

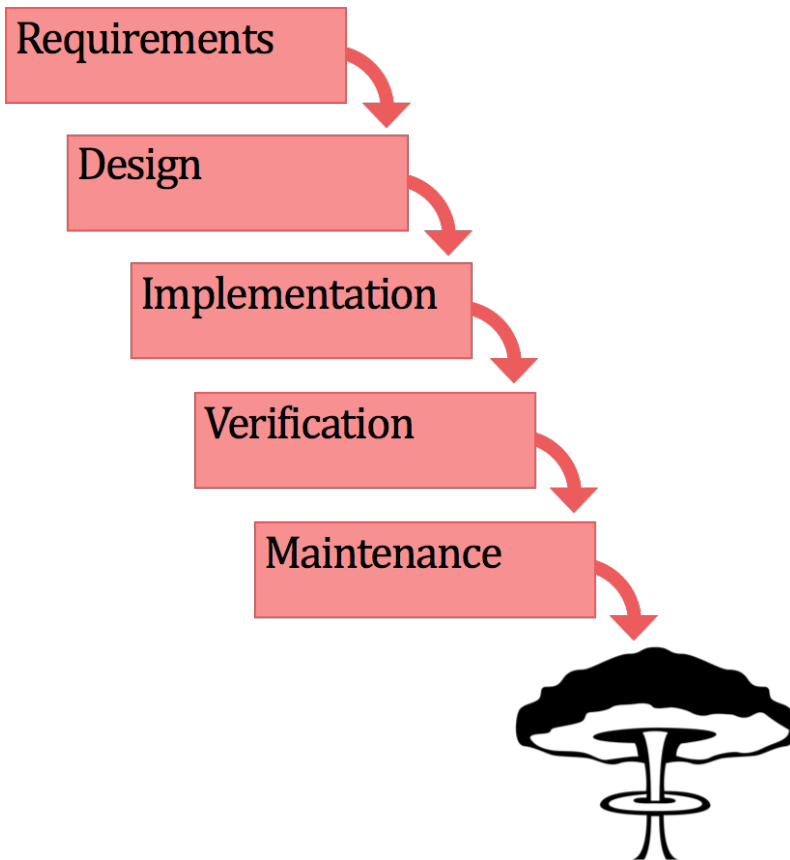
Agile Assisted Acquisitions

(AAA)

Q: Why Agile Software Development?

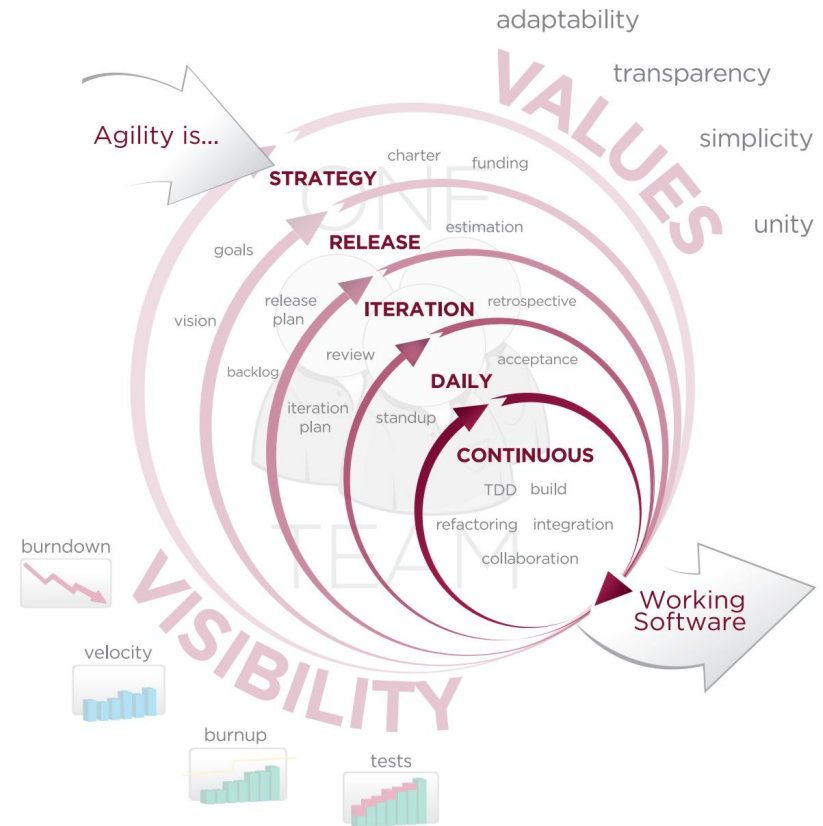
A: Risk Mitigation

Waterfall Development



VS

Agile Development



Mega-launches lead to mushroom clouds, and failing often and early is better than failing catastrophically and wasting taxpayer money

Agile Briefly...

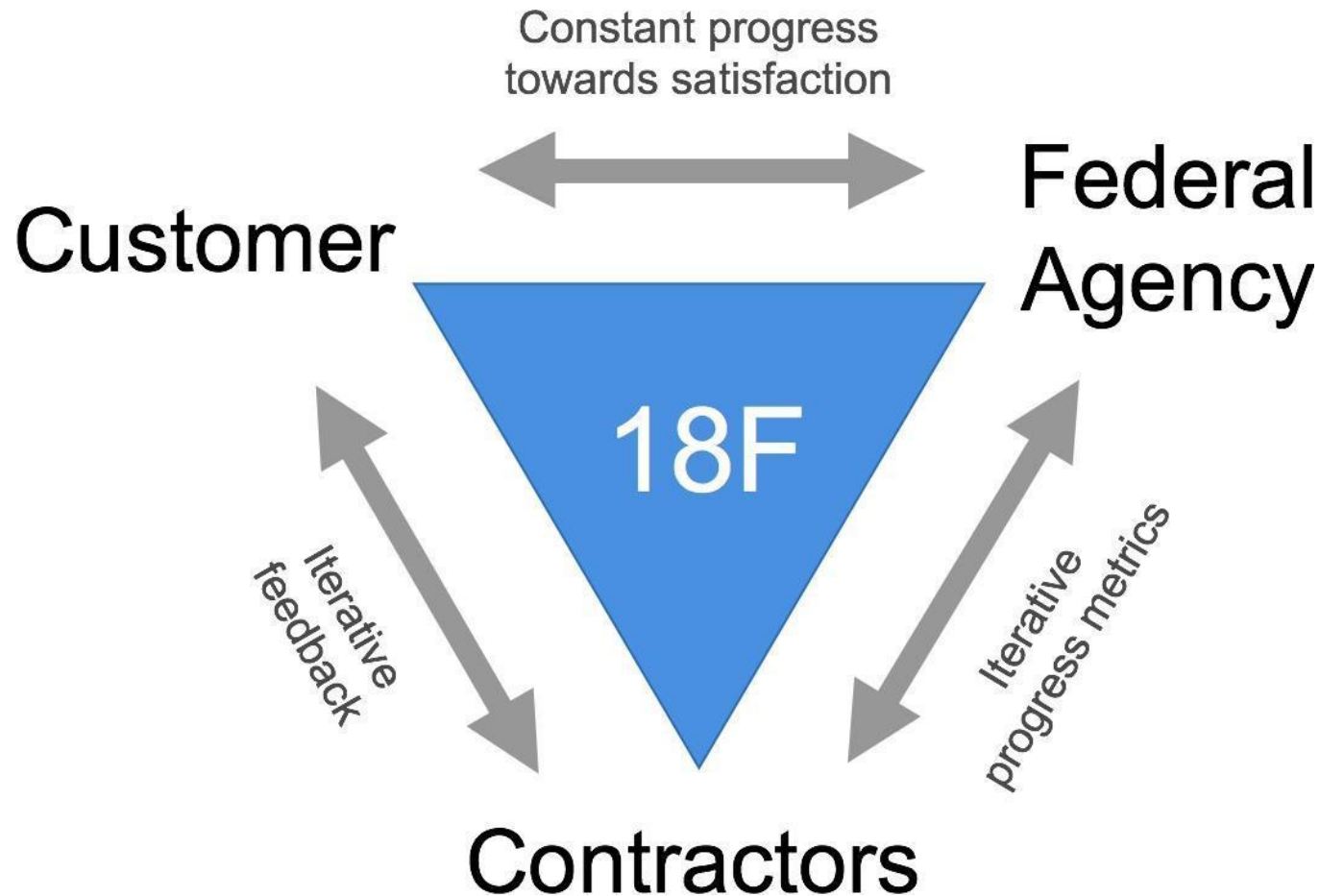


Federal Challenges in Acquiring Agile Software Development Services

- Government's technical brains have been outsourced
- Traditional acquisition methods are incompatible
- Habit of keeping customers at a distance
- "Done" must give way to "continuously improving"
- Risk aversion delays and amplifies risk

You want to avoid surprises...you need a "Personal" CTO

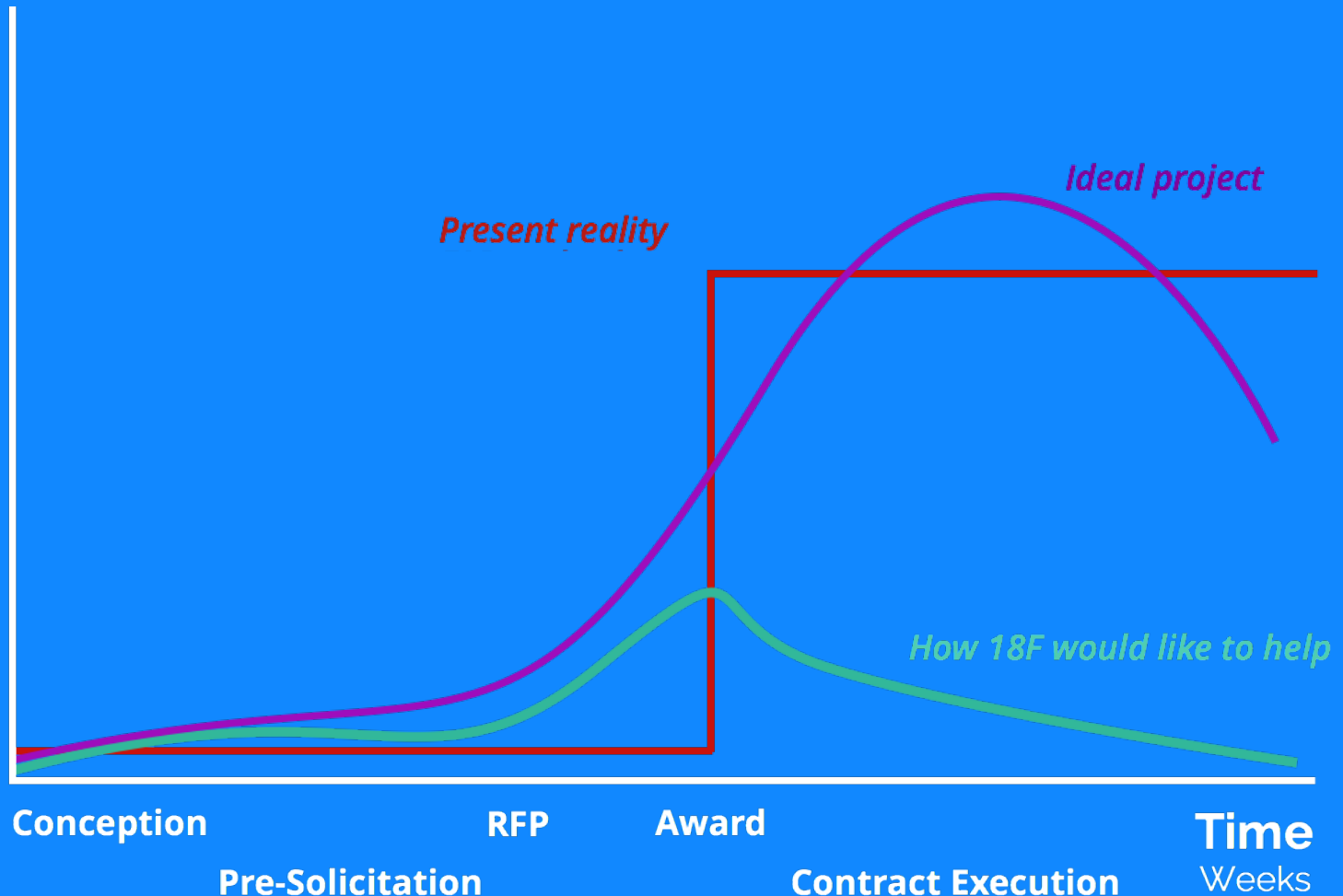
18F Communication Triangle



The Acquisition Technology Expertise Cliff

Technical Expertise

Labor hours per week



Services

We offer comprehensive services to assist clients in planning agile acquisitions, aligning contract and project work to agile principles and practices, and institutionalizing agile throughout the organization.

**Agile Contracting
Services**

**Agile Project
Delivery Services**

Contracting Lifecycle: 18F Services

Ideation

- Brainstorming
- Agile Workshops
- Prototyping
- Visual Design

Acquisition Planning

- Product Visioning
- Contract Strategy
- Metrics Definition

Solicitation Development

- Contract Modularization (e.g. API design)
- Test Writing
- RFP Ghostwriting

Source Selection

- Technical Evaluation

Post-Award Contract Management

- Good Technical Practices Assurance
- Performance Monitoring
- Contract Modification Advice

Project Delivery Lifecycle: 18F Services

Iteration -1

Organizational
Readiness
Adoption
Strategy

Iteration 0

Agile Workshops
for Product Teams

Construction Iterations

Agile Coaching
Code Review
Coaching
Iteration
Management
Agile Earned Value
Management
Continuous
Improvement

Benefits of 18F AAA Services



Customer-valued features

Usable software

Flexibility in adapting to changing priorities and tech

Visibility into contractor performance

Opportunities for small business

Risk mitigation (e.g., operational lock-in, vendor lock-in)



Development cycle time

Development, deployment and production costs

Customer Case Study: SAM Pizza Tracker

Engagement Overview

Customer Mission	Shed light on SAM registration process for registrants
18F Services	Brainstorming, Prototyping, Contract Modularization (API Design), RFP Ghostwriting
Date	10/2013-6/2014
18F Project Lead	Dr. Robert Read
Client	Navin Vembar
Cost of Engagement	80 ~= \$11K (hypo.)

Results

Decreased cost due to prototype clarify of specification
Increased test modularity
Improved communications with contractor

Engaging 18F (examples)

	How do I get started with agile?	Is my contract using technical practices that mitigate risks to gov't?	How do I introduce agile to a failing project?
Client situation	<ul style="list-style-type: none">▪ Has an acquisition in the Ideation phase that could benefit from agile	<ul style="list-style-type: none">▪ Currently has an agile development contract in place, but is not realizing the full benefits of agile	<ul style="list-style-type: none">▪ Program is underway and is suffering the consequences of waterfall
How 18F can help (examples)	<ul style="list-style-type: none">▪ Brainstorming▪ Agile Workshops▪ Prototyping▪ Visual Designs▪ Contract Modularization	<ul style="list-style-type: none">▪ Good Technical Practices Assurance▪ Contract Modification Advice	<ul style="list-style-type: none">▪ Good Technical Practices Assurance▪ Contract Modification Advice▪ Contract Modularization▪ Test Writing▪ RFP Ghostwriting
Agreement structure with 18F	<ul style="list-style-type: none">▪ Long-term agreement but can be for low ceiling▪ Billed as services are used▪ 30-day termination	<ul style="list-style-type: none">▪ Quick assessment to determine if your contract is using Good Technical Practices and how to modify the contract to incorporate	<ul style="list-style-type: none">▪ Mid- to long-term agreement to transition the contract from waterfall and agile

Based on where you are in the agile adoption cycle and what your specific challenges are, 18F can deliver services tailored to your needs

Value Proposition: Big Risk Mitigation at a Low Cost

Services

**Agile
Contracting
Services**

**Agile Project
Delivery
Services**

+

Capabilities

**Deep Expertise in
Agile Methods
and Practices**

**Deep Expertise in
UX and API
Design**

**Coaching and
Mentoring**

=

Customer Value

**Reduce Risk of
Adopting Agile**

*Our experience and
comprehensive services
help you avoid mistakes*

**Realize the
Benefits of Agile**

*Mitigate risks, reduce
development and post-
deployment costs, increase
time-to-market, improve
usability*

**Knowledge
transfer**

*We'll teach you how to
become more agile*

The AAA Team

Greg Godbout <i>Director, 18F</i>	<ul style="list-style-type: none">▪ Strong combination of acquisition and agile experience▪ Ability to call on entire 18F resources for specialized talent
Robert L. Read <i>Agile Acquisition Engineer</i>	<ul style="list-style-type: none">▪ Extensive commercial agile experience running agile teams as a director and architect▪ Experiences working with multiple contractor teams simultaneously▪ Technical acumen with modern practices
Hillary Hartley <i>User-Centric Design Specialist</i>	<ul style="list-style-type: none">▪ Specializes in user experience (UX) design▪ Guides UX and usability experience
Chris Cairns <i>Agile Acquisition Management</i>	<ul style="list-style-type: none">▪ Strong combination of acquisition management and agile product delivery experience▪ Expertise in designing contracts to enable high levels of technical performance

Core AAA team is comprised of all former Round 2 Presidential Innovation Fellows

Addendum



18F

What AAA Doesn't Do

- Write the software for you
(though other parts of 18F can do that)
- Make decisions for you
- Guarantee success, only that failure will be known early
- Force you to use more of our services than you desire

*But we DO seek to constantly teach you and learn from you together
so that you will always be more capable after each interaction with A3TC*

Good Technical Practices

- Modularizing the contract into discrete independent and independently testable components
- Emphasizing APIs as a mechanism to provide risk-mitigating modularity
- Insisting on repeatable deployment scripting
- Insisting on zero-defect iterative delivery and continuous integration, particularly of security scanning
- Encouraging Test-Driven Development (TDD) through the delivery of executable tests, which validate and clarify both internal external behavior