next-gen internal audit ARE YOU READY?



Internal Auditing Around the World®



Next-Generation Internal Audit: Catch the Wave



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Experiment. Learn. Repeat.

A critical mass of factors has led internal audit functions to a watershed moment: They must disrupt or be disrupted. At Protiviti, we refer to the innovation and transformation internal audit functions must pursue as *next-generation internal audit.*¹ These efforts — already underway in a growing number of companies — vary. But they share an agile, holistic approach centering on new directions for governance, methodology and technology that deliver efficiency improvements, stronger assurance and more valuable business insights.

For compelling reasons, chief audit executives (CAEs) are urging their teams to embrace an entrepreneurial spirit. Boards of directors and audit committees are raising their expectations regarding internal audit's role. Directors no longer view internal audit as a place where a simple command of controls is sufficient. They and management want internal audit to address corporate culture, sustainability strategies, and other, still-unfolding and less tangible sources of organizational value.

¹ The Next Generation of Internal Auditing – Are You Ready? Catch the Innovation Wave, November 2018, Protiviti: www.protiviti.com/ auditnextgen.

Internal audit's expanding role also demands keeping pace with business partners that are implementing transformation at breakneck speed. They are overhauling traditional business models and processes to enhance the customer experience, digitizing more offerings, and fortifying data-driven decision-making to boost operational performance. The magnitude of these changes explains why half of the top 10 risks board members and executives currently identify relate to digital transformation. These leaders are concerned about their workforce's ability to transform quickly and in a risk-savvy manner, and whether their organization can compete effectively with nimble, born-digital firms.²

Other factors are demanding that internal audit develop next-generation capabilities. From a risk perspective, more audit leaders are suffering from bouts of FOMO ("fear of missing out"), as they see their counterparts in other companies advancing next-generation auditing models. This anxiety stems from the harsh reality that audit committees may turn to other functions in the company to generate more relevant and real-time insights if internal audit does not find ways to provide them. Internal audit functions that fail to modernize and innovate also risk being unable to attract the digital-era talent they need to thrive.

Overall, though, we see these developments as positive for the profession. The swift advancement of technology tools, combined with the emergence of new auditing methodologies, makes it an extremely exciting time to be an internal auditor. Our profession has never had a better opportunity to elevate its value proposition to new heights. That is evident within internal audit functions that are implementing process mining, robotic process automation and agile auditing pilots; reaping the benefits of 10x efficiency and efficacy improvements; learning from these experiments; determining how to deploy these tools and methodologies more broadly; and more.

But as powerful as innovative auditing tools and methodologies are, their value is far surpassed by the change in mindset that internal audit leaders are working to instill in their teams. They understand that new ways of thinking are necessary for the function to seize this rare opportunity to collect, comprehend and convey insights that will help the business operate optimally and with a clear view of risk — and catch the innovation wave today and ride it into the future with confidence.

² Executive Perspectives on Top Risks for 2019 – Key Issues Being Discussed in the Boardroom and C-Suite, the annual global survey of board members and executives conducted by North Carolina State University's ERM Initiative and Protiviti: www.protiviti.com/toprisks.

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Introduction

Jon Kabat-Zinn

Ph.D., Scientist, Writer, Author and Meditation Teacher

You can't stop the waves, but you can learn to surf.

The digital era continues to bring wave after wave of disruptive change. Even companies that embrace the change can feel like they're caught in powerful currents, unable to control their vessel properly or orient themselves in the right direction. They are under pressure not only to adapt to change, but also to invite it through transformation and drive it through innovation.

For companies that are working to become next-generation businesses, the churn of change must run deep inside their organization and into their key functions and must be more than just a digital or transformation veneer. This includes internal audit. Meeting the expectation to transform, innovate and become more future-focused is not easy for a function that has long been tasked with looking backward, confirming that controls are in place and working and, if they're not, assessing why and outlining a plan for remediation. But our recent paper on the next-generation internal audit function makes a compelling case for the need to look forward.¹

This means *rethinking* how internal audit teams perform their work. How can they adopt more agile practices and engage the business earlier in the audit process? How can they become more data- and technology-enabled to deliver on their objective to provide effective risk

¹ The Next Generation of Internal Auditing – Are You Ready? Catch the Innovation Wave, November 2018, Protiviti: www.protiviti.com/ auditnextgen.

management more efficiently, and even predictively, to the greatest extent possible? How can they shift from being a risk- and change-averse function to becoming a center for innovation in the company, helping the business itself to transform? Answering those questions requires balancing new internal audit models with the right technology, resources and methodologies, as well as governance and infrastructure, to create value.²

It also requires a new mindset — as well as cultural change within the function. Through our interviews with internal audit executives for this year's publication, we learned that there is a sense of urgency in many organizations not only to become a next-generation internal audit function, but also to set an example for the profession.

A Long-Unfolding but Accelerating Evolution for Internal Audit

All of the change that's reshaping the internal audit function today may seem new, but in many respects, it's been unfolding for some time. Looking back on our past 15 years of publishing *Internal Auditing Around the World®*, we can see that internal audit functions, on the whole, have been steadily reinventing their role in the business, becoming more of a strategic partner while also maintaining their independence and objectivity.

When we celebrated our 10th edition of *Internal Auditing Around the World*[®], we offered a prediction about the "future auditor," anticipating that these professionals would engage in even greater levels of collaboration in the business, wield more powerful technology, and assume an even sharper risk focus, while also taking on a greater leadership role. All of those things are true for the profession today. And now, we see progressive functions led by future-minded leaders proactively disrupting how they think and work, rather than waiting to be disrupted.

As C-level executives and internal audit professionals read our profiles of leading internal audit groups worldwide, we hope they will be inspired by the work of their peers. For those struggling to bring change to their functions, may they take comfort in knowing that becoming a next-generation internal audit function can be a slow and often frustrating process, even for the most progressive and resource-rich organizations. For all internal audit leaders and their teams, learning how to catch and ride the wave of change requires hard and sometimes painful work, as well as a willingness to believe that what might at first seem impossible can be achieved with focus and persistence.

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Acknowledgements

We would like to thank the organizations and internal audit leaders who contributed to Volume XV of *Internal Auditing Around the World*[®]. We appreciate learning their stories of struggle and success as they help their organizations evolve into next-generation internal audit functions.

We would also like to acknowledge The Institute of Internal Auditors (The IIA) for its commitment to advancing the internal audit profession.

² Ibid.

Accenture PLC

Assessing Internal Audit's Competencies of the Future Today

Kathy Perrott

Managing Director, Internal Audit Services The bots can do the testing work in two to three minutes and be done with it. The savings in terms of time and effort are incredible once you get it set up properly, and we think there are many other opportunities to apply RPA. Accenture takes an innovation-led approach to helping clients "imagine and invent" their future. The global professional services company's 477,000 employees' intense focus on inventing, developing and delivering disruptive innovations in recent years has paid off. Today, more than 60% of the company's revenues, which have increased steadily in each of the past several years, come from its digital, cloud and information security offerings.

Accenture's end-to-end business architecture is aligned around distinct and highly focused businesses — Accenture Strategy, Accenture Consulting, Accenture Digital, Accenture Technology and Accenture Operations — through which it delivers services and solutions to clients in more than 40 industries, through 13 industry groups. The company's clients include 92 of the *Fortune* Global 100[®] and more than threequarters of the *Fortune* Global 500[®].

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Accenture takes an innovation-led approach to helping clients "imagine and invent" their future.

"Innovation is the name of the game for our client-facing business, as well as almost every other function within Accenture," says Managing Director, Internal Audit Services, Kathy Perrott. "The entire company is committed to exploring new ways of doing things by leveraging new technologies and challenging ourselves to think and act creatively."

Drivers of Audit Innovation

That mindset pervades the internal audit function, which represents a relatively small team within Accenture, given the company's large workforce and global footprint. While some additions to team size have been made in the past year, including establishing a small team in Japan in response to the significant growth the company has notched in the country, as well as increasing the number of internal auditors on the IT audit team, Perrott and her senior team seek to leverage new technology — including robotic process automation (RPA) and analytics, in particular — to continually streamline the function's work.

Operating efficiently represents a primary objective of the internal audit function's investment in next-generation technology and approaches. "We don't have an unlimited budget," Perrott says. "As Accenture continues to grow, we have to make sure we're getting optimal coverage of the highest risk areas. I also want to operate as a good company citizen, which means contributing to the bottom line by doing everything we can to operate cost-effectively."

The function's commitment to innovation and transformation serves another purpose. "The people we want to attract are those who want to innovate and develop new ways of doing things," Perrott explains. "They're less attracted to old-school auditing approaches. By continuously innovating, we are better positioned to attract the level of talent we want and need on our teams."

Talent management qualifies as one of Perrott's professional passions. "Competency assessment and training are close to my heart," she says, while emphasizing that staffing the internal audit function of the future is a multifaceted challenge — and one that she enjoys unraveling. "It's become clear that if you want internal auditors who can transition to these new capabilities, you can't look for people who have proven skills — because those skill sets are not yet fully formed," Perrott continues. That's why Perrott has focused significant time and effort on competency assessments. The idea, she says, is to identify which characteristics (e.g., being comfortable with ambiguity, creativity, resiliency, a knack for strategic thinking) correlate with the ability to deploy yet-to-emerge technology and approaches, manage rapid change, pivot on a dime, and address related aptitudes likely to become increasingly valuable as digital transformation advances.

"It's tricky, and I can't say that I have all of the answers," Perrott notes. "But it's an area that we're working on so that we can be clear on the competencies we know we'll need and the types of training that will help our auditors develop new skills."

RPA, NLP and Data Lakes

The internal audit function's most recent innovations involve RPA, digitized reporting and an extremely valuable data-access upgrade.

After assessing the organization's development and use of RPA last summer, Perrott's function developed a proof of concept for internal audit's use of RPA to test Sarbanes-Oxleyrelated service organization controls and general controls in Accenture's information technology (IT) and internal controls functions.¹ The team developed three bots that performed the testing of those controls in an automated fashion. Internal auditors chose those areas for the RPA applications because the internal controls there had been subject to highly repetitive manual tests for years and also because those controls had remained highly stable during that time.

"The bots can do the testing work in two to three minutes and be done with it," Perrott reports. "The savings in terms of time and effort are incredible once you get it set up properly, and we think there are many other opportunities to apply RPA. We're now looking at other testing procedures that we perform as well as working with other parts of the business that either do the testing themselves or have a significant role in the process."

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The internal audit function's most recent innovations involve RPA, digitized reporting and an extremely valuable data-access upgrade.

Internal audit is also working with the IT function to identify opportunities for IT to reconfigure or re-engineer certain processes and controls to make them more suitable for RPA-enabled testing. As her team looks for additional RPA opportunities, Perrott says it is important to have a comprehensive understanding of the process steps that bots execute (so that necessary auditing evidence can be retained) and to establish ongoing RPA oversight. "You have to monitor any changes in the underlying application infrastructure that could potentially render the bot obsolete," she asserts. "You can't develop them and then ignore them. You have to monitor and maintain them because the different systems and applications that the bots are accessing often change."

Accenture's internal auditors also developed bots to automate reporting out the department's GRC application. This reporting provides real-time status regarding audit performance metrics, status of open and closed issues, and various trending data. They are also currently working on digitizing reporting out of a CRM tool that is used to schedule hundreds of risk discussions with

¹ "Robotic Process Automation and Internal Audit – Are You Ready?" Protiviti webinar recording available at www.protiviti.com/US-en/ events/robotic-process-automation-and-internal-audit. business leaders and management across the company, as well as other key contacts, and store the notes from those discussions. The function is also exploring how natural language processing (NLP) capabilities can be applied to identify and tag key risks or other important points captured in the discussion notes. Additionally, internal audit is working with the legal group to apply NLP to client and vendor contracts to search for variances from standard contract clauses or required clauses that are missing altogether.

Those advancements are similar to risk dashboards the internal audit function has created by digitizing risk models the function previously developed. Until recently, updating the risk models with current data required a fair amount of manual work - data had to be downloaded, sorted and integrated. "We might have performed that work once a quarter," Perrott says. Now, the automated risk dashboards provide more frequent and near real-time updates. The dashboards also provide a more robust drilldown capability that allows the audit teams to perform more in-depth analyses. The combination of more timely data access, as well as robust drill-down, Perrott continues, has enabled the audit team to "improve the quality of our audit selection, scoping and testing — it's been truly incredible." Yet, she also emphasizes that this powerful new capability is the direct result of her function's persuasive skills and convincing the business - trust that took time to build.

Internal audit previously had plenty of data assets, Perrott explains, but accessing and downloading the data was a time-consuming and cumbersome endeavor that needed to be scheduled and frequently timed-out due to scale and complexity. As internal audit sought to expand its analytic capabilities, the team looked to leverage an enterpriselevel solution. Internal audit, with the CIO's Enterprise Insights group's assistance, designed a self-service solution in which internal audit could leverage the data from the enterprise data lake, curate, perform analytics and deliver results to audit teams while ensuring proper security controls over the data. The solution required a new suite of tools to speed up processing and significantly improve visualization of results. Internal audit submitted a proposal to the company's IT steering committee, which gave the project a green light — a major win considering that hundreds of business case requests are submitted each year to the same committee and only a fraction are approved for funding. The solution has taken about a year to complete, according to Perrott.

"The long and the short of it is that we've upgraded our analytics technology architecture in a major way," Perrott continues. "And that's enabled us to tap into just about everything that Accenture has overall from a data perspective."

These experiences show why Perrott places such a great emphasis on identifying talent who have the desire and wherewithal to take internal audit to the next level and thrive in the future. Perrott points out that leveraging advanced technology requires auditors who possess a blend of technical and interpersonal skills, including the ability to collaborate. "Because we got out of the gate relatively early with both analytics and RPA, our business partners and stakeholders are interested in learning from our experience," she adds. "When they're highly receptive to finding out how we can help them, that helps us as well because we can show them how to more effectively monitor and manage areas that fall under their responsibility, and it allows us to place more reliance on their results."

Anixter International Inc.

Wiring Up Business Transformation

Ed Rogowski

Senior Vice President Internal Audit, Chief Audit Executive If your business is going through transformation, and you don't have a forward-thinking internal audit department, you run the risk of being unable to take full advantage of the opportunities that transformation presents. In 1957, brothers Alan and Bill Anixter saw a business opportunity: buying wire and cable by the mile and selling it by the foot.¹ The two recognized that many end users, like construction firms, wanted to purchase only enough product to suit the needs of their projects — and not invest in enormous reels of wire and cable from manufacturers. So, with a \$10,000 loan from their family, the brothers established a wholesale distribution company that would evolve over the next 60 years into Anixter International Inc., a global *Fortune* 500 business with more than 8,700 employees in over 50 countries.

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Rogowski says that part of the reason the company hired him was to help the business transform and assess its risk landscape.

Today, Glenview, Illinois-based Anixter helps to build, connect, power and protect valuable assets and critical infrastructures² for about 130,000 customers around the world. Its business segments include Network & Security Solutions (NSS), Electrical & Electronic Solutions (EES) and Utility Power Solutions (UPS). Anixter also provides inventory management services, such as procurement, quality assurance testing, advisory engineering services, and e-commerce and electronic data interchange, to many of its customers.

"Anixter offers almost anything related to cabling or electrical applications," says Ed Rogowski, senior vice president, internal audit and chief audit executive at the company. "If you're constructing an office building, for instance, we can provide the products and solutions to set up the electrical service, computer networks, security, A/V, wireless and more. We can serve and support everything from data centers to retail stores to manufacturing environments."

Anixter also serves utilities — and expanded that aspect of its business with the 2015 acquisition of HD Supply's Power Solutions group. "We now manage the inventory for many large utilities in North America," Rogowski explains. "So, as an example, if there's a storm or natural disaster and utility wires are down, we have prepackaged kits ready to go for the linemen. They can just grab what they need and get to work on restoring electricity."

Harmonizing and Rationalizing Control Processes

Anixter has been growing through acquisitions for years, but Rogowski says the business found it challenging to vertically align its companies and their processes and systems. That lack of alignment presented business risk to Anixter. Rogowski says that part of the reason the company hired him was to help the business transform and assess its risk landscape. "They wanted someone in internal audit who could be a partner to the business and provide the right solutions for addressing risks," he says.

When Rogowski joined Anixter about four years ago, he brought with him decades of audit leadership experience that he earned in the pharmaceutical and airline industries and at a global management consulting and professional services firm. "I have a track record of helping to mature organizations," he says. "I implement a business partnering role for internal audit, focusing on business risks versus financial risks. So, for example, we'll look at operational risks, combine that

¹ "Who We Are," Anixter Investor Relations, Anixter website: http://investors.anixter.com/home/default.aspx.

² "About Us," Anixter website: www.anixter.com/en_us/about-us.html.

with an enterprise risk management (ERM) approach, and then identify where we need to apply internal audit resources."

Rogowski emphasizes that internal audit can be a critical partner to any business pursuing a major change initiative like Anixter. "If your business is going through transformation, and you don't have a forward-thinking internal audit department, you run the risk of being unable to take full advantage of the opportunities that transformation presents," he says.

Uncovering — and Resolving — the Underlying Causes for Audit Failures

Rogowski says completing a thorough risk assessment and understanding how and where the business and the board see risk are high priorities for Anixter's internal audit function. So, too, is determining what kinds of audits the team needs to conduct to track the company's progress in addressing key risks.

Building the internal audit team has been another focus for Rogowski. When he first joined Anixter, he inherited an organization that had experienced significant turnover, leaving only a team of two. Now, he has nine internal auditors who focus primarily on operational audits. Anixter outsources its IT audits, IT risk assessments and cybersecurity testing, as well as its Sarbanes-Oxley (SOX) compliance work, to expert resources.

"Outsourcing frees up my team's bandwidth so we can focus on other value-added work," says Rogowski. "It also prevents them from getting pigeonholed. If they're too bogged down with compliance work to be a partner to the business, it undermines their ability to provide value. It also limits their credibility if they're seen as just 'SOX auditors' instead of 'business consultants.'" While building his new department and evaluating existing audit processes, Rogowski says he noticed patterns of audit failures in different parts of Anixter's business. "Talking with the CFO and the audit committee, I noted that our team needed to dig deeper to find the underlying causes for these repeated failures," he says.

One area the internal auditors examined was Anixter's South American operations. "We found they lacked good control processes, and people weren't being trained well enough on the company's expectations for controls," says Rogowski.

So, the internal audit team worked closely with local contacts in each country to identify the right processes to follow. "Then, we had to harmonize and rationalize those processes across the whole entity to come up with a common set of processes and procedures," says Rogowski. "After that, we set up the training. Now, we're at a point where we can go back and resume audits of these locations because they know what the expectations are and how to achieve them."

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Rogowski says the auditors' work in South America is just one example of how the internal audit team is assisting Anixter with its business transformation. "Ultimately, the goal is to fully integrate processes for all organizations across the company into a common set of business practices and policies," he says.

Taking a Seat at the Digital Project Design Table

Internal audit at Anixter is also helping to support the company's efforts to deliver Innovation and Business Transformation, which includes maturing technologically, through implementation of the Oracle Cloud Platform. "We're heavily involved in that journey, not only in identifying what types of controls the business needs, but also in assuming an independent oversight role on the project," Rogowski says. "We're helping to make sure that it's managed and reported on appropriately."

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In the future, Rogowski says he would like to see his team using data analytics to identify trends.

A designated team member from internal audit monitors the overall project plan and attends many of the design meetings to make sure the right topics are discussed, according to Rogowski. "We're really embedded in the process of the whole design function," he says. "And that will continue throughout the entire implementation, which will be completed in 2023."

Rogowski says Anixter is also creating several robotic process automation (RPA) solutions in conjunction with its transition to Oracle Cloud. "The internal audit team is embracing RPA," he says, adding that some auditors are training on RPA so that they can both identify good RPA opportunities in the business, as well as play a role in the implementations.

Once Anixter completes its move to the new platform, the internal auditors can start to experiment more with technology in their department, Rogowski says. "We'll be in a really good position by then because we'll have the right skill sets to do more data analytics and RPA types of activities that can help position us as an agile group," he explains. (The agile work methodology has been embraced at Anixter after it was introduced by the business transformation team, according to Rogowski.)

The internal audit team is now preparing to master the data analytics tools available within Oracle Cloud. "We're building expectations about the type of data we can access and use for reporting," says Rogowski. "A lot of the tools that we're using come out of the box, which is very helpful."

In the future, Rogowski says he would like to see his team using data analytics to identify trends. "We could then transfer ownership of a data analytics program back to the business and say, 'Here's how we can view some of the relationships between the transactions that you process through your organization. And here is a program to help you monitor your performance,'" he says. "If we're doing our job right, we should be able to create many of these opportunities in our audit areas."

Providing a Pipeline of Talent for the Business

When Rogowski hires for his team, he says he tries to recruit "the best athletes" he can find. "I look for people who have not only an internal audit or accounting background, but also a demonstrated ability of partnering with and being a valued consultant to the business," says Rogowski. "I want people who can roll up their sleeves to help the business solve problems, rather than just identify issues and walk away."

Rogowski also looks for professionals who are comfortable working with databases and know how to pull data out of systems. And he seeks internal auditors who can think from a process perspective and contemplate, "What is the most efficient way to audit?"

While Rogowski says finding and retaining that talent can be tough, he isn't always sorry to lose good people. Turnover in internal audit can be a positive thing, he says — provided that the professionals leaving the function stay within the company. "I like to have my auditors go into the business, and for internal audit to be seen as a pipeline of talent for the company," Rogowski says. "It enhances the credibility of the team members, the department's credibility and increases internal control awareness throughout the company."

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One way that Rogowski helps his team to build their business savvy is to share insights that he gains from serving as chairperson of the board at Chicago-based Alliant Credit Union, one of the largest credit unions in the United States. Rogowski has been on Alliant's board of directors for a decade and in the chairperson's seat for five years.

"I think my experience with Alliant helps me to keep my team at Anixter engaged and informed because I understand how the board looks at risk and what they want auditors to focus on," he says. "I can give my team more understanding of the big picture — helping them to see where business strategy meets the internal audit mission."

Brinks Home Security

"Just Start": Advancing and Refining a Next-Generation Audit Approach

Lynne Howison

Senior Director of Internal Audit Our company is changing rapidly and undergoing digital transformation, so internal audit has to obtain information faster than the traditional model allows. Management and the audit committee don't want to know what happened six months ago — they want to know what's happening right now. A widely recognized brand, Brinks Home Security has long been known for its dedication to security and protection. The company has bolstered this brand reputation while also becoming known for rapid and creative innovation. A number of major ongoing changes, including the implementation and refinement of an e-commerce system, have enabled the company to increase its growth rate during the past two years. A few years ago, Brinks Home Security launched a directto-consumer online channel, which now complements sales of its alarm systems and services through dealers that perform the installation, as well as a do-it-yourself offering supported by more streamlined installation assistance.

Based in Dallas, Brinks Home Security is the sole operating subsidiary of Denver-based Ascent Capital Group, Inc. (Nasdaq: ASCMA), a publicly listed company. Most of Brinks Home Security's approximately 1,000 employees work from the Dallas area. The company also operates offices in Kansas and Illinois.

"The customer is our business," notes Brinks Home Security Senior Director of Internal Audit Lynne Howison. "Everything we do centers on acquiring, retaining and satisfying the customer." This aspect of business is thriving: Brinks Home Security was ranked highest in customer satisfaction among home security brands as part of J.D. Power's 2018 Home Security Satisfaction Study. The company's corporate data analytics group plays a pivotal role in tracking, analyzing and sharing information and metrics that help the rest of the business understand customer behaviors. This understanding helps increase customer acquisition and retention rates.

Lean, Mean and Always Moving Forward

Howison leads a two-person internal audit function. After her former direct report was promoted to a more senior role in the company's finance and accounting function, Howison hired a senior auditor with a decade of auditing experience, information technology (IT) auditing expertise, and Certified Information Systems Auditor (CISA) credentials. Through advanced technologies and auditing methodologies, including data analytics, robotic process automation (RPA), continuous auditing and agile auditing techniques, the lean internal audit function can perform more work in less time, though Howison asserts that the primary purpose of these tools is to provide more speed and information.

"Our company is changing rapidly and undergoing digital transformation, so internal audit has to obtain information faster than the traditional model allows," Howison notes. "Management and the audit committee don't want to know what happened six months ago — they want to know what's happening right now." As a result, the internal audit function is intensely focused on keeping pace with the business. Keeping up, Howison says, means identifying risk factors faster and then providing useful feedback to management that strengthens their decision-making process to ensure that they're meeting their strategic objectives. "And, yes," she adds, "we do a lot with a little given our size. We have to be very creative on that count."

Not surprisingly, the internal audit function's strategic objectives include the goal of keeping up with advanced auditing techniques and tools. In addition to his IT auditing expertise, Howison's senior auditor has experience using ACL's auditing analytics software, and he is training to use Tableau's visual analytics software. He and Howison are also refining the governance, risk and compliance (GRC) tool they use for managing the company's Sarbanes-Oxley (SOX) program. The function's goals this year include applying RPA to at least one auditing process, completing work on a continuous auditing capability, advancing the use of agile auditing and increasing the application of data analytics throughout the annual audit.

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The enterprise risk assessment that internal audit conducts each year also serves as an important guidepost one that helps ensure that the function remains focused on the issues that are of the greatest strategic importance.

Howison relies on the following set of decidedly nontechnological guiding principles to help her function succeed in its testing and implementing of advanced auditing techniques and technologies:

 Take "thoughtful leaps of faith": When considering how to apply advanced auditing technology, Howison is less concerned with identifying in advance which audits will be conducted with the new technology or what the outcomes of those experiments will be. Instead, she is more focused on getting started, learning from the experience, applying those lessons and then expanding the use of that technology to more audits. "We're a small team," she says, "so our mindset is, 'Let's just start.' That's the most important part — taking a thoughtful leap of faith."

- 2. Don't reinvent the wheel: As internal audit sought to increase its use of advanced analytics to examine customerand revenue-related risks, Howison decided that "we're not going to reinvent the wheel." Instead, she and her senior auditor tapped into the existing data lake maintained by the company's data analytics group. "I can't hire a team of data analytics experts," she adds, "but I can go downstairs to the head of our data analytics group, find out about the rich data analysis that we already have within the company, learn how management's using it, and figure out how we can leverage that."
- 3. Collaborate: After learning about how agile auditing could produce more timely and relevant audit results, Howison and her senior auditor sat down with a similarly lean internal audit function in another Dallas-based company to discuss agile auditing strategy and practices. "We brought our teams together and whiteboarded out how we could run an agile audit in accordance with auditing standards," Howison says. That collaboration produced a two-page document laying out an agile auditing methodology that Howison's team has been using for the past few years.

The enterprise risk assessment that internal audit conducts each year also serves as an important guidepost — one that helps ensure that the function remains focused on the issues that are of the greatest strategic importance — as Howison and her senior auditor expand their use of next-generation auditing techniques.

Data Tells a Deeper Story

To meet her function's objective of increasing its use of data analytics in audits, Howison learned about existing sales and customer analytics from the company's data analytics group before auditing the sales function. "Before we went out into the field, we met with the director of our data analytics group," she says. "We got as much data analysis and information about the sales process as possible from him. That interview helped us figure out the most meaningful questions to ask about sales and customer data and who to ask."

Equipped with those insights and customer and sales analyses, Howison and her senior auditor visited with sales leaders to discuss what the data revealed concerning key sales measures like customer acquisition and attrition. "When we saw something that might drive attrition, we could drill down into a high level of detail to identify possible root causes," explains Howison. "Those extremely detailed analytics led us down the path to hold much more directed follow-up conversations around internal controls," Howison says. "At the same time, we're always keeping the enterprise risk perspective in mind because issues like sales and attrition are the most important concerns."

The combination of traditional internal audit interviewing and precise supporting data enabled internal audit to share a more concise and convincing story with senior management regarding sales function risks and opportunities. The next steps for internal audit in its use of data analytics include leveraging Tableau to report the same information in a more visually compelling manner and to start automatically receiving relevant sales and customer analytics without having to submit requests to the corporate analytics function.

Move Faster, Illustrate More

Like the analytics-supported sales audit, the deployment of agile auditing also began with collaboration. Using the two-page plan from the collaborative planning session as a guide, Brinks Home Security auditors applied the methodology.

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The combination of traditional internal audit interviewing and precise supporting data enabled internal audit to share a more concise and convincing story with senior management regarding sales function risks and opportunities.

"In our most recent audit, we followed the agile audit methodology — we did not wait until we had fully documented everything or even finished all of our procedures," Howison says. "As soon as we had a number of findings and the data and illustrations to support the findings, we shared them with management."

Howison and her senior auditor individually sat down with the company's chief financial officer (CFO), chief operating officer (COO), and president of sales and examined the initial findings well before the final report was completed. "They were extremely receptive to the new approach because they could utilize the information we shared immediately to start making changes and improvements," says Howison. The executives also provided feedback on how the interim reports could be improved, and internal audit incorporated that guidance into its next round of interim reports. "Our CEO has been very engaged in our agile approach," Howison notes. "He's validated the importance of our findings, and monitors what changes are being made in response to our work and when those changes are being completed. The audit committee also provided very positive feedback."

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While advanced auditing techniques and emerging technologies are key enablers of that agility, Howison points to a far more traditional auditing tool – one-on-one interviews – as a vital initial step prior to testing out new advanced approaches. That agility is crucial if the internal audit function is to fulfill its goal of keeping pace with the business. While advanced auditing techniques and emerging technologies are key enablers of that agility, Howison points to a far more traditional auditing tool — oneon-one interviews — as a vital initial step prior to testing out new advanced approaches.

"When we're interested in using new technology to audit a specific process, I talk to the people who perform the process, as well as all of the people surrounding the process and/or affected by it," Howison adds. "Those insights give us a comprehensive picture of the process that no one else in the company usually sees. And that helps us ensure that we're focused on the right enterprise risks as we introduce new methods and tools."

Capital One

Transforming Digitally and Operationally to Become an "Industry Beacon"

Chris Kyriakakis

Chief Technology Auditor – Managing Vice President, Technology Audit, Innovations and Analytics As Capital One embraces the 21st-century digital revolution that we all experience and live every day, it's become clear that we need to rethink how to address the risks of a bank building a leading technology company that can thrive in a world being revolutionized by software and data, and be part of the company's journey. Capital One, headquartered in McLean, Virginia, is a diversified bank that offers a broad array of financial products and services to consumers, small businesses and commercial clients in the United States, Canada and the United Kingdom. It is also one of the most widely recognized financial brands in the United States. That's due, in no small part, to its highly successful "What's in Your Wallet?" campaign, which it first rolled out in 2000 with the goal of making its brand a household name.

This year, Capital One will celebrate its 25th anniversary as a public company. It has reached the top 100 of the *Fortune* 500, built one of the nation's largest credit card businesses and the second-largest auto finance company, and is now the fifth-largest consumer bank in the U.S. and the eighth largest bank overall.

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Teams across the enterprise — including internal audit — are finding new ways to work and help deliver on the company's efforts to continually break new digital ground and maintain its competitive edge in an increasingly tech-driven industry.

Each month, tens of millions of customers visit Capital One's online and mobile customer servicing platform. The company uses credit card transaction data and machine learning to deliver proactive insights to customers about their spending and to help detect problems they might miss. They have features that help online shoppers save money by automatically searching for the best prices across the internet, finding online coupons, and offering merchant-funded rewards. Across the company, Capital One is building customer experiences that are real-time and intelligent.

Delivering real-time, intelligent solutions is just one example of how Capital One is constantly working to improve how it engages with and serves its consumers. The bank also drives innovation through its Capital One Labs — experimental product and technology incubators that work with financial technology (fintech) startups and emerging technologies like artificial intelligence (AI) and machine learning. Through the labs, which are located in tech hotbeds like New York City, San Francisco and the Washington, D.C. metro area, Capital One is evolving the mobile banking experience for consumers. It's also designing and delivering new services and products, like its AI-powered virtual assistant, Eno, for credit card customers.1

Innovation at Capital One is not just the domain of Capital One Labs, however. Teams across the enterprise — including internal audit — are finding new ways to work and help deliver on the company's efforts to continually break new digital ground and maintain its competitive edge in an increasingly tech-driven industry. "Technology is core to Capital One's business. We think about banking as an inherently digital product, and we are intently focused on the customer experience," says Chris Kyriakakis, chief technology auditor and managing vice president, Technology Audit, Innovations and Analytics (Tech Audit), at Capital One. "Capital One has been on a journey to build a technology company that does banking and competes with banks that use technology."

¹ For more about Eno, see www.capitalone.com/applications/eno/.

Pursuing a Data-Driven, Multifaceted Innovation Agenda

Chief Audit Officer (CAO) Celia Edwards Karam leads Capital One's 300-person internal audit function. She reports directly to the audit committee of the Capital One board of directors. Internal audit staff are distributed across several of Capital One's U.S. and international offices and provide assurance to the bank's various business lines and functions. The Tech Audit team, which Kyriakakis leads, has about 80 auditors focused on auditing all of Capital One's technology and data risk. Tech Audit also has a Data Analytics and Innovation unit, which serves the whole department; Kaleen Love, vice president of business analysis, leads that group.

While the Analytics and Innovation (A/I) organization within internal audit is new — a little less than a year old — the use of data analytics in Capital One's internal audit function is not. "Capital One has been a datadriven company since its inception," says Kyriakakis. "It's also had an internal audit department from the start, so the function, like our company, has always been very datadriven." About 20 people on the core internal audit team focus on analytics, he says.

The A/I unit, meanwhile, includes data scientists and other specialists who work closely with those internal auditors but are also focused on "deep innovation aspects of audit," according to Love. She says her group's innovation agenda includes the following areas:

 Machine learning and AI — The A/I team is exploring how internal audit can apply machine learning models, data science techniques, and other advanced technology products and functionality to Capital One's vast and ever-growing trove of data "to power deep and broad risk-based insights" for the business, Love says.

- Data products and automation "We're looking at how to use data products and automation to support the work that's done in internal audit," Love explains.
 "We're stepping back and thinking more broadly about how data products can give internal audit line of sight into what's happening in the business and support processes like continuous monitoring." She says one objective is to equip auditors with self-serve dashboards and other tools that will help them plan, prioritize and prepare for engagements more effectively.
- Analytics to support audit delivery

 The third component of the team's agenda is generating high-quality analytics to support audit delivery.
 "That's the bread and butter of what we do," says Love. "We need to make sure internal audit uses the right data for every audit and brings quantitative, data-driven insights to the table as part of its assurance work." The A/I team provides analytics support that includes full-population testing, exception testing, script reviews and more.
- Internal audit's technology stack According to Love, this aspect of the team's work involves making sure that internal audit has the right technology infrastructure and tools "to support machine learning and data products and quick-turn agile analytics in service of the audit plan and audit delivery." She says, "We are partnering closely with the technology group at Capital One to think about how we can ensure internal audit has the appropriate infrastructure to consume data from the business, combine it with our own data, such as the historical issues and ratings in all of our working papers, and deliver data-driven insights consistently to our auditors."

• **Strategy, people and practices** — "We can build fantastic models and data products, but if our auditors don't feel like those things help them in their work, then what have we really done?" asks Love. Empathy research, which includes "design thinking sessions," plays a key role in helping her team to engage the whole internal audit department in their work and to "really understand the needs of the auditors" so that the products her team designs add value and are easy to use. Love says, "We're not just off in a corner trying to do something cool — we are tapping into the collective knowledge and wisdom of the department in everything we do."

She adds, "We also need to make sure that we, as a team, are well-managed in our own processes and that we're using best practices for what we build and maintain and for how we partner with and pull in data from the first and second lines of defense in the business."

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Empathy research has been essential for helping internal audit leadership at Capital One to understand how both auditors and auditees experience audit processes — and to look for opportunities to change those experiences for the better.

Increasing Productivity and Transparency With Agile Practices

Empathy research has been essential for helping internal audit leadership at Capital One to understand how both auditors and auditees experience audit processes — and to look for opportunities to change those experiences for the better, according to Kyriakakis. Using the feedback that they receive and other learnings they gain from the research process, internal audit, as a whole, is developing new ways to visualize its audit universe and understand the connections between audit entities.

"How do these entities interact? Do they share applications? Data? Third parties? Do thematic issues link them, and can we present this information in a visual way to our auditors? This kind of thinking is helping us get to the point where we can provide dynamic assurance back into the company, even as things change in the business and the risk landscape," says Kyriakakis.

Adopting agile work practices, and managing the related change effectively, is part of the effort to improve how the function interacts with and provides value to the business. Several years ago, Capital One embraced the agile methodology for deploying new products and capabilities to customers. Kyriakakis says that internal audit quickly saw the value of "agile pods," which are small, cross-functional and multidisciplinary teams that focus on managing a specific task and its related risk, and which reprioritize their work every day. "It's a nimble way to work," says Kyriakakis, "and it got us thinking about how we could incorporate agile into our audit delivery framework."

In 2017, Capital One's internal audit function restructured its audit delivery operations into agile pods. "We empowered the pods to prioritize how they deliver work, what they should work on and when," says Kyriakakis. "We've established routine cadences to identify any impediments that come through the audit process and allow the pods to resolve those issues as quickly as possible." However, while the shift to agile is allowing internal audit to engage management earlier in the audit process and create more transparency in all aspects of how it delivers work, Kyriakakis says the transition has not been without its challenges.

"We knew the move to agile would be a significant change," he says. "So, we spent about 18 months conducting research, developing and piloting our model, and then fully deploying it in a thoughtful way. Still, it takes time, energy and persistence from our team to embrace all the differences in an agile delivery framework versus a traditional audit delivery framework. There have been bumps along the way, but it's been a fun journey so far."

Embracing a Time of Inevitable Evolution for Internal Audit

In the months ahead, Love says that the A/I team will continue to pursue its innovation agenda, with support from the technology group at Capital One. Love says the tech team is staffing software engineers to support internal audit's agenda, and she also recently recruited the department's first product manager. "This person has decades of experience in banking and has led platform development in other lines of business at Capital One," says Love. "With additions like these to our team, we're bringing a product mindset to our work, which helps us set up the technology support that will allow internal audit to consume data from the business in intelligent ways, ultimately through real-time streaming."

All of these initiatives, from moving to an agile delivery model to building the right tech stack to support the function, are part of a much bigger vision for internal audit at Capital One — and for the profession itself. Karam has established this vision for the team: "To be an industry beacon that has redefined internal audit by providing highvalue, independent and proactive insights, innovating with technology and being a destination for top talent."

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All of these initiatives, from moving to an agile delivery model to building the right tech stack to support the function, are part of a much bigger vision for internal audit at Capital One — and for the profession itself.

But even without the goal to become an industry beacon for other functions facing transformation challenges, Kyriakakis says his team would be compelled to modernize and innovate. He says, "As Capital One embraces the 21st-century digital revolution that we all experience and live every day, it's become clear that we need to rethink how to address the risks of a bank building a leading technology company that can thrive in a world being revolutionized by software and data, and be part of the company's journey."

Country Road Group and David Jones

Influencing Stakeholders via Commercial Insights

Mark Brogan

Regional Head of Internal Audit, Australia and New Zealand Few companies experience as much change and transformation as we've experienced in the past two years. Retail is an incredibly fast-paced industry, so our internal audit team needs to do everything possible to keep pace and remain relevant. Founded in 1838 by Welsh merchant David Jones after he immigrated to Australia, the eponymous company is the oldest continuously operating department store in the world still trading under its original name. David Jones currently operates 45 stores in Australia and one store in New Zealand. Country Road Group consists of five distinctive retail fashion brands — Country Road, Mimco, Politix, Witchery and Trenery — and operates approximately 440 stores across Australia and New Zealand.

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Transformation is vital for the team to remain relevant in the face of all the changes that have taken place over the past two years.

Since the unification of the two companies, the pace of change has been intense, according to Regional Head of Internal Audit, Australia and New Zealand, Mark Brogan. "Few companies experience as much change and transformation as we've experienced in the past two years," Brogan asserts. "Retail is an incredibly fast-paced industry, so our internal audit team needs to do everything possible to keep pace and remain relevant."

Since David Jones moved its headquarters from Sydney to co-locate with the Country Road Group in Melbourne in 2017, David Jones has implemented new systems relating to e-commerce, merchandising, finance and warehouse operations. Continually improving and enhancing the customer experience represents a strategic goal.

Identifying Commercial Value

The internal audit team in Australia and New Zealand consists of six members who are

organized into a business audit team (led by Ian Pigdon) and a retail audit team (led by Peta Alexander). The head of internal audit reports functionally to both the chair of the Country Road Group and David Jones' audit committee and the head of internal audit at parent company Woolworths Holdings Limited. The audit team's purpose is to "identify commercial value and make a positive difference by proactively focusing on the right outcomes." The team strives to achieve this objective through five approaches:

- 1. Behaving with integrity
- 2. Focusing on our customers
- 3. Communicating with influence
- 4. Supporting each other
- 5. Continually learning and growing

The team is dedicated to active career management. They enthusiastically point out a number of team member promotions and transition opportunities into a diverse range of business areas, including retail state area management, risk and compliance, retail space planning, central planning and merchandise, and multisite retail store management. When hiring new auditors, the team places value on culture fit, retail experience, technical auditing expertise and effective interpersonal skills.

Transformation is vital for the team to remain relevant in the face of all the changes that have taken place over the past two years. The internal audit team's fiscal constraints have led them to be creative when using Excel tools combined with data visualization techniques when reporting results. The team continues to build data analytics coverage across a number of key business processes, and this will help generate commercial insights — quantified in financial terms that drive tangible benefits for the group. Business Audit Manager, Australia and New Zealand, Ian Pigdon, emphasizes that new ways of thinking and interacting with internal audit stakeholders mark an equally important facet of the function's innovative transformation. "In this pressured environment," Pigdon says, "it is critical that internal audit communicates with influence and makes recommendations that are impactful and drive sustainable changes."

Providing Insights and Minimizing Stakeholder Surprises

To deliver on its mission to identify valuegeneration opportunities for the business, the internal audit team takes a "commercial, insights-driven approach" in its audit reviews while producing reports that incorporate data visualization. "We're acutely aware that our senior stakeholders are incredibly timepressured," Brogan comments. "Thus, we need to communicate our key messages and insights quickly and effectively. A key way to do so is by using quantified examples and engaging visuals."

The business audit team previously sought to gain a better understanding of customer pain points arising during the online delivery process. The team examined existing data — detailed customer feedback provided from a customer contact center, as well as Net Promoter Score (NPS) feedback ("verbatims") — and then recommended improvements that were subsequently implemented to enhance the customer experience. Internal audit team members also used financial modeling (on a sample basis) to quantify how subsequent customer spending changed following their online shopping experiences (correlated to the customers' NPS verbatims).

The internal audit function has used fraud analytics software to enhance the commercial insights it shares with Country Road Group brands. Auditors analyzed transactions of interest, which include refund transactions, staff discounts and customer loyalty rewards. The team financially quantified these observations and then presented this information to their senior stakeholders, which helped their stakeholders make better, more risk-informed decisions.

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To deliver on its mission to identify value-generation opportunities for the business, the internal audit team takes a "commercial, insights-driven approach" in its audit reviews while producing reports that incorporate data visualization.

In addition to increasing its use of analytics, the internal audit team is innovating from a process perspective by borrowing certain facets from the agile methodology. For example, the audit team issues flash reports — interim updates containing observations that are issued several times during the audit review. Business process owners respond to the observations, and internal auditors adjust their subsequent work in response to that feedback. Senior stakeholders understand that each flash report is a working draft and that the observations are in the process of being validated. The team notes that these reports have helped minimize surprises while reducing the time needed to finalize formal audit reports because business process owners have provided their feedback throughout the course of the review.

People Drive Improvement

As valuable as advanced analytics and innovative processes are in delivering commercial insights to the business, the team emphasizes that the human aspects of transformation are even more important primarily because internal audit's credibility, relationships and influence determine the extent to which business partners translate those commercial insights into tangible improvements. Brogan emphasizes that "nothing of significance or importance is achieved without people."

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The TED Talks help challenge how the team thinks, and they also help signify why diversity of thought is important when communicating with stakeholders.

The majority of senior leaders in the business have completed a personality profiling tool that helps them better understand their strengths and weaknesses when communicating and interacting with colleagues. Insights gained from this profiling have helped improve how they communicate with their colleagues throughout the organization. In addition, the internal audit team uses one another as sounding boards to ensure that they are sharing information, insights and recommendations that will be relevant to their stakeholders. Prior to important meetings with senior stakeholders, internal auditors will share those presentations with their auditor colleagues who challenge their narratives and help strengthen and improve them.

Peta Alexander, National Retail Stores Manager (Australia and New Zealand), was responsible for the internal audit function holding weekly TED Talk Tuesday sessions during which internal audit team members take turns sharing a recent TED Talk or a thought-provoking article with the rest of the team. The team has a strong commitment to knowledge management, sharing information and continuous improvement. The TED Talks help challenge how the team thinks, and they also help signify why diversity of thought is important when communicating with stakeholders.

The team acknowledges that not everyone wants to spend their career in internal audit and thus they are committed to finding talent who can come into the team and make a positive impact before springboarding into the business. It is incredibly beneficial to have a blend of business audit knowledge (with knowledge of business processes) combined with retail store knowledge. The retail store team has over 30 years of combined retail knowledge and can speak with store managers about the challenges faced, having "walked in their shoes."

In summary, the team's creative, cost-effective approaches toward analytics and a strong focus on communication and relationships are the key differentiators when developing effective and cost-efficient next-generation capabilities.

Delta Air Lines

Process First, Tools Second

Brandi Thomas

Vice President — Corporate Audit When people discuss internal audit transformation, they tend to focus on the application of new tools and processes to audits. We also think a lot about innovative staffing. For us, that means considering how to deploy a combination of several different labor types. Delta Air Lines has covered a lot of ground since its humble launch in 1924. Founded as a crop dusting operation, the company has grown into one of the world's largest global airlines. Today, it serves close to 200 million customers annually, ferrying them on 15,000 daily flights to and from 304 destinations in 52 countries on six continents. Delta's approximately 80,000 employees help the company maintain and operate more than 800 aircraft. As a founding member of the SkyTeam global airlines alliance created in 2000, Delta participates in joint ventures with global partners such as Air France/KLM, Alitalia, and Virgin Atlantic.

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Thomas says that she is "relentlessly focused on developing the leadership of the future — diverse teams with contemporary skill sets."

Like other major carriers, Delta continues to adjust to the industry's overall improvement following the severe turbulence the sector experienced before and throughout the global financial crisis. Delta filed for bankruptcy in 2005 and emerged following a restructuring less than two years later, on the cusp of the historic economic downturn.

"All airlines went through an extraordinarily difficult period," notes Delta Air Lines Vice President — Corporate Audit, Brandi Thomas, referring to the waves of bankruptcies, restructurings and consolidations that continued occurring in the industry through 2013 or so. "A lot of pride and camaraderie exists throughout Delta as a result of overcoming such major challenges."

Delivering Delta's Flight Plan

Delta hired Thomas in 2017 to oversee the company's corporate audit team. The responsibilities of the function — which consists of 21 full-time auditors and a handful of co-sourced auditing professionals include generating and completing the annual corporate audit plan and Sarbanes-Oxley (SOX) compliance. Delta's leadership bio for Thomas also indicates that she is responsible for "fostering world-class technical audit and leadership development training within her group." Thomas reports administratively to Delta's CFO and on a functional basis to her board's audit committee chair. Prior to joining Delta, Thomas headed, and also built from the ground up, Uber's internal audit function. Prior to that role, she rose through the internal audit and corporate finance ranks at General Electric, Nordson Corporation and Intuit.

One of Thomas's first moves upon joining Delta two years ago was to work with her team to create this functional mission statement: Delivering Delta's Flight Plan — the company's annual strategic goals — through innovative risk management and collaborative solutions to add value and enhance Delta's operations.

A commitment to innovation is evident in numerous auditing activities and initiatives, including applying robotic process automation (RPA) to SOX testing, the function's growing use of data manipulation and visualization tools (as well as their work in training other groups within the company to use these same tools), the use of hackathons (to identify new correlations from existing data), and the function's staffing model.

Thomas says that she is "relentlessly focused on developing the leadership of the future — diverse teams with contemporary skill sets." To that end, the function's internal training and development activities focus on traditional competencies (e.g., influencing and negotiation skills) as well as digital-era capabilities. "We're equipping our team with skills around coding, data aggregation and analysis, visualization, and linking audit objectives and findings to strategic priorities," notes Thomas. She stresses that internal audit transformation can be applied broadly and that it requires a process-first mindset. "I can't emphasize enough," Thomas continues, "that the technology follows a solid process for its integration into auditing methodology."

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Inside the function, internal auditors have applied their data analytics skills to sharpening the insights they share with the business and devising more effective ways of presenting improvement opportunities to their partners.

Transforming Into Analytics Teachers

The internal audit team's recent innovation and transformation activities include a significant amount of work related to data analytics.

Those efforts begin with what Thomas describes as "foundational" skills development. Internal auditors learned how to use and/or optimize analytics-related tools and applications that are deployed across the company, including Power BI, Hyperion, and SQL, as well as data visualization tools. This training has helped the internal audit team "build data analytics into our methodology," Thomas says.

The training proved so effective that it made sense to extend it to other parts of the company pursuing similar innovation and transformation plans. As Delta's CFO began to share plans regarding corporate finance's digital transformation, "we sort of raised our hands and said, 'We've been on a similar journey for a short period of time, and we can provide some help,'" Thomas says. "We had already aligned with Power BI, so we realized we could beef up the training material and offer that as a service to other groups in the company."

Inside the function, internal auditors have applied their data analytics skills to sharpening the insights they share with the business and devising more effective ways of presenting improvement opportunities to their partners. Delta auditors pored over all of their medium- and high-risk auditing findings from the past five years and used their analytics skills and tools to identify new correlations. "We combined those insights and gave the business a barometer that shows them where they're improving and where they may be regressing," Thomas says. "It gives them more actionable insights to respond to."

Last year, the auditing team also used a combination of Power BI, internal audit management software and a data visualization tool to develop a new dashboard that helps the function monitor its work more effectively and efficiently. "Every Monday, I get an update that shows the current status of our risk-closure process," Thomas says. "With a quick look, I can see what's open, what issues need follow-up and which auditors are addressing those issues." The function is now working on creating similar dashboards that make extensive use of data visualization for business partners responsible for operational and fraud risk and other areas. "We're really excited about taking large quantities of data and drawing insights that help the business," says Thomas, who stresses that those insights can drive process improvements in addition to ensuring adherence to policies.

Thomas says she is also excited about developing more innovative approaches to staffing her function. "When people discuss internal audit transformation," she notes, "they tend to focus on the application of new tools and processes to audits. We also think a lot about innovative staffing. For us, that means considering how to deploy a combination of several different labor types." These categories include full-time employees (what she refers to as "on-balance-sheet labor"), rotational workers (on loan from other parts of the company), co-sourced talent, gig workers, crowdsourced assistance, digital labor (e.g., RPA) and freelancers. "When I was with Uber, one of my top auditors left to raise her children, and we missed her tremendously," Thomas recalls. "She was skilled in most aspects of the profession, and she was also an excellent storyteller and deck-builder. During our busy season, we would hire her on a freelance basis to build decks with us. She was familiar with our process and knew our audience very well. With techniques such as these, we can keep those in the workforce who choose to focus on family for a bit engaged in the workplace. I am happy to report that this talented woman is now CAE of a healthcare company after a few years focused on raising her children."

The on-loan IT expert helps bolster internal audit's technical expertise and then promulgates audit's risk and controls mindset upon returning to the business.

Given the industry's ever-present costconstraint challenges, Thomas does not expect to ever have a glut of on-balancesheet labor on her team. "So, we need to find innovative methods of expanding and contracting our workforce to meet the needs of the business," she adds.

Secrets to Transformational Success

As Thomas discusses Delta's approach to internal audit transformation, particularly as it relates to data analytics and staffing, she stresses the value of several approaches and tactics, including:

- Addressing a comprehensive set of considerations: While Thomas advocates the value of new staffing models, she recognizes that these approaches require careful supporting considerations. Her team worked with Delta's IT function to create a rotational program through which an IT professional joins the audit team for 24 months. The on-loan IT expert helps bolster internal audit's technical expertise and then promulgates audit's risk and controls mindset upon returning to the business. "As we designed the program, we had to address several important considerations," Thomas explains. "For instance, how can the person working with us stay connected with the IT organization? So, we arrange for our IT resources to continue to attend their function's monthly performance reviews and meet once a month with a VP-level IT mentor. We also have an agreement that the person will have a guaranteed placement after the two years conclude. I think some rotational programs neglect what life is like after the rotation, and we did not want to do that."
- Putting process before technology: "It's very sexy to go to the advanced technology tools first," Thomas says. "But we're all about process first, tools second." Process first means focusing on the underlying methodology and the changes that the introduction of new technology requires. "When you're engaged in digital transformation, some team members are always down for anything new while others are more reticent to change," Thomas notes. "You need to focus on

getting everyone on the same page regarding what the expectations are."

- Leveraging other innovations in the company: Thomas explains that internal audit "links to various transformation activities that are happening across the business" in an effort to make efficient use of existing knowledge, technology and talent.
- Assigning full-time responsibility for pivotal innovations: Getting a fullfledged data analytics capability — within internal audit and most other functions — off the ground is very difficult, Thomas stresses. That's why she dedicated one of her team members to leading the function's data analytics group on a fulltime basis.

Thomas and her team rely on other hacks to ensure their odds of success, including one that she does not articulate, but certainly demonstrates: *Lead with humility.*

"We've made significant progress due to the collective effort of an amazing team that has been open to change and has gotten on board with transformation," she adds. "I'm the mouthpiece, but I take no credit for it. I'm really, really impressed by what my team has achieved."

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Thomas and her team rely on other hacks to ensure their odds of success, including one that she does not articulate, but certainly demonstrates: **Lead with humility.**

Deutsche Telekom

Stronger Connections: Internationalizing Internal Audit

Maria Rontogianni

Senior Vice President, Group Audit and Group Risk Governance Evolving into a next-generation internal audit function is a strategic priority for us — as it must be. We can't hold on to our traditional ways. We must modernize and keep pace with change at our company. Deutsche Telekom AG is one of the world's leading integrated telecommunications companies, with approximately 178 million mobile customers, 28 million fixed-network lines and 20 million broadband lines. Formerly known as Deutsche Bundespost Telekom, the company is one of three business entities that evolved from Deutsche Bundespost, a stateowned postal and telephone service founded in West Germany in 1947 that privatized in 1995.

Deutsche Telekom has operated under its current name since 1995. Based in Bonn, the company has grown strategically through acquisitions over the past two decades, and today operates in more than 50 countries and employs more than 200,000 people around the world. Deutsche Telekom is a major shareholder in several telecommunications companies throughout Europe and in wireless network operator T-Mobile in the United States. Its subsidiary, Frankfurtbased T-Systems, provides global IT and consulting services, primarily for businessto-business customers.

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Deutsche Telekom's focus on change, and preparing for an increasingly digitized future, impacts all corners of its business, including internal audit.

In anticipation of skyrocketing demand for broadband in the future and the need for telecom infrastructure that is intelligent enough to open up new business areas to entire industries, Deutsche Telekom is building more efficient networks that can transport ever-greater volumes of data at ever-higher speeds.¹ It is also working to evolve from being a traditional telephony company to becoming "an entirely new kind of service company" that can seize growth opportunities in new business areas.²

Ramping Up on Agile Working Methods

Deutsche Telekom's focus on change, and preparing for an increasingly digitized future, impacts all corners of its business, including internal audit. "Evolving into a next-generation internal audit function is a strategic priority for us — as it must be," says Maria Rontogianni, senior vice president, group audit and group risk governance, at Deutsche Telekom. "We can't hold on to our traditional ways. We must modernize and keep pace with change at our company."

Transformative change at Deutsche Telekom includes its recent embrace of agile working methods, including the Scrum method, in its Telekom IT organization and other areas.³ For Rontogianni and her internal audit team, that shift presents challenges. "How do we preserve the control environment in an agile organization?" she asks. "How do we look at authority, responsibility and accountability as we move from a typical boxed organizational structure to an agile one, with tribes, chapters and squads?"

Another challenge, Rontogianni says, is that the agile method is not a "one size fits all" across different types of service and delivery models. "Deutsche Telekom is a service organization based on a technology delivery model, so how agile and that model merge is nuanced for all of us — not only for operations but also for internal audit," she explains.

¹ "Company: At a Glance," Deutsche Telekom website: www.telekom.com/en/company/at-a-glance.

² Ibid.

³ "Agile Working at Telekom IT," Deutsche Telekom website: www.telekom.com/en/careers/our-focus-topics/telekom-it/details/agile-workingat-telekom-it-565952.
Rontogianni says she is eager to get her team up to speed on agile work methods. "We're learning about agile right alongside the business," she says. "I'm also researching formal training options to see what's available on this topic for internal auditors. And I'm looking to The Institute of Internal Auditors for more insight and watching what's happening in the profession and with our peers across industries."

Adopting a More Global Approach to Internal Auditing

In addition to gaining a deeper understanding of agile work methods, internal audit's shortterm goals include solidifying the function's internationalization strategy. "This strategy has been a big focus for us for the past two years," Rontogianni says. "We have so many individually operating companies, especially in Europe. Our aim is to internationalize how internal audit works at Deutsche Telekom from our charter to our tools and to how we operate."

Rontogianni, who has been leading Deutsche Telekom's internal audit function since June 2016, collaborates with a team of about 150 internal audit staff who work in locations from South Africa to Seattle, which is T-Mobile's U.S. home base. "Our internal audit department is local yet international," says Rontogianni, adding that Deutsche Telekom's acquisitions, or "NatCos" (national companies), have their own internal audit functions that do not report formally to the parent company.

"Really, we are one department, even though our governance structures have different reporting lines," Rontogianni says. "Our long-term strategy is to build on the baseline of internationalization that we've developed so we can effectively serve a technology company that is rapidly changing."

Over the first two years of internal audit's internationalization effort, the goal was to

increase the percentage of aligned individual audit plans from 10% to 25%. Now, the team is working toward 30% to 40% alignment, according to Rontogianni. She says individual audit plans on the same topic are being executed by 40 mobile auditors working across 14 different companies.

"It's a big undertaking," she says. "It's mind-boggling what we've achieved in the last 18 months with internationalizing our processes, our system and the mobility of our people across many legal entities and cultures. It's a win-win all around for the audit department, the stakeholders and the audit committees because we're now more comprehensive and global in our approach."

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In addition to gaining a deeper understanding of agile work methods, internal audit's short-term goals include solidifying the function's internationalization strategy.

Exploring Options to Go Deeper With Data Analytics

Technology plays an important role in supporting internal audit's internationalization, according to Rontogianni. "We're in the process of implementing the Teammate Plus audit management system, which will be our global audit work paper tool. We are also using various solutions, like OneNote, to support our international communication and collaboration. It's quite interesting how things have changed."

Rontogianni says internal audit is also now looking at how it can expand its use of data analytics. One plan is to modernize the Financial Reporting Data Analytics tool, or FReDA, which internal audit developed five years ago. "It's a purchase-to-pay auditing process," explains Rontogianni. "We write SQL queries into SAP and do testing from purchase orders to payments. Now we're thinking about how to develop that further, maybe extending it to payroll or sales."

The internal audit function is also considering whether to offshore some of its data analysis as a way to get faster and more globalized results. "Using offshore data scientists is clearly a cost benefit for us," says Rontogianni. "These resources are already doing this work for other parts of the organization, so why not for internal audit? We'd need to skill up those individuals to think like auditors, of course. We also would need to consider any potential control issues with offshoring this work."

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Rontogianni says that no matter how much internal audit work can be automated or digitized, internal auditors "still need to think, and apply the rules of their market, of their organization, and of proper compliance and governance."

Visualizing a More Holistic Future for Internal Audit

As the internal audit function at Deutsche Telekom continues to evolve its processes and practices to meet digital age demands, Rontogianni has a future vision in mind. She sees her team one day providing holistic assurance to the business based on an aligned assurance risk assessment model. She is quick to add that this more holistic process would provide greater assurance to audit committees and drive more impactful management action plans. Rontogianni says that no matter how much internal audit work can be automated or digitized, internal auditors "still need to think, and apply the rules of their market, of their organization, and of proper compliance and governance." The combination of technology and human thinking is what will ultimately create value for the business and drive results.

"For internal audit, digital transformation is about how we can utilize information more effectively to make more informed decisions. It's also about preserving the three lines of defense and supporting a stronger control environment," she says. "Digitizing and then letting go is not the endgame for us as internal auditors."

While internal audit teams around the world are working to transform digitally, Rontogianni notes that not all change needed to meet the challenges of today's rapidly changing business environment is technological. She points to her team's internationalization efforts as an example. "What we have accomplished is quite innovative," she says. "We have succeeded in transforming individual local mindsets to one international mindset. It is the foundation for how we will operate going forward. And all this was achieved by something very traditional, a positive and healthy ATTITUDE!"

DriveTime

Internal Audit Takes the Wheel on RPA

Erik Rasmussen

Managing Director of Internal Audit Our team doesn't want to be a hindrance to change and innovation, but a creative solution provider -a solutions architect -a and a valued business partner.

DriveTime is one of the largest used vehicle dealership enterprises in the United States, with a focus on serving the subprime market. Its business model — developed over the past 25 years — integrates the acquisition, reconditioning and sale of quality used vehicles and related products with financing for its customers. The company uses a proprietary credit-scoring model and pointof-sale retail system to provide its customers with vehicle and financing options based on their income, down payment, vehicle needs and overall affordability.

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DriveTime's work environment is very open and collaborative.

DriveTime operates 138 dealerships in 27 U.S. states, 20 vehicle reconditioning facilities and four loan servicing centers. The fast-growing company opened 21 new dealerships in the past three years alone. For the year ended December 31, 2018, DriveTime reported that it had sold more than 129,000 vehicles and generated US\$3.1 billion of total revenue. DriveTime's sister company, Bridgecrest Acceptance Corporation, directs the company's financing and loan servicing operations.

"DriveTime is a complex business," says Erik Rasmussen, managing director of internal audit. "We often think of the company in different divisions: inventory, retail, ancillary products and finance. But we're highly integrated, and we work together."

DriveTime's work environment is very open and collaborative, according to Rasmussen. "We are a flat organization," he says. "No one in the company, not even the CEO, has an office — just a workstation. There are no doors to open. Anyone in the organization can provide ideas, and work with their team and management group to foster those ideas. I think one of the beauties of the company is the fact that everyone here has an opportunity to make a difference every day."

Three Pillars of Focus for DriveTime's Internal Auditors

Rasmussen has been with DriveTime for almost 14 years, initially overseeing the company's inventory acquisitions and reconditioning and warranty work. He spent over a year helping to start up SilverRock, a DriveTime sister company, which primarily sells and administers ancillary products, such as gap waivers, vehicle global positioning systems (GPS) and vehicle service contracts. In 2016, he transitioned back to DriveTime to lead the internal audit department — a seven-person team that includes an assistant director, manager, senior auditor and staff auditors.

According to Rasmussen, the internal audit function at DriveTime structures their work primarily around three areas, or "pillars." The first pillar is compliance. "We're a large participant under the Consumer Financial Protection Bureau (CFPB) lending rules," says Rasmussen. "So, we have a significant compliance function, and our team provides the third line of defense."

The other two pillars of focus are DriveTime's decentralized field operations — its dealerships and vehicle inspection centers — and its business process management group, "which includes any centralized function, high-risk area or hot topic (auditable entity) we might engage in," Rasmussen says.

DriveTime's team uses ACL GRC software to help manage audit projects and Microsoft programs like Excel and Visio for performing day-to-day work. They also need to work with the SQL programming language. "We're a very data-driven organization," says Rasmussen. "We use SQL and macros to develop and write various audit procedures. We're now doing a bit of continuous monitoring, as well. We've designed a lot of our operations so that we can use technology and leverage data from our previous work instead of starting from scratch on every project."

When the internal audit team wants to dig deeper on data, they turn to DriveTime's data analytics group for help with generating reports or building data views. Rasmussen says, "I've thought about embedding a data specialist within our team, but I haven't done it because I think it benefits our work to have access to multiple data scientists and analysts who can help us better understand what's happening throughout a complex company."

Internal Audit — a "Natural Fit" to Spearhead RPA

When DriveTime is looking to do something new, whether it's rolling out a product, launching a division or implementing technology, internal audit is invited to join the discussion, according to Rasmussen. "We're at the table," he says. "Sometimes, we have a good role to play and say, 'We can help you.' Other times we say, 'We're not a good fit for that.' I think knowing when to raise our hand and when to step back helps our team to earn respect in the organization."

He adds, "I think internal auditors, in general, need to be careful not to come across as 'no' people — no, you can't do this, and no, you can't do that. If we do, we won't be invited to the table. Our team doesn't want to be a hindrance to change and innovation, but a creative solution provider — a solutions architect — and a valued business partner."

The emphasis on collaboration at DriveTime helps the company's internal auditors to foster strong working relationships with other business groups and earn their trust. That, in turn, creates opportunities for the internal audit department to help the organization break new ground in its operations, including with technology. Recently, Rasmussen and his team stepped up to help DriveTime develop and pilot robotic process automation (RPA).

"We're spearheading RPA for the whole company," Rasmussen says. "That may seem a bit weird to some people, who might think, 'Why is internal audit kicking off a process for automating business operations?' But if you look at our staff and our core competencies, you can see we're a natural fit. When you implement RPA, you need to look across the organization, at business operations, workflow and processes. That's exactly what internal audit does. And we problem-solve. Our ability to think critically, and our natural curiosity, let us peel back the layers on how to stand up an RPA group."

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On the Lookout for More Automation Opportunities

DriveTime enlisted help from an external resource for the technical development aspects of RPA, like coding. Since late 2018, when the RPA project was first launched, the company has deployed three robots, or "bots," which are still in production. "They're operating, and the business has now taken ownership of them — including the responsibility for their operation and design," says Rasmussen. "Our team just helped to get everything started."

Rasmussen says he'd like to see his team help DriveTime develop at least another dozen bots by the end of 2019. In the future, he expects the company will have a designated team or division responsible for overseeing the creation of more bots and the business development and strategy behind them. "It was never the idea to have internal audit be the long-term business operator of RPA," he says.

Even though internal audit is deeply involved with deploying RPA at DriveTime, Rasmussen says he's not sure if the technology is a good fit for his department — at least, not yet. "RPA benefits highly routine, standardized functions in our organization, like vehicle acquisition. But the internal audit department is pretty dynamic. Maybe in the future, we might be able to use RPA for routine, compliance-type work, but I don't see it solving problems for our team right now."

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Thinking about the skill sets that internal auditors will need in the future, Rasmussen says he believes adaptability, along with interpersonal savvy and intellectual curiosity, will be more valuable than many technical skills.

Rasmussen says he sees the opportunity for DriveTime's internal audit team to automate tasks through different uses of SQL or sophisticated macros — and perhaps pass on new, technology-driven best practices to the business. "We're always thinking about how we can make technology work for us, and also, what we can do to help and educate other groups," says Rasmussen. "For example, we've made a commitment to our general counsel that, as we work on third-line audits this year, we'll explore how we can help the business automate the process for these recurring audits."

Adaptability: An Essential Quality for Next-Gen Internal Auditors

While the internal audit department at DriveTime is playing a pivotal role in introducing RPA into the business, Rasmussen says they are by no means the sole innovator at the company. "We have more than a hundred IT staff members innovating all sorts of new ways for how we go to market. I think our team and what we've been doing with RPA are just examples of DriveTime's culture of innovation."

Rasmussen attributes the diversity of his team to the function's ability to maintain an innovative mindset. He explains, "I love hiring internal auditors with diverse backgrounds because they think about things differently. For example, I hired someone with a political science degree, who turned out to be a great auditor because of outstanding problem-solving skills."

Thinking about the skill sets that internal auditors will need in the future, Rasmussen says he believes adaptability, along with interpersonal savvy and intellectual curiosity, will be more valuable than many technical skills. "I'm a big believer in hiring smart, dynamic people who can adapt to change," he says. "Evolving your skills for the future isn't just about learning this or that technology because, whatever the technology is today, it will be something different tomorrow."

Fidelity Investments

From Goodness to Greatness: Going All-In on Agile Auditing

Jeffrey Jarczyk

Executive Vice President and Chief Auditor Applying agile methodology to internal audit may be novel, but technology and business functions have been using agile successfully for more than 20 years. ... We became intrigued by that long-term success and thought, 'Why can't we do that?' Fidelity describes its mission as inspiring "better futures" and delivering "better outcomes for the customers and businesses" it serves. With assets under administration of US\$7.4 trillion, including managed assets of US\$2.7 trillion (as of March 31, 2019), Fidelity helps an estimated 30 million people invest their savings and 22,000 businesses manage employee benefit programs. The company also provides more than 13,500 financial advisory firms with investment and technology solutions they rely on to invest their clients' money. Privately held for more than 70 years, Fidelity employs more than 40,000 associates.

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The internal audit function's interest in pursuing agile auditing resulted in the formation of an Agile Auditing Center of Excellence (COE) within the group's structure, which is purposefully designed to support the transformation.

Fidelity Executive Vice President and Chief Auditor Jeffrey Jarczyk leads a 155-employeestrong internal audit function that has developed an innovative blend of structural, procedural and technological mechanisms designed to continually improve future auditing activities while assisting the business in making good on its mission of bettering the futures of its many customers. He points to the company's heritage, privately held status and long-term focus as valuable differentiators.

"The notion of doing right by the customer through our long-term orientation permeates the entire organization," Jarczyk says. The mindset certainly flourishes in the internal audit function. Despite earning a leadingedge reputation thanks to their early adoption of data analytics and other nextgeneration auditing techniques, Jarczyk and his team continually scan the horizon for new opportunities to innovate. "Our thinking," he says, "is that if we're going to continue to be relevant to the business while maintaining a leading position as an internal audit function, we need to have some people whose job it is to scan the marketplace and look for emerging technologies that we can bring to bear on our work."

As is the case in most other companies, keeping internal audit relevant can be challenging given the rest of the organization's ongoing innovation and transformation activities. Fidelity has been a leader in the financial services business and is constantly seeking to innovate in terms of products and services and its internal operations and technologies. Several years ago, the company started expanding its adoption of agile methodology, and now agile practices are being rolled out and refined across a growing number of business units throughout the organization. While the internal audit function deploys a wide range of next-generation auditing technologies and approaches, Jarczyk and his senior auditors spotted a prime opportunity to "draft behind" its business partners' adoption of agile.

Scanning the Horizon

The internal audit function's interest in pursuing agile auditing resulted in the formation of an Agile Auditing Center of Excellence (COE) within the group's structure, which is purposefully designed to support the transformation and is staffed with a combination of tenured agile coaches and veteran auditors with deep organizational knowledge.

Jarczyk reports functionally to the chair of Fidelity's audit committee; administratively, he reports to the head of Fidelity Enterprise Risk Management, a group that oversees security, risk and compliance-related functions throughout the company. The internal audit function is organized into four business-audit groups that align with the company's primary business lines and its information technology (IT) function's activities.

A fifth audit group, the Innovation and Enablement team, is responsible for the agile audit COE, audit operations, centralized planning, management reporting, and the function's recruiting and development activities. This group, led by Audit Vice President, Innovation and Enablement, Christine Meuse, also drives audit innovation. An innovation team within the group is charged with "looking at the horizon, anticipating how we can stay on the leading edge and helping to decide where we want to go next," Meuse explains. "Right now, we're looking at some design-thinking principles that dovetail nicely with our agile auditing approach. We're also partnering with internal and external parties in the AI and machine learning space."

The innovation team also helped identify opportunities to automate more of the testing of the organization's information security perimeter as the company shifts more applications and systems to the public cloud.

While advanced technology and methodologies are manifestations of the innovation Jarczyk and Meuse want to foster in their function, the two executives also point to their longrunning college program as a crucial enabler of innovation. The team has had an internship and co-op program for 15 years and has established strong partnerships with colleges and universities. Meuse says that the digitally native interns and college hires help "instill an innovative mindset across our department."

A Straightforward Sales Pitch

In 2017, several thousand employees across many different business groups in Fidelity's Personal Investing business line began using agile based on the model originally deployed at Spotify. The internal audit function's Innovation Team had been considering applying agile, and the business adoption of the methodology clinched it.

"Applying agile methodology to internal audit may be novel," Jarczyk notes, "but technology and business functions have been using agile successfully for more than 20 years. ... We became intrigued by that long-term success and thought, 'Why can't we do that?'"

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The team has had an internship and co-op program for 15 years and has established strong partnerships with colleges and universities.

The function's agile auditing pitch to business partners was straightforward: We can conduct the same auditing work in less time. In exchange for reducing time and related disruptions, internal audit made several asks of business partners who participated in the initial round of agile audits. "We let them know the process would be more intense on their side," recalls Jarczyk, who also explained that agile auditors would need information and data requests to be fulfilled in a more timely manner than they had in the past and that the team would want senior leaders from each business area to be available every two weeks to discuss a status report. "In exchange for that commitment," Jarczyk continues, "we said: 'We'll get out of your hair sooner; it'll be a completely transparent process, and there won't be any surprises by the time we get to the reporting because you'll have been along for the journey." The team piloted the approach with five teams to test the methodology and gather customer feedback.

In accordance with one of the foundational elements of agile methodology, Fidelity's auditors work together on a team of five to six associates over a designated period (in this case, for nine months) to improve their work and collaboration continually. The work consists of a succession of two-week sprints, each of which is immediately followed by an information-sharing session with leaders of the business group being audited. The insights generated during those give-and-take sessions are applied to improve the direction and quality of each subsequent two-week sprint. While internal audit remains accountable for the opinions and perspectives expressed in the final reports it issues, those findings contain no surprises for the business partners being subjected to the audit because they've been involved all along. "It's just a much more collaborative way of getting there," says Jarczyk, "and that's been a huge plus."

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The benefits sound impressive, but the learnings gained from the agile audits conducted are equally valuable, Jarczyk and Meuse emphasize, because they point the way to many more improvements and additional benefits.

After completing the pilots, internal audit leaders assessed the work, discussed what was learned and then asked, "Do we feel like this is something that we really want to lean into and scale across the department?" The resounding answer was yes, Meuse reports. "And we certainly found things that we needed to improve on and iterate, which is what agile is all about — learning and iteration."

Keep Calm and Stay Agile

Through four successive waves beginning in the third quarter of 2018, the audit team extended the agile methodology across the entire function by the end of the first quarter of 2019. "We now have the entire department working in an agile way," Jarczyk says.

The benefits sound impressive, but the learnings gained from the agile audits conducted are equally valuable, Jarczyk and Meuse emphasize, because they point the way to many more improvements and additional benefits. "We continue to learn and adapt our approach based on feedback from our associates, coaches and stakeholders, which is consistent with the principles of agile, and expect to continue to evolve the process for the foreseeable future," Meuse says. They note that key tenets of the transformation, such as servant leadership and success as a team versus the individual, are mindset shifts that take time to fully take hold and maximize the benefits of this way of working.

Under the agile approach, the duration of individual audits has decreased substantially, according to Jarczyk. He and Meuse also report that the more collaborative and clientcentric nature of more frequent agile auditing interactions have elevated trust between the business and internal audit to a new level. The acquisition of agile auditing skills has also delivered career development benefits throughout the function. "It's an opportunity to re-energize our auditors, who can now practice the craft in a completely different way," Jarczyk notes, while adding that the experience has had its share of bumps, as most major change efforts do. "I'm not saying that this has been easy and that we don't still have a lot of work to do, but the net result has been positive, both for our clients and associates."

Some of that work includes identifying new key performance indicators (KPIs) because metrics associated with traditional auditing approaches, such as productivity and report volumes, are less relevant to agile auditing success. "In addition to adjusting how we measure overall department output and productivity, we know that we need a new set of metrics that reflect the fact that agile is highly team-specific in nature," Meuse says. "Each team will be measuring its own goodness, so to speak, in terms of how it improves the way members work together. Each team wants to evaluate how it is increasing the velocity of that improvement over time."

As new KPIs are developed, performance management parameters and links to rewards will need to be changed in kind. Jarczyk has recalibrated how he values the contributions of the agile coaches he brought on board. As new KPIs are developed, performance management parameters and links to rewards will need to be changed in kind. Jarczyk has recalibrated how he values the contributions of the agile coaches he brought on board. "In hindsight," he notes, "we probably should have doubled the number of coaches we hired because they play such a pivotal role in helping people transition to this new way of working." During the heat of that transition, the function distributed "Keep Calm and Stay Agile" buttons to internal auditors to acknowledge the discomfort involved in the major change while conveying that this temporary discomfort is a sign that the transition to agile auditing is working.

That turned out to be the case, and then some. Fidelity and its internal audit team remain absolutely committed to staying agile and reaping the growing benefits of doing so.

The Jardine Matheson Group

Creating Future Value Through Innovation

Linda Chan

Head of Group Audit and Risk Management It's good for internal audit to understand what's in Jardines' IT portfolio, including shadow IT. So, if something does go wrong, like a data breach, we can quickly get relevant, precise advice to safeguard the Group's economic value – or help build it back up again. The Jardine Matheson Group (Jardines) began as a trading business in the Chinese port city of Canton — now Guangzhou. The company, which was founded by Scots William Jardine and James Matheson in 1832, later became one of the first foreign-owned trading houses, or "Hongs," in the former British colony of Hong Kong. In the 1980s, Jardines incorporated in Bermuda and kept its headquarters in the Jardine House office tower in Hong Kong. The Keswick family, descendants of Jardines' founders, manages the company today.

Jardines generated more than US\$92 billion in gross revenue and US\$1.7 billion in underlying profit in 2018. The Group has interests in diverse businesses that operate primarily in Greater China and Southeast Asia in industries ranging from financial services and agribusiness to home furnishings and heavy equipment. International hotel and investment management group, Mandarin Oriental Hotel Group, and Astra, Southeast Asia's largest independent automotive group and a diversified conglomerate based in Indonesia, are among the Group's many subsidiaries.

Linda Chan is the head of Group Audit and Risk Management (GARM) at Jardines, where she oversees a team of 30 auditors. Chan has an extensive background in internal audit and risk management, and her previous positions include director of audit and risk for Dentsu Aegis Network, the largest advertising agency in Asia. Chan says, "They have traditionally rotated people from within the Group into this role at Jardines. But management wanted to try something different and bring in someone from outside the Group. So, they hired a recruiter and found me."

Reducing Manual Processes and Developing New Ideas

The GARM team's primary objective is "to protect the economic value" of the Group, according to Chan. "That's the main reason why the internal audit team is here — to safeguard the future value of the business," she says. "We work with the business to do that, and we are making a difference."

Safeguarding the future value of Jardines includes supporting the business in its efforts to modernize and innovate operationally. Chan says when she first came to Hong Kong three years ago to work at Jardines, she was surprised to find the company was still using some "old-fashioned" technology like fax machines. "I hadn't seen a fax machine for at least five years before that," she says. "There wasn't a lot of automation here, either. For example, expense reporting was still very much a paper-based process."

That process, along with many others, has since been modernized, according to Chan. She says, "Fortunately, our Chairman and Managing Director saw that the business needed to update its technology and move away from some of its manual processes. So, he introduced a big initiative for innovation — 'Innovate Jardines.' People are encouraged to submit their ideas that create opportunities for business development developing them first by working in sprints¹ and then presenting them for approval. There are over 40 ideas that either have gone live or are in production right now."

Chan says the program is having a positive impact at the Group because "it's made people realize that innovation is a good thing." One downside of the widening embrace of new technology, however, has been the rise of "shadow IT" at the company — cloud-based

¹ Sprint planning is an event in the Scrum framework where the team determines the product backlog items they will work on during that sprint and discusses their initial plan for completing those product backlog items. Agile Alliance: www.agilealliance.org/glossary/sprint-planning.

technology applications and tools that individual employees and teams adopt without needing to consult IT. Employees proactively embracing new technologies that enhance their collaboration and productivity can help to make the company more agile and drive technological change in the organization. But these projects can also create security risks, posing additional challenges to internal audit.

"It's good for internal audit to understand what's in Jardines' IT portfolio, including shadow IT," says Chan. "So, if something does go wrong, like a data breach, we can quickly get relevant, precise advice to safeguard the Group's economic value or help build it back up again."

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Employees proactively embracing new technologies ... can help to make the company more agile and drive technological change in the organization. But these projects can also create security risks, posing additional challenges to internal audit.

Chan closely monitors the shadow IT issue through both internal audit and IT lenses. Jardines does not have a Group IT director, so a lot of responsibility for overseeing IT initiatives — and assessing the risks of those projects — falls to Chan. The GARM team also includes seven IT auditors. That may seem like a high number, but Chan says she likes to snap up these in-demand professionals whenever she can. "I tell my team, 'If you know of a good IT auditor, send them to me. I'll probably hire them.'"

Another question for the GARM team at Jardines is how to audit new technologies appropriately. "When something changes, the way that we audit might not be relevant anymore," says Chan. "So, we always need to think about how we might have to reconsider our audit approach so that it stays relevant."

Moving to a New Audit Management System

Innovation and new technology adoption are happening within the internal audit function at Jardines as well. For example, the department recently implemented an advanced audit management system. Chan says her group is among the first in Asia to implement the latest version of this solution.

"I wanted to implement a system that would drive people to think about risks first when they do their audit planning. If they know the risks, then they know they will be looking at the right things," she says. "We were using electronic audit files before, but we often got feedback from the business, like, 'This is the same thing you did last year.'"

Chan says she would like the GARM team to employ more data analytics in their work in the future — and they are eager to do it. "My team is already thinking about how to incorporate data analytics into their audit planning," she says. "Some of the audit projects we did last year for the business involved data analytics, and that whet everyone's appetite because they saw the benefits. I had auditors telling me afterward, 'We should use data analytics more.'"

Chan is making sure her team receives the appropriate training in data analytics. "They are all CPAs from large auditing firms with a numbers background, so learning more about data analytics appeals to them. What's even better is that the technology is more sophisticated today, so it's easier for people to use. I don't hear my team saying, 'Well, I think this is going to be too difficult.'"

One logistical challenge that stands in the way of the GARM team taking their data analytics use to the next level is the Group's disparate systems. "To do data analytics well, you need to have some standardization of systems," says Chan. "We don't have that yet, though it is gradually evolving."

Witnessing an Evolution in Internal Audit

For the past 25 years that Chan has worked in internal audit, she's seen a lot of changes in the profession. "I think the role of the internal auditor is much more highly valued today than it was in the mid-1990s," she explains. "I got into the profession at a time when internal audit was really starting to take off, and things started to change for the better."

The higher visibility of the internal audit function at Jardines, its increasing role as a strategic partner to the business, and its involvement in technology and other innovative projects for the Group, help to make GARM a talent magnet, according to Chan. "I'm very lucky because Jardines is a very big organization in Hong Kong, and most people here have heard of us," she says. "And worldwide, the Group has more than 450,000 employees. So, we have no problem attracting good people to our team from inside and outside of the business."

The dilemma for Chan is that she can't keep talent for long because of Jardines' mandatory rollout model. "As one of my colleagues said to me, 'No one ever retires from internal audit,'" she says. "People spend about three years with us, and then they rotate out to other roles in the business. That's a good thing for the Group. But it's quite challenging to keep my team's skills up to date because we're constantly bringing in new people who aren't experienced in internal audit."

Regardless of the rollout model, Chan says she always recruits new people for her team with an eye toward the next generation of internal audit at Jardines. "I want auditors who are quite ambitious, who want to make a difference, and who question what we do — in a nice way, of course," she says. "And I look for people who have the drive and ability to innovate and grow."

After Chan settled into her role at Jardines, she started thinking more about the skills that the GARM team would need to succeed in the future. "The Group had a competency model, but it was outdated," she says. "So, on a flight from Hong Kong to Jakarta, I brainstormed all the key attributes that I thought a good auditor should have, including technical skills and interpersonal skills."

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The higher visibility of the internal audit function at Jardines, its increasing role as a strategic partner to the business, and its involvement in technology and other innovative projects for the Group, help to make GARM a talent magnet.

Communication skills and independent thinking topped the list of interpersonal abilities Chan outlined, and she says she is focused on helping her team members improve in those areas.

"In Hong Kong and Asia, people are very respectful of hierarchy and therefore tend to do what they are told to do — even if it's not the right thing," she explains. "So, I encourage my team to speak up more often and think for themselves. Our chief financial officer has also advised that I tell them to do these things. I know it is challenging for them, but it will help them not only to be more effective auditors but also more successful in the business when they rotate into roles in our group companies."

Mitsubishi UFJ Financial Group (MUFG)

Global Audit Transformation Unlocks Value

Katsunori Yokomaku

Executive Officer, Managing Director, Head of Internal Audit We have very strong audit functions around the world. Through transformation, we're establishing the vertical alignment we need to unlock all of that value. Tokyo-based Mitsubishi UFJ Financial Group, Inc. (MUFG) ranks among the world's largest global financial services organizations with over 180,000 employees in more than 50 countries. The company's numerous subsidiaries and operating entities serve customers in Japan (home office); the Asia-Pacific region; the Europe, Middle East and Africa (EMEA) region; and the Americas region. Historically, each of those four regions (including the home office) has been supported by its regional internal audit function.

Under a three-year, medium-term business plan (MTBP), MUFG is adopting a more integrated and unified management approach across all regions while transforming all of its business operations according to its core principles: (a) customers define the business segments; (b) customers come first when MUFG determines how to allocate resources; and (c) strategic priorities remain focused on high-potential sectors by integrating related and relevant operations.

Structural changes play a central role in enabling this enterprisewide transformation. MUFG was traditionally organized into three primary businesses: MUFG Bank, Mitsubishi UFJ Securities, and Mitsubishi UFJ Trust Bank. As part of the MTBP's emphasis on integration, several new business groups are being created. These business groups, whose activities will cut across the three primary businesses and across geographies include:

- Retail and commercial banking
- Japanese corporate and investment banking
- Global corporate and investment banking
- Global commercial banking
- Asset management and investor services
- Global markets

Dozens of other major changes to processes, technology and teams are also occurring as part of the MTBP and MUFG Re-Imagining Strategy, which is scheduled to take place through 2023. Digital transformation features prominently among these improvements. Most, if not all, of the changes occurring under MUFG's transformation are designed to foster greater collaboration, informationsharing and consistency (captured in the company's "ONE MUFG" slogan) throughout the global enterprise. "We're confident that we will be able to execute this strategy despite a rapidly changing external environment in many of our regions," notes Katsunori Yokomaku, Executive Officer, Managing Director, and Head of Internal Audit for MUFG and MUFG Bank.

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From Problem Finder to Trusted Adviser

Yokomaku leads global auditing and ongoing monitoring activities for reporting to the MUFG Audit Committee and the Audit and Supervisory Committee of MUFG Bank. He also leads global audit initiatives with his global leadership team, which includes Denise DeMaio, Chief Audit Executive for the Americas; James O'Shea, Head of the EMEA Internal Audit Office; and Andre Painchaud, Head of the Asia Internal Audit Office. The MUFG Group has around 1,200 internal auditors working for the Group globally. "The most notable challenge our internal audit functions face is to continue to provide effective assurance services and coverage across legal entities, business groups and countries while the organization continues to integrate and globalize," Yokomaku says. He explains that internal audit must keep pace with the transformation of the business while conducting its own transformation to maintain an effective coverage model. "This is a significant challenge," he adds, "and one that requires a change management effort on a massive scale."

Yokomaku also notes that one of the overarching objectives of internal audit's longer-term transformation within MUFG is to transition from operating as a problem finder (as it did in the past), to behaving as an assurance provider and problem solver (as it has accomplished more recently), to becoming an insight-generator and trusted adviser. "We have very strong audit functions around the world. Through transformation, we're establishing the vertical alignment we need to unlock all of that value," Yokomaku says.

As is the case with MUFG's business transformation, the purpose of internal audit's transformation is to operate in a more collaborative and unified manner across all global regions. This will foster a more effective and efficient sharing of leading-edge internal auditing practices and technologies, according to Yokomaku. This is easier said than done, of course. Since MUFG took its current structural form in 2005, the operation of (and governance over) individual business entities has been emphasized over a more centralized operational and governance model. This has been the case for how internal audit operates as well. Moving toward a more centralized model, Yokomaku continues, requires "a change in mindset."

A "Complex" Transformation

The "global audit transformation (GAT)" that MUFG has begun qualifies as "complex," according to Yokomaku. The size and global reach of MUFG marks one source of that complexity. Consistent approaches must be established across numerous cultures, languages and business practices.

As is the case with MUFG's business transformation, the purpose of internal audit's transformation is to operate in a more collaborative and unified manner across all global regions.

The GAT plan calls for changes to harmonize and converge business policies, processes, talent management practices, organizational alignment, management and stakeholder reporting, audit methodologies, and supporting systems and data. The GAT timeline is aligned with the company's overall business transformation timeline. The plan's multiphased approach is designed to initially lay a foundation for the move to a fully global function before implementing the unified set of methodologies, reporting mechanisms and supporting technologies. This year, for example, some types of audits will be conducted in a unified manner around the world. These global audit areas include financial crimes, global systems, Sarbanes-Oxley, market conduct, etc. Next year, the plan is for all audits conducted in all regions to follow the same methodology with limited exceptions.

It is important to note that the leading practices concerning auditing methodologies and supporting technology already exist within MUFG's globally dispersed internal audit organization. For example, internal auditors in select regions are using data analytics techniques, and the home office is using artificial intelligence (AI) technology to embed efficiency and effectiveness in the document review process. The purpose of GAT is to ensure that these types of leading practices become standard operating procedure throughout all global auditing divisions.

These practices extend well beyond technology. The internal audit function is currently assessing ways to improve its talent management processes so it can expand its future supply of senior-level internal auditors. Yokomaku and his team are discussing with MUFG's human resources (HR) function new ways to expose earlycareer professionals to internal auditing expertise, methodologies and technologies through rotational assignments. Moreover, the internal audit function plans to increase its hiring of external talent, especially those in the early stages of their careers, so that they can simultaneously gain auditing experience and amass industry and organizational knowledge. To that end, MUFG is also considering the use of internal audit exchange programs through which internal auditors in one of the company's regions join a different region's internal audit function on a temporary basis to facilitate practices sharing and support the "ONE MUFG" objective.

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The MUFG GAT program is designed to achieve standardization, consistency and efficiency. "Being able to provide a common audit perspective, assessment and opinion on a global basis is an innovation — one that requires a major transformation at a company of our size and global reach," says Yokomaku.

NTT Communications

Enablers of Digital Transformation

Masakazu Inori

Communications Team Leader of Legal Affairs and Internal Auditing There has been a significant increase in consulting requests from other internal departments. They are asking internal auditing to identify and provide guidance on risk management improvements and also to access our knowledge and experiences related to digital transformation.

Established in 1999, NTT Communications is a wholly owned subsidiary of Tokyobased Nippon Telegraph and Telephone Corporation (NTT), one of the largest telecommunications companies in the world. Also headquartered in Tokyo, NTT Communications provides consultancy, architecture, security and cloud services to help enterprises worldwide optimize their information and communications technology environments. The company, which has more than 20,000 employees worldwide, operates subsidiaries and offices in more than 110 cities throughout 40-plus countries and regions. As of the end of March 2019, NTT Communications' operating revenue was approximately JP¥1.4 trillion (roughly US\$12.7 billion).

As NTT Communications approaches its 20th anniversary in July, it is celebrating its lengthy track record of innovation. While the company has clearly made good on its original mandate to "Change Communications" — the tagline under which the company launched in 1999 — it continues to embrace transformation and innovation. The company's new trademarked tagline, "DX Enabler™," refers to its goal of changing the world through digital technology ("DX" is shorthand for "digital transformation").

In a message posted on his company's website, NTT Communications President and CEO Tetsuya Shoji explains that the organization is helping clients achieve their digital transformation goals as it simultaneously pursues its own internal DX objectives. To assist customers with their DX goals and efforts, NTT Communications provides services supported by advanced technologies, such as artificial intelligence (AI), the Internet of Things (IoT) and more, as well as infrastructure services (e.g., networks and data centers) that enable and promote data utilization. "Our goal is to help our customers achieve new business creation and business process innovation by equipping them with new findings and forecasts derived from their collections of big data," explains NTT Communications Team Leader of Legal Affairs and Internal Auditing Masakazu Inori. In support of NTT Communications' internal DX endeavor, the internal audit function also operates as a "DX Enabler™" for the rest of the business.

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A Two-Pronged Approach to Transformation

The internal audit function's 17 full-time employees operate on three teams: internal audit, Sarbanes-Oxley (SOX) compliance (NTT Communications' holding company, NTT, is listed on the Tokyo Stock Exchange) and audit planning. Inori currently serves as the leader of both the SOX audit team and the audit planning team, although that structure will soon change. "To further improve the skills of the auditors, we are working to integrate the internal audit team and the SOX audit team," Inori explains. "Each team manager will be responsible for the work of the other team as well."

Internal audit's mission, Inori notes, is to minimize companywide risks and to increase corporate value through the compliance and efficiency of business activities. The function's short-term goal is to deliver objective assurance on the effectiveness of internal controls, identify issues based on root-cause analysis, and support the resolution of any controls-related problems throughout the organization. The function's long-term goal, Inori notes, is to operate as "a trusted adviser that provides strategic advice that has high value for business activities."

Mirroring the company's two-pronged approach to digital transformation, the internal audit function strives to operate as a "DX Enabler™" by supporting digital transformation efforts performed by its internal customers throughout the enterprise while simultaneously pursuing internal audit transformation. Auditing analytics and a move to a more risk-based auditing methodology represent two of the function's primary transformation focal points.

Continuous learning represents a related functional priority. "In addition to acquiring various audit know-how through operations, we are actively encouraging our internal auditors to participate in various internal and external training, obtain professional certifications, and exchange opinions with people from other companies' audit departments," says Inori. His team is also learning about AI and its applications.

The "Awareness Effect" and Other CAAT Benefits

The internal audit function deploys a range of advanced technology to serve as a "DX EnablerTM" to the business and to advance the function's own digital transformation. Most of these tools enable internal auditors to derive, and more effectively communicate, new insights by analyzing larger collections of data.

The function began applying computerassisted auditing techniques (CAATs) and tools to audits in the labor compliance areas in June 2017. Since then, the function's use of advanced technologies, especially those related to data analytics, has steadily increased. Internal auditors have used robotic process automation (RPA) to collect and cleanse expense data from spreadsheets and then load the data into a database where it can be analyzed via ACL Analytics software. Part of the reason his team has undergone AI training, Inori notes, is so that the function can evaluate how and where to deploy AI tools to strengthen its assurance work. The function also uses Tableau's data visualization tool and R, a programming language designed for data mining.

Inori notes that the data visualization tools "are particularly important" because they equip management and employees with a more precise and lucid understanding of risks in their areas, which in turn strengthens their ability to manage and mitigate those risks on their own. All of these tools are used to strengthen auditing activities.

When examining labor compliance, the internal audit team analyzes working time data, as well as entry and exit history data, to assess risks related to compliance with Japan's Labor Standards Act. Internal audit applies similar analyses to other (complete) data sets to assess expense spending for any anomalies. Inori reports that these techniques deliver numerous benefits, such as:

- **Exhaustiveness:** By scrutinizing all of the data, unaudited risks are eliminated.
- Fairness: There is no room for arbitrary judgment or sampling errors because the data is obtained directly from the system.
- **Objectivity:** Any human bias related to data extraction and comparison decisions is eliminated.
- An "awareness effect": As the entire company becomes more familiar with internal audit's ability to analyze complete data populations, that knowledge produces a deterrent effect against fraud.

The success of these analytics-enhanced audits has stimulated demand for internal audit's consulting offerings. "There has been a significant increase in consulting requests from other internal departments," Inori notes. "They are asking internal auditing to identify and provide guidance on risk management improvements and also to access our knowledge and experiences related to digital transformation."

Inori and his team strike a careful balance when providing consulting services. "When we receive a request for internal consulting, we are particularly conscious of standing in the other party's position and thinking together in a collaborative fashion," Inori explains. "We never look at them from above, and we are always clear as to what the second line of defense should do and what the third line of defense should do."

Future-Ready via a Risk-Based Approach

NTT Communications' internal audit function is also re-engineering processes as part of its internal transformation. A shift to increasingly risk-based audits represents one such process overhaul.

To move to a more risk-based auditing approach, Inori's team gathered a large volume of risk information that exists throughout the company. Examples of this risk information include:

- Findings by the National Board of Accounting
- Concerns of internal auditors

- Concerns regarding the domestic subsidiaries, according to audit and supervisory members
- A wide range of compliance-related information
- Risk that has been identified in data analysis
- Risk categories identified by the business risk management (BRM) committee, which is responsible for enterprise risk management

Using that information, the internal audit function created a risk map that identifies the size of impact and likelihood of occurrence for each risk. Inori and his team now use the risk map to strengthen their discussions with executives.

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The move to a risk-based auditing approach, combined with the ongoing adoption of advanced technologies, has helped the internal audit function pivot in another way. Inori notes that his team's audits previously focused on detecting past deficiencies and fraud indicators. Now, he adds, "We are using the latest data analysis technology to predict future behavior patterns and prevent and mitigate related risks."

Occidental Petroleum Corporation

Drilling Down on Data

Gary Daugherty

Vice President, Internal Audit We need people in internal audit who have a technological viewpoint because that's the future. We also need critical thinkers and good communicators. That won't change, because internal auditors need to gain people's trust very quickly and establish an air of collaboration and honesty. Occidental Petroleum Corporation is an international oil and gas exploration and production company with operations in the United States, the Middle East and South America. It is one of the largest U.S. oil and gas companies, based on equity market capitalization, and the biggest operator and oil producer in the Permian Basin in the southwestern United States. At the end of 2018, Occidental had more than 38,000 employees and contractors supporting its operations worldwide.

The company's Midstream and Marketing segment is composed of several businesses that purchase, market, gather, process, transport or store hydrocarbons and other commodities. Occidental also has a wholly owned subsidiary, OxyChem, which is a major North American chemical manufacturer. Dallas-based OxyChem manufactures PVC resins, chlorine and caustic soda, which are essential to developing products such as plastics, pharmaceuticals and water treatment chemicals.

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Outsourcing that heavy workload also helps Occidental's internal audit team and their co-source partners focus on other projects that create value for the business.

Occidental, which is organized in Delaware, was founded in California in 1920. Occidental maintained corporate headquarters in Los Angeles until about five years ago, when the company decided to move its corporate functions to Houston — the headquarters city of its oil and gas business.

Gary Daugherty, Occidental's vice president of internal audit, oversees a lean team in

Houston — two directors, one manager and one senior auditor. However, the function receives ample support for projects through its co-sourcing partners. "I would say our co-sourcing model for internal audit is unique among our peers in the oil and gas sector," says Daugherty. "My team manages and scopes all the projects, but we co-source most of our work with others. So, rather than bringing in subject-matter specialists on a project-by-project basis, we partner with our service providers."

Establishing ERM and Overseeing ERP Controls Design

The co-sourcing model for internal audit has been in place at Occidental since 1998; previously, the company outsourced all of its audit work. The team performs between 70 and 80 internal audits per year, including assurance and advisory projects, cybersecurity reviews, Sarbanes-Oxley (SOX) compliance, and contract compliance audits. It still relies on a third-party provider to handle contractor audits, however, which represent about 40% of the audit work in terms of volume, according to Daugherty. "Outsourcing contractor audits provides a lot of cost recoveries to the business and helps us tighten our contract terms and conditions," he says.

Outsourcing that heavy workload also helps Occidental's internal audit team and their co-source partners focus on other projects that create value for the business. For example, the auditors are collaborating with one of their longtime co-source partners to drive Occidental's enterprise risk management (ERM) initiative. "We wanted risk ownership to reside within the business," says Daugherty. "So, in the first phase of the project, we set up an ERM council, which is made up of five key executives who report directly to the CEO, and an ERM team with about 20 high-level business owners." The second phase of the ERM initiative, to be completed by the end of 2019, centers largely on data. "We're developing dashboards with key risk indicators and key performance indicators for monitoring any changes in risk," says Daugherty. "It's been a really fun and eye-opening experience for us."

Another major project internal audit is helping to support is the oil and gas group's implementation of SAP S/4HANA. The enterprise resource planning (ERP) suite went live in Occidental's South American operations at the start of 2019 and will be rolled out in the United States in 2020. "We're doing a lot of pre-implementation work," says Daugherty. "We've performed several comparative process reviews, looking at some major processes for oil and gas, like materials management, maintenance, production and measurement, and supply chain management. We're trying to ensure that process and application controls are designed properly. In addition, we're involved in the SAP pre-implementation controls review of IT general controls, configuration settings, and user access roles and responsibilities."

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Embracing more sophisticated tools for data analysis and reporting was one of the team's first steps toward becoming a next-generation internal audit function.

These projects alone would be enough to keep any internal audit function very busy — even a team that co-sources. But Occidental's internal auditors also have a list of projects to tackle in 2019 that was shaped by their annual risk assessment in 2018. "We looked at major initiatives for Occidental, from the SAP S/4HANA implementation to cybersecurity, and married those things with the top critical enterprise risks and emerging risks we identified in the first phase of our ERM project," Daugherty says. "That effort defined what we call our 'mission-critical' projects for 2019 — the projects that are locked in for the year. Other projects may be added or deferred depending on changes in our business and risk profile."

Developing Dashboards, Automating Work and Tracking Issues

As Occidental implements new processes and systems to improve how it operates, internal audit is working to modernize, too. Daugherty says his team's commitment to innovation and transformation is "about driving efficiency and doing more with fewer resources — better, faster and more costeffectively." It's also about making sure that internal audit "doesn't get left behind."

Embracing more sophisticated tools for data analysis and reporting was one of the team's first steps toward becoming a nextgeneration internal audit function. "We had plenty of historical data, but we had to collect it, put it in Excel or Access, run graphics, and then make a PowerPoint presentation so that we could share it," says Daugherty. "Now, it's all automated."

The internal auditors use TIBCO Spotfire Data Visualization and Analytics software to create dashboards that supplement their reporting to the audit committee. "The dashboards provide an automatic snapshot of where we are in terms of our overall plan status, project tracking, aging of open internal audit issues, open SOX compliance deficiencies and contractor audit results," says Daugherty.

Occidental's internal auditors attend five audit committee meetings annually, and their time to prepare for those meetings has been significantly reduced thanks to their use of data analytics. "The tool basically tracks everything for us, and it's very interactive," says Daugherty. "We can drill down into the data to get details on demand and answer any questions that the audit committee may have. And the issue tracker lets us gauge where we are on all outstanding issues. We've loaded every issue for every audit that we've done over the last seven years into the tracker."

Establishing an "Opt-Out Methodology" for Data Analytics

As part of their efforts to increase their overall efficiency, the internal audit team at Occidental updated their methodology in 2018. "We incorporated automated process maps for internal audit project execution, follow-up and SOX testing," says Daugherty. "Now, you can click on a process icon to get to our templates and report formats — it's our entire methodology, from planning to fieldwork to reporting. It's a good training tool for our co-sourcing partners."

Daugherty also introduced the concept of "opt-out methodology" to the internal audit team. Daugherty explains: "We tell our auditors that we will use data analytics on every project that we initiate unless they opt out. But to opt out, they must get my approval. We've found that this methodology really drives the use of data analytics, whether it's visualization of data or using data analytics within a project to test entire data sets rather than sampling. In some cases, we've even taken the data analytics tools that we've developed and turned them over to the business."

Daugherty also says he's eager for his team to increase collaboration with the IT organization and the business to get the full benefit of Occidental's data power. "There are silos of data scientists, quants [quantitative analysts] and other folks in the business doing their own thing with data," says Daugherty. "Now, it's time for our team to either leverage what's already been developed or work directly with the business and IT to develop something that we all can use."

Real-time assurance tools are one example that Daugherty has in mind. "We could set up monitors to track any fluctuations or anomalies or deviations in data, starting with simple things like travel and entertainment expense reporting, delinquent payments, AR gaining, or slow-moving inventory," he explains. "Then, we could do comparative process reviews of activities among all the business units. From there, we could drive more targeted audits, like spot audits, of those anomalies."

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Daugherty says access to specialized skills is a key reason that Occidental relies heavily on co-sourcing for internal audit work.

Raising the Visibility of the Function — and Thinking About Bots

Daugherty says access to specialized skills is a key reason that Occidental relies heavily on co-sourcing for internal audit work. When Daugherty does need to hire staff for his core team, he says it can take time to find someone with the right mix of abilities who can help the internal audit function keep making strides with its innovation and transformation efforts. Through the co-sourcing model, the team has scalability and can bring the right resources at the right time to meet its needs.

Daugherty says, "We need people in internal audit who have a technological viewpoint because that's the future. We also need critical thinkers and good communicators. That won't change, because internal auditors need to gain people's trust very quickly and establish an air of collaboration and honesty." The work that Daugherty and his team are doing to drive innovation and transformation in the function has not gone unnoticed at Occidental — in fact, it's helped to raise their visibility. "What we've been able to achieve is coming through in our audits and deliverables, and that's resonating throughout the organization," says Daugherty. "We have people coming to us asking, 'Hey, we know you have unique skills and tools — can you assist us with this project?' or 'Can you give us that technology?'"

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The work that Daugherty and his team are doing to drive innovation and transformation in the function has not gone unnoticed at Occidental — in fact, it's helped to raise their visibility. Another area that the internal audit team at Occidental is just starting to explore which will likely grab the attention of the business — is robotic process automation (RPA). "We're wondering what we can do with RPA," says Daugherty. "Can we develop bots to do our SOX testing, for example? We probably spend about 35% of our time on internal controls over financial reporting and IT general controls — and that's out of roughly 30,000 hours a year. Developing bots that can help us and our co-sourcing partners be more efficient with SOX testing is the next generation of internal audit, too."

Synchrony

Investing in a Data-Driven, Digital Future for Internal Audit

Mark Martinelli

Executive Vice President and Chief Audit Executive In the future, I think internal auditors, in general, will use more data analytics and digital dashboards to get a better sense of whether a risk is going up or down. So, there will be a little bit more science and a little bit less art in our reporting. Synchrony is a consumer financial services company that delivers customized financing programs across a range of major industries, from retail to automotive to travel. It is the largest provider of private-label credit cards in the United States and has established partnerships with national and regional retailers, healthcare providers, and other businesses in the United States and Canada. Synchrony also provides an array of consumer savings products through Synchrony Bank, its wholly owned online bank subsidiary.

Synchrony, headquartered in Stamford, Connecticut, split off from GE Capital, General Electric's financial services unit. So, while Synchrony is technically a new company, its roots extend back to 1932, when GE Capital Retail Bank began providing customers a line of credit to purchase GE appliances. In 2014, Synchrony went public, raising more than US\$2.8 billion in its initial public offering (IPO).

Synchrony is a digitally forward company that invests in technology across multiple platforms — in-store, online and mobile. It has as a goal to shape the future of financing and customer engagement by combining technology and analytics to stay ahead of emerging trends, and then pilot new programs and partnerships to deliver innovative solutions fast.¹ And as Synchrony pursues those investments, its internal audit team is on hand to assess potential risks.

"Synchrony is essentially a technology company that does consumer finance," according to Synchrony Executive Vice President and Chief Audit Executive Mark Martinelli. "So, a big portion of the internal audit team's work, in addition to providing assurance services to the company, is to audit technology. That includes cloud and mobile technology, as well as other innovations designed to make Synchrony's interactions with our customers more frictionless."

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To help them learn, Martinelli collaborated with the data scientists and professional practices group within the function to set up a data analytics "university" for internal audit.

Spending Two Weeks in the "Data Intelligence Academy"

Martinelli oversees an internal audit department that is divided into five teams, as well as a professional practices group. He has expanded the staff size from 10 to 60 since joining the firm in May 2014, a month before Synchrony's IPO. About 20 team members work with Martinelli at Synchrony's Stamford headquarters. The other 40 individuals are spread across offices in Georgia, Illinois, Utah and India.

"I had an opportunity to build a new internal audit department at Synchrony," Martinelli says. That work included creating a data analytics function within internal audit, which was something Martinelli says he wanted to do right from the start. Today, data scientists make up about 10% of Synchrony's internal audit team. "We're now trying to retool and rescale the department so that everyone on the team has real working knowledge of data analytics by the end of 2020," says Martinelli.

To help them learn, Martinelli collaborated with the data scientists and professional practices group within the function to set up a data analytics "university" for internal audit. The Data Intelligence Academy (DIA), which is self-funded by the department, launched in 2018. "We're training individuals on data analytics and related techniques in a two-week immersive course," Martinelli

¹ "About Us – Innovation," Synchrony website: www.synchrony.com/about-us.html.

says, adding that about 25% of the auditors had completed the training as of early 2019.

"My view is that the next generation of internal auditors will need to know data analytics," he says. "I'm already thinking about what we'll be able to do in our organization by the end of next year when everyone in the department has deeper knowledge of data analytics and techniques. We'll then be able to use our true data scientists in a much more specialized way."

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While Martinelli is intent on helping his team become proficient in using data analytics, his "digital vision" for the department extends well beyond that effort. His goal is to use technology to help evolve a more real-time assurance model for Synchrony.

Martinelli says there was no trouble finding volunteers for the inaugural class of the Data Intelligence Academy. "We had many team members raise their hands to say, 'Yes, I want to be a part of that.'" That level of enthusiasm, along with the success of the program to date, is motivating other internal auditors at Synchrony to embrace the opportunity to learn this new skill set.

"People are sometimes wary of new technologies — and the impact they could have on their jobs," Martinelli says. "The Data Intelligence Academy is a way to introduce data analytics to our team in a comfortable way, and it's working really well for us. The combination of an auditor's knowledge of the process, coupled with their new DIA data analytics skills, is really providing measurable early wins for our DIA graduates." The internal auditors who completed the Data Intelligence Academy's curriculum have already developed several case studies that they're using in their work, according to Martinelli. "We're starting to see the benefits of those case studies, too," he says. "We have individuals and teams coming up with findings that they wouldn't have been able to uncover without data analytics. I also think that our use of data analytics is helping us to deliver audit work to Synchrony that's timelier, as well as more aligned with the needs of the business."

Measuring Internal Audit Efficiency Through "The 2020 Initiative"

As Synchrony's internal auditors expand their use of data analytics in their work, the business's appetite for data-driven insights and tools from the function grows, says Martinelli. "I'll tell you why that's the case: We're now able to give them deeper assurance," he explains. "We can also identify and share opportunities for automation or efficiencies within a process, including sharing best practices for data analytics used in those processes."

While Martinelli is intent on helping his team become proficient in using data analytics, his "digital vision" for the department extends well beyond that effort. His goal is to use technology to help evolve a more real-time assurance model for Synchrony. "Auditing, both internal and external, is a bit historical in nature," Martinelli says. "We, as auditors, show up, perform the audit, and then issue a report three months later telling you what we found. What we want to do is shorten our auditing spans, deliver faster reporting and conduct better risk assessments."

Eliminating manual work is one key to realizing that vision. Employing data analytics and dashboards is another. "We could look at certain key performance indicators, changes in balances, the number and type of complaints coming in from consumers, and many other things," says Martinelli. "And maybe we combine that information with internal and external data to come up with risk indicators that can tell us if a risk in a certain area of the business might be increasing or decreasing."

He continues, "What I'm describing is not exactly predictive modeling. But the idea we're working toward is to create dashboards that could tell us whether we should look at an area of the business sooner rather than later because something has changed and is potentially creating risk."

Martinelli says, "In the future, I think internal auditors, in general, will use more data analytics and digital dashboards to get a better sense of whether a risk is going up or down. So, there will be a little bit more science and a little bit less art in our reporting." Martinelli also envisions internal auditors at Synchrony using dashboards to show business owners broad trends over time, instead of offering a pointin-time assessment.

Soon, the internal audit department at Synchrony will be using dashboards to gauge the performance of the function itself. That digital project, now in development, is called "The 2020 Initiative." Martinelli offers this background on it: "One of the goals I set for the department this year is to run internal audit like a business. We're becoming more efficient in our work by using tools like data analytics, but how efficient are we as a department? So, I want us to have a series of simple dashboards that can tell us, every day, how efficient and effective we are in terms of using our team, in getting audit reports out, how fast we're validating issues, how well we are utilizing our resources, and more."

One dashboard being designed now will provide visibility into audit work papers, according to Martinelli. "Work papers have to be signed off within a certain amount of time," he says. "So, how fast do they get signed off? And are we falling behind on the work?"

He adds, "I'm trying to find better ways to make us more aware of where we're efficient — and where we're not. I think it's important to shine a spotlight on our department to make sure we're as effective as we can be using digital and data to create dashboards to show my leaders and to see for myself how well we're running the internal audit department."

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As the internal audit team at Synchrony uses technology and data insights to work more efficiently, Martinelli says they are finding more time to focus on value-adding projects for the business.

Getting Comfortable With the Speed of Change

As the internal audit team at Synchrony uses technology and data insights to work more efficiently, Martinelli says they are finding more time to focus on value-adding projects for the business. "We need to do more work around data privacy and cybersecurity, for example," he says. "And, as we automate more of our work, we are reinvesting our time in these and other areas."

Pivoting to new assignments isn't always easy, though — nor is adapting to new technology. But Martinelli says next-generation internal auditors will need to do both to succeed in the profession. And that's not all: "Internal auditors need to get more comfortable with the speed of change," he says. "There is always change, and there always will be change. But the pace of change today is rapid, and that's driven largely by technology." So, for internal auditors, getting comfortable with the speed of change will include learning how to audit emerging technology — and perhaps in real time, Martinelli says. "We have to figure out how best to audit new technologies, which present new risks," he explains. Martinelli points to systems that use machine learning and artificial intelligence, which could "make changes in coding on their own." He says, "I think, in the future, internal auditors will need to audit while operational systems and controls are being built, as opposed to after the fact."

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So, for internal auditors, getting comfortable with the speed of change will include learning how to audit emerging technology — and perhaps in real time.

TD Bank Group

Assigning a Human Face to Internal Audit Transformation

Michael Pagan

Vice President, Global Head of Audit Strategy and Transformation In a nutshell, our strategy is: Go Digital, Be Agile, Get Fresh Perspectives, and Live One TD. Headquartered in Toronto, TD Bank Group's more than 80,000 employees serve 25 million-plus customers worldwide. Those customers are primarily located in North America, as well as in Europe and the Asia-Pacific region. TD Bank Group operates several subsidiaries in three business lines:

- Canadian Retail: TD Canada Trust, Business Banking, TD Auto Finance (Canada), TD Wealth (Canada), TD Direct Investing and TD Insurance
- U.S. Retail: TD Bank, America's Most Convenient Bank, TD Auto Finance (U.S.), TD Wealth (U.S.) and TD's investment in TD Ameritrade
- 3. Wholesale Banking, including TD Securities

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TD Bank Group companies promote their ability to maintain highly personal connections with customers and stakeholders in the digital age.

Despite the variety of services delivered by those subsidiary companies, TD Bank Group strives to collaborate and serve customers in a unified manner across all of its businesses and units in accordance with "One TD," an enterprisewide strategic priority. The three pillars of this approach include fostering strong partnerships across internal teams, seamlessly delivering the bank's entire offerings to customers and deepening customer relationships.

TD Bank Group companies promote their ability to maintain highly personal connections with customers and stakeholders in the digital age. TD Bank's "unexpectedly human" credentials (which it has trademarked) are evident in its branch offices' long hours, pet-friendly policies and abundant lollipops. Tellers also encourage customers to keep the bank's pen after they've completed a transaction. So, it's no surprise that TD Bank Group recently put a human face on internal audit innovation. The strategic blueprint for internal audit transformation that resulted from this decision is comprehensive and instructive.

An Innovative Personality

In April 2018, TD Bank Group's internal audit function, which has more than 400 full-time employees globally, named Vice President Michael Pagan as the global head of audit strategy and transformation. The U.S.-based Pagan reports to TD Bank Group's Global Chief Auditor Xihao Hu, who took on the role in early 2019, and Anita O'Dell, the chief auditor of the U.S. bank.

"The audit strategy position was created to ensure that we are properly focusing on the future. Our chief auditor at the time, Kelvin Tran, decided that we need somebody senior to focus on strategy full-time," Pagan recalls.

Pagan's extensive auditing experience in the financial services industry and his nine years auditing various areas of TD Bank Group, including wholesale banking and U.S. retail banking, made him a befitting candidate, as did his personality. Pagan has a healthy appetite for innovation and creativity.

In this new role, Pagan worked to ensure the strategy was developed collaboratively. "We don't want strategy developed in an ivory tower," Pagan notes. "It can be easy for theory and the practice to become disjointed, so I really need to work through my colleagues."

Transformation Phase #1: Origination

The first order of business involved articulating the function's approach to transformation and innovation. This was a broad mandate to further define the role and determine success measures, and it actually began with a blank canvas, which was very exciting but also scary, according to Pagan.

A key part of filling in this blank canvas was extensive research; books, white papers and articles; conferences featuring leading futurists and technology thinkers; and the study of trends shaping the financial services industry. Audit and bank executives were approached to find out how they saw their work evolving. "There's definitely a trend in the industry and within TD whereby more individual leaders are taking responsibility for innovation and transformation," Pagan notes. "Whenever I saw an announcement concerning colleagues taking on a new role with 'strategy,' 'innovation' or 'transformation' in their title, I would immediately ping them, so we could start sharing ideas."

The blank canvas evolved to multiple drafts of the strategy with input from the chief auditor. Those exchanges, along with discussions with other members of the internal audit senior management team and assistance from external consultants, were very helpful as the transformation strategy needed to align with (1) the company's strategic objectives; (2) internal audit's latest vision ("great people providing insights on key risks around the corner") and (3) internal audit's value proposition, which is "providing valued, independent, holistic and proactive assurance."

After finalizing the strategy, communication was key. "A key objective was to have everyone from entry-level auditors to our chief auditor know what our strategy is and how it's relevant to them. That's crucial because our strategy is not implemented by me — it needs to be understood, bought in, and implemented by every single person in our function," Pagan says.

The entire leadership team and the audit committee supported the final strategy

document. "In a nutshell," Pagan emphasizes, "our strategy is: Go Digital, Be Agile, Get Fresh Perspectives, and Live One TD."

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One TD brings a strategic and customer focus, holistic perspective, and three lines of defense coordination without compromising independence.

The Live One TD component of the strategy reflects the audit function's commitment to, and alignment with, TD's corporate strategy. The pillars of internal audit's transformation strategy are:

- Go Digital: This pillar calls for internal audit to embrace advanced technology and data analytics — to weave digital and advanced technology skills into the DNA of all auditors — not just specialists.
- **Be Agile:** This means modifying "capital-A-agile" methodologies so that the function can operate with a flexible, nimble approach while providing independent assurance.
- Get Fresh Perspectives: This strategic pillar centers on the function's talent management and benchmarking activities. Fresh perspectives relate to diversity in every sense of the word — to gender, race and ethnicity, as well as diversity of thought, background, experience, education and skills, with a goal to make the group better suited to solve new and unique challenges.
- Live One TD: One TD brings a strategic and customer focus, holistic perspective, and three lines of defense coordination without compromising independence.

Transformation Phase #2: Communication

The next phase of this transformation strategy work remains ongoing, and the communication never ends.

This phase began in earnest with a two-day conference attended by the entire global division. "During the conference, I introduced the strategy after a little dramatic buildup," Pagan recalls. The event featured numerous workshops devoted to each pillar of the strategy, as well as guest speakers from the business, including the company's head of innovation and several technology experts.

The entire event really launched the communication of the strategy. "The excitement generated during events like that subsides because you don't get to present in front of the entire function every month. So, we're working on other ways to sustain the momentum," Pagan says.

Pagan gains new perspectives from different groups within internal audit, and they return to their teams with a better understanding of the transformation — and more excitement.

In addition to small group discussion sessions with audit teams and distributing newsletters containing updates on transformation progress to his auditing colleagues, an innovation rotation program was created through which auditors joined Pagan to work full-time on innovation and transformation for three-month stints. Pagan gains new perspectives from different groups within internal audit, and they return to their teams with a better understanding of the transformation — and more excitement.

Transformation Phase #3: Execution

Once TD Bank Group's internal audit transformation strategy was finalized, auditors across all levels of the division volunteered to take ownership of and drive activities within each of the pillars. Pagan clarifies that this governance structure is separate from the formal organizational structure and helps to foster innovation within business-as-usual activities while sharing responsibilities across teams.

The assistance of TD Bank Group's central project management function was utilized to formally monitor those initiatives a move that demonstrated the unified approach espoused by the company's One TD priority and helped add more structure and accountability to projects.

One initiative within the Go Digital pillar consists of an objective that 50% of audits conducted in the current fiscal year will use some form of data analytics. A related Go Digital objective involves training internal auditors to use a data analytics tool from Alteryx. While the tool is intuitive, a function-wide rollout and accompanying training effort might be inefficient. Instead, champions were selected within each audit team who would be best suited to learn the tool quickly based on their experience with similar tools and advanced analytics, as well as their managers' recommendations. "We developed a more targeted training approach to get them comfortable using this tool," Pagan explains. "The training is not just about how you use the tool and the data it produces, but also about how you select the best opportunities to apply the tool. We then expect the champions will pass on their knowledge to the rest of their respective teams."

Plans for modified agile auditing pilots and enhancements of the internal audit function's talent management strategy and processes are now being finalized. The talent enhancements will be based on a function-wide skills assessment that will be compared to a model of what skills the function will need five and 10 years from now. Recruiting and training approaches will then be reviewed to determine the best approach for moving forward.

"We've traditionally hired from large auditing firms and from other banks," Pagan explains. "Our interns and entry-level auditors tend to be accounting majors. We expect that our quest for fresh perspectives may significantly alter that approach. We may look at engineering majors and increase hiring from a broader array of technology companies. We're also going to re-examine our labor model. We are asking ourselves if we need to continue to hire fulltime specialists. Or, is there a more fluid model where we work with outside partners who can help us address new skills needs much faster as the business changes?"

Pagan concludes by emphasizing that internal audit transformation is a work in progress, and there is a lot more work to be done, but the future looks incredibly bright. "The division is excited, and I am excited," he adds, "by all the things we have to figure out and build for the future."

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Zain Group

The Front Lines of Internal Audit Innovation

Venkatesh Jandhyala Chief Internal Auditor Now, you might say, 'That sounds like an operational activity and not something internal audit should do.' But we view CapEx [capital expenditures], and whether they are generating the returns that were originally projected, as a strategic risk if projections are not met ... and we know that we can deliver immediate value to the organization once we complete our advanced integrated analytics initiative.

Established in Kuwait in 1983, Zain Group was the first mobile telecommunications operator in the Middle East. Today, on the heels of a successful expansion strategy initiated in the early 2000s, Zain Group is a leading mobile voice and data services operator with a commercial footprint in eight markets across the Middle East and Africa, with 6,000 employees, over US\$4.4 billion in annual revenues, and 50 million individual and business customers. Zain Group operates in Kuwait, Bahrain, Iraq, Jordan, Saudi Arabia, Sudan, South Sudan and Lebanon (where it manages the local operation "touch" under a management contract). The Zain brand is one of the most recognized and loved brands in the region, having won numerous prestigious marketing and advertising awards across the globe, with the brand being valued in the vicinity of US\$2.3 billion.

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To counteract the shrinking margins that all voice and data services infrastructure providers confront, Zain Group is remaking itself as a digital lifestyle services provider.

In 2016, the company embarked on an ambitious transformation under the current Group CEO and Vice Chairman, Bader Al Kharafi. To counteract the shrinking margins that all voice and data services infrastructure providers confront, Zain Group is remaking itself as a digital lifestyle services provider. Across its operations, the company is offering a broad array of appealing individual customer digital services and applications (many through key partnerships), as well as a range of enterprise (business-to-business or "B2B") services, offering government bodies and companies of all sizes businessenhancing communications services. Most recently, in Kuwait, the operator launched Zain Drone-as-a-Service, which helps utilities remotely oversee and manage their vast infrastructures in an efficient and safe manner. Zain Group's transformation in recent years has consisted of major initiatives in six focus areas: customer experience, operational effectiveness, value management, B2B, digital frontier and innovation, and talent development.

"Technology evolves rapidly in the telecommunications industry and having the foresight to plan and adapt is critical," notes Zain Group's Chief Internal Auditor Venkatesh Jandhyala. The swift pace of technology-driven change combined with Zain Group's strategic transformation efforts, as well as the company's large and highly varied geographic footprint, keeps Jandhyala's internal audit team on its toes. "Given the ongoing adoption of new technologies throughout the business, some of the processes that our auditors document are no longer relevant just a few months after we complete an audit," says Jandhyala.

This dynamic also spurred Zain Group's internal audit function to deploy an impressive, steadily expanding collection of advanced technology, including process mining tools, robotic process automation (RPA), continuous monitoring activities (CMA) and advanced integrated analytics.

Monitoring Fuel Cost Swings During a Civil War

The majority of Zain Group's largely centralized internal audit group is based in the company's Kuwait City headquarters. A small internal audit division also operates from the company's Saudi Arabia office, primarily to address auditing work related to unique Saudi regulatory requirements.

Jandhyala leads a team of 25, which includes eight full-time employees and 17 co-sourced internal auditors. He describes the co-source arrangement as crucial to his function's operation because it gives him access to specific skills and technical expertise (e.g., process mining) while also letting him scale up and down in accordance with fluctuating workloads. His team audits processes performed by 6,000 employees across eight countries on two continents. "We are very, very lean," Jandhyala points out. "As a result, we've needed to be a much earlier adopter of new internal auditing technology. We are also highly influenced by our company's overall digital strategy. That means we continually look for innovative ways to maximize the value we provide despite our lean size."

A prime example: Back in 2015, Jandhyala's team developed a homegrown continuous monitoring capability in response to price spikes in diesel fuel that hammered Zain Group's South Sudan operations during that country's civil war. In most parts of South Sudan, as well as in many other regions of countries in which Zain Group operates, cell phone towers run on diesel generators (making diesel fuel the company's second-highest cost contributor to network management expense). Cell site operations management was largely outsourced in South Sudan, and the outsourcers maintained contracts with a number of different fuel providers that delivered diesel to numerous cell sites — both inside and outside wartorn regions. That arrangement meant that internal audit's sampling of fuel-cost data would be ineffective, if not useless.

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Instead, internal auditors went to Zain South Sudan, which did not have an enterprise resource planning (ERP) system at that time, and scanned and loaded fuel procurement and cell site operations management data into a database. The auditors ran SQL queries and integrated that information with a geographic information system (GIS). The application they developed enabled local management to get the previous six months' fuel-cost information on nearly 200 cell sites, individually or by region, at the click of a button. Those views helped management determine which suppliers were gouging and which ones were raising costs in response to legitimate supply chain disruptions. Based on this information, internal audit also suggested the use of a new outsourcing approach, the selection of a new fuel vendor, and the implementation of new key performance indicators to monitor and manage fuel costs moving forward.

Utilizing Process Mining and Social Media Monitoring

The internal audit function has refined its use of advanced technologies since equipping the South Sudan operations with that continuous monitoring application four years ago. Jandhyala emphasizes that all of his function's innovation-related activities are squarely centered on managing risk. "We look at everything we do from a risk management perspective," he says, while describing recent process mining and RPA initiatives.

Based on the success of its RPA pilot in Saudi Arabia, internal audit is now planning how to implement similar bots in other regions.

Zain Group's internal auditors recently applied process mining, with the help of technology from Celonis, to audit the procure-to-pay life cycle in the company's Jordan operations. Those operations were attractive for process mining thanks to the existence of mature processes, a wellstructured ERP system and a relatively smaller number of transactions (compared to Zain Group operations in other countries). The initial audit with the process-mining tool is currently wrapping up, and Jandhyala reports that the new approach reduced the time auditees needed to devote to the process definition stage of the audit by 25% to 30%. "Now we're able to give auditees real-time examples of any anomalies that require their quick review to determine whether what we discovered makes sense and, if so, what type of follow-up the issue requires," Jandhyala

explains. "We're seeing a lot of value for this, and we're trying to figure out how we can use the tool to give our auditees a real-time understanding of what's occurring in their areas on an ongoing basis." Jandhyala and his team are also evaluating how to apply process mining to accounts payable (AP) while zeroing in on fuel costs — more broadly throughout the company.

Internal audit's recent use of RPA in the company's Saudi Arabia operations involved a more targeted effort. Internal auditors wanted to address the lack of integration between the internal audit management software (IAMS), including open issues and follow-up actions by business partners, and the operation's email system. The IAMS is managed by an external services provider, so, due to internal information security requirements, direct integration between those two systems was not an option. As a result, prior to the RPA implementation, internal auditors manually uploaded relevant reports and status updates from the IAMS into SharePoint, which is integrated with the email servers. That manual work consumed significant amounts of time on an ongoing basis.

The RPA application automated the transfer of information from the IAMS to SharePoint. "Rather than sending out manual emails as we used to do," Jandhyala says, "automated emails are now sent to the auditee six weeks before the due date of a specific action. If we do not receive updates from the auditee on the status of a particular issue within one week following the due date, an email is automatically sent to the auditee's supervisor." Based on the success of its RPA pilot in Saudi Arabia, internal audit is now planning how to implement similar bots in other regions. Other forms of internal audit innovation at Zain Group have served to address strategic risks rather than internal auditing efficiency and efficacy. Internal auditors just completed the function's first social media sentiment analysis for the company's Saudi operations. The review gauged what customers and employees are expressing on social media platforms about their experience with the company. "From a risk perspective, social media can affect the value of our brand, so we conducted the sentiment analysis from that perspective," notes Jandhyala.

Delivering Immediate Value With Advanced Integrated Analytics

By 2020, Jandhyala plans to complete a new, advanced integrated analytics initiative that his function will begin in the coming months. This multilayered analysis will evaluate the extent to which capital expenditures (CapEx) in a given region are generating the returns they were expected to yield. The analysis will pull in a large collection of varied internal and external data, including budgets, revenue forecasts, spending and actual revenues, as well as population and demographics information, GIS data, local economic trends, information on transportation networks, and more. The idea is to help business partners understand which factors have the greatest influence in ultimately determining the efficacy of their investment planning and decisions.

"Now," Jandhyala adds, "you might say, 'That sounds like an operational activity and not something internal audit should do.' But we view CapEx, and whether they are generating the returns that were originally projected, as a strategic risk if projections are not met ... and we know that we can deliver immediate value to the organization once we complete our advanced integrated analytics initiative."

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"While there is pressure on us to manage our resources judiciously and still keep pace with rapid technological changes, we are able to do our jobs effectively and experiment with new methods and technologies in our work thanks to our forward-thinking audit committee, and our progressive board and executive management," Jandhyala says. "Without their combined support, any change would have been very time-consuming and delayed internal audit's transformation."

"Transformation is not the end but rather the end of the beginning, as internal audit starts on a path of innovation and ongoing advancement."

Andrew Struthers-Kennedy
Protiviti Global IT Audit Leader

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