What We Know Now: Lessons Learned Implementing Federal Financial Systems Projects

By Debra Cammer Hines and Angela Carrington

This contribution outlines 10 principles designed to provide insight into effective and efficient strategies on how to best deploy financial management systems in alignment with OMB's goals and policies, with a focus on optimizing resources and information in a modernized environment. We offer these principles based upon lessons learned from multiple financial management system deployments throughout the public sector domestically and abroad.

It is imperative that financial management systems and all of their modernization or replacement efforts be managed in an effective, efficient, and transparent manner. Leveraging these 10 principles will help agencies ensure the success of these efforts. Taking a focused look at how to optimize and modernize these systems will not only yield better systems; it will yield better management and provide better accountability for taxpayer dollars.

1. Engage Stakeholders

Establish shared vision and objectives with key stakeholders.

Implementing the Principle

- Identify, develop, and articulate the goals of the project with senior management and business users so they clearly understand the benefits of successfully implementing the new system. This is one of the sponsor's most critical tasks.

- Set a strong vision that articulates the compelling reasons to change, what the new environment will be, and how stakeholders will be able to succeed. A key leader needs to motivate people, win early adopters, and sell the message through all levels of the organization, including agency leadership, the project team, and the users.

- Demonstrate commitment to change the culture, starting with senior leadership. This commitment must be sustained over time to be effective. One of the biggest errors in implementing projects is the lack of a strong sense of urgency for change.

- Provide sponsors regular updates on activities and decisions, even if they do not directly relate to the sponsor's area of influence.

- Conduct stakeholder analysis to obtain insight into reaction to change and level of influence, and use this insight to develop change-coordinator networks and leadership action plans. Actively monitor and manage stakeholders for continued commitment using stakeholder management plans integrated with communications, change management, and training plans.

The Principle in Action

On a large-scale financial system implementation project, the program sponsor joined the project when the team was preparing for the first pilot and in the early stages of the implementation of the first large component.

The program sponsor came with a new perspective for the program, one focused not only on oversight and guidance, but also on her role as program champion to gain support among various internal and external stakeholders.

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The program sponsor established regular meetings with the chief financial officer and chief information officer from each agency component to keep them engaged and to address their specific issues and concerns in a timely manner.

2. Simplify Processes

Streamline business processes and take advantage of commercial-off-the-shelf (COTS) software functionality and workflow.

Implementing the Principle

- Identify and prioritize the business processes that need to be standardized in order to optimize the use and effectiveness of commercial-off-the-shelf (COTS) software.

- Assess COTS functionality against the requirements and identify business processes that must change to use the out-of-the-box workflow.

- Educate subject matter experts (SMEs) so they understand as they develop requirements and new business processes that changing the software to fit their existing business

processes adds complexity to the software, increases risk, can increase cost and scope, and is harder for the contractor to successfully implement.

- Establish and follow a configuration-management process to assess all change requests prior to approval for development.

- Use best practices and leverage government-wide processes and standards. Require SMEs/working groups to develop a business case for when the standard government-wide process or COTS process does not work for their unit. Use the governance process to enforce compliance.

- Confirm business process changes with business process owners and experienced staff prior to beginning the system design.
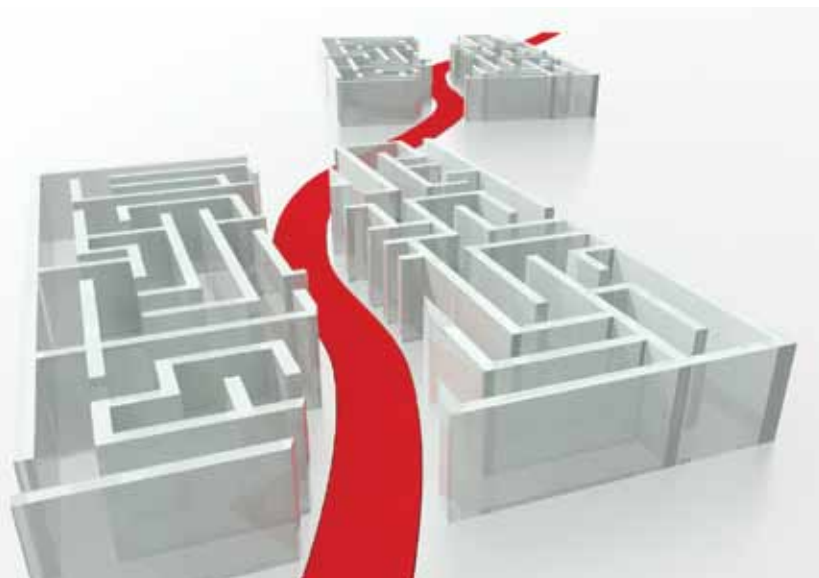
The Principle in Action

A financial system implementation at one agency required a review of more than 50 sets of financial processes—in both its headquarters and overseas offices. Non-standard business processes across the overseas offices were assessed against requirements and COTS workflow, then simplified and standardized. As a result, the system was implemented with one standard configuration to support all financial business processes.

3. Plan Acquisitions

Understand requirements, their connection to the mission, and how to mitigate risks in delivering the system.

Implementing the Principle

- Limit requirements to those necessary to support the mission of the agency. Requirements are not what the agency wants. Requirements are what the agency must have to conduct business effectively and efficiently in an effort to optimize resources and access to information.

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• Involve key stakeholders in planning and articulating the new business processes the financial management system must support. Many requests for proposals (RFPs) restate the current environment. When planning to optimize and streamline business processes, involve the people that perform the work and will be the most impacted in the planning process.

• Confirm how the financial management system (accounting and budget formulation, execution, and control) fits into the agency's business framework and understand how it aligns with other business systems, including acquisition management, resource planning, grant management, and asset management.

• Determine the best mix of contract types to balance delivery risk between the contractor and the government and develop an appropriate incentive structure. Evaluate the work for the most appropriate contract type to balance the risk between the government and contractor. Consider the time and material task orders necessary for developing

and documenting requirements, and a firm fixed price for implementing the software.

• Tailor the acquisitions process to improve the agency's ability to plan, budget, coordinate, and oversee acquisition activity to yield a more effective and efficient partnership between the government and contractors.

The Principle in Action

A government agency increased accountability by improving its acquisition management functions. It provided its government project managers with management and oversight responsibilities formerly held by contractors. The government agency's project managers and technical experts possess more responsibility and accountability for program outcomes.
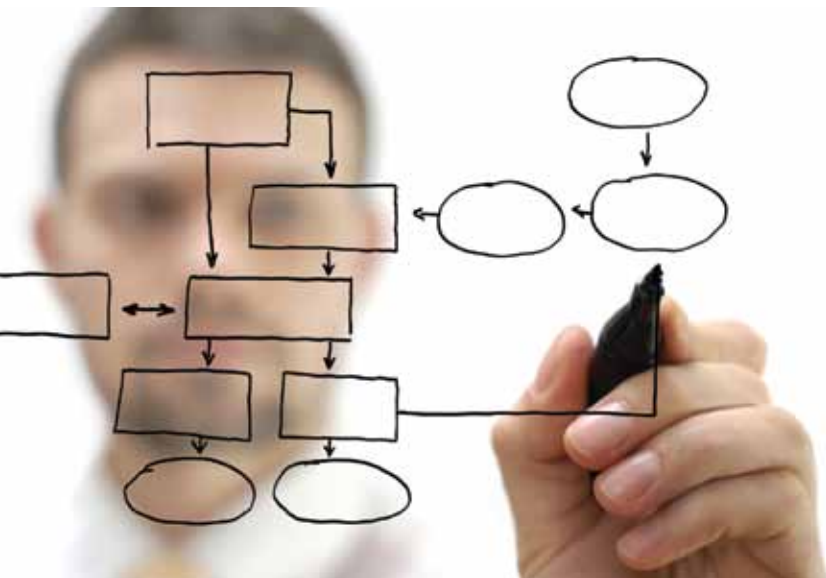
The government agency now requires executive approval of decisions at key checkpoints in the program's life cycle in order to prevent delivery of a system without a determination of whether its planned capabilities would meet mission needs. Government project managers and decision makers now receive information needed to help manage project outcomes.

4. Tighten Scope

Deliver functionality in phased, successive "chunks" targeting specific processes and outcomes.

Implementing the Principle

• Establish clear milestones for success with specific deliverables in either 90- or 120-day increments.

• Identify and achieve early wins that demonstrate value for the project to its stakeholders.

• Concentrate on one high-priority area at a time to deliver and adopt functionality in a phased approach. An area could be a functional process area such as accounts payable or it could be an organization area such as a department, agency, or component.

5. Commit Resources

Plan and deploy appropriate resources throughout the entire life cycle to fulfill project requirements.

Implementing the Principle

- Confirm the right skills, resources, and budget for both government and contractor staff with appropriate roles and responsibilities. Get a firm commitment for key staff before work begins. Otherwise, the project schedule may be jeopardized by halting work to locate more staff or attempting to perform project tasks by overworking personnel and stressing support systems.

- Avoid assigning personnel to the project who cannot be 100 percent dedicated. This may require the agency to develop and implement a Document of Understanding to leverage the required government resources. The agency and contractor staff need to develop a comprehensive staffing plan for the entire life cycle of the project. It is unrealistic to ask personnel to split time between their home offices and the project, especially if they are expected to continue home office duties.

- Only accept personnel whose skills are aligned with the needs of the project. It is difficult to justify additional personnel if team members are not being fully employed. It can also lead to resentment and dissatisfaction when team members are required to compensate for an inappropriately staffed team.

- Supplement the core government project team with key subject-matter experts and working groups, each with a clear understanding of their roles and responsibilities as well as dedicated time away from their core responsibilities and a break from day-to-day work.

The Principle in Action

A government agency created a core project team and drew upon subject matter experts from across the department to develop requirements, define the business processes, and participate in training. Details on personnel were provided to the team in advance. Department components also detailed staff members to the program management office ahead of their implementations, which has greatly benefited them and provided a subject matter expert during their financial system implementation.

- Ensure clear milestones are in place with specific performance metrics to monitor and communicate their success. These metrics must support the business case and be the basis to justify the continuation of the project.

- Apply lessons learned from prior project phases or from other projects throughout the agency as part of a broader portfolio review.

- Leverage staff from prior phases to serve as mentors during later phases.

The Principle in Action

At one decentralized agency, the system was implemented in waves, each wave consisting of several sites at a time. The first wave consisted of four pilot sites. The sites were selected based on their willingness to serve as test sites and to assist in developing standards to be used across the organization.

Following the successful implementation of the pilot sites, the approach was refined and lessons learned were incorporated. Representatives from the pilot sites assisted subsequent waves of implementations as mentors.

As the implementation progressed, each wave of sites relied on staff from prior waves who served as mentors for later waves. The mentor approach provided experienced resources during the implementation.

6. Manage Proactively

Employ a rigorous and robust project management approach exercised by qualified program managers.

Implementing the Principle

• Streamline and consolidate oversight roles and responsibilities to promote accountability and manage risk.

• Establish a project charter with a mission statement, goals, deliverables, schedule, scope, expected business benefits, executive sponsor, and project team members. Without clear goals and expected benefits, the government cannot monitor, evaluate, and communicate project progress and performance.

• Use a proven method to guide the project. Adopt a system development life cycle (SDLC) methodology appropriate to the agency undertaking the project and follow it throughout the project life cycle.

• Establish a performance-management and risk-management framework that incorporates earned value management, supports agency performance goals and objectives, and proactively and transparently monitors and communicates areas of potential risk to stakeholders.

• Ensure that the government and contractor program and project management staff has the necessary and proven experience to oversee the project throughout the entire life cycle. Investment in a program- and project-management certification initiative will help enable the success of the project.

The Principle in Action

In reviewing projects' results, a department found that results as assessed by performance measures were inconsistent with results shown by earned value data for cost and schedule targets. A given project might have met cost and schedule targets but have fallen short in meeting performance measure targets.

For example, one project to upgrade the time and attendance system met its cost and schedule targets, but a related performance measure showed that one of the key pieces of functionality was not meeting stated requirements. Conversely, earned value data for a project to implement a new performance budgeting tool showed that the project was not meeting its cost and schedule targets but was meeting all of its performance measures, such as number of defects identified in testing.

7. Work Together

Facilitate and sustain open dialogue among government stakeholders to create a partnership with software vendors and system integrators.

Implementing the Principle

• Engage potential vendors and contractor staff, both prime and non-prime, before incorporating the final statement of work and requirements into the request for proposal. This will help yield a better execution of the statement of work once awarded.

• Meet immediately after the contract has been awarded so the software vendor, the system integrator, and the government have a common understanding of the requirements.

• Implement an Integrated Project Team (IPT) that gives both government and contractors responsibility for the system implementation project.

• Establish communication channels among key stakeholders and user-group communities so they can exchange information freely across all levels of the organization.

• Notify stakeholders and user-group communities of key decisions in an effective and efficient manner.

• Agree on the quantitative and qualitative measures of success at the onset of the project. Do not wait to "go live" to determine how to measure successful implementation.

• Develop and communicate a cyclical post-implementation review program that evaluates each deployment phase so that development efforts for new phases can benefit from lessons learned from the prior phase.

The Principle in Action

During a major upgrade, one agency benefited from close collaboration between the government, their program management office, the software vendor and integrator, and the independent system testers. Two weekly meetings, one with the system integrator, the program management office, and the test team and a second with the government and the program management office, were beneficial in helping the government prioritize fixes for the most critical incidents and plan for future releases. By openly discussing test incidents and deciding their disposition prior to the operational readiness review, the government had full insight into the scope and severity of the upgrade-related issues.

8. Guide Change

Provide stakeholders the right information at the right time throughout the entire life cycle of the effort.

Implementing the Principle

- Communicate repeatedly and relentlessly. Provide frequent, focused communication tailored for each set of stakeholders, including senior management, end-users, and project teams. Include detailed, accurate status updates to help prevent unrealistic expectations.

- Involve a representative from each user group to validate that needs are met. Without interaction from users and stakeholders, the project team is forced to make assumptions that can negatively impact the overall reception of the system.

- Combine on-demand, on-line, just-in-time training prior to "go live," and on-site user support immediately following "go live." Immediately following "go live" is when users are processing transactions for the first time and will run into problems that can slow transactions and frustrate staff. Include SMEs, who served as assistant trainers, to provide on-site user support related to policies and procedures.

- Plan for both short- and long-term training needs. Training is not a one-time event. New users will require training and existing staff will require refresher training.

The Principle in Action

On a large-scale financial system implementation project, the business transformation team established foreign and domestic coordinator networks, and used teleconferences to send key messages before and after "go live" and to solicit input from the field office on critical topics.

After "go live," they provided training assistance teams on site to provide information, training, and mentoring. Government staff held lunch-and-learn sessions to help users gain confidence and become more familiar with the new financial system. As a result, users indicated that they were comfortable using the new system thanks to having support close at hand in the first weeks of using it and being able to share real-life experiences with their peers.

9. Conduct Reviews

Pay continuous attention to proactive and disciplined risk, communication, and quality management activities to enable project success.

Implementing the Principle

- Schedule independent verification and validation (IV&V) reviews by an independent third party (one that is not involved with any of the system implementation efforts) or empower the program management office to confirm that the systems were implemented in accordance with the established business processes and standards.

- Establish a robust risk management process to minimize the likelihood of risks becoming issues which impede project success.

- Identify the quality expectations for the project in advance. Determine the review process, including stakeholder and subject matter expert reviews, to validate that all work meets the needs of the agency and conforms to the requirements.

- Establish rigorous lessons learned collection and dissemination procedures for review by the sponsor down through the users to use and implement lessons learned.

The Principle in Action

An independent verification and validation (IV&V) contractor reported that some key personnel filled multiple positions and their actual available time was inadequate to perform the allocated tasks. As a result, some personnel were overworked, which, according to the independent verification and validation contractor, could lead to poor morale. The organization chart for the project showed that the project team was understaffed and that several integral positions were vacant or filled with part-time detailees.

The IV&V report provided the justification that was needed to fund additional positions.

10. Test Thouroughly

Dry run data conversion, test business processes end-to-end, and involve users across all levels of the organization in "real life" testing.

Implementing the Principle

- Ensure that technical and functional requirements are captured using a requirements traceability matrix or requirements management system to help ensure that the testing being conducted validates that all requirements are met under all required conditions.

- Perform multiple dry runs of data conversion against a prescribed target success rate.

- Test downstream transactions against converted documents to minimize post-conversion issues.

- Create a "real-life" testing environment that supports testing all functional and technical requirements as if they are being used in the production environment and under conditions they will actually be used, including volume, timing, and interaction with other systems or sub-systems.

- Conduct end-to-end testing to cover all business processes in addition to system testing and integration testing.

- Involve users in thorough user acceptance testing and encourage them to conduct "day-in-the-life" testing to verify that the new system will support standard transactions.

The Principle in Action

Investing sufficient time in data cleanup prior to each component's "go live" provided the government with better quality data to convert. Having cleaner data allowed for more efficient dry runs and provided the data conversion team more time to focus on testing against converted data. This provided users with valid data to work with once the system went live and avoided the Herculean data cleanup efforts that many agencies face. ◻

TO LEARN MORE

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The report can be obtained:
- **In .pdf (Acrobat) format at the Center website, www.businessofgovernment.org**
- **By e-mailing the Center at businessofgovernment@us.ibm.com**
- **By calling the Center at (202) 551-9342**