

# Accelerating Advanced Digital Construction Management Systems Program Webinar

October 26, 2023

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Office of Research, Demonstration, and Innovation  
Federal Transit Administration



# Today's Agenda

- Webinar Process and Post Webinar Support
- Opening Remarks
- Why are Advanced Digital Construction Management Systems (ADCMS) Important?
- What are ADCMS tools?
- ADCMS Program Overview – goals, program components, eligible applicants
- Research Application Information
- Key Dates and Application Submission
- Overall Review and Selection Process and Application Evaluation
- ADCMS Program Application Important Links
- Grants.gov General Information Resources
- Q&A

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# Webinar Process and Post Webinar Support

- Please use the Q&A Pod at the bottom of your screen to submit questions
- Additional questions can be submitted to FTA by sending an email to [ADCMS@dot.gov](mailto:ADCMS@dot.gov)
- Presentation materials will be available at the FTA website

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## Opening Remarks

**Mary A. Leary, PhD**

Associate Administrator - Research, Demonstration, and  
Innovation (TRI)  
Federal Transit Administration

## Defining ADCMS

**Molly King**, Deputy Associate Administrator - TRI  
Federal Transit Administration

## Program Overview

**Michael Baltes**, Senior Program Manager- TRI  
Federal Transit Administration

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# Why are Advanced Digital Construction Management Systems (ADCMS) Important?

- **Ensure effective infrastructure programs:** FTA spends over \$4 Billion a year on large infrastructure projects.
- **Improve Project Delivery:** Studies found 25-50% of transportation infrastructure projects have cost over-runs and project delays.
- **A New Bipartisan Infrastructure Law (BIL) Public Transportation Innovation Program:** Congress authorized FTA to accelerate the use of digital construction management systems by investing research funding to catalyze the software solution marketplace for digital construction management tools and demonstration. BIL codified 49 U.S.C. 5312(b)(4), which requires FTA to accelerate the implementation and deployment of ADCMS in the public transportation industry.

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# What is ADCMS and Who Benefits?

- **ADCMS:** construction management enterprise software supports timely and productive information sharing among all stakeholders through reduced reliance on pen-and paper methods. ADCMS uses digital technology to document and integrate all phases of a construction project from planning, design, engineering, implementation, project acceptance, and asset management.
- **Everyone Benefits from ADCMS:** project managers, construction firms, construction workers, engineers, planners, finance departments, procurement, customer outreach/marketing, and upon project completion, operations.

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# Overview:

## ADCMS Program Notice of Funding (NOFO)

- **\$5M total available:** FTA's Public Transportation Innovation program funds this new program (49 § U.S.C. 5312), additional funding may be added if available.
- **Program Vision:**
  - *accelerate and explore* the use of ADCMS to promote field-tested advanced digital platforms to reduce costs and improve the project delivery timeframe for investments in public transit capital construction projects.
  - *create living laboratories* for demonstration and study of technical issues, user acceptance, costs, integration, workforce training and transition, and institutional issues, and will further assess the needs for policy and standards development.

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# Overview:

## ADCMS Program Notice of Funding (NOFO)

- **Four Year Program:** FTA expects demonstrations to have a duration not to exceed four years from project start date.
- **Eligible activities:** deploying, demonstrating, supporting, and documenting of the practices, performance, and benefits of ADCMS.

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# ADCMS Program Goals - Statutory

1. **Digital systems applied throughout the lifecycle of transportation infrastructure** (including through the planning, design and engineering, construction, operations, and maintenance phases) that maximize interoperability with other systems, products, tools, or applications; boost productivity; manage complexity; reduce project delays and cost overruns; enhance safety and quality; and reduce total costs for the entire lifecycle of transportation infrastructure assets.
2. **More timely and productive information sharing** among stakeholders.
3. **Enable and leverage the use of digital technologies on construction sites** by contractors, such as state-of-the art automated and connected machinery and optimized routing software.
4. **The development and deployment of best practices** for use in digital construction management.

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# ADCMS Program Goals - Statutory (Cont.)

5. **Increased technology adoption and deployment** by States, local governmental authorities, and designated recipients that enable project sponsors to integrate the adoption of digital management systems and technologies in contracts and to weigh the cost of digitization and technology in setting project budgets.
6. **Technology training and workforce development** to build the capabilities of project managers and sponsors that enable States, local governmental authorities, or designated recipients to better manage projects using advanced construction management technologies and to properly measure and reward technology adoption across projects.

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# ADCMS Program Goals - Statutory (Cont.)

7. **Development of guidance** to assist States, local governmental authorities, and designated recipients in updating regulations to allow project sponsors and contractors to report data relating to the project in digital formats and to fully capture the efficiencies and benefits of advanced digital construction management systems and related technologies.
8. **Reduction in the environmental footprint** of construction projects using advanced digital construction management systems resulting from eliminating congestion through more efficient projects.
9. **Enhanced worker and pedestrian safety** resulting from increased transparency.

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# ADCMS Program Components - Program Lead

- **Demonstrate** ADCMS on transit construction projects with partnerships to deliver all components of the Program.
- **Propose at least two transit agency partners** to plan, field, and assess the utility of digital construction management systems.
- **Offer two different ADCMS solutions** for the demonstration projects.
- **Program Lead can support the implementation of more than one ADCMS-integrated software solution**, allowing the agency to choose the software.
- **Important Caveat:** Program Lead cannot be a provider of, or have a financial interest in, a proprietary ADCMS software solution.

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# ADCMS Program Components

- **Deployment timeline** and critical milestones with associated roles and responsibilities and expected results.
- **Data Collection:** Demonstrations include data collection to inform lessons learned materials for dissemination.
- **Off-ramp plan** to financially support and sustain the ADCMS program for the demonstration recipients.
- **Evaluation Report** will assess the research project's process, outcomes, and impact.

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# ADCMS Program Components - Research Stakeholder Committee

- **Structured, stakeholder driven decision framework:** develop a structured research framework for decisions related to the demonstrations with regular input from a Research Stakeholder Committee.
- **Committee Representation:** representatives from federal agencies involved in R&D initiatives related to the project's domain, experts from relevant industries, representatives from academia, end users from transit agencies or relevant professionals, and FTA.

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# Eligible Applicants

- Departments, agencies, and instrumentalities of local, state, and federal government, including Federal laboratories
- Institutions of higher education, including research universities, particularly those with Minority Serving Institution status
- Non-profit organizations
- For-profit organizations
- Technical and community colleges
- Providers of public transportation

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# Research Application Information

- **Applications are ONLY accepted via Grants.gov:**
  - Applications must clearly identify the eligible applicant and all project partners on the project team.
  - Applicants must submit one electronic file for Proposals in required formatting AND complete and submit the Supplemental Form.
  - Once project is selected for funding, applicant needs to apply for the cooperative agreement in TrAMS, FTA's grant management system, within reasonable timeframe (typically 60 days). Project manager will assist applicant.
- **FTA Research Circular 6100.1E** contains important information regarding to research project application and management [FTA Circular 6100.1E Research, Technical Assistance, and Training Programs: Application Instructions and Project Management Guidelines | FTA \(dot.gov\)](#)

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# Key Dates and Application Submission

- **FTA released ADCMS NOFO on Friday, October 13, 2023**
- **Submit Applications by February 12, 2024, by 11:59 PM EDT through Grants.gov.**
- **Applications must include:**
  - SF-424 Application for Federal Assistance
  - Lobbying Form
  - Supplemental Form
  - Proposal
- Other supporting documents may include letters of support, MOUs, and technical information, as necessary.

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# Overall Review and Selection Process

- **Evaluate:** Technical evaluation committee made up of Federal staff will evaluate applications based on the evaluation criteria:
  - Organizational Capacity and Key Personnel Experience
  - Proposer and Proposal Team Technical Expertise
  - Applied Research and Other Related Experience
  - Proposed Partnerships
  - Project Approach and Work Plan
  - Technical, Legal, and Financial Capacity
- **Select:** After considering the review of the technical evaluation committee, the FTA Administrator will determine the final selection for program funding

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# ADCMS Program Application Important Links

## **Accelerating Advanced Digital Construction Management Systems Program Notice of Funding**

**Date Posted:** October 13, 2023

**Date Closed:** February 12, 2024

**Opportunity ID:** FTA-2023-012-TRI-ADCMS

### **Grant Program:**

[Accelerating Advanced Digital Construction Management Systems Program](#)

### **Opportunity Announcement PDF:**

<https://www.govinfo.gov/content/pkg/FR-2023-10-13/pdf/2023-22521.pdf>

### **Opportunity Announcement TXT:**

<https://www.govinfo.gov/content/pkg/FR-2023-10-13/html/2023-22521.htm>

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# Grants.gov General Information Resources

- <https://www.transit.dot.gov/funding/grants/notices>
- <http://www.grants.gov/>
- <http://www.grants.gov/web/grants/applicants.html>

**GRANTS.GOV Applicant Support**  
**1-800-518-4726**  
[support@grants.gov](mailto:support@grants.gov)

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# Questions & Answers

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