IPL Thought Leadership

# Agile Development Demands Agile Procurement

**The Cabinet Office's introduction of an ICT Strategy which, amongst other things recommends the wider adoption of agile methodologies in the development of public sector IT systems represents a sea change in government thinking.**

**This and the commitment to the use of a broader range of IT suppliers, through initiatives such as the SME agenda, are to be applauded. This change of mindset seems to indicate a genuine commitment to innovation, rather than a token change. Methods such as agile development can drive real efficiency gains in the public sector with commensurate reduction in government spending.**

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## Agile Approach

However, without clear leadership, and change in procurement practices and programme governance, government organisations will find it difficult to evolve from the more usual prescriptive fixed-price/fixed-requirement procurement approach. The introduction of agile methods in the development of government IT solutions will require equally radical changes to government procurement – the processes and the mindset of those operating them.

The impact of the public sector budget cuts on IT spending is tangible, leaving central and local government, education, justice, and NHS actively assessing new options to reduce the cost of the IT associated with their businesses. This is particularly true in the case of solution development of which there is a poor record of delivery in the public sector. So the spotlight is not only on cost; these organisations are also under ever greater pressure to achieve project success, and to minimise the massive overspend and project failure that has appeared to blot many public sector IT projects over the last two decades.

The Government's response has been positive. The Cabinet Office's IT strategy published in April 2011 recommended a raft of options designed to improve performance and minimise the risk of over-runs, over-spend and project failure. A key tenet of this strategy is the use of agile development, an iterative approach that splits projects into smaller, manageable pieces, and relies upon continuous user engagement to ensure the solution meets requirements.

Agile can also play a central role in reducing development risk, reducing the chance of project failure and improving the realism of stakeholder expectations. By providing early and regular visibility of system features, and promoting the ongoing involvement of business users, the scope of the solution can be better tuned to what the business actually needs (as opposed to what developers may think they need) and early visibility of possible limitations can be revealed.

## Procurement Challenge

However, while the benefits are compelling, agile development projects cannot easily be procured via traditional public sector models. Although rules of engagement in theory do not prevent the procurement of solutions which will be developed in an agile fashion, onerous and restrictive public procurement processes make it far from easy; despite the clear government commitment.

This is to the detriment of SMEs who are uniquely placed to deliver such projects successfully and at lower cost than their larger competitors.

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## Challenges for the Introduction of Agile Development

In public sector the emphasis is on minimising risk through rigorous procurement processes which generally includes a prescriptive fixed–price/fixed-requirement contract between client and supplier. This approach is in direct contrast with the essence of agile development: a quick, iterative process that is embarked upon potentially without any detailed objectives or measures in place.

As a result, those using agile development in the public sector are opting for resource augmentation (use of a suppliers staff on a time and materials basis) to run agile projects internally. This is not the best approach. Not only is the development being charged on a time and materials basis, but programme management must be handled by a government department that is unlikely to have the right skills or experience to effectively manage agile development.

In addition all risk will necessarily be borne by the client. The likely result of this approach is project failure or the spectre of the client needing to hire in expensive consultants to act in a client friend role to ensure the development remains on track.

The first step is to consider the procurement process itself, there has to be a shift from what is argued to be a highly objective procurement process – where the required outcome is rigorously specified and to which the supplier is tightly contractually bound – to a much more flexible approach. Agile is characterised by having an understanding of the business objectives you wish to achieve, but not having a detailed knowledge of the solution in advance of development.

So how do you procure it? Demands made by the client and promises made by the supplier are inevitably much 'softer' in advance of an agile development: if you are unsure what the detailed shape of the eventual outcome is, how can you demand that outcome and how can you promise to deliver it? The answer is that procurement decisions will need to be made on a more subjective basis – strongly focused on the track record of the supplier, the confidence the client has in them and their personnel, their demonstrated technical capability, and the level of trust engendered.

It is a common misconception to believe that agile procurement runs contrary to the public procurement regulations. That isn't the case. The key difference between the procurement of an agile development and that of a traditionally developed solution is that the client is competitively selecting the **supplier**, rather than the **solution**, or the **service based upon that solution**.

The perceived reduction in the rigour of the procurement process is balanced by the fact that agile development iterations are generally small in cost (<£100K) and short in duration (say < 2 months). This very limited commitment means that if the wrong procurement decision is made, a supplier can be promptly replaced at the end of any iteration.

Secondly, thinking now about the development phase of the project - agile development demands a greater degree of supplier-client interaction and partnership than is traditionally seen in public sector procurements. Agile is a more sophisticated and highly iterative model requiring the supplier and the client to work in a true partnership while agreeing the course of the solution as the project proceeds. This in turn demands certain characteristics in both supplier and client:

- Shared clarity in the overall aims and ambitions of the IT solution, despite the lack of detailed requirements
- Availability of (and continuity of) technical and commercial skills on both sides throughout the course of the programme
- Access to the real end users of the system, to ensure that it truly meets their needs – something past systems have failed to achieve
- Ability and authority to quickly discuss, agree and commit to the roadmap for the solution at each iteration
- The development of a relationship of trust between supplier and client

A growing number of IT teams in the public sector are keen to embrace the benefits of agile development. While some already have the right people, skills and attitude to make the necessary paradigm shift, others do not and will need to embrace changes to both staff and methods to achieve the undoubted benefits that agile brings.

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## Agile Procurement

So how can public sector procurement processes evolve to support the growing commitment to agile development? Is it possible to move away from 50 to 60 pages of highly detailed specifications to brief project overviews, without incurring unacceptable risk? And, if projects are split into smaller, more manageable chunks, will procurement rules insist on a re-tender for each iteration – a process that will undermine the value of the agile process?

These are the characteristics we might expect in an agile procurement process which overcomes these concerns:

- There must be an acceptance that the objective of such a process is to select a supplier (or several suppliers) who has the right skills, the track record, and the drive, passion and commitment to run an effective agile project and deliver the client's vision. That is, the process is not about selecting the solution or a service based upon it
- It will focus more strongly on a supplier's track record of flexibility and successful delivery, enabling selection of a supplier when detailed requirements are not available
- It will mitigate the need for costly and often long-winded pre-procurement phases developing detailed specifications which all too often are obsolete before they are completed
- Rather than a contract detailing a particular scope for the solution, success may be measured by the business outcome of the project – in terms of service levels or improvement in efficiency. Such factors are much easier to specify than the exact technical shape of a solution – and should be something a supplier will be able to commit to in the absence of detailed requirements
- The process will permit regular and rapid feedback of the outcome of each agile iteration into the procurement of future iterations, in the limit enabling the prompt replacement of an under-performing supplier - without the procurement department or project sponsor having to see this as a 'failure' on their part
- It will not require regular recompetition (eg after each agile iteration) when both client and supplier are happy with progress

## An Agile Framework?

It appears that many of the characteristics of the agile procurement process described above could be achieved with the introduction of a suitably formulated government framework agreement. Frameworks already exist for the procurement of bespoke software, like the Buying Solutions (now Government Procurement Services) Software Application Solutions framework. These could be easily adapted to support an agile procurement process.

Such a framework would provide government clients with a list of suppliers who could be relied upon to work in the way that the agile process demands, and permit mini-competitions between those suppliers. The constitution of the framework would allow a project to continue (up to a maximum total level of spend) through a series of iterations without further competition. In addition, the framework could conceivably permit the selection of a 'reserve' supplier who could replace the selected contractor should they prove unsatisfactory.

## Conclusion

In order to adopt agile methodologies, two things are required:

1. There is a pressing need to adapt procurement processes that are less prescriptive and more flexible – in short, which are in themselves more agile
2. Public sector technical and procurement/commercial personnel need training and mentoring in order to help them make the leap in mindset to ensure that agile is as much of a success in public sector as it has been in the private sector

The government's commitment to agile development is a great start. But the true benefits of agile can only be achieved if backed up by procurement processes that reflect a very different model of supplier engagement. Without this shift in processes, culture and attitude it will remain difficult for the public sector to fully exploit the agile option.