

Modernizing Government

Avansys Capabilities Statement

Company Overview

Avansys is a new breed of "**commercial grade**" company in the federal sector, helping reimagine how government works. Our solutions minimize process overhead (aka "*waste*") while accelerating solution delivery aligned to end user needs (aka "*outcomes*").

We have built a successful track record **modernizing federal acquisitions** to drive mission success as part of the Program Management Offices (PMOs).

Our Unique Approach (aka Differentiators)

Government is not a private business. The justification of taxpayer dollars introduces process overhead, slowing reaction time in adopting innovative technologies and skewing the focus on outcomes.

Avansys has successfully demonstrated that taxpayer accountability can improve, even as agility and focus on outcomes are increased. This can be achieved through four "tenets" of "Government innovation":

- Increase **Government efficiency** through process and decision automation
- Reinforce Government effectiveness through user-centric outcomes
- Maximize **Government agility** through commercial technology and practices
- Simplify Government communication through laymen term, intuitive artifacts

Our expertise (aka Core Competencies)

Federal acquisitions of the future are about fast, effective solution delivery, with minimized overhead: *less process, more outcomes*. In many cases, acquisitions will be bypassed altogether in favor of in-sourced development.

Avansys have built a successful track record **innovating federal acquisitions** as part of **Federal Aviation Administration** (FAA) PMO. Our expertise uniquely fuses traditional disciplines – systems engineering, program management, investment analysis – with **state-of-the-art commercial practices** – rapid prototyping, lean start-up, low-code –, to drive accelerated outcomes.



For example, our innovative "**Technical Planning**" solution uplevels what used to be detailed systems engineering requirements into intuitive capability roadmaps mirroring commercial development. This allows programs to maintain scope oversight in a dramatically simplified format focused on efficient solution delivery. Executives, solution sponsors and implementation teams can quickly converge on the same "what are we building here?" to accelerate solution delivery.

Our Solution Portfolio (aka Capabilities)

Our "innovating Government" tenets provide the backdrop for our solution portfolio:

- PMO Technical Planning
- PMO Rapid Scoping
- Federal Acquisitions Automation
- Technology Stack Optimization
- Federal Innovation Strategy

PMO Technical Planning

Meetings to discuss meetings; planning for a plan; these are activities that draw the ire of Congressional oversight and make taxpayers suspicious of government spending. Much of the Government inefficiency is driven by excessive, open-ended planning.

Avansys addresses this problem with a novel **"technical planning**" skillset, which anchors a PMO's scope custodian role to **operational outcomes**. A simple <u>shift from baselining</u> <u>scope to **baselining outcomes**</u> results in massive efficiencies:



Our **multi-purpose program roadmaps**, successfully **implemented in the FAA PMO**, uplevel requirements into **capabilities** that are anchored by **operational outcomes**. This drives stakeholder convergence around accelerated delivery of functionality to users. To



further **accelerate deployment**, our technical planning solution includes **early solution design** and architecture.

PMO Rapid Scoping

Software is very different than physical systems. Traditional systems engineering methods to translate user needs into formal requirements are both too slow and unable to capture the nuances of user preference. Avansys applies **user discovery methods** adapted from state-of-the-art commercial practices such as **rapid prototyping** and **lean start-up**, to rapidly map user needs. For workflow-intensive programs, we apply techniques such as **event storming** and **journey mapping** to quickly understand the interrelationship between process, user personas, data models, all aligned to desired **operational outcomes**. For UI/UX intensive applications we use **wire frame prototyping** techniques with tools such as Figma.

We make extensive use of commercial-off-the-shelf **artificial intelligence tools** to quickly scan massive volumes of user data when available, using our deeply tailored interrogation expertise. We also apply artificial intelligence to **automate scope documentation**.

Federal Acquisition Automation

Justifying taxpayer dollars has become a significant part of the Government's business. The accountability objective has turned into legions of business analysts that make analysis a job unto itself. Taking months to build high-accuracy cost models exceeds the level needed to meet the objective. In the day of machine learning proliferation, much of this analysis can be automated. Avansys has demonstrated **prototype machine learning "should cost" technology** which can **reduce cost analysis from months to days**, with a level of accuracy that is sufficient to meet the taxpayer accountability objective. This in turn can **reduce a significant cost component** of federal acquisitions.

Technology Stack Optimization

The landscape of technical capabilities is expanding rapidly, and government technology stacks are increasingly complex. Expanding technology portfolios supports innovation and growth, but also brings problems such as duplication of effort, data silos, incompatible tools and processes. Consolidation offers cost and efficiency solutions but may eliminate critical functions or leave an organization unable to adopt important new innovations. When thoughtfully applied, modern commercial practices in **rapid prototyping**, **low-code**, **automation**, and **appropriate AI** can drive significant efficiencies and re-use without sacrificing quality, safety, and security.



The Avansys approach to "Technology Stack Optimization" recognizes the value in previous work and existing systems. We **optimize for effectiveness**. Our methodology guides **a balanced**, **sustainable action path** that includes critical attention to ongoing operations, adoption of new innovations, and retirement of outmoded technologies. Our approach identifies insights from your current stack, prioritizes current and planned work, and applies best-in-class iterative processes to minimize change impacts.

Federal Innovation Strategy

Avansys gets frequently tapped for messy problems that are too vague or ill-defined for traditional subject matter expertise. We have built a track record sifting symptoms from causes, or answering otherwise open-ended federal innovation questions such as:

- How can we implement scope baseline oversight in a low-code development environment?
- Should PMOs be in the business of product development?
- How can rapid prototyping be made compatible with current acquisition practices?

The common thread of our transformation strategy solution is "**scale**". We are comfortable working on big items that reshape how entire organizations work.

For example, in the current context of "Government efficiency", we look for the smallest changes that drive radical improvements in efficiency. A yet open-ended question is *how to make government work more like a business*. Unlike the private sector, the government is subject to Congressional taxpayer accountability mandates. This forces the government to baseline the scope of work prior to funding. Industry also plans and budgets for new solutions but focuses more on outcomes. We propose that a small change in federal acquisitions, **shifting from baselining scope to baselining operational outcomes**, can drive massive efficiencies while maintaining accountability and oversight.

A specific and persistent issue with the Federal Aviation Administration is **innovation in the context of a safety critical operation**. This is a complex, multi-disciplinary problem space that goes beyond technology integration to cover people, organizations, processes and data. Avansys has access to the best aviation safety subject matter expertise as well as data science and organizational transformation expertise. Furthermore, we contribute to the Agency's plans for integrating new modes of air transport fueled by autonomous flight technology. This is the biggest transformation since the advent of commercial aviation, representing huge opportunities as well as the highest challenge to safety.