

Lightning Talk

Ok, lightning talk. Agile methodologies can work in megaprojects. 10 minutes. 10 minutes to impart to you all of the knowledge I have gained from working on megaprojects. Ok. I can do that. I'm just not sure what I'm going to talk about for the other nine and a half minutes though...

Agile methodologies in megaprojects – for me it is all about 2 things. Rolling wave planning and Kanban. Now I know the purists will tell me that rolling wave planning isn't strictly an agile technique, that it's part of the Project Management Body of Knowledge. But you know what, agile is a way of thinking about doing things better and smarter. And that aside, I'm the one up here presenting, not them, so I'm claiming it!

So in my earlier presentation I spoke about embracing uncertainty and adapting to changing circumstances. They both go hand in hand with rolling wave planning. The reason why I am claiming rolling wave planning as part of an agile methodology is that it's all about responding to change rather than following a plan and focusing on achieving outcomes rather than producing lots of documentation. Sound familiar? It should. They are two of the principles behind the agile manifesto. See, I told you rolling wave and agile go hand in hand!

In traditional planning approaches we actually try to define and document everything in absolute detail at the point in the project where we know the least about it, and then stick to it rigidly because that plan is the source of truth. We do our plan at the time when we know the least, and then we stick to it because it is our plan. Doesn't that sound absolutely ludicrous to you?! To me it sounds like a recipe for failure. Like look up the word failure in a dictionary and it will say "rigidly following a plan that was written at a time when you knew nothing about your project". And yet almost every project does it.

But we don't have to! We have other options, like rolling wave planning. Basically, rolling wave planning is the idea that you plan in waves as the project proceeds and more information becomes available to you. Isn't it great when the name of something is actually a logical description of what it is as well! Sure does make life easier...

Think back to some of the things I mentioned in my earlier presentation – megaprojects are huge and take a long time. There are high levels of uncertainty, particularly early in the project. There is technological change over time. You have to regularly adapt. None of those things naturally lend themselves towards traditional planning methods. But they do work well with rolling wave planning.

Theoretical example – you define a reasonable set of assumptions at the start of the project, and you write a high-level plan based on those. 2 years later some drastic technological advancement happens that impacts your project – e.g. the advent of the smartphone, significant improvements to wireless data bandwidth, the implementation of crypto currency. Or something simpler, like changes to legislation, such as the European Union General Data Protection Regulation. In rolling wave planning you can take these things in your stride – you test your previous assumptions, keep those that hold true, discard those that don't, and create new ones based on new information. Then you update your plan and you move on. This allows you to make a start early in the project while giving you the flexibility you need later on.

Which is where Kanban comes in. Kanban Kanban Kanban. I love Kanban. I use it at work. I use it my business. I use it when volunteering with the ANZTB. I sometimes even use it in my home life when

we have a lot going on, though not always. Yes, I'm a nerd. For me, Kanban is hands down the best weapon in my agile arsenal. And the reason is that it is so simple – it works.

So here is a great example of how Kanban worked very effectively in megaprojects. During one of the peak times on the project, I was literally spending my entire working day in meetings (much to my displeasure – I loathe meetings). During those meetings there were decisions being made, scope being amended, new dates being thrown around, and many other things. All of these things were important and required action to complete. But the tasks were not making their way back to the team. Sometimes I was forgetting a few, sometimes the scope of the task changed multiple times per day, but mainly I was struggling to get the information back to the team in a timely manner because I was in meetings all day. So my solution to that problem was to take my laptop in to meetings with me, and every time something came up that required attention, I created a new card in the “to-do” list. I'd give it some limited information such as what the task was, due date, maybe some reference info, and then I'd leave it there. People in the team would see the cards and complete them.

The result that it had was positive and immediate. Tasks that were previously taking days to relay back to the team and then days to complete because the context had been lost, were now often being completed on the same day they were raised. And that got us a bit of positive attention! I would be in meetings with the same people all day, yet I would have tasks complete without having to leave the meeting room and have them closed out on the same day they were raised in many cases. No one else was turning things around so quickly. I certainly can't claim the credit for getting the tasks done, that was the good work of my awesome team. But it shows just how effective Kanban can be.

Now combine the two – rolling wave planning (the concept of documenting what you know when you know it) and Kanban (a lean, Just In Time Scheduling System) and you get an amazingly effective way of identifying and managing work effort. I could put large tasks such as write the security test plan alongside small tasks like retest defect 123 without having to worry about hierarchies or groupings. And I could instantly determine the status of the task – either it was complete or not. No more trying to estimate the percentage complete for numerous line items in a schedule. Between rolling wave planning and kanban I did not produce a schedule for the entirety of the third phase of the project, a period of over two years.

And that is just a few lightning examples of how agile was used in a megaproject. It was effective – the job got done. And it was efficient – there was little effort wasted. You can't ask for too much more than that right?!

To put it in to context, I have just started my next megaproject – bigger, badder and more complex than the last and I have already written the rolling wave planning technique in to my test strategy; and I have every intention of using Kanban for workload allocation. That's how good it was, and how confident I am that agile methodologies do work in megaprojects.

Thank you.