COMPLIANCE WEEK

Tackle the tech maze

A practical guide to compliance technology

SPECIAL REPORT

Dave Lefort
Editor in Chief

dave.lefort@complianceweek.com

Dave Lefort is an award-winning journalist with an extensive background in content management, digital strategy, and data analytics. He spent nearly two decades in digital leadership roles at The Boston Globe and ESPN.com.

Survey says you want new tech

Here's what we know: You have a mandate to upgrade your compliance technology, at least some budget to do it, and sky-high expectations for improved operational efficiency and robust data reporting.

At least that's what the results of our compliance technology survey tell us. Are we close?

Over the course of a month, we polled 118 compliance professionals who have some level of involvement in the technology decision-making process at their organizations. The results helped inform the advice and expert analysis in our "Practical guide to compliance technology" special report in the pages of this magazine.

How do you make sure you end up with the right technology for your needs (Page 22)? How do you better use the piles of data you're accumulating to demonstrate ROI (Page 34)? What skills will you need 3, 5, 10 years from now as a result of the rapid advances in technology (Page 40)?

Before jumping ahead for answers, take a few minutes to benchmark your challenges against those of your peers:

Lots of you are shopping around. Exactly 50 percent of our survey respondents said they were currently evaluating options for an upgrade of their compliance technology, with another 18.6 percent in the middle of implementing new software. Just 13.6 percent indicated they weren't considering a technological change.

With new technology, of course, comes new costs—something many seem armed to handle. About 50 percent of those surveyed said their budget for technology was larger than it was three years ago, with just 10 percent indicating they had less money to spend.

New costs have to be justified. About 30 percent of those who answered our survey said demonstrating a return on investment for new technology was the most difficult thing about implementing new software.

Compliance analytics is having a moment. About 82 percent of those polled want to learn more about compliance analytics, more than any other topic in our survey, and almost 40 percent are looking at implementing a data analytics software solution. Why are so many interested in wrangling with Big Data? Two-thirds of respondents are facing increased expectations for compliance-related analytics from senior management.

Automation is among the top goals. "Process efficiency" and "replacing manual process" were the top two answers to a question about the problems compliance practitioners were trying to solve with technology. When asked about the most effective argument in making the case for a technology investment, "process efficiency" was again the top answer.

Implementing change without rocking the boat. "Ease of use" was the most popular answer to our question about the most important considerations when choosing new technology. Managing any change can be tough, but it can be especially difficult with new technology tools. Nearly 35 percent of those polled indicated "getting staff to buy in" was the most difficult part of implementing a new software solution.

We hope you find the special report useful, and as always, please reach out with your ideas, questions, or criticisms. ∎
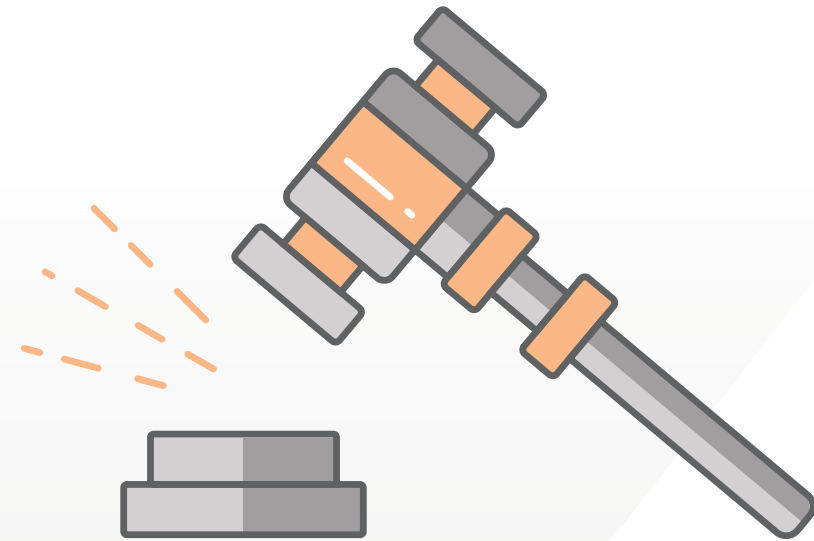
A practical guide to compliance technology

The left-right-left, rope-a-dope that pummeled companies and their compliance functions during the Financial Crisis and the ensuing "regulatory tsunami" created a massive boom in the hiring of compliance personnel.

Experts say that post-Crisis hiring phase has, largely, drawn to a close and compliance officers are now, instead, keen to do more with fewer resources. They want to be smarter, not bigger.

A step toward that goal lies in the adoption of new technologies, notably data analysis and automation. Emerging technologies like artificial intelligence, blockchain, robotic process automation, natural language learning, cloud-based services, and machine learning are pushing into the compliance landscape. Connected and integrated data promises to transform enterprise risk management, enabling the business and its compliance function to better predict trends, flag anomalies, and proactively avoid crisis.

A well-planned and supported integration of cutting-edge technologies can also help bypass less-than-productive routine processes, such as data entry, transaction monitoring, and policy and contract reviews. Software platforms promise to automate routine tasks to improve fraud detection audits, anti-money laundering protocols, and know-your-customer screens.

The pitch is as simple as the technology is complex: let machines scan through a company's data to do the grunt work of simple investigations, better utilizing the expertise of human personnel.

If you're in the middle of transforming the way you perform your core functions, you're not alone.

In Compliance Week's survey of 118 compliance professionals who are part of the technology decision-making process at their companies, exactly 50 percent indicated they were currently evaluating options for adding or upgrading their compliance tech, with another 19 percent in the process of an upgrade. Just 14 percent indicated they were not considering a change.

With so many options to choose from and so many hurdles to clear to get from idea to execution, how do you best navigate what will certainly be a complicated process?

We're glad you asked ...

How do I choose a solution?
Our 5-step guide will help you select the right technology for your company, from the idea phase all the way to execution. STORY ON P. 6

What are all of these new terms?
A quick vocab lesson on some of the terminology associated with emerging technology and its application to compliance. STORY ON P. 12

Why is the U.K. an innovation hub?
Government-backed live testing environments have put British RegTech and FinTech ahead of the curve. STORY ON P. 30

How do I get buy-in from staff?
The "Ask Amii" mailbag provides guidance on how to get your colleagues to give change a chance. STORY ON P. 11

What's the accounting impact?
Evolving technology is rapidly enhancing the accounting and finance functions. STORY ON P. 26

What do regulators expect?
The government wants your assertions backed up with data, an area in which technology can bail you out. STORY ON P. 14

How is technology changing compliance?
A guest contributor describes the blend of foundational and technological skills the compliance officer of the future will need. STORY ON P. 24

What is compliance analytics?
If you're drowning in a sea of data, it might be the life vest that can rescue you from chaos. STORY ON P. 18

What solutions are out there?
We've listed more than 30 technology software vendors along with the areas of specialty for each. STORY ON P. 33

Where do you start?
5 steps to choosing a vendor

By Joe Mont

A company first needs to identify which functions can be improved and made more efficient with technology. There needs to be buy-in from directors and executives and a worthy pitch that brings them to "yes" without promising the moon and stars. Can you mesh the new tech with legacy systems? What's your backup plan if it all fails to meet expectations?

When to initiate a new technology is a very company-specific decision.

"It varies on the type of technology and use case," says Michael Rasmussen, an internationally recognized pundit on governance, risk management, and compliance technology and founder/principal analyst for the research firm GRC 20/20 Research. "It all depends on the particular use case and vendor implementations out there to meet those needs."

Here's a five-step guide on how to make the best decisions for your organization:

Step 1
Identify solutions that meet your needs.

There is a lot of hype around new technology, and exactly what you need depends on the industry you are in, says Michael Volkov, CEO and owner of The Volkov Law Group, a compliance, internal investigation, and white-collar defense service.

"If you are a financial institution, your regulator is all over you every day, and you are submitting vast amounts of information to them. That is one thing, versus if you are a manufacturing company, a hospital, or major healthcare provider," he says.

Rasmussen suggests an initial in-house review of manual processes and identifying problem areas to build a business case for a technology upgrade.

He recounted a conversation with an organization that specializes in case management and investigations. The organization discovered it was spending more than 200 full-time employee hours just on an end-of-year report that summarized all of its cases for the board. The burden: a whole

bunch of cutting and pasting between e-mails, Word documents, and Excel spreadsheets. That was then. Now, "it takes them less than five minutes, because they have new technology and have automated all of that," he says.

"For every client that I deal with who is dealing with paper, as soon as we get basic automated tools in there, their life is 100 percent better," Volkov adds. "They are all happier because they are not shuffling paper. For compliance, I would say that the biggest marginal difference in the adoption of technology has been the basic move from paper to automation technology. It has provided the greatest return in terms of job satisfaction."

"The main thing people are dealing with now is automation to begin with," Volkov says. "Other than financial institutions—because they often have the money to design their own [software and automation tools] most companies are still dealing with how to change from paper to automated reporting."

Step 2
Put software vendors through their paces.

Tyrone Canaday, global head of innovation for Protiviti, a risk and compliance focused management consulting company, has some advice for when the time comes to talk to technology vendors and solicit bids: "Be proactive."

"Organizations sometimes take too much of a reactive view of things," he says. "Compliance organizations need to have some kind of 'change the organization' budget, so they can look into research and development and scan for any new technologies out there that could potentially be disruptors or great enhancers."

As you start the solicitation process, you will begin to see what various vendors' capabilities are and how to potentially apply them to your business. "You are going to be seeing where the gaps are and seeing where there are deficiencies," he says.

"You'd better make sure that solution really works for your organization and is actually going to satisfy the majority of the requirements that you have," he adds. "One of the things

I've seen at organizations is that they don't do a good job with the whole aspect of vendor management and making sure they are maximizing the value of contracts. When they do contract negotiations, a lot of problems are glossed over. Then, when they get to a renegotiation or new contract time, those issues are not addressed at that point either."

Information gathering is crucial when selecting a vendor, Rasmussen says. Talk to peers and analyst firms and seek out client references, he suggests.
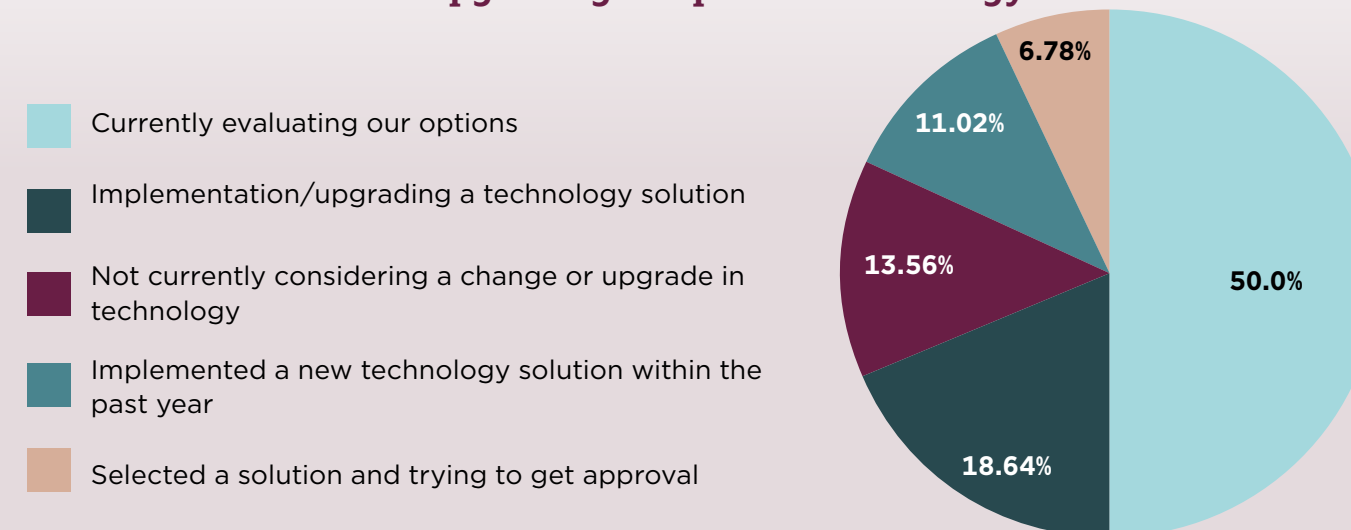
"The vendors and service providers often give me decision makers who usually have glowing things to say about the product of course, because they made the decision to purchase it," he says. "I will then come at it from different angles. Where do you feel the solutions underdelivered? Where would you like to see the vendor grow their solutions?"

"If you ask them how and where they want to grow the solution, that can also tell you where it is weak," Rasmussen adds. "I then ask if I can talk to somebody on their team that

Where is your company at in the process of adding or upgrading compliance technology?

- Currently evaluating our options — 50.0%
- Implementation/upgrading a technology solution — 18.64%
- Not currently considering a change or upgrade in technology — 13.56%
- Implemented a new technology solution within the past year — 11.02%
- Selected a solution and trying to get approval — 6.78%

uses the product down in the trenches. Sometimes, I get a completely different story from that decision maker."

An important point to consider: "Where you are now, compared to where you want to be in several years."

Rasmussen also asks vendors: "What's the most interesting and challenging use case out there, or what company is using your platform in the most interesting ways? That gives you more ideas of how it can be used."

It eventually all comes down to money.

Step 3
Get buy-in and resources internally.

Making the pitch for the money to make a technology expenditure, like so many spend asks, will require the CCO or a parallel technology position to convince directors and executives of a value proposition.

"That has been perhaps the biggest hurdle," Volkov says. "Technology companies are being asked by compliance officers to provide them data on return on investment."

Assessing ROI can be a difficult and very company-specific process, but common proof points would likely include cost overlay versus the monetary savings of risk reduction,

"When you are talking to clients and vendors, the big thing to really understand is what the implementation cost was or could be for you," Rasmussen says. "Some technology providers' implementation costs can be four-to-five times the software costs for the initial licensing for the first year. Others may have a newer breed of software—cloud-based, multi-architecture [software] can be much more cost-effective to implement."

regulatory enforcement avoidance, compliance-related cost savings, increased employee productivity, and streamlined business-side operations.

The flip side—executives or directors who are too gung-ho about new and shiny things and are willing to sign off on anything they consider cutting edge—has its own pitfalls.

"You need to be careful that somebody doesn't just say 'AI, let's do AI.' You need to always be educating them," notes Volkov.

Step 4
Play in the sandbox.

Organizations, especially at the chief technology officer level, may be worried about the legacy aspect of a company's infrastructure. "There are layers of technology that have been built up over decades and if you need to replace it, then what's the cost going to be and how fast can you get return on investment?" Canaday asks.

He offers a potential solution for both assessing legacy technology and testing new (or potential) implementations once the decision has been made to move forward.

In Canaday's role at Protiviti, he manages "innovation sandboxes" to help clients incubate and accelerate solutions. Essentially, the idea is to create an environment where technology interactions can be studied, tested, and made to mimic software executions without actually going live.

"You are starting to see a lot of organizations do that," Canaday says. "They incrementally start to execute changes in a way where they are not spending a lot on investment up front. They can experiment with different technologies, learn about them, see if they apply to their business, and

"When you are talking to clients and vendors, the big thing to really understand is what the implementation cost was or could be for you. Some technology providers' implementation costs can be four-to-five times the software costs for the initial licensing for the first year."

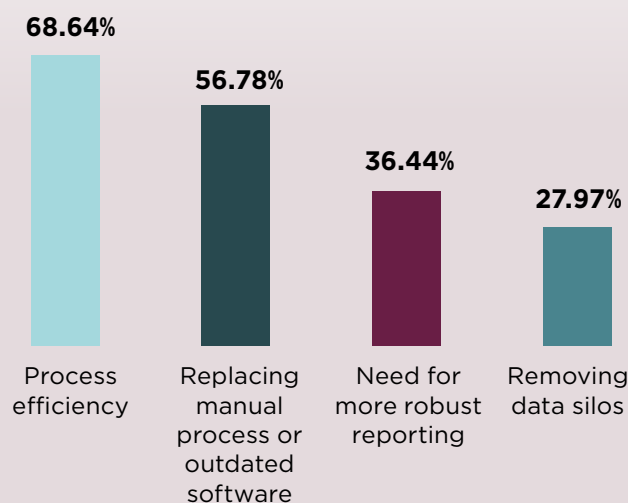Michael Rasmussen, Founder/Principal Analyst, GRC 20/20 Research

make things more efficient on the compliance side. If it doesn't do that, they can just stop investing."

A new technology rollout "can't be a big bang approach," he adds. "You can't change everything at once, so you need to take bite-sized chunks and do things over time."

{CW'S COMPLIANCE AND TECHNOLOGY SURVEY}

What are the problems you are trying to solve?
(Top four answers shown)

- Process efficiency: 68.64%
- Replacing manual process or outdated software: 56.78%
- Need for more robust reporting: 36.44%
- Removing data silos: 27.97%

What are the most important considerations when choosing a tech solution? (Top four answers shown)
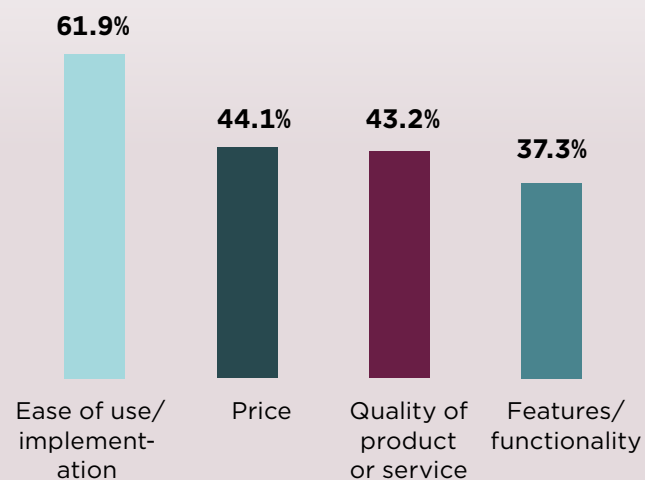
- Ease of use/implementation: 61.9%
- Price: 44.1%
- Quality of product or service: 43.2%
- Features/functionality: 37.3%

Step 5
Find the right people for the right jobs.

Canaday stresses that a company's eyes must be on the prize of measurably improving compliance functions. That may require a full review of hiring and training procedures.

As the financial services industry has shifted to greater automation, it has, and will continue to, cause displacement. "There are also opportunities to take 'swivel chair' types of processes—things that are highly manual," he says. "If you are able to automate those functions with robotics and other technologies, those same individuals can be retrained to do higher-value work."

"Get that retraining and see where they can reapply their energies and, quite frankly, do work that's more interesting," he adds. "You can start to do things like researching new controls. If that's where you can start to reapply those energies, it is the work people would rather do, rather than pulling down files and doing data entry work, which was what they have done up to now."

People, process, and tools need to be a top concern, Canaday stresses. "A lot of the people who are working in compliance departments don't really have a technology background. They know policies and they know controls, but in today's age you need to have some type of awareness of different types of technologies that are out there and then start to retrain yourself."

He also suggests bringing in a system integrator to streamline new and evolving tech implementations.

"A lot of people, however, don't want to spend the money up front on a system integrator or an expert to be able to do it the right way the first time," he frets. "Then, what happens, is you don't get what you want, the process takes a lot of time, and it just ends up reflecting badly on everybody involved from the vendor to the people involved internally. You sometimes need that third party, or it is like doing a home renovation without having an architect or a contractor yet expecting to get the outcome you want."

The key to a successful technology adoption is rooted in how the company operates as a whole. Being mindful of both internal and external functions when adopting new technologies will go a long way in driving an efficient and effective implementation that puts the company on the path toward exciting, job-improving innovations.

The future is now. The next move is in your hands. ∎

Blockchain: The next big thing in compliance tech

When judging technology offerings on the horizon, many compliance experts see tremendous promise on the distributed ledger technology blockchain.

"Blockchain in its application to compliance is significant, particularly in terms of supply chain management," says Michael Volkov, CEO and owner of The Volkov Law Group.

"While the costs right now for blockchain may still be too high and the technology still isn't proven regarding security concerns," he expects these concerns to fade over time:

"In the next five years it is going to be the real thing," Volkov says, sharing a scenario for blockchain's utility to financial institutions that collect, organize, and deliver large amounts of risk data to federal regulators. Much of that data is often stored in legacy systems that are internally siloed, and regulators are restricted in their ability to manage this data for their surveillance efforts.

"Blockchain can solve this problem. Financial institutions could share their data with regulators and eliminate the need for regulators to reconcile and aggregate the data themselves," he wrote in a recent blog post. "The blockchain consists of a documented ... audit trail."

Third-party vendor onboarding, he says, could be similarly documented, with equal ease and transparency. Blockchain also has applications for managing a company's supply chain and its inherent risks, tracking items in that chain with up-to-the-second monitoring.

Volkov recalled a recent demonstration by a technology vendor at a conference. "I was immediately mesmerized," he says. "They showed how you could track a fish caught in Thailand, all the way to a dinner table in San Francisco, and you know where that fish went every step of the way. I saw the application for that and was bowled over."

—Joe Mont

📧 **Ask Amii** mailbag

Best practices for giving change a chance?

My company is moving to an entirely new platform for GRC governance software. As you can probably imagine, this is a major undertaking, and we're soon going to be starting to get staff trained on the new platform. The old platform wasn't very advanced, but it worked OK, and I can already hear people grumbling about learning something new. How can I make sure the staff give this change a chance? — Anonymous

Amii: Congratulations on the move to a new platform! Now the real work begins—time to roll up your sleeves and use your change management skills to lead people through this change.

All change creates some level of anxiety, and resistance is a completely natural human reaction. You can't eliminate the effect of the change. That is impossible. What you can do is reduce the organizational pain and accelerate the speed of adoption by planning effectively for resistance.

First, communicate how this effort ties into your company's vision. Remind people of the benefits of the system upgrade, why the investment was made, and how it will benefit your company and customers.

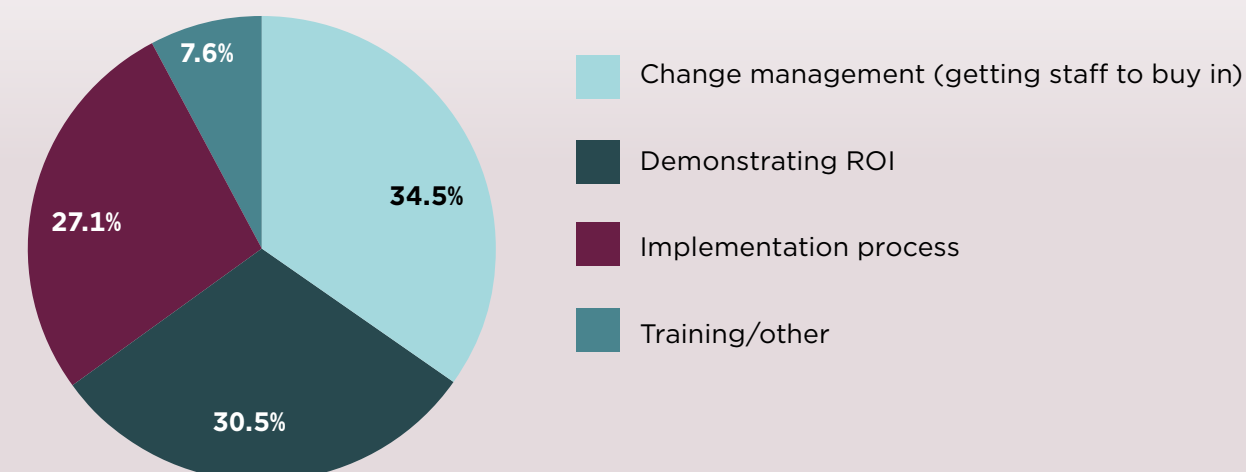Second, empower and enlist employees who will support this change. Anticipate and understand the impact this upgrade will have on people, and clearly communicate exactly what is happening and when. Provide training and job tools (like a one page "how-to" reference on how to follow the new process) and budget an allowance for some healthy venting. For a large-scale change, it's helpful to create an email address for receiving and responding to questions and concerns. Empathy goes a long way to converting detractors to your side. And keep an ear to the ground for project rollout difficulties that you might be unaware of and can now address.

Third, communicate successes early and often, and be up front about unanticipated speed bumps and how those are being handled. This will build trust.

Finally, call out and thank people for their support. Enlist them to help you get people off the fence and join you on the other, better side. Good luck!

{CW'S COMPLIANCE AND TECHNOLOGY SURVEY}

What's the most difficult thing about implementing a new software solution?

- 7.6%
- 34.5%
- 30.5%
- 27.1%

- ▨ Change management (getting staff to buy in)
- ▨ Demonstrating ROI
- ▨ Implementation process
- ▨ Training/other

Compliance technology glossary

Some key terms (listed non-alphabetically) to add to your lexicon

Blockchain: A storage and transfer protocol for assets that is the architectural backbone of Bitcoin and other virtual currencies. It is a decentralized, distributed digital ledger that can track any digitized asset (securities, deeds, media, intellectual property, etc.), recording and verifying transactions across a large network of computer "nodes." The distributed nature of the system facilitates secure online transactions while ensuring that no single bad actor in the network can tamper with the rules, timing, and execution of a given transaction.

Cloud: Common vernacular for offsite, decentralized storage arrays used to park, share, retrieve, back up, and manage data. Similar to personal data storage options with increased resiliency, scalability, and security features. Data and core mission-critical systems can be managed, in a virtual desktop environment, and served, largely off-premise.

Sandboxes: Nickname for real-time production environments in which new technology can be securely put through its paces, experimented with, and pilot-tested by institutions, providers—and even regulators—while mirroring, but never directly affecting, real-time operations.

Software-as-a-service (SaaS): Subscription-based software offerings wherein all upgrades, updates, and patches are seamlessly provided by the chosen vendor. SaaS offerings stand in contrast to the more traditional "product," in which a customer pays a one-time fee to purchase and host the software outright (but has to pay for next-generation upgrades). SaaS solutions are often hosted in the cloud.

Advanced data analytics: Also known as "Big Data," it focuses on gathering enormous amounts of information to use for predictive analytics (where the next breach might occur, for example), and behavioral analytics (potential employee fraud, etc.). A subset of these solutions is compliance analytics, wherein data can be used to detect and predict otherwise-hidden red flags. Common applications include reviews of know-your-customer, anti-money laundering, and beneficial ownership.

Robotic process automation (RPA): The automation of repetitive tasks and business processes that mimic such mundane activities as logging into a system, entering data, viewing online data sources, and copying and pasting data across multiple media, systems, and departments. Processes automated through RPA must be rules-based and will typically only input into structured data formats, such as spreadsheets and databases. Compliance uses include combing through systems to identify data for regulatory filings and testing for compliance with company policies.

Artificial Intelligence (AI): A "suitcase term" that unifies multiple tools, it is essentially a broad way to describe machines performing narrow cognitive tasks. AI complements process automation by taking unstructured data and—beyond the capabilities of robotic process automation—putting it into a structured format. It can deal in more sophisticated data models to help enhance decision-making processes. Among the areas this technology can assist with: anti-money laundering alerts, know-your-customer data monitoring, beneficial ownership data collection, financial crimes investigation, liquidity risk management, and keeping pace with regulatory change.

Machine learning: An application of artificial intelligence. Compliance applications include enhanced monitoring for such activities as insider trading or Foreign Corrupt Practices Act red flags (by, for example, "digesting" data in related corporate databases and expense reports). Through coding and repetition, this technology can "learn" how to perform and complete specified tasks, making on-the-fly decisions and recommendations without specific programming.

Behavioral analytics: In the financial sector, it is the functionality to comb through corporate data, in-house and external communications, trade records, and other data to identify risky activities, individuals, counterparties, or other entities.

Natural language generation/processing: Subsets of the core technologies referred to as AI. They allow for programming that picks through massive legal contracts to flag concerns, reads transaction histories, automatically drafts a Suspicious Activity Report for bank compliance, and more.

Data visualization: As part of an AI approach, it is the displaying of data in more digestible visualizations (including charts and data fields) that allow, in the case of compliance, a fast and relatively easy way to analyze big data collections and unstructured data.

Vendor risk management: Not a new term or practice, but it does take on added importance in the digital era as companies can be held liable for the inaccuracies of their third-party assisted data collection and application. Better use of automation can help monitor for potential vendor risks, contract and code violations, and ensure compliance with contractual agreements and frameworks. Guidance from the Securities and Exchange Commission, Office of the Comptroller of the Currency, and Federal Reserve outline third-party and vendor requirements on the company contracting those services.

General Data Protection Regulation (GDPR): Enacted in May 2018 to harmonize rules across the European Union's member states, GDPR's 99 articles replace the EU's previous Data Protection Directive from 1995 and are already having a global impact. The law makes any company—even those outside the European Union—liable so long as it offers goods or services to individuals in the European Union or if it monitors the behavior of EU citizens. Whereas the former Directive applied only to data controllers (those who collect and own the data), the GDPR jointly holds liable data processors (essentially, third-party vendors).

Cyber-security: The ability to protect and secure data. It takes on even more importance with the growing prevalence of automation and data analysis.

Regulatory technology (RegTech): Applies automation to the task of adapting procedures, policies, and controls to meet ever-evolving regulatory demands, most often those that flooded into financial institutions in the aftermath of the Financial Crisis and the Congressional remedies of the Dodd-Frank Act. Similar solutions assist with blockchain governance, business process management, and policy management.

Financial technology (FinTech): Companies using proprietary metrics and methodologies to conduct bank-like offerings and services (including non-depository lending) online, untied to traditional geographies or physical branches and, until recently, without the need of a federal charter. The Office of the Comptroller of the Currency recently authorized special-purpose charter applications. ∎

Make sure your data backs your assertions

When agencies like the Justice Department come knocking, it's not enough to argue that the documentation supports the compliance program; companies best be prepared to explain how their data backs the conclusions. **Tom Fox** explores how to do just that.

The use of data in compliance is only increasing and so, too, are the expectations by regulators related to that data. If you find yourself under scrutiny by the U.S. Department of Justice, you will need to use data to demonstrate the effectiveness of your compliance program. The Justice Department will expect to see that you are not only using data to test the effectiveness of your compliance program but are also using it to update and upgrade your program in a continuous loop.

The DoJ's expectations for data from companies under a Foreign Corrupt Practices Act investigation stems from their Evaluation of Corporate Compliance Programs document, which was released to the public in 2017 but in use by the department since 2015.

The Evaluation, created by Hui Chen and culled from her work within the Fraud Section as compliance counsel and through discussions with then-Fraud Section Chair Andrew Weissmann, has been used by regulators and compliance professionals alike as a standard setter. Essentially, it is a framework through which compliance professionals should consider and evaluate their own company's compliance programs.

Because it was drafted as a series of questions and not a more prescribed structure like the Ten Hallmarks of an Effective Compliance Program, however, it lends itself to a more data-driven approach to not only testing and tailoring a compliance program, but proving its effectiveness as well.

Chen has noted that as she began to sit in on presentations by companies under Justice Department investigation for potential FCPA violations, she "felt repeatedly like companies were not presenting the information that would be helpful to us." First, she would inquire "if they have ever disciplined people under those policies or how specific controls would work; I would get blank stares." In the requirement of reporting, Chen noted, "they would show us posters of their hotlines, but then when I ask about the actual reporting data and how they use that reporting data to help detect misconduct, I would again, get the blank stares."

In other words, there was no data to back up the assertions made by company representatives on the effectiveness of their compliance programs. These were not the responses that Chen felt provided any substantive information on what goes into making a best-practices compliance program.

"We wanted people to see that we put a lot of emphasis on evidence and data," she said.

In discussing this in the context of the requirement of strong leadership by senior management and tone from the top, Chen related, "If you tell us you have a strong, talented top, show us what concrete actions your leaders have taken personally to demonstrate that." She wanted companies to show the evidence, to show the data that backed that up.

Dan Chapman, former Parker Drilling CCO and founder of Presyes Compliance Systems, said that when he has been in front of the Justice Department during an FCPA investigation, he focused on data to back up his assertions of compliance program effectiveness. Chapman said one area he focused on was training. The Justice Department wanted data to back up his claims of compliance training effectiveness. Indeed, this issue is specified in the Evaluation through the following query: "How has the company measured the effectiveness of the training?"

Chen, writing in the Harvard Business Review with Professor Eugene Soltes, pointed out several of the sought-after data points around a hotline. Starting with the basics of using a mystery tester to see if the hotline even works, other data points included usage, types of calls made to the hotline, and the company's response and investigation completion time to the calls. Those points, then, should be used together with the investigation results and the communication of the results to relevant stakeholders. Finally, a company needs to have the answer to the question, "Do your employees even trust the hotline?"—which can be determined through employee surveys. The authors noted that "each of those metrics captures a different dimension of the initiative's efficacy." ∎

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CW asked more than 100 compliance professionals who are part of the technology decision-making process at their companies 15 questions about how they go about choosing a solution and what they're using technology to accomplish.

How would you describe your organization's approach to compliance technology?

- 30.6%
- 34.8%
- 34.8%
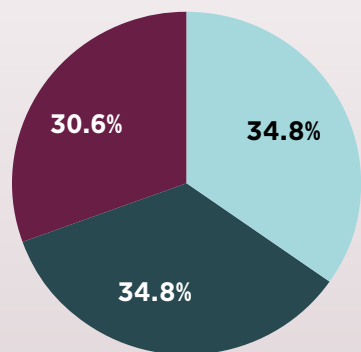
- Proactive (early adopters of new tech)
- Reactive (tend to follow the pack)
- Late to the party

How does your technology budget today compare to what it was three years ago?

- 5.1%
- 4.2%
- 12.7%
- 33.9%
- 15.3%
- 28.8%
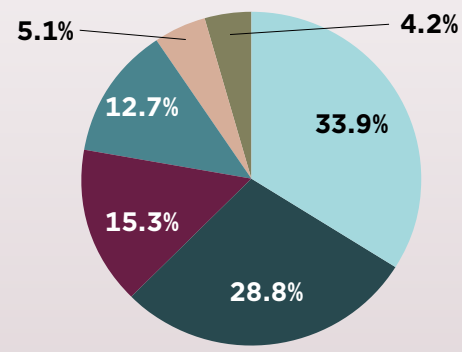
- A bit larger
- About the same
- Much larger
- Not sure
- A bit smaller
- Much smaller

When making a case for investing in technology, what's the most effective argument?

- 1.7%
- 10.2%
- 15.3%
- 30.6%
- 20.3%
- 22.0%
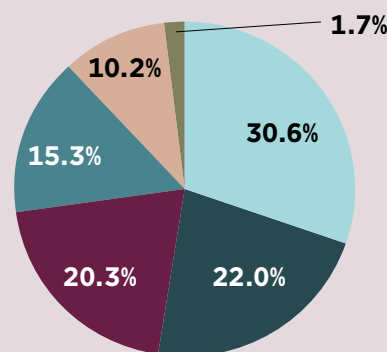
- Process efficiency
- Cost/staff savings
- Regulatory requirement
- Improved results
- Better data/analytics
- Other

What best describes your company's approach to Artificial Intelligence?

- 9.3%
- 12.7%
- 27.1%
- 24.6%
- 26.3%

- Evaluating
- No plans
- Not sure
- Implementing
- Already using

{DATA ANALYSIS}

Compliance analytics can help you harness the power of data

If you're drowning in a sea of information, compliance analytics might be the life vest that can rescue you from chaos. **Jaclyn Jaeger** has more.

Many a compliance officer has said one of the biggest challenges they face is that they don't know what they don't know, a fear traditionally heightened by not having enough visibility into the overall operations of the business. But in a digital age, most the answers are there, buried in an ocean of data, waiting to be discovered.

Once unearthed, that data—the holy grail of compliance—must be deciphered if it's to unlock any true value. That, in essence, is compliance analytics: It's the process of gathering all the data the company holds (and even data that it does not hold) and analyzing it using statistical algorithms to mine for patterns and anomalies to uncover things like fraud, policy violations, and other misconduct.

Depending on where a company is along the analytics maturity spectrum, explains Seth Rosensweig, a partner at PwC and head of its digital risk practice, compliance analytics can be used to derive insights for a variety of purposes, including:

» Descriptive analytics: What happened in a given situation?
» Diagnostic analytics: Why did it happen?
» Predictive analytics: What could happen?
» Prescriptive analytics: What is the best course of action for a given situation? What can the business do to improve?

Unlike a risk assessment, which intrinsically is backward-thinking, data analytics enables compliance, risk, and audit professionals to proactively detect and continuously monitor potential issues in real time. Without the benefit of today's advanced analytics tools, the visibility that compliance, risk, and audit functions has into the company's operations is limited by whatever sample, periodic risk-based testing or risk-based audit activities the company conducts manually.
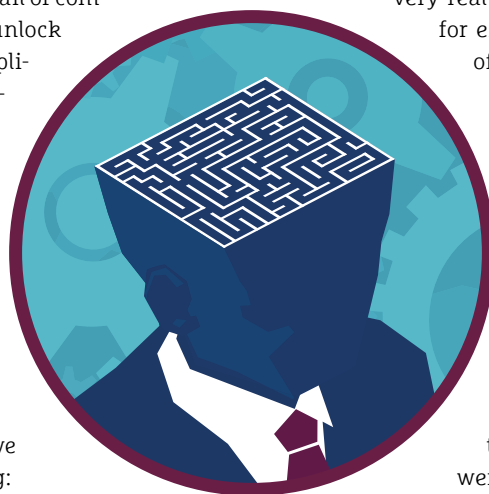
"Dealing with a huge amount of data traditionally was a very laborious activity for compliance functions," says Shaheen Dil, managing director and global solution leader for data management and advanced analytics at Protiviti.

Manually sifting through data also leaves the door open for misconduct or a policy violation to go undetected—a very real concern for a global financial institution, for example, that typically has dozens of lines of business, has millions of customers, and manages billions of records. Merely taking a risk-based sample of data doesn't satisfy regulators, Dil says, because it raises the question, "How do you know you've picked a comprehensive data sample? How do you know this sample covers all your potential risks?"

Dil cites as an example her former experience as an executive at PNC Financial Services Group, where "we spent half our time explaining to regulators—in those days, before advanced analytics tools were used—why our risk-adjusted sampling methods were, in fact, accurate and covered most of our risks," she says.

That's all changed with the use of advanced analytics tools, in which machines can now sift through all data, so that compliance, risk, and audit professionals are no longer limited to analyzing structured data alone—such as spreadsheets and database records. "Organizations historically didn't have the tools and techniques, and even the know-how, to mine, understand, and do something with unstructured data," Rosensweig says.

Advanced analytics, like artificial intelligence (AI) and machine learning technologies, are opening compliance functions up to new and exciting opportunities. Unstructured data—social media, text messages, e-mail, contracts, and more—can now be consolidated, along with structured data and analyzed together to identify patterns and anomalies that may go undetected by the human eye.

Getting started

Companies interested in the idea of compliance analytics for testing and monitoring but that don't know where to begin should consider the following as stepping stones:

Don't try to boil the data ocean. Compliance and audit functions should carefully think through how to incorporate and leverage the use of analytics into their end-to-end business processes, says Mike Maali, U.S. internal audit, compliance and risk management solutions leader at PwC. Often, companies that want to delve into compliance analytics begin identifying individual use case opportunities for deploying analytics and start mining the data without having a clear roadmap on how to leverage it more holistically, he says.

Begin by solving for a clear, well-defined risk or goal. In the banking industry, for example, AI and machine learning can help banks more accurately and quickly verify the identity of clients through automated know-your-customer-procedures. Credit Suisse shared how it's using a new technology platform that has helped identify and verify its international clients 80 percent faster than the year prior.

Credit Suisse is also able to assess "politically exposed persons" (PEPs) approximately 60 percent faster, at approximately 40 percent lower costs.

To cite another example in the financial services industry, data analytics can be used to monitor the activity of bank accounts opened by employees. Employees who have hit their sales targets by opening an excessive amount of customer accounts with no activity can be flagged for review.

In the pharmaceutical industry, where opioid use is a big compliance risk right now, data analytics can be used to uncover patterns of potential fraud or abuse. Such red flags in the data may include, for example, the number of doctors visited; the geography and patient population; and the frequency of drugs prescribed.

And in the retail industry, transactions involving what the company considers "high-risk" distributors or resellers can be analyzed to check against whether a third party in the supply chain is doing business with unauthorized or unapproved suppliers in a high-risk market.

Establish data governance controls around data usage. Proper data governance is about enforcing through policies and procedures the management of data assets and the performance of data functions. Data governance should identify who is responsible for what data, who has access to the data, and what type of access is allowed.

A data dictionary is another important component of the data governance process. A data dictionary describes how to store and manage data and, thus, plays a central role in maintaining the accuracy, reliability, and integrity of the data,

{CW'S COMPLIANCE AND TECHNOLOGY SURVEY}

How has your board/senior management's expectations of compliance-related data analytics changed over the past year?

Decreased expectations **0.1%**

Unchanged expectations **30.1%**

Increased expectations **66.1%**
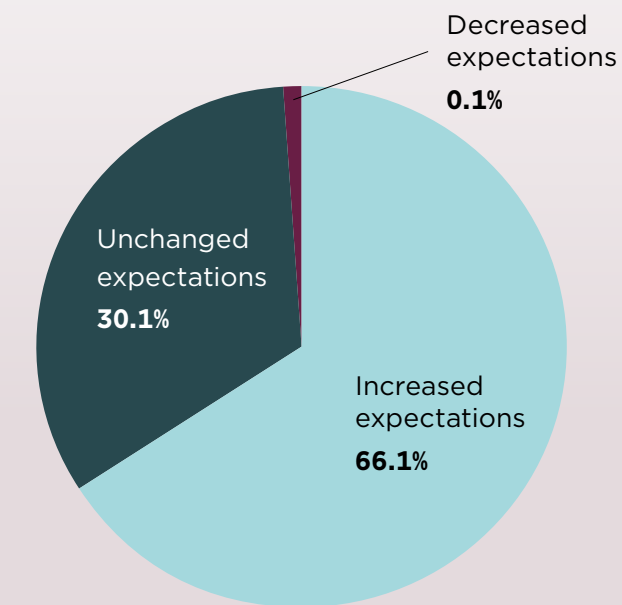
What type of technology would you like to learn more about?
(Select all that apply)

Compliance Analytics
82.6%

Artificial Intelligence
52.2%

Benchmarking against industry and peers
46.1%

Blockchain
34.78%

Employee Engagement
29.57%

FinTech
18.26%

Other
4.35%
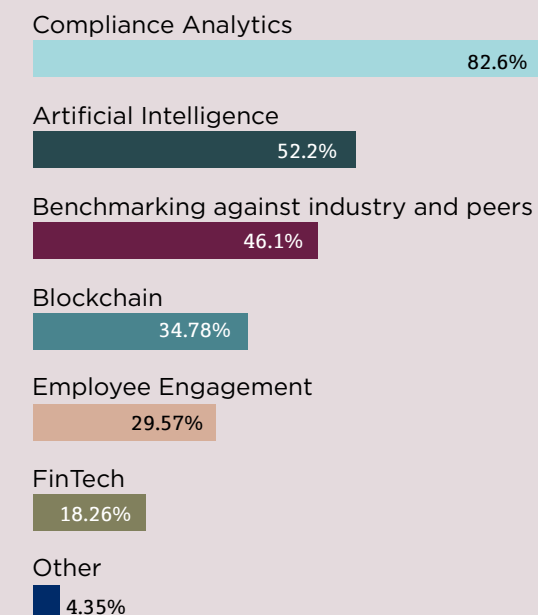
which is especially important when reporting to regulators.

Get a grip on data lineage. Data lineage is the lifecycle of data. It's the art of tracking the company's internal and external data, including its origin, where it moves, and how the data changes as it moves across servers and from module to module—from accounts payable to the general ledger, for example. So long as the business has a firm grasp on its data governance and data lineage, it can start to use the data in more advanced ways—such as getting into predictive risk modeling.

Put together a team of experts. Compliance analytics is intended to enhance—not replace—human intelligence. Those in the business must still translate what the data means relative to the risks that the business faces and how the data can be used to achieve future business goals.

Data stewards are a must. These individuals do not necessarily have the title of "data steward," but they are the individuals in each business unit who know what data is available, where it's located, and how it's being stored.

On that data team also needs to be heads from compliance, risk, internal audit, and IT who can interpret the results.

Regulators and analytics

Increased interest in the adoption of compliance analytics by companies comes at a time when government agencies are starting to pay a lot more attention to it as well. "Regulators, in general, have become extremely fascinated and extremely interested in this whole set of processes around data analytics," says Tom Nicolosi, a principal in the Deloitte Risk and Financial Advisory practice.

Certain regulatory bodies are even deploying data analytics in performing their examinations. The Financial Industry Regulatory Authority (FINRA), for example, uses advanced analytics to monitor trading in U.S. equities markets. "To do our job of protecting investors and ensuring market integrity, it's important that we are on top of each day's activity, applying our automated surveillance patterns to help our analysts look for potentially suspicious activity—instead of running to catch up," wrote Steve Randich, executive vice president and chief information officer at FINRA.

In a second example, the Securities and Exchange Commission in July used its data analytics capabilities to uncover insider trading by an executive, resulting in an enforcement action. "It certainly would be leading practice for organizations to make sure they are doing the same sorts of things, if not more, than regulatory agencies are doing today," Nicolosi says. ■

COMPLIANCE ANALYTICS Q&A: **Microsoft's Alan Gibson**

Compliance Week caught up with Alan Gibson, assistant general counsel at Microsoft, who shared how the $108 billion multinational technology company is using compliance analytics in its own global operations.

Gibson

In what ways does compliance analytics help Microsoft proactively stay ahead of compliance risks?

Microsoft is using data analytics to create an early warning and monitoring system for a set of compliance risks. Microsoft has implemented an integrated program to provide prioritized, risk-based analytics. The analytics create "actionable insights," which after training and establishing clear R&Rs and accountabilities with stakeholders, manage and reduce compliance risks across the "three lines of defense."

What advice would you offer other compliance functions as they look to establish a compliance analytics program?

Solve for a clear/defined risk. Solving for a specific and well-understood risk will allow you to test your hypothesis in a functioning proof of concept and quickly deliver value to the user community and leadership, all the while building momentum for further growth and expansion. Avoid solving for broad and vague risks such as "fraud," instead focusing your efforts on a narrow, specific goal in terms of type of deal, customer, and area.

Start with a "manageable" data set. Consider data availability and its ease of access when electing a starting point. Look for data sets that will illuminate the risk you're trying to solve, have untapped intersection points, or are naturally interconnected. Avoid difficult and time-consuming endeavors to restructure or stitch disparate and unrelated data sets together early in the program.

Leverage the user community. Engage resources from the user community (e.g., the compliance community) early and often to help with requirements, provide real-world experience and insights, and be change champions. This will build excitement and buy-in before launch, increase analytic adoption post launch, and ensure overall program success and longevity. Ultimately, if the users don't find the analytic meets their needs, they won't use it.

—Jaclyn Jaeger
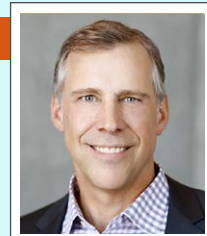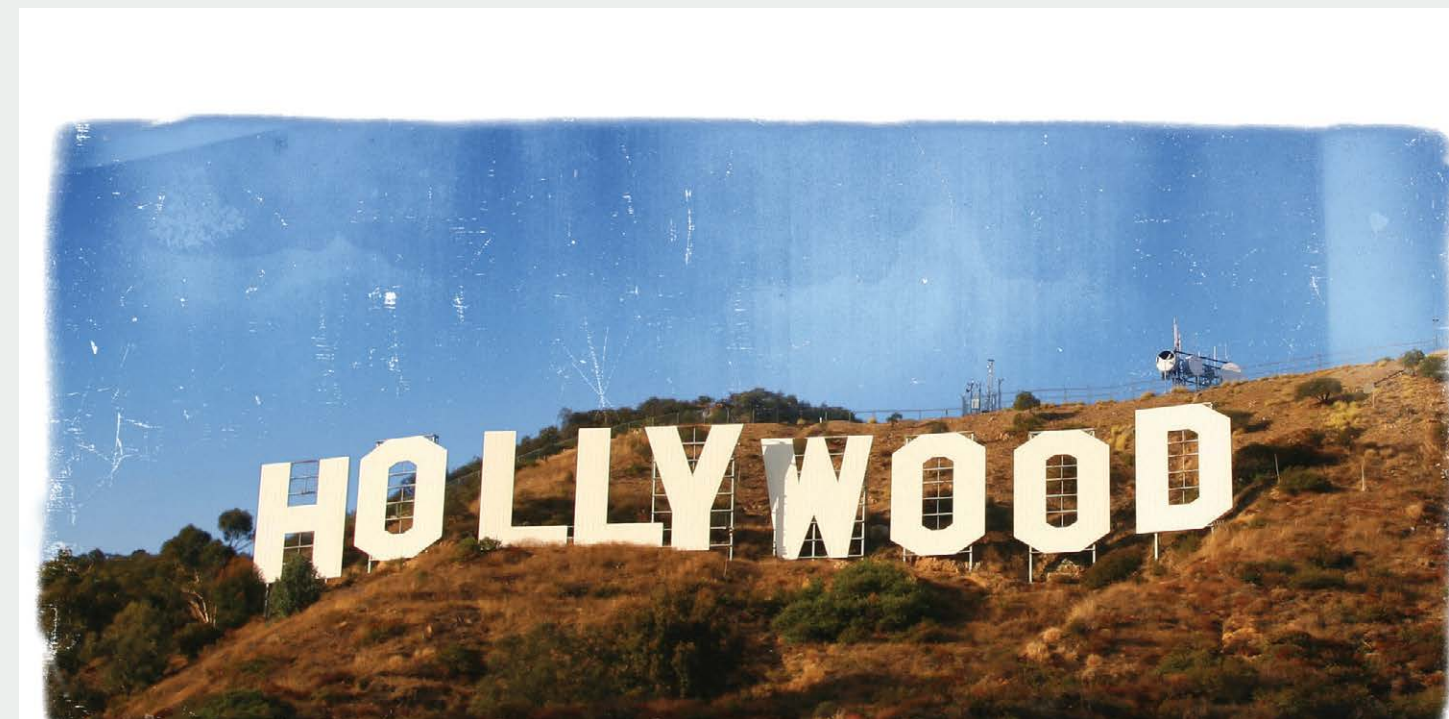
The ROI of Compliance: Don't Go Bankrupt

The Weinstein Co. was once the largest film studios of its kind. It received over 300 Oscar nominations and won more than 80 Academy Awards. Earlier this year, the company filed for bankruptcy. The Reason was completely preventable.

Ethics and compliance programs alone can't stop all the bad actors of this world (irony intended). But these programs can give the majority of good actors permission to be confident in their good actions. This is most important when those actions require speaking up about the misdeeds of others in the organization – particularly those in more senior positions.

Today we see a flurry of empowered good actors raising their voices. From a social conscious perspective, it's about time. From a business perspective, however, it's really late. This is what happens when an organization promotes silence as the solution to bad behavior. This may prove an effective temporary solution to one-off instances, but it is not sustainable and it's not scalable. As people are quieted, the behavior their silence protects grows either more frequent, more intense or both. Frequency and intensity compounds. A single act that should have resulted in an individual being disciplined or fired if the right culture and procedures had been enforced, now bankrupts the company.

By NAVEX GLOBAL
Protecting your people, reputation and bottom line.

# 3 Ways Compliance Programs Give Good Actors the Confidence They Need to Act

If you saw someone breaking into your neighbor's house, you would feel confident picking up the phone to call the cops. That's because you know the behavior is not allowed and it's your civic duty to alert the authorities. This is the type of confidence, permission and sense of duty compliance programs instill in their employees. Ethics and compliance programs achieve speak-up cultures with an ecosystem of policies, procedures, reporting and incident management channels along with training. This ecosystem provides the foundation good actors need to speak up and help their employer achieve the full return on compliance program investment. The result is an organization that protects its employees, and employees who protect their organization.

Define Expectations

Effective compliance programs clearly state the dos and don'ts of the organization (e.g., we don't harass and don't tolerate those who do). This most often takes the form of workplace policies – the basis for standards and expectations to which all employees have agreed.

Make Expectations Compelling

After workplace policies are in place, it is critical to bring those standards to life for employees. For instance, although people want to fulfill their civic duty, many do not know the difference between trespassing, burglary and larceny. But fortunately (or maybe unfortunately) we've heard enough stories to identify the nuances of wrongdoing inherent to all of them. The definitions of these forms of theft are equivalent to your company's policies and procedures. These educational stories take the form of compliance training. Effective compliance training doesn't just restate corporate expectations, it also compels those expectations to be met.
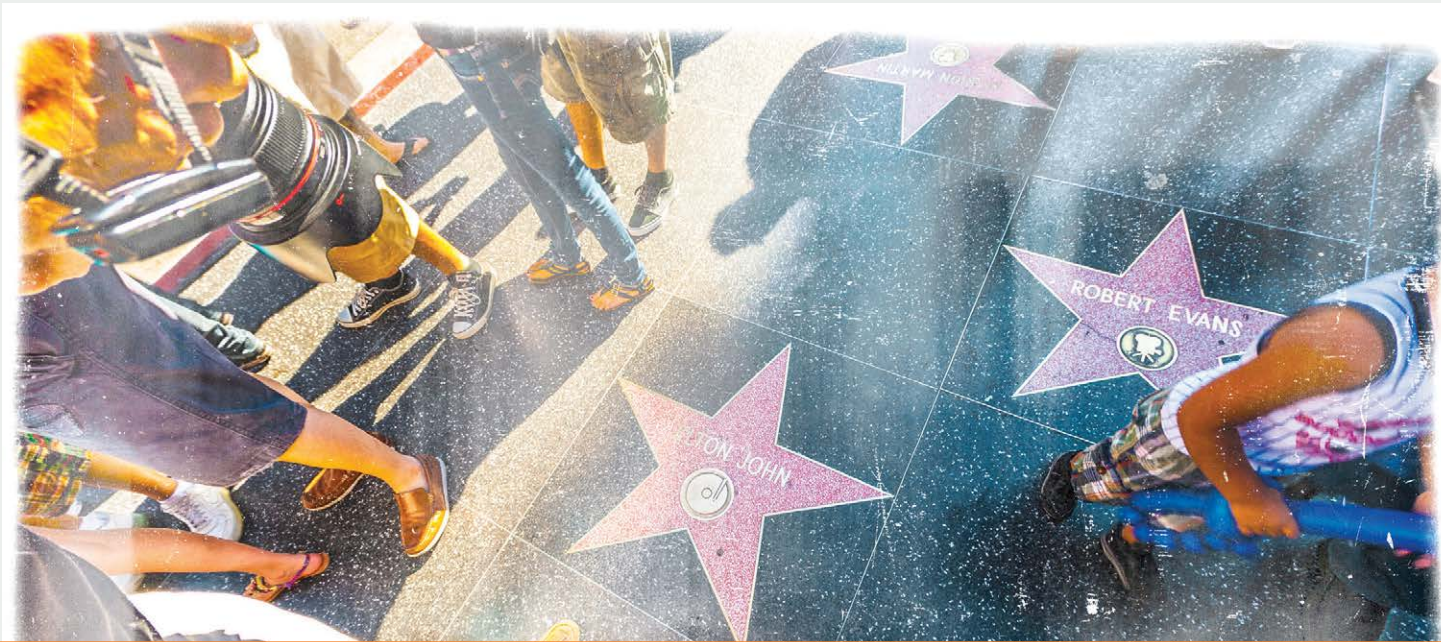
Define Steps for Action

Effective workplace policies and compliance training provide the information employees need for successful careers in the workplace. However, this doesn't stop the unabashed bad actors mentioned above. To properly identify and weed out bad actors before they harm colleagues or company reputation, it helps to engage employees in the process. This requires the right reporting channels. Just as 911 strikes familiarity, your employee whistleblower hotline, and all its various access points, need to be top of mind and easily accessible. This allows for consistent and immediate action.

Along with knowledge of reporting channels, employees need to have confidence that by reporting something will be done. If we called 911 and nothing happened, we'd stop calling. But when we see police cars and hear sirens we're assured the system is working and are confident our actions are part of the larger society for ethical culture.

Good Actors Feel Rewarded

Organizations with a culture of integrity and respect attract the best people, lose fewer people to undesired turnover and maintain strong reputational brands across commercial and social networks. In addition, research shows that those organizations where employees feel free to report concerns and wrongdoing, and where management is quick to respond to incident reports in a non-retaliatory way, outperform their peers.

In the end, employees are the true driving force behind any program or procedure. Effective compliance programs give everyone the tools they need to be part of a self-sustaining culture that protects the organization and everyone in it. For many, being a good (corporate) citizen is its own reward.

Sometimes it's hard to calculate the real return a robust compliance program delivers. But it's not hard to see the reputational value that comes with a strong culture, and the high cost of reputational damage when the culture is weak or toxic. Just ask the investors of The Weinstein Company.

ABOUT NAVEX GLOBAL
NAVEX Global's comprehensive suite of ethics and compliance software, content and services helps organizations protect their people, reputation and bottom line. Trusted by 95 of the FORTUNE 100 and more than 13,000 customers, our solutions are informed by the largest ethics and compliance community in the world. For more information, visit us at www.navexglobal.com

PHILOSOPHY MEETS **PERFORMANCE**

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The 'compliance transformation' is coming

The compliance officer of the future will need to have the same foundational requirements for the job, but also the flexibility to adapt to the rapid changes technology is bringing to the industry. Guest columnist and compliance futurist **Anthony Dell** has more.

Most compliance departments, even in small organizations, use some form of compliance technology, or RegTech. This can range from simple processes like using the typical suite of office software (e-mail, spreadsheets, databases, etc.) to organize tasks, track progress, and measure output to large organizations using advanced data analytics, robotic process automation, and artificial intelligence.

Although the level of compliance technology and automation varies from industry to industry, and within industries by organization size and cultural willingness, these days, in general, I would characterize the labor split between people and machines at an even 50/50, with the trend clearly toward increasing the amount performed by machines.

I am fortunate to work with businesses in a variety of industries, such as financial services (where I worked most of my career), technology giants, established software companies, start-ups (mostly in FinTechs and RegTech, including Artificial Intelligence), and in the fascinating world of blockchain and cryptoassets. Most firms with which I work show incredible potential for optimizing compliance in the coming years.

I see the current state as full of promise, although not without challenges and frustrations rooted primarily in data management (too much data in too many systems, many of which do not connect well) and inconsistent practices (e.g., this group has it fully automated, while that group does most things manually). Many of these pain points will take some time to resolve, but they are completely fixable and the trend—which I call "Compliance Transformation"—favors streamlining, systems rationalization, and optimization,

with a heavy reliance on technology.

Preparing for the future

The role of technology is indisputably expanding into all aspects of business operations, including compliance. Many compliance officers, especially senior-level and experienced ones, do not have a background in technology. I counsel them to think of our current moment of compliance transformation in holistic terms. No, you do not need to return to college and major in computer science. Instead, understand what these tools can do for you and your function.

To help provide context, I ask my clients if they really know—and I mean really, really know—how the internet works: Can they tell me what TCP/IP, HTTP, FTP, URI (and many other initials) mean, what they do, and how they help make the internet work? None of them can, but when I ask them to describe how they use the internet in their compliance program, they state clearly the benefits of being able to find, store, send, and share information almost instantaneously with their entire organization even if they have offices scattered around the globe.

By analogy, you need not be able to write code and design algorithms to succeed in the future. Take an online course in any of the relevant technologies—some are very low cost (hello, MOOCs like Udemy) or even free (thank you, YouTube)—and learn what they do. Talk with people in tech who really do know what they do. Call or get together with a fellow compliance professional who is already using some of these technologies. As someone in his early 50s who just finished two technology certificate programs at MIT, I promise you it is never too late to start.

The CCO of the future is a cyborg

All of my clients want to know where we are going in the compliance profession. What will we look like in 3, 5, or 10 years? How should we think about recruiting? What skills should we acquire? Some of the answers to these questions have been covered above. The compliance officer of the future will need to continue with the same foundational requirements for the job, namely:

» Strong and deep knowledge of the regulatory environment in which the business operates, and of the business itself;
» Demonstrable managerial skills regarding people, processes, operations, and budgets; and
» Effective communication and relationship-building skills in all forums.

The compliance officer of the future, however, must also:

» Be extraordinarily adaptive, energized by rapid change, and extremely flexible. The world of commerce is changing far too fast for CCOs to lack these qualities.
» Get or remain tech-savvy. As mentioned above, you neither need to become a programmer nor need recruit only computer scientists; you will soon, however, want these skills on your team, and you must make the effort to get familiar with the current and emerging technologies that can advance, or even disrupt, your function.

Compliance officers need not fear technology; in fact, they are wise to embrace it. The technology-enabled compliance function shines a bright light on the value compliance officers bring to their organizations. But make no mistake: While robots are not coming to take your job, we are at an inflection point in which compliance professionals must reinvent themselves and their function. The strongest and most successful compliance officers of the future will be a powerful collaboration of human and machine—a true cyborg. ∎

Guest contributor Anthony Dell is a compliance futurist and the founder of Compliance By Design, a boutique consultancy specializing in "compliance transformation."

As artificial intelligence rises, let's not forget about human intelligence

Susannah Hammond, senior regulatory intelligence expert for Thomson Reuters Regulatory Intelligence, says the human element will always be a critical component of an effective compliance strategy, regardless of advances in technology. "There absolutely still needs to be human thinking and accountability," she says.

A recent enforcement action against Transamerica demonstrates the danger of humans placing blind reliance on technology, says Hammond. The Securities and Exchange Commission determined Transamerica affiliates enticed investors to put billions of dollars into mutual funds and investment strategies that relied on faulty models built by an inexperienced junior analyst.

Transamerica affiliates deployed the models without adequate process or testing to assure they operated as intended, the SEC said, misleading investors about how their money was being managed. The SEC levied fines of more than $97 million.

"The algorithm they used seem to talk to retail investors," says Hammond. "It was complete garbage. It was badly programmed, badly explained, and not actually what was happening." As long as people continue to be held accountable, they need to be involved in terms of understanding what the technology is doing and what intelligence it is producing, she says.

Brian Christensen, executive vice president focused on internal audit at consulting firm Protivit, says he often hears the question about whether technology will eventually replace people. "Will bots replace the personnel doing the day to day work?" he says.

So far, that's no happening, says Christensen. Technology so far is relieving people at all levels of the routine, time-consuming tasks associated with gathering or mining data, but there are still plenty of opportunities to be found in the accounting and finance area in particular for people who equip themselves with the right skills.

The writing is on the wall for those managing the data to raise their game in terms of their ability to think analytically and strategically about what they get out of technology, says Christensen.

Those that resist change, which is not an uncommon human tendency, are the ones at risk, in Christensen's view. "They run the risk of becoming obsolete in the workplace of tomorrow," he says.

Stacy Gilbert, senior vice president at KeyBank, says humans still have plenty of work to do to simply gather and assemble or organize data. "We've spent too much time trying to gather data and massage data and not enough time analyzing data, which causes us issues at the end of the process," she says. "This makes processes more efficient so we have more time to do analysis on the data."

—Tammy Whitehouse

{ACCOUNTING}

As technology evolves, so do accounting and finance

A new study from Robert Half and the Financial Executives Research Foundation reveals how evolving technology is rapidly enhancing the accounting and finance functions. **Jaclyn Jaeger** has the story.

The pace at which technology is driving change in today's accounting and finance functions is accelerating at a rapid clip, resulting in boosted efficiencies, better collaboration with the business, enhanced compliance, and more.

Such was the overall theme from this year's accounting and finance benchmark report, developed jointly by Robert Half and the Financial Executives Research Foundation (FERF), the non-profit research affiliate of Financial Executives International. Based on survey responses from more than 1,700 financial leaders at public and private companies in the United States and Canada, the report also features insights gathered directly from interviews with financial executives.

"We have been tracking the automation trend closely as part of our benchmarking research for past several years and, year in and year out, one thing emerges pretty clearly: Accounting and financing organizations throughout North America are only expanding their embrace of automation and, even more so, cloud computing," Dave Pelland, research consultant at FERF, said during a webinar discussing the findings.

The intent of the report, Pelland said, is to help accounting and financial leaders assess how their accounting and finance functions operate relative to their peers and provide insight on how to adjust management strategies to align with leading practices.

Key themes and trends discussed in this year's report include:

» How accounting and finance functions are keeping pace with the evolving compliance landscape;
» How technology trends are impacting accounting and finance functions, including driving the need for new skills; and
» How accounting and financial leaders are managing everyday operations in response to heightened business expectations and a skills shortage.

Adoption of cloud-based solutions among accounting and finance leaders in North America continues to rise. In this year's survey, 75 percent of U.S. financial executives and 73 percent of Canadian financial executives said they either are currently using cloud-based solutions or plan to do so in the future.

The desire to boost efficiencies is a primary reason why accounting and finance leaders are moving to automation and the cloud. According to the report, accounting and finance leaders are using automation for routine tasks—such as data collection, management report generation, and document storage. "That gives accounting and finance teams more time to devote to analysis, collaboration with other business units, and help with decision support," said Paul McDonald, executive director at Robert Half.

Automating business processes, however, creates its own set of challenges. "A lot of organizations have processes with workarounds," Pelland said. "Those workarounds are probably a little bit trickier to automate and, so as financial leaders are thinking about automation, in some cases, they may need to clean up those processes before they can automate them."

Many respondents said they do not have plans, however, to automate processes that require strategic judgment, such as financial decision making and project management. For example, 26 percent of companies with less than $500 million in revenue and 35 percent with more than $500 million in revenue said they don't have plans to, or won't, automate financial decision making.

Another trend changing the operations of many accounting and finance functions today are "digital transformation" efforts, also referred to as "digitization," which the report broadly defines as the application of technology "to create new business models and processes; drive innovation and revenue; and, in some cases, disrupt entire markets and industries." As such, digital transformation is an umbrella term that can include process automation, cloud-based solutions, data analytics tools, internet of things (IoT) devices, AI, and machine-learning technologies, the report states.

Winnie Leung, chief financial officer at Canadian financial technology firm Moneris, said during the webinar that one benefit of digitization is that it helps companies make risk-based decisions faster. Some solutions on the market enable

firms like Moneris to reduce credit risk, for example, by taking information that the company may have on a client and layering in public data to help decide whether to advance credit to a certain customer, or whether it poses a risk to the firm.

Another company that's in the early stages of automation as it moves toward digital transformation is tire manufacturer Titan International. Jim Froisland, chief financial officer and chief information officer at Titan and one of the financial executives interviewed in the report, offered insight on starting the digital transformation journey: "You need to pick the right technology, of course, but before you do that, you need to define the business case and get the right resources behind it," Froisland said. "Define your business needs. Then, get the right skill sets. And then, get the right technology."

Skills shortage

As companies pursue digital transformation efforts, demand for different skills among accounting and finance leaders is growing. According to the report, 17 percent of respondents at U.S. companies and 22 percent of Canadian companies have plans to expand their accounting and finance teams in response to digital transformation efforts.

As such, respondents listed several technical and non-technical skills that are becoming more important. Top technical skills that are in demand include, for example, experience with ERP systems and experience in data analytics.

Soft skills, like communication and creativity, are also high in demand—often even more so than technical skills. One reason for this, the report states, is that "accounting and finance professionals need a broader range of communication skills to work effectively with others across the organization because digital transformation efforts often require, as well as enable, extensive cross-departmental collaboration."

Few respondents cited "knowledge of AI and robotic process automation" as a necessary skill. This is likely to soon change, however, as use of these technologies grows, McDonald said.

Companies that do decide to expand their teams likely will face a skills shortage. For example, 49 percent of companies with more than $5 billion in revenue said they are either somewhat or severely understaffed. Meanwhile, the U.S. unemployment rate for accountants and auditors is just 2 percent.

Many companies are overcoming the skills gap by using interim staff, the report found. This year, 33 percent of U.S. respondents said they are using interim professionals, up from 28 percent in 2017. In Canada, 41 percent of companies said they are using interim professionals, up from 32 percent in 2017.

"We know from our interviews with finance executives that new mandates are adding to the compliance burden for

many accounting and finance functions," McDonald said. Thus, financial executives are increasingly turning to interim professionals to not only support new initiatives, like digital transformation efforts, but also to meet evolving regulatory demands.

"For example," the report states, "as accounting and finance functions have worked to implement revenue recognition and lease accounting standards, many have brought interim resources into their departments for extra support, either to lend expertise in those areas or to take on everyday tasks while full-time staff members focus on standards adoption."

As the regulatory landscape continues to evolve and place more demanding compliance burdens onto accounting and finance leaders, those leaders "can add value by staying on top of what's happening in the industry of accounting and finance," Joan Cox, CFO of educational non-profit Head Start of Greater Dallas, said during the Webinar. Prudent accounting and financial executives today can stay on top of the latest trends in accounting and finance by participating in peer-to-peer forums, for example, to exchange knowledge and ideas, hear what challenges others are encountering in their compa-

nies, and how they are approaching those challenges, she said.

Financial executives have a key role to play in adding value to the business beyond just making sure that the company keeps accurate books and records. Leung challenges all financial executives to keep this one important question in mind: "How do we help the business grow and succeed, and where does the finance team play a role in that?" ■

Accountants, auditors turn to technology to cope with change

Accountants and auditors coping with an onslaught of new requirements are beginning to regard technology as a critical means of compliance. In fact, some would say it's the only realistic means to achieve compliance.

Like other areas of the business, accounting and auditing are in something of a transformation as part of a digital mega-trend that is driving technological advancement. The digitizing of information has been going on since about the early 2000s, says Will Bible, audit innovation leader at Deloitte & Touche.

Using a variety of different tools and approaches over many years, companies have been converting their information on products, services, and customers to digital data, developing new processes for how they do business along the way. That sets the stage for the next phase of technological advancement, which is automation and analytics, says Bible.

"Once you have information that's digitized, how do you connect your systems to business processes so that it becomes automated?" says Bible. Technology is emerging to enable systems to interface with one another—robotics process automation, or RPA, as one example of such automation.

"RPA is essentially coding bots to act as if people were acting in a routine way," says Bible. "Bots interface with the system like a person to process information systematically from one system to another. It saves people from having to copy and paste information from one system to another." A new lease accounting standard has demonstrated for many companies where they could better leverage technology to not just achieve accounting compliance, but to improve their management of leases. At many compa-

nies, lease contracts have been signed and managed using various different methods at various locations literally all over the world.

Now companies are using various types of tools to centralize leases into single systems, read the contracts for abstract terms that are important to the new accounting, enter data into accounting systems, and perform the new lease accounting calculations. "Anywhere you have systems that don't talk to each other, one option is to build a bot to do that for you," says Bible.

Cloud technology is another means of interfacing that is transforming accounting processes. Stacey Gilbert, senior vice president at KeyBank, says its cloud solution is proving critical to the implementation of and compliance with major changes in accounting standards.

Public companies adopted pervasive new requirements for how to recognize revenue at the start of 2018, and now they're sprinting to the finish line to be ready for equally sweeping rules on how to recognize leases in financial statements. For financial institutions, an even more critical change takes place the following year is how to recognize credit losses, adopting the "current expected credit losses" model for projecting and reporting where a company may have risk in its portfolio.

New accounting standards are not only major changes for the accounting office, but they represent major changes for virtually every other area of the organization as well.

A cloud approach connects people throughout the organization and allows them to work together more effectively, accessing and sharing information more efficiently and more confidently. That has been important in assessing

the impact of new accounting standards, gathering and sharing data, and documenting every step of the journey.

"As accounting experts, we're relying on information coming from other people," says Gilbert. As they rely on that information to develop accounting policies, establish judgments and estimates, and assert proper control over financial statement assertions, accountants need to document that they've done their due diligence. Using a cloud application enables not only the collaboration necessary to establish accounting policies and arrive at critical estimates and judgments, but it also documents the entire process, says Gilbert.

As the Public Company Accounting Oversight Board has come down especially hard on auditors for their review of management review controls, the cloud platform with its documentation features has been "a huge win," says Gilbert.

Despite the potential of such applications to automate in a way that improves compliance, not all companies have embraced it as readily. A recent survey from consulting firm Protiviti says time and money spent on SOX compliance continue to rise, but corporate adoption of technology tools to automate the process is still lagging.

Only one-third of organizations, for example, are automating workflow approvals or access controls, and two-thirds are not using technology to test controls to demonstrate SOX compliance. Only 11 percent said they were using RPA, "the holy grail of having real-time, 24/7 monitoring," says Brian Christensen, executive vice president focused on internal audit at Protiviti.

Technological tools could remove some of the "monotonous, recurring work" associated with SOX, says Chris-

tensen, while also providing visibility into larger or even complete data sets rather than samples. "The encouraging side of the poll result, he says, is that companies are trying to get there. Roughly half said they are planning to deploy new technology specific to SOX in the next year.

Given the pace of change and the massive new opportunities created by technology, it can be difficult for companies to figure out where to invest their next dollar. The decision should start with an inventory of what's already in place, both from a systems and data perspective, says Dan Sunderland, chief auditor for the audit practice at Deloitte.

If a company already has a single platform that forms the basis of its Enterprise Resource Planning process, for example, that creates a different set of opportunities and challenges compared with a company operating multiple disparate systems. "Understand how accessible and uniform the data is within the organization, so you can start to see what is feasible to work with in the short run," says Sunderland.

The analysis can then identify intersections of complex accounting judgments and data supporting those judgements, or areas that are typically most problematic, to identify where perhaps manual steps could be replaced with automated processes, or where data could be better mined and analyzed, says Sunderland.

It's a difficult process, in part because the business and the external environment are always changing, he says. "To enable folks to really utilize technology, you have to get down into the details," he says. "What is truly data that I can analyze to inform my decision-making processes and not just data for data's sake?"

—Tammy Whitehouse

{EUROPE}

U.K. setting global example in facilitating technology growth

FCA-backed sandboxes set up for testing in a live environment have put British RegTech and FinTech ahead of the curve. **Neil Hodge** has more.

Over the past few years, increased regulatory scrutiny, enforcement, and governance requirements within the European Union have prompted companies to dig deep and hike their compliance budgets.

While previously these increased costs have been associated with increased headcount, IT consultancy Accenture's 2018 "Compliance Risk Study" found that this is no longer the case globally: Compliance technology transformation is the top spending priority for respondents, both over the next 12 months (57 percent) and within the next three years (51 percent) as compliance functions move toward deploying technol-

ogy rather than adding more people to fulfil their mandate.

Given how new and cutting-edge FinTech and RegTech technologies can help companies digest larger volumes of data and help report information more quickly so that they can react to risks sooner, it is not surprising that there is a growing interest within compliance functions to adopt such technologies—especially because there is an expectation from regulators to do so.

The United Kingdom has been leading the charge. The Financial Conduct Authority (FCA), the country's main financial services regulator, set up the world's first regulatory sandbox in 2015, and it went live the following year.

The sandbox is open to technology businesses, as well as authorised and unauthorised financial services firms. It aims to provide participating firms with the ability to conduct small-scale testing on products and services in a controlled environment, while gaining a greater understanding from the regulator as to whether these new products are likely to comply with local laws and regulations (with no threat of enforcement action if they do not).

The FCA's sandbox has recently had its fourth intake—or "cohort"—since its launch. Eighteen firms were tested in the first cohort, including major banks Lloyds and HSBC. A further 24 firms are being tested under the second cohort, and 18 under the third, including a RegTech proposition by Barclays Bank that tracks updates to regulations within the FCA Handbook and aligns their implementation to Barclays' internal policies. Some 29 firms will be tested under the fourth cohort, and a fifth cohort will open later this year.

The FCA is keen to roll out the initiative globally. On 7 August it announced the creation of the Global Financial Innovation Network (GFIN) alongside 11 other financial regulators, including the Australian Securities & Investments Commission (ASIC) and Hong Kong Monetary Authority

"Companies tend to make the biggest IT investments in the customer-facing areas where they make their money. As a result, compliance, HR, and audit, for example, have lost out for years, and many of their core processes are still done manually or on basic software packages like spreadsheets. Regulators are increasingly frowning on this."

Gary Richardson, Managing Director for Emerging Technologies, 6point6

(HKMA), which is intended to be a "global sandbox."

While experts point out that few "heavy hitters" are involved, and that regulators from key EU countries and the

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United States, for example, are notable for their absence, the move signifies a wider intent by regulators to work "hand in hand" with tech developers to understand how their products work before they are rolled out.

Many of the products being tested by the FCA have a strong compliance component. One involves a fully automated governance solution that enables financial organisations to monitor and understand how spreadsheets are used for regulated activities. The software monitors and enforces compliance rules, identifies structural file errors, and quantifies enterprise risks. Analytics captured by the software can also be used to identify and expedite the automation of operational tasks. Another product currently being tested revolves around a security system that detects advanced hacks and breaches in banks powered by deep learning and computational linguistics.

Jon Segal, partner and head of technology at City law firm Fox Williams, says that investment in RegTech and FinTech solutions has increased during the first half of 2018 in the United Kingdom and EMEA and that "this is due in no small part to regulatory and compliance concerns." Technologies that exploit artificial Intelligence, machine learning, natural language processing, and pattern recognition to help automate workflow, risk reporting, and risk monitoring are proving more popular with compliance and other assurance functions, say experts. The key market is financial services, but other industry sectors are also adopting such technologies

"One of the biggest growth areas has been regulatory reporting," says David Gardner, a partner at TLT. "RegTech can search multiple data sources and compile reports that are comprehensive, coherent, and standardised, saving time and effort and making them easier for the regulator to analyse. RegTech can be used to verify identities according to regulatory requirements and flagging checks for review by exception only. Moving forward, we expect to see a lot more innovation in identify verification and know your customer (KYC) checks."

Chris Beer, EMEA head of regulation at technology company Excelian, Luxoft Financial Services, says that open banking frameworks and next-generation business models such as Banking as a Service (BaaS) are now emerging as growth areas. "As they mature, investment in FinTech and digital banking offerings will only accelerate," he says.

Gary Richardson, managing director for emerging technologies at IT consultancy 6point6, says that the growth in adoption of these new technologies is due to two key factors:

» Regulators are making a greater push for companies to have more automated processes and better risk reporting frameworks; and
» Compliance and other assurance functions have been among the most under-resourced departments in terms of IT investment for too long.

"Companies tend to make the biggest IT investments in the customer-facing areas where they make their money. As a result, compliance, HR, and audit, for example, have lost out for years, and many of their core processes are still done manually or on basic software packages like spreadsheets. Regulators are increasingly frowning on this and their increased scrutiny is boosting overdue IT investment in many organisations."

Experts generally believe that the United Kingdom is at the forefront of FinTech and RegTech development. Suchitra Nair, director (EMEA) at Deloitte's Centre for Regulatory Strategy, says the United Kingdom has been able "to steal a march" over the United States and the European Union due to the FCA's early push to see how emerging technologies could improve risk governance and customer experience.

"The U.K. used its position as a lead financial centre to embrace quickly the advantages that these technologies had to offer, and this momentum is set to continue after Brexit. The EU has tried to follow suit with a pan-European approach, but this has proved too difficult to coordinate," says Nair.

"The market is now at a stage where it is easier for FinTechs to scale quickly and build platforms that remain compliant with regulation," says Beer. "The main concern is whether Brexit will help or hinder the ability of U.K. regulators to continue their progressive approach to FinTech adoption. This, of course, depends on the type of deal the U.K. negotiates for the financial sector with the EU." ∎

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>
> Suchitra Nair, Director (EMEA), Deloitte's Centre for Regulatory Strategy

Compliance software provider directory

Compliance Week reached out to more than 60 providers it has partnered with in the past and asked them to share information about the software solutions they offer. The following are the responses we received from the companies.

Company	Accounting/Audit	Case mgmt	Conflict of interest	Contract mgmt	Data analytics	Data privacy	ERM	T&E	GRC solution	Issue reporting	Policy mgmt	RegTech	Risk mgmt	SOX compliance	Activity monitoring	Third-party mgmt	Training	Contact
Aravo Solutions																X		info@aravo.com
Blue Umbrella		X		X		X			X	X		X	X			X	X	brad@bluedd.com
Compliance.ai									X			X	X					shanna@compliance.ai
Computer Services, Inc. (CSI)						X						X	X		X			dan.chapman@csiweb.com
Control Risks			X		X	X							X		X	X	X	americas@controlrisks.com
Deloitte						X						X	X					lhallman@deloitte.com
DeltaNet International Ltd																	X	james.walton@delta-net.co.uk
Dun & Bradstreet				X		X			X			X	X			X		MaterK@DNB.com
Fastpath	X						X	X		X			X	X				trish@gofastpath.com
i-Sight		X								X								info@i-sight.com
Lockpath	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	Info@Lockpath.com
LogicManager, Inc.							X		X	X	X	X	X			X		brendan.colliton@logicmanager.com
Mitratech	X	X		X	X	X			X	X	X	X	X					Scott.bamford@mitratech.com
MyComplianceOffice			X			X	X	X	X	X	X	X	X	X			X	Advance@mycomplianceoffice.com
NAVEX Global		X	X						X	X	X		X			X	X	MPeterson@navexglobal.com
OneTrust						X												info@onetrust.com
Opus						X						X	X			X		Patricia.mcparland@opus.com
PageFreezer		X										X	X		X			olga@pagefreezer.com
ProcessUnity					X				X		X	X	X			X		info@processunity.com
Proofpoint													X					abueno@proofpoint.com
RANE													X				X	greg.radner@ranenetwork.com
Reciprocity							X		X	X	X		X			X		jordan@reciprocitylabs.com
Redgate Software						X									X			james.murtagh@red-gate.com
SAI Global	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	sean.freidlin@saiglobal.com
Skillsoft Compliance Solutions		X		X		X			X			X					X	global_compliance@skillsoft.com
Steele Compliance Solutions, Inc.												X	X			X	X	info@steeleglobal.com
The Red Flag Group		X	X				X		X	X		X				X	X	info@redflaggroup.com
Thomson Reuters Risk Mgmt	X					X			X		X	X	X	X		X		risk.info@thomsonreuters.com
Traliant																	X	info@traliant.com
True Office Learning					X												X	info@trueoffice.com
Workday	X			X	X								X	X			X	PH: 1.877.967.5329.

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