

Sensemaking in the Agile Forest

Is agile always better?¹

Henny Portman

Introduction

We must use Agile, because the neighbors or one of our competitors use it too! This is a commonly used strategy, which just as often leads to failed transformations. When we develop an app iteratively and incrementally together with users, an agile working method offers many advantages. And in that situation, we sometimes must take a step back if we do not like the functionality delivered. We take that for granted. But will we also take it as easy when we build a nuclear power plant? After delivery, will we also say: 'Sorry, mistake, let's take a step back'?

In short, is Agile always better? The Standish Group, an American organization, has been publishing the CHAOS report for decades, which includes key figures on some 100,000 projects. The latest CHAOS report, published in 2020, states that only 44% of agile projects are successful. For waterfall, the figures are even more dramatic. These results underline the fact that blindly opting for an Agile approach does not always lead to the desired success: "*Agile is not a silver bullet*".

In a blog *When to Use Waterfall vs. Agile*, written by Tim Parsons², I found some key factors to support you in your choice.

When to use waterfall vs. agile key factors

Factor	Waterfall	Agile
Requirements and Regulations	Many Initial Product Requirements & Strict Regulatory Requirements	Few Initial Product & Regulatory Requirements
Existing Organizational Processes	Strict Processes in Place	Lenient Processes in Place
Product Owner Involvement	Low Product Owner Involvement	High Product Owner Involvement
Nature of the Project	Enhancement to an Existing Product	Greenfield Product
Timeline	Fixed & Firm Timeline	Short, Flexible Timeline
Budget	Fixed, Inflexible Budget	Budget With Wiggle Room

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² <https://www.macadamian.com/learn/when-to-use-waterfall-vs-agile/>

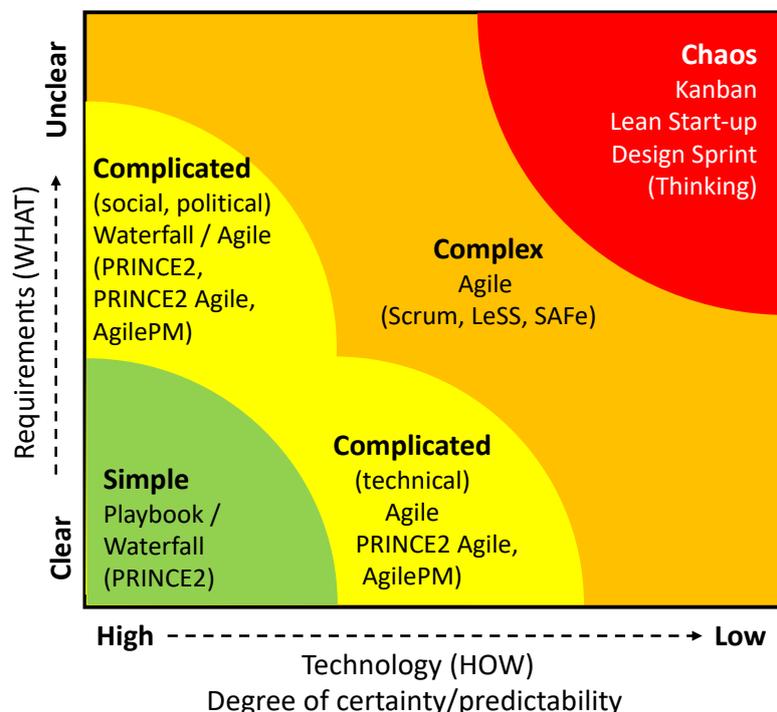
Looking at time and budget, agile also offers possibilities to stick to a fixed budget and timeline. The principle of maximizing the amount of work that is not done offers the possibility of steering to a fixed budget and end date by delivering only the most important things (MoSCoW prioritization³). If you are using permanent agile teams to develop and maintain a product you could argue is a waterfall approach is the best way to move forward when enhancing an existing product. Conclusion, it is not that simple to make a choice between waterfall and agile.

A different way to make your choice is the usage of the Stacey matrix as developed by Professor Ralph Douglas Stacey, to guide the choice for a certain framework.

De Stacey matrix

The Stacey matrix recognizes two dimensions. Horizontally, the degree of uncertainty or predictability about the "HOW" is shown. In other words, is it clear what technology we can use to get it done? Vertically, it indicates the degree to which the requirements, the "WHAT", are clear or unclear. You can also read this as the extent to which there is agreement between the stakeholders. This yields roughly four different categories or areas: simple, complicated, complex and chaos.

Stacey matrix



³ To be explained in one of the next articles in this series.

Simple

Have you ever assembled an IKEA wardrobe? Some people call it a project and it can sometimes be very frustrating. However, it is not necessary to write a project plan for this. A simple script, a manual, will do. If, for example, IKEA needs to equip its showroom with a number of model rooms, loose manuals will not suffice, but a simple project plan will. Simple' is characterised by clear needs, a stable situation with little uncertainty, based on known facts and clear causal relationships. We can then speak of 'knowns'. Freely translated, this means known knowns, or in other words we know all the factors and know how things are. PRINCE2 and WISP, for example, fit this situation.

Complicated

In the more complicated area, we see projects involving more complicated but definable causal relationships. In this case, we can speak of 'known unknowns' or 'we know what we do not know'. If it is clear how the project will be carried out, but it is unclear what must be delivered, a waterfall approach is the obvious choice, starting with a definition phase. These are often projects in the social or political domain. Of course, in this situation we can also use PRINCE2 Agile or AgilePM. Conversely, in cases where the requirements are clear (the 'what') but the 'how' is uncertain, a waterfall approach is less obvious. In this case, PRINCE2 Agile, Disciplined Agile or AgilePM, among others, are appropriate, whereby the right technology (the 'How?') must be determined with the help of experiments.

Complex

The complex area is located between the simple/complicated and the chaos area. In this area, there is a great deal of uncertainty and unpredictability. Causal relationships can only be established in retrospect. We do not actually know what we do not know, i.e., 'unknowns unknowns'. We are dealing with many and various stakeholders. Moreover, the customer requirements and the technology to be used are unclear. This requires a great deal of fine-tuning, experimenting and feedback. Among others, Scrum, Large Scale Scrum (LeSS) or the Scaled Agile Framework (SAFe) are appropriate here.

Chaos

The chaos area is characterized by high turbulence, tension and undetectable causal relationships. Here we can speak of 'unknownables'. We do not know that there are things we do not know. In this situation, we need to react quickly. Where the 'how' and 'what' are often unclear, experiments are the obvious choice. Based on hypotheses, they test whether a hypothesis is correct with minimal effort. From there, the next steps become clear. Extreme situations involve crisis management. Possible frameworks are Lean Start-up, Kanban or design sprint (thinking).

Wagile

What will happen if we combine the waterfall and agile? Some would call it 'wagile'. I would say you have to be careful. Before you know you will end up in chaos and confusion. If you look at PRINCE2 Agile we see the application of agile ways of working on the delivery layer and that can work. But make sure it's clear for the delivery teams in what situations they can decide on their own and when they must escalate to the project manager. In general, I would say, use common sense when using a waterfall approach and apply the agile mindset where possible. The other way around is possible too. You are using an agile way of working and you can't deliver an evolving solution during the first sprints. You must start with an initiation stage; some would call this a sprint 0 to get a rough picture of what is needed before you can start delivering the evolving product in subsequent sprints.

In short, is Agile always better? No, whether Agile is a good fit depends on the situation in which you are working.

Sensemaking in the Agile Forest series

This article is part of a series of articles called *Sensemaking in the Agile Forest*. This series⁴ consists of the following parts:

- What is Agile?⁵
- What is Scrum?⁶
- Is Agile always better?
- The ideal Product Owner
- The ideal Scrum Master
- Is an agile team always autonomous?
- What do iterative and incremental mean in Agile?
- The Minimum Viable Product (MVP) unraveled
- Prioritizing in an agile team (MoSCoW, WSJF)
- Multitasking task switching or monotasking
- Being predictable as an agile team (story points, velocity, t-shirt sizing, flying fingers)
- Self-managing or self-organizing agile teams
- Slicing user stories
- Agile management products (burn-down and burn-up charts)
- Agile user testing (cohorts, A/B testing)

⁴ This series is based on a number of short blogs I made for Forsa Advies, a project management training organization in the Netherlands (<https://www.forsa-advies.nl>).

⁵ Portman, H. (2022). What is Agile? Sensemaking in the Agile Forest series, *PM World Journal*, Vol. XI, Issue I, January.

⁶ Portman, H. (2022). What is Scrum? Sensemaking in the Agile Forest, series article 2, *PM World Journal*, Vol. XI, Issue II, February.

- The Kanban bord (WIP-limit, cumulative flow diagram)
- Culture makes or breaks your agile transformation
- Getting started as an agile team (a pilot)
- The evolution of agile frameworks
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Please let me know if you would like to add specific agile topics to this series.

About the Author



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Henny Portman, owner of Portman PM[O] Consultancy and was partner of HWP Consulting, has 40 years of experience in the project management domain. He was the project management office (PMO) thought leader within NN Group and responsible for the introduction and application of the PMO methodologies (portfolio, program, and project management) across Europe and Asia. He trains, coaches, and directs (senior) programme, project and portfolio managers and project sponsors at all levels, and has built several professional (PM(O)) communities.

Henny Portman is/was accredited in a variety of qualifications, including P3O, PRINCE2, MSP, MoP, PRINCE2 Agile, AgilePM, AgilePgM and AgileSHIFT trainer and an SPC4 SAFe consultant and trainer. He is a P3M3 trainer and assessor and PMO Value Ring Certified Consultant (PMO Global Alliance). On behalf of IPMA, he assesses mega and large projects for the IPMA Project Excellence Award. In addition to this, he is an international speaker, author of many articles and books in the PM(O) field, and an active blogger (hennyportman.wordpress.com/).

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