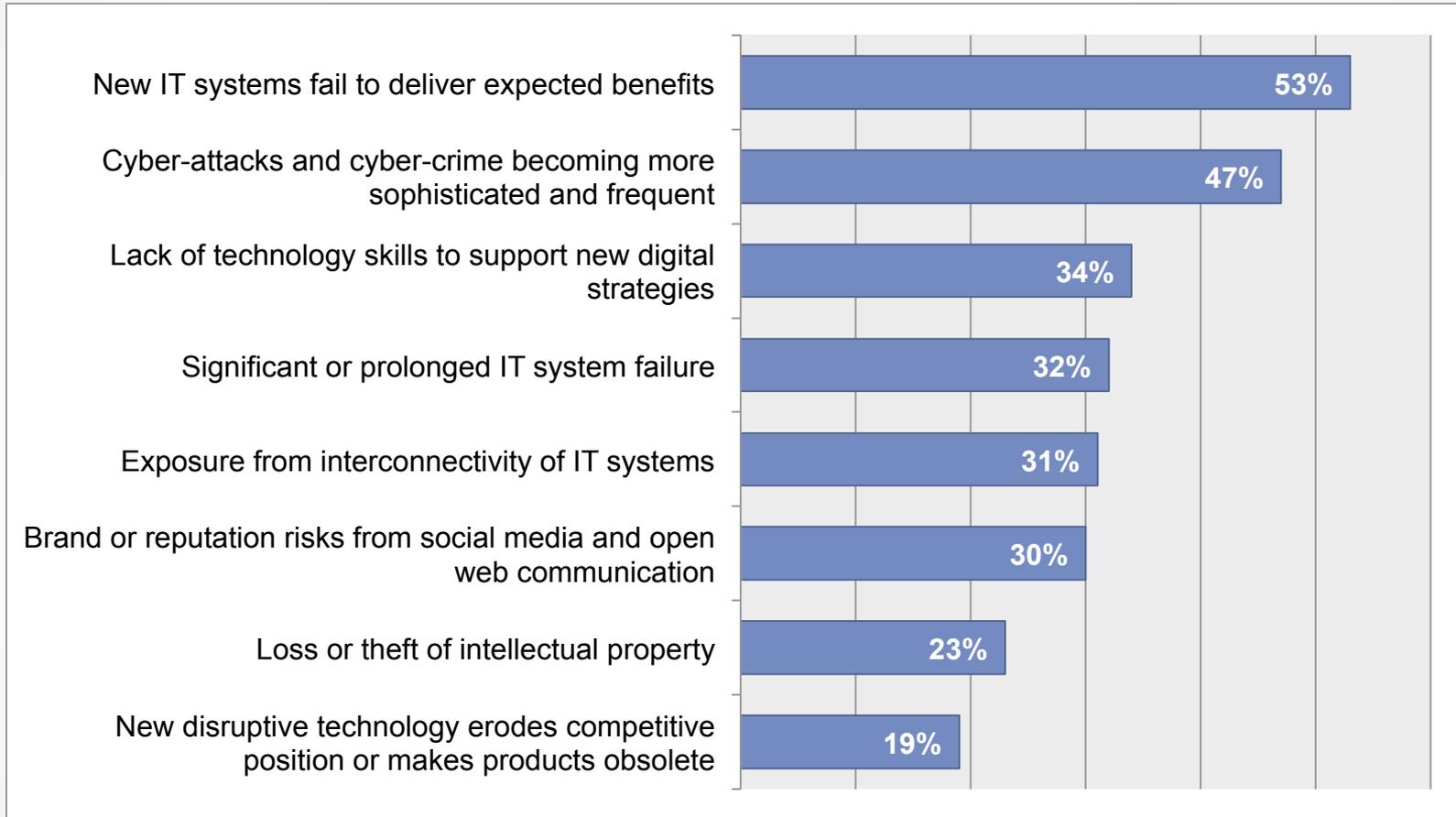- % ranking 2nd
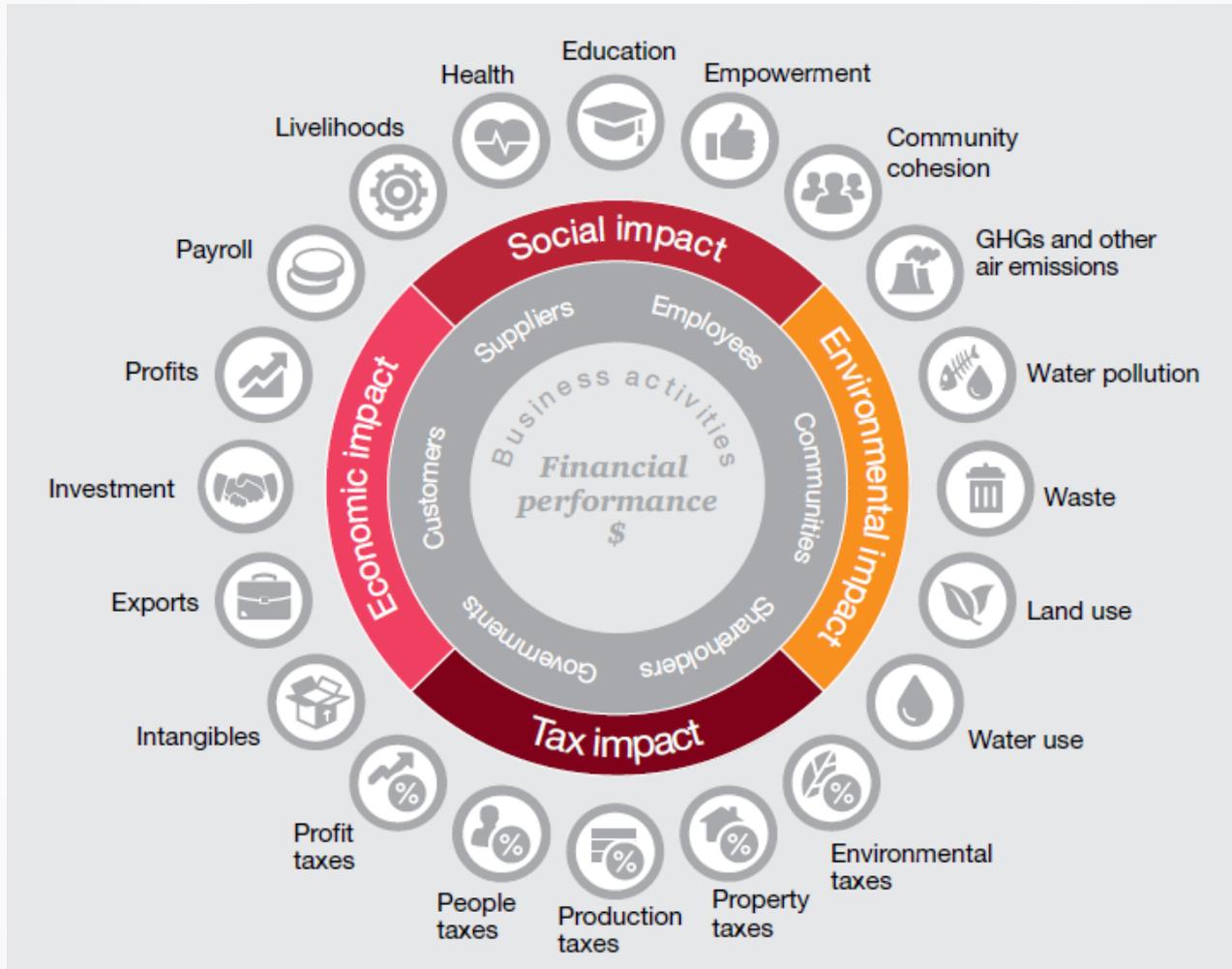- % ranking 3rd
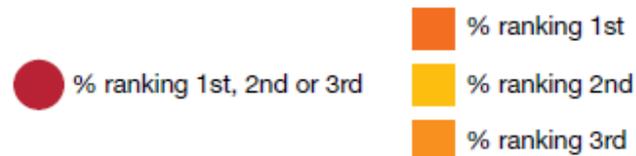
Base: All respondents (1,344)
Source: PwC 17th Annual Global CEO Survey

PwC 2014

To what extent do you feel that your organization is at risk from each of the following factors over the next 18 months?

| Factor	Percentage
New IT systems fail to deliver expected benefits	53%
Cyber-attacks and cyber-crime becoming more sophisticated and frequent	47%
Lack of technology skills to support new digital strategies	34%
Significant or prolonged IT system failure	32%
Exposure from interconnectivity of IT systems	31%
Brand or reputation risks from social media and open web communication	30%
Loss or theft of intellectual property	23%
New disruptive technology erodes competitive position or makes products obsolete	19%

PwC 2014

Measuring an organization's total impact helps to show the best route forward

PwC 2014

Change is driving CEOs to…
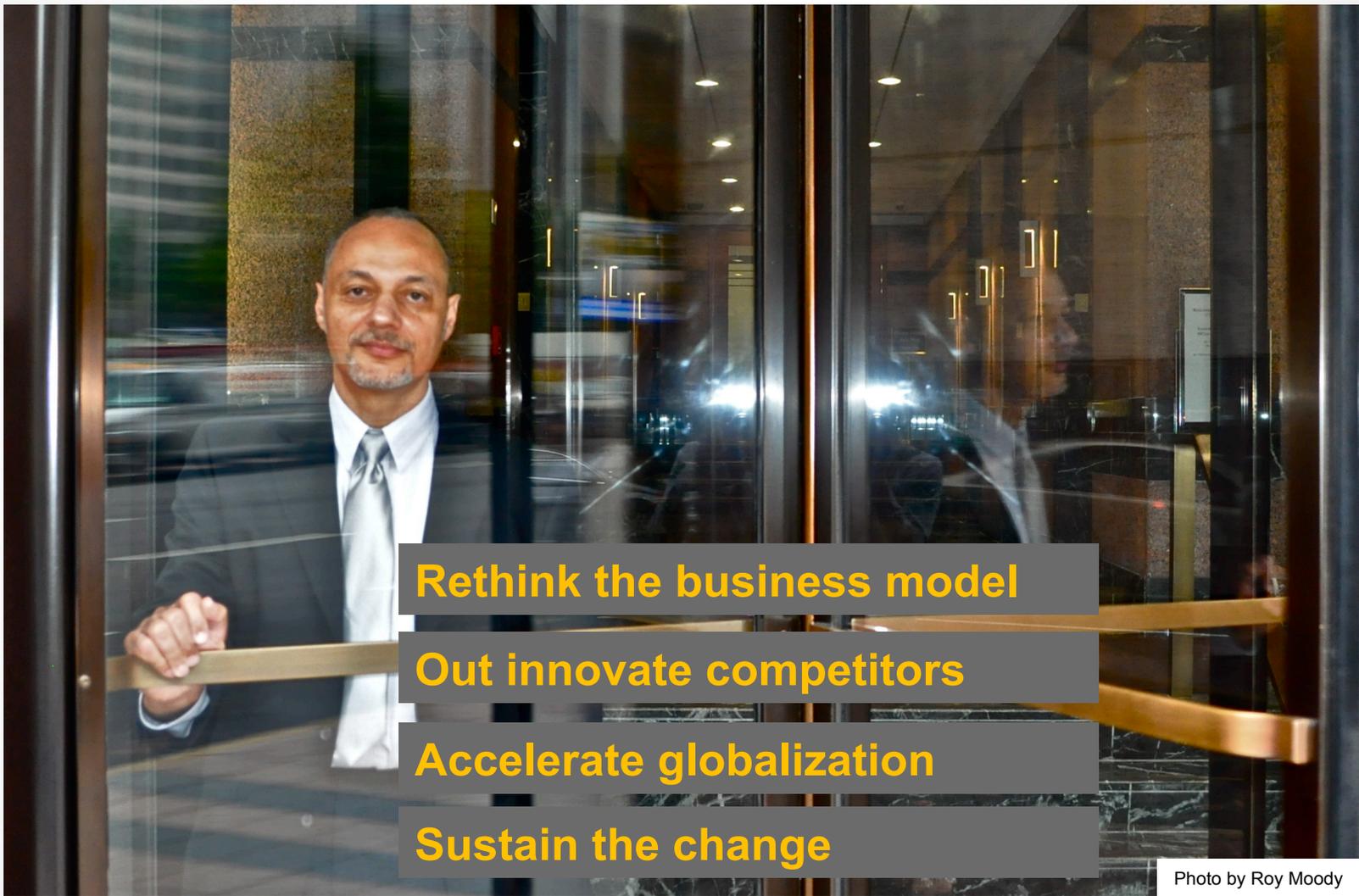
Rethink the business model

Out innovate competitors

Accelerate globalization

Sustain the change

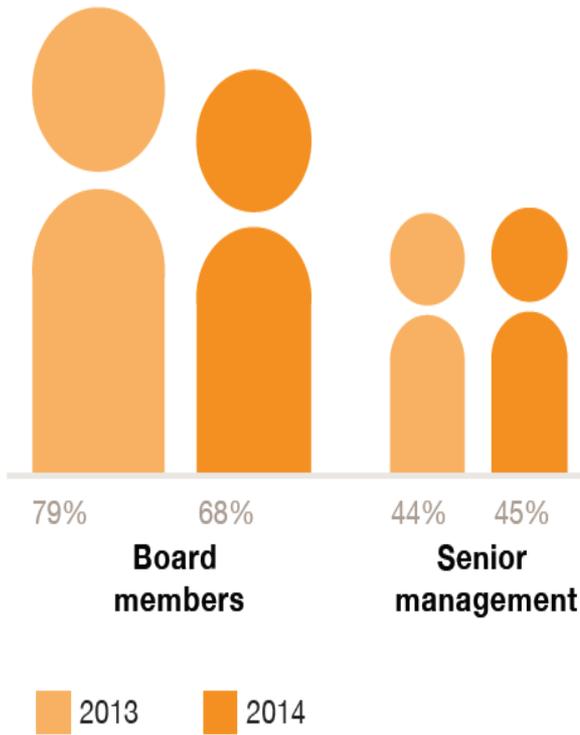Photo by Roy Moody

State of Auditing in 2014

Theme 2:
Perceptions of Audit's value are diverging

Board members, senior management and chief audit executives (CAEs) perceive Audit differently

Percent of stakeholders reporting internal audit provides "significant value"

	Board members	Senior management
2013	79%	44%
2014	68%	45%

Percent of 2014 respondents reporting that internal audit "performs well"[1]

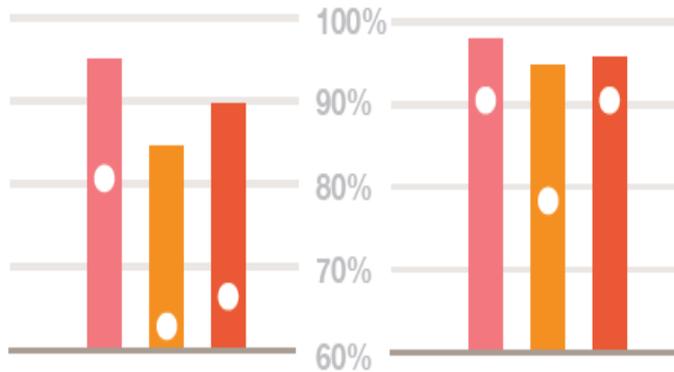| Board members	Senior management	CAEs
64%	49%	65%
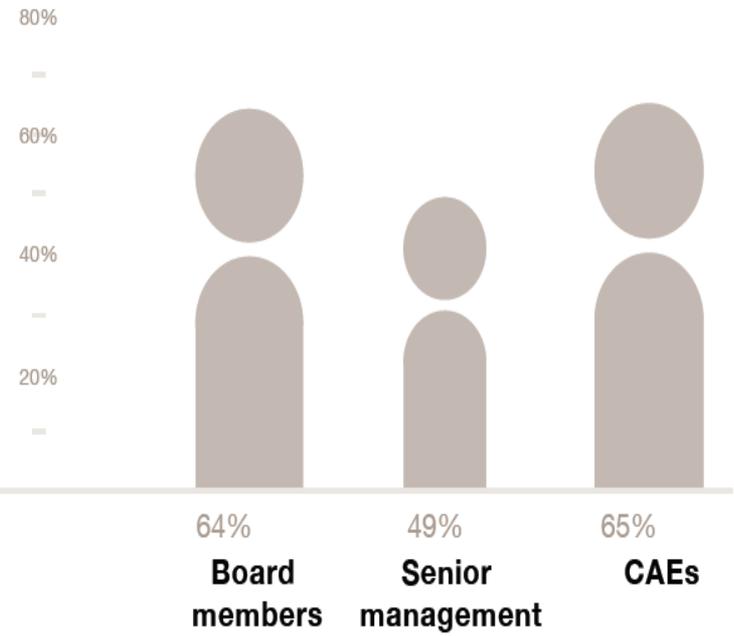
[1]Represents the average of "performs well" ratings

2013   2014

PwC 2014

Board members, senior management and CAEs agree on expectations, but differ on how well Audit meets them

Focusing on critical risks and issues the company is facing

Assessing the effectiveness of the organization's internal controls

Aligning scope and audit plan with stakeholder expectations

CAE expectation

Senior management expectation

Board members expectation

○ Performance

Board members (90%), senior management (85%) and CAEs (96%) are aligned on the expectation that internal audit should focus on critical risks and issues facing the company.
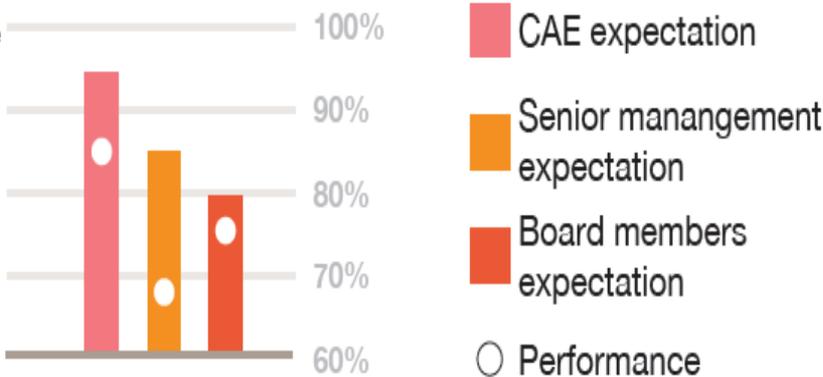
But while 83% of CAEs believe they do this well, only 63% of senior management thinks so.

PwC 2014

The top internal audit functions perform at a high level on eight foundational capabilities
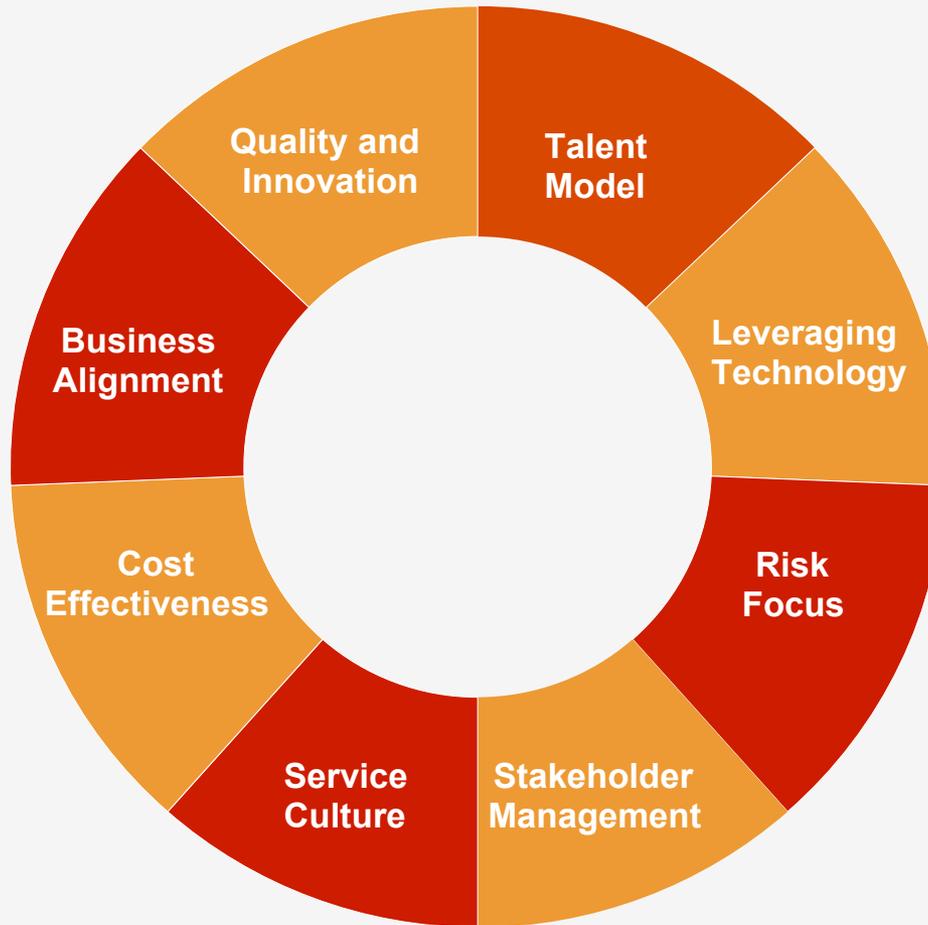

Quality and Innovation · Talent Model · Leveraging Technology · Risk Focus · Stakeholder Management · Service Culture · Cost Effectiveness · Business Alignment

More than half (55%) of senior management does not believe internal audit adds significant value to their organization.

Nearly 30% of board members believe internal audit adds less than significant value.

On average only 49% of senior management and 64% of board members believe internal audit is performing well at delivering on expectations.

PwC 2014

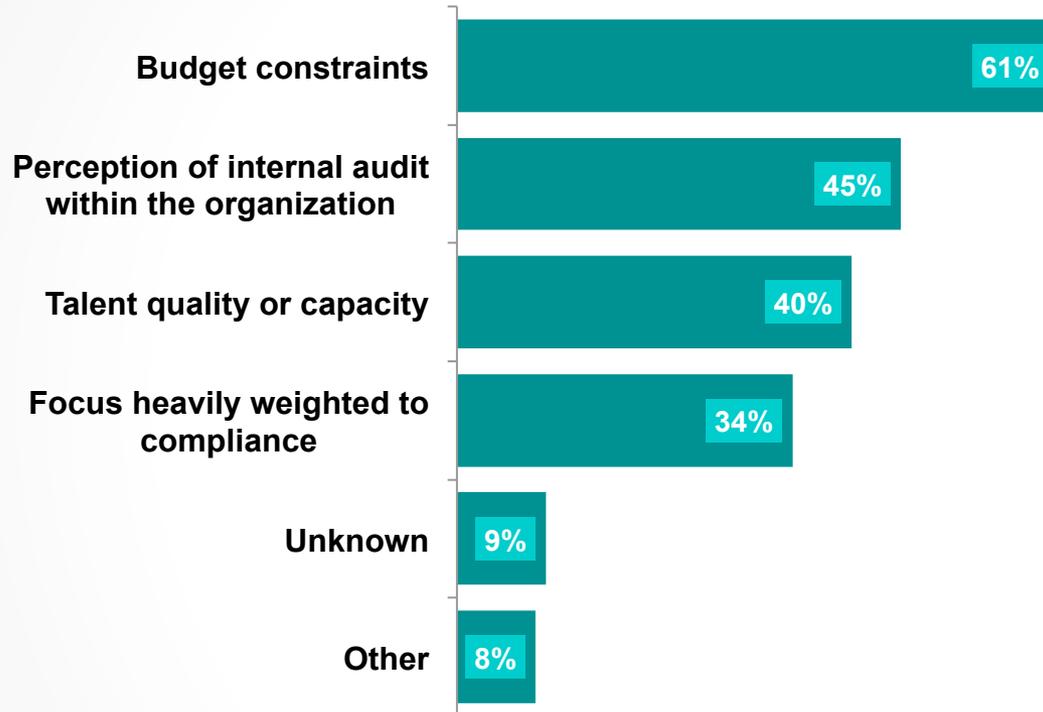# Board members and management disagree on how well audit performs on 8 key attributes

How well is internal audit performing in each of the following areas?

- Promoting quality improvement and innovation
- Leveraging technology (such as automation, data and advanced analytics)
- Delivering cost-effective services
- Delivering services with a service-oriented team
- Engaging in and managing a relationship with stakeholders
- Obtaining, training and/or sourcing the right level of talent for audit needs
- Aligning scope and audit plan with stakeholder expectations
- Focusing on critical risks and issues

● Management
○ Board members

0% 20% 40% 60% 80% 100%

Percent of respondents who believe internal audit is performing well or very well

On average, 56 percent of board members rated internal audit's performance as strong, compared with 37 percent of management

PwC 2013

Audit is struggling to deliver value

What are the barriers to delivering the greatest value? Select all that apply.

Barrier	Percentage
Budget constraints	61%
Perception of internal audit within the organization	45%
Talent quality or capacity	40%
Focus heavily weighted to compliance	34%
Unknown	9%
Other	8%

Stakeholders are **most** satisfied with internal audit's contribution in traditional coverage areas such as financial controls and fraud and ethics.

Stakeholders are **least** satisfied with internal audit's contribution in less-traditional areas such as large program assessment, new product introductions, capital project management, and mergers and acquisitions.

Grant Thornton 2014; PwC 2013

State of Auditing in 2014

Theme 3:
Expectations of Audit are changing

Business leaders want oversight, insight and foresight, but...

Boards of directors and senior management may have different priorities.

Priorities for corporate boards

Understand how technology is continuing to transform the competitive landscape

The convergence of social media, the cloud, mobile devices, and big data – what Gartner calls "The Nexus of Forces" – is fundamentally changing the competitive landscape and creating new business opportunities, and the pace of change is accelerating.

The key challenge for boards today is to help shape the company's strategy and manage the related risks in a business environment undergoing massive change. This requires more than oversight. Does the board have insight and foresight about these technologies and their impact on the business, the industry, and the competitive environment? Are discussions within the traditional boardroom structure sufficient?

KPMG 2014

Priorities for corporate boards

Recognize that good risk management entails both defense and offense
While a solid defense is essential, more companies today also see good risk management supporting their offense – as a strategic capability helping people throughout the organization make smart risk-adjusted decisions, shaping strategy, and adding competitive value.

Set the tone and closely monitor leadership's commitment to that tone, and actively listen to the conversation below senior management and outside the corporate office
Reinforce the right culture – i.e., what the company does, how it does it, and the culture of compliance… Is management actively "listening to the conversation" on social media to better understand the risks, opportunities, and changing attitudes and perceptions about the company?

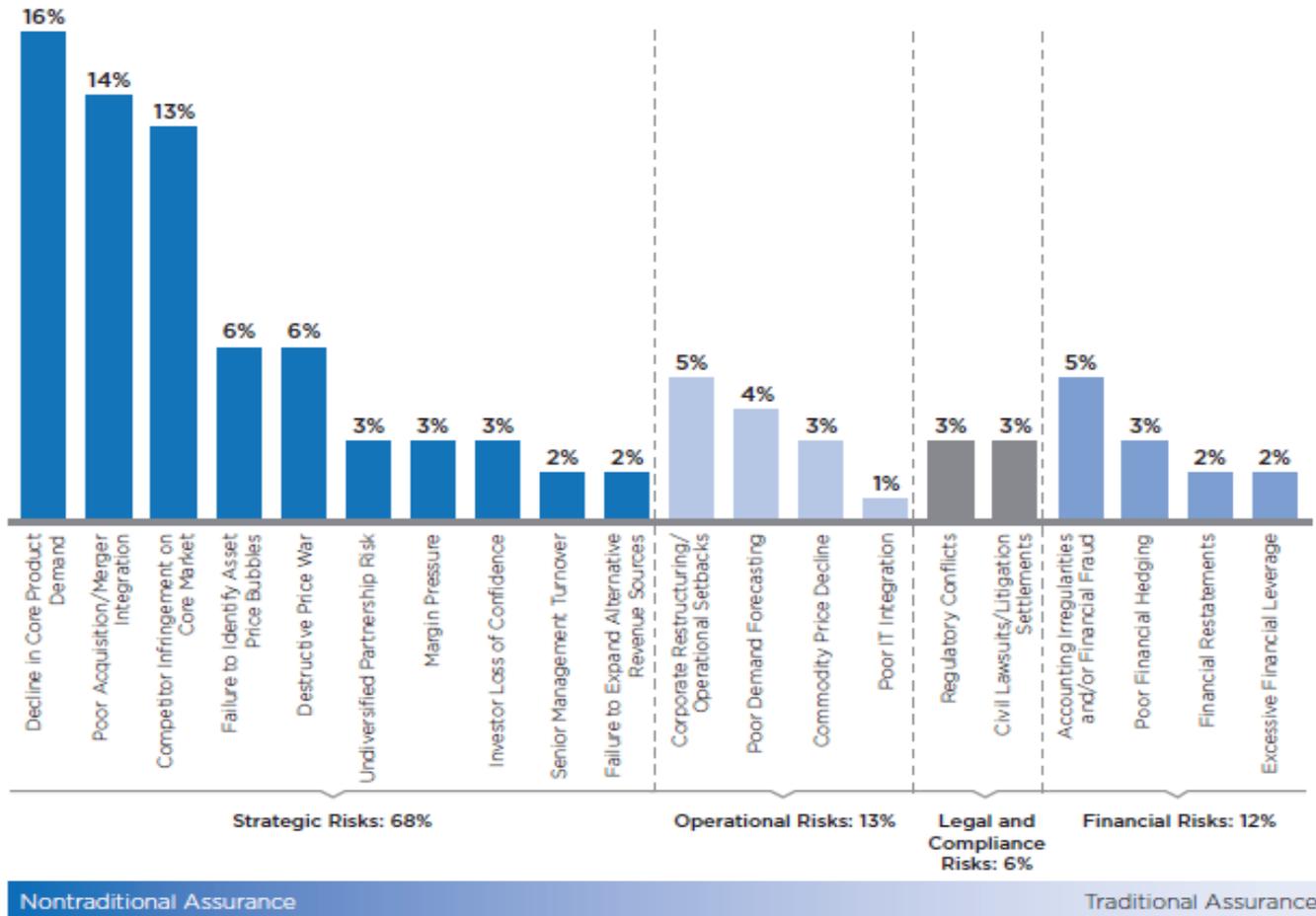KPMG 2014

Priorities for audit committees

- **Stay focused on job #1: financial accounting and reporting**

- **Monitor key regulatory changes and proposals (potentially) impacting the external auditor's role**

- **Leverage internal audit as a barometer of the company's financial health – helping the audit committee understand the quality of financial controls, processes and people**

- **Make sure the company's ethics and compliance programs are keeping up with new vulnerabilities to fraud and misconduct**

- **Understand the company's significant tax risk appetite; pay particular attention to the global "tax morality" and "tax transparency" debates, and assess the impact on the company's brand**

Because risks are changing …

Market Capitalization Decline Drivers
Top 20% of Fortune 1,000 (1998–2009)

- 16% — Decline in Core Product Demand
- 14% — Poor Acquisition/Merger Integration
- 13% — Competitor Infringement on Core Market
- 6% — Failure to Identify Asset Price Bubbles
- 6% — Destructive Price War
- 3% — Undiversified Partnership Risk
- 3% — Margin Pressure
- 3% — Investor Loss of Confidence
- 2% — Senior Management Turnover
- 2% — Failure to Expand Alternative Revenue Sources
- 5% — Corporate Restructuring/Operational Setbacks
- 4% — Poor Demand Forecasting
- 3% — Commodity Price Decline
- 1% — Poor IT Integration
- 3% — Regulatory Conflicts
- 3% — Civil Lawsuits/Litigation Settlements
- 5% — Accounting Irregularities and/or Financial Fraud
- 3% — Poor Financial Hedging
- 2% — Financial Restatements
- 2% — Excessive Financial Leverage

Strategic Risks: 68% | Operational Risks: 13% | Legal and Compliance Risks: 6% | Financial Risks: 12%

Nontraditional Assurance | Traditional Assurance

n = 128.

Strategic risks cause **68%** of severe market capital declines.

But the typical audit depart-ment spends the majority of its time on traditional assurance activities covering financial and compliance risks.

CEB 2010

Expectations of Audit Are changing

In the year ahead, in which of the following areas would you like your internal audit function to devote more of its time and/or sharpen its focus (Select all that apply)?

Area	Percentage
Risk management process	65%
Information technology and data management	58%
Operational risks	52%
Compliance and regulation	45%
Corruption/fraud	36%
Ethics and culture	28%
Corporate governance	27%
Cost reduction/containment	25%
Change management	21%
Crisis management	18%
Tax compliance	14%
Other	3%
Company does not have an internal audit function	1%

KPMG, 2014

Chief Audit Executives are coming to their positions from outside the internal audit profession

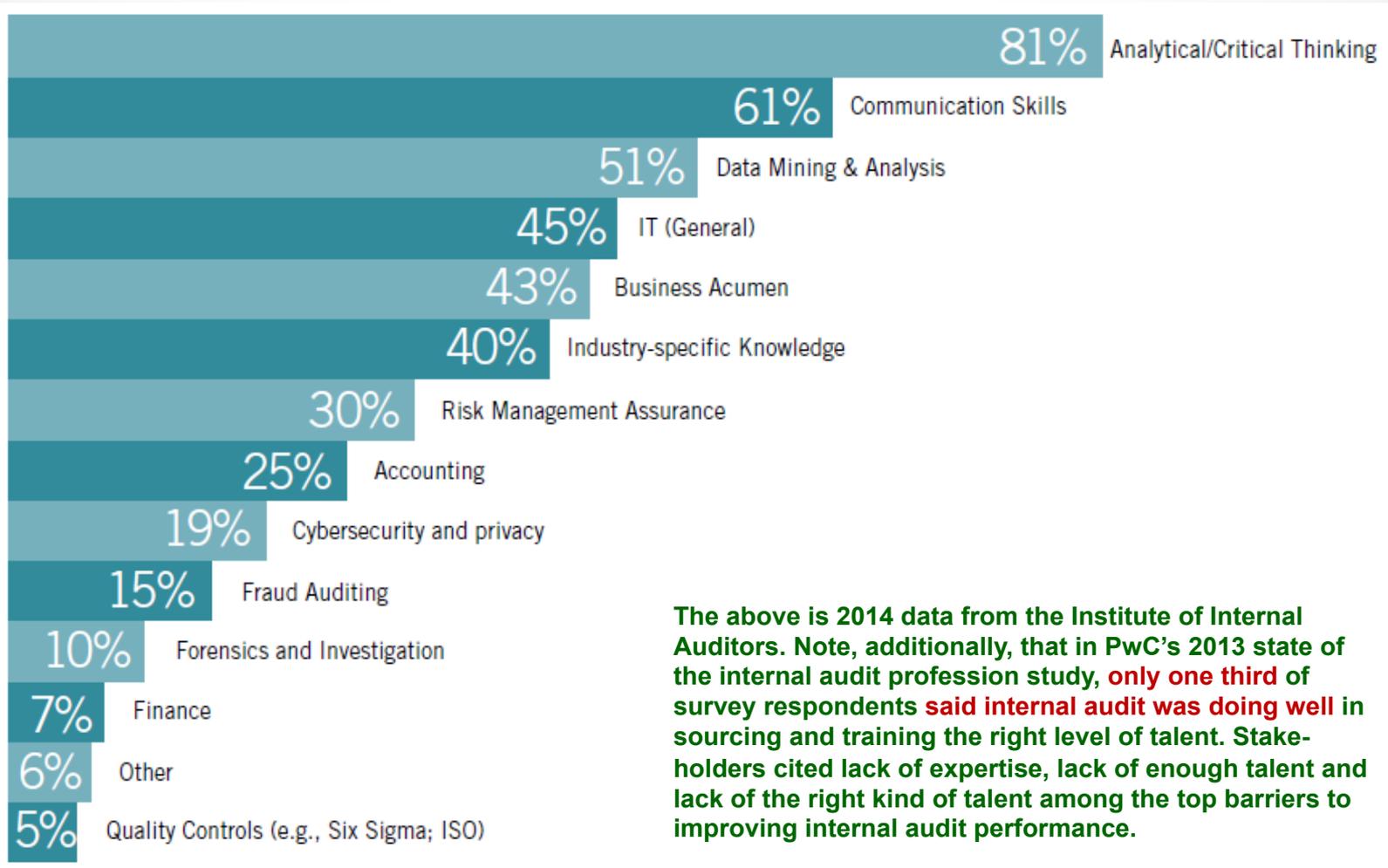42% of CAEs in North America held a position outside of internal audit immediately prior to becoming CAE
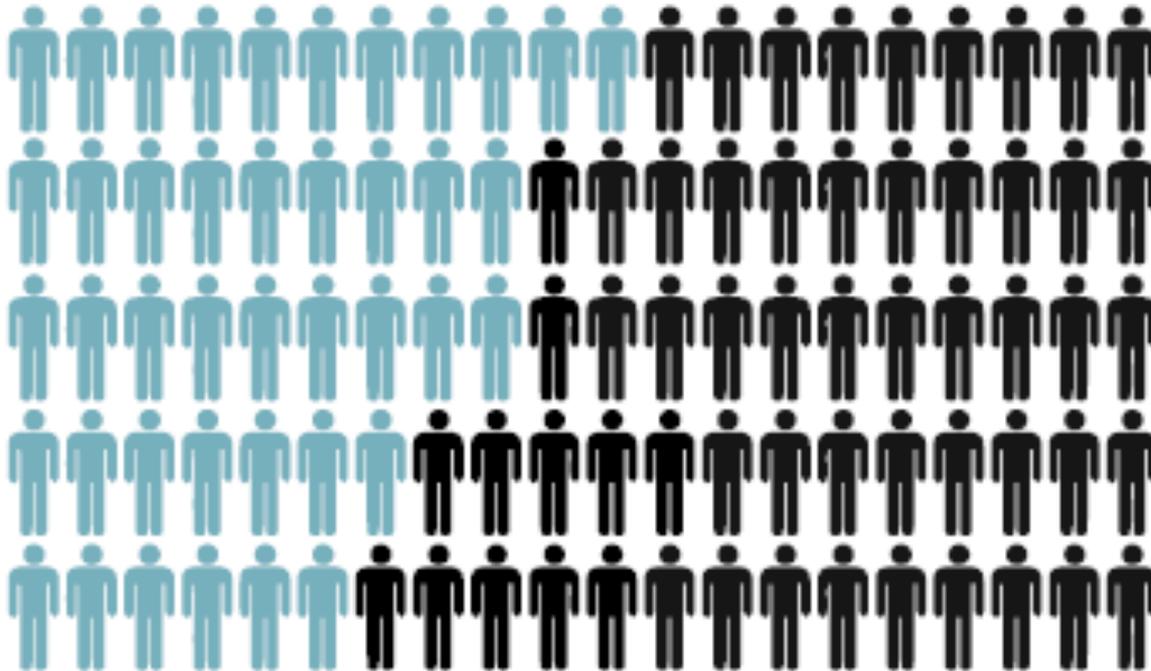
"The bottom line is that internal audit needs people in the CAE chair who understand the business and speak like business leaders."

Kelly Barrett, VP of Internal Audit and Corporate Compliance, Home Depot
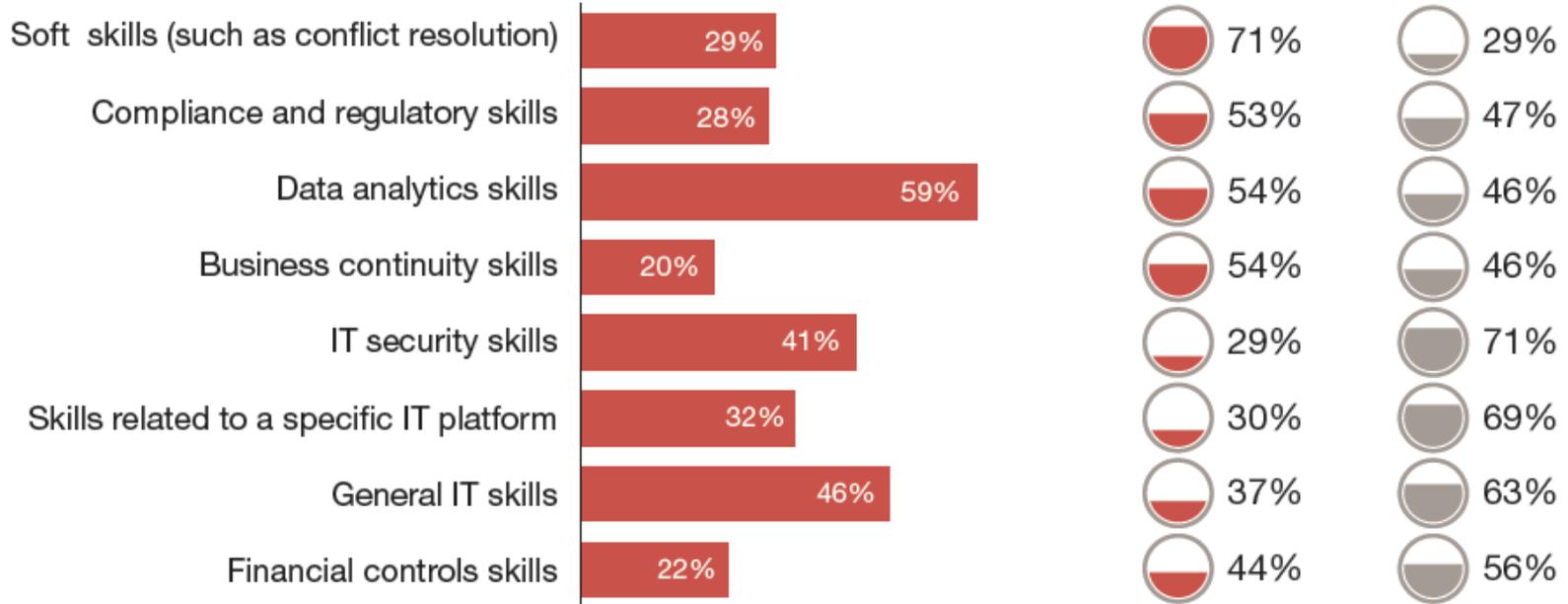
IIA 2014

CAEs are hiring different skill sets

Skill	Percentage
Analytical/Critical Thinking	81%
Communication Skills	61%
Data Mining & Analysis	51%
IT (General)	45%
Business Acumen	43%
Industry-specific Knowledge	40%
Risk Management Assurance	30%
Accounting	25%
Cybersecurity and privacy	19%
Fraud Auditing	15%
Forensics and Investigation	10%
Finance	7%
Other	6%
Quality Controls (e.g., Six Sigma; ISO)	5%

The above is 2014 data from the Institute of Internal Auditors. Note, additionally, that in PwC's 2013 state of the internal audit profession study, only one third of survey respondents said internal audit was doing well in sourcing and training the right level of talent. Stake-holders cited lack of expertise, lack of enough talent and lack of the right kind of talent among the top barriers to improving internal audit performance.

IIA 2014

Where Internal Audit Will Get the Talent it Needs

Legend:
- ■ Reallocate existing resources
- ■ Hire resources or leverage third parties

For each area, will you add internal audit capability over the next 18 months?

For each area, where will you most likely get the additional talent you need?

Skill	Planning to add	Reallocate existing	Hire / third parties
Soft skills (such as conflict resolution)	29%	71%	29%
Compliance and regulatory skills	28%	53%	47%
Data analytics skills	59%	54%	46%
Business continuity skills	20%	54%	46%
IT security skills	41%	29%	71%
Skills related to a specific IT platform	32%	30%	69%
General IT skills	46%	37%	63%
Financial controls skills	22%	44%	56%

Percent of CAEs planning to add internal audit capability

PwC 2013

What Makes a High-Potential Employee?

Aspiration

The extent an employee desires:
- Prestige and recognition
- Advancement and influence
- Financial rewards
- Work-life balance
- Overall job enjoyment

Ability

A combination of the innate characteristics and learned skills that an employee uses to carry out their day-to-day work

Innate Characteristics
- Mental/cognitive agility
- Emotional intelligence

Learned Skills
- Deep program knowledge
- Data analytics
- IT security
- Interpersonal skills

Engagement

Engagement consists of four elements:

- **Emotional Commitment**—The extent that employees value, enjoy, and believe in their organization
- **Rational Commitment**— The extent that employees believe that staying with their organization is in their best interest.
- **Discretionary Effort**—Employee willingness to go above and beyond the call of duty.
- **Intent to Stay**—Employee desire to stay with their current organization.

Aspiration

Ability   Engagement

"The true investment in the knowledge society is not in machines and tools but in the knowledge of the knowledge worker." Peter Drucker, 1994

CEB 2013

Top Challenge for Audit Departments in 2015
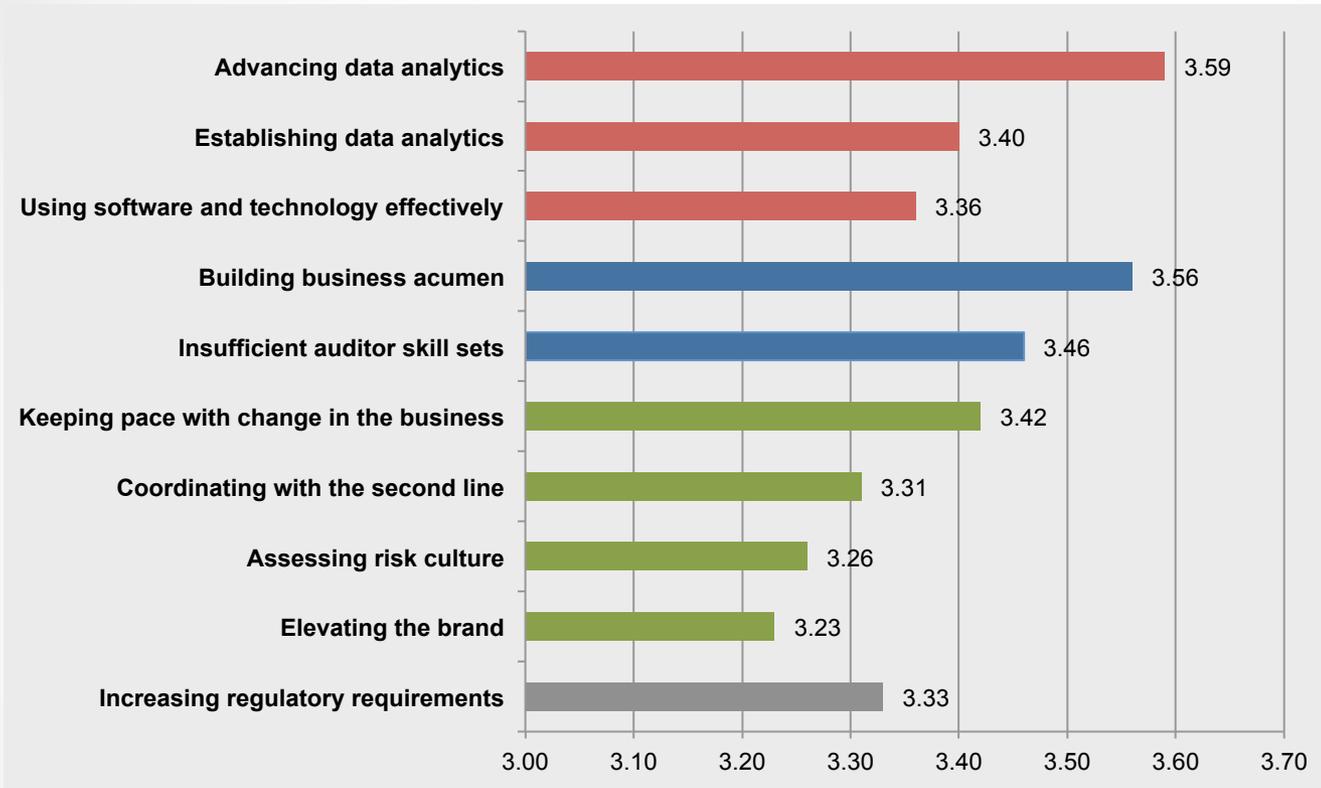
The top challenge for Audit departments is to advance their data analytics capabilities.

The second and third highest challenges – improving business acumen and garnering sufficient skill sets to cover the organization's risks – both relate to development of audit talent.

Challenge	Value
Advancing data analytics	3.59
Establishing data analytics	3.40
Using software and technology effectively	3.36
Building business acumen	3.56
Insufficient auditor skill sets	3.46
Keeping pace with change in the business	3.42
Coordinating with the second line	3.31
Assessing risk culture	3.26
Elevating the brand	3.23
Increasing regulatory requirements	3.33

N=117
Scale ranging from 1 (very low) to 5 (very high)

Legend:
- Audit Technology
- Audit Talent & Skills
- Enterprise Challenges
- External Challenges

CEB 2014

State of Auditing in 2014

Theme 4:
Is Continuous Assurance (data analytics) the future of the Auditing Profession?

Audit can evolve from assurance provider to trusted advisor

Align expectations

Build capabilities

Deliver quality

Increase value

Unrealized value

Trusted Advisor

Insight Generator

Insight Generator

Problem Solver

Problem Solver

Problem Solver

Assurance Provider

Assurance Provider

Assurance Provider

Assurance Provider

Providing value-added services and proactive strategic advice to the business well beyond the effective and efficient execution of the audit plan.

Taking a more proactive role in suggesting meaningful improvements and providing assurance around risk.

Bringing analysis and perspective on root causes of issues identified in audit findings, to help business units take corrective action.

Delivering objective assurance on the effectiveness of internal controls.

PwC 2014

State of Auditing in 2014

Continuous auditing (CA)-
is the collection of audit evidence and indicators by an internal auditor on information technology (IT) systems, processes, transactions, and controls on a frequent or continuous basis, throughout a period.

By contrast, **continuous monitoring (CM)-**
is a feedback mechanism used by management to ensure that controls operate as designed and transactions are processed as prescribed. This monitoring method is the responsibility of management and can form an important component of the internal control structure.

Economic Drivers and Benefits of Implementing CA/CM Capabilities

Improve Risk Management

Optimize Costs and Improve Profitability

Monitor for Potential Fraud and Misconduct

Address Regulatory Pressures

CONTINUOUS ASSURANCE

CONTINUOUS MONITORING

Assess
Design
Risk
Implement
People
Process
Technology

Industry & Functional Knowledge

Transparency

Accountability

Greater Efficiency

Improved Oversight

Enhanced Controls

Improved Forecasting

Timely Information

Reduced Complexity

Reduced Cost

Improved Performance

Process optimization is the objective, with sustainable cost savings the result.

KPMG 2009

Characteristics of analytics today

Analytics: *discovery and communication of meaningful patterns in data*

Big data: *collection of large and complex data sets*

Visualization
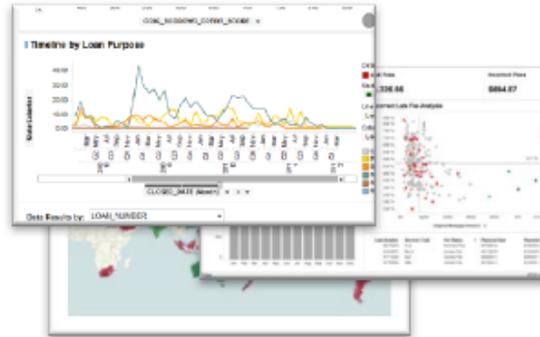
Trending & Comparison

Dashboarding

Data

Financial, Operational, IT Systems External

Speed and portability: *available anytime, anywhere*

PwC 2013

The state of analytics in auditing

Analytics are widely viewed as important

81%
Data analytics are important to improving the quantification of issues

85%
Data analytics are important to strengthening audit coverage

74%
Data analytics are important to gaining a better understanding of risks

Yet few are using analytics regularly

31%
Data analytics are used regularly

And most intend to, yet lack a plan

71%
Plan to expand use of data analytics but do not have a well developed plan

PwC 2013

Four types of analytics

Type	Description
Descriptive: What Happened?	Descriptive models about the state of events, trends, patterns and relationships in existing data. There is no dependent variable to predict.
Diagnostic: Why did it happen?	Developed to understand the causes of an outcome; can be used to account for dependencies among causal factors.
Predictive: What will, or is likely, to happen?	Predict values of one or more dependent variables from independent variables; support leading performance measures.
Prescriptive: What is the recommended next action?	Define the best response, given that an event or series of events has taken place.

KPMG 2014

How United Parcel Service Uses Analytics

GPS
Captures driver behavior and safety habits

Maps
Collects address points and routes traveled

Engine
Insight into performance and condition

Devices
Monitors deliveries and customer service

Sensors
Reports on emissions and fuel consumption
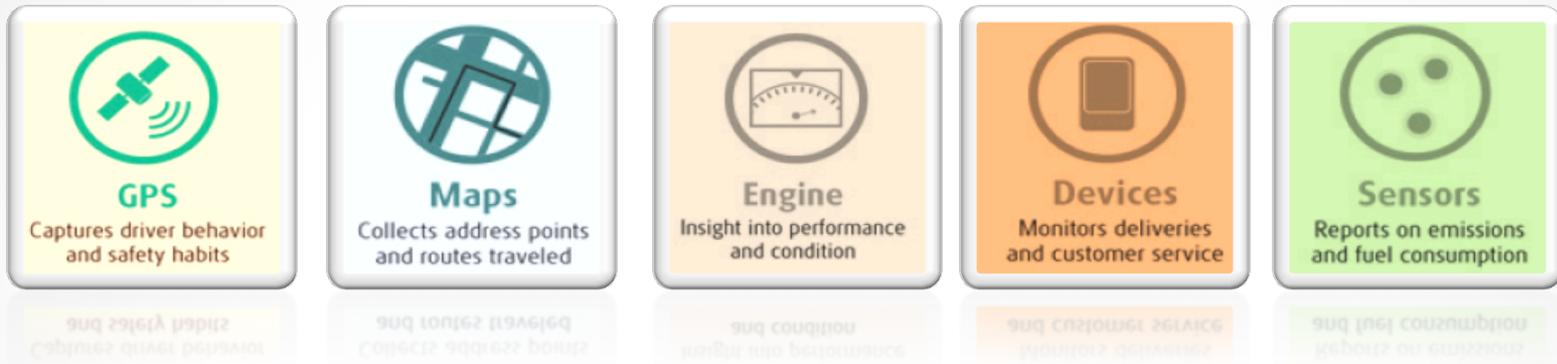
Sensors that capture over 200 data points for more than 80,000 "telepathic trucks" are downloaded every day. Results:

- 364 million miles avoided since 2001 – enough to drive around the Earth 14,617 times!

- 206 million minutes of idle time reduced in 2012.

- 39 million gallons of fuel saved through route optimization since 2001.

- 13,000 tons of carbon emissions avoided in 2012.

State of Auditing in 2014

What about the Postal Service and the OIG?

The Postal Service is experiencing the same forces as its customers, and responding by transforming itself with technology.

Postal Service Journey to Enterprise Analytics

USPS 2014

Postal Service Journey to Enterprise Analytics

CIO: Information Mgmt Systems and Data

Multi-disciplinary Team

Business Owns Outcomes

Appropriate Technology Platform

TECHNOLOGY

- Integrated toolset and delivery platform
- Not silos of capability

Information Management Foundation

DATA

- Data governance
- Enterprise Information Management (EIM)
- Information-driven enterprise

Fact-Based Decision Making

PROCESS

- Info as an asset
- Instinct vs. analytics

Organization

PEOPLE

- Tech—Responsible for information mgmt and provisioning
- Business—Responsible for analytics and acting on outcomes

Technology is not the only factor in our Analytics Strategy

USPS 2014

Postal Service Journey to Enterprise Analytics

Mailer Scorecard Seamless Acceptance

The Mail Entry Roadmap describes the Postal Service's key initiatives to streamline the acceptance, induction, and verification of commercial mailings. These key initiatives leverage existing technology to:

- Improve mail quality by sharing information on mail preparation, identification of trends as well as trend-based quality measurements

- Simplify the induction of mailings through automated and standardized acceptance, verification, and induction processes

- Provide end-to-end visibility through scan data.

USPS 2014

Just when you think you have it all together…

U.S. Postal Service Says It Was Victim of Data Breach

Personal Information of More Than 800,000 People Could Be Compromised

Employees, some retirees and staffers of the Postal Regulatory Commission, the U.S. Postal Inspection Service and the Postal Service **Office of Inspector General** have been affected, the Postal Service said. An unknown number of customers also could have been affected, though not to the same degree, officials said.

USPS 2014

Dashboard

Where Does OIG Need More Real-Time Insight?

Nexus of Forces
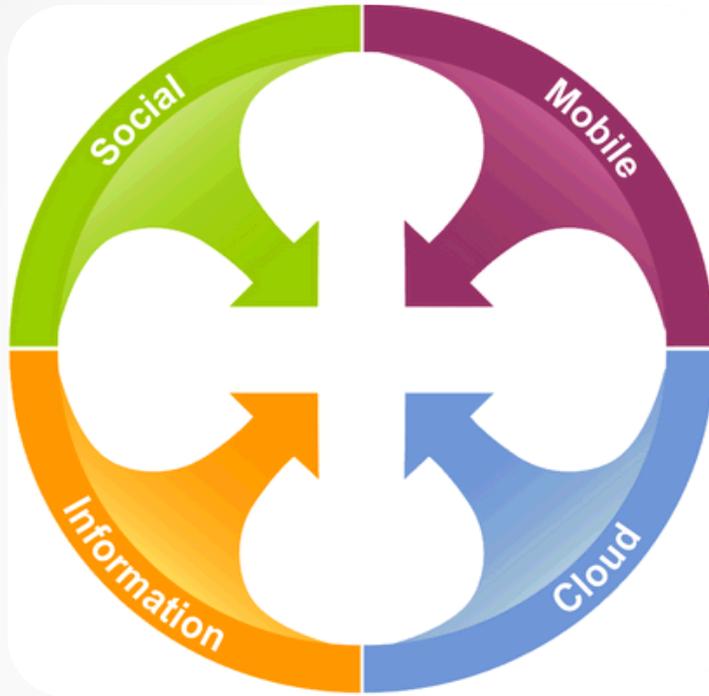
New business scenarios emerge as new technologies converge and mutually reinforce each other…

OIG Countermeasures and Performance Evaluation Team Collaborative Approach

Business Customer

- Provides business question
- Joins modeling team
- Describes success
- Defines value
- Owns completed model
- Claims model result

CAPE

- Develops model technology
- Drives modeling team
- Shows what success looks like
- Builds valuable model
- Delivers model
- Claims model delivery

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

OIG Analytics: Contract Fraud, Map View
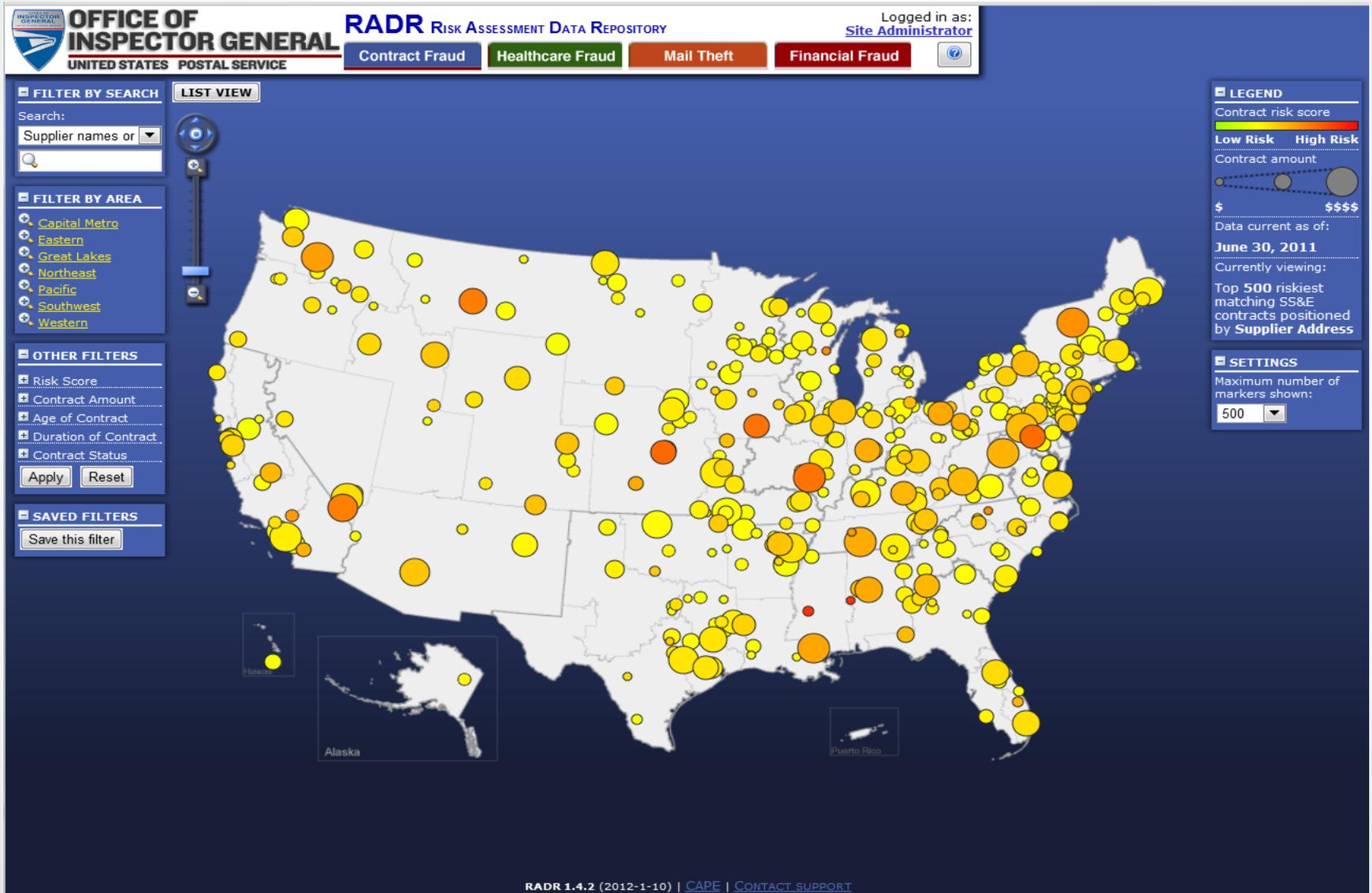
OIG Analytics: Contract Fraud List View

Link analysis.

Click on the links to see more information appear in the upper left corner.

Sources

Author	Survey Title	Participants	Interviews	Industries	Countries
KPMG	2014 Global Audit Committee Survey	1500			34
PwC	2014 17th Annual Global CEO Survey	1344	1344		68
	2014 state of the internal audit profession study	1920	125	24	37
	2014 the five behaviors that accelerate value from digital investments; 6th annual digital IQ survey	1494	n/a	11	36
	2014 risk in review: re-evaluating how your company addresses risk	1940			37
	2013 state of the internal audit profession study	1730	140	18	60
	2013 global innovation survey: Breakthrough Innovation and Growth	1757	1757	30	25
Protiviti	2014 Internal Audit Capabilities and Needs Survey: Assessing Top Priorities for Internal Audit Functions	600		19	7 continents
	2014 IT Priorities Survey, Today's IT Organization – Delivering Security, Value and Performance Amid Major Transformation, March 2014	1100		16	
IIA	2014 North American Pulse of the Profession Survey	367	24	26	3
Grant Thornton	2014 Chief Audit Executives Survey, Adding internal audit value: strategically leveraging compliance activities	433		11	
AGA	AGA's Inspector General Survey: Effective Oversight in a Changing Environment Sept 2013				

Sources

Author	Other Documents
	Title
KPMG	Transforming Internal Audit: A Maturity Model from Data Analytics to Continuous Assurance, 2013
KPMG	On the 2014 Agenda: Insights from the 10th Annual Audit Committee Issues Conference
	Audit Committee Priorities for 2014
KPMG	Business Intelligence of the Future
	Next Generation IT Operating Models
	The Transformation of IT Risk Management
	Evolution of IT: How Do You Define Innovation?
PwC	The Data Conundrum: Finding Your Path with Data Analytics, Dec 2013
	Reinventing Information Technology in the Digital Enterprise
Gartner	The Nexus of Forces, Gartner Point of View, June 2013
	Predicts 2014: Nexus of Forces Drives Evolution of Integration Strategy, Nov 2013
Deloitte	Analytics Trends in 2014
COSO	Improving Organizational Performance and Governance: How the COSO Framework Can Help, Feb 2014
	Enterprise Risk Management: Understanding and Communicating Risk Appetite, Jan 2012
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CEB	Next-Generation Auditing: Building the Audit Plan from Strategic Objectives, 2010

Questions?

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