Unlocking Your Organization's Full Potential with Agile

Embracing companywide change is key to accessing Agile's transformational benefits in efficiency and flexibility.

There is a misconception in many organizations that Agile is not a disciplined approach to software development, and that the traditional method of defining requirements in detail and implementing them over a long period is more structured. Nothing could be farther from the truth. Agile, when done properly, is an extremely disciplined process that provides the flexibility required to meet the needs of the rapidly changing world we live in today. Not only are requirements continuously evolving, but so are the tools, platforms, web services, and data that provide the foundation to a modern enterprise software system.

As discussed in, An Agile Approach to Improving Federal Software Delivery, software development has struggled to respond quickly to recent events such as the COVID-19 pandemic, the war in Ukraine, and other social and political challenges. The traditional waterfall approach to software development makes it difficult to adapt quickly in the current digital landscape. A gap is opening between organizations with inflexible software development practices and more innovative, forward-thinking competitors that prioritize the needs of their end users.

Understanding Agile

It can take two or three years to complete a project using the waterfall approach to software development.

That timeline increases the risk of producing a solution that is no longer fit for purpose or aligned with the latest requirements when it's finally released. To keep pace with the fast-evolving demands of end users, organizations must focus efforts on developing software in the most efficient and effective way possible.

Compliance policies, security threats, and operational needs are also rapidly shifting these days, putting more pressure on organizations to develop software quickly. The Agile approach to software development, which entails breaking down the development process into short "sprints" that are usually two weeks long, enables continuous digital refinement and improvement.

Having frequent iterations of small, workable products gives you immediate feedback, enabling you to release a more user-centric product with a much faster time to market. It also allows you to easily adapt and respond to the changing requirements of users. But it's important to understand that Agile is more than just an approach to software development. Agile should be a key element of your organization's culture.

Agile encompasses a product- and user-focused mindset that is predicated on iterative learning and incremental value. Within Agile development, failures are seen as positives rather than negatives, and, more importantly, are treated as opportunities to learn what works and what doesn't. Arguably the hardest part of becoming an Agile organization is changing people's mindset to stop perceiving failures within the development of sprints as bad outcomes that should never be discussed openly.

Every Agile sprint and planning interval (PI) ends with a retrospective that encourages everyone to speak freely, outlining what went well, what challenges were encountered, and what needs to be done to improve in the future. These blameless retrospectives are vital in documenting all challenges and creating a course of action that prevents issues from recurring and iteratively improves the process moving forward.

Embracing Agile Culture

One of the main scenarios in which the shift to Agile development can fail is when it isn't supported by the strategic organizational change management needed to evolve company culture. Many organizations try to enforce a sudden companywide shift, which can be a critical misstep.

Instead, start by finding internal champions of Agile, or change agents, who can drive the shift to this methodology from within. The approach is similar to Agile-build a small, workable product and iterate off it incrementally. Approach the shift to Agile methodically to achieve true sustainable change, starting small with a pilot team or pilot project. Quickly establish a cadence of building working software every two weeks, learning as much as possible throughout the process.

This process will begin to create a culture of continuous improvement and learning that will benefit both your organization and your end users. Agile culture will often manifest through unified, companywide improvements in collaboration, decision-making, problem-solving, productivity, and more.

Regularly optimize how the team operates, take value from each lesson learned from retrospectives, and begin promoting the benefits they achieve by communicating these to the rest of the organization. Using those lessons, slowly build out from there. Ensure the change agents continue to educate key stakeholders about the benefits of adopting an Agile mindset and encourage the cultural shift.

Top Agile teams are fast-paced and committed to rapidly delivering results for their customers. This is accomplished by leveraging collaborative teams of dedicated professionals that collectively have the skills and capabilities to deliver. Known to represent the voice of the customer, Product Owners and Business Analysts are dedicated to aligning development teams capabilities with their customer's needs. Scrum masters coach the teams on agile, run the scrum ceremonies, and remove impediments that arise. Pro-code and low-code developers, data architects and AI/ML/LLM experts work closely with Human Centered Design (HCD) professionals to craft a user experience (UX) that is intuitive and capable. DevSecOps and test automation engineers are also vital in providing the tooling to automate the processes of building, integrating, testing, promoting and securing applications and services. These roles and a culture of respect and collaboration accelerate time to value and serve to align development activities with the current needs of the business users.

Top-performing teams want to deliver high-quality work and are concerned about protecting the applications and data from security threats. Agile provides a conduit to support these teams in delivering software that your business stakeholders need at an accelerated pace.

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Overcoming Other Challenges and Barriers to Agile

A challenge with adopting Agile is internal resistance to change. To overcome this, organizations must educate senior leaders on the benefits of Agile and gain their buy-in and support. Employees should also be mentored on Agile, so that everyone in the organization can recognize Agile's advantages and learn.

In addition, methodologies outlined in An Agile Approach to Improving Federal Software Delivery, including having an Agile project management board and code repository, are vital to any successful Agile program. Leaders in this space include ServiceNow, Atlassian (including Confluence, Jira, and Bitbucket technologies) and Azure (including Azure DevOps, GitHub, and SharePoint technologies). These tools not only assist with the requirements management and development, but they also serve as a great source for collecting reporting metrics, collaborating within and between teams, and tracking continuous improvement initiatives.

Holding your workforce accountable to the new methodology, while also showing them how it will be valuable, is an important step toward success. But it's essential to note that Agile adoption works best when it's occurring naturally, rather than being forced. Initial Agile teams need to comprise of early adopters and those who have had past success with Agile. Once an effective Agile culture starts to establish itself, and everyone sees not only the personal benefits of Agile but also the praise from clients, and even the biggest resisters frequently become strong supporters.

For federal agencies and public sector organizations, compliance issues can also present challenges. Regulations, compliance rules, and review boards can make it more difficult to deliver a product increment every two weeks. Breaking down these barriers systematically requires earning trust with early and successful product delivery and a high degree of DevSecOps automation to support a transformation from certifying a given release to certifying the codified process for releasing software to production.

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 Agile is also prescriptive, and if an organization requires compliance reviews it can be tailored to accommodate them. Compliance reviews can become part of a regular cadence per release or within the sprint cadence schedule, and any findings can then be tracked as product backlog items (PBIs). These PBIs also include enhancements, defects, and stories to consider for future sprints based on prioritization.

For Agile to succeed, organizations must maintain velocity and fill the delivery pipeline. Using low-code platforms makes this easier. Low-Code tools streamline development (see Maximizing Time to Value with Low-Code Platforms for more information) and enable agility by removing the need to write code from scratch and allowing greater collaboration among developers and less technical members of the project. These advantages will help you accelerate your development and meet the rapid pace of delivery. Low-code tools are never ubiquitous in large organizations, so integration with commercial web services, data-services, custom built micro-services and legacy applications is a vital requirement. Guidehouse's application factory processes bring these components together in a comprehensive framework at enterprise scale.

Keys to Agile Success

Agile has been in use for more than two decades, and The Agile Manifesto[1] was first published back in 2001. Over the years, some well-documented guidelines for adopting Agile have emerged, including the following:

- Conduct PI planning at a regular cadence (quarterly is typical) to assemble all stakeholders and determine long-term strategic themes for future development.

- Align backlog grooming for upcoming sprints (one-to three-weeks of work increments) to objectives/themes defined in PI Planning, adjusting priorities and timing based on the latest information.

- Understand the intent. Implementing a two-week sprint schedule doesn't mean you're Agile yet — until you've incorporated scrum ceremonies and are completing the PDCA cycle a small, workable chunk of a product per sprint.

- Trust your team but hold them accountable. Never tell but ask the actual people doing the work how long something will take, and always include a buffer based on risk-based probabilities of a timely delivery including the potential for blockers.

- Choose your KPIs carefully, and make sure they align with the value delivered to end users and stakeholders.

- Be prepared to fail but fail fast. Understand what went wrong, learn from it, and ensure it's not repeated-as with Agile software development.

- Appoint experienced people who have previous success in driving this kind of change to key roles. Bring in specialists as needed.

- Ensure those in key roles are given sufficient authority to drive this change, and make sure the change itself is sustainable.

- Identify and rapidly remove blockers. This role of removing blockers should start with the scrum master but needs to be quickly escalated to leadership if it cannot be resolved promptly.

Agile Advantages

Companies that have adopted Agile throughout the organization have experienced significant benefits, including:

- Vastly increased efficiency and collaboration
- Shorter time to market and more frequent delivery of products
- Greater quality of software
- More user-centric software products
- Higher levels of customer satisfaction
- More opportunities for innovation
- Significant cost saving
- An organizational culture of continuous learning and improvement
- Advantages over more rigid, less progressive competitors

[1] "Manifesto for Agile Software Development", n.d., accessed on July 10, 2023, Manifesto for Agile Software Development (agilemanifesto.org).

The Benefits of Becoming an Agile Organization

Government and public sector organizations have much to gain from adopting an Agile mindset. For developers, the opportunity to see a working software product every two weeks can be motivating and can help keep your development teams on track. Clients who are in tune with the work through the built-in Agile feedback loops (e.g., sprint reviews and system demos) are more excited about the product, as they see it being built from start to finish while seeing their feedback acted on and brought to life. Using the Agile framework provides more opportunities to improve and adapt as you build, rather than waiting months to see where you've gone wrong. The iterative approach also allows developers to gain immediate feedback from end users.

The Agile mindset is well-suited to rapidly changing business environments, technology requirements, and user expectations. Embracing a more efficient, collaborative, and iterative approach to development will deliver transformational benefits.

To set yourself up for success in this shift, it's important to work with trustworthy partners and change agents who have proven experience implementing and managing such a shift. Partners who are motivated for change, have the influence to drive it, and have a deep understanding of the principles of Agile and the experience leading award-winning Agile transformations at scale can steer Agile transformation to success.

About Guidehouse

Guidehouse is a leading global provider of consulting services to the public sector and commercial markets, with broad capabilities in management, technology, and risk consulting. By combining our public and private sector expertise, we help clients address their most complex challenges and navigate significant regulatory pressures focusing on transformational change, business resiliency, and technology-driven innovation. Across a range of advisory, consulting, outsourcing, and digital services, we create scalable, innovative solutions that help our clients outwit complexity and position them for future growth and success. The company has more than 17,000 professionals in over 55 locations globally. Guidehouse is led by seasoned professionals with proven and diverse expertise in traditional and emerging technologies, markets, and agenda-setting issues driving national and global economies. For more information, please visit guidehouse.com.

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