

Assuring the success of Agile in a regulatory environment

Agile methodologies have been with us for over 10 years now. It is increasingly seen as a good option for delivering business benefits fast however it is not a panacea. This paper looks at the protocols of Agile; some of the challenges organisations face when using it; what is expected in terms of delivery methods when implementing a regulatory programme and finally how you bring Agile and regulation together successfully.

The Agile manifesto talks about valuing: individuals and interactions over processes and tools; working software over comprehensive documentation; customer collaboration over contract negotiation and responding to change over following a plan.

Working software involves time – boxing delivery cycles and frequency of release is the fundamental driver. Work tasks are partitioned into smaller units that can be delivered incrementally over a set of short iterations. Cross functional teams promote interaction and teamwork and the Agile manifesto sets great store on empowerment and ownership, working towards a common goal. The greatest emphasis is on creating business value and ensures business involvement to allow for fast problem resolution and dealing with queries early in the development lifecycle. Change can be more easily accommodated with early feedback.

Some challenges in using Agile

It is this very flexibility and adaptability that make one question how it can work well in a regulatory environment. However, what the manifesto is not is an excuse for no process, no control and no documentation.

The method and approach taken will vary depending on an organisation's needs and can range from using pure Agile techniques to using it in niche projects only. Many companies use a blend of traditional development with parallel Agile work streams, all needing to be integrated. Others pick and mix from the best tools and techniques of Agile. The reality is that if leadership is lacking and logistics and process are not implemented properly, delivery can be chaotic or unstructured.

In medium and larger organisations it is common to work in distributed teams, sometimes offshore. The distance involved means that the cross functional communication and teamwork that the Agile manifesto supports is more difficult to achieve and it is important to ensure that the correct mechanisms, tools and techniques are in place to work effectively. If you layer onto this a range of different suppliers and commercial engagements you can see that it all adds to the complexity.



The demands of regulation

Some highly controlled industries, such as in nuclear energy, use a prescribed method which rules out using Agile. This is not the case in financial services; however the FSA takes an interest in the delivery method and not just outcomes. In compliance programmes, having clear structure and being able to audit processes become key strengths so organisations using Agile need to reflect this by demonstrating the necessary rigour and discipline to the regulator.

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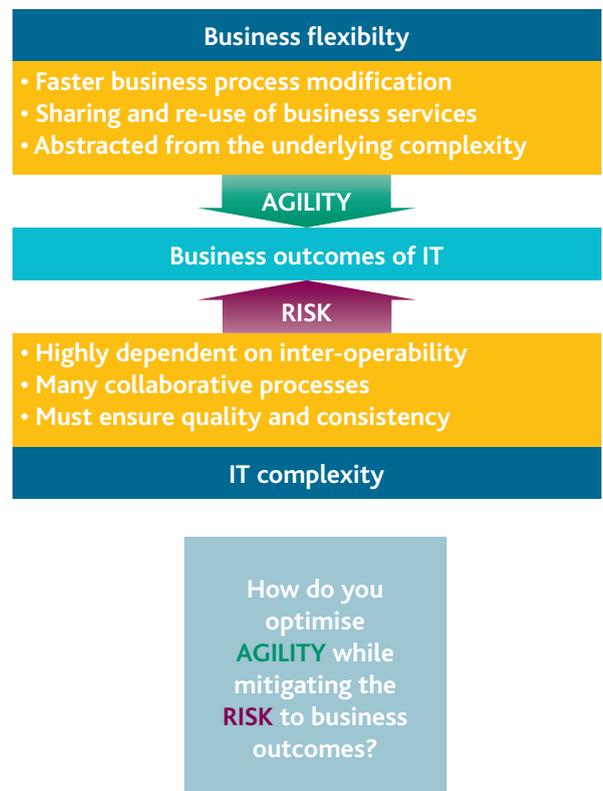
In this environment, structure, control and risk management are all keys to success. The business context of technology implementation and delivery has to be clear. This includes maintaining control over the total solution, getting requirements right up front and using effective change control throughout to the point of acceptance. For instance prototyping can introduce slight changes to requirements that need to be effectively monitored and modified.

In the regulated space, the big picture is as important as the small one. It is vital to emphasise this when using Agile development techniques. This is because the process naturally creates small chunks of deliverables. It is therefore essential to test within the wider picture, considering both the business and technical context and integrating everything. In test driven development, systems testing is part of the overall process so it can get done at the right time in the lifecycle.

Technical debt also needs to be effectively managed. This can be defined in a number of different ways but broadly it is the amount of effort required to properly integrate the whole solution or fix errors late or indeed after release. Agile by its nature means working to get a quick result however it should never be at the expense of quality or the bigger picture otherwise technical debt will be increased exponentially over time, storing up problems for the future.

Last but not least, regulation demands that there needs to be a robust and auditable trail which demonstrates that the right things have been done in the right way at the right time.

Figure 1 - Control and the big picture

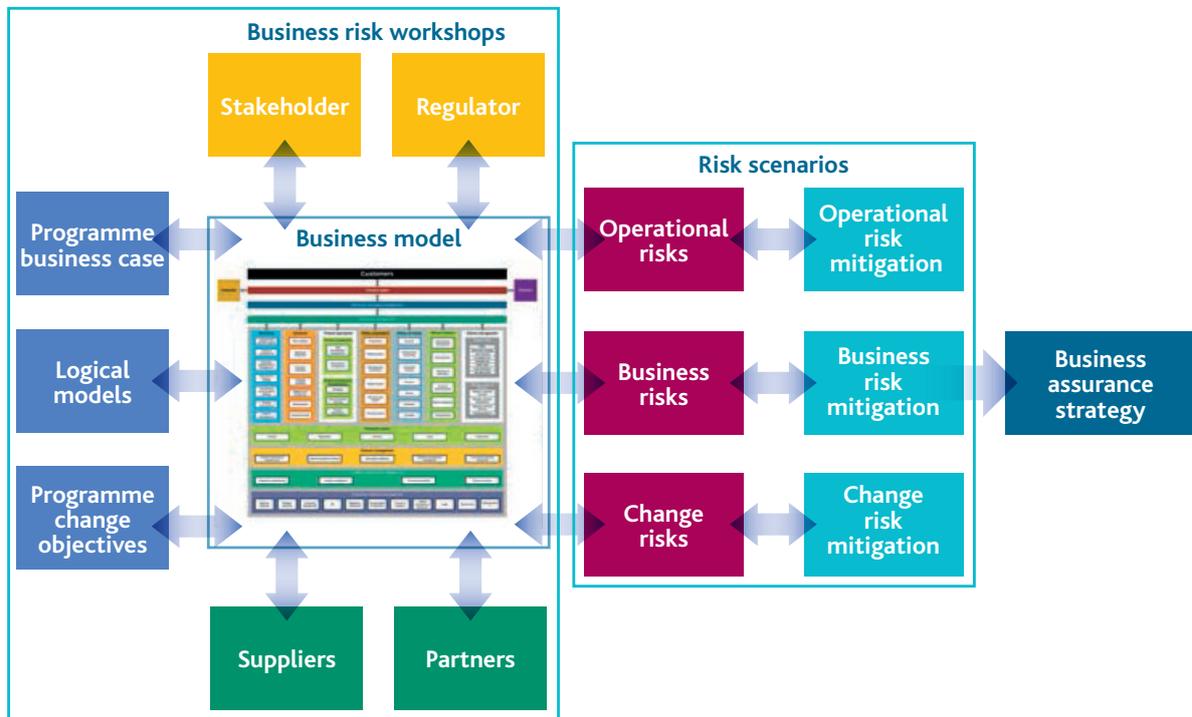


The role of assurance and testing in making it a success

It is crucial that risk-based decisions are made, clearly based on what is required and how it will be achieved. It is an informed way of getting the maximum benefit from the effort you expend. This means focussing your attention on those elements that clearly pose the higher risk to the project or programme.

By conforming to the principles of assurance and by implementing strong governance the organisation will be supported in controlling Agile in this environment. This will include conforming to: the chosen Agile method; internal best practice in release management; quality assurance standards and architectural design. An organisation will also need to consider the impacts of the contractual terms agreed with various development suppliers to ensure that regulatory standards are followed.

Figure 2 - Driving out the risks



We have pointed out that it is crucial to consider both the small deliverables as well as the bigger, complete picture. In the small, you can make sure that test processes are not only in place but are followed, test scripts are complete and capture the right things to ensure quality.

In the large, it is about understanding the whole solution and evolving the culture to ensure that IT clearly supports the business standpoint.

In addition, make sure that the technical debt is properly managed and not storing up problems for the future and controlling and effectively managing any risk.

Agile brings about many benefits however it can't be an excuse for poor delivery in a regulatory environment. Assurance and testing plays a vital role in making Agile really deliver on its promises.

For further information about these services please contact:

Email: marketing.itps@capita.co.uk

Tel: +44 (0) 8456 077466

www.capita.co.uk/itprofessionalservices

