



A Rosetta Approach to Technology Projects

Translation is the key to applying a software development project management approach to non-technology projects **BY ROB ROQUE**

Technology projects, particularly enterprise resource planning (ERP) projects, are complex largely because of scope, price, and impact on the organization. Everyone in the public sector will likely be involved in an

ERP project at some point in their career, but many only take it on once or twice. Governments tend to replace systems so infrequently and the pace of technology is so relentless, that even if a finance officer is “lucky” enough to be part of more than one project, it can still seem like a new experience.

This year GFOA celebrates its silver anniversary—25 years of assisting public sector organizations with selecting and implementing ERP solutions. Over the years, these systems have evolved into tools that are designed for the end user



rather than the programmer. What has not evolved is the implementation strategy for these projects. They still use a software development approach.

This article focuses on connecting the elements of project management approaches used by most non-technologists with the software development approach used by most technology companies. Understanding the steps technology firms use is the first step to completing a successful technology project. Aligning expectations is the next step.

TWO METHODOLOGIES

Most projects assume tasks will be completed in sequential order—that is, a project will go through a series of phases to achieve a result. Typical phases include planning, design, constructions/implementation, and acceptance. The project team is expected to complete the tasks within each phase. The project

manager balances scope, schedule, and resources to make sure that tasks are completed as planned. When the customer approves the end result of the project, acceptance has been achieved, and for some projects, that may take several years. This sequence is typically known as the waterfall (or serial) project management approach to projects, and most non-technology projects fit well within this model.

Waterfall methods for technology projects were formally challenged two decades ago when 17 software developers created the manifesto that led to Agile methodology. The core concept is that the customer defines a vision for the product, and the customer also participates in the assembly process by providing regular feedback (see agilemanifesto.org). Feedback occurs during a series of goals that are completed in iterative steps, or sprints.

Each sprint is based on the capacity of the project team. Inefficiencies in the assembly process are constantly assessed and improved to return value to customers faster.

When enterprise technology projects create tension, it's usually rooted in a misalignment of expectations. Business participants expect a series of clearly defined tasks that lead to a final product. Technology participants expect an iterative assembly of the final product based on flexible tasks. Tension can be experienced by small organizations with a single business stakeholder working with a technology firm as well as organizations with large numbers of business and technology stakeholders. Translation is the compromise.

TRANSLATION 1: PROJECT PLANNING

Whether pursuing a new ERP solution or implementing a new budget strategy, a good project plan will be required. The

plan begins with a project owner. To be successful, any project requires a project sponsor or owner who can articulate the vision for the project and, essentially, define when a project is “done.” Then come the foundations of project planning (see Exhibit 1):

- **Scope.** Good project practices require the project owners to define the scope of the project. The definition can be memorialized in a charter or simply communicated to the stakeholders who will be affected.
- **Schedule.** Next, the schedule is defined. For non-technology projects, this may be driven by local ordinance or policy. For technology projects, it may be defined by goals or “end of life” dates for legacy technologies. Major steps for completing the project are defined. The details for achieving each step and the schedule for completing tasks can be determined later.

- **Resources.** The resources are defined and assigned. Resources include funding, staff availability, and physical facilities availability, if required.

TRANSLATION 2: VISIONING

Defining the end-state is critical for a successful project. Many projects are considered “unsuccessful” because the expectations of the final product were misaligned. Misalignment often occurs when the right actors aren’t included in the visioning process, or it may happen because the vision is too large or unachievable. Agile mitigates this by slicing the end-state into product iterations designed to bring value faster. The first pillar of GFOA’s Financial Foundations Framework takes a similar approach in identifying the need to establish a long-term vision. Those who are new to technology projects may find the

iterative approach mysterious, but in the end, technologists are following practices that are familiar to public finance professionals. (See Exhibit 2.)

TRANSLATION 3: SCHEDULING

Project managers are always taught to plan for the unknown—meaning, embrace uncertainty. Most projects begin with a project plan (usually developed in Microsoft Project) that outlines the series of steps for completing the tasks, dependencies, required resources, and required deadlines. Modern technology projects appear to run counter to this approach. The project plan still plays an important role, but the tool is used to outline major tasks and schedule windows. The old details have been abandoned and instead, tasks heavily rely on capacity.

The first premise of this concept is to accept uncertainty. In Agile methods, uncertainty is usually defined by the end result of a final product. The vision always existed, but tweaks are anticipated along the development path. The difference between the vision and the final product is managed by the product owner/sponsor participating in the milestone acceptance process and enjoying value along the way.

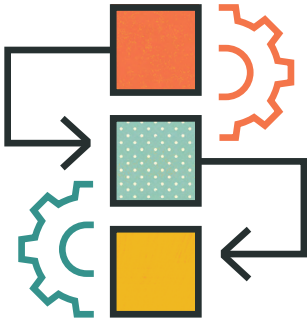
The benefits of this approach are that adjustments to the process are an accepted practice. But it only works if the adjustments are based on accurate measurements, capacity, collaboration, and trust.

EXHIBIT 1 | PROJECT PLANNING TRANSLATION

NON-TECHNOLOGY PROJECTS	TECHNOLOGY PROJECTS
Authority: Project Sponsor/Owner	Authority: Project Sponsor/Owner
Scope (Examples): Government Strategic Plan Operating Budget GASB 87 Implementation	Scope (Examples): ERP (HR/Financials/Utility Billing) Cloud Migration of Email Cybersecurity Assessment
Resources: Estimated Budget Estimated Labor Required	Resources: Estimated Budget Estimated Staffing Resources Required
Schedule: Defined by Ordinance or Policy Defined by Project Sponsor/Owner	Schedule: Defined by Technology or Policy Defined by Project Sponsor/Owner

EXHIBIT 2 | VISIONING TRANSLATION

NON-TECHNOLOGY PROJECTS	TECHNOLOGY PROJECTS
Definition: Vision/Milestone	Definition: Vision/Milestone
Approach: Stakeholder Collaboration	Approach: Stakeholder Collaboration
Methodology in Practice: GFOA Rethinking Strategic Planning	Methodology in Practice: Agile Software Development





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TRANSLATION 4: THE ASSEMBLY/IMPLEMENTATION PROCESS

People who embrace project discipline must be feeling pretty uncomfortable by now. But there is a way to build certainty in a world of uncertainty. This is the role of the project manager, and it is attainable when the project manager is also a key decision architect. Technology projects expect the same from their project managers. Admittedly, technology companies are horrible at communicating this strategy. GFOA's Research and Consulting Center has reviewed hundreds of government ERP proposals, and almost all of them announce that they will use an Agile approach to implementation, with the expectation that the customer understands what this means. Technology vendors also assume that

the customer project manager or project team has a clear vision of the intended outcome. These are typical root causes of deteriorating technology projects, such as ERP. Cross-walking project approaches is particularly important during this phase (see Exhibit 3.) GFOA's Financial Foundations Framework describes a similar approach with its five principles. For example, there should be a clear understanding of terminology and assumptions (communications). All stakeholders should have a clear understanding of the tasks and the objective of each milestone (clear rules). If the vision is not clear, the vendor and the customer should clarify the meaning collectively (collective decision-making), because the customer may not understand the technology

capacity and the technologist may not understand the customer's vision concepts (vision). **TRANSLATION 5: BUSINESS CONTINUITY** There is an old saying that those who fail to learn from history are doomed to repeat it. All project management methodologies require some type of self-reflection and improvement. Some projects go through this process accidentally and learn as they go along. Others follow a formal process such as "Plan, Do, Check, Act." Nobody wants to create work for the sake of work. In short, there is no translation for business continuity (see Exhibit 4.)

CONCLUSION A battery has a negative and positive pole because Ben Franklin used his accountancy skills to describe electric current as the balancing of electrons like the balancing of ledgers. This simple translation helped the world understand the complex workings of electricity. This is the second in a series of project management articles that attempt to translate two approaches to project management by using concepts that are familiar to a typical GFOA member. Why is this important? Project management practices are evolving into more Agile methods—even on non-technology projects. Future articles will focus on each aspect of a project, using the example of an ERP implementation project. Our vision is to increase project success in local governments. Just as in Agile, we will build that vision gradually over time. **Rob Roque** is GFOA's technology services manager.

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