

Introduction

With a more engaged public expecting better digital experiences, government agencies must better serve their citizens' online needs or risk losing relevance. Scrum, an Agile¹ framework for completing complex projects, can help government and their partners **deliver more value** to the people they serve earlier than traditional project management techniques.

What is Scrum? A Primer.

The founders define Scrum as "a framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value." Originally designed to manage software development projects, Scrum has since expanded into non-IT industries.

Scrum empowers small teams to work together **better** to accomplish their goals **quicker**. Scrum eliminates all the superfluous components of other project management tools that aren't necessary to creating the right product.

Scrum's roles (Scrum Master, Product Owner, and Development Team) and events (Sprint Planning, Daily Stand-ups, Sprint Reviews, and Retrospectives) cultivates an iterative, empirical process of *inspection*, *adaptation*, and *transparency*. This framework fosters a feedback loop to build, review, enhance, and repeat, refining the product – and process - until completion.

Why Scrum?

In an era of rapid digitization, shrinking budgets, and higher expectations from the American public, government agencies need to be more **customer-centric** and **nimble** to create meaningful, impactful digital experiences. Scrum can achieve this in three ways by:

- 1. Delivering value early and often.
- 2. Failing fast. Fixing fast.
- 3. Continuous improvement.

¹ Scrum is consistent with the values of the Agile Manifesto, which can be read here: http://agilemanifesto.org/



Deliver Value Early and Often

Scrum saves organizations time and money by focusing on creating, not just documenting. Unlike other project management rules that require time-consuming research and analysis to create extensive documentation before development is even started, Scrum instead needs just enough information to get to work. Then, every 2-4 weeks (typically), the team seeks the customer's input to identify the product's strengths or weaknesses that can be enhanced or fixed. Since this review occurs much earlier and more frequently than traditional approaches, problems are resolved before they compound and require time-consuming or complicated fixes, saving time and money.

Scrum's incremental delivery cycle maximizes opportunities for direct feedback from the customer. Such visibility ensures that something of **value** is being created, and if not, adjustments can be made to avoid costly fixes later in the process.

Fail Fast. Fix Fast.

Scrum leads to quicker problem identification and problem solving. With brief, daily conversations amongst the team to discuss the highest priorities (i.e. *Daily Stand-up*), resources don't waste time working on the wrong task or getting delayed by impediments that can be quickly resolved with the team's collective input.

In a traditional waterfall process, business analysts and project managers first try (and often fail) to capture all the requirements, forecast all the risks, and predict all the costs. While these reports are created, the development team remains idle, delivering zero value to the customer.

Data shows that most of these 'well-planned' projects end up behind schedule and over budget. Even if the plans eventually account for all contingencies, they simply take too long to implement, resulting in higher costs and missed opportunities.

Scrum teams instead move with a sense of purpose to deliver a Minimum Viable Product (MVP), something with just enough substance to satisfy early customers and to provide feedback for continued development. Think of this as the 70% solution. It may not be perfect, but it allows for a quicker determination about the exact correction needed to get closer to done.

By delivering early and often, Scrum teams are better suited to **embrace change**. Stakeholders change their minds, priorities shift, and requirements are rarely accurately defined. Scrum's



flexible approach allows for quicker course correction. In some cases, a rigid, linear approach is good for building a submarine or aircraft carrier, but not so much for certain mobile applications or websites. This **adaptability** is a competitive advantage for creating the right product at the right time.

A Mini-Case Study - Think of your last visit to the eye doctor. When your vision is checked, they use a phoropter. These machines allow your eye care professional to "switch" lenses during your exam to see if your focus is better, or worse. As they switch between lenses, you offer your feedback if one results in sharper vision than the other. Scrum's rapid feedback promotes similarly intuitive decision making about how to improve the product not in theory, but reality.

Kaizen (or, Continuous Improvement)

Since Scrum teams deliver early and often, they learn from each iteration to **continuously improve** their product through incremental, purposeful refinements. Then, through qualitative and quantitative inspection, they pinpoint opportunities for improvement.

Scrum teams continually improve their own internal processes by collaboratively prioritizing work together. Working as self-organizing teams, Scrum developers can more accurately estimate a sustainable pace based on past performance. This results in higher **quality**, since they generally find the smoothest, most trouble-free way to accomplish the task. In this collaborative and transparent environment, the team qualitatively improves their own process to deliver value and fosters quicker adaptation through experience.

Scrum relies on standard Scrum reports, such as burn down charts and velocity reports, to quantitatively assess their performance after each Sprint, that is every 2-4 weeks. Over time, this cumulative data reveals performance trends that leads to better estimating the work the team can realistically achieve in future Sprints. Organizations using Scrum save time and money since Continuous Improvement impacts both product delivery and project efficiency.

A Mini-Case Study - The Marine Corps has been Agile long before it became popular in software development. Marines utilize small, co-located teams working in parallel. Missions are broken down into the smallest assignments so that eventually everyone knows what he must do for mission accomplishment. Scrum teams are organized in a similar manner, promoting a bias for action, an innovative environment, and quicker problem-solving. These qualities make the Marine Corps the most elite fighting force on Earth. (Note: the author is a prior Marine.)



Conclusion

Scrum is easy to understand, but difficult to master. In the words of computer scientist Edsger Dijkstra, "Simplicity is a great virtue but it requires hard work to achieve it and education to appreciate it. And to make matters worse: complexity sells better." This unfortunately couldn't be truer. Many government agencies take the notion that for challenging projects, they need complex solutions. As a result, they implement traditional project management 'norms' that are more familiar. In the end, they'll likely spend more time and more money creating an inadequate product.

Scrum has demonstrated first in IT and now non-IT projects a more efficient process to get things done. In an era of fiscal austerity, Scrum's iterative process leads to **faster problem resolution**, a measurable benefit to any organization interested in being more effective. Rather than spending an inordinate amount of time documenting, Scrum focuses on **delivering**. And unlike traditional project management approaches that involve stove-piped working environments, Scrum's collaborative, transparent approach boosts morale, greatly improves communication, and fosters quicker decision-making. Scrum is a transformative force to improve how things get done.

Contact Us

To transform your agency to better meet the needs of your workforce and the citizen experience, you'll need proven change agents. OnPoint supports Scrum, Agile, Scaled Agile Framework (or SAFe), and lean projects with the federal government, all with an emphasis on ensuring secure digital experiences.

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