





# Introduction

## Introduction

**When an organism's environment changes**, it either evolves to meet the demands of its new world or it becomes extinct. So it is in business. In less than a generation, the business world has been transformed in terms of methods, markets, technologies, regulations, and risks.



Organizations that have evolved have grown and prospered. Those that have not, have failed. At the same time, new organizations have sprung up to exploit changes. Those well-suited to the environment will flourish. Those ill-suited to it will perish.

Similar dynamics exist for functions within organizations. Those that evolve to meet the changing needs of the organization thrive and remain relevant. Those that do not become marginalized and irrelevant.

Deloitte's 2015 publication *Adapt or Disappear*<sup>1</sup> first sounded this evolutionary theme for Internal Audit. The intense interest and positive response to that article led to development of Deloitte's Global Chief Audit Executive (CAE) Survey, the results of which are reported here.

Our research found that CAEs have serious concerns. They know that their organizations are changing—that's been the case for a while. They also know that Internal Audit needs to respond to meet the changing needs of their organizations.

Those organizations need Internal Audit to inform them about the future rather than only report on the past. They need insights as well as information, advice as well as assurance. They need reviews of not only financial and operational controls, but also of strategic planning and risk management processes. They need internal auditors to apply their rigor, objectivity, independence, and skills in new ways.

As the results of this survey indicate, Internal Audit will have to evolve in specific ways in order to meet these needs. The needed changes are clearer than ever. CAEs must now lead their functions to take the next critical steps. In addition, Internal Audit's key stakeholders, notably the audit committee and the executive team, must support the function as it takes those steps.

<sup>1</sup> See also *Adapt or disappear: To navigate inevitable upheaval, internal audit must lead the way*, Deloitte, 2015, <[http://www2.deloitte.com/content/dam/Deloitte/za/Documents/risk/ZA\\_Risk\\_AdaptorDisappear\\_120815.pdf](http://www2.deloitte.com/content/dam/Deloitte/za/Documents/risk/ZA_Risk_AdaptorDisappear_120815.pdf)>



Executive summary

**A**s the findings of Deloitte’s Global CAE Survey show, CAEs understand that Internal Audit faces the need to change, yet many are struggling with how to act on that understanding. These findings vividly portray key aspects of this struggle.

Together with Deloitte’s observations, they also indicate ways in which Internal Audit can evolve to increase its value to the organization.

More than 1,200 CAEs participated in this survey, a response that signifies their deep interest in the changes affecting Internal Audit, and in how they should respond. Spanning 29 countries and a wide range of industries, this research gauged CAEs’ thinking about their functions’ status, capabilities, activities, roles, and resources currently and over the next three to five years.



**Among the key findings are these:**

Executive summary

CAEs recognize the need for change.

Dynamic reporting is poised to increase.

Internal Audit needs more impact and influence.

Advisory services will expand.

Gaps in skills must be addressed.

Innovation is important too.

Use of alternative resourcing models will expand.

Reviews of strategic planning and risk management will increase.

Analytics presents major opportunities.

Stable Internal Audit budgets may present challenges.



## Executive summary

- **CAEs recognize the need for change.** The status quo is not an option when 85 percent of CAEs expect their organization to change moderately to significantly in the next three to five years, and nearly as many (79 percent) expect similar change in Internal Audit. The survey also found that most CAEs believe that management and the audit committee will expect Internal Audit to step up to meet new challenges.
- **Internal Audit needs more impact and influence.** Only 28 percent of CAEs believe that their functions have strong impact and influence within the organization. A disturbing 16 percent noted that Internal Audit has little to no impact and influence. Meanwhile, almost two-thirds believe that Internal Audit's strength in these areas will be important in the coming years. This disconnect—between current and needed impact and influence—must be addressed, for the good of Internal Audit and the organization.
- **Gaps in skills must be addressed.** More than half of CAEs (57 percent) are not convinced that their teams have the skills and expertise needed to deliver on stakeholders' current expectations—let alone future demands. If Internal Audit can't fulfill stakeholder expectations, how can it exert influence and have an impact on the organization?

- **Use of alternative resourcing models will expand.** Facing a skills gap and talent shortage, and the need for risk, cyber and other specialists, many CAEs expect to expand their use of alternative resourcing models. The use of co-sourcing is expected to slightly increase with 30% of CAEs planning to use this model. Significant increases in the use of guest auditor and rotation programs are expected to occur with the use of rotation programs, in particular, expected to double.





Executive summary

- **Analytics presents major opportunities.**

To increase its efficiency, value, and impact, Internal Audit needs to expand its usage of analytics, as indicated by several findings.

- **Use of analytics is largely at basic levels.**

While 86 percent of respondents use analytics, only 24 percent use them at an intermediate level and 7 percent at an advanced level. Most (66 percent) use basic, ad hoc analytics (e.g. spreadsheets) or no analytics; those that use them do so mainly in fieldwork and would benefit by expanding their use in audit scoping and planning.

- **Use of analytics is expected to increase.**

Over the next three to five years, 58 percent of respondents expect to be using analytics in at least 50 percent of their audits. An impressive 37 percent expect to move to high usage—employing analytics in at least 75 percent of their audits.

- **Internal Audit faces barriers to greater use of analytics.**

CAEs see talent gaps and accessing quality data as key barriers to greater use of analytics. Internal Audit’s skills remain heavily weighted toward auditing operational and financial areas; analytical and technology skills need to be upgraded.





Executive summary

- **Dynamic reporting is poised to increase.** Most Internal Audit groups communicate with stakeholders through static text documents and presentations. Use of text in particular is expected to decrease (from 78 percent to 58 percent) as dynamic visualization tools increase dramatically (from 7 percent to 35 percent). These dynamic visualization tools enable Internal Audit to deliver more insightful observations, interact with stakeholders, and deliver greater value.
- **Advisory services will expand.** More than half of respondents (55 percent) expect the proportion of advisory services they provide to expand over the next three to five years. CAEs expect stakeholders to look to Internal Audit for insights regarding the future and to weigh in earlier on business initiatives.
- **Innovation is important too.** CAEs cited risk anticipation (39 percent) and data analytics (34 percent) as the two innovations most likely to impact Internal Audit over the next three to five years. This reflects stakeholders' desire for Internal Audit to shift from mainly reporting on the past to also anticipating the future.
- **Reviews of strategic planning and risk management will increase.** While about one-third of Internal Audit groups have evaluated their organization's strategic planning process in the past

three years, over half expect to do so in the next three to five years. A strong increase is also expected in the number of Internal Audit groups reviewing their risk management function.

- **Stable Internal Audit budgets may present challenges.** Half of CAEs expect their budgets to remain stable and another one-third (36 percent) expect them to increase somewhat. While a lack of cuts may be "good news," the bad news is that in times of disruption and evolution, flat or slowly growing budgets may not be enough. Doing more with less (or with the same) may be possible, but only up to a point.

**Consider the key dilemma:** Most CAEs see change ahead for their organizations and functions. But only 13 percent are very satisfied that their functions have the skills to meet stakeholder expectations and only 28 percent believe that they have strong impact and influence in their organizations. Meanwhile, two-thirds believe that having impact and influence is very important.

This situation calls for vigorous, focused, well-planned responses. While each CAE must develop a response tailored to his or her organization, function, and stakeholders' needs, throughout this publication we suggest steps to take and summarize them in our conclusion.

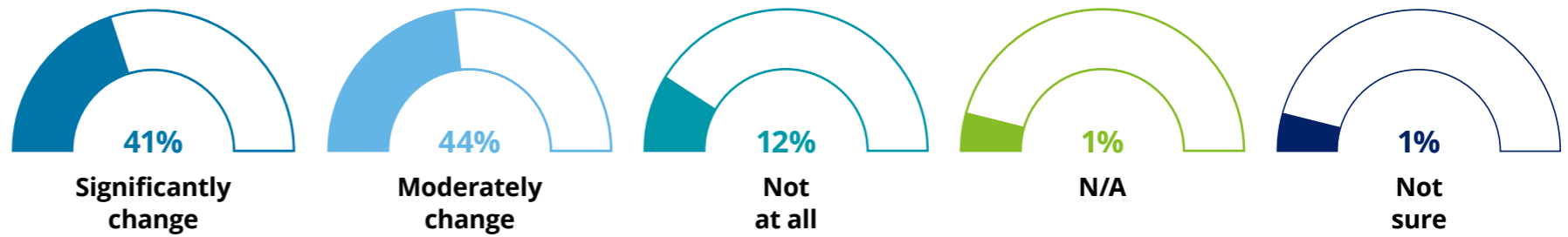


# The change imperative

**O**rganizations are evolving to boost performance, address disruptors, and stay competitive. Internal Audit functions need to understand the changes their organizations are undergoing and how to respond in ways that support stakeholders.

The change imperative

Change expected within the organization over the next 3 to 5 years





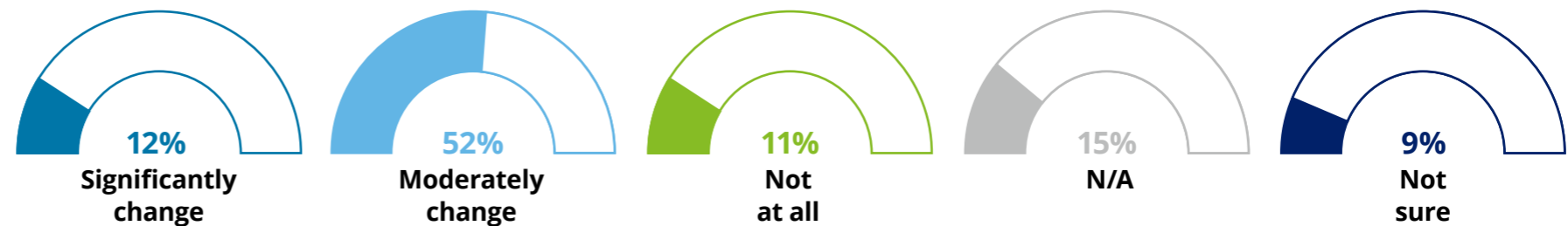


## The change imperative

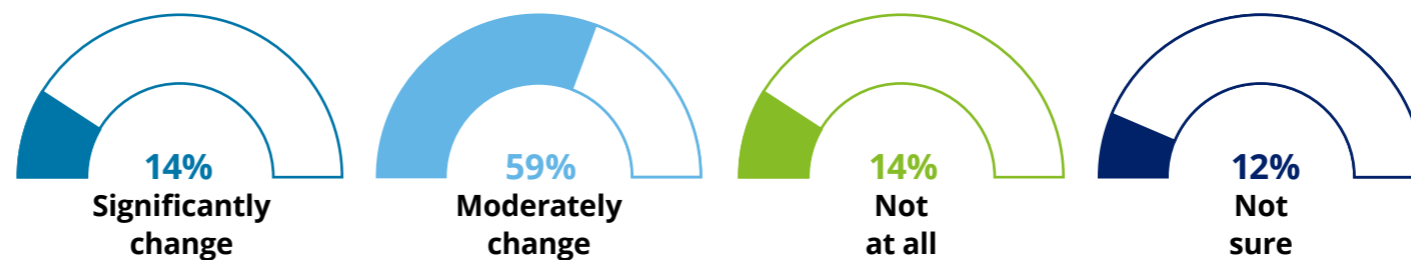
Furthermore, CAEs believe that the audit committee and management will expect their Internal Audit functions to evolve.

Given the widespread expectations of change, Internal Audit must respond proactively. Misjudgments—or failure to take action—can exact painful costs in decreased Internal Audit effectiveness, relevance, and influence. But this is not about change for the sake of change. It's about understanding the type and extent of change that Internal Audit needs to make in order to meet stakeholders' needs.

### Audit committee needs Internal Audit to evolve over the next 3 to 5 years



### Management needs Internal Audit to evolve over the next 3 to 5 years



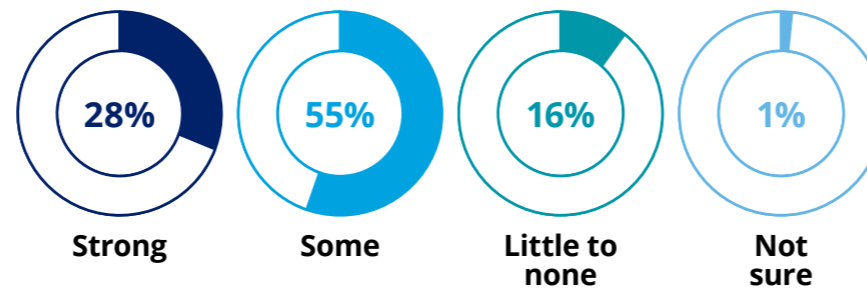


# Internal Audit lacks influence and impact

**A** minority of CAEs believe they have the ability to exert influence over the board of directors, executive team, and other key personnel and make a significant impact within their organizations. Some even believe they have little to no influence or impact. Yet CAEs also believe, correctly, that it will be important to have both in the years ahead.

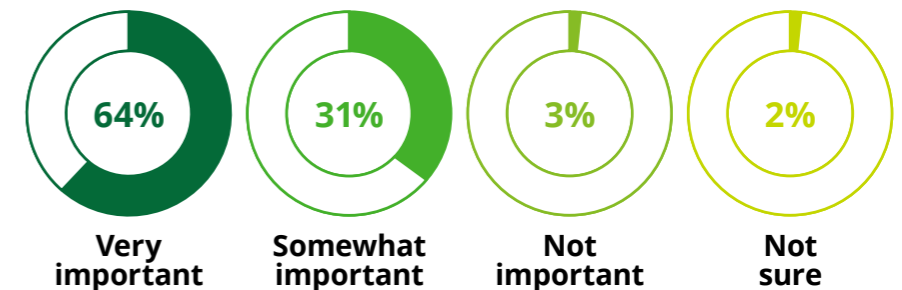
Build influence and impact

Current impact & influence of Internal Audit



**Make no mistake:** Changes are already underway as organizations call for a strong role on the part of Internal Audit, backed by strong capabilities. Organizations need help understanding and addressing strategic, cyber, and other risks. Management needs help gauging the issues and potential outcomes of decisions and initiatives.

Importance of having impact & influence over the next 3 to 5 years



Audit committees and boards need help untangling the complexities of the evolving business, technologies, and competitive and regulatory environments.

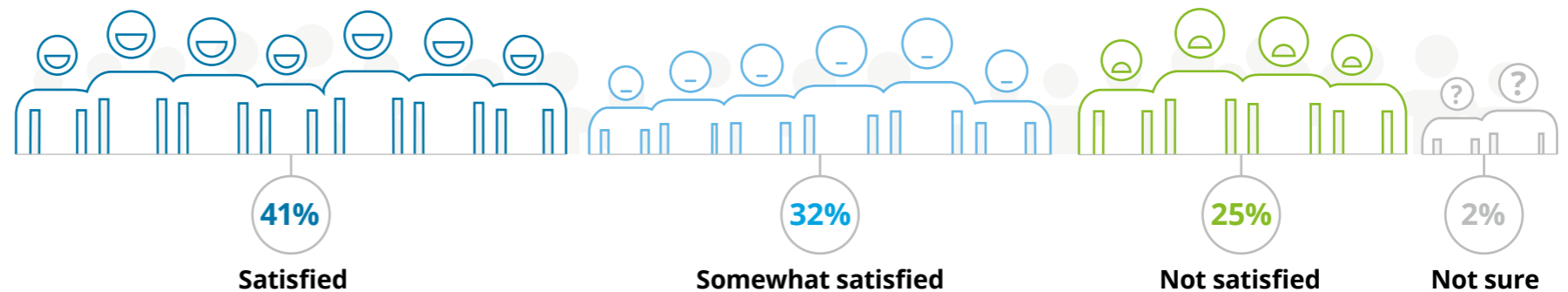
Only Internal Audit possesses the objectivity, independence, rigor, and enterprise-wide view needed to help stakeholders understand and address these challenges. Yet if nearly three-quarters of CAEs feel they already lack strong impact and influence within their organizations, the change imperative is crystal clear.



# To increase influence, strengthen the skillset

**Internal Audit needs to strengthen its skillset** if it is to increase its impact and influence within the organization. CAEs are clearly aware of this: Relatively few are fully satisfied that their groups have the skills and expertise to deliver on stakeholders' expectations.

## Current satisfaction with Internal Audit's capabilities



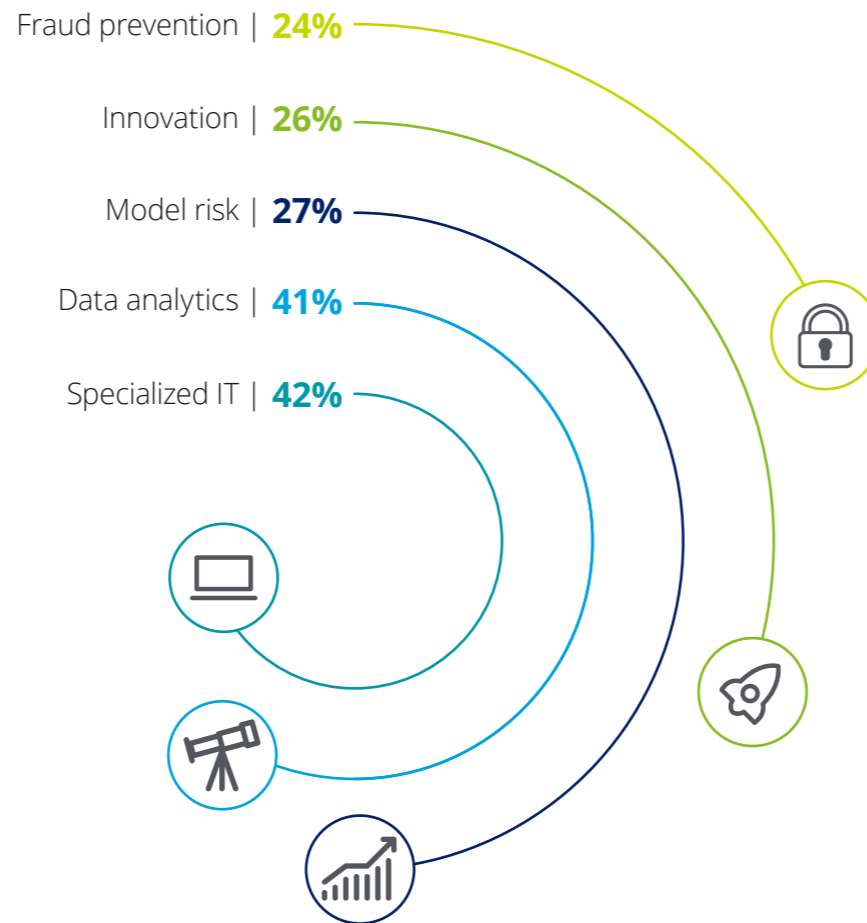
When more than half of CAEs are only somewhat satisfied, less than satisfied, or not satisfied with their functions' capabilities, there is not only ample room—but also urgent need—for improvement. A deficit in skills and expertise undoubtedly affects Internal Audit's ability to meet current organizational needs, as well as future needs. The situation may call for more than moderate change in many Internal Audit groups.



# Critical skills gaps must be addressed

**A** look at specifically identified skills gaps helps to explain why CAEs are not satisfied with their groups' capabilities—and perhaps why those groups lack impact and influence.

## Top 5 gaps in capabilities



These skills are what will enable Internal Audit to respond to the top priority areas of analytics and innovation, and to key risks in their organizations. They go beyond the long-standing skills associated with reviews of controls and operational and financial audits, so it's natural that gaps would exist. However, given the intended course of change, these skills will need to be boosted.

Address critical skill gaps

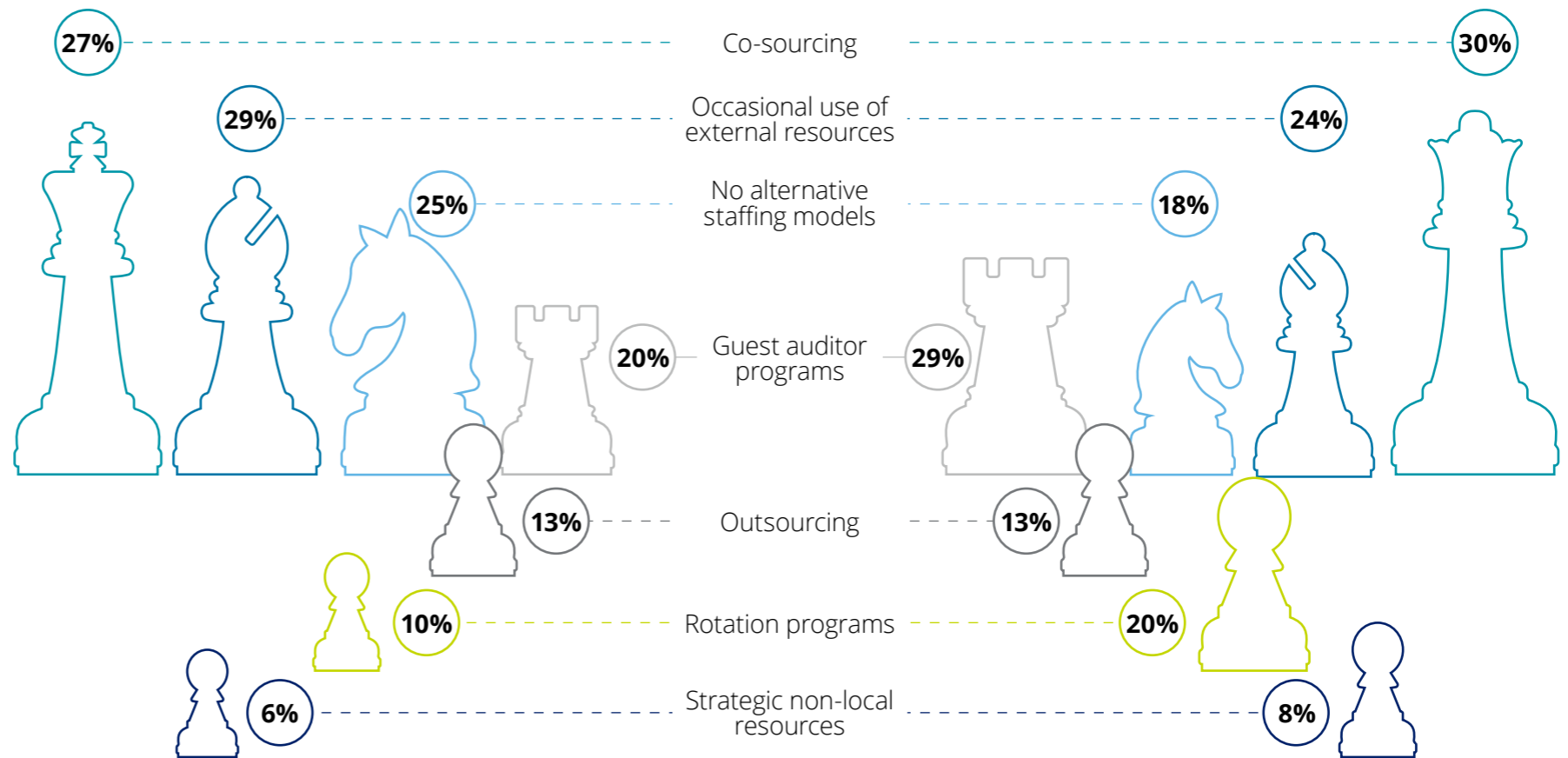


# Innovative resourcing models can help address skills gaps

**The war for talent rages on and Internal Audit is not** (yet) the magnet for talent that CAEs would hope. To acquire specialized talent, Internal Audit groups are increasingly using alternative resourcing models to supplement their core Internal Audit teams.

Resourcing models currently used by Internal Audit to address talent needs

Resourcing models expected to be used by Internal Audit over the next 3 to 5 years to address talent needs



Use innovative resourcing models



# Innovative resourcing models can help address skills gaps (continued)

CAEs expect that cosourcing will prevail as a popular alternative sourcing model—for good reason. This model enables Internal Audit to secure specialized skills, additional capacity, and just-in-time flexibility without long-term investment. The same is true for occasional use of external resources.

Use of guest auditor programs, which bring people from the business into Internal Audit to assist with specific reviews, is also expected to increase. These programs bring in individuals with an in-depth understanding of the audit matter, enabling the Internal Audit team to ask more insightful questions, strengthen its analysis, and deliver greater value. This business knowledge is transferred to the Internal Audit team, while an understanding of risk and control is transferred to the business, along with a new ambassador for Internal Audit.

Rotation programs bring similar benefits, cycling talent from the business through Internal Audit and vice versa. Many Internal Audit functions have not realized the significant benefits of these programs due to barriers, such as lack of senior management support. Also, a rotation into Internal Audit is not universally seen as a career accelerator. In our experience, careful planning, long-term commitment, senior executive support, and wise choices regarding candidates increase the chances of success.

A few unexpected findings emerged in this area—the relatively small percentage who plan to use offshoring to reduce the costs of Internal Audit (8 percent) and the surprisingly high proportion who do not intend to use an alternative staffing model (18 percent).

Use innovative resourcing models



Deloitte believes that better use of alternative staffing models, when properly planned and implemented, can do much to help Internal Audit address skills gaps, acquire expertise, and gain influence and impact within the organization.



# It's time to embrace analytics



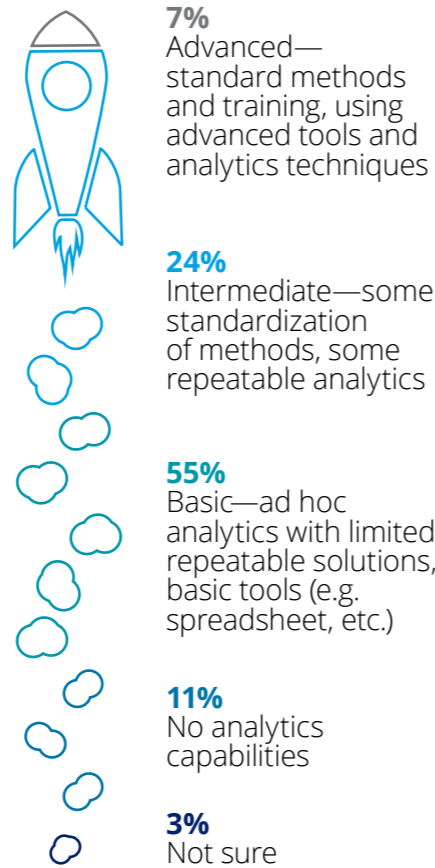
**A**nalytics has taken hold in Internal Audit and is poised for greater usage. Most Internal Audit groups have adopted analytics during fieldwork, using basic, ad hoc tools and capabilities. But Internal Audit needs to embed analytics into their approaches, methods, and communications across virtually all activities.

Embrace analytics

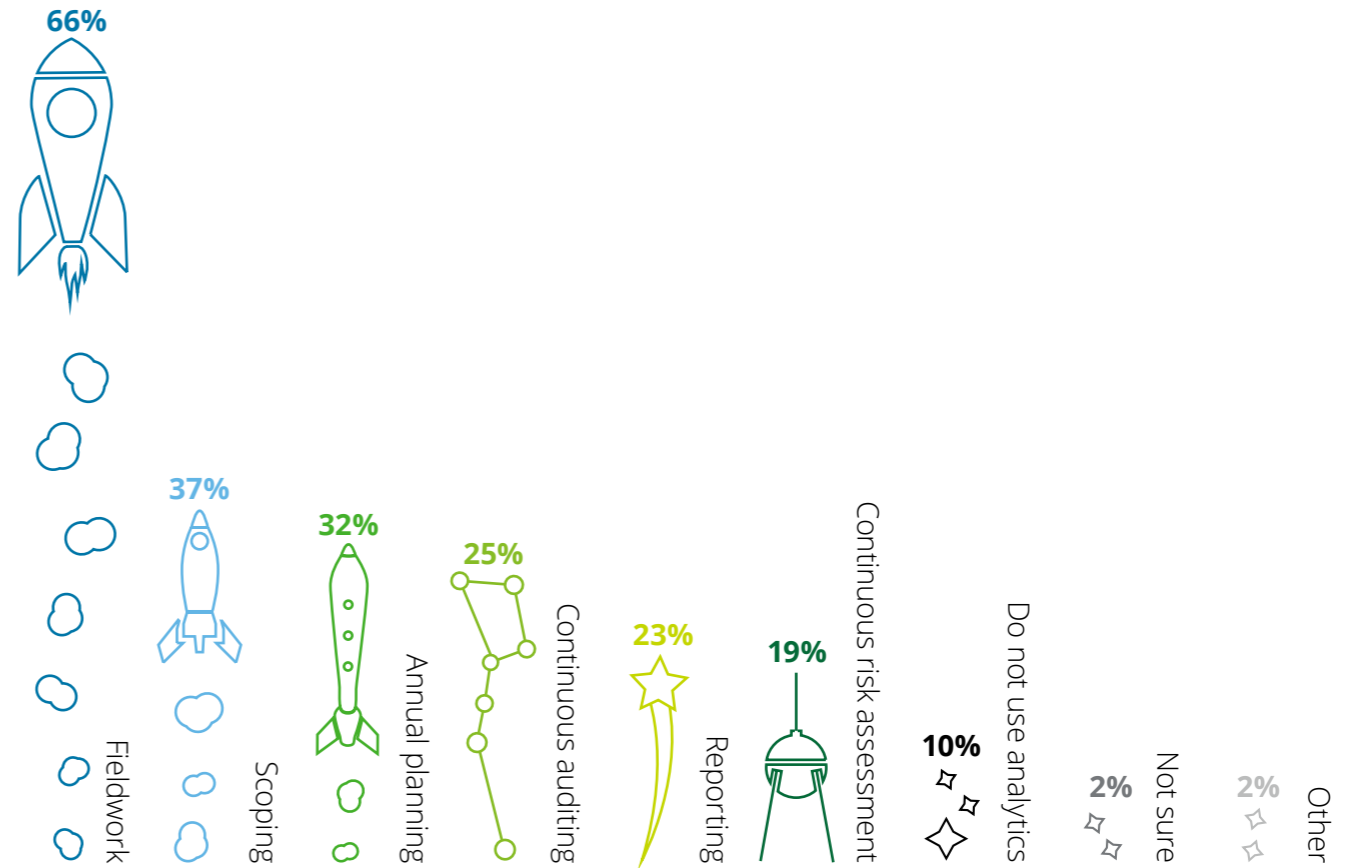


# It's time to embrace analytics (continued)

## Current Internal Audit analytics capabilities



## Current deployment of analytics



Embrace analytics





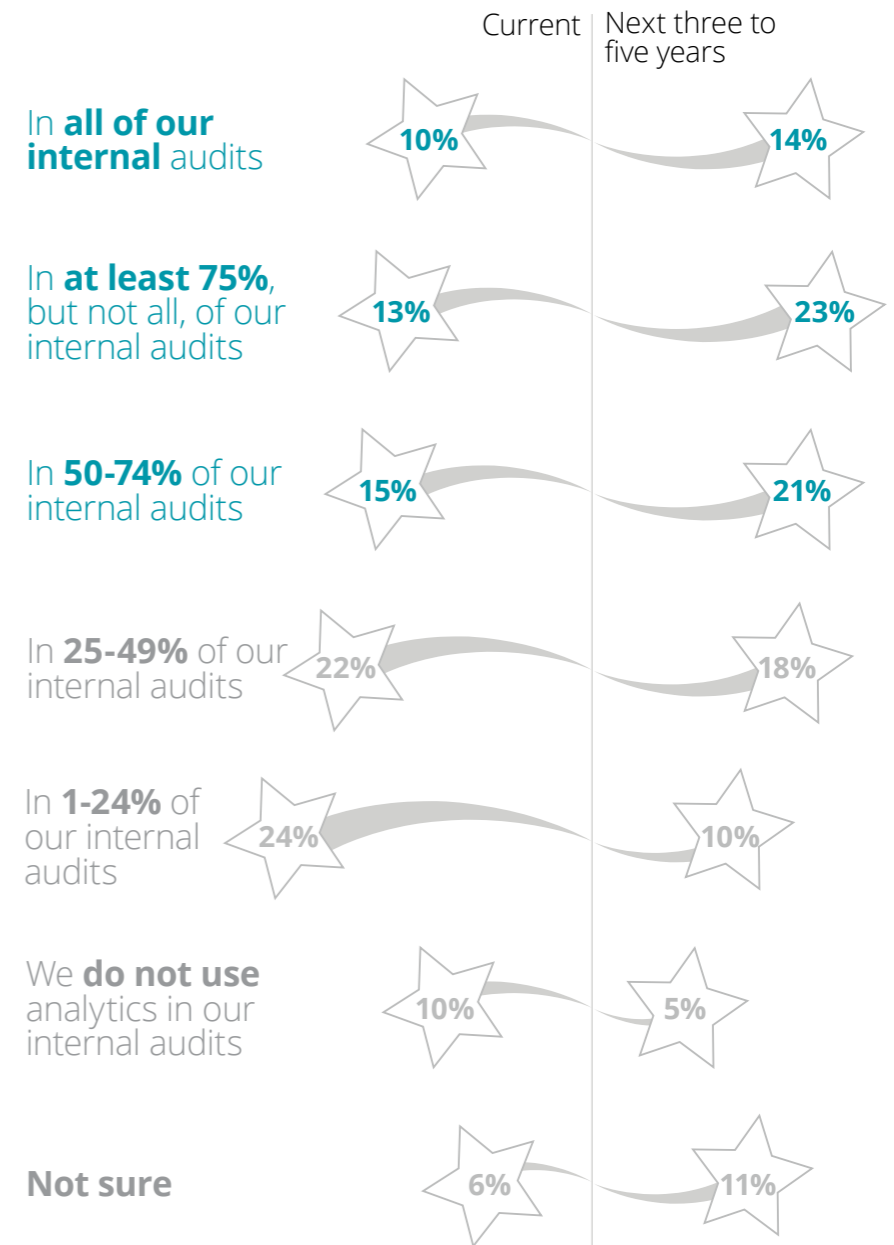
**Why?** Because using analytics enables Internal Audit to identify high priority areas, conduct audit activities more efficiently, develop deeper insights, and communicate results through visualization tools.

As to current deployment, the majority of respondents use analytics in fieldwork, but fewer do so in annual planning and audit scoping. The latter are areas where analytics could help to identify risk areas, improve resource allocations, make audits more impactful, and free up time for advisory work. These are also areas in which Deloitte sees analytics having the most impact.

### Use of analytics in internal audits is rising sharply

Most Internal Audit groups already intend to expand their use of analytics. Those now using analytics will use them more, and those not using analytics will start using them. Currently, 38 percent of respondents use analytics in 50 percent or more of their internal audits. That usage is anticipated to jump to 58 percent over the next three to five years. And an impressive 37 percent or more plan on using analytics on at least 75 percent of their internal audits.

### Use of analytics in internal audits



Embrace analytics

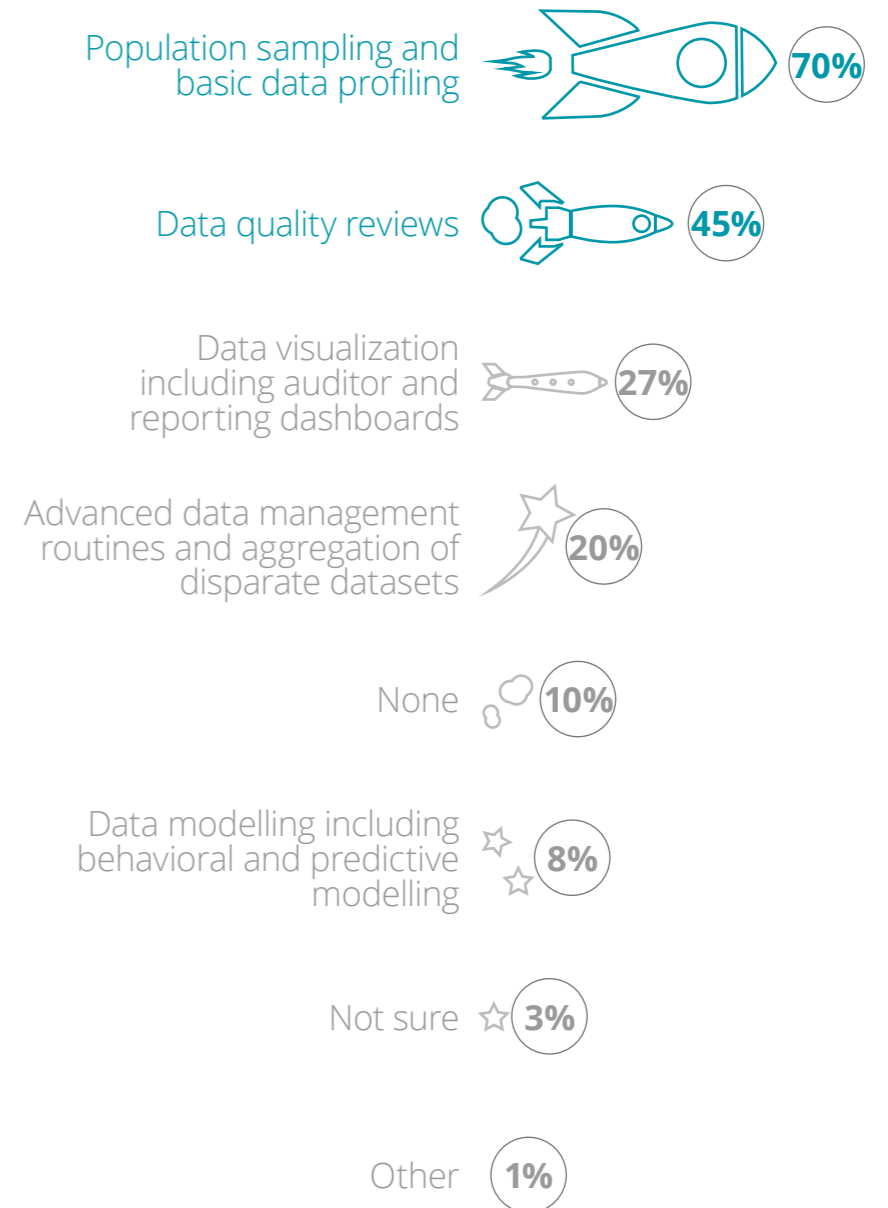


Lined area for notes with a teal bar containing the text "Embrace analytics".

With analytical skills and a few simple tools, Internal Audit can readily apply analytics throughout the internal audit life cycle. Activities would include using analytics during audit scoping; using resulting insights to inform the audit plan; analyzing, comparing, profiling, and visualizing data; and formulating and testing key hypotheses from audit planning through report development.

Currently, after applications like sampling populations, basic data profiling, and reviewing data quality, use of analytics drops off. With only 20 percent performing advanced data management and aggregation, most Internal Audit uses of analytics are actually quite basic. Without data management and data aggregation capabilities, activities are more or less limited to scanning files and extracting simple samples. Yet the future—the immediate future—is in data modeling for behavioral analysis and predictive modeling for insight and foresight.

## Types of analytics regularly conducted






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## Embrace analytics

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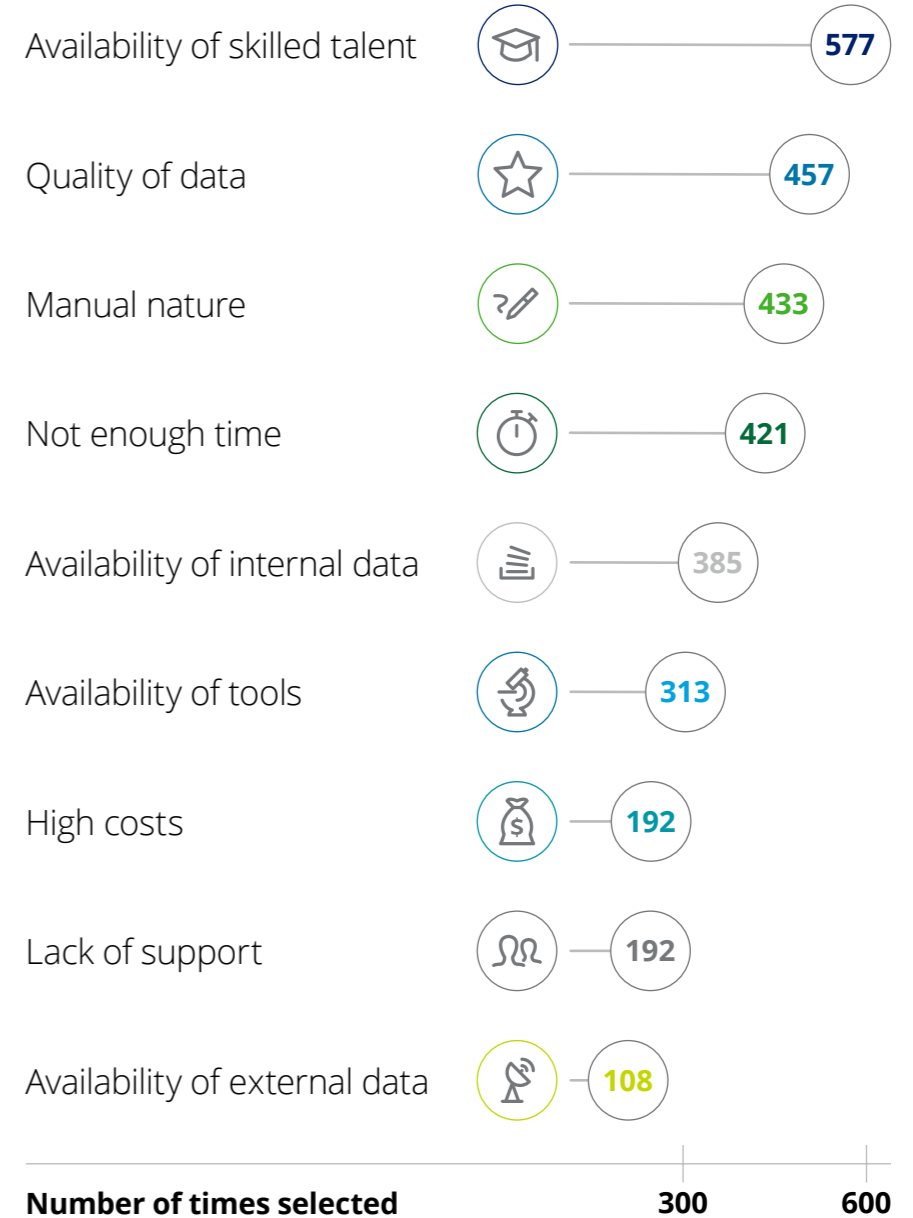
Here's the real analytics opportunity: Having access to all data within the organization, Internal Audit is uniquely positioned to analyze multiple data sets to identify trends, relationships, and anomalies that no one else in the organization can identify. In addition, combining data from inside and outside the organization can add richness to stakeholders' understanding of risk. So, while using analytics to deliver more insightful audits more efficiently is a worthwhile goal, Internal Audit should also capitalize on its position and abilities to deliver more insightful views of business issues and risks.

### The barriers to implementing analytics can be overcome

So what's stopping Internal Audit from fully embracing analytics? At the top of the list is that gap in skills and capabilities.



### Barriers to using analytics





## Plans to build analytics capabilities



To acquire analytics capabilities, a relatively high percentage of CAEs plan to train (66 percent) and/or hire (23 percent) staff, which may reflect a desire to develop talent specific to the industry and organization. However, alternate staffing models, such as outsourcing (which is often done for information technology audits), can support more generalist activities like data extraction and data management.

Also, while data quality and access may present challenges, Deloitte has found that Internal Audit groups that work with the available data, rather than waiting for better data (or using “poor data quality” as an excuse for inaction), can overcome these data challenges and start deriving the benefits discussed here.



# Dynamic reporting is coming onscreen

**M**ost Internal Audit functions communicate their findings through the same static reports (i.e. text documents) and presentations that the profession has used for years. Relatively few CAEs employ dynamic analytics or visualization tools to communicate with their stakeholders.

This may well be contributing to Internal Audit's low impact and influence: Reams of necessary-but-not-useful reports will not engage an executive team.

actionable information, not report cards. Relevant insights build credibility, in turn building the function's ability to make an impact and gain influence.

Many CAEs expect to shift from static to dynamic (or interactive) communications using, for example, analytics or visualization tools. This helps to meet the organization's need for more real-time and near real-time reporting on processes, controls, and risks. It also supports a focus on the future rather than the past, on insights rather than data. Stakeholders want practical,

As television gained popularity in the last century, media critic Marshall McLuhan noted that, "The medium is the message." Today, when Twitter is quoted every day in mainstream media, that statement is truer than ever. To change its messaging, Internal Audit must change the media it uses to deliver its messages.

Adopt dynamic reporting

## Present communication methods



Static word processing reports



Static presentation reports



Dynamic visualization tools



Dynamic analytic tools



Other



Not sure

## Future expected communication methods



Static presentation reports



Static word processing reports



Dynamic visualization tools



Dynamic analytic tools



Not sure



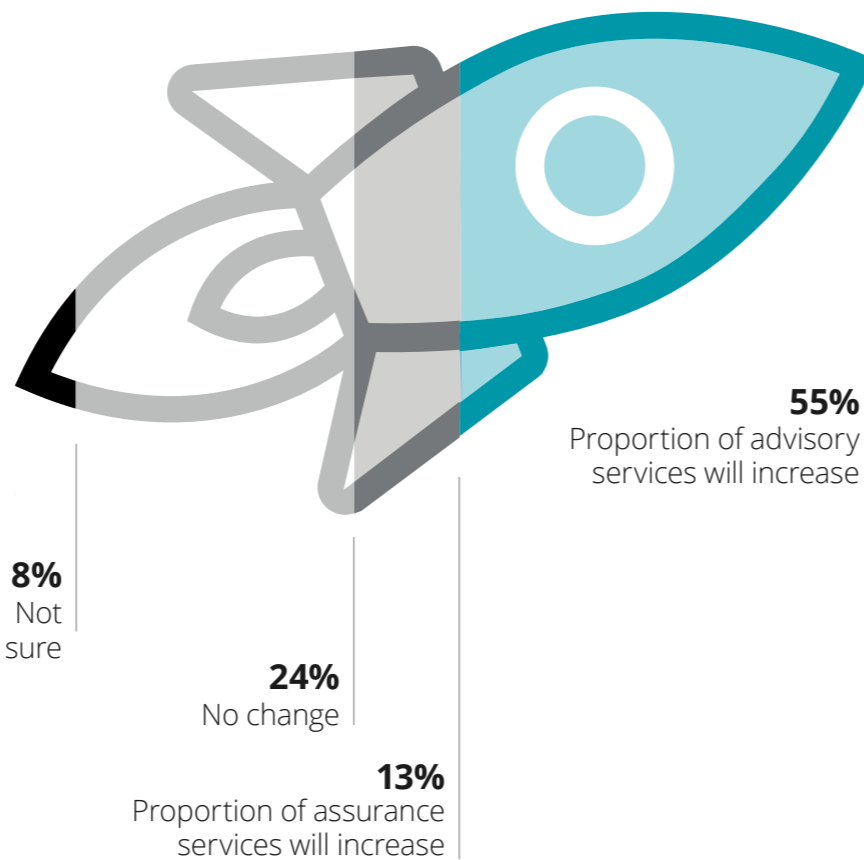
Other



# CAEs expect to increase advisory services

**M**ore than half of CAEs expect to increase the proportion of advisory services their groups deliver. Emphasizing advisory services can increase the function’s impact and influence.

## Nature of Internal Audit’s services over the next 3 to 5 years



For example, advisory services, such as predictive risk analysis and advice on risk mitigation—provided in the planning stages of an initiative—will deliver more value than simply noting what management *could have* done differently after the initiative has been launched or completed.

Advisory services expand Internal Audit’s impact and influence by enhancing the value provided. Therefore, compared with assurance, advisory services lead more surely to a seat at the table—or position the CAE more firmly in that seat.

Advisory services do demand that Internal Audit have business, communication, and other skills needed to provide them. They also call upon Internal Audit to develop a “brand” that the organization associates with an advisory perspective, as well as with assurance services.

Increase advisory services



**To make changes in its approaches and activities, Internal Audit should embrace an innovative mindset, as well as actual innovations.** However, the function is not known for aggressive innovation.

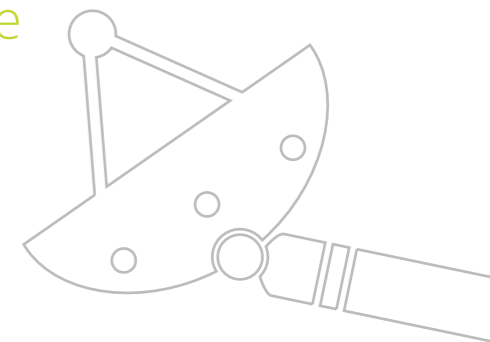
For example, analytics has taken hold in Internal Audit relatively recently; and many groups have still not embedded analytics into their Internal Audit activities.

CAEs identified risk anticipation as the innovative development they expect to impact their functions most in the next few years, as indicated by the adjacent word cloud. (The larger the font size, the greater the number of mentions by respondents.) That's not surprising. When a risk event, financial loss, or case of fraud arises, it's natural for stakeholders to ask, **"Where was Internal Audit?"**

Innovate

### Key innovative developments expected to impact Internal Audit

**No innovation expected** Transformation digital  
 Increasing size of the talent pool Shared IA service  
 Strengthening the bench and succession planning  
 Ability to audit news domains (eg. Quality of Services) **Cognitive technologies** Collaborative assurance provision in partnership with management **Data analytics**  
 Culture more specialism Strategic auditing and business impact Predictive analytics **Risk anticipation** Review of Agile Programs **New talent models (describe)** **Digitization** Improving the position of Internal Audit so that it is recognized as a developer of risk management talents for the entire organization **Predictive analytics** Synergy and integration  
 Expanding assurance activities to HSEC space Strategic co-sourcing  
 Deep subject matter specialists **Visualization**





In citing risk anticipation, data and predictive analytics, visualization, and cognitive technologies as the innovations most likely to affect Internal Audit, CAEs signal their understanding that stakeholders expect them to provide foresight. Those stakeholders want Internal Audit to use predictive and sensing tools as well as other emerging technologies to gauge the likelihood of success or failure of an initiative, and to identify ways to increase the chances of success.

Perhaps Internal Audit should adopt the mantra of many companies—if you are not moving forward, you are moving backward, if only in relation to everyone who is moving forward.

Innovate





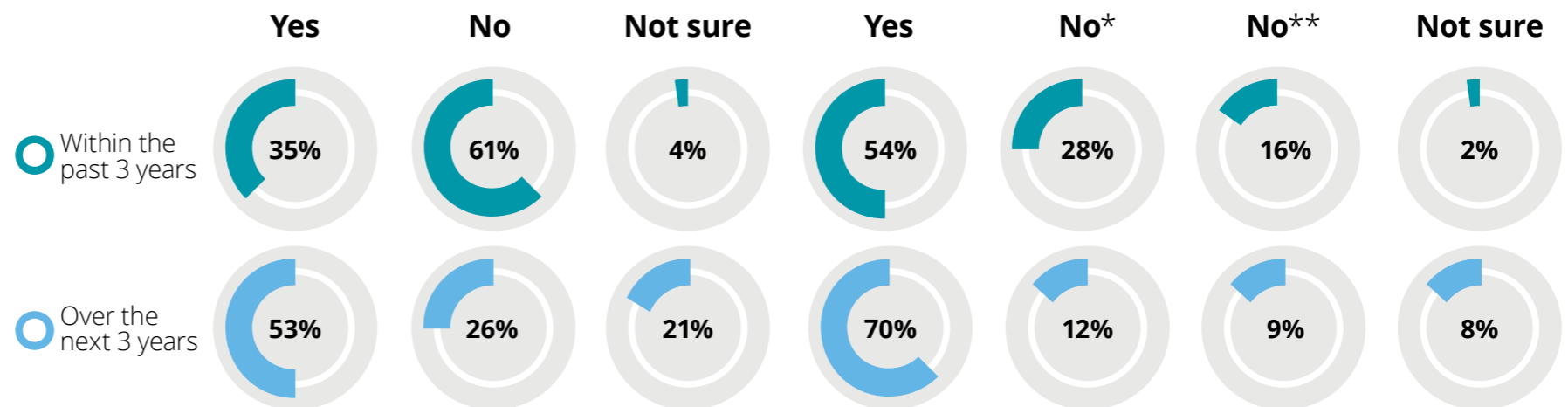


# Strategic planning and risk management should be areas of focus

**A**n increasing focus on evaluating strategic planning processes and risk management functions surely makes sense given the disruption affecting organizations. Trends, such as peer-to-peer networks, collaborative consumption, artificial intelligence, wearable technologies, user-created content, and the Internet of things—together with relentless globalization—threaten prices, margins, and entire business models and industries.

Internal Audit's evaluation of the organization's strategic planning function or process

Internal Audit's evaluation of the organization's risk management function or process



\* we have a risk management function/process but have not evaluated it/do not expect to evaluate it

\*\* we don't have a risk management function/process

Shift areas of focus



# Strategic planning and risk management should be areas of focus (continued)



A review of the risk management function can be revealing. Is there a process to identify emerging risks? Have the organization's risk appetite and risk tolerance been developed? Have key risks been identified and key risk indicators defined? How are they being monitored? Have strategic risks been considered (the latter is critical given market, technology, and business model disruptors)? Again, a review can determine the effectiveness of the function and related processes.

In certain jurisdictions, regulators are focused on the role of Internal Audit as the third line of defense for risk governance. Some are requiring Internal Audit to perform end-to-end reviews of the risk management process as part of its independent assessment of key second line of defense functions (for example, the risk management function).

A review of the strategic planning process can reveal, first, whether a formal, comprehensive process even exists. Does it consist of all key stakeholders, including the board of directors? Does it cover key elements, such as scenario planning? Does it combine top-down and bottom-up elements in useful ways? Then, a review can assess its components and their effectiveness.

Shift areas of focus

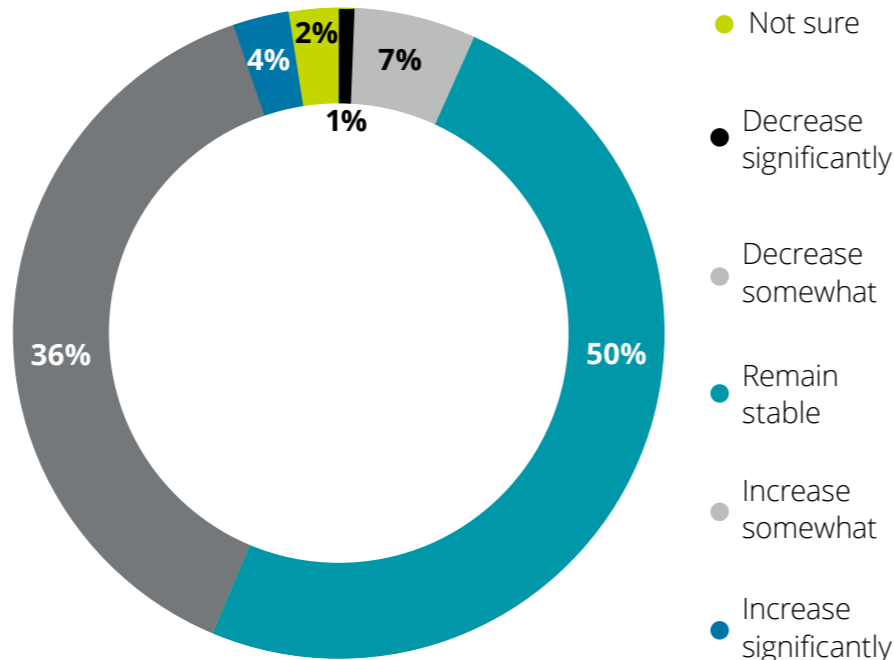


# Do more with the same (or with less)

**The Internal Audit budget picture portrays a good-news/not-great-news scenario.** The good news is that nine out of 10 CAEs expect their budgets to remain stable, increase slightly, or increase significantly over the next few years.

This indicates that organizations recognize the value of Internal Audit and are not reducing its resources (or not reducing them further). In fact, **40 percent** of CAEs expect increases.

Yet the finding that more than one-half of budgets will remain the same or decrease in a time of continual disruption and rising expectations is not great news. Internal Audit faces talent gaps and a need for transformative change. Increased financial resources would help the cause. Leaving budgets stable—let alone decreasing them—may not adequately fund the required evolution.



Still, the ways in which Internal Audit allocates its budget will make the difference between adequate and outstanding performance. Even with budget increases, Internal Audit will need to get creative, for example in using analytics to improve audit efficiency and harnessing visualization tools to communicate insights. The resourcing models noted in this survey, such as co-sourcing, guest auditor programs, and rotation programs, also present opportunities to use budget creatively.

Do more with the same



**The business environment is dictating a need for organizations to develop certain capabilities** over the next several years, such as the ability to anticipate risks and implement responses. Internal Audit can assist in developing these capabilities, yet many Internal Audit groups lack the influence, skills, and tools to do so. This presents an evolutionary challenge to organizations and their Internal Audit functions.

Deloitte’s research points to a path forward. Internal Audit—and only Internal Audit—has the professional objectivity and independence, the intellectual rigor and integrity, and the enterprise-wide perspective to assist the organization in this time of change and opportunity.

Although the specific course of action will depend on the Internal Audit group and organization in question, based on Deloitte’s research the following steps are worth considering:

- **Seek ways to increase impact and influence.** This overarching goal will be achieved by enhancing the value Internal Audit delivers to stakeholders. That calls for learning about the changes, issues, disruptors, and risks that keep stakeholders awake at night. Then, with management and audit committee support, Internal Audit must develop ways to help stakeholders address them more effectively.
- **Embed analytics into Internal Audit activities.** Deloitte believes that analytics holds great potential to transform Internal Audit. The cost and complexity of analytical tools have fallen while their value to Internal Audit has risen. From audit scoping and planning to risk assessment and insight generation, analytics enables Internal Audit to do more, and then to communicate the results visually and interactively. This area cries out for action—for example, an assessment of current capabilities and needs, and a pilot project to demonstrate analytics in action and its value.
- **Streamline and visualize communications and reports.** Stakeholders want information and insights in forms and formats that fulfill their needs. With simple visualization tools, Internal Audit can highlight the anomalies, risks, and issues that stakeholders care about most. These methods demonstrate that Internal Audit is taking a stakeholder-centered, issue-oriented, future-focused approach.

## Conclusion





## Change and influence



Industry & regional insights



## Skills and resourcing



Industry & regional insights



## Scope of services

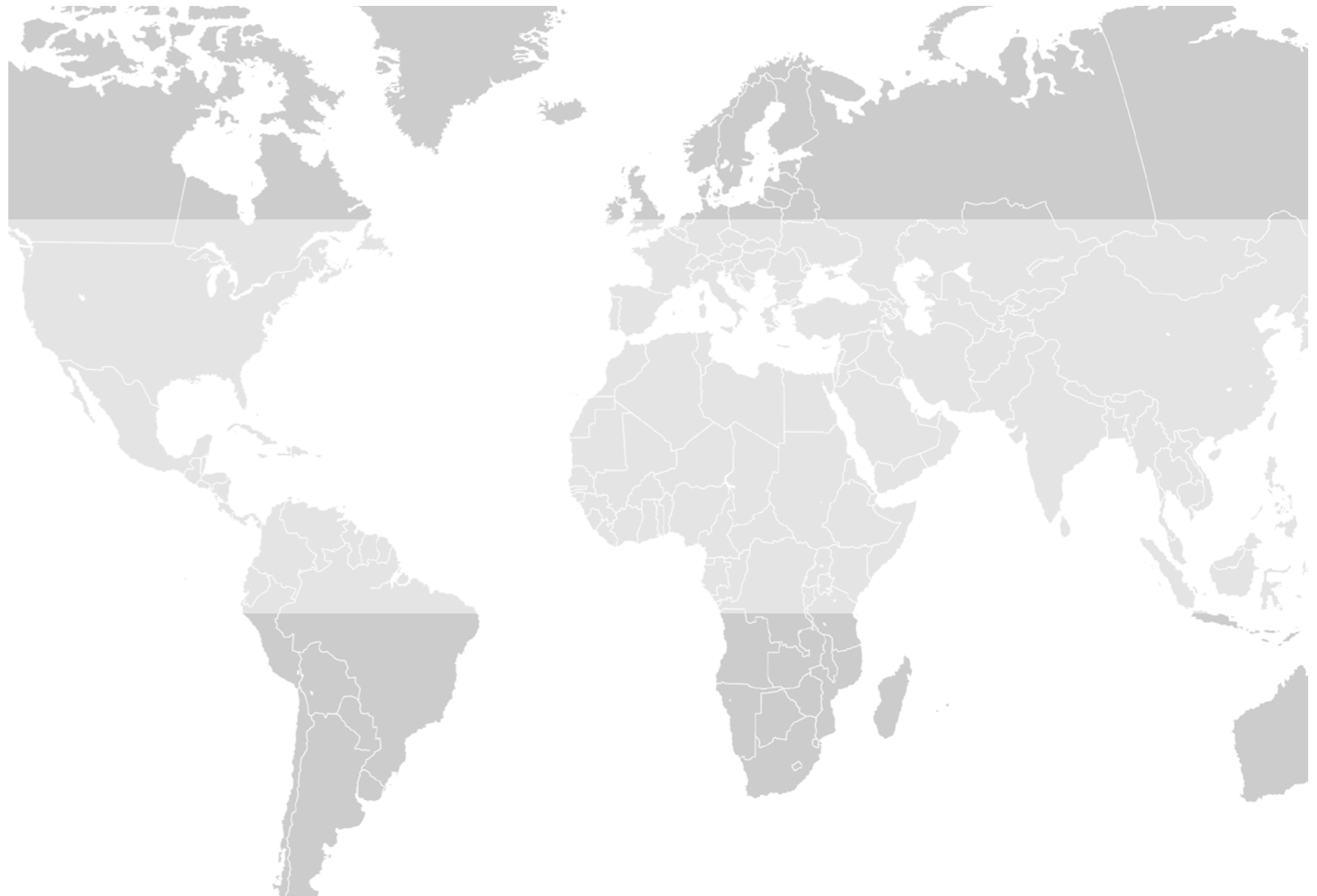


Industry & regional insights





## Data analytics



Industry & regional insights



## Communication



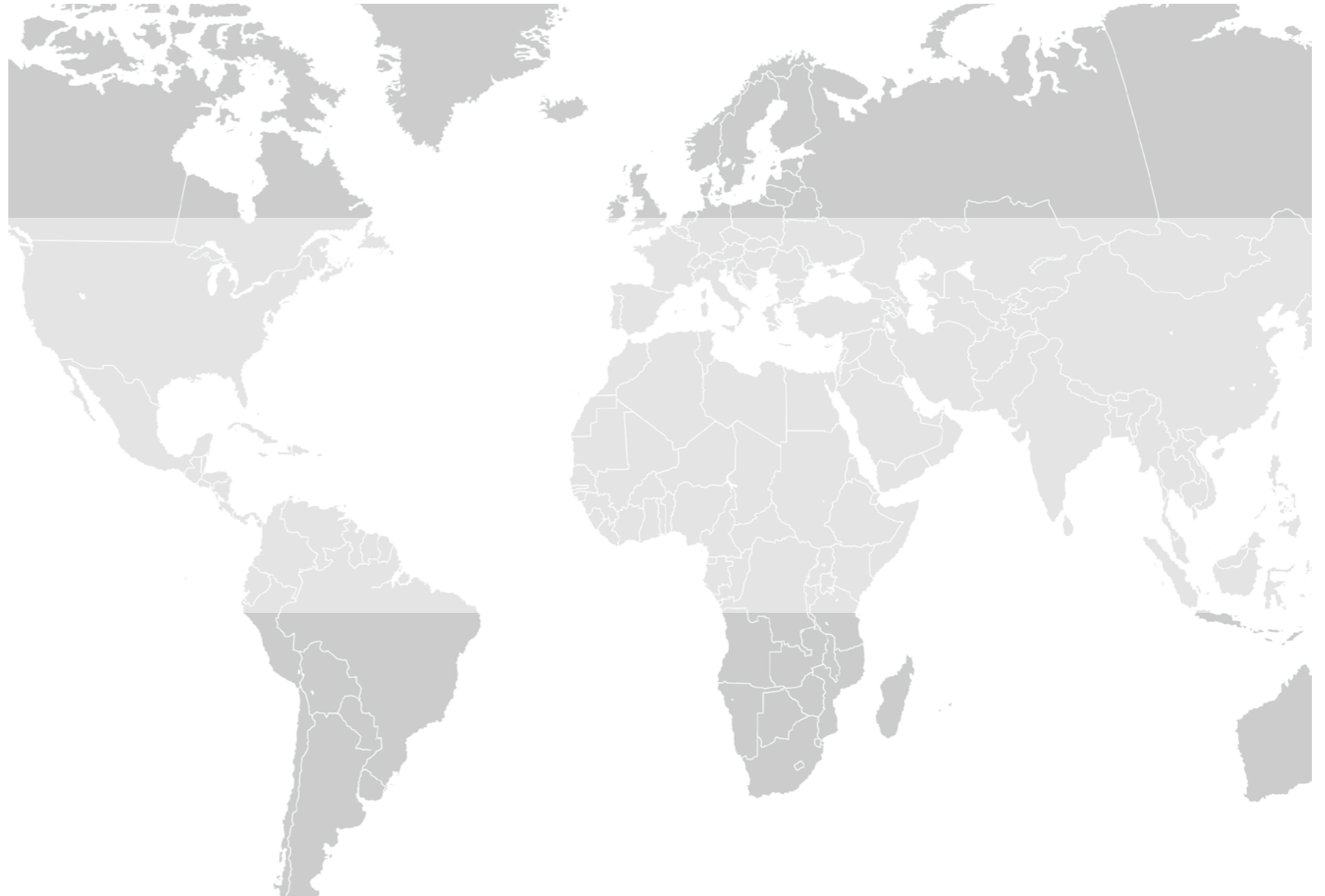
Industry & regional insights



# Regional insights



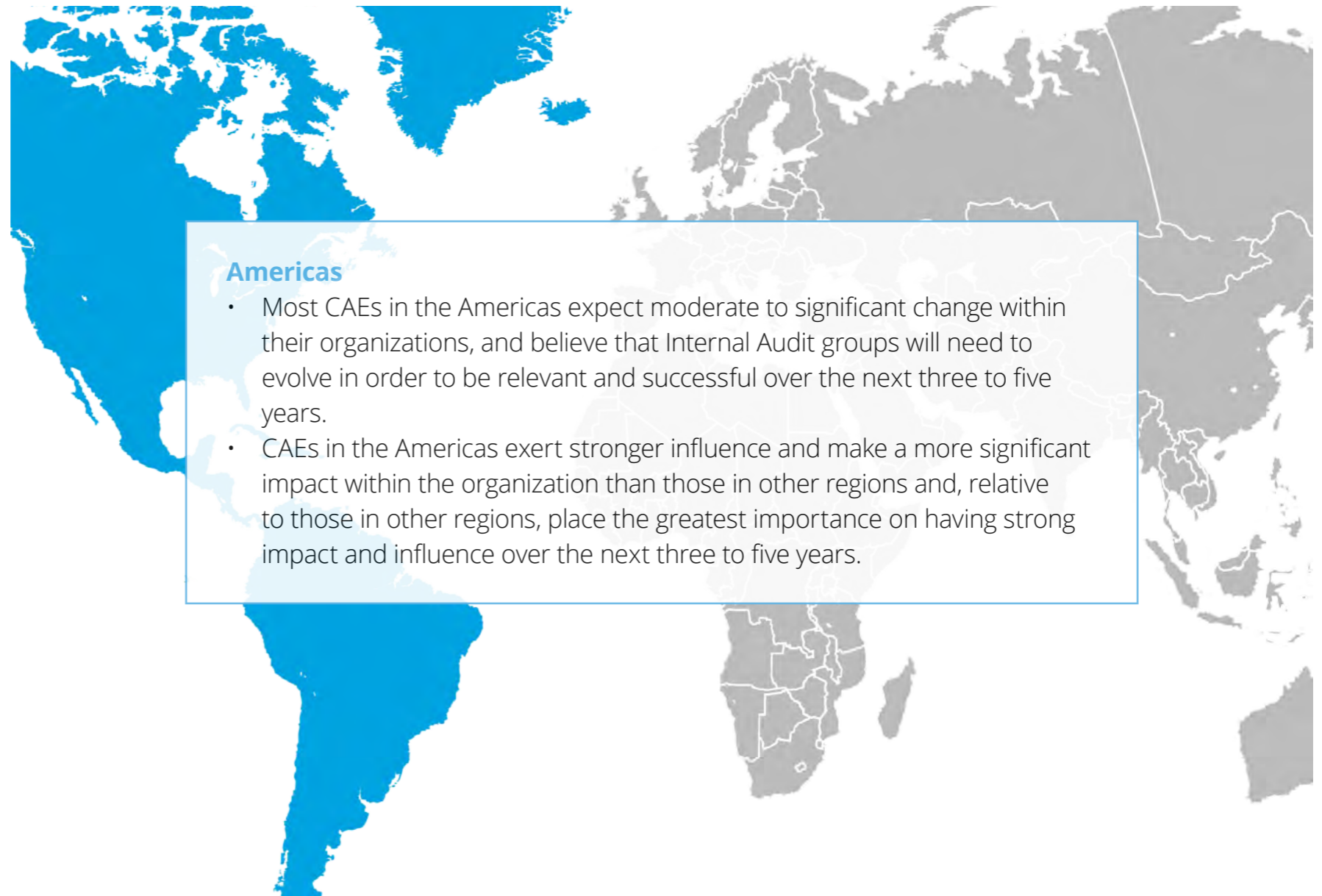
## Budget



Industry & regional insights



## Change and influence

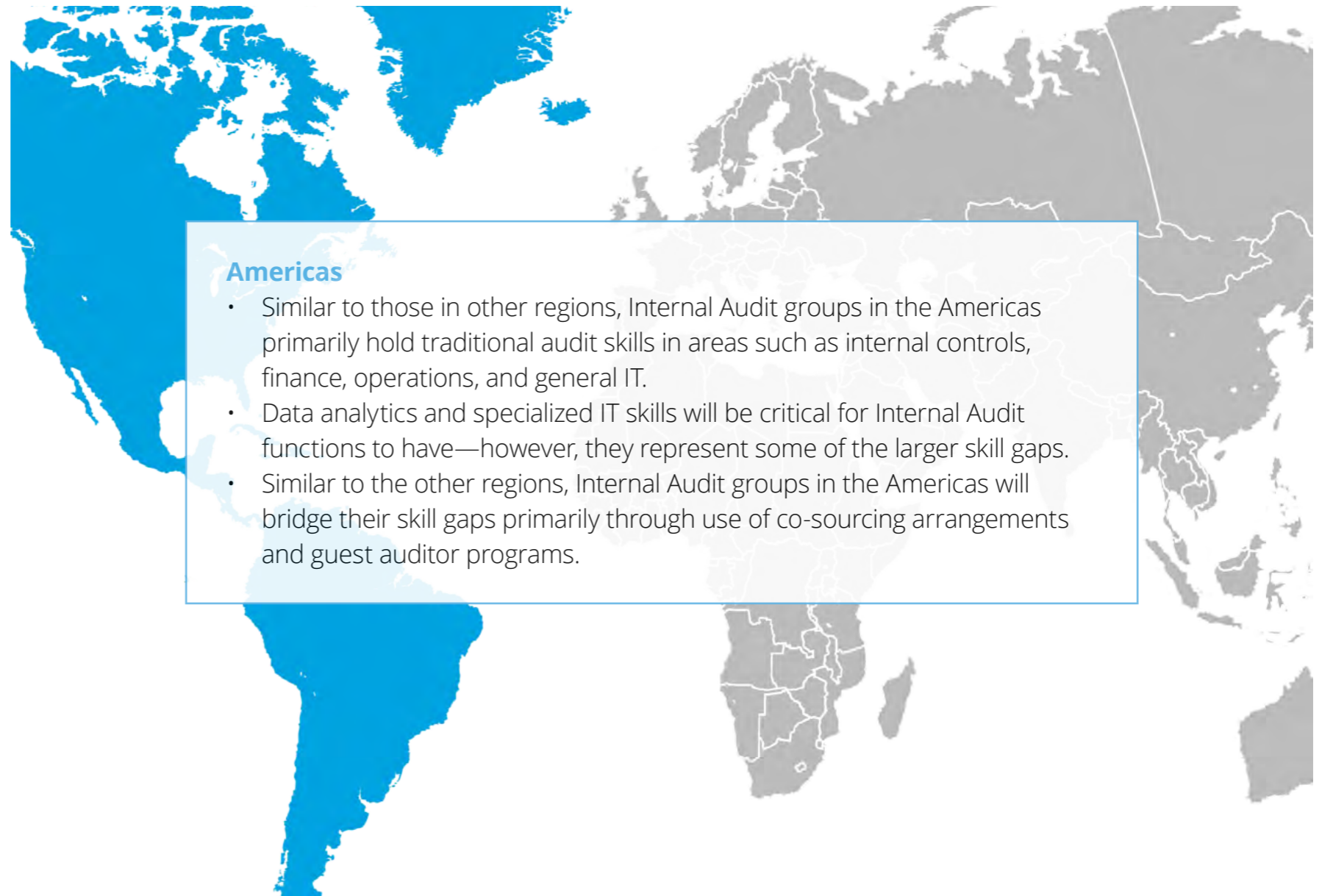


### Americas

- Most CAEs in the Americas expect moderate to significant change within their organizations, and believe that Internal Audit groups will need to evolve in order to be relevant and successful over the next three to five years.
- CAEs in the Americas exert stronger influence and make a more significant impact within the organization than those in other regions and, relative to those in other regions, place the greatest importance on having strong impact and influence over the next three to five years.



## Skills and resourcing



### Americas

- Similar to those in other regions, Internal Audit groups in the Americas primarily hold traditional audit skills in areas such as internal controls, finance, operations, and general IT.
- Data analytics and specialized IT skills will be critical for Internal Audit functions to have—however, they represent some of the larger skill gaps.
- Similar to the other regions, Internal Audit groups in the Americas will bridge their skill gaps primarily through use of co-sourcing arrangements and guest auditor programs.



## Scope of services



### Americas

- Similar to those in other regions, the majority of Internal Audit groups in the Americas primarily provide assurance services with some advisory services; however, in this region, a higher proportion of respondents expect the delivery of assurance services to increase over the next three to five years.
- Similar to the findings in the other regions, risk anticipation and data analytics are expected to be the key innovative developments for Internal Audit over the next three to five years. Predictive analytics is expected to be a greater source of innovation in the Americas relative to in the other regions.



## Data analytics



### Americas

- While the majority of Internal Audit functions in the Americas have no analytics capabilities or basic capabilities, a higher proportion of respondents here relative to the other regions have intermediate and advanced analytics capabilities.
- Internal Audit functions in the Americas use their analytics capabilities more frequently as part of the annual planning process, audit scoping, and during fieldwork, with a higher proportion applying analytics in 50 percent or more of their audits.
- This region is expected to continue using analytics on a greater proportion of internal audits, relative to the other regions.
- The most common use of data analytics is in population sampling and data quality reviews, with data query tools such as ACL and IDEA being most commonly used.
- Availability of talent with an analytics skillset remains a key barrier to greater adoption of analytics, with most organizations likely to opt for in-house training to address this gap.



## Communication



### Americas

- The primary method of reporting to stakeholders will continue to be through use of static text documents and presentations.
- Relative to the other regions, adoption of dynamic communication tools is likely to increase the most in the Americas over the next three to five years, with moderate use of these tools expected within the region.





## Budget

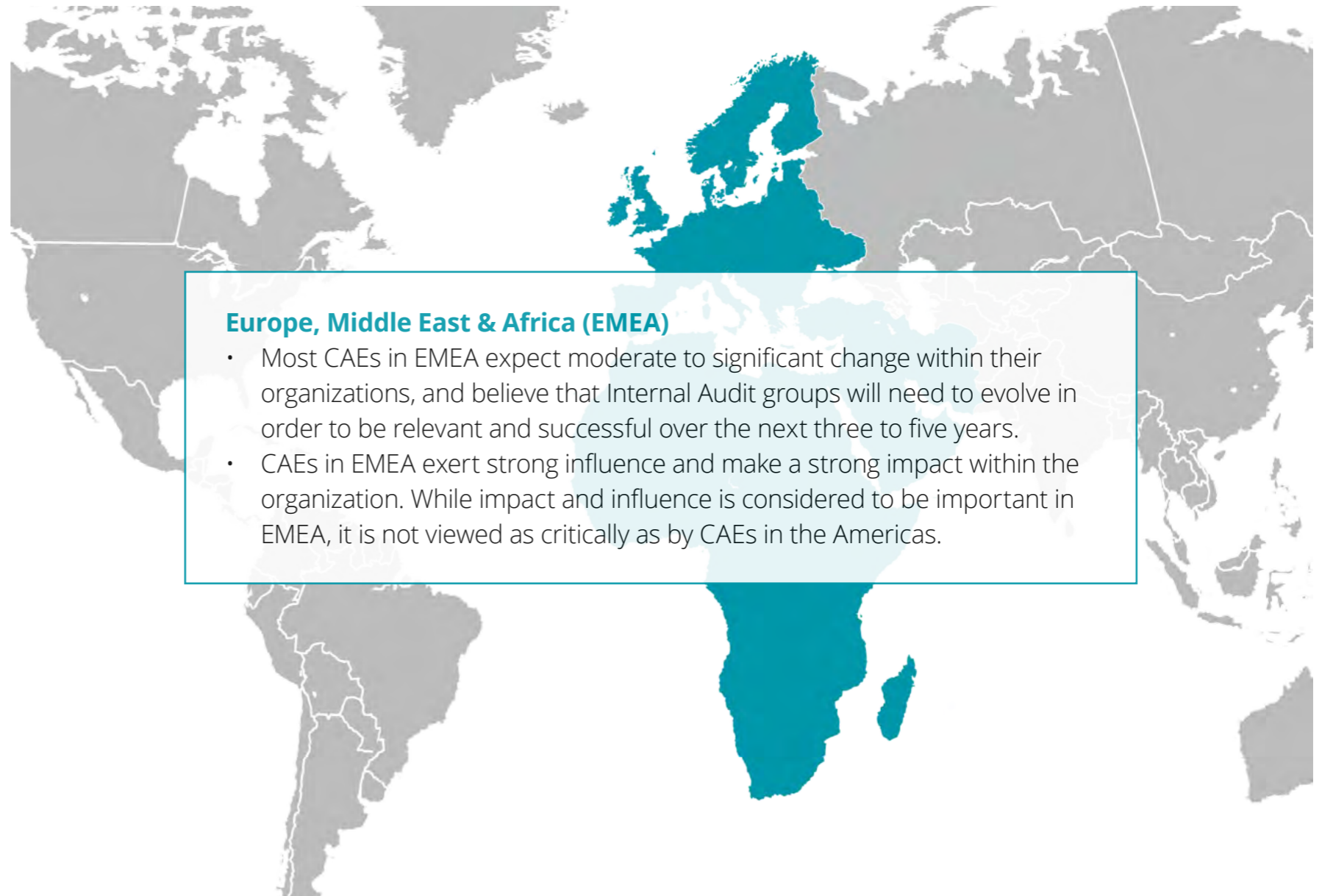


### Americas

- Internal Audit budgets are largely expected to remain stable, with some expectation for increases over the next three to five years.

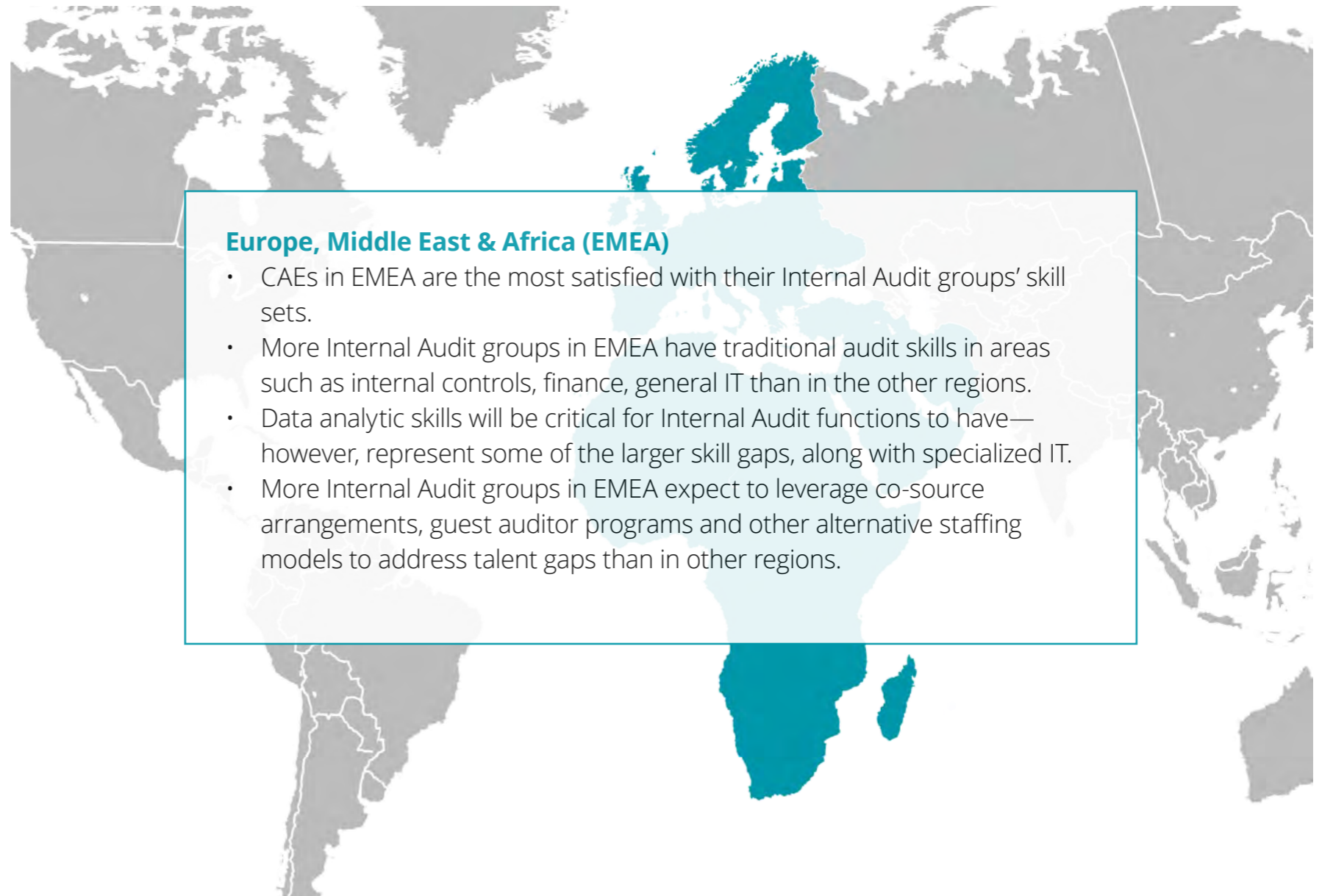


## Change and influence





## Skills and resourcing

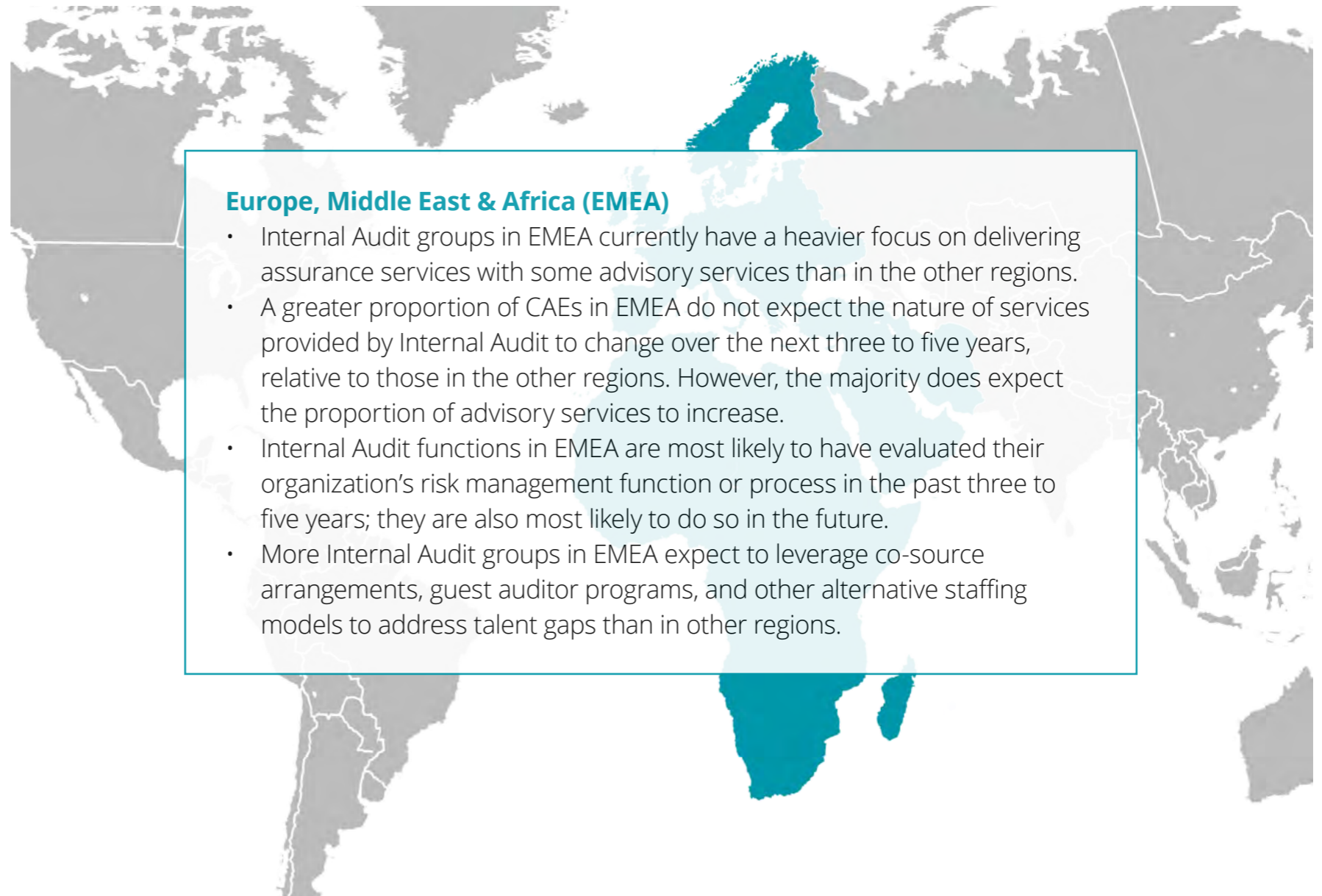


### Europe, Middle East & Africa (EMEA)

- CAEs in EMEA are the most satisfied with their Internal Audit groups' skill sets.
- More Internal Audit groups in EMEA have traditional audit skills in areas such as internal controls, finance, general IT than in the other regions.
- Data analytic skills will be critical for Internal Audit functions to have— however, represent some of the larger skill gaps, along with specialized IT.
- More Internal Audit groups in EMEA expect to leverage co-source arrangements, guest auditor programs and other alternative staffing models to address talent gaps than in other regions.



## Scope of services

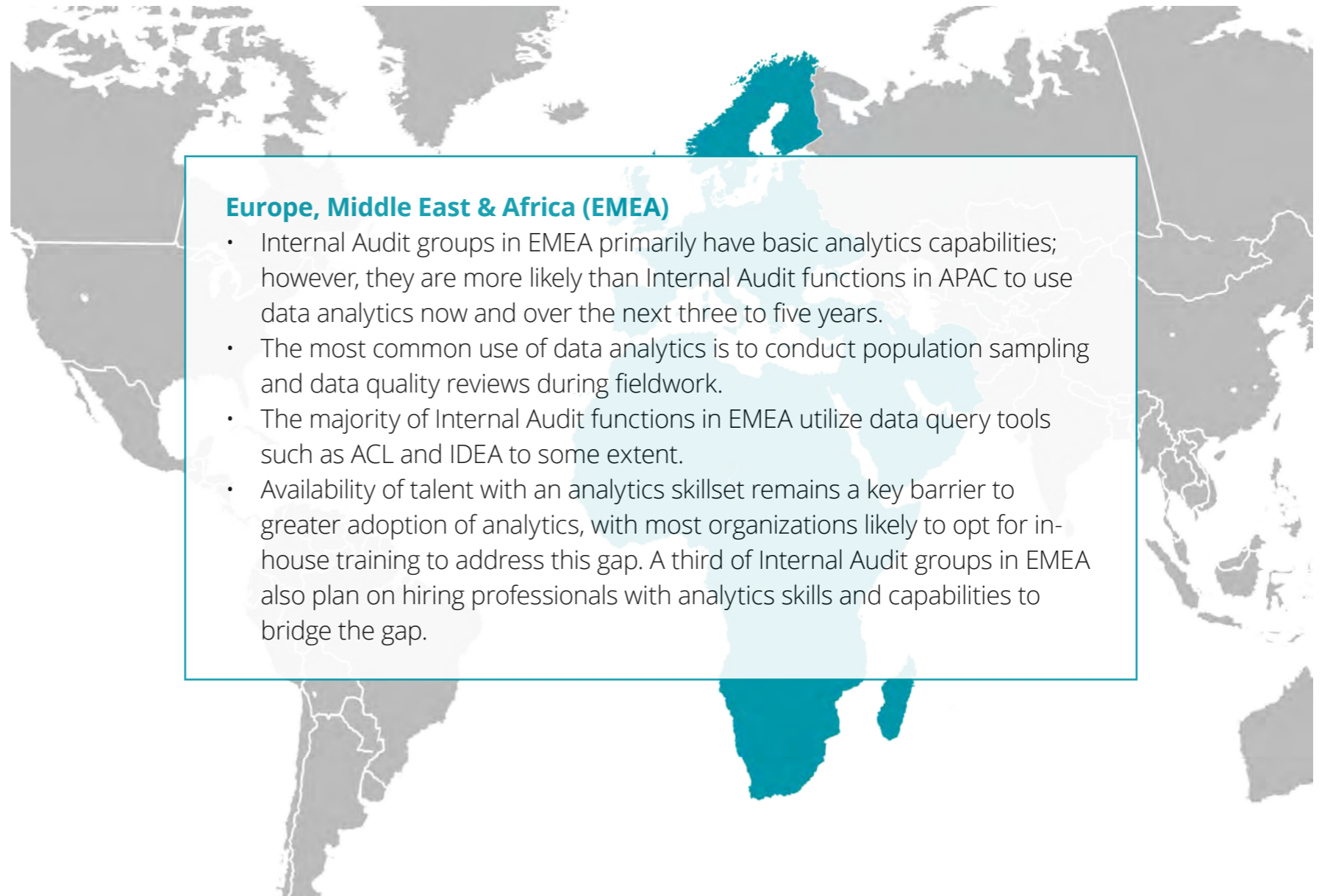


### Europe, Middle East & Africa (EMEA)

- Internal Audit groups in EMEA currently have a heavier focus on delivering assurance services with some advisory services than in the other regions.
- A greater proportion of CAEs in EMEA do not expect the nature of services provided by Internal Audit to change over the next three to five years, relative to those in the other regions. However, the majority does expect the proportion of advisory services to increase.
- Internal Audit functions in EMEA are most likely to have evaluated their organization's risk management function or process in the past three to five years; they are also most likely to do so in the future.
- More Internal Audit groups in EMEA expect to leverage co-source arrangements, guest auditor programs, and other alternative staffing models to address talent gaps than in other regions.



## Data analytics

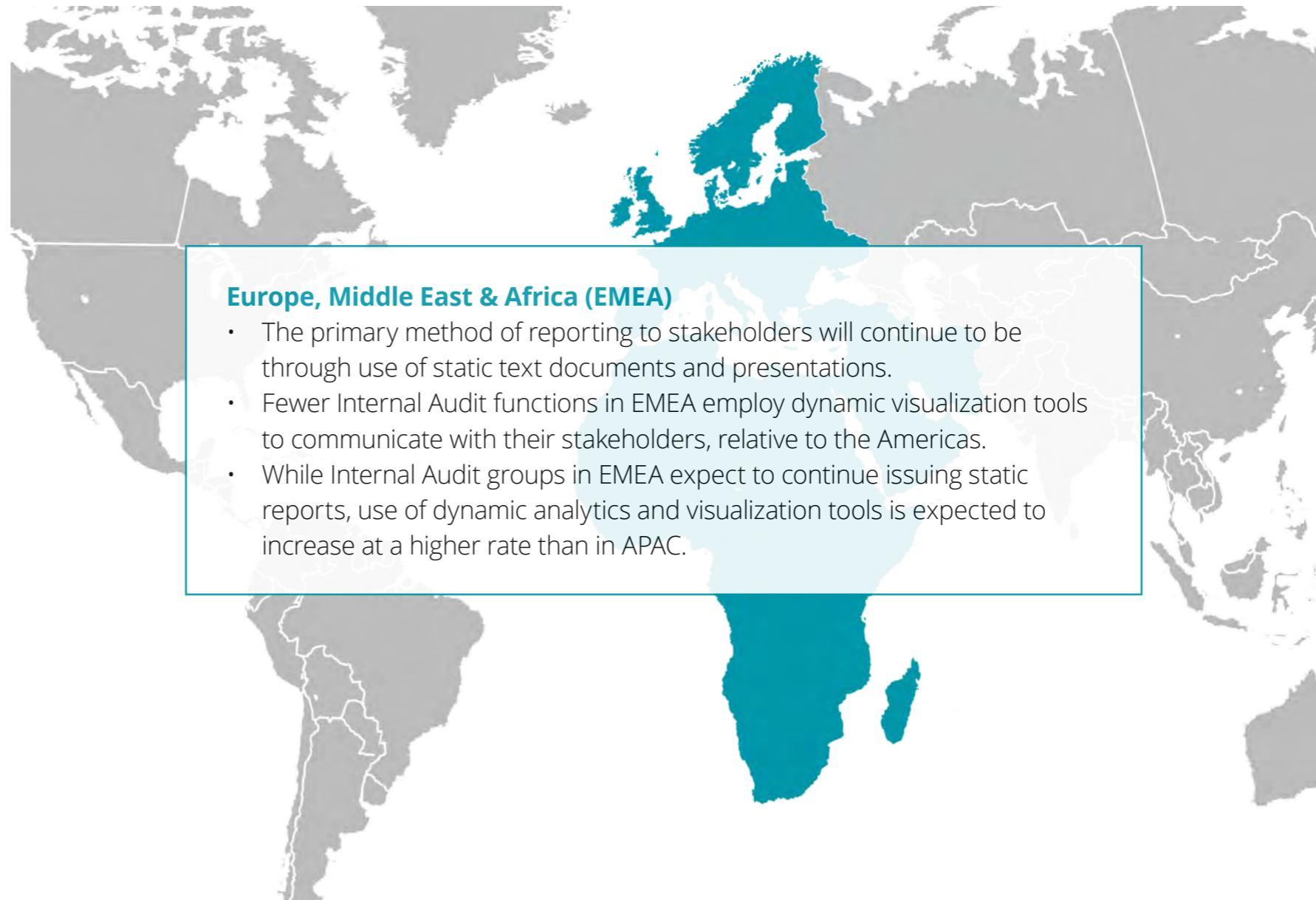


### Europe, Middle East & Africa (EMEA)

- Internal Audit groups in EMEA primarily have basic analytics capabilities; however, they are more likely than Internal Audit functions in APAC to use data analytics now and over the next three to five years.
- The most common use of data analytics is to conduct population sampling and data quality reviews during fieldwork.
- The majority of Internal Audit functions in EMEA utilize data query tools such as ACL and IDEA to some extent.
- Availability of talent with an analytics skillset remains a key barrier to greater adoption of analytics, with most organizations likely to opt for in-house training to address this gap. A third of Internal Audit groups in EMEA also plan on hiring professionals with analytics skills and capabilities to bridge the gap.

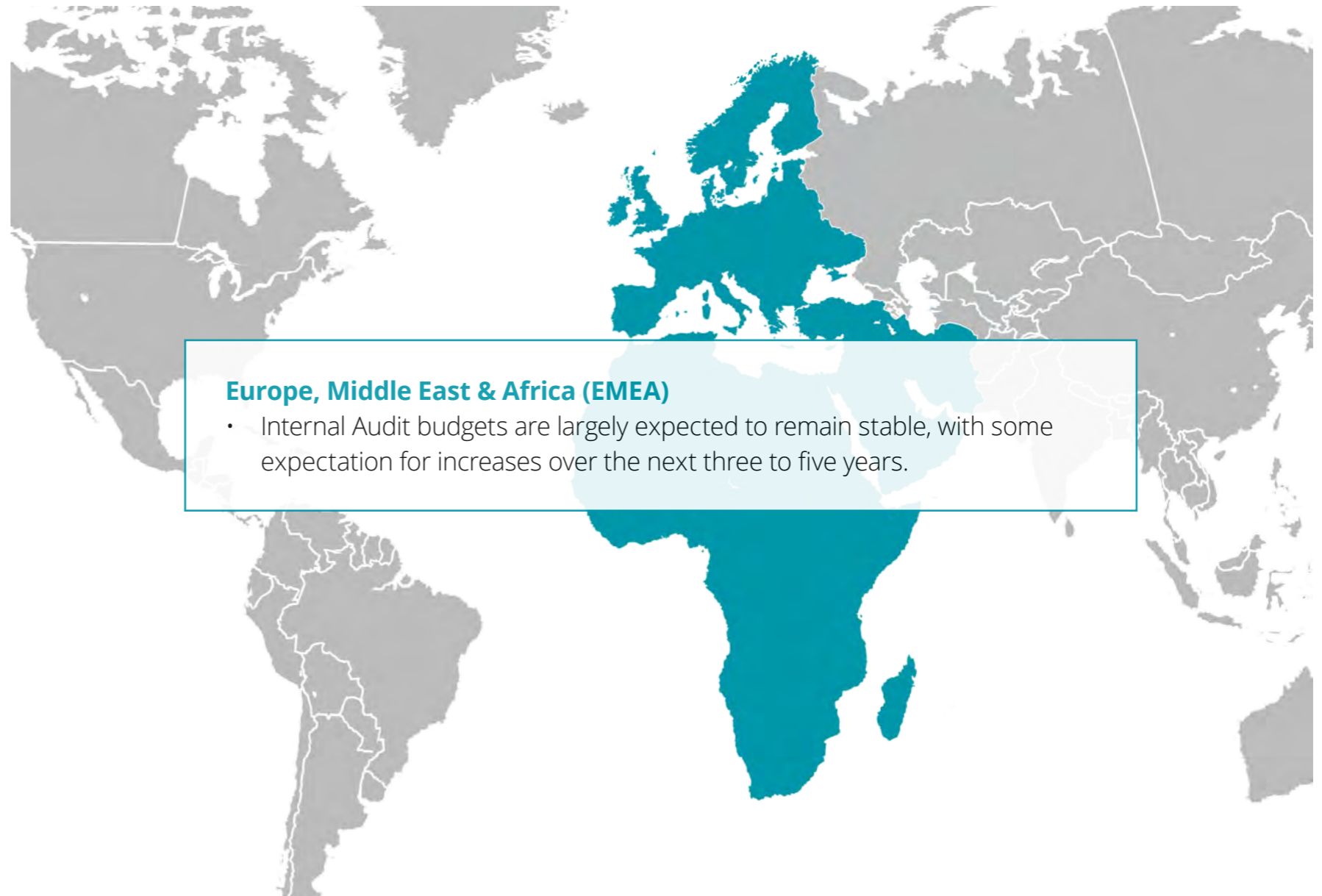


## Communication





## Budget

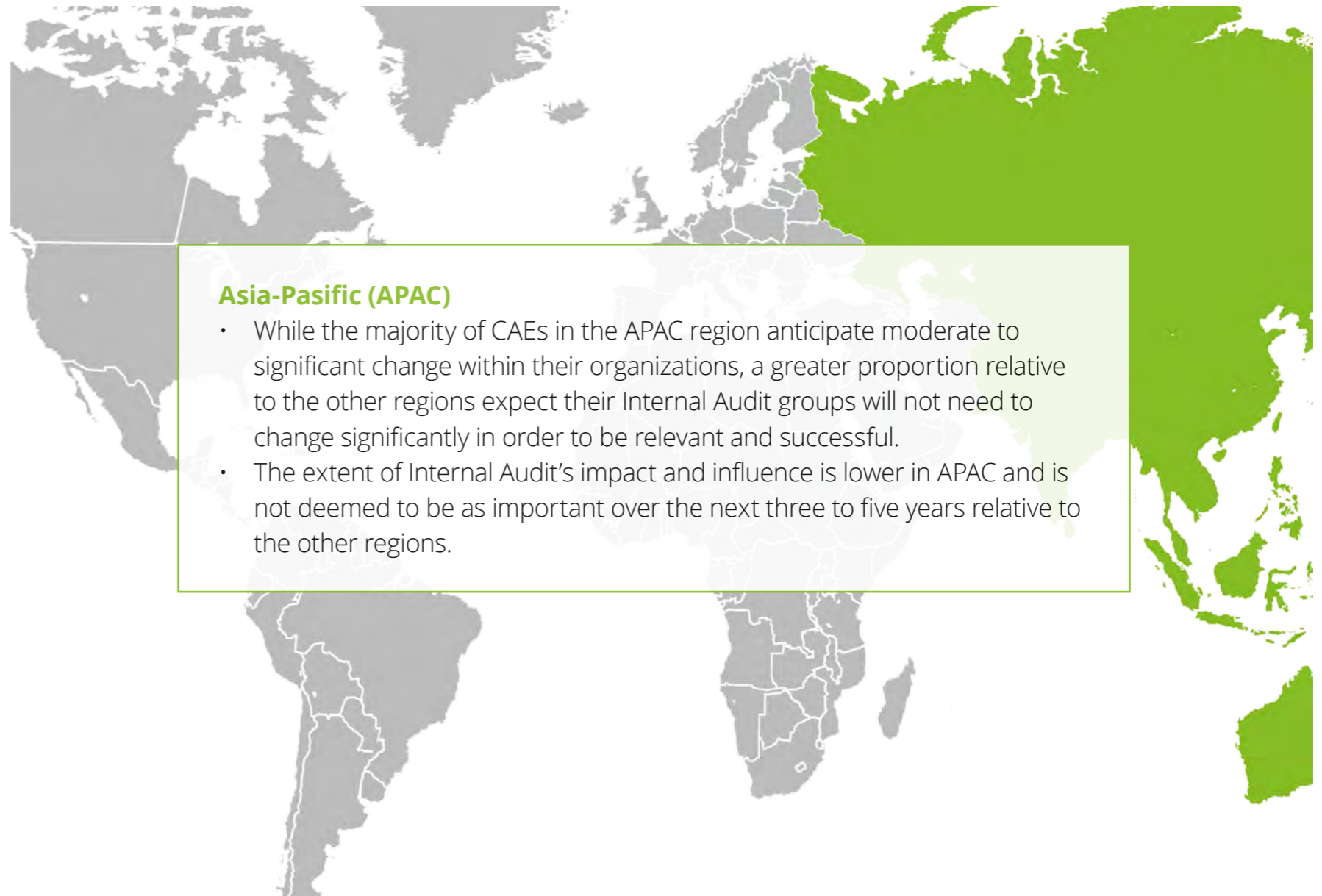


### Europe, Middle East & Africa (EMEA)

- Internal Audit budgets are largely expected to remain stable, with some expectation for increases over the next three to five years.



## Change and influence







## Skills and resourcing



### Asia-Pacific (APAC)

- CAEs in APAC are the least satisfied with their Internal Audit groups' skill sets.
- Internal Audit groups in APAC have strong regulatory skills, in addition to traditional audit skills. General IT skills are not as strong in APAC as in the other regions—a potential concern given the levels of IT-related risks in business today.
- APAC also has relatively lower model risk, general advisory, change management, and industry-specific skills, the latter being quite low relative to other regions.
- While data analytics and specialized IT are becoming more critical skills for Internal Audit functions to possess in APAC, they represent areas where the skillset will need to be enhanced.
- While guest auditor programs and co-sourcing arrangements are expected to be used in APAC to address its resourcing needs over the next three to five years, a higher proportion of CAEs relative to the other regions do not expect to leverage any alternative staffing models.



## Scope of services



### Asia-Pacific (APAC)

- The majority of Internal Audit groups in APAC provide primarily assurance services with some advisory services. A greater shift towards providing more advisory services is expected in APAC than in the other regions.
- More CAEs in APAC anticipate that innovation in visualization and cognitive technologies will impact Internal Audit over the next three to five years, relative to those in the other regions.
- Relatively fewer Internal Audit functions in APAC expect to evaluate the organization's strategic planning or risk management functions / processes over the coming three to five years.



## Data analytics



### Asia-Pacific (APAC)

- Internal Audit's data analytics capabilities in APAC significantly lag those in the Americas and EMEA and are used less frequently—a trend likely to continue over the next three to five years.
- The majority of APAC Internal Audit groups do not use analytics tools regularly; when they do, their most common application is in conducting population sampling and data quality reviews during fieldwork.
- The talent gap remains a key barrier to adoption of analytics in APAC, with most organizations planning on delivering training to existing in-house staff to address this gaps.



## Communication



### Asia-Pacific (APAC)

- The primary method of reporting to stakeholders continues to be through static text documents and presentations, with an emphasis on the former.
- Fewer Internal Audit functions in APAC employ dynamic analytics or visualization tools to communicate with their stakeholders, relative to the other regions.
- While Internal Audit groups in APAC expect to continue issuing static reports, use of dynamic analytics and visualization tools is expected to increase.



## Budget



### Asia-Pacific (APAC)

- Although CAEs' outlook on their Internal Audit budgets are more pessimistic in APAC (with a slightly higher proportion anticipating decreases, relative to the other regions), budgets are largely expected to remain stable over the next three to five years, with some expectation for increases.



## Change and influence

**Consumer Business (CB)**

**Energy and Resources (E&R)**

**Financial Services (FS)**

**Life Sciences & Health Care (LS&HC)**

**Manufacturing**

**Public Sector (PS)**

**Real Estate (RE)**

**Technology, Media, and Telecommunications (TMT)**

Industry & regional insights



## Skills and resourcing

**Consumer Business (CB)**

**Energy and Resources (E&R)**

**Financial Services (FS)**

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## Scope of services

**Consumer Business (CB)**

**Energy and Resources (E&R)**

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Industry & regional insights





## Data analytics

**Consumer Business (CB)**

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## Communication

**Consumer Business (CB)**

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Industry & regional insights

# Industry insights



## Budget

**Consumer Business (CB)**

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Industry & regional insights



## Change and influence



### **Consumer Business (CB)**

- Most CAEs in CB expect moderate to significant change within their organizations, and believe their Internal Audit groups will need to evolve in order to be relevant and successful over the next three to five years
- CAEs in CB exert partial influence and make some impact within the organization, and, while believing that having strong impact and influence will be important over the next three to five years, they do not place as high an importance on it as those in other industries.



## Skills and resourcing



### Consumer Business (CB)

- Similar to those in other industries, Internal Audit groups in CB primarily hold traditional audit skills in areas such as internal controls, finance, operations, and general IT. They also hold skills in fraud prevention / detection.
- Key skill gaps are expected in the domains of specialized IT, data analytics, and innovation.
- CB Internal Audit groups plan on bridging the anticipated skill gap through continued use of co-sourcing relationships and external resources, and increased use of guest auditor programs and non-local resources.



## Scope of services



### **Consumer Business (CB)**

- Relative to groups in other industries, Internal Audit groups in CB allocate a greater proportion of their annual internal audit plans to assurance services.
- More of these groups expect to increase the proportion of assurance services provided than in any other industry.
- The majority of CB Internal Audit functions expect to evaluate their organization's risk management function / process over the next three to five years.

Industry & regional insights



## Data analytics



### Consumer Business (CB)

- More CB Internal Audit groups utilize data visualization tools than in any other industry.
- These groups expect to significantly increase the frequency in which they use analytics, with the majority planning on using them on more than half of their internal audits over the next three to five years.
- In addition to availability of skilled talent, CB CAEs cite lack of time and/or headcount as being a key barrier to increased adoption of analytics.
- To address the current gaps in capabilities, many CB Internal Audit groups plan on training existing in-house staff or acquiring licenses or other means to increase the availability of analytics tools.

# Industry insights



## Communication



### Consumer Business (CB)

- Similar to those in other industries, CB Internal Audit groups expect to enhance the way in which they report by improving their use of dynamic and visual communications.

Industry & regional insights







## Change and influence



### **Energy and Resources (E&R)**

- Most CAEs in E&R expect moderate to significant change within their organizations, and believe their Internal Audit groups will need to evolve in order to be relevant and successful over the next three to five years.
- CAEs in E&R exert partial influence and make some impact within the organization, and believe that strengthening these will be important over the next three to five years.



## Skills and resourcing



### Energy and Resources (E&R)

- Similar to those in other industries, Internal Audit groups in E&R primarily hold traditional audit skills in areas such as internal controls, finance, operations, and general IT. They also hold skills in fraud prevention / detection.
- Key skill gaps are expected in the domains of specialized IT, data analytics, and innovation.
- E&R Internal Audit groups plan on bridging the anticipated skill gap through continued use of co-sourcing relationships and increased use of guest auditor programs.



## Scope of services



### **Energy and Resources (E&R)**

- E&R Internal Audit groups primarily provide assurance services with some advisory services.
- Many of these groups expect to increase the proportion of advisory services delivered, relative to assurance services.
- The majority of E&R Internal Audit functions expect to evaluate their organization's strategic planning and risk management functions / processes over the next three to five years.

Industry & regional insights



## Data analytics



### Energy and Resources (E&R)

- E&R Internal Audit groups are considered to have stronger data analytics capabilities than those in other industries.
- More of these groups deploy analytics in all of their audits, and use analytics to perform continuous auditing, than in any other industry. Frequent use is expected to continue.
- In addition to availability of skilled talent, E&R CAEs cite poor data quality as being a key barrier to increased adoption of analytics.
- Many E&R Internal Audit groups plan on training existing in-house staff or leveraging co-source partners to address current gaps in capabilities.



## Communication



### **Energy and Resources (E&R)**

- Similar to those in other industries, E&R Internal Audit groups expect to enhance the way in which they report by improving their use of dynamic and visual communications.
- Relative to those in other industries, Internal Audit groups in E&R will make the biggest shift towards use of dynamic visualization tools for stakeholder communications.

Industry & regional insights

# Industry insights



## Budget



### Energy and Resources (E&R)

- Although the majority of E&R CAEs expect stability, relative to those in other industries, E&R CAEs are most pessimistic about their Internal Audit budgets, with some expecting at least some decrease over the next three to five years.

Industry & regional insights



## Change and influence



### Financial Services (FS)

- Most CAEs in FS expect moderate to significant change within their organizations, and believe their Internal Audit groups will need to evolve in order to be relevant and successful over the next three to five years.
- It is believed that more Audit committees in this industry than in any other will expect moderate to significant change from their Internal Audit functions.
- CAEs in FS exert stronger influence and make a more significant impact within the organization than those in other industries and, relative to those in other industries, place the greatest importance on having strong impact and influence over the next three to five years.





## Skills and resourcing



### Financial Services (FS)

- CAEs in FS are the most satisfied with their Internal Audit groups' skill sets.
- Similar to those in other industries, Internal Audit groups in FS primarily hold traditional audit skills in areas such as internal controls, finance, operations, and general IT. More groups hold regulatory skills than in any other industry.
- Key skill gaps are expected in the domains of specialized IT, data analytics, innovation, and model risk.
- FS Internal Audit groups plan on bridging the anticipated skill gap through continued use of co-sourcing relationships and increased use of guest auditor programs.



## Scope of services



### Financial Services (FS)

- More FS Internal Audit groups provide mostly assurance services, with some advisory services, than in any other industry.
- The majority of these groups expect to increase the proportion of advisory services delivered, relative to assurance services.
- More FS Internal Audit groups have evaluated their organizations' strategic planning or risk management functions / processes within the past three years than in any other industry. This trend is expected to continue over the next three to five years, with these evaluations planned by many.

Industry & regional insights



## Data analytics



### Financial Services (FS)

- More FS Internal Audit groups are considered to have advanced data analytics capabilities than in any other industry; four in ten have at least intermediate analytics capabilities.
- More of these groups than in any other industry utilize advanced analytics tools, and these groups use their capabilities to perform analytics during fieldwork more frequently than those in other industries.
- In addition to availability of skilled talent, FS CAEs cite poor data quality as being a key barrier to increased adoption of analytics.
- To address the current gaps in capabilities, many FS Internal Audit groups plan on training existing in-house staff or hiring skilled professionals.



## Communication



### **Financial Services (FS)**

- While increased use of dynamic analytics and visualization tools is expected, FS Internal Audit groups do not expect to modify the way in which they report as significantly as those in other industries.



## Budget



### Financial Services (FS)

- Relative to those in other industries, FS CAEs are most optimistic about their Internal Audit budgets, expecting some or significant increase over the next three to five years.

Industry & regional insights



## Change and influence



### **Life Sciences & Health Care (LS&HC)**

- More CAEs in this industry than in any other expect their organizations to change either moderately or significantly over the next three to five years.
- CAEs in LS&HC exert partial influence and make some impact within the organization, and, while believing that having strong impact and influence will be important over the next three to five years, they do not place as high an importance on it as those in other industries.



## Skills and resourcing



### **Life Sciences & Health Care (LS&HC)**

- Similar to those in other industries, Internal Audit groups in LS&HC primarily hold traditional audit skills in areas such as internal controls, finance, operations, and general IT. They also hold skills in fraud prevention / detection and general advisory skills.
- Key skill gaps are expected in the domains of specialized IT and data analytics.
- LS&HC Internal Audit groups plan on bridging the anticipated skill gap through continued use of co-sourcing relationships and increased use of non-local resources and guest auditor programs.



## Scope of services



### **Life Sciences & Health Care (LS&HC)**

- Relative to groups in other industries, Internal Audit groups in LS&HC allocate a greater proportion of their annual internal audit plans to advisory services.
- The majority of LS&HC Internal Audit functions expect to evaluate their organization's strategic planning and risk management functions / processes over the next three to five years.

Industry & regional insights





## Data analytics



### Life Sciences & Health Care (LS&HC)

- Internal Audit's data analytics capabilities in LS&HC lag those of groups in other industries.
- LS&HC Internal Audit groups perform analytics as part of audit scoping more frequently than those in other industries.
- In addition to training existing in-house staff, many LS&HC Internal Audit groups plan on leveraging co-source partners to address gaps in analytics capabilities.
- Many LS&HC CAEs cite the manual nature of data extraction, processing and/or analysis, and poor data quality, as being key barriers to increased adoption of analytics.
- Many LS&HC Internal Audit groups plan on training existing in-house staff or leveraging co-source partners to address the current gaps in capabilities.



## Communication



### **Life Sciences & Health Care (LS&HC)**

- Internal Audit reporting is not expected to change as much in LS&HC as in other industries. Some of these groups even expect to increase their use of traditional static presentation reports.
- Some groups expect to increase their use of dynamic analytics and visualization tools.

Industry & regional insights



## Budget



### **Life Sciences & Health Care (LS&HC)**

- Budgets are expected to remain stable for LS&HC Internal Audit groups over the next three to five years.

Industry & regional insights

# Industry insights



## Change and influence



### Manufacturing

- Fewer CAEs in this industry than in any other expect their organizations and Internal Audit functions to change over the next three to five years.
- It is believed that fewer Audit committees in Manufacturing than in any other industries will expect moderate or significant change from their Internal Audit functions
- The extent of Internal Audit's impact and influence is lower in Manufacturing than in any other industry and, while considered to be important over the next three to five years, it is not deemed to be as critical as for other industries.

Industry & regional insights



## Skills and resourcing



### Manufacturing

- CAEs in Manufacturing are the least satisfied with their Internal Audit groups' skill sets.
- Similar to those in other industries, Internal Audit groups in Manufacturing primarily hold traditional audit skills in areas such as internal controls, finance, operations, and general IT. They also hold skills in fraud prevention / detection.
- Key skill gaps are expected in the domains of specialized IT, data analytics, fraud prevention / detection, innovation, and model risk.
- Although many Manufacturing Internal Audit groups do not plan on using any alternative staffing models to bridge the anticipated skill gap, those that do intend to use alternative models will use guest auditor programs.



## Scope of services



### **Manufacturing**

- Relative to groups in other industries, more Internal Audit groups in Manufacturing provide only assurance services.
- The majority of Manufacturing Internal Audit functions expect to evaluate their organization's risk management function / process over the next three to five years.

Industry & regional insights



## Data analytics



### Manufacturing

- Most Manufacturing Internal Audit groups have basic or no analytics capabilities.
- Those that do have such capabilities use analytics to develop reporting more frequently than those in other industries.
- In addition to availability of skilled talent, Manufacturing CAEs cite lack of time and/or head-count as being a key barrier to increased adoption of analytics.
- In addition to training existing in-house staff, many Manufacturing Internal Audit groups plan on acquiring licenses or using other means of increasing the availability of analytics tools, to address the current gaps in capabilities.



## Communication



### Manufacturing

- While increased use of dynamic analytics and visualization tools is expected, Manufacturing Internal Audit groups do not expect to modify the way in which they report as significantly as those in other industries.



# Industry insights



## Budget



### Manufacturing

- Budgets are expected to remain stable for Manufacturing Internal Audit groups over the next three to five years.

Industry & regional insights

# Industry insights



## Change and influence



### Public Sector (PS)

- Most CAEs in PS expect moderate to significant change within their organizations, and believe the Internal Audit groups will need to evolve in order to be relevant and successful over the next three to five years.
- CAEs in PS exert partial influence and make some impact within the organization, and believe that strengthening these will be important over the next three to five years.

Industry & regional insights

# Industry insights



## Skills and resourcing



### Public Sector (PS)

- While Internal Audit groups in PS hold traditional audit skills in areas such as internal controls, finance, and operations, general IT skills are not as frequently held as in other industries. These groups more frequently have general advisory skills than any other industry, and many hold regulatory skills.
- Key skill gaps are expected in the domains of specialized IT, data analytics, innovation, model risk, and change management.
- PS Internal Audit groups plan on bridging the anticipated skill gap through continued use of external resources, and increased use of non-local resources.

Industry & regional insights



## Scope of services



### Public Sector (PS)

- PS Internal Audit groups primarily provide assurance services with some advisory services.
- More of these groups expect to increase the proportion of advisory services provided than in any other industry.
- The majority of PS Internal Audit functions expect to evaluate their organization's strategic planning and risk management functions / processes over the next three to five years.



## Data analytics

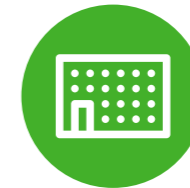


### Public Sector (PS)

- PS Internal Audit groups use analytics more frequently than those in other industries. Usage is expected to increase further, with the majority planning on using analytics on at least half of their internal audits over the next three to five years.
- In addition to availability of skilled talent, PS CAEs cite poor data quality as being a key barrier to increased adoption of analytics.
- Many PS Internal Audit groups plan on training existing in-house staff or leveraging co-source partners to address the current gaps in capabilities.



## Communication



### Public Sector (PS)

- Similar to those in other industries, PS Internal Audit groups expect to enhance the way in which they report by improving their use of dynamic and visual communications.
- Relative to those in other industries, Internal Audit groups in PS will make the biggest shift away from static word processing reports toward use of dynamic analytics tools for stakeholder communications.

# Industry insights



## Budget



### Public Sector (PS)

- Budgets are expected to remain stable for PS Internal Audit groups over the next three to five years.

Industry & regional insights



## Change and influence



### Real Estate (RE)

- Most CAEs in RE expect moderate to significant change within their organizations, and believe the Internal Audit groups will need to evolve in order to be relevant and successful over the next three to five years.
- It is believed that fewer Audit committees in RE and Manufacturing than in any other industries will expect moderate or significant change from their Internal Audit functions.
- CAEs in RE exert partial influence and make some impact within the organization, and believe that strengthening these will be important over the next three to five years.





## Skills and resourcing



### Real Estate (RE)

- While Internal Audit groups in RE hold traditional audit skills in areas such as internal controls, finance, and operations, general IT skills are not as frequently held as in other industries. Many of these groups have general advisory skills.
- Key skill gaps are expected in the domains of data analytics, fraud prevention / detection, specialized IT, innovation, and internal controls.
- While many RE Internal Audit functions do not currently use alternate staffing models, many plan on leveraging the organization's formal rotation program or increasing their use of non-local resources and guest auditor programs to bridge the anticipated skill gap.



## Scope of services



### Real Estate (RE)

- Relative to groups in other industries, more Internal Audit groups in RE provide only advisory services.
- The majority of these groups expect to increase the proportion of advisory services delivered, relative to assurance services.
- The majority of RE Internal Audit functions expect to evaluate their organization's strategic planning and risk management functions / processes over the next three to five years.

Industry & regional insights

# Industry insights



## Data analytics



### Real Estate (RE)

- A quarter of RE Internal Audit groups have no analytics capabilities and do not use analytics at all. Those that do have these capabilities use them during fieldwork, as part of audit scoping, to develop reporting and to perform continuous auditing.
- Over the next three to five years, the majority of these groups intend to use analytics on at least half of their audits.
- In addition to availability of skilled talent, a key barrier to increased adoption of analytics by these groups is the manual nature of data extraction, processing, and/or analysis.
- Many RE Internal Audit groups plan on training existing in-house staff and acquiring licenses or using other means of increasing the availability of analytics tools, to address the current gaps in capabilities.

Industry & regional insights



## Communication



### Real Estate (RE)

- Similar to those in other industries, RE Internal Audit groups expect to enhance the way in which they report by improving their use of dynamic and visual communications.
- Relative to those in other industries, Internal Audit groups in RE will make the biggest shift towards use of dynamic analytics tools for stakeholder communications.





## Change and influence



### **Technology, Media and Telecommunications (TMT)**

- The majority of CAEs in TMT expect significant change within their organizations over the next three to five years. TMT is expected to undergo the most significant change of all industries.
- CAEs in TMT exert partial influence and make some impact within the organization, and, while believing that having strong impact and influence will be important over the next three to five years, they do not place as high an importance on it as those in other industries.



## Skills and resourcing



### **Technology, Media and Telecommunications (TMT)**

- Similar to those in other industries, Internal Audit groups in TMT primarily hold traditional audit skills in areas such as internal controls, finance, operations, and general IT. They also hold skills in fraud prevention / detection.
- Key skill gaps are expected in the domains of data analytics and specialized IT.
- TMT Internal Audit groups plan on bridging the anticipated skill gap through continued use of co-sourcing relationships, and increased use of guest auditor programs.







## Data analytics



### **Technology, Media and Telecommunications (TMT)**

- While many TMT Internal Audit groups do not use analytics, those that do use them to perform continuous auditing more frequently than those in other industries.
- These groups intend to increase the proportion of audits where analytics are used, with the majority intending to use them on at least half of their internal audits over the next three to five years.
- In addition to availability of skilled talent, TMT CAEs cite lack of time and/or headcount as being a key barrier to increased adoption of analytics.
- Many TMT Internal Audit groups plan on training existing in-house staff and acquiring licenses or using other means of increasing the availability of analytics tools, to address the current gaps in capabilities.







# Appendix | Regional Internal Audit contacts



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