

# IBM IT Risk Management Seminar

## Keynote: Findings from the 2010 IBM Global IT Risk Study

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The 2010

*IBM Global  
IT Risk Study:*

The evolving role of  
IT managers and CIOs



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# The IBM Global Risk Study was commissioned to understand how IT managers are working to understand and mitigate risk

## Study objectives

**Understand...** the current state of IT risk management across the enterprise by surveying a cross-section of organizations

**Identify.....** the enablers and barriers that support the risk management function

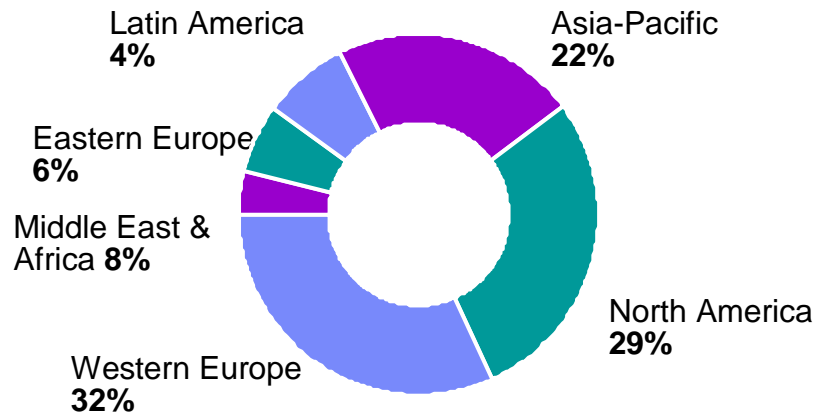
**Determine.....** the extent to which organizations are implementing new risk programs and policies

**Evaluate.....** the role innovations like cloud computing are playing in the organization's overall IT risk strategies

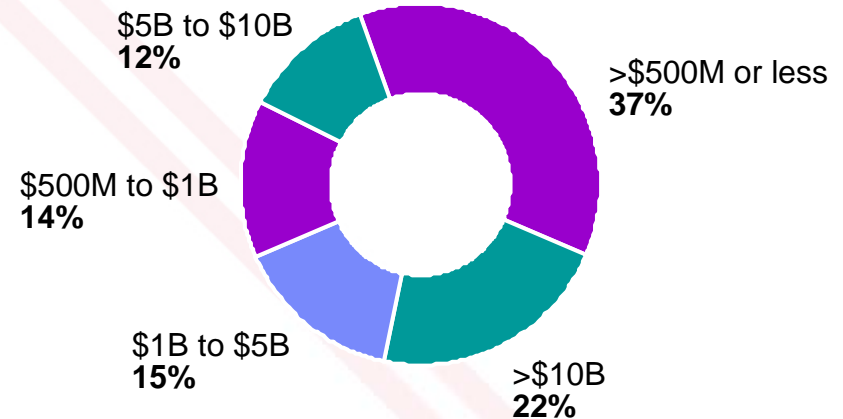
**Explore.....** how the role of the IT manager is changing

# IBM surveyed 560 companies globally to better understand how IT managers are working to mitigate risk

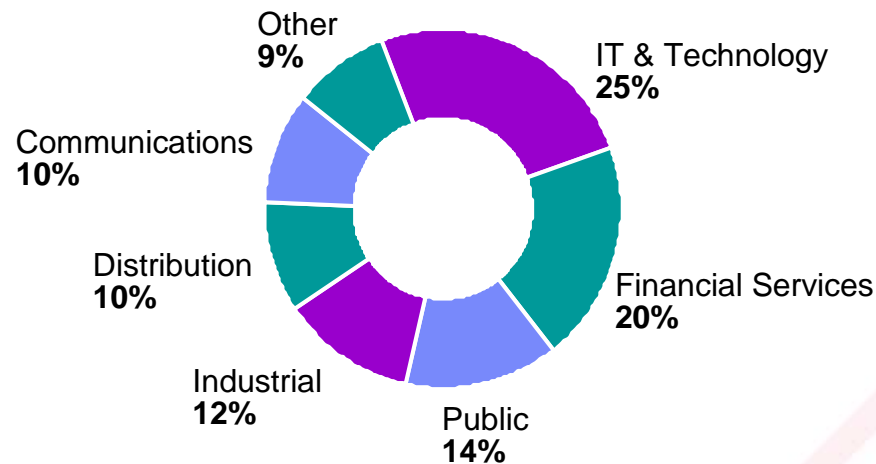
### Geography



### Company size

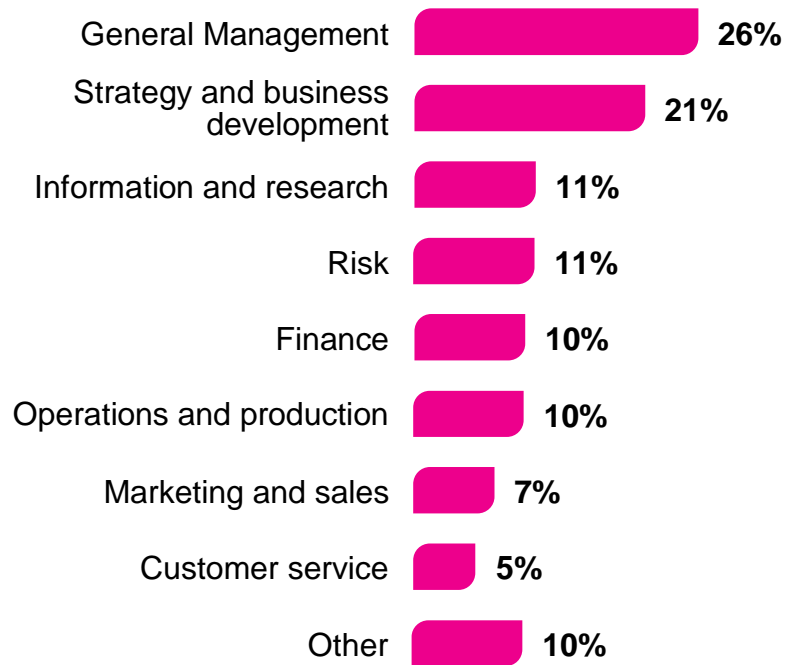


### Sector

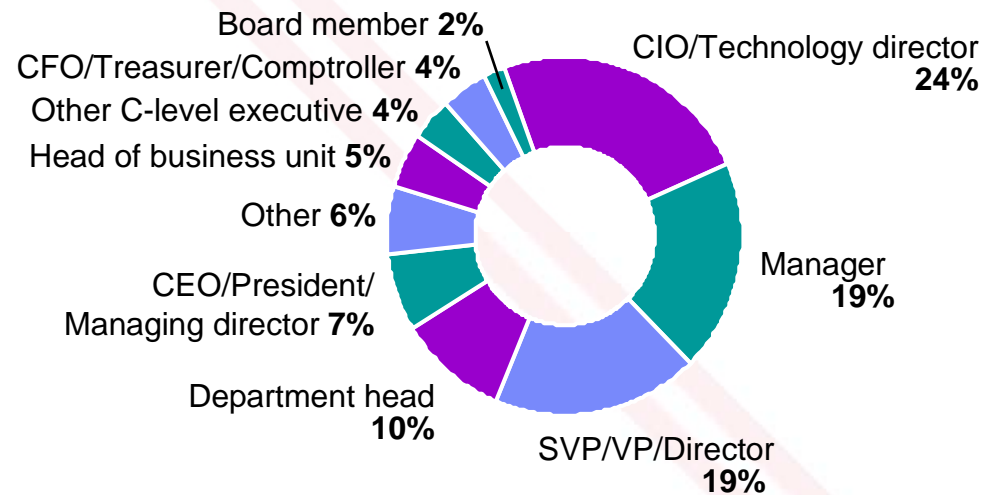


# Participants in the survey, conducted online by the Economist Intelligence Unit, bring multiple perspectives to their focus on IT

**Primary function supported\***



**Organizational title**



\*All respondents indicated they are part of the IT function

Sources: Q21 (What are your main functional roles? Please choose no more than three functions.)

Q22: (Which of the following best describes your job title?)

## Overall findings are consistent across geography, company size, industry and participant role

### Areas of strength

- Two thirds (66%) of respondents rate their organization's overall approach to mitigating IT risk as good to expert
- IT professionals are involved in a number of risk-related issues, and strongly feel they should be involved even more deeply than they currently are
- All geographies are looking at risk mitigation and working on how to improve
- Organizations recognize the need for and the business benefits of risk mitigation
- Current IT risk budgets have remained steady or increased over the last year

### Areas for improvement

- One third (34%) of respondents rate their company's overall approach to mitigating IT risk as average or poor
- Forty-seven percent (47%) report that risk planning happens in silos – getting the enterprise to work together is a challenge
- Only about half have a formal risk management department (46%) or a well-crafted business continuity strategy (54%)
- A majority of respondents feel that IT should be more involved in risk mitigation, but don't feel their role will substantively change over the next three years

Source: Q21 (What are your main functional roles? Please choose no more than three functions.)

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## Although respondents to the study were optimistic on a variety of topics, disconnects are apparent

### The good news

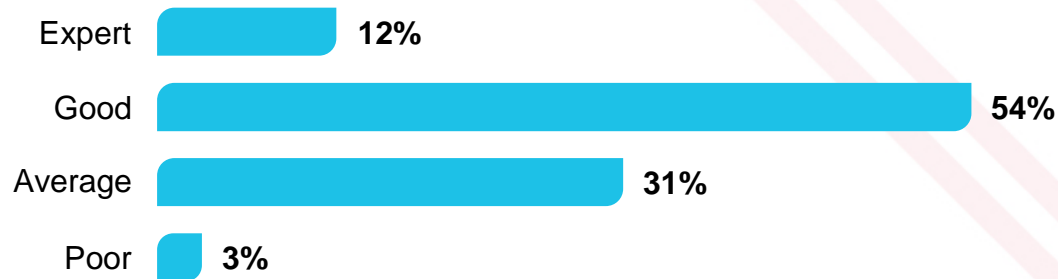
- Respondents are involved in many risk management and compliance activities
- More than 50% of respondents felt their organization was good to expert in their approach to IT risk
- Most respondents report that risk management and compliance have stable staffing and budgets
- About half have a risk management department

### The disconnect

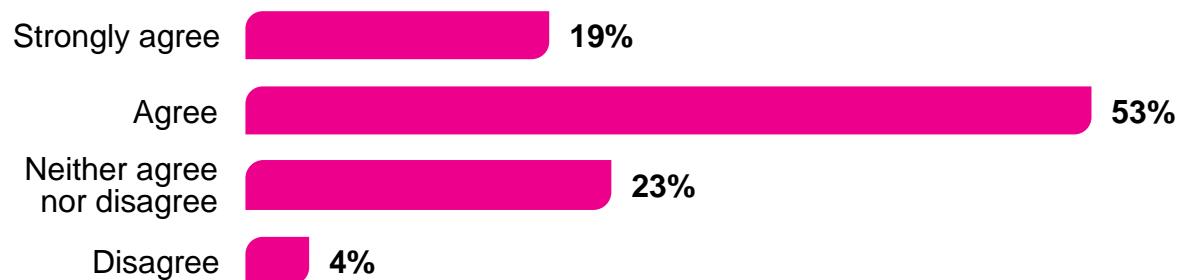
- Many state they should be even more involved
- Only 12% felt their organization was expert in their approach to IT Risk
- Many still report problems in convincing leadership of the need for resources to address risk issues
- Less than 15% of respondents have risk management incorporated into their infrastructure
- Most risk management activity is currently focused on hardware/software/infrastructure issues
- There is not a common mechanism for communicating risk management topics and issues

# Overall, companies give themselves high marks for their approach to mitigating IT risk

## Overall approach to mitigating IT risk



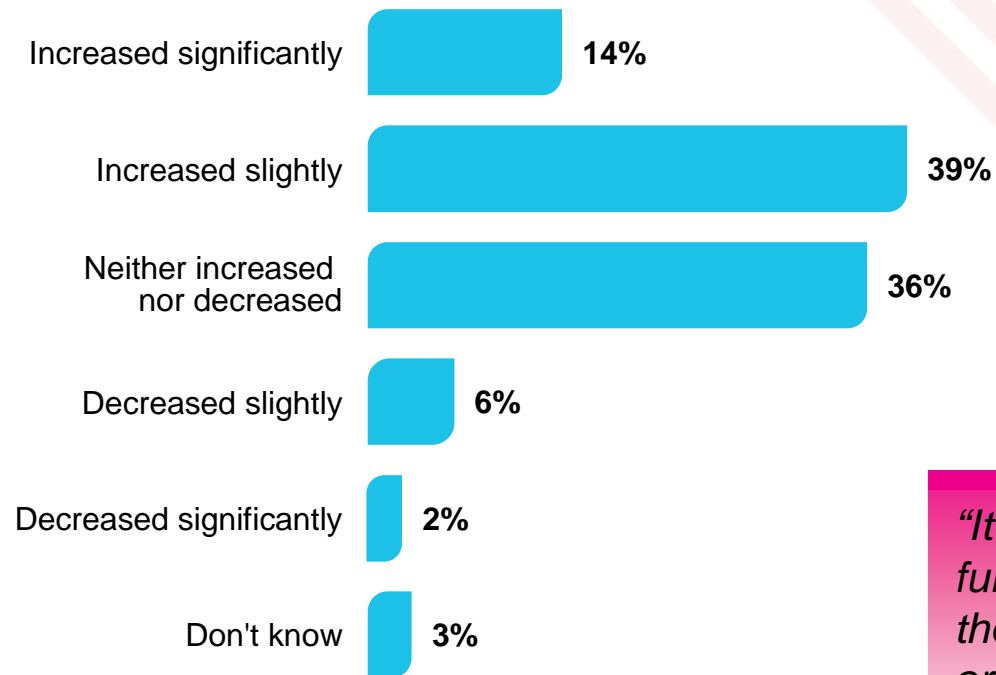
## Overall approach has improved in previous 12 months



Sources: Q1 (How would you rate your company's overall approach to mitigating IT risk?)  
Q13A (Do you agree or disagree with [this] statement: My company's approach to risk has improved in the past 12 months.)

# In spite of the economic challenges, most organizations are maintaining or increasing spending on risk management

## Risk management spending for 2010

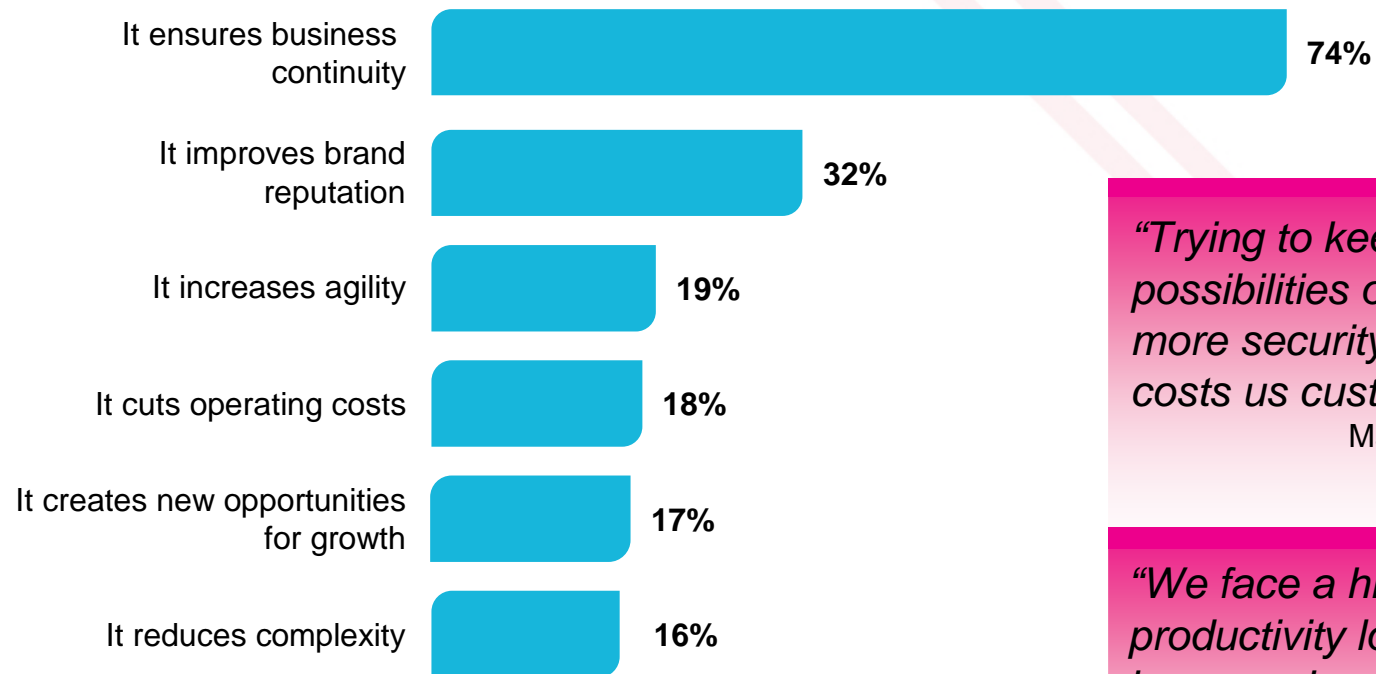


*“It is increasingly difficult to secure funding to address IT risks, even when the costs of NOT addressing the risks are clearly outlined to executives.”*  
Aerospace/Defense, North America

Source: Q3 (How would you characterize your firm’s 2010 budget for IT risk management? Risk management spending has)

# Respondents agree that investing in IT risk management can provide significant business benefits

## Benefits of improving IT risk management



*“Trying to keep up with web coding possibilities opens us up to ever more security risks. Not keeping up costs us customers.”*  
Manufacturing, Western Europe

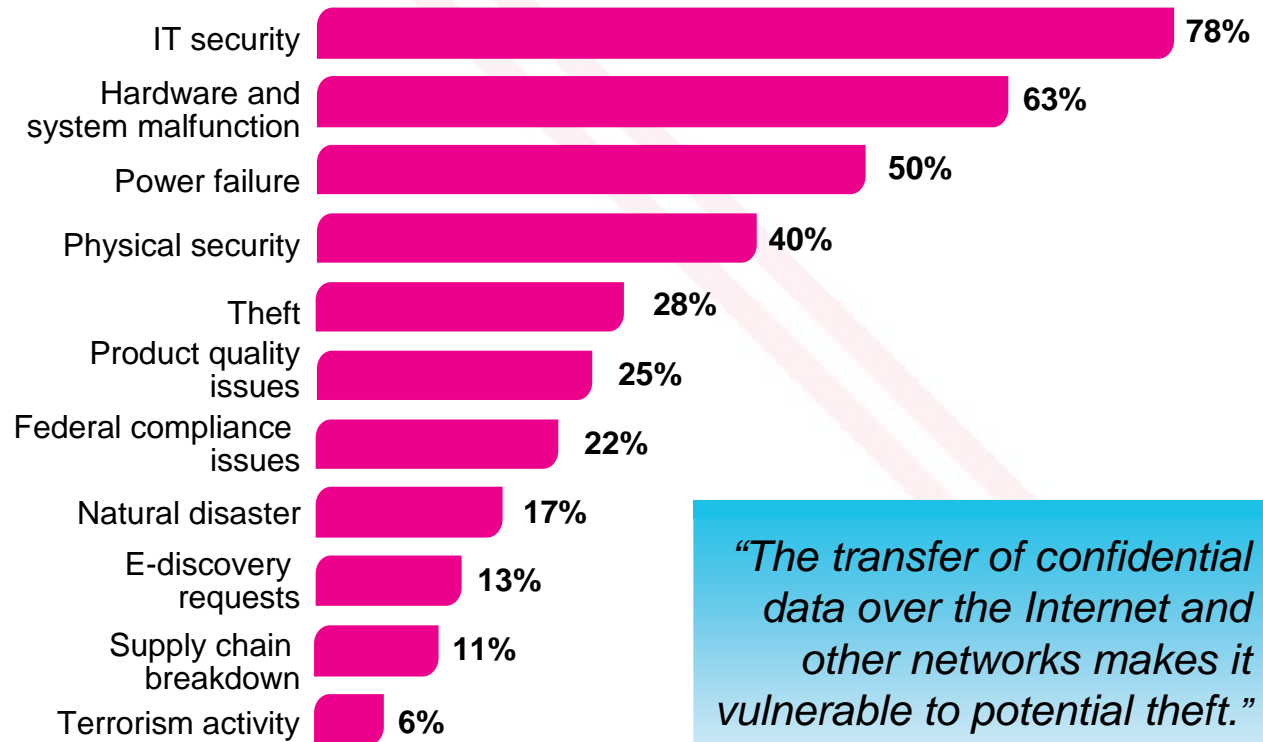
*“We face a high risk of business productivity loss due to the increased complexity of, and increased dependence on, IT.”*  
Manufacturing, Western Europe

Source: Q15 (What are the greatest benefits to strengthening your company's IT risk management strategy? Select up to two.)

# While companies have dealt with a range of risk issues in the last year, current efforts are concentrated in a few key areas

## Risk issues companies face today

- Seventy-eight percent (78%) of respondents report IT security is a top of mind issue, citing, in particular, issues around hackers and unauthorized access/use of company systems.
- Power failures can create hardware and system malfunctions; a number of organizations report that mitigating these situations is a current focus

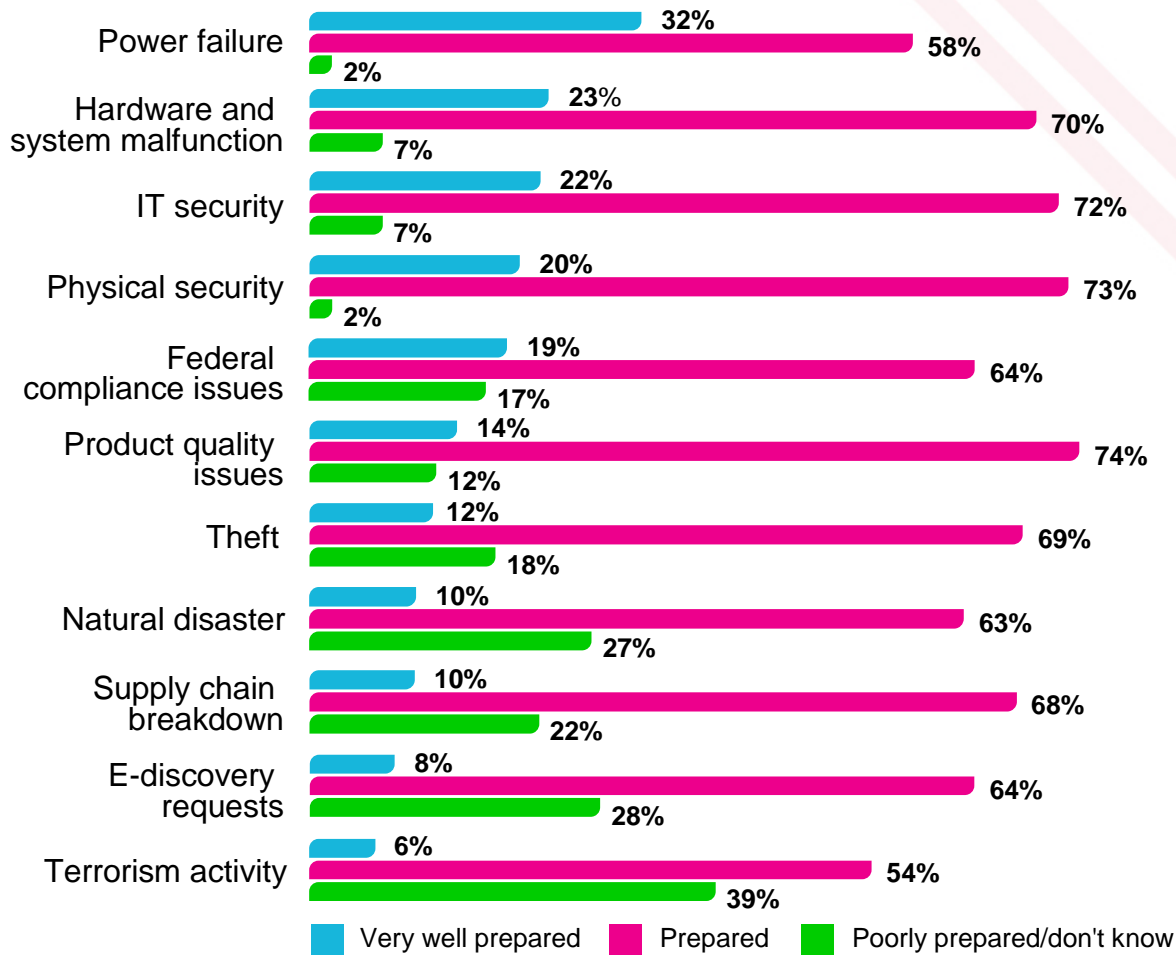


*“The transfer of confidential data over the Internet and other networks makes it vulnerable to potential theft.”*  
Financial services, Asia Pacific

Source: Q2 (In the past 12 months, what kinds of risk issues has your company dealt with? Select all that apply.)

# Respondents report varying degrees of confidence in the ability of their organization to respond to these risks

How prepared are you to address these risks?



Source: Q20 (In your opinion, how well prepared is your company to prevent or address the following risks?)

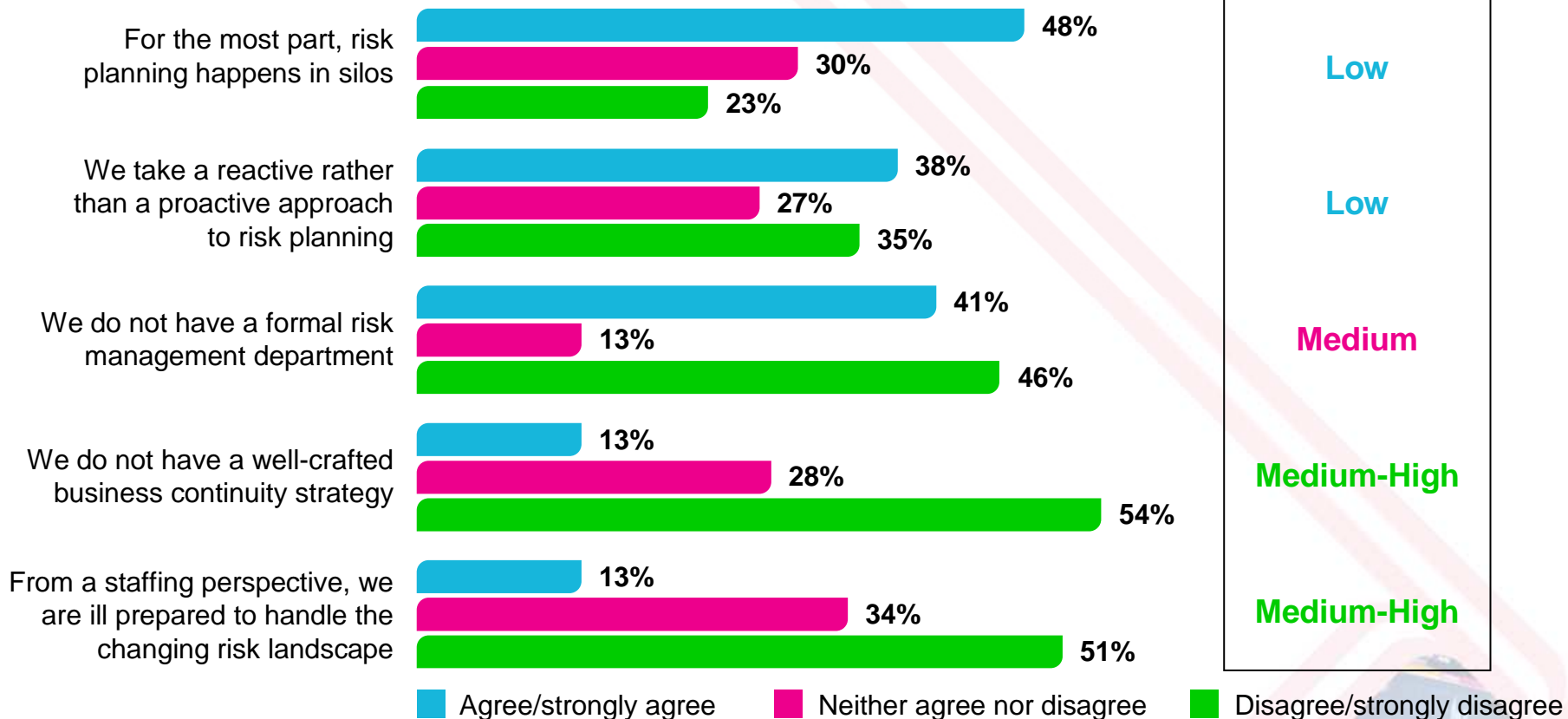
*“We are not taking the proper amount of time to plan for risk during day-to-day operations or projects.”*  
IT and Technology, North America

*“We don't have a true disaster recovery strategy in place.”*  
Healthcare, North America

*“Many IT staff are of an age where they will be retiring in the next 5 years and there is no up and coming staff to replace them.”*  
Government, North America

# Respondents identified three major areas for improvement to attain a higher level of risk maturity

## Risk management issues



*“The environment changes quickly; we react rather than anticipate.”*

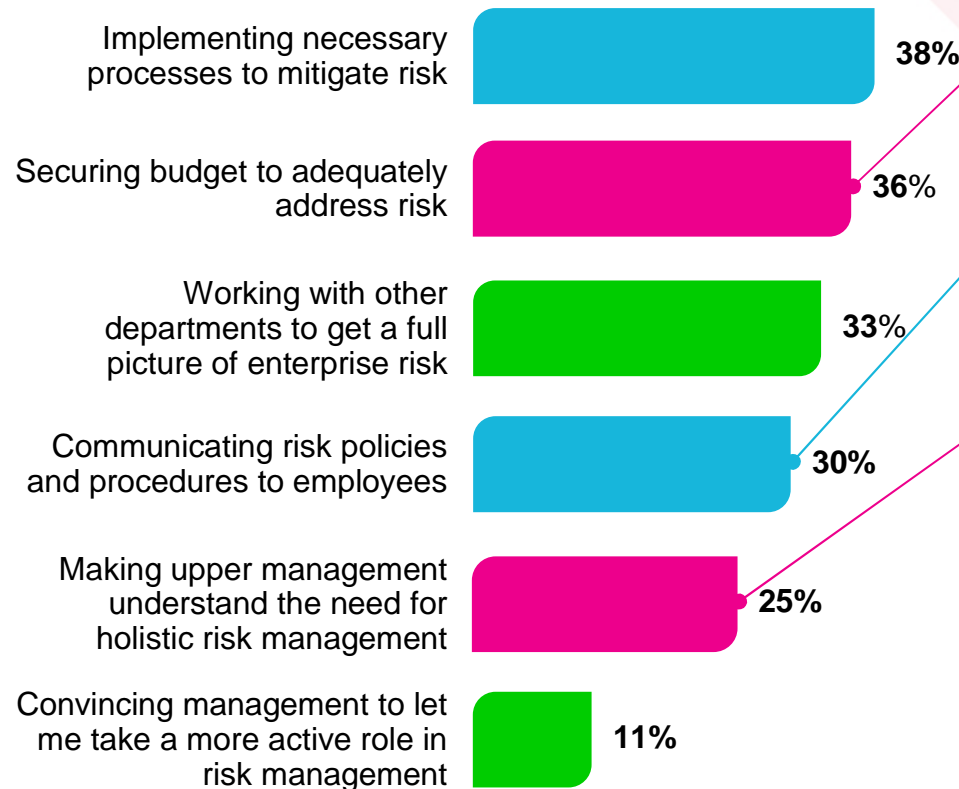
Logistics and distribution, Western Europe

Sources: Q13b,e,f,g (Do you agree or disagree with the following statements?)

Q12 (From a staffing perspective, how prepared is the IT department to handle the changing risk landscape over the next three years?)

# Significant challenges exist to improving IT risk management – respondents articulate some of their biggest issues

## Challenges to improving risk management



*Although more than 50% report budgets have remained the same or increased, 36% still struggle with securing adequate funding.*

*Respondents did not identify a strong process for communicating risk management policies.*

*In spite of the known business benefits of IT risk management, securing senior leadership support remains a challenge*

*“We need to mature the corporate image of IT Risk so that it is recognized as a value-added and business-enabling capability across all business units.”*  
Aerospace and defense, North America

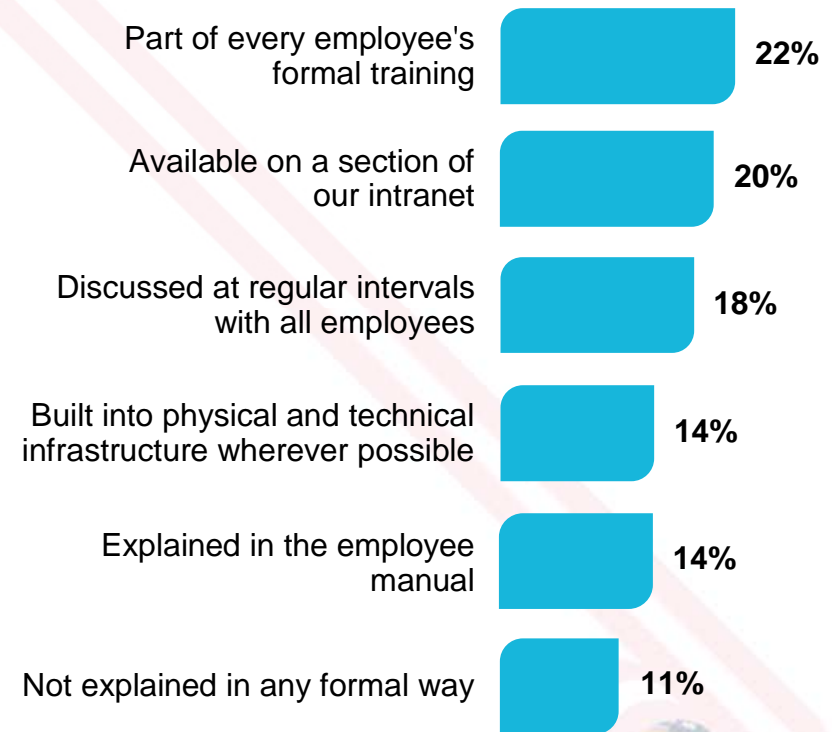
Source: Q16 (What is most challenging about addressing risk issues? Select up to two.)



# Communication and education for risk management is handled in several ways, but no specific method emerges as a standard

## Primary method of communicating risk management policies

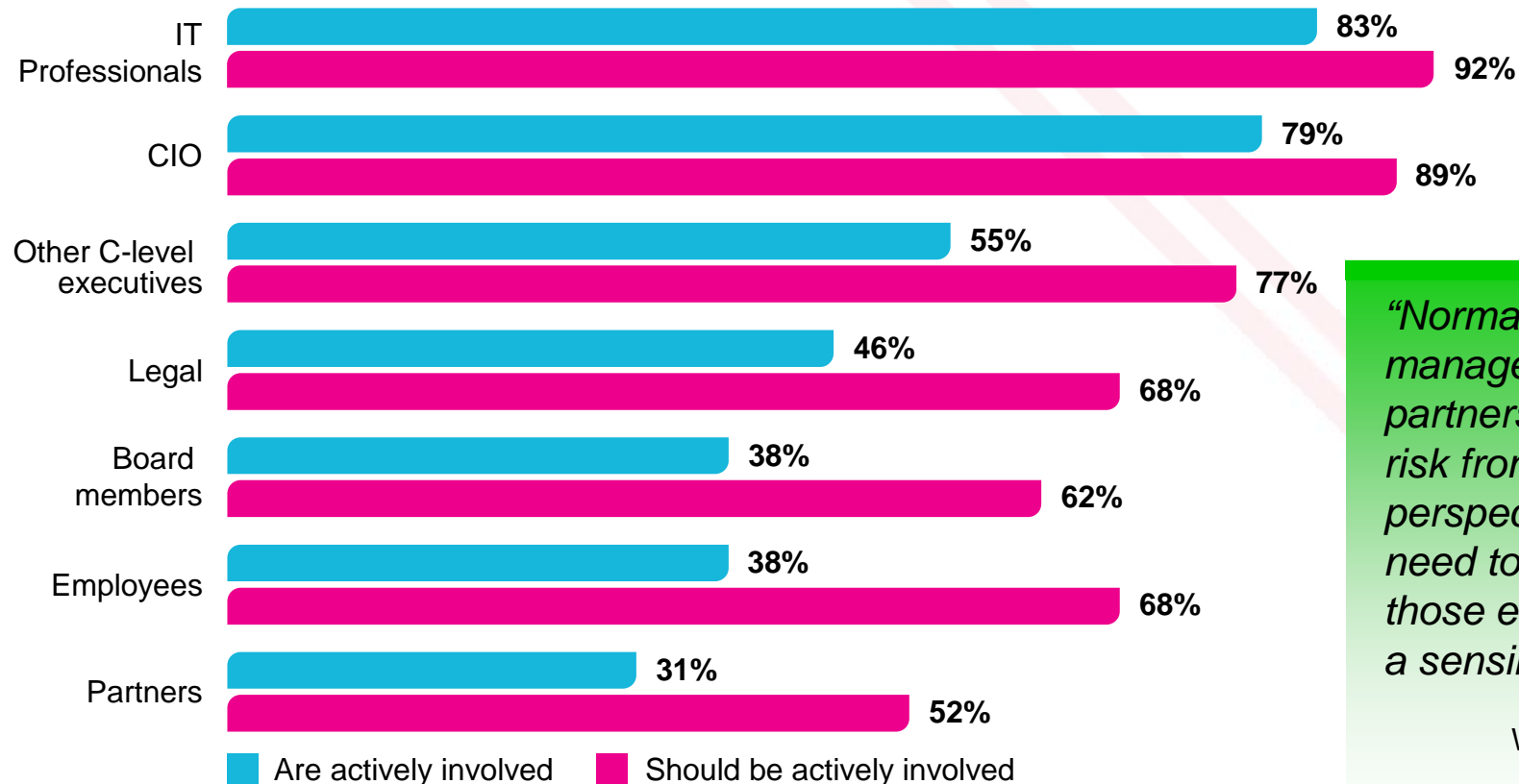
- Although there is a multitude of ways organizations disseminate information about risk management within their organization, many of the methods are passive and depend on a "pull" approach
  - Many put it on their intranet and expect employees to search it out
  - Others incorporate it into new employee training
  - Less than 15% have it built into the overall physical and technical infrastructure of the organization
- Communicating risk policies and procedures to employees is ranked as a challenge by 30% of the survey respondents



*“We struggle with getting management and staff to accept that their behavior must be modified in order to improve security practices.”* Manufacturing, Western Europe

Source: Q6 (How are risk management policies primarily communicated at your company? Risk policies are:)

## Respondents feel that employees and partners should be more involved in risk management than they currently are



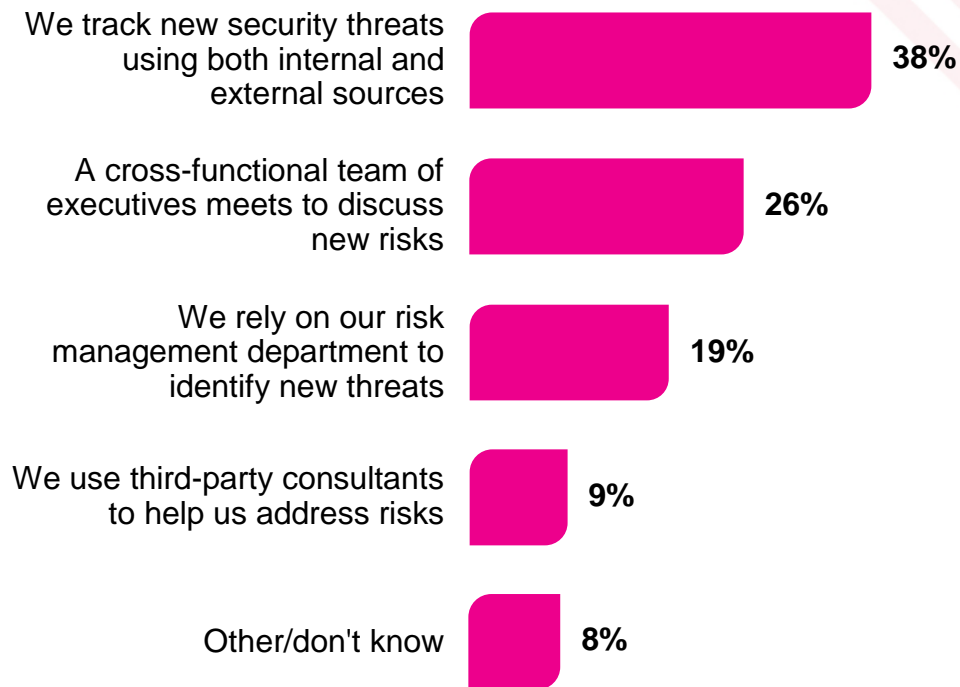
*“Normally users, management and partners look at risk from different perspectives. I need to make those ends meet in a sensible way.”*

Manufacturing, Western Europe

Sources: Q4 (How involved are the following people in helping your company identify and mitigate risk?)  
 Q5 (In your opinion, how involved should the following people be in helping your company identify and mitigate risk?)

# No clear method emerged as the preferred way to monitor and track risk; some weren't sure how/if their organization tracks risk issues

## How companies keep abreast of new risks



*“Threats adapt faster than the resolution to those threats can be implemented.”*

Professional services, Western Europe

*“What's hard? Trying to anticipate everything!”*

Retail, North America

Sources: Q7 (How does your company primarily keep abreast of new risks?)

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**Emerging technologies and risk**

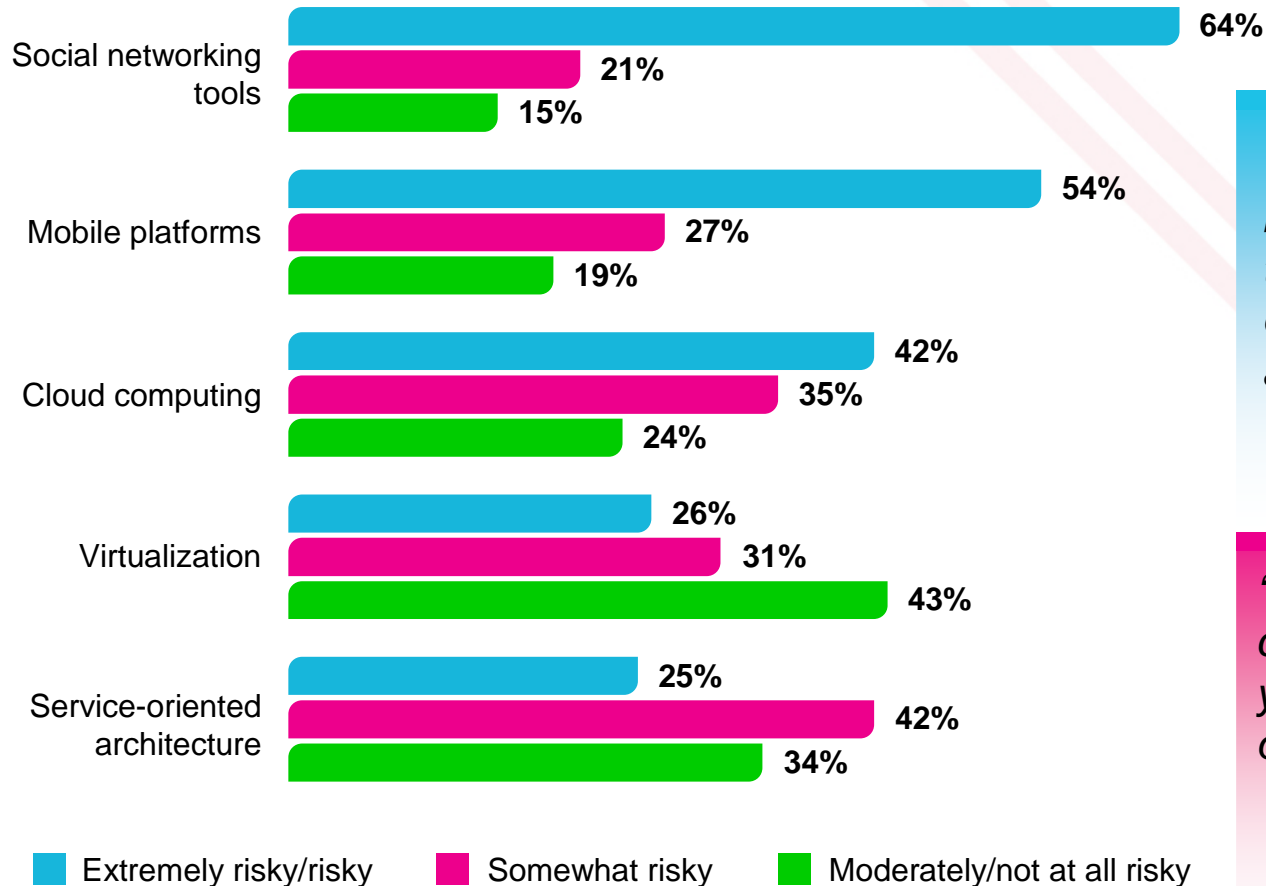
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## The evaluation of emerging technologies is an area of focus and evaluation for survey respondents

- Respondents were asked for input around five emerging technologies to explore how companies are handling acquisition and use in these areas:
  - Social networking tools
  - Mobile platforms
  - Cloud computing
  - Virtualization
  - Service-oriented architecture
- Reaction was very guarded – respondents are very cautious about introducing these technologies into their organizations:
  - Social networking tools and mobile platforms are perceived as very risky
    - Many organizations have not established processes and methods to integrate social networking tools into their infrastructure and work flow
  - Concerns abound in the use, access and control of data
  - Cloud computing is also regarded as risky, but is under review by many organizations as a future option for support/infrastructure/business continuity
- Social networking tools and mobile platforms were mentioned predominantly in terms of loss of control of data and the ability of unauthorized individuals to gain access to confidential, proprietary information

# Out of five technologies evaluated, social networking, mobile platforms and cloud computing present the highest risk concern



*“We are concerned about being able to safely control the flow of data to/from employee mobile devices and safely storing it.”*  
Manufacturing, North America

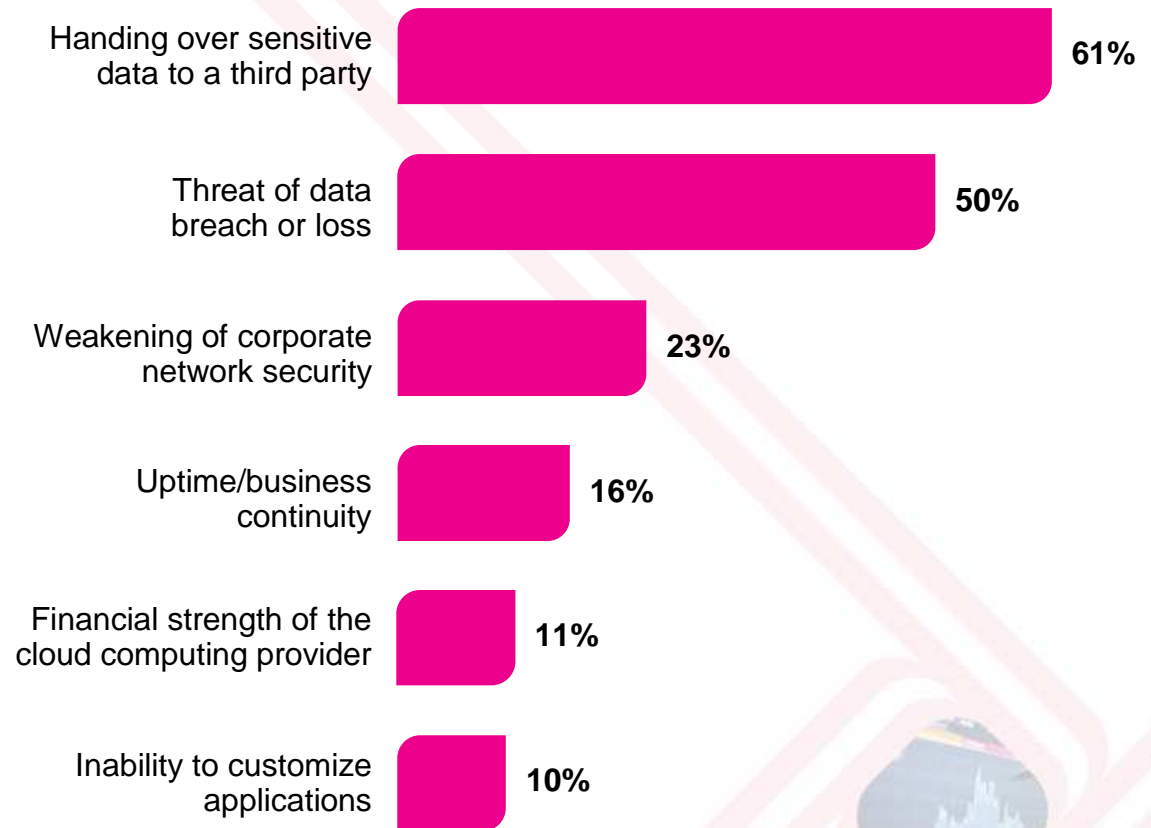
*“We are already looking at cloud computing and haven't yet perfected security on our own local networks.”*  
Healthcare, North America

Sources: Q17 (How big a risk are the following technologies and tools to your company?)

# Cloud computing is recognized as an emerging solution for risk management, but significant concerns exist

## Risks associated with cloud computing

- Data protection and privacy are the leading risk concerns for companies considering or implementing cloud computing
  - Seventy-seven percent (77%) believe it makes protecting privacy more difficult
- Business continuity discussions include cloud computing at more than half of the respondents
  - Forty-four percent (44%) feel private clouds are riskier than traditional IT services



Sources: Q17a (In your opinion, what are the biggest risks with regard to cloud computing? Select up to two.)

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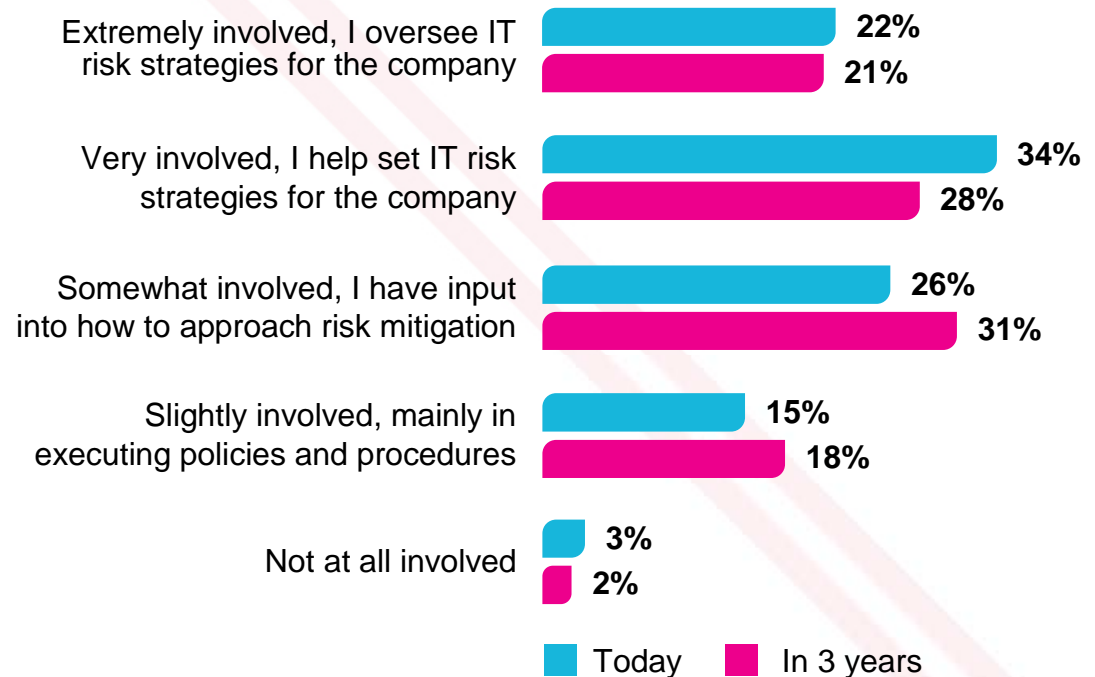
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## Respondents anticipate increased involvement in the next three years

- IT Management staff anticipate increasing their responsibilities from executing policies and providing input to helping set or oversee IT risk strategies for the organization
  - More than 65% of respondents concurred that risk mitigation is becoming a more integral part of their job
  - Eighty-three percent (83%) agree that IT Managers should be more involved

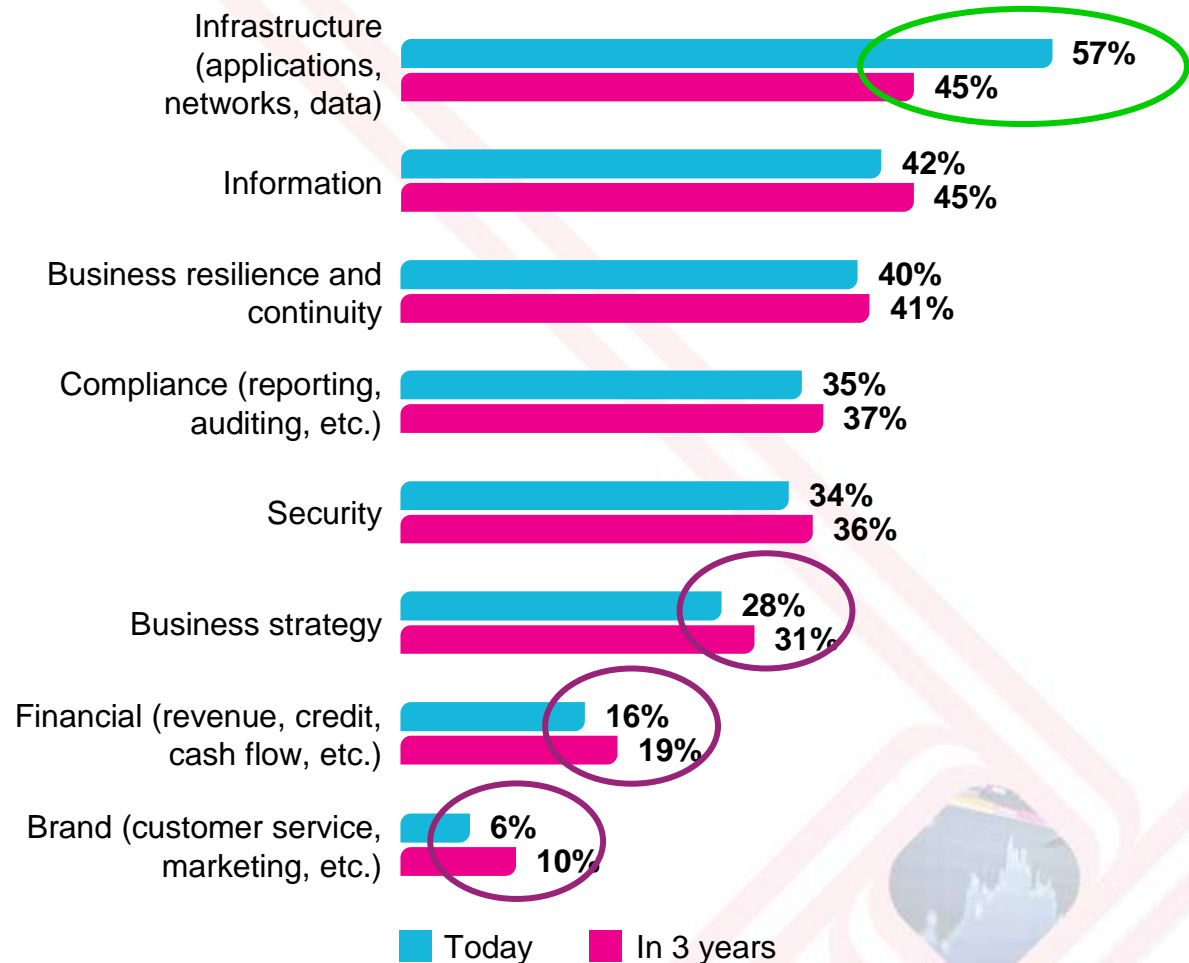


*“It is important to create a proactive risk culture that is sustainable and becomes an agenda item through the information management lifecycle.”*  
 Energy, Middle East and Africa

Sources: Q9 (How involved do you expect to be in helping your company address IT risk issues within three years?)

## In addition to expanding the role they play, respondents anticipate they will be involved in a broader range of company risk areas

- Business strategy and brand are two expansion areas where respondents expect to be more involved
- The shift in attention from infrastructure has two explanations
  - Attention currently focused on infrastructure may shift to other areas as more companies stabilize or “harden” current risk management processes and procedures
  - As responsibilities shift for infrastructure support, responsibility for infrastructure may move to a supplier or partner. This shift allows for increased attention to business resilience and continuity



Sources: Q11 (In what general areas of risk across your company do you feel you will be most involved within three years? Select up to three.)

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## Implications of the study findings offer direction for IT managers in identifying gaps, setting priorities and developing strategies

### Risk maturity

- Effective risk management can fuel business growth, as long as:
  - It has executive support and funding
  - Governance crosses IT domains and business departments
  - Mature solutions are readily available in the marketplace

### Culture

- Employees at every level must be risk aware and personally/professionally accountable for protecting data and the enterprise

### Data protection and privacy

- Preserving data integrity is priority one across the enterprise requiring IT managers to stay one step ahead of hackers

### Emerging trends

- Risk mitigation is key in enabling value that can come with the introduction of new technology and social media into an organization

## Examination and assessment of an organization's IT risk maturity is foundational to effective risk management

*IT risk management is not yet understood and adopted in full, and therefore is not yet delegated and budgeted.*

Retailing CIO, Eastern Europe

- Determine the organization's IT risk maturity with an objective assessment
- Institute cross-enterprise planning for all risk categories
  - Data risk
  - Resiliency and disaster recovery
  - Security risk
  - New technologies
- Look at the range of risk challenges and ensure you have a plan for each
  - How to prioritize and mitigate downside risk such as system failures and security breaches
  - How to leverage upside risk such as shorted time-to-market and new customer contact points
- Search for champions amongst senior leadership
  - Become an advisor and valued resource to the CIO
  - Articulate the benefits they and other leaders bring to the table in addressing IT risk
- “Sell” the benefits of risk mitigation
  - Improved business growth and agility
  - Improved brand perception

## Cultivating an organization-wide culture of IT risk awareness and compliance requires a change in behavior from every employee

*“[One of the biggest challenges is] getting management and staff to accept that their behavior must be modified in order to improve security practices.”*

CIO Western Europe

- Determine how to raise the level of risk awareness among all levels of the organization
  - Examine how corporate culture can be harnessed to raise risk awareness
  - Build risk awareness efforts into everyday business and IT processes
- Ensure there are multiple methods for educating the entire organization
  - Take advantage of multiple methods to educate the organization
  - Create a strategy for regular communications on the breadth of risk management and compliance topics and issues - make it more than just a “one-time” activity
- Look for innovative ways to implement risk mitigation procedures
  - Build procedures into the IT infrastructure, rather than adding it to applications in piecemeal manner
  - Examine business processes for potential risk issues
  - Establish a specific IT risk governance plan and execute it across the entire organization

## Because business today runs on its data, data protection and privacy are critical objectives.

*The most important asset of our company (besides the employees) is the data residing in all our systems.*

Financial Services SVP,  
North America

- Review the protections and safeguards in place to prevent unauthorized access to company data and systems
- Review business continuity plans
  - Business continuity is more than just natural disaster planning – it encompasses a wide range of business interruption scenarios from server failures to pandemics
- Ensure everyone is aware of their responsibility to keep data safe and protected — and how to execute that responsibility
- Identify tools, processes and methodologies to keep data safe and secure
  - Many mature tools, processes and methodologies already exist
  - Identity access and control
  - Master data management
  - Information lifecycle management
  - Data ownership processes
- Consider the needs of the business when implementing tools and processes – balance speed to market and acceptable risk

## While not all emerging technologies are created equal, some can provide significant IT risk management benefits.

*For cost cutting, we would like to go for cloud computing, but the risk perception is very high.*

*Manufacturing CIO, Asia Pacific*

- Newer technologies like virtualization and cloud computing can provide great support and options for risk mitigation scenarios
  - While cloud computing raises issues around data security, it can, in reality, reduce costs and alleviate risks around resilience
- Ensure that you have the processes in place to address emerging technology risks
  - These days it's a question of when new technology will come into the organization, not if
  - Robust, cyclical IT risk governance will constantly evaluate the organization for IT risks, prioritize them and act on them
  - Evaluate risks from both technology and business points of view
  - Build risk management protocols into new technology as it is executed, rather than building them in later, for more complete protection



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## Alternate quotes

*“Hybrid clouds seem to pop up everywhere.”*

Financial services, North America

*“There is poor awareness of IT risk among non-IT employees.”*

Financial services, Asia Pacific

*“Cloud services will be a new space with a lot of risk involved.”*

Telecommunications, Western Europe

*“It has become more difficult to oversee risks because there are more systems connected to third parties.”*

Healthcare, Western Europe

*“The main concern over our IT risk management is that of hackers and physical theft [of mobile devices].”*

Government, Middle East and Africa

*“With growing dependency of businesses on IT, the main issue is to ensure operability of the systems.”*

Professional services, Eastern Europe

*“Meeting increasing demands (which are acceptable) from mobile workers while adequately protect corporate information is a challenge.”*

Media and entertainment,  
Asia-Pacific

*“Organization-wide access-control policy aligned with current business need is essential for IT risk management.”*

IT and Technology, Asia-Pacific

*“It's hard to know where the next threat will come from.”*

Financial services, Western Europe

*“Pressure to deliver IT projects quickly and cheaply means that risk management could be compromised.”*

Retail, Western Europe