

How To Go From Bar Napkin To Successful Capital Project

To develop an idea into a well-conceived, well-defined project, facility executives should consider these six steps during capital planning.



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Identifying the need for a new capital project and seeing it through to completion are monumental tasks. Naturally, doing so while juggling a regular workload and sustaining business operations is like a high-wire balancing act. Sometimes, new capital projects start like many other corporate initiatives—a free-form sketch or vague concept drawn on a bar napkin during an early ideation stage. But going from a rough draft to a well-conceived, well-defined project that will yield a successful outcome requires complete alignment across all stakeholder groups, not to mention time, expertise, and resources.

That's where strategic, preliminary project planning comes into play. Executives, stakeholders, project managers, and end-users need to be aligned to accomplish goals that deliver the expected return on investment. When a project idea is established, all parties need to know how to get from point A to B, but also from point A to Z.

Facility projects can cost tens, if not hundreds of millions of dollars. Businesses that take the steps to formalize and solidify a project plan in writing early on can establish priorities and garner early alignment, delivering on cost, schedule, and performance.

SIX STEPS TO CAPITAL PROJECT PLANNING

Step 1: Recognition Of Needs

This first step occurs before the bar napkin stage. Whether an engineer, a facility manager, or a C-suite executive, all projects start because someone detected an issue that needs to be addressed. There may be a safety problem, an increased capacity need, an efficiency opportunity, new market or regulatory requirements, or other challenges. Regardless of the need, it must be recognized and subsequently justified with a flexible, data-driven pitch.

Step 2: Identifying A Champion

Anyone who recognizes a need can become a project champion. Whether an engineer, a facility or operations manager, or executive director, a champion emerges by leveraging their unique perspective and experience in diagnosing a problem. The question is whether that individual will take the project to the next level and have the courage to advocate for it or hand it off to someone with more influence.



Project champions surround themselves with the right people early on to develop a passionate and experienced team (Photo: ACS)

A champion is passionate about the proposed project, willing to take on a lot of work, and influential enough to bring the right decision-makers on board. Most importantly, the champion must have a profound stake in seeing the project through. Championship does not always look the same, but through meticulous understanding of a project's cost, schedule, and scope, the champion is able to get buy-in from internal and external stakeholders and deliver on all three components.

Project champions surround themselves with the right people early on, both internally and externally, to develop a passionate and experienced team. At the same time, it's essential to have one individual at the core of the project who has clarity of vision and is willing and driven to "own" that project and see it through from beginning to end.

Step 3: Develop A Business Case

If planners only talk in generalities at a high level, they may not garner the resources they need. There must be something tangible, data-driven, and easily communicated to establish a clear starting point. The business case answers: What are the driving factors to complete this project; what are the stakeholder priorities; what are the known or potential constraints; and finally, what does success really look like? It's crucial to answer these questions upfront, otherwise stakeholder alignment will always be an uphill battle. If the champion can't sell the business case to their internal management team, they'll never have the chance to execute it on the backend.

Since every opportunity looks different, an early part of the process is articulating a specific vision. Business case development can be an iterative process as decision-makers bring input to the table, budgets are considered, and marketplace or operations disruptions occur. This can sometimes take years of evaluating different scenarios. The dedicated champion ensures the company vision stays intact by remaining agile when the plan inevitably needs modification. In some cases, this is straightforward, but there are many projects where it is not. For one passenger car OEM that was looking to consolidate and increase its development capacity, the initial scope began with a new building. This early business case did not fulfill all technical requirements, was too expensive, without sufficient internal buy-in, and did not progress. After several years of iterations as business goals and technical requirements shifted, new champions led the charge, and new sites were considered, but the cost remained too steep. Most recently, empowered with the knowledge of previous attempts, the organization has strong internal support for a facility with evolved technical requirements and a fresh approach to achieving the objectives and the delivery model. The bottom line: Any business case will need to adapt, and all adaptations require internal buy-in to move forward.

The business case plays a vital part in selling the project internally, but it also establishes project foundations with stakeholder perspectives and budget in mind. The champion must ask the right questions to understand requirements from the end-user, management, operations, and the C-suite for each group to align expectations with capabilities. In many cases, it is helpful to rely on an experience-based Rough Order of Magnitude (ROM) from a consultant to establish a data-driven budget that propels organizations seamlessly into the execution phase.

Step 4: Project Execution

After iterative planning with input from stakeholders, it's time for project execution. A successful capital project requires a collaborative, dedicated team with the right skillsets.



Execution isn't considered complete until it's verified the project meets the goals and standards of design. (Photo: ACS)

Sometimes the most important step is recognizing when operations need to expand beyond internal skillsets to dedicated third-parties. When this happens, most companies bring on integrators, third-party experts, project managers, equipment, or construction vendors with experience in specific markets or applications to provide the best insight and value. Hiring outside help doesn't eliminate internal responsibility but offers vital time, space, and expertise for capital projects to come to fruition, while still getting the day job done.

Execution isn't considered complete until it's verified the project meets the goals and standards of design. Verification requires comprehensive performance commissioning and acceptance testing according to the acceptance criteria developed at the beginning planning stages of the project across safety, productivity, and technical specifications.

Step 5: Handover

Most champions have some operational responsibility—meaning a smooth handover can be facilitated by their ongoing involvement—but this is not always the case. Regardless of who is responsible once the project is complete, it's crucial the processes of a facility are communicated clearly. Commissioning calls for a collaborative, value-driven process that affirms and documents that all equipment and facility systems are implemented, inspected, tested, operated, and managed as designed. Once commissioning is complete, it's vital to collect and review all data required for formal sign-off by internal stakeholders. From there, operations and maintenance manuals can be developed, reviewed, and approved by maintenance staff, engineers, and managers.

The operations team who keeps the facility running must be self-sufficient or have available support from the beginning. The earlier projects can get end-user buy-in, the better. Project executors can communicate how the facility works with thorough people training, documentation, and early

involvement, so end-user goals are met at the handover and moving forward. That means creating detailed documentation and enlisting a self-sustaining resource or expert who users and managers can seek if the need arises.

Step 6: Lessons Learned

No project is complete without articulating lessons learned. It's vital to include this step in the process before a project is considered "done." No two capital projects are the same. Yet, taking the time to review the process, pitfalls, and deliverables of a completed project will ensure facility management has the information they need to prepare for, organize, and embark on future projects.

COMMIT TO A STRATEGIC PROCESS

By following these six steps taken during the planning stages, companies are more likely to ensure a winning project launch, smooth project execution, a rewarding turnover to users, and ultimately, a functional facility that meets business goals—all while minimizing the impact on daily operations. By committing to this process, organizations have a clear roadmap to take any bar napkin idea and turn it into a successful capital project.

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