Federal contracts
for agile delivery

CGI

The government spends billions of dollars on federal IT contracts, but may not receive billions of dollars of value in return. The way the government uses and procures technology has changed, but the workforce, policies, procedures and vendor management principles have not.

The Federal Acquisition Regulation (FAR) has not kept up with changes in technology and procurement methods, but the government still leans on the FAR for acquisition guidance. Agencies are less likely to draw on new developments in contracting, such as Agile.

Nevertheless, there has been some progress. The Federal Acquisition Institute established guidance for Agile contracting in 2015, and has been actively working on policies and procedures to assist government agencies with this challenge. FAI offers free training for federal employees and have publicly available documents and videos on their website. However, there is still a long way to go.

Customer collaboration over contract negotiation is one of the four values in the Agile Manifesto. In the government, however, contracts are unavoidable. With the traditional waterfall approach that many federal contracts still follow, agencies pre-determine requirements, deliverables and delivery dates in the request for proposal (RFP) development phase, which become part of the final contract. This creates an additional challenge to yet another value of the Agile Manifesto: a preference for responding to change over following a plan.

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Agile vs. Waterfall

Waterfall is predictive, with agencies investing a significant amount of time in producing a plan, thereby making the plan the most valuable asset. The agency must define a fixed scope of work and create a comprehensive requirements document near the beginning of the process, when little is really known about the work. The RFP developers can only estimate cost and time, as there is insufficient information to determine what resources and timelines are required to do the work. As a result, quality suffers; work often takes longer to complete than anticipated, but pre-established deadlines force the contractor team to deliver a potentially subpar product in order to meet the due dates.

Agile, on the other hand, is adaptive. It's value-driven, not plan-driven. In Agile, the process of continuous planning is more important than any one plan. As the work progresses, a better, more informed plan replaces the previous plan, usually several times before the work is complete. There is no longer a big up-front requirements document because Agile welcomes change, even late in development. Cost and time are fixed because Agile operates in fixed duration iterations with a longstanding team. Quality is built in because the customer is working hand in hand with the team, approving each piece as it is developed.
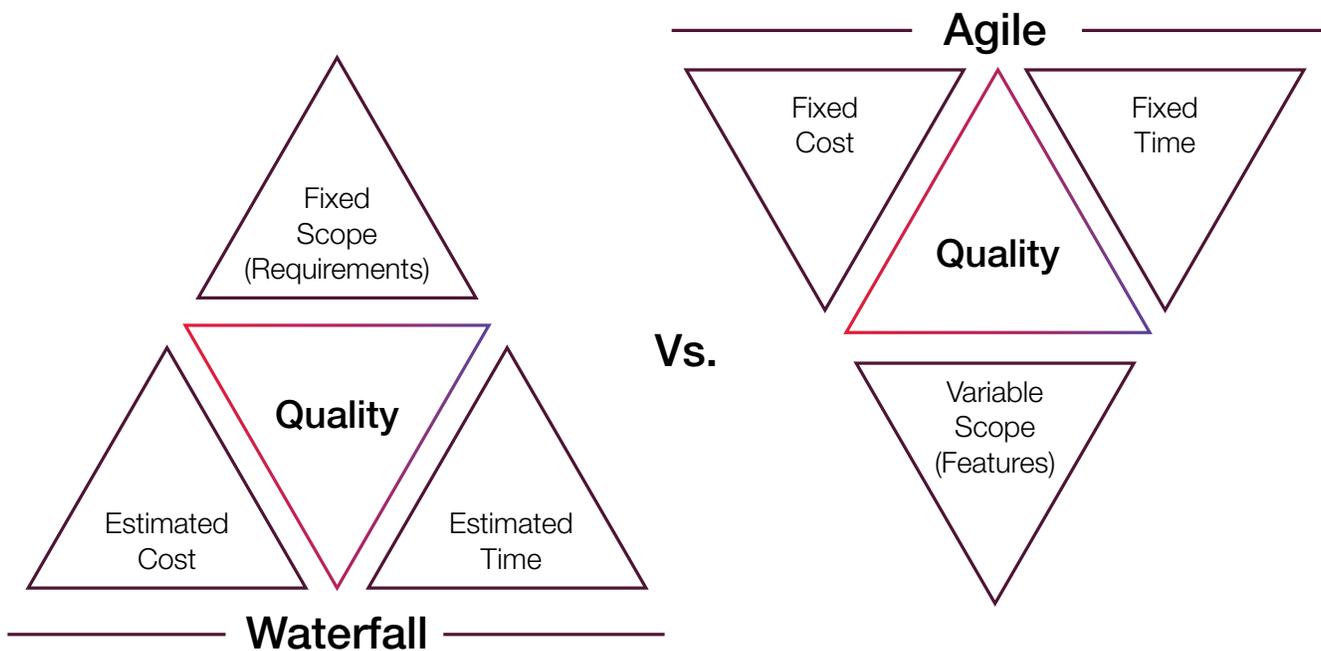
Government Procurement

Procurement offices in federal agencies encourage Firm Fixed Price (FFP) contracts. This may seem like it is not conducive to Agile, but in fact, an FFP contract can be very Agile. It is just important to structure it right. Set a high-level scope through a statement of objectives; then, fix the time and spend based on number of teams and length of the periods of performance.

Agile calls for frequent demonstrations that share progress and challenges with the stakeholders. Hands-on involvement is critical to monitor progress and avoid last-minute surprises.

The federal government has long focused on minimizing risk — at times, at the expense of delivery. This focus impedes Agile implementation. The long list of "Supplier shall …" statements that has pervaded government contracting works best for well-defined procurements. For innovative products such as software, the process gives only the illusion of control.

Agile Project			
Iteration 1	Iteration 1	Iteration 1	Iteration n

BPA/IDIQ			
Task Order 1	Task Order 2	Task Order 3	Task Order n
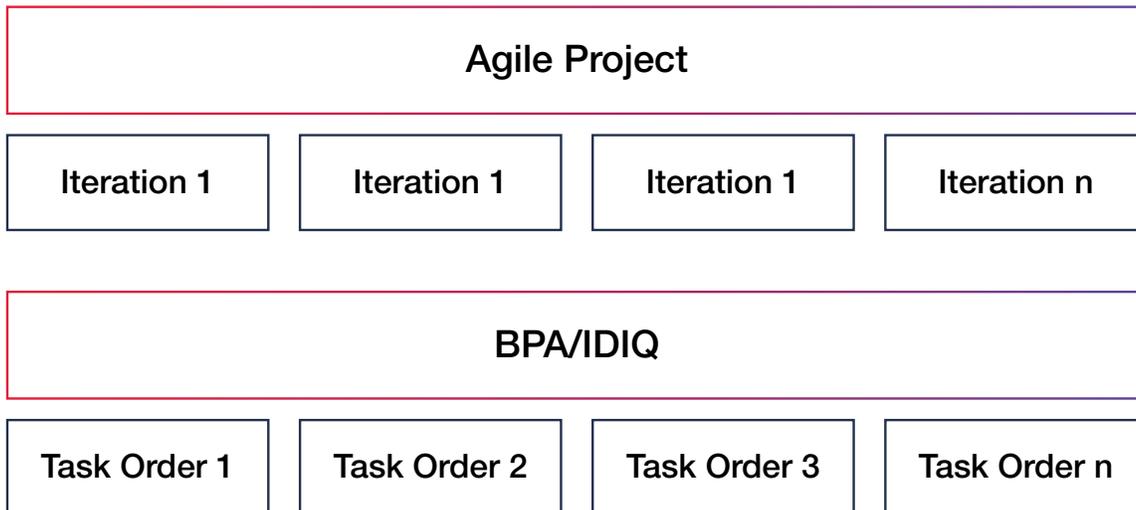
In traditional procurement, the contract includes prices, delivery, and system performance. In Agile procurement, the final product emerges through a joint effort during the process. Contract management, not the contract itself, is the key to success. Government procurement officials don't typically provide ongoing input and support through contract administration, which creates a gap. Regular engagement of the business owner and procurement officer throughout the process is essential.

Hybrid contracts are another means to make FFP vehicles more Agile. In such a contract, 51% or more of the contract is traditional FFP while 49% or less can be used for ad hoc task orders. The task orders are set to quarterly periods of performance, and that quarter's funding is fixed for each product team. It requires a Not to Exceed (NTE) dollar threshold. This allows contract officers to put the longer term projects under FFP, while short-term projects are defined in separate task orders for shorter durations.

Leveraging BPAs and IDIQs for Agile Contracting

There are some vehicles that are naturally aligned with iterative delivery such as a blanket purchase agreement (BPA) and indefinite delivery, indefinite quantity (IDIQ) contracts. Both of these multiple-award vehicles present a high-level statement of services or needs; the agency, then, issues task orders to companies on the contract. These task orders supply a detailed scope of work for the specific need to be met.

Agile federal programs can issue a series of task orders that define the scope of the project's iterations each month. The key is to use a template repeatedly for each task order. You should update the scope section of each task order, but the rest of the task order should follow the template.

The ability to stop writing task orders is an advantage of this model. In federal contracting, it can be difficult to terminate a contract or agreement, but it is not nearly as difficult to stop issuing task orders. These vehicles allow the clients to control the work and contracts based on the results the vendors or contractors are delivering.

Legacy contract boilerplates are often heavily influenced by Waterfall thinking: all requirements up front, strict change control to avoid contract modifications, belief that the solution can be accurately defined up front.

Lean-Agile thinking requires an overhaul of these contractual terms to allow for flexible requirements that change based on validated learning through small batch delivery and user feedback. The ability to pivot or persevere is built into how the parties will work together to find the very best solution, while eliminating waste and maximizing value.

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Shorter contracts will reduce the risk factors

By breaking up a larger procurement, your team can isolate failure into a small piece of the system, rather than letting it impact the entire project. Modular contracting allows you to craft procurements that set out expectations for segments of work rather than scope out every contingency that could happen over the life of the product, which is neither feasible nor practical.

However, managing many smaller contracts increases administrative burden. It requires a dedicated program management team to coordinate various project teams. While this may seem like more work up front, it allows the program office to intervene earlier to keep things on track and to be more flexible. Many offices across government could benefit from shifting their mindset and requiring training to handle this type of managerial complexity.

Successful modular procurement should model Agile and iterative software development practices by continuously improving the product, the acquisition process, and the software development process to get value to your users as soon as possible. Building a Minimal Viable Product (MVP) to validate or invalidate initial assumptions will lead to a better product than an untested product developed without interacting with users.

Faster delivery of working software

Since modular contracting requires the government to conceptually prioritize the most important piece of the project, it encourages faster delivery of the software that is crucial or fundamental to the success of the broader effort. Instead of waiting for an entire large piece of software, the government can pursue deploying the first software module. This has added benefits of helping your team pave the way for the security and compliance processes of future modules. Once those checks are passed, your users get to use your software, meaning you are delivering value on your mission and building your stakeholder's confidence that you are effective in delivering software.
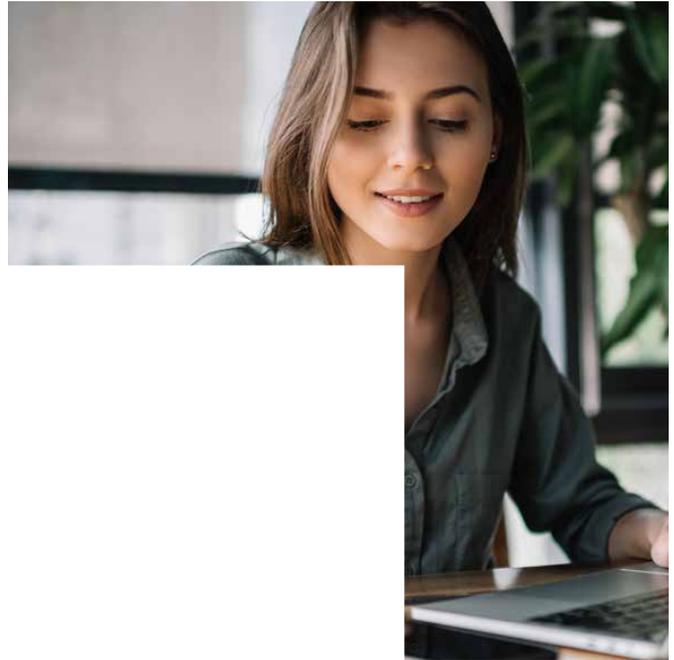
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The goals of the Agile Contracting Approach in government

In order to transform contracts to be Lean-Agile, both parties must have a common set of goals to guide the negotiations. The first goal should be to create a win/win for both companies by balancing their economic interests, both short-term and long-term. Additionally, the contract should outline how the two parties will work together to foster cooperation, open communications, trust, and transparency.

The contract should address the risk of cost and schedule overruns and underruns through terms where both parties share the pain when the plan fails, and the gain if things go better than planned and the solution is delivered sooner or at a lower cost. Finally, the contract should be scrubbed for any process, deliverable or other element that does not add value to the solution, or causes waste and delay.

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Conclusion

Although government procurement hasn't caught up to the Agile world, the FAR and its regulations can still be used to successfully deliver with an Agile framework. CGI's Agile Center of Excellence can help bridge these gaps and work with government agencies to bridge these contracting gaps, deliver value early and often, and save tax-payers' dollars.
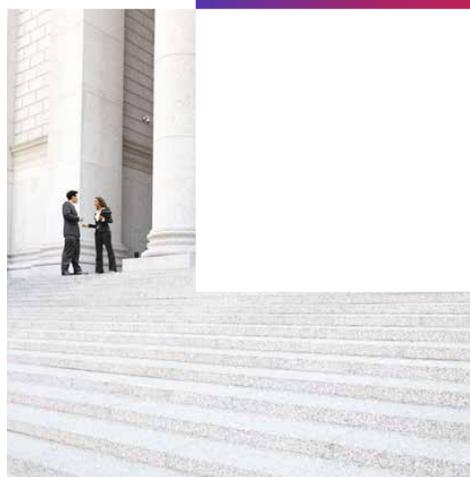
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