

Future of risk management in financial services:

Integrating risk management
and Agile projects

The future of risk series



Executive summary

The pace of change in the financial services industry continues to increase. To keep up, institutions need to find ways to bring new offerings and better experiences to customers—quickly and cost effectively. To that end, many have turned to Agile project management, which replaces the traditional, gated “waterfall” project model with an iterative, fail-fast-and-learn-fast approach that moves ahead quickly in small increments. In many organizations, Agile projects have helped increase customer satisfaction, shorten time to market, enable innovation, and reduce costs.

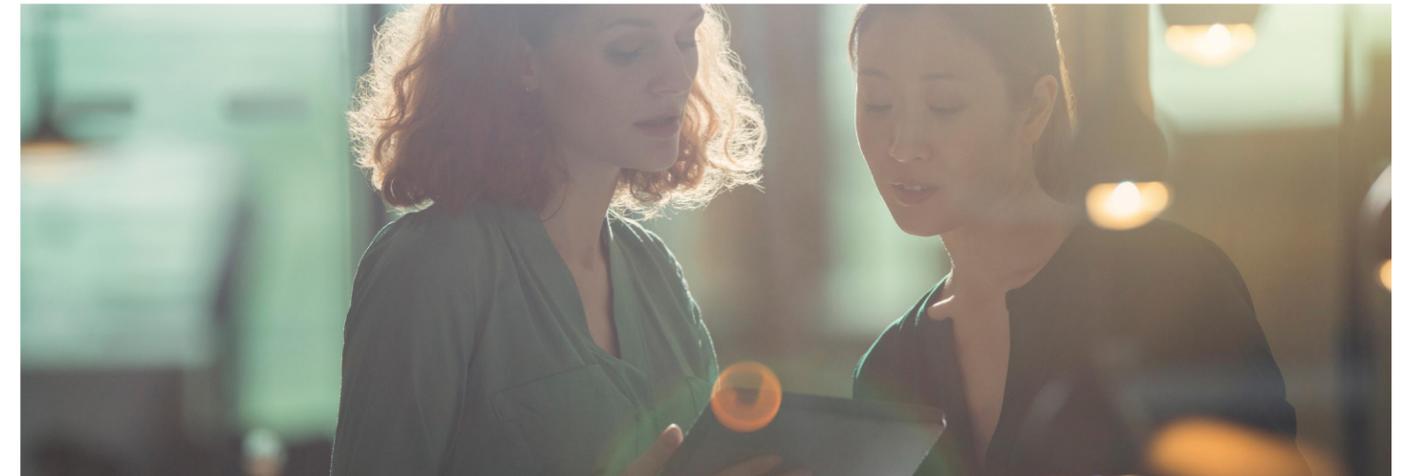
However, the need for speed has not eliminated the necessity for robust risk management. While accelerating the development of new products and offerings, institutions also should ensure that proactive risk management and controls are an integral part of the process—and that can present a challenge for Agile projects. The two areas differ widely in terms of mindsets and goals: Agile techniques focus on bringing speed and action to projects; in contrast, the traditional approach to risk management, whether in the business units or in the risk management function, has emphasized working carefully and deliberately to identify and assess the risks associated with a project and implement controls before allowing it to move forward. Thus, the need to manage risk has the potential to slow projects down, limiting the institution’s ability to take advantage of those increasingly important Agile ways of working.

Growing need for speed and flexibility

To speed up projects without increasing risk, institutions should change the way business units and the risk management function work together on projects, and how risk management's three lines of defense engage with Agile teams. The goal is to better integrate risk management into project planning and development so that projects can be delivered quickly, but with appropriate attention paid to assessing and mitigating risk. The key to doing so is the creation of an Agile-Risk Operating Model. In developing these models, institutions should consider five key areas:

- **Interaction and governance.** How can risk management best be involved with the Agile project in order to increase efficiency and address risk?
- **Decision rights.** What decision rights need to be given to project participants and to each of the three risk management lines of defense—especially the business units?
- **Talent.** What risk management skillsets and organizational structures for the three lines of defense risk governance model are needed, and how should this model be deployed to work effectively with the Agile project?
- **Tools and accelerators.** How can technology enhance risk management's capacity, capabilities, and efficiency?
- **Change management strategy.** How will the organization—and its people—make the transition to integrating risk management and Agile teams?

The need for risk management to adapt to Agile methods represents an important mindset shift for institutions. But it is really just one aspect of a larger trend—the imperative for risk management to fundamentally transform itself to meet a more volatile environment characterized by an uncertain economic outlook, continuing regulatory change, and new competitive threats.¹ Risk management should increase its focus on a wider range of non-financial risks such as cybersecurity, data, conduct and culture, fraud, third-party, and model risk, to name a few; move from a reactive to a proactive approach; and become a full participant in efforts to drive business performance and set overall strategic goals. By doing so, institutions can enhance risk management's role as a proactive enabler of business performance. Adjusting risk management to work effectively with Agile methods will be an important part of this transformation.



In the financial services industry, change has become “business as usual.” On one hand, this is creating opportunity for institutions—for example, through digital and mobile channels that provide new avenues for reaching customers. On the other hand, the changes buffeting the industry are creating new and complex challenges.

Perhaps the most significant of these is growing competition, and the associated need to introduce innovative products while also increasing efficiency. Many competitors are now non-traditional players. Fintech companies, for example, are bringing new technology-based products to market. Other industries, too, are entering the fray. Starbucks has become an innovator in the payments space, while the major technology and e-commerce companies—Facebook, Apple, Amazon, Netflix, and Google (FAANG)—are driving higher customer expectations for technology-enabled convenience and functionality. FAANG companies are also blurring traditional industry boundaries by offering their own financial services—and giving rise to the term “techfin,” used to describe technology companies that are moving into financial products and services.

Indeed, evolving technology is a constant undercurrent in the disruptions taking place in the industry today. To keep pace with competitors and customers, institutions need to be increasingly adept at leveraging technology, such as cognitive analytics, artificial intelligence, machine learning, big data, and robotic process automation, and many are working hard to do so.

The changes that are reshaping financial services are having an impact on many fronts. Taken as a whole, they boil down to a need for increased speed and flexibility—the ability to rapidly develop and deploy new products, services, tools, and processes in the constant search for innovations that deliver better and faster customer experiences and do so at lower cost.

Faced with that need, institutions have begun to increasingly turn to Agile techniques for managing projects. In contrast to traditional project management, Agile take a less-linear approach, and instead, moves forward in an incremental and iterative fashion. An Agile project focuses on quickly completing a targeted portion of a project, testing it with customers or users, and then incorporating their feedback, over and over. Instead of planning, designing, and then releasing a full-blown new

Steering risk management into the future

The business environment is evolving, and risk management needs to evolve along with it. Deloitte has identified four levers that can be used to modernize risk management for changes in the business—and to adapt it to the growing use of Agile methods.

- **Strategy.** Risk management should be involved with Agile teams early on, in the project planning stages. More broadly, risk management professionals should provide input into the development of the institution's strategic plan and strategic objectives, and in assessing the impact of new products and markets on its risk profile.
- **People.** For risk groups working with Agile teams, it's important that individuals not only have the right skills, but also a mindset that "gets" Agile. More broadly, institutions need to ensure that risk management has enough professionals with the skills required to manage high-risk and complex activities, including non-financial risks. Looking beyond risk management itself, institutions should have active programs to create a risk-aware culture that encourages ethical behavior by employees, constructive challenge, appropriate incentives, and transparency.
- **Three lines of defense.** In terms of working with Agile teams, the responsibilities across the three lines of defense are often unclear. Institutions should reexamine their models to ensure that they have clearly defined the risk management responsibilities of each line of defense, and eliminated any overlap in responsibilities. Typically, more risk management capability will need to be built into the first line to enable the business to assume ownership of the risks in its area.
- **Technology.** Automated risk management tools, such as alerts, can be embedded into business systems used by Agile teams. More broadly, the latest technologies—such as cognitive analytics, machine learning, natural language processing, and big data—have the potential to fundamentally transform risk management. In addition to reducing costs through automation, these technologies can also enhance the overall effectiveness of risk management by enabling institutions to build controls directly into processes, improve the prioritization of areas for testing and monitoring, and identify potential risk events in real time to allow preventive action to be taken.

For further discussion of Deloitte's point of view of the issues affecting risk management functions, and the opportunity to enhance these functions, see *The future of risk in financial services report*.¹

back-office accounting application, for example, a bank might create a quick pilot project with partial functionality, roll it out to a limited set of employees, make improvements based on their responses, and then repeat the cycle rapidly until the full new system is complete and ready for broad use. (See the sidebar, "What is Agile?")

Agile methodology is often associated with software development, where it has been in use since the early 2000s. However, many of its concepts are being applied to other types of change and development projects. In addition, the Agile methodology has its own lexicon and vocabulary. These concepts include "sprints," or short bursts to complete a piece of work, usually lasting a few days to two weeks; "scrums," which are short meetings held to review a recent sprint and focus on the next sprint; "standups," which are brief daily update meetings of core team members; and "information radiators," which are highly visible, public displays that let everyone see work progress at a glance. "User stories" are descriptions of specific aspects of the business problem, with work being divided across a number of user stories, while "personas" are hypothetical user profiles created to help guide the design of the solution or product.

Financial institutions are finding that Agile techniques can accelerate change and innovation. What's more, they can also help increase customer satisfaction because of the built-in early involvement of customers in product development. And faster, more focused projects help reduce the cost of change initiatives.

In short, Agile is a good fit with today's rapidly changing industry environment. However, it can be challenging to integrate it with the need for robust risk management. Indeed, the two areas represent two fundamentally different mindsets. While Agile emphasizes speed and action, traditional risk management focuses on deliberation and thorough assessments. Financial institutions that have not embraced risk management modernization and innovation may often find that the two are at odds with one another, which makes it difficult to take widespread advantage of Agile approaches. (See the sidebar, "Symptoms of Misalignment.")

While the traditional approach continues to work well for some applications, in many cases, such as new product development, Agile can afford financial institutions more agility and speed. Unlike the traditional project approach, which relies on thorough upfront planning, waterfall processes, and command-and-control driven work, Agile introduces more iterative planning and delivery. It typically involves a series of incremental changes, with frequent customer feedback, that ultimately result in a full, completed project, such as a solution or product. This approach is especially suitable in a world where companies are constantly trying to keep up with customer-driven, volatile change.



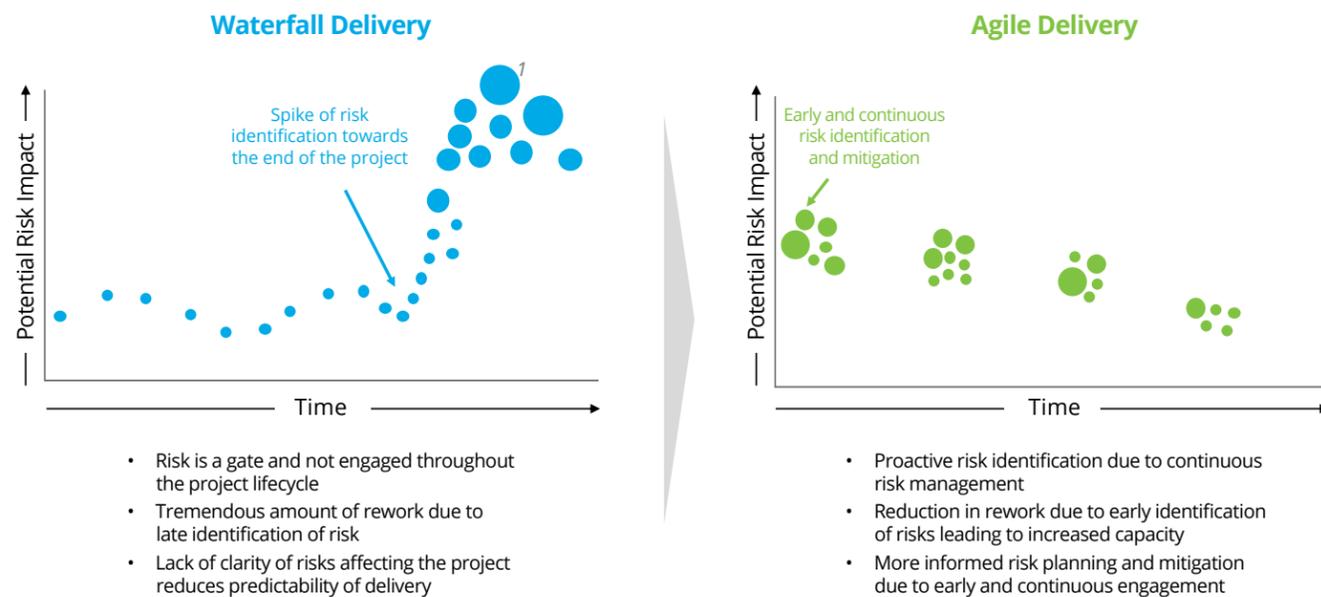
What is Agile?

Agile is best understood as a mindset that began to gain prominence in 2001, when a group of software developers released their “Agile Manifesto.”³ The document says that development work should be approached with a mindset that values:

Individuals and interactions over processes and tools	Working software over comprehensive documentation	Customer collaboration over contract negotiation	Responding to change over following a plan
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That mindset quickly spawned a number of Agile principles, practices, and methodologies for use in the real world of software development—and ultimately, in a wide range of other projects and processes, both technical and non-technical, across multiple industries.

Figure 1: Waterfall vs. Agile delivery



¹ Note, bubble size indicates the amount of delivery team time required to mitigate risks

Case studies:

New Agile-Risk operating model	<p>A large North American bank wanted to take a more systematic approach to managing risk in its projects that were using Agile methodologies. To do so, it worked with Deloitte to create an Agile-risk management operating model.</p> <p>The effort began with the development of a target operating model that defined the roles, responsibilities, interactions, and decisions rights of risk management’s three lines of defense, along with related processes, governance, reporting, and key performance and risk indicators to be used for ongoing monitoring of risk management activity. This model was validated, refined, and deployed in a number of pilot initiatives. The experience gained in those pilots was then used to create a final operating model, supported by a comprehensive strategy for managing change, talent, and implementation during the broader rollout of the new model.</p> <p>The new operating model supports the fast and iterative project releases that are at the heart of Agile work, while at the same time helping to ensure that those efforts fit within the bank’s risk appetite and operate under the appropriate controls. Overall, the model has led to the more-effective involvement of risk and control practitioners in business projects, and the bank is now expanding the use of the model across the organization’s Agile projects.</p>
Enabling the Agile enterprise	<p>To support its customer-centric strategy, an Australian bank wanted to adopt an operating model that incorporates Agile methodologies in order to increase speed and flexibility in responding to changing customer needs.</p> <p>The bank worked with Deloitte to develop an innovative “Enterprise Agile” operating model. This model realigned existing organizational structures into groups organized around specific customer and strategic outcomes, with end-to-end responsibility for delivering a suite of services and products aligned to customer needs.</p> <p>Various support functions, such as finance and HR, were redesigned to improve their interactions with these customer-focused groups. This included risk management, with the creation of a business assurance group that embeds risk and compliance experts into delivery teams to provide specialist input throughout the product development cycle.</p> <p>The Agile operating model quickly enabled the faster rollout of new products, including one that enables customers to make payments using a wearable ring device. Looking ahead, the bank can continue to manage risk while fast-moving teams keep the focus on customer needs.</p>

Risk management and Agile: The disconnect

This Agile/risk management dilemma is emerging at a time when risk management at financial institutions faces a new set of challenges. The industry's changing business landscape—including many of the factors driving the need for Agile projects—is expanding the range of issues facing the risk management function and, especially, increasing the importance of non-financial risks, such as cybersecurity and conduct risk. At the same time that its responsibilities are expanding, risk management is also being required to reduce costs and “do more with less.”

In this environment, financial services firms should continue to maintain a rigorous approach to risk management. Risk management operations and structures have typically been designed to support a “waterfall” approach to delivering business projects. Here, members of the project team go through a series of “gates,” each of which requires large amounts of formal documentation. At each gate, the project is carefully scrutinized for current and anticipated risks and risk management professionals—as well as others, such as end users or control functions—may delay the project, impose restrictions, or require rework. When adjustments are complete, the project team moves forward until it reaches the next gate—typically a long way down the road—when risk management again becomes involved.

Agile project management should be integrated with the “three lines of defense” risk governance model, which has been widely adopted by financial institutions. Line 1 comprises the business units, which own and manage their risks; Line 2 is the risk management function, which provides oversight and challenge; and Line 3 is internal audit, which validates the risk and control framework. In this report, the full set of practitioners involved in the management of risk is referred to as risk and control professionals (RCP). The structure of these groups varies across different financial institutions, but includes the risk and compliance functions, legal, IT risk, and often representatives from finance, human resources, and the project management office (PMO.)

While traditional approaches to risk management are effective in managing risk, they are essentially out of alignment with Agile projects. Agile teams want to move forward with partial solutions and “fail fast” and “learn cheaply” to drive progress. Traditional risk management is focused on careful assessments and a thorough analysis of a project's ramifications.

Symptoms of misalignment

When Agile and risk management struggle to work together, financial institutions are likely to hear telltale comments from both parties that indicate trouble.

- Delivery teams are likely to say that there is no clear guidance about which risk control partners they should engage, or that there is a lack of an aggregate view of risk.
- First line of defense professionals will often say that delivery teams do not engage them consistently, or that changes to project scope are not reassessed by control partners.
- Second line of defense professionals often complain that delivery teams and the first line of defense simply view them as a roadblock and thus avoid engaging them, or that there are no enterprise standards for engaging risk management in Agile projects.
- Third line of defense professionals will typically say that they do not receive current information and are therefore engaged late in projects or cite control partners' tendency not to challenge the delivery team in a timely manner.

This gap creates friction for both groups. Risk management professionals often feel that they are engaged too late in fast-moving projects and are too distant from the work, and thus do not have the time or contextual understanding needed to properly evaluate risk. At the same time, they may not understand their responsibilities and how to engage with the Agile project. For their part, Agile project teams can feel that they are working with a large, and perhaps confusing, number of RCPs. They encounter different and sometimes conflicting expectations from different risk professionals. And with the hierarchical reporting lines of traditional risk management, the business can feel that the involvement of RCPs is bogging things down, rather than leading to solutions.

Integrating Risk and Agile

Given the importance of Agile to delivering innovative projects quickly, financial institutions should find better ways to integrate risk management into Agile project teams. To do so, they can create an Agile-Risk operating model that spells out how the two groups will work together—who will be responsible for what, and when. This operating model should be developed by a team that includes key participants from several areas in the organization: leaders who are involved in designing and implementing the Agile methodology; leaders from the major risk and control functions, such as risk management, compliance, and legal; and professionals from human resources.

This operating model should address five key areas:

- **Interaction and governance.** The key risk management activities and the involvement of each line of line of defense across the project lifecycle should be detailed, with the goal of embedding risk management into Agile projects to allow more real-time, forward-looking participation. Which project meetings do RCPs need to attend? Which ones can they skip in order to streamline the process? The idea is to provide greater levels of collaboration and awareness between RCPs and the Agile business team to reduce inefficiency and duplication of effort, while fostering enough engagement to effectively manage and mitigate risk.
- **Decision rights.** A specific set of decision rights should be defined for the participants in each project—with a focus on the decision rights given to the first and second lines of defense in order to accelerate the project. The model should address questions such as: Who determines the criteria for accepting risk? How are decision rights divided between the first and second lines of defense? What constitutes effective challenge of risk? The goal is to develop a clear differentiation between the decision rights of the Agile teams, the RCPs in Line 1, and the risk management function in Line 2 to help avoid overlap and conflict.
- **Talent.** The talent model should identify the skillsets, capacity, capabilities, and organizational structure of each line of defense in relation to the Agile project. Having risk professionals who understand Agile methods and the need to be involved iteratively, not just at checkpoints, is critical. To what extent, and at what stage, should risk professionals be embedded in the Agile project to make it “risk aware”? Where will generalist risk management skills be sufficient on a project, and where will specialized skills be needed? Are there any capacity or capability gaps in the risk and control function that need to be filled in order to support the Agile team? What is the best talent operating model, e.g., distributed or centralized?
- **Tools and accelerators.** How can technology enhance risk management's capacity, capabilities, and efficiency? This may not require the creation of new risk systems. Business systems can often be modified to automatically present each risk assessment form at the appropriate point in a process, or to flag certain actions that may increase risk. In addition, newer technologies, such as machine learning and big data, have the potential to let institutions build controls directly into processes, automate testing and monitoring activities, and identify potential risk events in real time—a capability that fits exceptionally well with the demands of Agile project management.
- **Change management strategy.** How will the organization—and its people—make the transition to integrating risk management and Agile teams? This should address change management factors such as culture, roles and responsibilities, and gaining buy-in from the appropriate stakeholders. What tools and training will be needed? How can the organization instill an Agile mindset in risk professionals? As a starting point, institutions should identify the right people to launch the transformation—typically, a mix of risk, change management, and Agile transformation experts.



When risk management groups are able to interact effectively with Agile project teams, they are included early and frequently in the work, compared to their role in the traditional waterfall model. This can help reduce the amount of time the delivery team spends mitigating risk; ensure that the project moves ahead quickly; and ultimately reduce risk—during the project and post-implementation. (See the Figure 1, “Waterfall vs. Agile delivery.”) Overall, experience shows that an effective Agile-Risk operating model can increase a projects’ speed to market, reduce duplication of effort, and increase the early identification and management of critical risks.

The development of an Agile-Risk operating model is an important step—but it is just one of a series of steps that institutions should consider taking. Often, risk management functions will take a hard look at themselves to determine how well-prepared they are to support Agile projects. For example, are risk professionals with the right skills involved in Agile projects and involved at the right time? Or, is the three lines of defense model working as well as they would like, even before factoring in Agile

methods? In Deloitte’s recent *Global risk management survey, 11th edition*,² when asked about the significant challenges they faced in employing the three lines of defense model, financial institutions most often cited *defining the roles and responsibilities between line 1 and line 2, followed by getting buy-in from Line 1.*

Meeting such challenges is key to successfully integrating risk management and Agile. In Deloitte’s survey, 60 percent of respondents cited collaboration between the business units and the risk management function as a priority over the next two years, and this will be essential to helping Agile-risk management integration succeed.

Ultimately, success with a new Agile-Risk operating model will depend on the ability to understand three key factors: the true constraints of risk management and where requirements might be flexible; Agile leading practices, and the difference between proven approaches and marketing buzz; and the impact of new approaches on human capital and how to ensure that the change necessitated by the adoption of Agile method is sustainable.

Conclusion

As institutions work to integrate risk management and Agile projects, they should view their efforts as part of a larger shift—the transformation of risk management to adapt to an increasingly uncertain and challenging business and risk landscape.

On the regulatory-change front, the significant ramp-up of new U.S. regulation that followed the financial crisis appears to have peaked. However, a number of regulatory requirements have yet to be finalized, and financial institutions are still assessing the full implications of implementing those that have recently been finalized. Globally, regulations are becoming increasingly fragmented. The revisions of the Basel Committee on Banking Supervision to capital adequacy and other requirements under Basel III, while finalized, have yet to be adopted, and could be revised, by local regulatory authorities. Consumer privacy regulations are expanding, such as the EU’s General Data Protection Regulation, which places a range of obligations on all financial institutions that have EU citizen data.

To adapt, financial institutions should reengineer their risk management programs. (See the sidebar, “The Four Levers of Risk Transformation.”) For example, in addition to rethinking their three lines of defense governance models, they should leverage the latest technologies to enable new ways of working, find ways to instill risk awareness into the culture, and bring risk management into the creation of strategy earlier and more frequently.

The closer collaboration of Agile teams and risk management groups is one of the changes that financial services companies should make in this transformation. Integrating the two areas will not always be easy, and it will require new ways of working. But its benefits can be substantial as it allows institutions to adapt—and manage risk—in a changing world.

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Endnotes

¹ For a discussion of the transformation in risk management in a changing environment, see Deloitte's report, *The future of risk in financial services*, 2018. <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Financial-Services/gx-global-RA-Future-of-Risk-POV.pdf>

² *Global risk management survey, 11th edition: Reimagining risk management to mitigate looming economic dangers and nonfinancial risks*, Deloitte, https://www2.deloitte.com/content/dam/Deloitte/bg/Documents/finance/DL_global-risk-management-survey.pdf

³ Agile Alliance, <https://www.agilealliance.org/agile101/the-agile-manifesto/>



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