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Statement on Management Accounting

AN AGILE APPROACH TO FINANCE TRANSFORMATION

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EXECUTIVE **SUMMARY**

As finance functions across the globe progress their transformation journeys from data stewardship to value creation and decision support, the need for the *agile finance function* has emerged. Accelerating the transformation of finance teams and enhancing the delivery of value to the business, agility offers finance functions a path toward sustained transformation, continuous improvement, tailored solutions, and a collaborative, inclusive culture.

Increased data accessibility and rapid change have prompted a spike in business demand for greater transparency, advanced analytics, and quick, yet responsible, adaptation to ever-changing external factors. In response, business leaders, including some CFOs and controllers, are adapting Agile—a popular software development approach—to their business processes and project delivery.[1] Some finance teams have found that they reap even greater benefits by leveraging a branch of Agile—the scrum framework—as it enables them to employ techniques that make implementing Agile and embracing agility easier.[2] When expanding core competencies within the finance function to encompass a scrum-based approach to value delivery, finance and accounting processes are performed with greater efficiency, partnerships with other functional and operational teams are strengthened, and knowledge sharing increases exponentially.

Utilizing Agile and scrum to redefine approaches to core activities like financial planning and analysis, internal audit, and financial close can position management accountants to better support the unprecedented number of transformation initiatives organizations embark upon today. Further, the agile finance function can realize elevated outcomes, maximized value, and expedited delivery, enabling their organizations to adapt to changing priorities with agility and data-backed insights. The future of the finance function will be shaped by the success of the transformation underway. Embedding agility within the function's organizational culture is integral to that success. •

[1] The term "agile" can be used as a noun, to represent the software development life cycle (SDLC) defined in "The Agile Manifesto," and as an adjective, to describe behaviors and attributes that enable individuals, teams, and organizations to more efficiently and effectively respond to change. In this report, leading capitals will be used when referring to the SDLC, and normal sentence case will be used when it is used as an adjective.

[2] Many of the terms used in scrum are typically written with leading capitals. This report uses normal sentence case for these terms to align with the style of IMA publications.

INTRODUCTION

With increased data accessibility and the accelerated pace of change, businesses must often make decisions quickly to maintain a competitive advantage and, in many instances, survive. As a strategic business partner with unique access to financial and nonfinancial data, the finance function is relied upon to support those decisions by efficiently delivering data-backed insights.

The transformation underway across the global finance and accounting profession to shift from a primary focus on accounting, reporting, and control activities to advanced analytics and strategic decision support is resulting in finance and accounting leaders bolstering their teams' digital, analytics, and strategy skills. Yet without efficient operational delivery and nimble execution, the true value of these added skills cannot be reaped.

To deliver the timely insights the business needs, finance teams must rid themselves of manual, time-consuming, siloed work and incorporate new, streamlined approaches to collaboratively delivering value. Consequently, finance and accounting departments are met with a sharp increase in the number of complex, digital, and/or ad hoc projects in which they are engaged, strengthening the need for deep, in-house project management expertise.

Many CFOs and controllers are meeting this demand for agility and project management skills during functional transformations by looking beyond traditional project management approaches and adapting a popular software development life cycle (SDLC)—Agile—to their business processes. Embedding agile principles into a finance team's ways of working can foster increased collaboration with the business and greater inclusion among teams. These benefits can translate into higher value derived from project outcomes and expedited project delivery.

Finance teams can reap even greater benefits from agile approaches by leveraging the scrum framework, a branch of Agile that enables teams to employ techniques that make implementing Agile easier. Developing scrum proficiency within teams and applying the scrum framework to finance and accounting processes and projects enable the finance function to ensure project outputs meet evolving business needs and equip them with the tools needed to fulfill requests with agility, operate with a culture of continuous improvement, and enhance the function's value proposition.

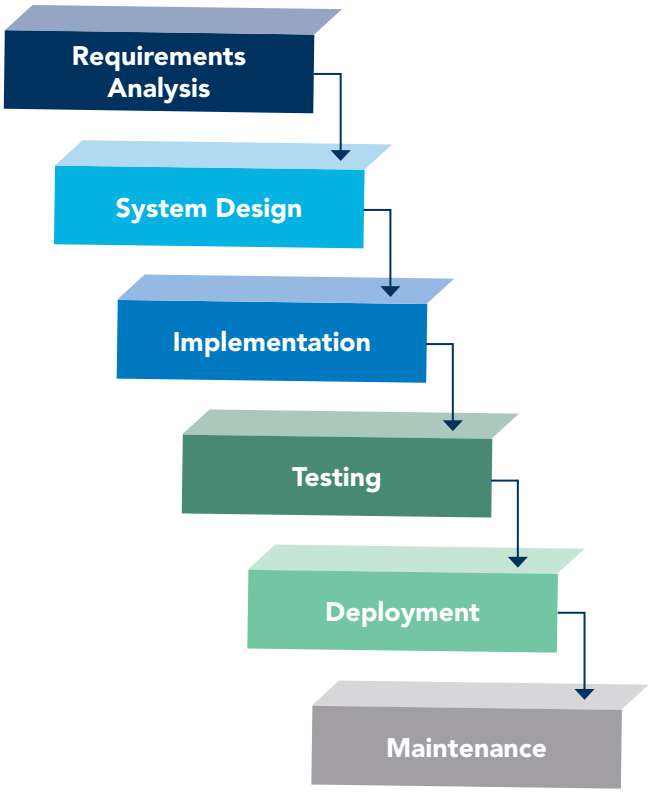
This IMA® (Institute of Management Accountants) Statement on Management Accounting (SMA) will present finance and accounting practitioners with the role of agility in the finance function. Following an overview of Agile fundamentals, a holistic view of an agile finance function will be presented, and the scrum framework will be introduced. This SMA will then demonstrate how value can be delivered through the application of Agile and scrum by highlighting use cases within finance and accounting teams and sharing resources for skill development and implementation of an agile approach to finance transformation. •

A Brief **History of Agile**

While agile approaches to delivery date as far back as the early-1900s with Henry Ford's integrated approach to production and the mid-1900s with Toyota's transformational introduction of Lean manufacturing, Agile did not pick up speed for software development until the 1990s.[3] Prior to the '90s, software development was delivered largely in alignment with the waterfall model. The waterfall model focuses on delivery through linear, sequential phases and offers a well-documented but less flexible approach to development as progress through a project generally flows in one direction—downward, as depicted in Figure 1, like a waterfall.[4]

The limitations of the prescriptive nature pose two key risks. First, the final product does not meet customer needs. Note, the customer can be internal or external and is often a business team or leader within the same organization. Missing the mark on customer needs is often due to

FIGURE 1: WATERFALL MODEL



Final product does not meet *customer* needs.

Infrequent stakeholder engagement	Limited adaptability

Prolonged delivery time and overbudget.

Prescriptive, sequential nature	Evolving requirements and pace of change

[3] Lean Enterprise Institute, "A Brief History of Lean," 2021, **www.lean.org/whatslean/history.cfm**.

[4] Michele Sliger, "Agile project management and the PMBOK® guide," paper presented at PMI Global Congress 2008—North America, Denver, Colo., Project Management Institute, **www.pmi.org/learning/library/agile-project-management-pmbok-waterfall-7042**.

infrequent stakeholder engagement (as changing business priorities or external factors can influence product requirements) and/or limited adaptability built into the development process. Secondly, the project may take weeks, months, or years beyond the original estimate to reach completion, and the budget is often overspent. These risks are commonly the result of the prescriptive, sequential nature of the model and evolving requirements and pace of change in the business environment.

Recognizing the challenges, limitations, and risks to this common development approach and acknowledging the changing business environment and accompanying digital disruptors, 17 software development experts and thought leaders met at a Utah ski resort in 2001 to prepare a solution. This group called itself "The Agile Alliance," and the output of its efforts during that trip is now known as "The Agile Manifesto" or the "Manifesto for Agile Software Development" (see Figure 2).[5]

Agile is an SDLC that focuses on iterative, incremental delivery by self-organizing, cross-functional teams. This adaptive, collaborative, customer-focused, and results-oriented approach to development revolutionized the software industry. The Agile Alliance's core values enabled the group to further define the 12 principles of Agile (see Figure 3). The core values and 12 principles can be accessed at **agilemanifesto.org**.

Over time, as teams began to deliver an increased number of tailored, high-value software products with greater efficiency, Agile's collaborative approach provided many business teams with a front-row seat to the benefits. This exposure prompted business teams to explore adapting Agile to initiatives outside the scope of software development. With the same values and principles as a foundation, business teams across the globe began having their teams trained in Agile approaches to delivery, which improved organizational agility across the globe. •

FIGURE 2: "THE AGILE MANIFESTO" (CORE VALUES)[6]

Source: **agilemanifesto.org**

[5] Jim Highsmith, "History: The Agile Manifesto," 2001, **agilemanifesto.org/history.html**.

[6] "Manifesto for Agile Software Development," 2001, **agilemanifesto.org**.

FIGURE 3: 12 PRINCIPLES BEHIND "THE AGILE MANIFESTO"

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity—the art of maximizing the amount of work not done—is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Source: agilemanifesto.org

An Agile Finance Function: 360° View

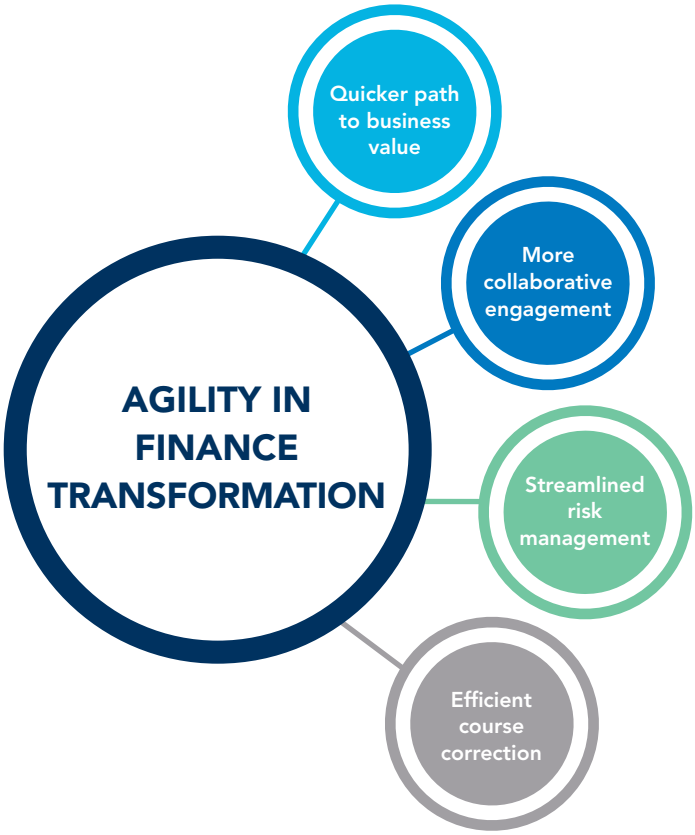
In Digital.ai's *14th Annual State of Agile Report*, released in mid-2020, 95% of more than 1,100 survey respondents across six continents and more than 14 industries reported their organizations practice Agile development methods. As a testament to the expansive applicability and growing adoption of Agile practices beyond software development, for the first time, Digital.ai introduced a new question on its annual survey inquiring about other areas of the organization that have adopted Agile approaches. Noteworthy representation outside of software development and information technology (IT) was found in operations, marketing, human resources, and sales.[7] Agile also presents an innovative opportunity to increase efficiency and enhance value delivery for a function undergoing one of the largest transformations in its history—the finance function.

To keep up in a climate of rapid change and heightened ambiguity, business leaders, including some CFOs and controllers, are nurturing an agile culture. This involves going beyond traditional project management practices to adapt agile approaches to ad hoc projects and requests, functional transformation, and operational delivery. Already in need of a holistic approach to sustainable transformation and continuous improvement, finance function leads would benefit from embedding and leveraging agility *as they transform* with the ultimate goal of becoming an *agile finance function*.

Role of Agility in Finance Transformation

During a period of increasing adoption of agile practices by IT organizations, in 2006, Gartner defined agility as "the ability of an organization to sense environmental change and to respond efficiently and effectively to it."[8] Gartner went on to speak to the ways in which IT functions enable agility across various industries and enterprises while presenting the emergence and relevance of agility as a management discipline. In their 2020 article "What Agility Means for the Finance Function," Pieter van Oijen and Frank Verbeeten assert that beyond finance functions contributing to their broader organization's "continuous effort…to improve its agility," embracing agility can also have positive implications on the finance function itself.[9]

Integral to leveraging agility during functional transformation is remaining laser-focused on maximizing the business value to be delivered by the transformation. A key objective of finance function transformation is to regularly and efficiently deliver analysis and insights that inform strategic decisions, predict performance and behavior, and



[7] Digital.ai, *14th Annual State of Agile Report*, May 26, 2020, **bit.ly/3uXke0F**.
[8] Daryl C. Plummer and David W. McCoy, "Achieving Agility: Defining Agility in an IT Context," Gartner, April 20, 2006, **www.gartner.com/en/documents/491393/achieving-agility-defining-agility-in-an-it-context**.
[9] Pieter van Oijen and Frank Verbeeten, "What Agility Means for the Finance Function," *Controlling & Management Review*, May 2020.

propose data-backed action to prepare for and respond to change. Tactically, this means nimble, multidisciplinary finance teams should be regularly engaging with internal customers (business and operational teams supported) to deliver projects and recurring activities with an iterative, incremental cadence. Agile teams, like these, witness to agility yielding a quicker path to business value, more collaborative engagement, streamlined risk management, and efficient course correction. These benefits, when reaped *while transforming*, nurture the agile culture that is essential to the *transformed* finance function.

Quicker path to business value. One of the most compelling reasons to employ Agile is still to deliver measurable value with each increment of the final product. At the conclusion of an iteration, something of value must be delivered to the end user. In the example in "Agility in Action," the first valuable, usable increment could be the raw data from the initial query. Although the final report in an electronic dashboard may not yet exist, an unformatted spreadsheet with all raw data requested by the financial analyst leveraging the criteria for the query would still allow the analyst to perform variance analysis on the third workday. Further, a mock-up of the final dashboard that requires manual updates could be presented to the analyst. This would allow the end user to provide feedback earlier in the process. In more traditional approaches, the financial analyst might not be provided anything usable until the final report was available—which might take many more weeks beyond the agreement of the initial query of data. In today's world, with more user-friendly digital tools, the person developing the report is not necessarily an IT team member. It could be a tech-savvy finance or accounting professional within the finance team.

To ensure value is delivered as soon as reasonably possible for complex, multifaceted projects dependent on end-user feedback, teams leveraging Agile often employ the use of the minimum viable product (MVP). The Agile Alliance shares Eric Ries's definition of MVP: "that version of a new product which allows a team to collect the maximum

AGILITY IN ACTION

Finance transformations are comprised of several individual initiatives that include implementing emerging technologies, standardizing and automating processes, and improving ways of working, to name a few. At the start of individual Agile transformation initiatives, high-level requirements are often defined and modularized in the form of user stories for the final product's desired features. The role of *user stories* in defining and presenting requirements during execution underscores the importance of and focus on value delivery to the customer or end user.

An example of a user story for a new system-generated financial report is: "As a financial analyst, I want to be able to access a report on the third workday of every month that identifies material month-on-month variances in revenue accounts by product and customer." The value of this initiative, or product, would also be estimated up front and might include the number of hours saved or the positive impact to control and assurance processes. Detailed requirements and acceptance criteria on how to deliver this user experience, however, would be defined and executed by the relevant members of the multidisciplinary team at the start of the time-boxed iteration in which this report would be progressed. Delivery of this user story might take place in four increments: querying the data, generating the report (for example, spreadsheet or dashboard with drill-down capability), scheduling the report's generation, and storing it in the desired location.

While this example is simple and narrow in scope, a similar approach with value estimation and iterative, incremental delivery would be applied to all projects under the transformation umbrella—from automating invoice processing or automatically populating a dashboard enabling real-time access to financial results to implementing new controls in accounts payable procedures, responding to ad hoc analysis requests, or fostering greater connectivity between relevant finance teams.

amount of validated learning about customers with the least effort."[10] With software development, MVP is seen as the smallest combination of final product features needed to deliver value to the end user and enable you to gain enough feedback to learn if the customer will buy or use the final product. If the customer would not use the product presented, the objective becomes learning what adaptations are needed to ensure the final product will be purchased and valued by customers. With a website, for instance, this might be a complete landing page with all manual functionality behind it.

For large automation initiatives, MVP might be a combination of a small number of automation initiatives that sums to a target financial value and does not compromise the control environment. Success with this subset of processes would grant the green light to continue scaling use of the technology across other processes. In less complex initiatives, the time or resources needed to employ MVP might outweigh the benefits of the final product—in which case, simply delivering a usable, valuable, and inspectable increment of the final product during each iteration is sufficient. In all cases, use of MVP, or simply adopting an iterative approach, will significantly increase the likelihood that business value will be created and delivered well before project completion.

More collaborative engagement. When leveraging Agile for functional transformation, the teams whose work, organizational structure, and roles are being transformed are invited to shape the future of the function. Team members closest to the actual work being performed contribute to the list of transformation initiatives from which leadership will make selections and inform the value of individual opportunities that will be prioritized. Finance team members actively participate in implementation of the initiatives selected by serving on small, multidisciplinary teams. This provides greater cross-functional exposure, fosters an environment of collaboration, increases knowledge of activities upstream and downstream of individual processes, and strengthens the relationships of the finance function with the operational teams they support. Collaboration within the finance function and with internal customers ensures team members genuinely shape the outcome or future of the function leading to a more positive view of the transformation itself. Long-term, this approach enables the finance function to ensure transformation initiatives not only benefit their teams, but also deliver tangible, recognizable value to the broader organization.

Streamlined risk management. Risk management in a world of incremental delivery can be more granular and tailored to the specific aspects of an activity being progressed. This is possible because control design will be introduced during each iteration for the increments that will be delivered during that period. Acceptance criteria will also be at the user story-level and would include controls needed to mitigate risks introduced by the initiative. Unmitigated risks, consequently, are likely to have a narrower scope and impact because risks would

[10] Agile Alliance, "Minimum Viable Product," **www.agilealliance.org/glossary/mvp**; Eric Ries, "Minimum Viable Product: A Guide," Startup Lessons Learned, August 3, 2009, **www.startuplessonslearned.com/2009/08/minimum-viable-product-guide.html**; Eric Ries, *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*, Crown Business, New York, N.Y., 2011.

be limited to the specific increments delivered during the current iteration. Controls designed and deployed through this bite-size approach to risk management ultimately aggregate to provide a streamlined and comprehensive control environment, increasing the likelihood of the sustained success of transformation initiatives.

Efficient course correction. Breaking an initiative down into increments and delivering in iterations allow misinterpretation of requirements or refinement of features to be addressed immediately upon review of the progress made. When employing Agile for transformation projects, team members are encouraged by leadership and peers to fail fast, removing the stigma of negative consequences when adjustments are needed while encouraging swift, collaborative, and innovative resolution. Such efficient course correction prevents finance teams from realizing months down the line that specific transformation initiatives are offtrack, misaligned with tactical or strategic goals, or will not deliver initially projected value. Additionally, once major milestones for functional transformation are achieved, the benefits will be apparent, teams will be accustomed to these ways of working, and they will see the value in adapting this approach to ongoing activities, rather than utilizing it solely for onetime improvement opportunities.

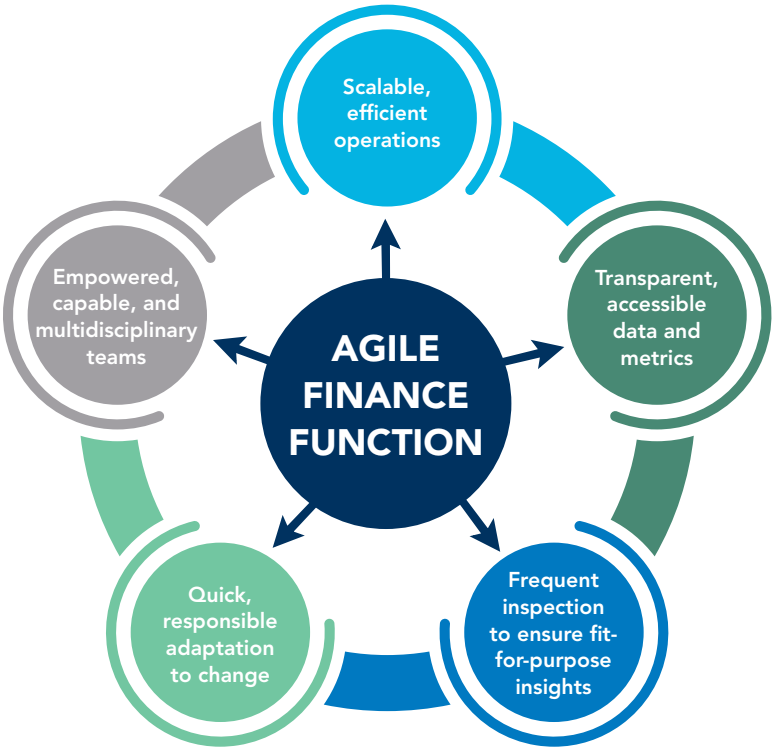
Characteristics of an Agile Finance Function

As the finance and accounting profession progresses along its transformation journey from data stewardship to value creation and strategic decision support, the need for the agile finance function has emerged. Agile finance functions focus on creating value through the following characteristics:

- Scalable, efficient operations;
- Transparent, accessible data and metrics;
- Frequent inspection to ensure fit-for-purpose insight;
- Quick, responsible adaptation to change; and
- Empowered, capable, and multidisciplinary teams.

When these attributes are paired with advancing technologies, value creation-centric strategies, and an inclusive, collaborative culture, finance functions are well-positioned to streamline day-to-day tasks, accelerate project delivery, bolster the quality and relevance of analytical results, enhance offerings to the organizations they support, and foster continuous improvement, innovation, and inclusion among staff.

Scalable, efficient operations. Finance and accounting teams are under constant pressure to reduce functional cost, increase efficiency, and deliver greater value. As a result, automation of routine, repetitive tasks at the lower end of the profession's supply chain and creation of more value-added jobs that require advanced competencies and skills are becoming more prevalent. Leveraging automation or other streamlined solutions that can scale, or be applied widely, across multiple persons or teams will enable the function to realize greater standardization, a strengthened control environment, and sustainable time and cost savings. Scalable, efficient operations are critical to ensuring agile finance functions have



the time and bandwidth to analyze data and deliver timely insights to businesses they support.

Transparent, accessible data and metrics. Transparency is key in any Agile implementation. In the context of an agile finance function, granting all relevant team members and stakeholders transparent access to data and metrics may feel uncomfortable initially, but will ultimately result in more informed decisions, strengthened confidence in results, and fewer surprises. Transparency is achieved by welcoming others to view progress and performance. When real-time data is available—especially in digital form (perhaps through dashboards, product/project tracking tools, or workstream collaboration platforms)—fewer meetings are held yet knowledge sharing increases. Without transparent, accessible data and metrics, agile finance functions are likely to struggle to measure progress, risk individuals hoarding data, or miss reaping the greater value that can be gleaned from inviting persons with varied perspectives to access the data. It is important to note that all efforts to promote transparency should comply with existing company policies regarding data access, distribution, and visibility (classifications and treatment of data qualifying as "secret," "confidential," etc.).

Frequent inspection to ensure fit-for-purpose insights. Often, the output of projects or analysis is not precisely what the stakeholder or end user needs. This happens for a variety of reasons. For example, sometimes circumstances have changed by the time the project is complete. Other times, requirements were not clearly defined or understood at the beginning of the project. A culture that regularly allows for frequent inspection by end users fosters regular communication between key stakeholders and the persons developing the product. The feedback received during these inspection points enables teams to adapt to changes or new information in real time and ensures the insights or project outcome delivered is fit for purpose.

Quick, responsible adaptation to change. The accelerated pace of change in today's business environment mandates that agile finance functions adapt quickly yet responsibly so they can deliver insights without compromising the control environment, financial reporting, or regulatory compliance. Stakeholders' priorities shift. External factors evolve. Regulations are introduced. Crises arise. Change happens. Without processes and a culture that enable quick, responsible adaptation to change, adjustments required to accommodate new regulations or financial analysis needed to evaluate product or service line decisions may be delivered too late to create business value or can increase the organization's risk profile.

Empowered, capable, and multidisciplinary teams. In Agile and the scrum framework (see the next section, "The Scrum Framework"), teams working on a product or project must possess all the skills necessary to accomplish their task. Thus, in many instances, the team should be comprised of more than just the persons on the financial reporting team, for example. When changing how to recognize revenue, representation may be needed from persons with revenue accounting backgrounds, financial reporting experience, knowledge of accounting policy, and technical expertise to modify the functionality of the accounting system. The members of these teams can be given a directive, for example, "Implement the necessary changes to comply with new revenue recognition requirements." Yet the team should be empowered to self-organize and shape the way it meets the objective. This approach offers flexibility, fosters greater innovation, and maximizes productivity. Controls would remain in place to confirm suitability of the outputs but would be reviewed at the conclusion of each iteration.

True empowerment comes from team members having not only the autonomy and space to shape how they deliver, but also the skills and capabilities to meet increased demand for analytics, insights, efficient operations, and timely, data-backed decision support. Consequently, agile finance functions also have capability development programs in place that enable adequate assessment of current skills, grant access to resources to fill competency gaps, and require concrete commitment from leaders to allow the bandwidth to develop skills needed. •

The Scrum **Framework**

There are many branches or subsets of Agile, for example, scrum, Lean, and kanban software development, dynamic systems development method, and feature-driven development. Among those more familiar to business professionals are Lean, kanban, and scrum. Scrum is one of the most popular branches of Agile and is widely regarded as one of the approaches most easily adaptable to nonsoftware development projects. A brief overview of scrum is presented as the foundation for the finance and accounting use cases explored in the next section, "Agile and Scrum: Value Delivery."

According to Ken Schwaber and Jeff Sutherland, two of the 17 members of the Agile Alliance and authors of *The Scrum Guide*, "Scrum is a lightweight framework that helps people, teams and organizations generate value through adaptive solutions for complex problems."[11] As the scrum framework is founded on empiricism, it is upheld by three pillars: transparency, inspection, and adaptation. Note: Each of these pillars are reflected in the characteristics of agile finance functions.

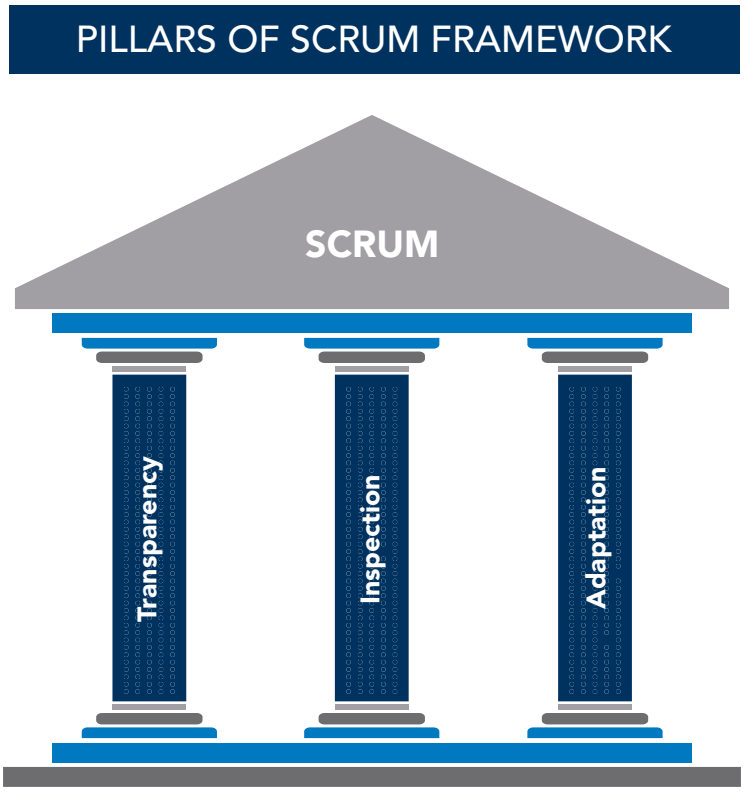
Transparency. Significant aspects of the project and work being performed must be regularly visible to those responsible for the outcome.

Inspection. Team members and stakeholders must frequently inspect work done and progress toward incremental goals to detect undesirable variances from current expectations. Inspectors can be team members working on the project or product as well as stakeholders responsible for the outcome.

Adaptation. If an inspector determines that one or more aspects of work underway or delivered deviate outside acceptable limits—or do not meet current requirements and that the resulting product or project outcome will be unacceptable—the process or product being produced must be adjusted. In scrum, an adjustment must be made immediately, or as soon as possible, to minimize wasted time or effort resulting from further deviation.

Components of Scrum

In *The Scrum Guide*, Schwaber and Sutherland present "the rules of the game" for scrum. The



[11] Ken Schwaber and Jeff Sutherland, *The Scrum Guide*, November 2020, scrumguides.org/docs/scrumguide/v2020/2020-Scrum-Guide-US.pdf#zoom=100.

guide is the source of the foundational overview of scrum presented in this section. In addition to rules intended to maximize value and efficiency in scrum-based delivery, there are three primary components of the scrum framework: the scrum team, scrum events, and scrum artifacts.

Scrum team. In scrum, there is no project manager. Scrum teams are composed of one scrum master, one product owner, and developers (see Figure 4). "Within a scrum team, there are no subteams or hierarchies. It is a cohesive unit of professionals focused on one objective at a time, the product goal."[12] This self-organizing, and often multidisciplinary, team defines how its work should be delivered and possesses all the skills and competencies required to complete the work. The product owner is accountable for overall product value delivery and prioritizing the backlog to maximize that value. Developers actually work on the product (be it an ad hoc analysis report, fiscal plan, or new procedure). The scrum master ensures adherence to the scrum process and removes impediments from the developers' path.

COMPONENTS OF SCRUM

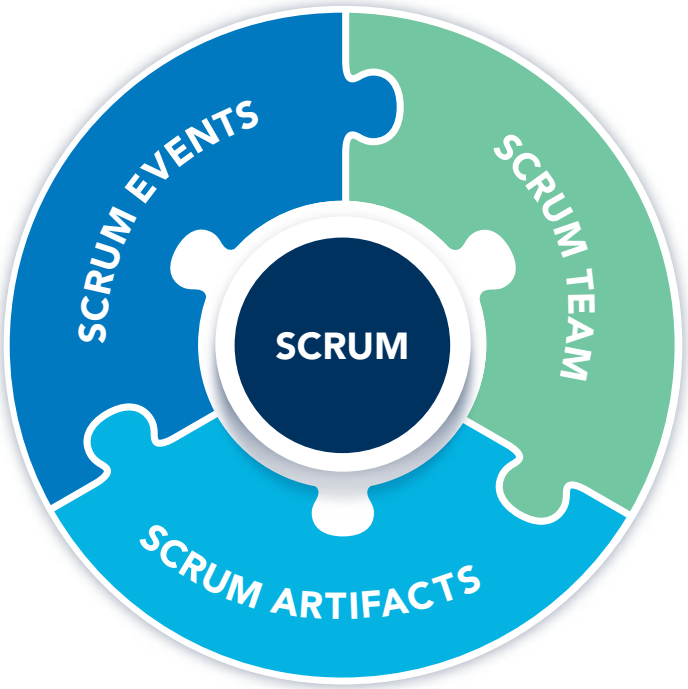
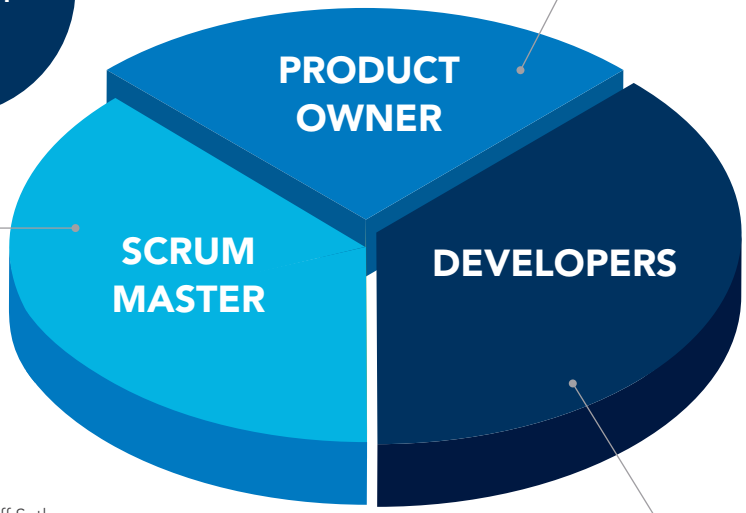


FIGURE 4: SCRUM TEAM



The product owner is accountable for overall product value delivery and prioritizing the backlog to maximize that value.

The scrum master ensures adherence to the scrum process and removes impediments from the developers' path.

Developers actually work on the product (be it an ad hoc analysis report, fiscal plan, feature in the accounting system, or new procedure).

Source: Ken Schwaber and Jeff Sutherland, *The Scrum Guide*, November 2020, scrumguides.org.

[12] *Ibid.*

Scrum events. There are five scrum events: sprint, sprint planning, daily scrum (or daily stand-up), sprint review, and sprint retrospective (see Figure 5). Sprints are the heartbeat of scrum. The sprint acts as a container for all other events and is the time-boxed iteration during which an increment, or component, of the final product will be delivered. Sprints are a maximum of one month in length, and common sprint lengths are one, two, or three weeks. All scrum events are held to enable transparency and to present regular opportunities to inspect the product and adapt in real time, as deemed appropriate.

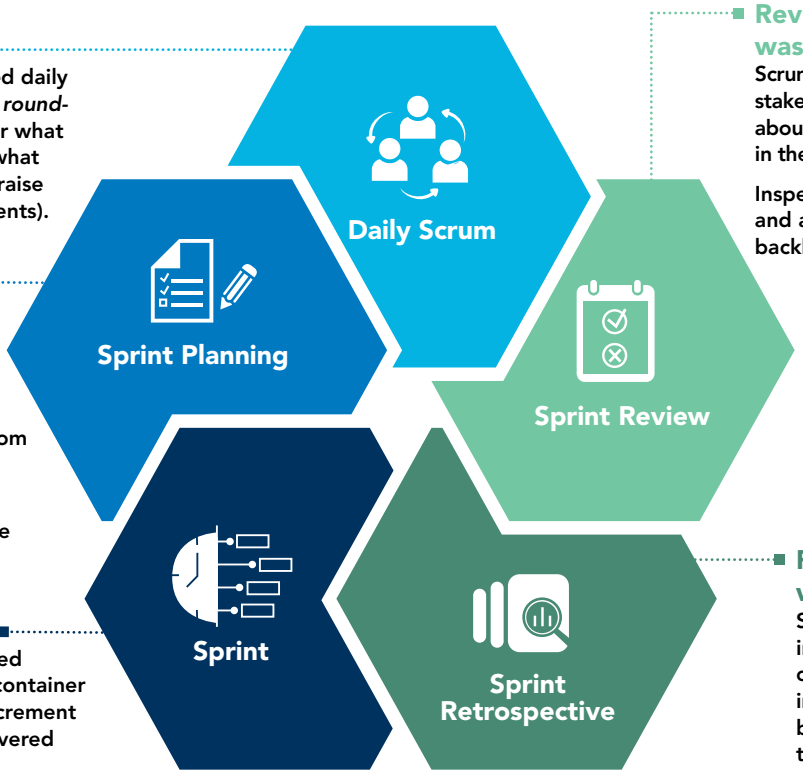
Scrum artifacts. The three scrum artifacts are the product backlog, sprint backlog, and increment. The product backlog is a prioritized list of everything needed in the final product or over the life of the project. "It is the single course of work undertaken by the Scrum Team…The Sprint Backlog is composed of the Sprint Goal (the why), the set of Product Backlog items selected for the Sprint (the what), as well as an actionable plan for delivering the Increment (the how)."[13] The increment is the aggregate of all product backlog items that will be completed during the sprint with their associated value.

"Each artifact contains a commitment to ensure it provides information that enhances transparency and focus against which progress can be measured:

- For the Product Backlog it is the Product Goal.
- For the Sprint Backlog it is the Sprint Goal.
- For the Increment it is the Definition of Done."[14]

The definition of done is a commonly agreed upon, formal set of requirements that describes

FIGURE 5: SCRUM EVENTS



[13] *Ibid.*
[14] *Ibid.*

the state the increment must reach before it is deemed releasable, usable, or done.

The Scrum Process

Leveraging the components and rules of scrum result in the execution of the scrum process. An example of the scrum process in action is presented in Figure 6. The bottom left of the figure shows a team beginning with a product backlog, the high-level list of everything needed in the final product. Just above that is the sprint backlog—the output of the sprint planning meeting—which is comprised of a subset of product backlog items to be delivered in the current sprint. The items in the sprint backlog are assigned to individual developers.

In this example, the sprint length is 30 days (but, as noted previously, a sprint can be any number of days up to 30 days). Within the 30-day sprint, the team actively works on a component of the product each day, and its progress, or lack thereof, is discussed daily in the 15-minute daily scrum. When the 30-day sprint ends, an increment or set of increments is delivered. At the conclusion of the sprint, sprint review and sprint retrospective sessions are held (often in a single meeting with two halves) for the client—or business stakeholders—to review the output of the sprint. Necessary adjustments that arise in the sprint review and the sprint retrospective are incorporated in the following sprint. •

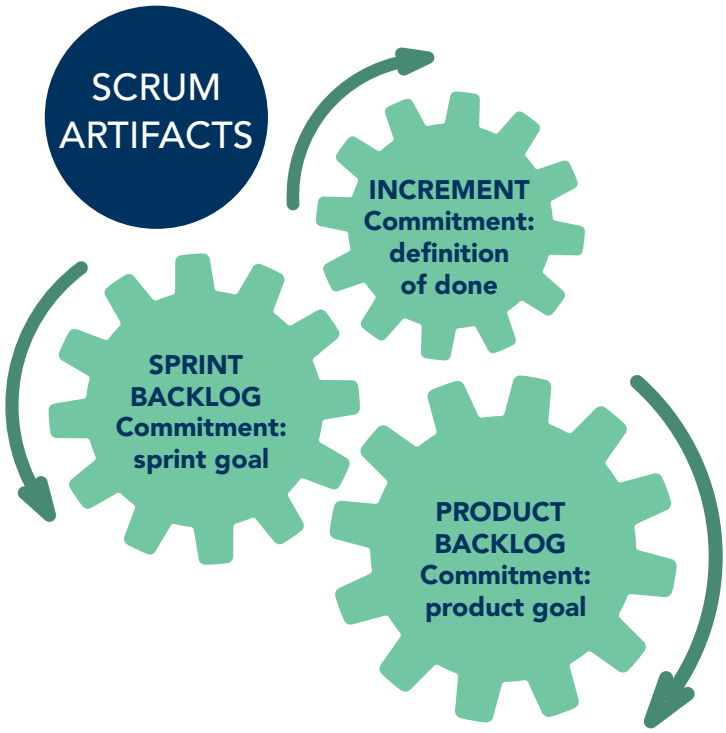
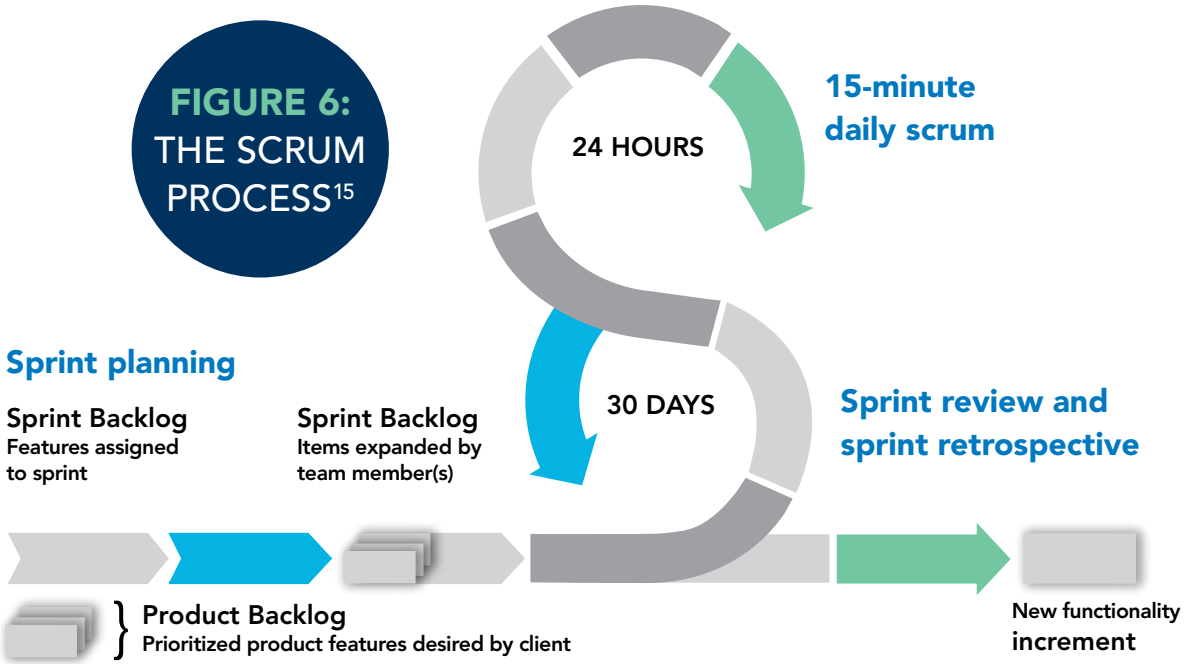


FIGURE 6: THE SCRUM PROCESS[15]



[15] Primary source: www.open-ware.org/eng/methodology/scrum.

Agile and Scrum: **Value Delivery**

The most common application of Agile and scrum is for complex initiatives with unknown solutions and high reliance on feedback from the end users or key stakeholders. Jeff Sutherland—one of the cofounders of scrum—and his son J.J. Sutherland authored *Scrum: The Art of Doing Twice the Work in Half the Time*. In this book, they describe scrum applications well beyond software development projects. When adapting scrum to nonsoftware development projects, the product can be nearly anything. The real-world examples the Sutherlands cite include building rocket ships, processing payroll, expanding human resources, managing journalistic coverage of wars, manufacturing cars, remodeling a house, and many more.[16]

A bit closer to home, some finance and accounting teams are also elevating value delivery with Agile and scrum. When embracing the characteristics of agile finance functions and operating with a constant focus on value creation, finance teams will find themselves intentionally, yet organically, collaborating across their organizations to deliver in multidisciplinary teams, like scrum teams, and in shorter cycles, with valuable increments delivered at the conclusion of short iterations. Specific finance and accounting use cases of Agile and scrum-based value delivery are partnering with IT departments, financial planning and analysis (FP&A), continuous improvement initiatives, internal audit, and finance and accounting operations.

Partnering with IT

Although organizations of all sizes and industries are increasingly becoming more digital, IT departments are still regularly tasked with delivering more with less. Consequently, many have adopted the scrum framework and other agile approaches to deliver projects with greater efficiency and client satisfaction. Accounting and finance teams serve as internal customers of IT teams.

As finance functions embrace digital technology through broader transformation efforts, close partnership with IT teams is critical. In most organizations, IT departments are leading technical enhancements of accounting systems to automate repetitive tasks, migrating financial and nonfinancial data to data lakes or data warehouses to improve data accessibility, and implementing emerging digital technologies such as robotic process automation and artificial intelligence for finance and accounting processes.

Currently, the most frequent application of scrum by finance team members is in support of IT-led initiatives. To effectively collaborate with IT teams and contribute to digital initiatives that directly impact finance processes, finance teams need to be conversant in scrum terminology, familiar with the scrum process, and actively engaged as a stakeholder or scrum team member. To strengthen cross-functional relationships and increase efficiency and value, finance teams are embracing scrum while partnering with IT by serving as product owners, developers, and stakeholders.

Product owner. In IT-led digital initiatives for finance and accounting processes, the product owner is most often a finance team member. Finance team members serving in this role are accountable for the value delivered through the initiative, prioritizing the backlog items needed to deliver the product and liaising between the development team and key stakeholders. Finance subject matter experts are best-positioned to prioritize and determine the relative value of the individual features needed in a new system-generated financial report or the fields needed for querying details of issues preventing progress during month-end close. As the product owner, finance and accounting professionals would attend sprint planning, review, and retrospective meetings. They would also monitor progress toward sprint goals and regularly refine and

[16] Jeff Sutherland and J.J. Sutherland, *Scrum: The Art of Doing Twice the Work in Half the Time*, Currency, New York, N.Y., 2014.

reprioritize the product backlog based on the value of individual features and needs of key stakeholders.

Developer. In scrum, aside from the product owner and scrum master, there are no distinct titles. Every person who contributes to creating or developing an aspect of the product during a sprint is called a developer. Although you may not write the technical code for a new feature in the accounting system, the list of requirements and testing criteria developed by a management accountant for that feature directly contributes to the value delivered by the increment of the product that is delivered at the end of the sprint.

Stakeholder. A stakeholder is not directly accountable for delivering a part of the product. Rather, stakeholders have a vested interest in the outcome of the product and, in some instances, gave the initial directive for the product's development. Stakeholders are sometimes senior leaders in the finance function but are more often end users of the product that is being developed. If a new financial report is needed that will be generated and vetted by the financial reporting team but used by members of the manufacturing department, stakeholders could include the persons in manufacturing who will make decisions using the new report in addition to financial reporting team members. They will provide input to the product backlog, attend sprint review meetings, view the increment that is completed during each sprint, and provide timely feedback to the developers on adjustments needed. Developers, in this instance, may be a combination of financial reporting team members and IT team members.

Financial Planning and Analysis

Traditionally, financial planning and budgeting processes include developing a static annual plan and holding teams accountable for delivery against those plans. These processes do not typically account for the myriad of changes that are certain to occur throughout each year. Rather than employing this widely accepted method of fiscal planning, a scrum approach could begin with a full-year plan, but treating that plan as a true estimate. Management accountants, in partnership with operational leads, would update the full-year plan by maintaining a 12-month outlook on a rolling basis or allowing for quarterly updates. Performance, then, would be judged against quarterly plans that account for external environmental factors, market conditions, and changes in risk profiles. This model would allow for regular inspection of the product—which, in this scenario, is the budget—and enable adaptation when deemed appropriate.

Looking to the broader set of FP&A activities, Accenture's CFO Reimagined Study reported that more than half (53%) of the more than 1,300 CFOs and senior finance executives surveyed "worry that the finance function is reactive or that data and information sharing processes are not streamlined—and 46% expect to still feel this way two years from now."[17] Agility, specifically through digital tools, business partnerships, and increased collaboration, is presented as a clear avenue to mitigating risks of sustained reactionary or siloed behaviors in the FP&A space. An example is cited of an organization

[17] Jens Frister, Carsten Veit, and Matthew Cain, *Business agility in finance: The missing link*, Accenture, June 9, 2020, **www.accenture.com/us-en/insights/consulting/finance-agility.**

"running new war room style meetings with financial and operational data tied to business objectives." Cross-functional representation in the room with access to organizational performance and market data enables real-time updates to models (transparency), review of scenarios predicted (inspection), and more accurate, joint decisions (adaptation).

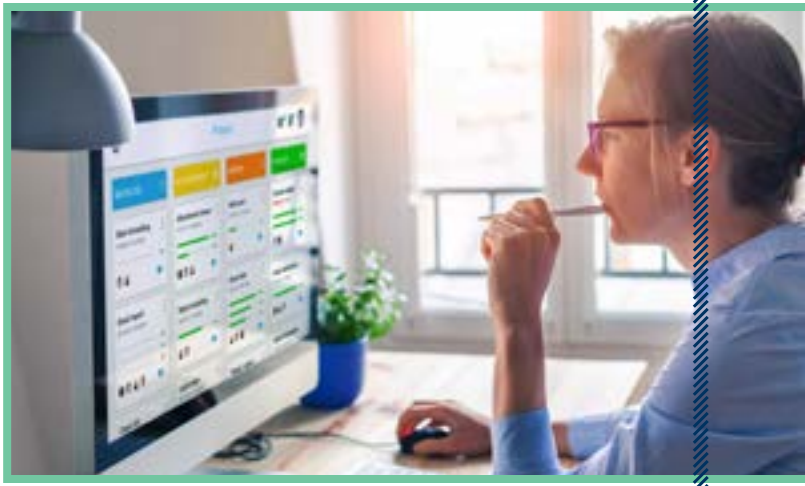
Continuous Improvement

Often, in the finance function, teams find that they have little time to focus on continuous improvement initiatives because they are inundated with cyclical tasks during extended month-end or quarter-end close periods. Outside close, many management accountants are just barely hopeful to remain afloat and do not have the time or energy to invest in improvements. To combat these crippling cultural trends, some CFOs and controllers explore employing a scrum-based approach to improvement opportunities.

A scrum-based approach to continuous improvement begins with finance functions maintaining a product backlog with improvement opportunities. Some might be tasks performed by a single individual but with the potential to impede the progress of close each month. Other backlog items might be more sizable process changes needed to accommodate a new regulatory requirement or reduce invoice processing time with impact across multiple team members, teams, or geographies.

Ideally, all team members would have access to submit initiatives to the backlog. A transformation lead, which many finance functions have, could serve as the product owner for continuous improvement initiatives. The transformation lead would coordinate with team leads and senior leaders to ascribe relative value of each item, prioritize the product backlog, and identify the persons capable of delivering the improvement initiative. With three-week sprints, items from the product backlog could be moved to the sprint backlog, and finance and IT team members, where needed, would be granted bandwidth by their leaders to serve as developers. Developers would focus exclusively on the assigned improvement initiative outside of other critical tasks during the sprint with the objective of delivering a valuable increment, which could be a completed improvement initiative (or usable component of a larger initiative) from the product backlog, by the end of the sprint.

In a larger organization, this might mean a finance function has multiple scrum teams progressing improvement initiatives at any time, and each scrum team would likely have a product owner for that specific improvement initiative or logical grouping of initiatives. In a smaller organization, there will likely only be one scrum team, but the developers actively progressing an increment are still the team members with the capabilities needed to deliver that specific initiative or group of initiatives.



The work each scrum team focuses on—or the output of the initiative—is the product. Quarterly product delivery would be the completion of a group of improvement initiatives from the backlog that collectively sums to measurable value for the organization. There might be four improvement opportunities that collectively save half a day from the close process or a new report that, if it were available in a dashboard with real-time, automated updates rather than in a static spreadsheet, might eliminate multiple requests for additional data. This approach to delivery and improvement brings to life the agile finance function characteristics covered earlier. It also provides team members with cross-functional exposure without changing roles, promotes a culture of inclusion through broader

engagement, and continuously enables greater value delivery.

Internal Audit

Another important function within the management accounting arena is internal audit. If delivered through Agile and scrum, internal audits could yield more regular delivery of findings, opportunities for teams to close gaps quicker, and greater stakeholder engagement.

Typically, a waterfall, or linear, sequential, and phased approach, is applied to audits. Prior to beginning the audit, significant time is spent planning the audit engagement. Once the audit begins, the team commences fieldwork. And upon conclusion of the audit, the reporting phase begins, at which time the audit report is drafted for weeks or months following the audit.

A scrum-based approach to internal audit would not reserve the audit report drafting for the end of the audit engagement. A product backlog would be prepared to identify all areas for which assurance must be provided at the audit's conclusion. The scrum team would then determine how the assurance and evidence thereof is provided.

Internal audit teams have seen success employing two-week sprints, at the end of which an increment is comprised of drafted verbiage of the positive assurance, control gaps, and other detailed audit findings with accompanying corrective action plans, where appropriate. This increment could be considered "done" when the draft includes references to evidence, the team has reviewed the draft, the relevant approver has signed off on it, and the work paper is logged in the audit system.

The product owner might be the audit lead who regularly prioritizes areas of focus by refining the product backlog and has authority to sign off on work papers and drafted findings. The scrum master should be dedicated to facilitating and embedding the scrum process and removing impediments from the path of developers' progress. Developers should be all persons needed to perform analysis, draw conclusions, draft opinions, and propose corrective actions. In an audit, developers are most likely to be auditors, senior auditors, and data analysts. The ideal number of developers in a scrum team is no fewer than three and no more than nine.

Stakeholders from the business would attend sprint review meetings and provide feedback and context on the controls tested and findings revealed by the audit team during the concluding sprint. With this approach, business teams would be empowered to implement corrective actions sooner as well as provide real-time context or relevant feedback that might prompt the scrum team's adaptation of drafted findings or recommended actions.

With auditors serving as scrum team members and empowered to shape how the work is delivered themselves, organizations can benefit from audit teams that deliver more efficiently, drastically reduce the length of audit engagements, and improve employee morale and satisfaction. The business can remedy control gaps much quicker than they would in the traditional model because they receive the details at the end of the sprint rather than at the conclusion of the audit. Similar benefits can be reaped by external audit teams that elect to adopt an agile approach to delivery.

Finance and Accounting Operations

Nearly a decade ago, well before the modernization of finance and accounting gained traction across the profession, one of Scrum Inc.'s leaders determined that the absence of finance tasks from its backlog was a company impediment.[18] That is, not including these tasks in the scrum process was deemed a hindrance to the delivery of the company's broader strategic goals. To resolve this, the team identified all accounting activities, organized them by process type—for example, account reconciliation, vendor payment, or financial reporting—and assigned all tasks to the product backlog. The product and sprint backlogs were housed on the company's scrum board. (See Figure 7 for an example of a scrum board.) Typical columns are All Items (or Product

[18] Jeff Sutherland and Christine Hegarty, "Breaking Departmental Silos: Scrum in Finance," Scrum Inc., September 6, 2011, **www.scruminc.com/breaking-departmental-silos-scrum-in**.

Backlog), To Do (or Sprint Backlog), In Progress, and Done (or Increments). As progress is made, individual items move from the columns on the far left toward the columns on the far right. The product backlog items are higher-level and have individual components or activities beneath them.

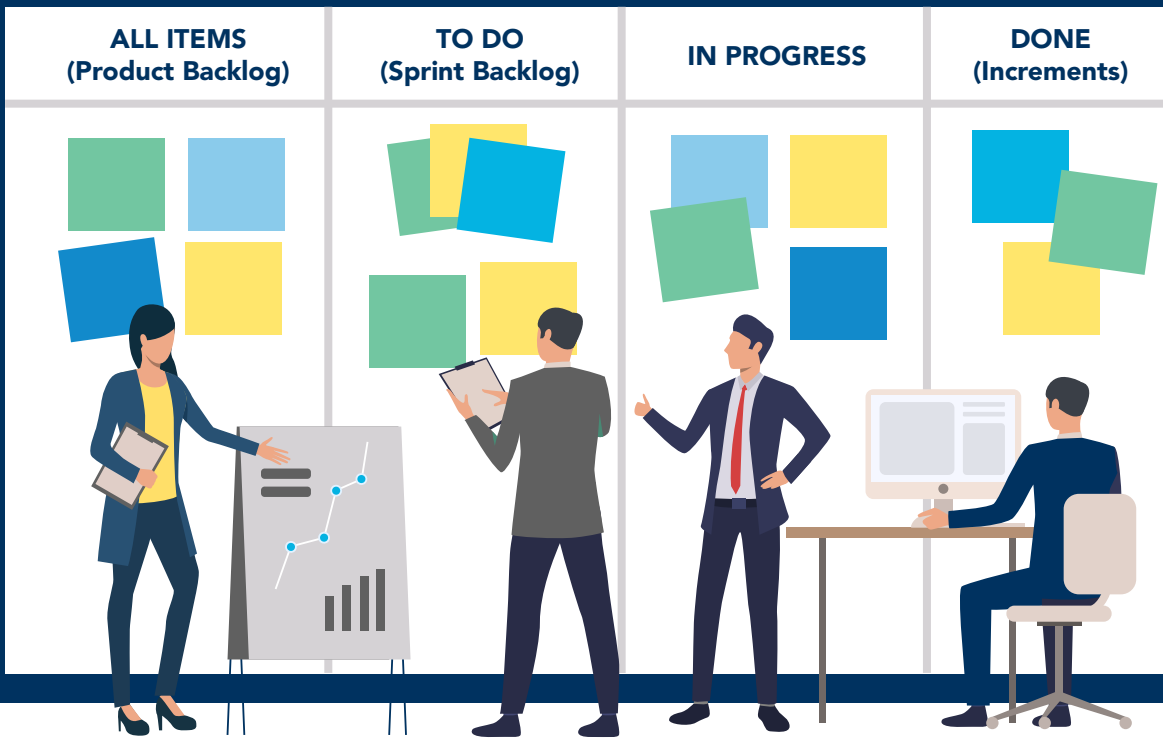
The product owner assigned cyclical and ad hoc tasks from the product backlog to the weekly sprint backlog. At Scrum Inc., the product backlog included higher-level categories of finance tasks, but the sprint backlog was comprised of more detailed, individual activities that fell in each of those buckets. The sprint backlog reflected all activities that needed to be completed in each respective category for that week, or sprint.

This approach enabled the team to reduce handoffs between departments, increase visibility to activities, and eliminate silos between accounting and operations. In this scenario, finance and accounting team members, as well as operational team leaders, knew which tasks were being performed at any given time and who was performing them.

During the month-end or quarter-end close, this scrum-based approach proved particularly useful. It increased transparency of month-end tasks and the issues that may be holding up the closing process, also known as *impediments* to closing. This, too, was accomplished by leveraging a scrum board. When all team members are in the office, the scrum board is usually a physical board with sticky notes all over it arranged in the columns previously depicted. In a virtual or remote working environment, the scrum board is electronic, and all team members have access to it virtually. This promotes a more collaborative culture and greater knowledge sharing.

Teams were able to clear roadblocks to period-end close quicker than they had in the past. At the end of a sprint that included close activities, sprint reviews and sprint retrospectives would naturally foster a culture of continuous improvement. Consequently, the inclusion of finance and accounting tasks in the scrum process proved to be beneficial to the delivery of the company's broader strategic goals. •

FIGURE 7: SCRUM BOARD



Embracing **Agility**

Equipped with the characteristics of an agile finance function and actionable ways to enhance value delivery with Agile and scrum in finance and accounting, there are clear steps that finance functions and individual team members can take to embrace agility.

Next Steps for Finance Function Leaders

1 **Assess your team's current agility.** Review the characteristics of an agile finance function and kick off a self-assessment to determine the function's current level of agility. Invite your leadership team and your function's internal customers to participate in rating the team against each of the five characteristics. Then, identify where you have the greatest gaps.

2 **Strategize and collaborate to fill gaps.** Develop a strategy that tactically includes starting a high-level backlog of actions needed to close the gaps identified. Assign each gap to a member of your leadership team, and empower them to form a cross-functional team and propose how the gaps should be closed. Advise your peers in other functional or departmental areas of your efforts and invite them to collaborate with your team as you work to better tailor the value you deliver to their teams and the organization.

3 **Visibly support development.** First, lead by example: Learn more about Agile and scrum by exploring the resources described in "Next Steps for Individuals." Next, prepare an Agile and scrum capability development offering for your teams (perhaps leveraging existing offerings in your IT department or resources listed in "Next Steps for Individuals"). Finally, require leaders within your function to create space–bandwidth–for team members to participate in the training.

Next Steps for Individuals

1 **Learn more.** There are a host of resources available through "The Agile Manifesto," Agile Alliance, scrum.org, and Scrum Alliance, among others. For Agile and scrum resources tailored to finance and accounting professionals, consider taking a course in IMA's Agile & Scrum Series accessible at **myima.org/agile**. If interest takes you there, consider becoming certified as a Professional Scrum Master and explore the many other Agile and scrum-related certifications available.

Find out if your organization offers or sponsors Agile and scrum training. Talk to persons within your company's IT department who are familiar with, or are already employing, an Agile and/or scrum approach to delivery. Also, review the characteristics of an agile finance function and identify ways to incorporate some of those attributes into your personal ways of working or those of your immediate team.

2 **Choose a project.** Consider one of the use cases presented in the previous section "Agile and Scrum: Value Delivery" that most closely aligns with the activities for which you are responsible. At a minimum, everyone can think of a single improvement opportunity from which they can benefit. Choose a project that requires multiple persons for delivery and for which the details of the final product are not yet known.

3 **Deliver with Agile and scrum.** Once you have chosen a project, (1) form a scrum team, (2) create and prioritize a backlog, and (3) employ the scrum process. For more details on each of these steps toward delivering with Agile and scrum, see IMA's Agile and Scrum for Finance course, also available at **myima.org/agile**.

CONCLUSION

Agility is no longer an aspirational trait; it is a requirement for organizational success. For the finance function, a lack of agility directly translates into risk of not realizing the benefits of the global transformation underway across the finance and accounting profession. Insights from analytical models are less valuable if business leaders do not receive them in time to inform critical decisions. FP&A teams cannot shape strategy if departmental silos and limited opportunities for inspection and collaboration persist. Finance teams cannot focus on higher-value activities if functional processes are still manual and lack standardization.

The long-term viability of the finance function is dependent on the extent to which agility becomes embedded within culture. Thus, it is imperative that finance functions not only embrace agility but leverage an agile approach to finance transformation itself. This decision yields quicker value delivery, greater efficiency, and sustainable transformation initiatives viewed as integral to the organization supported.

Adopting an agile culture includes focus on a set of all-encompassing characteristics that promote nimble, inclusive, and responsible behaviors, but this agility also extends to operational execution. Scrum-based operational delivery provides a framework with which teams can begin redefining their approach to traditional delivery while organically developing agile ways of working. Leveraging knowledge of scrum in IT-led digital initiatives and in incremental, iterative delivery of core finance and accounting processes uniquely positions the finance function as a collaborative business partner focused on and driven by value creation.

Embracing agility strategically and tactically while encouraging a *fail fast* environment ensures teams have adaptable processes, collaborative mind-sets, and a bias for continuous improvement. An agile finance function is prepared to provide assurance for financial results and contribute to strategic decisions in the face of evolving market conditions, the accelerated pace of change, and introduction of unforeseeable circumstances. CFOs, controllers, finance and accounting practitioners, and students alike are, therefore, encouraged to develop Agile and scrum expertise to elevate individual, functional, and organizational performance, strengthening the finance function's value proposition for decades to come. •

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