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Internal audit responds to COVID-19

Internal audit teams are responding to rapidly changing risk landscapes and control environments. Remote working conditions, shifts in operations imposed by the pandemic, accelerated digital innovation, and economic stress have introduced new risks, heightened existing ones, and fundamentally changed the control environment. Internal audit leaders have had to work flexibly and to reset work plans nimbly. Many companies have seen significant control improvement from agile auditing methods, often enabled by new technologies.

In September and October 2020, members of the North American and European Audit Committee Leadership Networks (ACLN and EACLN) met in two virtual sessions to discuss the outlook for internal audit deployment and technology with Rui Bastos, chief information officer & chief digital officer—Reliance Industries Hydrocarbons, and head of group audit and risk management for the Reliance Group; Dr. Leo Mackay, senior vice president, ethics and enterprise assurance for Lockheed Martin; and, Amy Brachio, EY Partner and the firm's global business consulting leader. For biographies of the guests, please see Appendix 1, on page 9. For a complete list of participants, see Appendix 2, on page 11.

Executive summary

Conversation among the audit chairs and guests primarily focused on three topics:

- Internal audit groups are gaining agility (page 2)
 - Internal auditors are responding to unprecedented operational disruptions, working conditions, and risk landscapes. The shift to remote work has highlighted the virtues of flexibility, quick pivots, and communication in audit plans, strategies, and techniques.
- Technology, a comprehensive outlook, and staff improvements are all boosting internal audit (page 3)
 - Technologies such as data analytics and data mining, modeling, and robotic process automation can enhance internal audit effectiveness, often with less human work. Taking a holistic view of data and risk is also important, as is honing or supplementing the skills of the internal audit team.
- How should the CAE role be positioned? (page 6)

New internal audit tools and strategies invite fresh visions for internal audit leadership. For some companies, the chief audit executive (CAE) function may need greater stature to deliver value. Some companies see the opportunity to marry technology, risk, compliance,







or other functions with internal audit to align internal audit with risks and risk appetites, technology initiatives, and business models.

For a list of discussion questions for audit committees, see Appendix 3 on page 13.

Internal audit groups are gaining agility

Guests and members agreed that in times of crisis, the internal audit function must be focused on the most important risks companies face, and it must constantly adjust as those risks change. Agility is crucial. When the pandemic hit, yearly audit plans became obsolete or impossible to fully execute. Some risks fell away, while new ones emerged. For example, personal financial uncertainty, budgetary constraints, and prevalence of operational workarounds that the pandemic brought with it can inspire bad actors. A member warned, "This is a time when people do bad things." Members and guests anticipated that risks associated with remote work are likely to persist and continue to challenge internal audit teams. "We thought remote work would be short term, but now CAEs wonder about who will actually return to the office. Remote work is not a one-time event. We'll see a variety of approaches going forward," Ms. Brachio said.

Flexibility

Audit chairs and guests reported that their internal audit departments were adjusting their audit scopes and plans on an ongoing basis. Building flexibility into execution strategies allows audit teams to target the highest risk areas and deliver audit reports in real time. A director whose internal audit function had shifted to agile auditing before the pandemic reported that audit teams had been able to adapt to the new conditions the pandemic ushered in. "Every quarter in advance of every audit committee meeting, we check to ensure that we're focusing on the right things, leaving flexibility in the planning process for the unknown," the member explained. When the pandemic hit, the audit teams revised their list of top risks and audited for them accordingly. "We're 95% on the original audit plan, but we've added flexibility for enterprise risk management. We reassessed our top risks and tweaked the rest. As we plan for the next quarters, we're leaving some powder dry. Flexibility, agility, and the ability to pivot are critical," the member emphasized.

Quick pivots

Dr. Mackay said that Lockheed Martin's internal audit department has adopted "principles of agile management ... We have standing audits for financial and general controls, but our audit plan is governed by risk and risk management. We've empowered our audit teams to consider risk appetites in the audit plan." He emphasized that a key feature of effective agile auditing is knowing when to stop an audit and move to the next. When a team has identified and mitigated a given risk in the course of an audit, it ends the audit of that particular risk and redeploys. A critical feature of the agile approach, Dr. Mackay said, is that teams are able to obtain "enhanced visibility into the controls and data sets, so we can be particularly dynamic in



our audits." His audit teams had been following this approach before the pandemic and were well positioned to adapt once it struck.

Communication

Another member stressed how important frequent communication is for agile auditing: "Every day, each audit team has a standing meeting in which they literally stand and review what they learned the day before, what they need to modify, and what real-time communication they need to have with the business. They're not waiting until the end of the engagement to communicate." Mr. Bastos said that his audit teams follow a similar approach. They have joint meetings with business and risk owners: "We keep them in the loop on ongoing audit findings and controls testing results so as to proactively manage and sustain the controls environments and implement risk mitigations proactively, not just report on the audit process."

New developments

When the pandemic swept away preexisting audit plans and changed organizational priorities, many internal audit groups redeployed audit staff elsewhere in the company, and many members reported that this contributed to company-wide resiliency. Using internal audit staff in unexpected ways often catalyzed or strengthened agile approaches. Members generally expressed openness to rethinking how internal audit staff could be used.

Additionally, many companies now understand and appreciate the feasibility of remote audits. According to a recent EY survey, 42% of CAEs said the most significant lesson their internal audit functions learned during the COVID-19 disruption is that they can remotely audit "almost anything." Members confirmed this; one said that as part of a resiliency test, the internal audit department went to remote work ahead of the governmental mandate and discovered early that remote auditing could work. Audit teams benefited from this planning and testing once company's entire workforce went remote.

Several members expressed worry, however, that audits may suffer without in-person human interactions. "I've always used internal audit staff as a key resource for examining culture. They enter and interact with the organization and detect cultural stress. They do incredible work with culture, but I now worry about their effectiveness. We have to figure out how to get that work done remotely. We're giving up a lot of human touch with remote work," a member reported. Another member agreed: "Body language, team functioning, fear, suspicion, smooth functioning—you can't sense that as well with video. With remote auditing, you get the words but not the music."

Technology, a comprehensive outlook, and staff improvements are all boosting internal audit

New forms of information technology (IT) and other new technologies, including data analytics, machine learning, artificial intelligence (AI), and robotic process automation, are increasing



internal audit's capacity and accuracy. Among CAEs responding to the recent EY survey, 14% agreed that internal audit needs more technology, including robotic process automation and analytics.³ Forty-two percent identified use of technology as an area for change in their operating models.⁴ "Clearly," a member said, "technology and new tools will be more and more important."

Dr. Mackay stated that data mining with continuous monitoring, such as Lockheed Martin uses, is "one of the best tools, as it lets you look at the whole data set and the outliers that the tool kicks out." He said that such tools avoid the erroneous inferences that traditional sampling might generate and added that "analytics with visualization" is particularly useful for finding hot spots: "We can analyze attendance, manual data entry analysis, and temporal factors. The tool lets us visualize to see hot spots quickly. And it's efficient: it cut down on travel time and let us audit more locations."

While some companies rely on off-the-shelf technologies to meet their internal audit needs, others customize these systems or build their own. Mr. Bastos recommended that companies looking to audit new data-science and machine-learning-based technologies prioritize the following factors as part of their audits:

- Ensure trustworthy data. Companies are awash in data, but auditors cannot assume that they have ready access to all of it, or that what they can access is trustworthy for assurance purposes. "When you go digital, trusting the source is difficult—especially when you're auditing remotely," Mr. Bastos warned. He said that "data-source mirroring" techniques ensure that data used in testing is trustworthy and that the modeling logic and assumptions used remain valid. "We ensured that we mirrored the source system, untouched by IT staff, all the way down to IT systems. Reliable raw data is the starting point, and needs to be traceable to the source," he reported.
- Check the accuracy of assumptions and logic. A data-science model using reliable data can still produce erroneous results if there are errors in the underlying assumptions and business logic used to identify patterns and outliers. "We found that people may have understood the business logic going into the model, but due to business changes the data science models became out of date and the original assumptions no longer applied," Mr. Bastos said.
- Test models continuously. As models are being adopted or constructed, they need to be tested to ensure that they reflect operating realities. Mr. Bastos said, "If you understand the input and the outputs, you then can often build the model to validate the logic and expected results. We had data scientists as part of that audit team to validate the model logic and conduct retro testing to ensure that projected results were correct." He cautioned that building the parallel model or other data-science related tool is only the first step: "You have to then audit the assumptions, timing, and relevance of the models. As we rolled out IT machine learning, for example, I insisted that internal audit test the assumptions. In the



process of testing, we educated the internal audit function on the functionality, related risks, and built-in controls of the new technology being deployed." Mr. Bastos says his team tests data, logic, assumptions, and integration points. "We found things we didn't expect. It turned out, for example, that pricing and margins were not reflecting all the relevant factors in the model." he said.

• Have patience. Adopting internal audit technology often constitutes a substantial transformation that requires adequate resources and a long runway. "Al and machine learning take time to become relevant. You get false positives from the beginning," Mr. Bastos observed. Giving teams the time that they need to effectively onboard new skills, tools, and data-science techniques, then troubleshooting where these are applied in audits, can help ensure that the results match the investment. He emphasized that it takes "skills, practice, and a lot of interactions to understand the business and some of the technologies being audited."

While members and guests agreed that technology can enhance internal audit, one member added a cautionary reminder that technologies carry their own risks, including the potential for internal fraud: "If you're using pattern recognition and anomaly detection, somebody who knows how that code is written could hide things."

Developing a consistent, holistic view of data and risk

Members and guests highlighted the need for strong data governance and the importance of examining the intersection of controls and risk. With so many sources of data from business units and internal audit analyses, it can be difficult to identify a "true" schema of the data upon which to rely. "I struggle to get different teams to build a common assurance map. They're all using technology, but I can't merge their results into a map to see the gaps and overlap," a member reported. Ms. Brachio said that she has encountered the same problem: "Because of inconsistent inputs, management sometimes doesn't know what to do."

Mr. Bastos said that the key was to align risk management with internal audit as part of the Three Lines of Defense model his team deployed. "We hardwired that alignment with one common view of risks and controls, which are the backbone against which we audit and report on Reliance Group risks. Continuous controls monitoring and continuous auditing maintain that alignment. It's like herding cats to do it, but once you get through it, you achieve valuable insights." A member whose company had embraced "common integrated risks reports" cautioned that data and taxonomy from disparate sources should be preserved, however, and said, "It takes a long time to make integrated reports effective. I wouldn't do it at the expense of other things."

The fact that both Mr. Bastos and Dr. Mackay have multifunctional leadership roles shows how internal audit can be aligned with other risk-related areas. Dr. Mackay, in addition to his formal CAE and ethics leadership roles at Lockheed Martin, functions as the firm's chief sustainability and compliance officer. Mr. Bastos leads audit, risk, and IT for Reliance Industries and the



Reliance Group. Both leaders are able to see risk from the highest levels and incorporate that perspective into their leadership of internal audit. In the same vein, a member reported pairing internal audit with compliance as a way of addressing a specific compliance risk: "We have a collaborative effort between compliance and the internal audit team to do machine learning for auditing Foreign Corrupt Practices Act compliance. We have a lot of jurisdictions, and we want to focus on high-value, high-risk areas. Now we have technology for that. So far, so good."

Staffing and training internal audit for new technology

Most internal audit teams need to be trained for new technologies. Hiring talent may also be necessary, especially when new tools integrate internal audit with IT, compliance, or other functions in ways that are unfamiliar to existing staff. "We had to upskill our people," Mr. Bastos said of his process at Reliance Industries. "It took about two years to get a team that could actually audit the models and present valuable insights and reliable opinions."

A member recalled when a new, technology-savvy CAE overhauled the internal audit department to emphasize technology and encountered a talent supply shortage. The company responded by using internal resources—financial and human—to meet the demand and bolster department's reputation to job seekers: "We're spending more money and using existing IT talent. We found that if you can get the talent and a reputation for having it, recruiting gets a lot easier." Another member's company opted to rely on a Big Four firm to cosource staff when it encountered a similar problem.

Some members reported that staffing limitations are affecting many areas of internal audit, not just the technology-oriented roles. Staffing cuts may mean that less work is getting done, or that new priorities cannot be adequately addressed. In response to these skills and staffing drains, some companies are outsourcing. While many audit chairs have reported that outsourcing and cosourcing can be effective, they are concerned about relying on external staff who lack the familiarity with internal audit teams and the businesses they audit.

How should the CAE role be positioned?

Members discussed the implications the changes occurring in internal audit have for the governance and leadership of the function. Some wondered how best to make use of data and risk analysis at the audit committee and board level. Others focused on internal audit leadership.

Many companies are rethinking how to position the CAE role, and who should fill it. In almost every case, internal audit teams as well as CAEs need strong technology competence. Some audit chairs are evaluating whether their CAEs have the right profile and stature for this new environment. Ms. Brachio said that elevating the CAE position may be critical: "I frequently get asked about how internal audit can add value. One thing that is often missing is the environment that lets that happen. It's about the mandate, the stature of the function in the company, and the stature of the CAE. You need the right level of gravitas in the CAE to deliver



that value. It needs to be an executive that at the table feels like a peer of the other executives." A member agreed: "The gravitas of the CAE is important. At one company, we have a combined risk and controls officer who reports to the CEO and has command within the organization. At my other company, we have businesspeople who were put into internal audit and risk leadership roles and don't have the professional knowledge for either role—and I can see the difference. I had to speak up and say, I'm not sure we're doing our best with these positions."

Internal audit, risk, and technology leadership under one umbrella

As the chief information officer and chief digital officer for Hydrocarbons at Reliance Industries, and as head of group audit and risk management for the Reliance Group, Mr. Bastos has had the unusual opportunity to unite executive responsibility for IT with leadership of internal audit and risk. Mr. Bastos said, "As chief information officer and CAE, my access to data is effectively unrestricted. The CIO role gives me key insights into problems with data and technology." To avoid potential conflicts between the first and third lines of defense, Mr. Bastos invites the external auditor and other third parties to provide independent perspectives as needed to ensure that potential conflicts of interest are minimized.

Mr. Bastos's journey to his current roles began when, as CAE, he was asked to work with business leaders to roll out internal controls to meet regulatory requirements. The CEO and board chair then asked him to establish the company's risk management function. Later, as the company embarked on a digital transformation, the CEO and board asked that he take on the chief information officer and chief digital officer roles to resolve the business transformation, risk management, and audit issues he was identifying along the way. Mr. Bastos recalled, "We agreed that I should back up what I was saying by getting more involved in solving the problems that were identified, which I was able to do through the chief information officer and chief digital officer roles."

Conclusion

Internal audit groups that embraced agile strategies and techniques before the pandemic have been well positioned to face the crisis. At other companies, the pandemic forced new and rapid agility upon internal audit departments. For all companies, technologies like data analytics and machine learning can make auditing more flexible, more efficient, and more effective in spotting issues. Using these new technologies requires staff that understand them, making hiring and training a top priority for the companies that adopt them. The evolving



needs of internal audit departments continue to raise questions about how the function should be led and how audit committees and boards should interpret its results.

About this document

The European Audit Committee Leadership Network (EACLN) and Audit Committee Leadership Network (ACLN) are groups of audit committee chairs drawn from leading European and North American companies committed to improving the performance of audit committees and enhancing trust in financial markets. The networks are organized and led by Tapestry Networks with the support of EY as part of its continuing commitment to board effectiveness and good governance.

ViewPoints is produced by Tapestry Networks to stimulate timely, substantive board discussions about the choices confronting audit committee members, management, and their advisers as they endeavor to fulfill their respective responsibilities to the investing public. The ultimate value of ViewPoints lies in its power to help all constituencies develop their own informed points of view on these important issues. Those who receive ViewPoints are encouraged to share it with others in their own networks. The more board members, members of management, and advisers who become systematically engaged in this dialogue, the more value will be created for all.

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Appendix 1: Biographies of the guests

Rui Bastos has a career of more than 20 years in senior financial and technology, advisory, and risk management roles across three continents for major corporates such as Reliance Industries, Shell, and Ernst & Young. His industry experience also includes various consulting assignments for major companies such as Vodafone, Allianz, McDonalds, Merck, Lidl, Transnet, and Coca-Cola.

At Reliance Industries, he has a unique role as chief information officer and chief digital officer for the hydrocarbons segment while at the same time being group head of audit and risk management responsible for driving digital transformation in hydrocarbons businesses. His most recent career achievements at Reliance Industries include establishing the group's internal audit, risk management, and compliance functions and embedding these in the hydrocarbons (upstream, midstream, refining, and petrochemicals), retail, and telecoms business segments. In the process, Reliance Industries has earned several corporate governance awards related to world-class risk management processes, systems, and methodologies. Mr. Bastos has spearheaded and driven the Reliance Industries digital transformation program to transform and integrate refining and marketing, petrochemicals, and manufacturing verticals into a common oil-to-chemicals business platform. He has supported the group board design, setup, and implementation systems of corporate governance and internal control in various business segments.

At Shell, Mr. Bastos transformed the corporate and IT audit functions into world-class internal audit functions performing impactful and value-adding assurance and advisory assignments across the group. He also implemented continuous auditing and data analytics techniques to improve the efficiency and effectiveness of process controls testing. Some of the leading practices in continuous auditing adopted at Shell have been recognized by the industry.

As technology and security risk services country leader at Ernst & Young, Mr. Bastos established the IT risk and advisory services practice, and he was service line leader for information management services in continental Western Europe.

Amy Brachio leads EY's Global Business Consulting practice. Ms. Brachio is a frequent speaker on topics relevant to boards and the C suite, including resilience, cybersecurity, mega-trends driving transformation, evolving approaches to enterprise risk management, and the impact of disruptive technologies.

Ms. Brachio has more than 20 years of experience helping large, diversified organizations manage risk. She advises clients on topics that are top-of-mind to boards and C-suite executives, including leading practices in risk management and enterprise transformation. Ms. Brachio is leading work with EY clients to drive confidence in achieving strategic objectives and maintaining stakeholder trust.



In Ms. Brachio's capacity as a member of EY's Global Consulting Executive team, she has been a key part of the business's response to COVID-19, including as a key contributor to EY's Resilient Enterprise framework and in actions being taken by EY to respond to the business impact of the pandemic.

She was selected as one of *Profiles in Diversity Journal*'s 2017 Women Worth Watching and spotlighted by Source Global Research as part of their Women in Professional Services series. She was also a recipient of *Consulting* magazine's Global Leaders in Consulting award for 2019. She has served on the board of directors and in multiple officer positions for the ALS Association MN/ND/SD chapter and works with organizations including Girls Who Code to advance women in technology. Ms. Brachio is a member of C200, an organization devoted to advancing women in business.

Leo Mackay is senior vice president for ethics and enterprise assurance and an elected officer of Lockheed Martin Corporation. He reports directly to the chief executive officer, to the audit committee, and to the nominations and corporate governance committee of the board of directors. As the chief audit executive, he provides independent, objective assurance and advisory activity to improve the corporation's operations. He also oversees Lockheed Martin's award-winning ethics program, its energy/environment, safety, and health programs, and its enterprise risk management function. As the chief sustainability officer, he is responsible for ensuring responsible growth and global corporate citizenship.

Dr. Mackay is also a board director of Lockheed Martin Ventures, Lockheed Martin's \$200 million corporate venture capital arm focused on new/emerging technology. He is an independent director of Cognizant Technology Solutions Corporation and of USAA Federal Savings Bank and a strategic adviser to Pegasus Capital Advisors, a private equity firm focused on sustainability and wellness.

From 2003 to 2005, Dr. Mackay was chief operations officer (COO) of ACS State Healthcare, LLC in Atlanta, Georgia. He was the day-to-day manager of a \$650 million business in business process and IT outsourcing for Medicaid, pharmacy benefit management, decision support services, eligibility verification, and child healthcare programs.

Immediately prior, from May 2001 to October 2003, Dr. Mackay was deputy secretary of the Department of Veterans Affairs (VA) and a member of the President's Management Council. As the VA's second in command, Dr. Mackay was chief operating officer of a \$60+ billion, 219,000-person organization with facilities nationwide, administering the United States' largest integrated healthcare system.

Prior to his nomination by President Bush, Dr. Mackay had general management responsibility as vice president of the aircraft services business unit at Bell Helicopter Textron, Inc., of Fort Worth, Texas. Previously at Bell, he was vice president and director of product support for Bell/Agusta Aerospace, an international commercial joint venture.



Appendix 2: Participants

The following EACLN and ACLN members participated in all or part of the ACLS meeting:

- Mike Ashley, Barclays
- Julie Brown, Roche
- Barbara Byrne, ViacomCBS
- Pam Craig, Merck
- Pam Daley, BlackRock
- Dan Dickinson, Caterpillar
- Sam Di Piazza, AT&T
- Dave Dillon, 3M and Union Pacific
- Carolyn Dittmeier, Assicurazioni Generali
- Liz Doherty, Novartis and Philips
- Bill Easter, Delta Air Lines
- Lynn Elsenhans, Saudi Aramco
- Eric Elzvik, Ericsson
- Tim Flynn, JP Morgan and Walmart
- Sheila Fraser, Manulife
- Byron Grote, Tesco, Akzo Nobel, and Anglo American
- Margarete Haase, ING
- Marion Helmes, Heineken
- Fritz Henderson, Marriott
- David Herzog, MetLife and DXC Technology
- Liz Hewitt, National Grid
- Charles Holley, Amgen and Carrier Global
- René Hooft Graafland, Ahold Delhaize
- Michele Hooper, United Airlines
- Suzanne Nora Johnson, Pfizer

- Hugh Johnston, Microsoft
- Arne Karlsson, Mærsk
- Dagmar Kollmann, Deutsche Telekom
- Mike Losh, Aon
- Edward Ludwig, CVS
- Benoît Maes, Bouygues
- Brad Martin, FedEx
- René Médori, Vinci
- David Meline, ABB
- Hanne de Mora, Volvo Group
- Marie-José Nadeau, ENGIE
- Chuck Noski, Wells Fargo
- Louise Parent, FIS
- John Rishton, Unilever
- Mariella Röhm-Kottmann, Zalando
- Sarah Russell, Nordea Bank
- Guylaine Saucier, Wendel
- Erhard Schipporeit, RWE
- Tom Schoewe, General Motors
- Leslie Seidman, GE
- · Gerald Smith, Eaton
- Alan Stewart, Diageo
- Tracey Travis, Facebook
- Jim Turley, Citigroup and Emerson Electric
- John Veihmeyer, Ford
- Robin Washington, Salesforce.com
- David Weinberg, The Coca-Cola Company



EY was represented in all or part of the ACLS meeting by the following:

- Marie-Laure Delarue, EY Global Vice Chair, Assurance
- Jean-Yves Jégourel, EY Global Vice Chair, Professional Practice
- John King, EY Americas Vice Chair of Assurance Services
- Steve Klemash, EY Americas Leader, Center for Board Matters
- Julie Teigland, EY EMEIA Area Managing Partner







Appendix 3: Discussion questions for audit committees

- ? How have pandemic-related business conditions disrupted internal audit?
- ? How has internal audit been redeployed?
- ? What changes in the role of internal audit will be permanent? What other changes might occur?
- ? What new skills and capabilities does internal audit need in order to respond to these new realities?
- ? How has technology changed your company's business strategy, risk landscape, and operational realities?
- ? How have strategic and operational changes affected the control environment and the auditable universe?
- ? How is internal audit responding to these changes?
- ? How has the role of your CAE changed in the last year? How has the audit committee's oversight changed?
- ? What is the future of audit committee oversight of internal audit and audit committee engagement with the CAE?



Endnotes

¹ This document reflects the network's use of a modified version of the Chatham House Rule whereby names of members and their company affiliations are a matter of public record, but comments are not attributed to individuals or corporations. Italicized quotations reflect comments made in connection with the meeting by network members and other meeting participants.

² EY, <u>COVID-19—How Chief Audit Executives are Responding in the Next</u> (London: EYGM Limited, 2020), 3.

³ EY, *COVID-19—How Chief Audit Executives are Responding in the Next,* 3.

⁴ EY, *COVID-19—How Chief Audit Executives are Responding in the Next,* 7.