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## Welcome



**Kevin Walsh** Head of Technology, UK

Welcome to the 2014 Deloitte Global CIO Survey report. In our second year of conducting the survey we have extended our coverage to over 900 CIOs across 49 countries within the Americas, Europe, the Middle East, Africa, Asia and Oceania.

Last year we explored the effectiveness of CIOs as business partners and the need for them to step up to make a greater impact within the board room. This year, we extend the concept and turn the spotlight on the role of the CIO as a business leader of growth through innovation. In particular we explore the idea of the CIO as a Venture Capitalist, an interesting trend we examined in our **Tech Trends 2014 report**.

We also explore the world of analytics in our Hot topic section, discussing current adoption levels and key barriers to more widespread use.

This report presents the highlights from the 2014 Deloitte Global CIO Survey. Within each chapter you'll find:

- A summary of the key insights across all respondents internationally
- An interactive infographic which allows you to view the findings by major global region and industry sectors
- Commentary, observations and insights from Deloitte specialists to help tackle some of the key challenges cited

We hope you find this report a valuable tool to help further develop your role as a trusted IT leader. To the many executives who have provided input into the 2014 Deloitte Global CIO Survey, thank you for your time and insight. We look forward to continuing the dialogue with you.

#### Kevin Walsh

Head of Technology, UK

"Comparisons between CIOs and VCs may seem like a stretch. CIOs can't shoot from the hip on risky investments. They provide critical services that the business simply can't do without, where the risk of getting it wrong could be catastrophic. At the same time, there's a lot to learn from the portfolio mindset that VCs bring to their work: balancing investments in legacy systems, innovation and even bleeding-edge technologies; understanding and communicating – business value; and aligning talent with the business mission. VCs operate in a high-stakes environment where extraordinary value creation and inevitable losses can coexist inside a portfolio of calculated investments. So do CIOs."

(Tech Trends, Deloitte, 2014)

## Summary findings

After a prolonged economic downturn, organisations across the globe are setting their sights on stronger growth, and for many companies, investment in technology is becoming a strategic priority.

Technological innovation is changing the way businesses operate and connect, and firms have the opportunity to recalibrate their operating models to reflect the emerging digital economy. CIOs are associated with maintaining core IT systems for businesses, but a key question in this year's survey is whether they should also take more responsibility for harnessing technology innovation to drive business growth.

Currently 55 percent of the CIO budget is focused on supporting delivery of core IT services, with 22 percent assigned to business growth. CIOs continue to see delivery of business outcomes through IT services as their primary responsibility. That makes sense given their role in managing core systems, but suggests they could do more in applying technology when driving innovation for business growth.

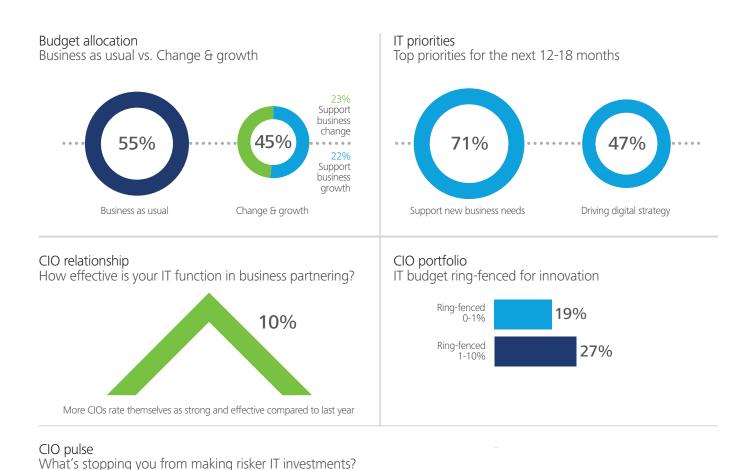
Most CIOs have limited budgets for innovation-related activities and report that risk aversion among other board members constrains them from making riskier IT investments.

The survey results suggest that more could be done to drive the technology growth agenda in the C-suite and CIOs could make more effort to develop networking groups, alliance partners and supplier relationships. Small and niche relationships may also be rich untapped sources of new ideas.

Taken together, these findings suggest that business leaders do not always believe CIOs are the natural choice to drive technological innovation for growth. However, that perception may be changing, and CIOs are becoming more effective business partners with half of CIOs rating themselves "strong and effective" in that regard, a 10 percent increase on last year. A significant majority of CIOs state that responding to new business needs and driving digital strategy are their top priorities for the next 12 to 18 months.

As new technologies proliferate, the role of CIOs may be set to change as they consider how far to take the innovation and growth agenda. However, the rise in prominence of positions such as chief marketing, digital and data officers provide organisations with alternatives. Now is the time for CIOs to choose whether to remain custodians of core IT systems or become drivers of growth through technological innovation.

## Summary findings: infographic



#1 Business leaders' 38% attitudes to risk

# IT budgets & priorities: key findings

#### Renewed focus on change and growth?

The worst budget cuts are in the past, with only 23 percent of CIOs reporting a decrease in budget in 2014, similar to last year's survey results. CIOs continue to allocate the lion's share of budgets to routine IT activities, but there is a 3 percent shift this year towards change and growth activities, perhaps a reflection of the more positive macro-economic environment. In addition, a significant majority of CIOs state that responding to new business needs and driving digital strategy are their top priorities for the next 12 to 18 months. Strengthening risk and security management jump into the top three priorities, perhaps due to high profile security incidents in the last year.

#### Innovation still lacking funding

Despite an increase in focus on change and growth activities, there is little sign that budgets are ringfenced for technology innovation. Almost half of CIOs ring-fence 10 percent or less of their budget for that purpose. Of CIOs allocating a larger portion, 60 percent tend to be organisations with less than 2,000 employees, perhaps reflecting the entrepreneurial mindset of smaller businesses.

#### Continued scepticism towards specialist technologies

More CIOs are piloting, implementing and have adopted emerging technologies such as mobile apps, social media and big data tools, continuing a trend highlighted in last year's survey.

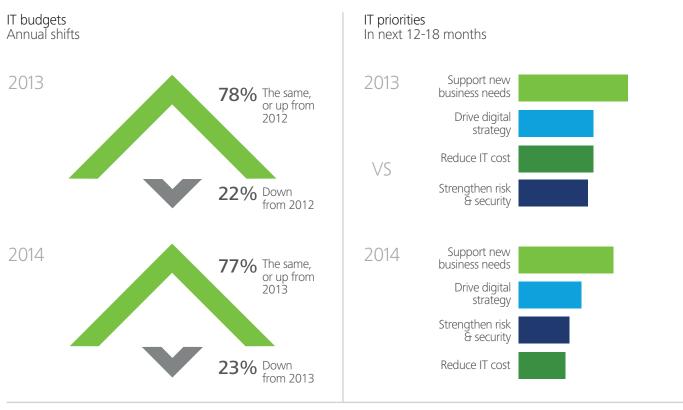
However, more reported that specialist technologies, such as augmented reality and gamification, are not seen as relevant for their organisations.

#### Big data and analytics

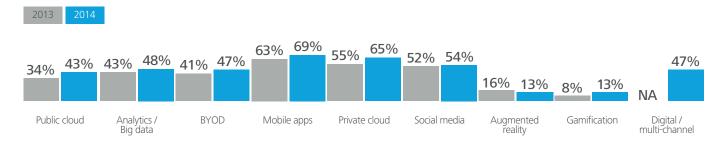
Almost 50 percent of CIOs are piloting, implementing and have adopted analytics, the survey shows, a change from last year when many respondents said they remained to be convinced of the benefits.

The trend is further evidenced by CIOs selecting analytics as their preferred area of investment if additional budget were available (see focus on analytics in Hot Topics section) showing that CIOs think they aren't spending enough on big data and that they would like to spend more in this space.

# IT budgets & priorities: infographic



Levels of technology adoption 2013 vs. 2014 – Piloting, implementing and adopted



## CIO portfolio: key findings

#### CIOs prioritise delivery of IT services over growth

CIOs tend to prioritise the delivery of IT services over profit, innovation and growth, the survey shows. For example, CIOs are twice as likely to prioritise IT delivery over "transforming IT from a cost centre to a profit centre" or "investing in new technologies". This entrenched perspective may act as a restraint on those CIOs looking to pursue growth agendas through their IT portfolios.

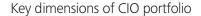
## More required on strategic portfolio management

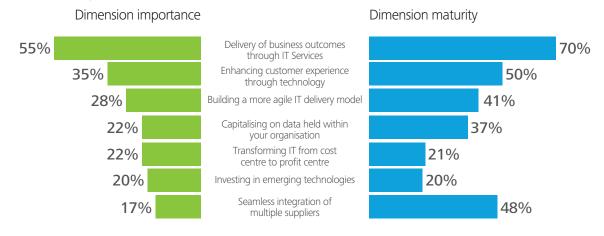
In a positive development more than 60 percent of respondents say they evaluate project portfolios against measures such as risk versus reward. Still, despite nearly nine in 10 having clarity on their long and short term projects, more than a third do not actively evaluate performance of their portfolios against measures of risk versus reward and around a third do not have the ability to speedily switch priorities and be able to shift their focus based on strategic objectives.

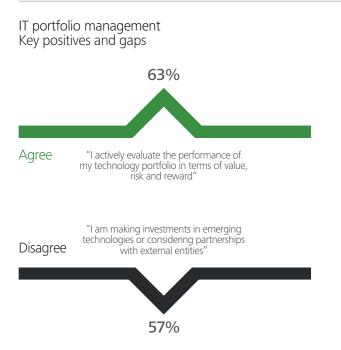
#### Mind the capability gap

Significant capability gaps may prevent innovation-driven CIOs from managing and assessing their portfolios more effectively, with just one in five having the operational capability to invest in emerging technologies or prioritise transforming their organisations from a cost to profit centre. CIOs also identify capability gaps in respect of monetising data with less than four in 10 having a "mature capability" in that respect.

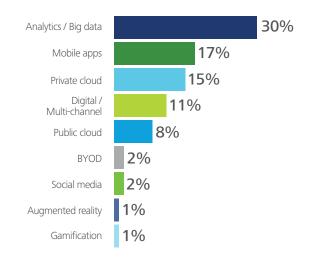
## CIO portfolio: infographic







Where you would invest more money if you had it?



## CIO portfolio: insights

#### **Recruit entrepreneurs**

IT functions with a focus on innovation should look to recruit entrepreneurial talent. This may be challenging because many IT organisations lack the capability to invest strategically. However, internal business units can be a source of talent, and CIOs should further tap this resource. Marketing and digital functions often contain rich veins of talent and, CIOs take note, may well be the source of future technology leaders.

#### Monetise IT developed for internal use

For IT functions tasked with innovating to expand revenue streams, it isn't much of a stretch to sell IT systems developed for internal use to customers of their organisations. For example, a leading international organisation that helps biopharmaceutical companies to develop and bring drugs to market faster, easier and more cost-efficiently transformed its IT systems used by internal staff into cloud based services and software. This recently netted the company over \$40 million in new business.

## Change what you measure and how you measure it

The success of a portfolio designed to deliver business growth through technology innovation is measured differently to a portfolio designed to deliver IT services aligned to business strategy. Venture capitalists continually assess their portfolios on the basis of risk versus reward, with the ability to rapidly change priorities in response to market conditions. Metrics such as revenue growth, operating margin improvement and shareholder value are useful benchmarks in this context.



**Matt Lacey**Partner, Technology
Strategy & Architecture

"We need increased budget to enable greater innovation, adoption of new technologies and engagement of higher skilled and experienced IT staff"

Survey participant, Australia

"We need to prioritise and align technology investments into areas that drive real growth and innovation for the business"

Survey participant, South Africa

## CIO relationships: key findings

#### On the right track with some peer level relationships

The survey results suggest that CIOs could do more to enhance their board relationships if they want their IT functions to innovate and support business growth. More positively, slightly more than 40 percent of CIOs report having a very good relationship with CEOs. In a fast paced business environment, where there is constant pressure to demonstrate and support business growth, there is much to be gained from a strong relationship with the CEO.

#### Are CIOs making new friends?

Disruptive trends such as analytics and social media have led to a rise in prominence of roles such as chief data, chief digital and chief marketing officers. However, the majority of CIOs do not rate their relationship with those stakeholders as particularly strong and they tend to have much better relationships with CEOs, CFOs and COOs.

#### Improving as business partners – more to do

Although in a better position than last year, CIOs are striving to become leading business partners within their organisations. Just under half of CIOs rate themselves "strong and effective" strategic business partners. That is a step in the right direction, but more needs to be done, and CIOs perhaps remain inhibited by their established role as guardians of the technological status quo.

#### Missed opportunities with external stakeholders

CIOs could be doing more to develop networking groups, alliance partners and supplier relationships, with a view to fuelling innovation. CIOs do not currently consider their relationships with alliance partners and technology analysts as very important, and are failing to develop relationships with external customers, where only 16 percent of CIOs report a very good relationship. In addition, just a third claim to have a very good relationship with suppliers and vendors. Taken together these results suggest CIOs are missing opportunities to work with external stakeholders to harness innovation for business growth.

## CIO relationships: infographic

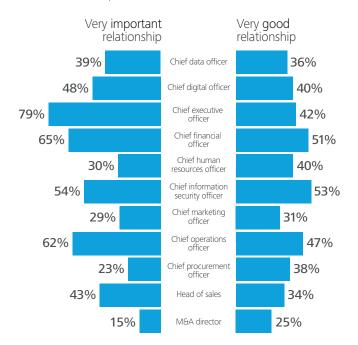
IT strategic business partnering: How effective is your IT function?

Strong partners to the business

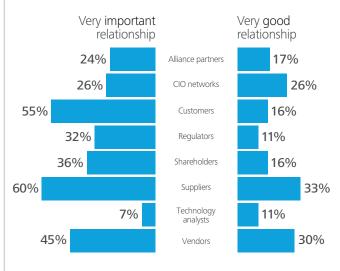




Internal stakeholders (Perceived importance vs actual strength of the relationship)



External stakeholders (Perceived importance vs actual strength of the relationship)



## CIO relationships: insights

#### **Refresh relationships**

New generation business leadership roles such as chief digital and data officers are gaining prominence. It is becoming essential for CIOs to nurture stronger and trusted relationships with emerging business leaders who champion disruptive trends and CIOs should cement relationships with leaders in these roles and work with them to enable innovation and growth.

#### Crowdsource, ideate and commercialise

Some CIOs are starting to tap into expertise outside their organisations. For example, a major global oil and gas company recently encouraged regional CIOs to embrace crowdsourcing and third party alliances to develop new revenue streams from existing technologies. Using crowdsourcing to ideate and develop new product lines is a powerful mechanism that may help CIOs develop business opportunities.

## Improve C-level influence with stories

IT organisations looking to establish themselves as hubs of technology innovation need to influence their peers on benefits of IT investments. Whether it's a presentation or interactions with internal stakeholders, CIOs should find interesting ways to get their message across. People tend to remember stories and narratives, especially when the message relates to emotions. CIO should use anecdotes and analogies to help people understand complex situations and pass on the information to third parties.



**Stephen Mercer**Partner, IT Strategy
& Effectiveness

"The big change needs to be mine. I need to position myself and my department better and more strategically. It is my responsibility to show the company the importance of IT"

Survey participant, Americas

"If I could change one thing about it would be that they would engage with IT naturally when looking into innovation"

Survey participant, Australia

## CIO pulse: key findings

#### Innovation in the IT organisation

For businesses that aspire to grow through technology innovation, there is still work to be done to shift mentalities and embed an innovation culture in the IT organisation. A third of CIOs consider IT innovation as very important to the IT function. More than half of CIOs consider innovation to be important to their organisation, but receive little funding in the IT budget to effectively deliver it. This is an area in which organisations might usefully seek to examine more closely the reasons for lack of investment.

## CIO versus business leadership's attitude to risk taking

The survey results suggest that CIOs are willing to take intelligent risks with IT investments, but this attitude does not appear to match with their current portfolio of projects. Business leadership's attitude to risk is the biggest constraint in making riskier IT investments for innovation and growth, CIOs say.

#### Re-invent behaviour and style

Just under 10 percent of CIOs describe themselves as taking charge of situations, a sharp contrast to the perceived abilities of CEOs and COOs. CIOs also tend to be more rational than intuitive, perhaps indicating that they rely on conscious reasoning rather than gut feeling. This is a positive advantage in many situations, but perhaps less so in innovating for business growth.

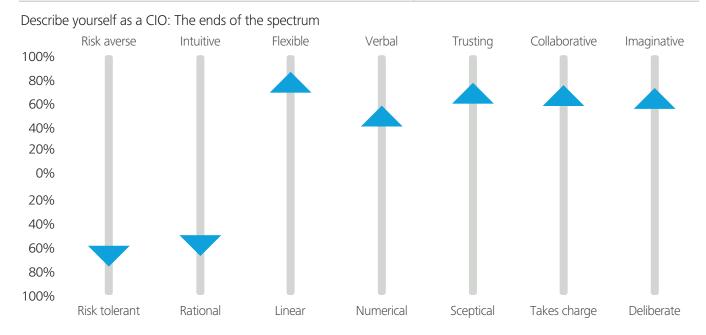
Increased self-awareness of personal style and attributes in different business situations may provide CIOs with the best chance to adapt behaviour when dealing with other business leaders and making an impact in the C-suite.

# CIO pulse: infographic

# Culture of innovation in your IT organisation Innovation is not considered a priority for our IT function 52% Innovation is considered important priority but receives little funding within

our IT function





## CIO pulse: insights

#### Don't bet the business, take intelligent risks

Being bolder with riskier IT investments in disruptive technologies does not mean that CIOs should look to bet the business. Successful venture capitalists hedge their investments to win on net positions. Similarly, CIOs wanting to lead on growth through technological innovation should look to ensure they balance their portfolio of technology investments with the right mix of safe and riskier propositions.

#### Sharpen your business instincts

CIOs should stay on top of technology trends, their impact and how they might contribute to business growth. That may include educating peers and being perceived as the hub of information on technology-driven innovation and growth. Being at the heart of technology innovation will help sharpen business instincts and identify opportunities.

#### Be prepared to fail

Successful venture capitalists recognise that not every investment they make will pay off; some may even fail. However, this does not deter them from taking on new investments as part of a risk portfolio. CIOs that want to grow the business through innovation must adopt a similar mentality, within the constraints of their organisations. Reporting to senior business leaders and peers on net business value is one strategy that may help clarify the overall contribution of investments to business value.

#### Don't forget business as usual

CIOs should not lose sight of keeping the lights on. The majority of the CIO investment portfolio is likely to remain business-as-usual IT services, and outcomes on those investments should not be compromised by innovating for business growth.



Mark Lillie Partner, CIO Programme

"We need to create a culture that encourages risk taking and tolerance for failure"

Survey participant, Canada

"I would like to see my IT organisation have an attitude that is more solution oriented"

Survey participant, Brazil

## Hot topic – analytics: key findings

## Mixed levels of adoption and maturity highlight a need for investment

With businesses using increasing volumes of data for analytics purposes, it is surprising to note that more than 50 percent of CIOs are not piloting, implementing nor adopted analytics in their organisations. The good news is that 74 percent of this group use analytics to support business strategy and almost half see this as giving them a competitive advantage. Still, more than a quarter either don't use analytics or do so in a way that has no clear alignment to business strategy.

#### The role of the CIO in analytics

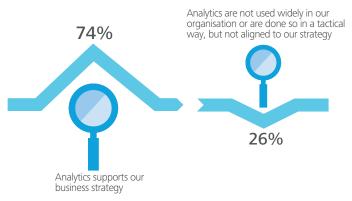
The survey results suggest that the CIO's role in analytics is focused on delivering technology capabilities rather than insight. In addition, more than a fifth of respondents either have limited responsibility for delivering analytics or say their role in delivering analytics is unclear. There is therefore an opportunity to transition the CIO's responsibilities, perhaps to a more holistic insight and information-driven role. The rise in the number of chief data/analytics officers may indicate a trend towards specialisation in this area, but CIOs need at least to recognise and understand their impact.

# Confusion over executive sponsorship and ownership

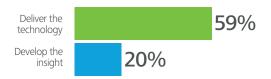
More than a third of CIOs either do not know their executive sponsor for analytics, or claim that no single sponsor is defined. In addition, some respondents indicate that CFOs and CEOs are expropriating ownership of analytics from CIOs. The lack of a single clear sponsor appears to be a key hindrance to widespread adoption within some organisations. For others, the well-publicised analytics talent crunch and a lack of centralised approach to capturing and analysing data are key challenges.

## Hot topic – analytics: infographic

Analytics and business strategy: To what extent do your analytics capabilities support your strategy?\*



CIO's role in analytics: How is your role in delivering analytics capabilities defined?



\*of respondents who are piloting, implementing or have adopted analytics/big data

#### Executive sponsors for analytics



Hindrances: What is holding back the more widespread use of analytics in your organisation?



# Hot topic – analytics: insights

#### Grab the opportunity

Organisations are awash with data, but many still make critical decisions based on instinct and expert opinion. The challenge is to marshal, analyse and interpret data and to apply the results to the decision-making process. There is an opportunity for CIOs to take control and build a more streamlined information framework.

#### Align interests of stakeholders

CIOs are uniquely positioned to act as central hubs in aligning analytics strategy with the business. Lack of a coherent approach to analytics isn't a data or a technology issue; it's a strategic, people and process issue, and CIOs manage a diverse set of stakeholders and are therefore well-positioned to bring together diverse actors to generate optimal solutions.

## Find a sponsor

CIOs need to establish a vision for realising analytics at the heart of their organisations, based on an illustration of how value may be generated. Executive-level sponsorship and an achievable roadmap will provide short-term, targeted insight and support long-term transformation.

#### Invest in "purple people"

In the world of analytics, data technologists are denoted by the colour red and business functions by blue. Staff members who are a blend of both are "purple people", and they are critical to the success of analytics, which requires a dual understanding of technology and business strategy. Business processes constantly evolve and "purple people" are equipped to help organisations adopt analytics to respond to change. Organisations must identify and invest in these types of people to succeed in analytics.



**Carl Bates**Partner, Consulting

"We need a centralised strategic analytics design with a defined budget"

Survey participant, Ireland

"I would really like for our IT organisation to use more analytics to improve the customer experience"

Survey participant, Canada

## Regional variations More likely to... · consider themselves as 'intuitive' Western Europe More likely to... • have a clear line of sight across • have adopted, implementing or all the portfolio of IT projects & piloting analytics programmes • rate 'enhancing the customer have adopted or are implementing experience through technology' private cloud solutions as an important dimension of Least likely to... their work actively evaluate the performance have adopted BYOD of their technology portfolio in Least likely to... terms of value, risk & reward consider innovation as a top priority for the IT function Latin America More likely to... have transformed IT from cost centre to profit centre • believe that, although analytics support their strategy, provide no competitive advantage • focus on strengthening risk and security management Least likely to... encounter privacy issues hindering the more widespread use of analytics

#### Northern Europe

#### More likely to...

- consider themselves as 'risk tolerant' CIOs
- have transformed IT from cost centre to profit centre
- have seen an increase in their IT budget

#### Least likely to...

 lack proper technology and infrastructure to capture the data to deliver analytics

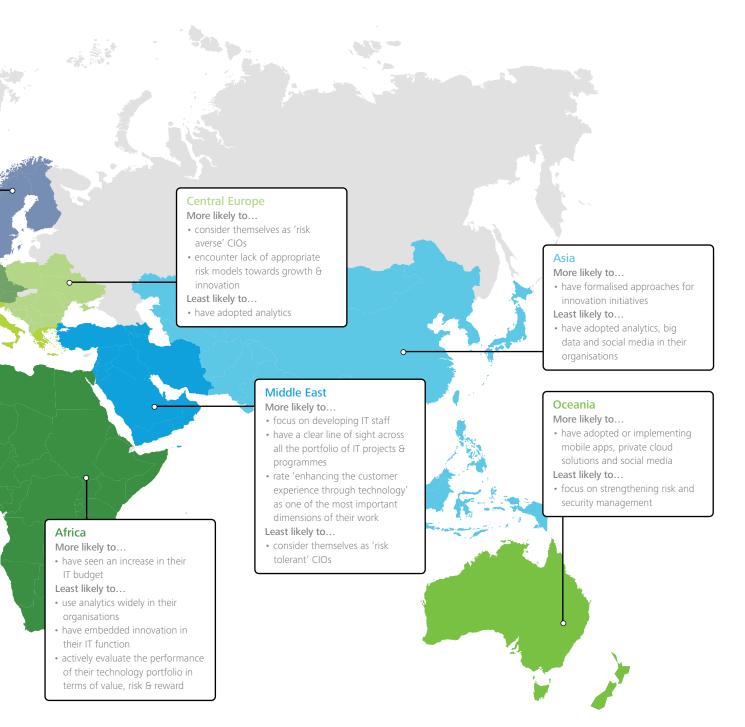
#### Southern Europe

#### More likely to...

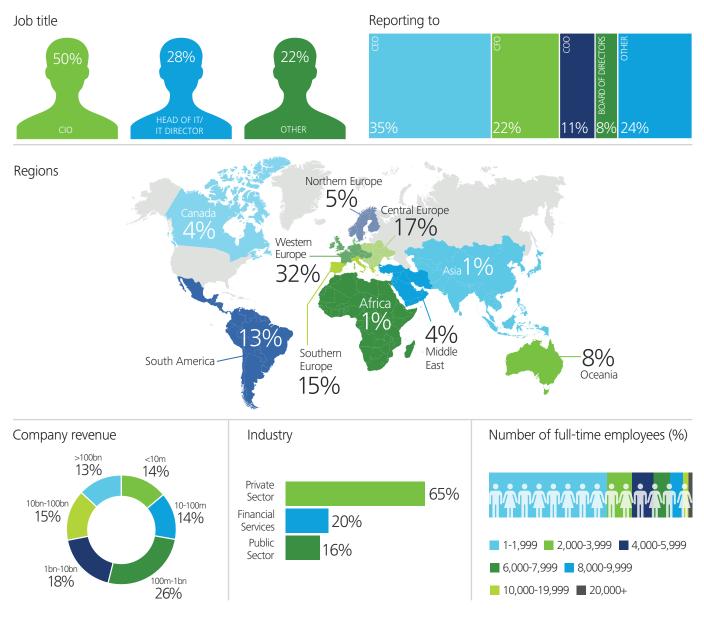
- encounter lack of appropriate risk models towards growth & innovation
- consider transforming IT from a cost centre to a profit centre as one of the most important dimensions of their work

#### Least likely to...

 believe that analytics and big data provide a competitive advantage



## About the participants



## Notes

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