

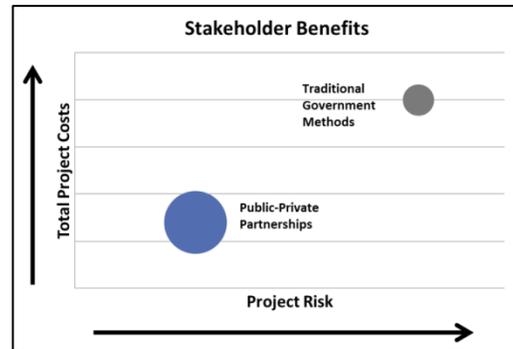
*This white paper examines the promise of innovative financing mechanisms and private capital to accelerate the modernization of America’s civil aviation infrastructure, as has been used for other modes of our U.S. transportation system, and globally throughout the ANSP sector.*

**CORE PRINCIPALS OF INNOVATIVE FINANCING FOR FUTURE FAA CAPITAL PROGRAMS**

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**Executive Summary**

*The future of NextGen depends upon predictable long-term sources of operating and capital funding, an elusive goal in the current Federal budget climate. Innovative programs such as performance-based contracting, in combination with a mix of Federal and private sector capital within Public-Private-Partnerships (PPPs), offer a solution to assure the investments in NextGen are made in a stable and predictable manner. The FAA has flexibility under the Acquisition Management System (AMS) to embrace innovative financing, demonstrated with major recent programs such as ADS-B, AFSS, FTI and NextGen equipage. PPPs can go much further, reducing project risk and greatly lowering total project costs (see figure). Congress and the Administration are open to well-crafted PPP approaches, and understand that government can tap almost unlimited sources of private sector capital in the future. The FAA faces critical and capital intensive programs such as Future Facilities Modernization, Tower Flight Data Manager (TFDM), Common Support Services (CSS), and Multi-mission Phased-Array Radar (MPAR). Yet the FAA’s projected F&E budget cannot adequately support these programs. It is now essential that the FAA begin working closely with industry to examine long-term sustainable and innovative financing structures, incorporating performance-based contracting and PPPs, in order to address NextGen’s affordability and deployment challenges during the next 20 years. The FAA should make it a top priority to invite discussions with industry specifically on innovative financing. Finally, innovative financing approaches should become integral to all major future FAA procurements.*



**Background**

The FAA along with all areas of government is entering a long-term period of significant financial and budget constraint. Yet, while NextGen is a bi-partisan legislated priority of government, these constraints directly threaten NextGen deployment and plans.

*“We view NextGen as one of the most important infrastructure investments for our nation,” John D. Porcari, Deputy Secretary of Transportation, recently told a Congressional panel. “This is a system of systems, so it’s very complex implementation. This [also] is a U.S. technological leadership issue.” (Washington Post September 12, 2012)*

While estimates vary, reliable forecasts show NextGen could cost taxpayers as much as \$27 billion, in addition to airline upgrades of over \$10 billion, in the next few years. Eleven of thirty current (and traditionally structured) FAA contracts underpinning NextGen exceed projected costs by over \$4.2 billion, according to the Government Accountability Office.<sup>1</sup> Many of the noted cost overruns and delays are due to issues such as unanticipated new requirements, non-existent contractor performance metrics, lack of coordination with controllers and other users, underestimated software development complexities, and unanticipated events such as funding delays.

<sup>1</sup> GAO: Management Challenges Associated with Program Costs and Schedules Could Hinder NextGen Implementation (February 2012)

Another example of the potential for funding cuts is evident in the 2011 Budget Control Act (“Sequestration”). The Congressional Budget Office estimates that non-defense agencies such as the FAA would suffer an immediate 7.8 percent budget cut, while the Center for Budget and Policy Priorities’ estimate comes in higher at 9.1 percent. For the FAA, this means a potential loss of funding across its operating and F&E accounts of \$1 billion or more annually. Two-thirds of the FAA’s budget is allocated to operating expenses – most of which pay the salaries of air traffic controllers, safety inspectors and other federal employees whose skills are required each day to ensure safe flight. To protect the operating accounts, the FAA will likely apply disproportionate reductions against its procurement and research programs. According to the Aerospace Industries Association, as a result of sequestration NextGen could lose between 30 and 50 percent of its funding.

With or without Sequestration, innovative approaches including new forms of industry partnership and PPPs will be essential if the FAA is to deliver core NextGen capabilities as promised. These new partnerships could tap a vast pool of private sector capital that is eager to be put to work. The Department of Transportation (DOT) has invited extensive use of private capital to enhance surface, rail and maritime infrastructure initiatives. In surface transportation, the DOT has continually provided (and private industry has continually exhausted) funding through loan guarantees using the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, which provides Federal credit assistance to nationally or regionally significant surface transportation projects (See below). Similarly, rail transportation creates public private partnerships through The Railroad Rehabilitation & Improvement Financing (RRIF) Program, which provides direct federal loans and loan guarantees to finance development of railroad infrastructure.

Within civil aviation, other countries have freed their air navigation service providers (ANSPs) to take full advantage of these mechanisms with great success. Most of the airspace adjacent to the United States benefits from public private mechanisms, including ANSPs in Canada, Australia, and the U.K.

While proven to work in other domestic modes of transportation and aviation projects abroad, these

public-private approaches have been largely under-utilized by our vital aviation system, with only a few recent exceptions (e.g., the \$1.85 billion 18 year ADS-B contract, awarded to ITT in 2007, is a performance-based contract that makes use of private sector capital to accelerate system completion on schedule and under budget).

Fortunately, these innovative financing approaches are already anchored in authorities provided through the FAA’s Acquisition Management System (AMS) and could potentially cover a spectrum running between creative contract authorities and outsourced services (table below).

<b>Selected FAA Acquisition Management System (AMS) Principles</b>	<b>Benefits of Private Capital Combined with Innovative Financing Partnerships</b>
Emphasizes the use of performance-based acquisitions for service contracts to ensure contractors provide timely, cost-effective, and quality results.	With private capital at risk, contractors and investors are consistently motivated to complete projects on schedule and within budget to maintain return on investment goals.
Requires contracting officers to ensure that final contract prices are fair and reasonable.	Long-term service contracts funded by private partnerships create incentive to deliver cost-effective solutions initially, with the promise of recurring revenues upon delivery of working system or product.
Requires cost-reimbursable contracts with appropriate surveillance to minimize cost risks to the Government.	Private sector capital at risk brings inherent efficiency to program management as well as self-regulation to keep costs under control.
Requires procurement teams to evaluate prospective contractors’ past performance but gives teams latitude for the design of evaluation measures.	With evaluation metrics that establish both baseline and stretch targets, bidding consortia can determine the appropriate balance of investment and risk, with differentiators available to bidders willing to deliver beyond traditional budget constraints.

*Sources: FAA Acquisition Management System (AMS), including 3.0 Procurement Policy and Guidance, 5.0 Acquisition Career Development and Certification Program, and FAA Pricing Handbook*

## Key Principles of Innovative Financing

Significant interest exists among private sector investors to put long-term capital to work in civil infrastructure under the right terms. The **key principles** behind innovative financing begin with four elements that, in whole or in part, can benefit stakeholders:<sup>2</sup>

- **Private Capital Availability (Equity and Debt):** Private capital infused through innovative financing contracts, with or without PPP mechanisms, have a demonstrated ability to lever limited government funds to deliver infrastructure and capabilities with outcomes well beyond limited appropriated funding (e.g. use of federal loan guarantees).
- **Risk Allocation and Private Sector Discipline:** Effective risk allocation transfers certain project cost and implementation risks onto the private sector, capturing the execution strengths of private sector involvement while also benefiting the public sector through cost avoidance realized from reduction in program delays. Risk allocation is one of the primary areas where higher costs of private capital are recovered and, often, real cost savings is realized.
- **Accountability and Incentives:** Well-constructed performance-based contracts have the benefit of binding party obligations so that each participant is incentivized and held accountable for an on schedule and on cost delivery. Rewards can often go beyond traditional profits for outsized performance.
- **Secured Cash Flows:** Project financing using predictable future revenue streams provide more favorable long-term financing options than may otherwise be available to a government entity, allowing performance-based suppliers to budget more effectively.

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<sup>2</sup> The National Council for Public-Private Partnerships.

## Recommendations

As the FAA addresses key NextGen capabilities such as FFM, TDFM, CSS and MPAR, it should embrace any and all approaches that would allow the potential use of innovative financing and PPP type mechanisms to facilitate accelerated delivery of NextGen capabilities to the user community as well as the traveling public, at reduced cost to the U.S. taxpayer.

It is strongly recommended that the FAA:

- Begin consulting with industry, in particular the large-scale systems integrators, on future NextGen programs and the applicability of innovative financing options, and to do so well in advance of finalization of program requirements.
- For programs and procurements just around the corner, invite creative and innovative financing proposals from industry consortia through flexible instructional language within current RFP/RFI acquisition processes (Section L).
- Reward innovative proposals by including evaluation criteria for risk-shared, value-added approaches that deliver more value to FAA and stakeholders (Section M).
- Encourage legislation needed to allow and facilitate the maximum use of the various innovative financial options. These options should include the use of federal loan guarantees for certain FAA infrastructure programs, which require specific authorization and appropriations language.

## Additional References

1. [http://knowledgecenter.csg.org/drupal/system/files/CR\\_Public\\_Private\\_Partnership\\_in\\_Transportation\\_0.pdf](http://knowledgecenter.csg.org/drupal/system/files/CR_Public_Private_Partnership_in_Transportation_0.pdf)
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