

Top 10 Best Practices for Capital Project Portfolio Management

Table of Contents

1. Prioritize Projects Based on Alignment with Strategic Goals
2. Centralize Capital Project Portfolio Planning and Management
3. Establish a Clear Governance Framework for Project Management
4. Develop Effective Risk Management Plans for Projects and the Portfolio
5. Optimize Resource Utilization to Prevent Overallocation or Underutilization
6. Create a Comprehensive Budget with Accurate Cost Estimates
7. Establish KPIs to Measure the Success and Performance of the Portfolio
8. Implement Ways to Keep Stakeholders Updated on Portfolio Progress
9. Implement Structured Change Management Processes to Handle Changes
10. Regularly Review Portfolio Performance to Identify Areas for Improvement

Introduction

Streamlining your capital project and portfolio management processes is one of the most effective ways to optimize your organization's efficiency, create full visibility and consistency across all your departments, and bring project deliverables to a central point of access. Having a single source of truth for your project managers, maintenance and operations teams, stakeholders, and other key individuals to access key project information will help improve the odds of successful project completion.

Project completion can be delayed, or even halted completely, if:

- There is a lack of communication across departments.
- There is a lack of defined roles and responsibilities for teams.
- Risks and alternative outcomes are not considered.
- A project's budget is not comprehensively developed.
- There is no way to track the progress of the project's completion.
- There is no way to update key stakeholders on project progress.

Project managers are tasked with ensuring all departments assigned to a capital project are on the same page regarding due dates, deliverables, project scope, budgeting, phase gate processes, and more. Without open communication, metrics for tracking success, proper deliverable management, or the ability to change project resources or plans, your team cannot operate as effectively as possible.

Luckily, there are steps that project managers and key stakeholders can take to maximize team efficiency, make informed decisions, implement reliable data management processes, and construct a strong yet flexible project workflow. Here are some of the best practices for managing a large portfolio of projects:

1. Prioritize Projects Based on Alignment with Strategic Goals

Before starting a new project, all team members and key stakeholders should be on the same page regarding objectives and goals. The most successful projects align with your organization's strategic objectives and goals. Think about the growth and recent successes of your organization, and how this project will build upon those positive results. Ask yourself:

- Will this project help us break into a new market?
- Is this project a huge source of revenue for our organization?
- Can this project mitigate one of our biggest pain points?
- What opportunities would this project provide us with going forward?
- Is this project feasible for our team right now?
- Can we allocate enough resources to the project with the highest yield returns?
- Could this project initiate loss-making endeavors? Is it worth it?

It's helpful for you and your team to prioritize new and upcoming projects based on their ROI and potential to provide maximum strategic value. Focus on the projects with the greatest potential for a positive outcome and high returns. Consider where your organization is within the market right now, and then think about what this project can accomplish. Ensure all projects within your portfolio have some form of benefit that can improve your organization's standing with other stakeholders and investors, as well as potential future clients.

With the right project portfolio management tool, you can create and route new project requests through a comprehensive approval workflow, while simultaneously capturing critical information. This will empower you and your team to properly prioritize projects and make the best decision on a project idea.

Communicate your vision for this project with your team, and make sure you are all aligned in terms of these goals before proceeding. Do not focus solely on numbers, but instead on pursuing the projects that line up with your organization's overarching vision. Remember to focus on quality over quantity, and to involve leadership figures in all project meetings.

2. Centralize Capital Project Portfolio Planning and Management

Having a centralized system for you and your team can improve overall efficiency, promote better communication across departments, and ensure all deliverables and resources are visible to all team members. To streamline your capital project portfolio management, you should ensure your project managers and stakeholders have one spot to submit ideas, provide project information, and manage the status of projects.

This system should allow teams to update and view information on project timelines, milestones, dependencies, and resource requirements. Utilizing a centralized portfolio management tool enables teams to avoid confusion, standardize approval workflows, and improve project management efficiency.

When dealing with numerous projects at once, in addition to multiple groups with different goals, as well as several processes and schedules that you must follow, you'll want a centralized system with a single source of truth. This should hopefully eliminate information silos or the need for lengthy meetings, and allow you to capture all key information before a new project is assessed.

Centralizing your portfolio management makes project completion faster, more organized, and less stressful for everyone involved.

3. Establish a Clear Governance Framework for Project Management

Without definitive team roles and responsibilities, project teams can experience miscommunication, misunderstanding, or missed or inaccurate deliverables. You should make sure that everyone on your team knows what they are supposed to be doing, when they should be doing it, and how they should share their work with others on the project.

A smart practice is to construct a clear governance framework for your project, one with defined roles, responsibilities, and decision-making authority. This way, all workers are aware of their responsibilities throughout the entire project timeline.

You may also want to create a portfolio management board, or steering committee, for role/responsibility oversight and guidance. If anyone is ever unsure about their responsibilities within a project, this board can help clear things up quickly, and keep things on track.

4. Develop Effective Risk Management Plans for Projects and the Portfolio

Unfortunately, no plan is ever 100 percent perfect. There may be times when things can, or do, go wrong. Some capital projects, such as the construction or demolition of a new building, can be extremely dangerous, and pose many risks to both your team and the public. Some risks can easily be predicted, while others may go unnoticed until later in your project.

To effectively manage and prevent potential project risks, you should:

- **Identify Different Types of Risks:** Project-specific risks are unique to individual projects, and include project management issues, resource unavailability, and technical challenges. Portfolio-level risks, like sudden market changes or financial constraints, are much more serious and can affect multiple projects. Operational risks like system failures or inefficient internal processes, as well as external risks, can also present challenges to your portfolio.
- **Collect and Analyze Data:** Review results from previous projects, and analyze current project schedules, budgets, and risks. Study current market trends and economic conditions to guide

portfolio growth. You may also want to connect with project managers and stakeholders to gain helpful data insights.

- **Rank Risk Severity and Scope:** You can use risk matrixes to visualize risk severity and probability, and give potential risks a score to determine their severity. Some of the best capital project and portfolio management tools enable you to link project risks with change requests to properly evaluate impact.
- **Implement Mitigation Strategies:** Modify project plans to eliminate potential risks, or transfer the risks to a third-party insurance company. You can choose to implement safeguards to reduce the odds of risks occurring, or opt to accept the risk and plan for possible outcomes.

Almost any risk can delay project progress, halt it completely, or result in equipment damage or even personal injuries. These outcomes should be avoided at all costs, which is why you should conduct in-depth risk assessments of every project in your portfolio. Furthermore, it's essential to develop and implement comprehensive risk mitigation strategies, to limit the chances of unforeseen changes throwing your project plan askew.

The ideal project portfolio management tool can equip you and your team with the ability to identify any potential risks and the impact they could have. It incentivizes project managers to input risks into the software, and presents potential outcomes in configurable, easy-to-use dashboards. Using a versatile software solution is a reliable way to develop an effective risk management plan.

You may also want to set up a handful of contingency plans for both individual projects and your overarching portfolio. This is helpful because if something does go wrong, your team will have a backup resource or strategy to lean on to keep things moving smoothly. Having risk mitigation strategies and contingency plans will put you, your team, and key stakeholders at ease, letting everyone focus on the task at hand and drive towards project completion.

5. Optimize Resource Utilization to Prevent Overallocation or Underutilization

It should go without saying that before and during your project, you should assess the resources you will need at each phase of your project. Analyze your overall portfolio and determine which projects are most important to you. Once you have identified the project(s) with the highest priority and most strategic value, allocate any necessary resources accordingly.

Here are a few practical strategies you can implement to optimize resource utilization:

- **Establish a Resource Management Framework:** You can maintain a comprehensive list of all available resources and develop policies for resource allocation, to ensure consistent and fair distribution across projects.
- **Implement Advanced Planning Techniques:** We recommend assessing your total resource capacity and comparing it against overall project demand to identify potential gaps. Use

demand forecasting to predict resource needs based on scope, complexity, and project schedules.

- **Use Resource Management Tools:** Use project management tools with resource management features, like Microsoft Project, Primavera, or Smartsheet.
- **Conduct Resource Allocation and Tracking:** Assign resources to projects based on their skills, availability, and project requirements. Shift tasks or deadlines to address resource overallocation, without impacting overall project delivery. We suggest using dashboards to visualize resource allocation and track trends or issues in real-time.
- **Develop Contingency Plans:** Keep a supply of buffer resources that you can use for other projects with sudden demand increases.

Consult with your operations specialists and determine whether your available resources are being utilized efficiently. You do not want to allocate too few resources to a key project, as this wastes time, money, and energy while more resources are gathered. Vice versa, you want to avoid providing excess resources for a given project, and then having the remaining resources go to waste.

You can use a project and portfolio management tool to get optimized and accurate estimates of what resources a particular project will need, helping you avoid overallocation or underutilization.

6. **Create a Comprehensive Budget with Accurate Cost Estimates**

All project managers know that finances are one of the most important aspects to consider when starting a project. Assessing the budget required for the whole project and the expected financial profit of the completed project is what gets key stakeholders on board.

Without a predetermined budget in mind, it will be hard for anyone to comprehend the scope and requirements of the project, and it may serve to slow down approvals from important individuals later down the line. We advise project managers to gather plenty of data, identify potential risks, and create a comprehensive budget plan for their portfolios, including accurate cost estimates for each project.

Some of the best project and portfolio management tools integrate directly with your EAM or CMMS (SAP, IBM Maximo, Oracle, etc.). They also likely have a monthly forecasting module that can be used to estimate and update the budget required for a certain project phase or date range. Budget forecasting is great for promoting cross-functionality between teams and better communication.

Some ways to create a comprehensive budget with accurate cost estimates include:

- **Gather Initial Data:** Review historical cost data from similar projects to inform initial estimates. Conduct extensive market research to collect current rates for labor, materials, and equipment. Engage with project managers, finance teams, and other stakeholders to gather input on anticipated costs.

- **Develop Detailed Cost Estimates:** You should identify all direct costs associated with each project, such as labor, materials, equipment, and subcontractor fees, as well as indirect costs such as project management, administrative expenses, and overheads. We also advise allocating a contingency budget to account for unexpected expenses and uncertainties. Some common estimation methods you could use include:
 - **Bottom-Up Estimating:** Break down each project into smaller components, then estimate costs for each component. Add these estimates together for the total project cost.
 - **Top-Down Estimating:** Estimate overall project cost using historical data and expert judgment, then distribute this cost across project components.
 - **Analogous Estimating:** Guide current project estimates using cost estimates from similar past projects.
 - **Parametric Estimating:** Use statistical models to estimate costs based on historical data and project parameters (e.g., cost per square foot for construction projects).
- **Consolidate Project Budgets into a Portfolio Budget:** Gather detailed cost estimates from all your projects to form a comprehensive portfolio budget. Ensure that this budget aligns with your organization's financial goals and constraints.
- **Include Risk and Uncertainty Analysis:** Create a risk register that identifies potential risks and their financial impact. Perform a Monte Carlo simulation to assess the range of potential budget outcomes based on risk probabilities. Conducting sensitivity analysis will let you identify which variables have the most significant impact on costs.
- **Develop a Budget Management Plan:** Establish a baseline budget for each project and your overall portfolio. Implement regular reviews and variance analysis for ongoing budget monitoring and control. Develop a process to handle budget changes due to scope changes or unforeseen events. Obtain current market rates for construction materials, labor, IT equipment, etc.

You will want to not only set a comprehensive budget for your project, but also track and control your portfolio's ongoing financial performance. Do this regularly to keep your projects within that set budget, and hopefully provide expected returns once they are complete.

7. Establish KPIs to Measure the Success and Performance of the Portfolio

Many project managers have their own key performance indicators (KPIs) that they use to determine the overall success of a project or portfolio. Still, it's important to develop a way to track your capital project's progress every step of the way.

Measuring your portfolio's performance and success will allow you to see what's working well, and where things can be improved. Pick a few performance metrics to track, set concrete baselines, and build out ways to monitor any changes, so that you can more efficiently keep your projects moving in the right direction.

To establish KPIs and measure your portfolio's performance, you can:

- **Identify Key Areas of Performance:** You can track metrics such as financial and schedule adherence, compliance with project specifications, and resource utilization efficiency. It may also be useful to analyze risk identification effectiveness, mitigation, management, and stakeholder satisfaction.
- **Develop Specific KPIs:** More specific KPIs to measure your portfolio performance include cost performance index (CPI), schedule performance index (SPI), return on investment (ROI), and budget variance. You can also measure schedule variance, defect rates, standards compliance, and customer satisfaction scores.
- **Establish Baselines and Targets:** Set realistic baselines and targets using historical data from previous projects. Always keep industry standards and benchmarks in mind when determining capital project targets.
- **Implement Measurement Systems:** Use project management software (e.g., Microsoft Project, Primavera) and financial systems (e.g., SAP, Oracle) to collect and track data. Implement real-time monitoring systems for continuous tracking and reporting.
- **Review and Adjust KPIs:** Conduct regular reviews of KPI performance, involving key stakeholders to ensure relevance and accuracy. Modify KPIs depending on changing project conditions, strategic priorities, or lessons learned.
- **Communicate KPIs with Stakeholders:** Provide detailed KPI reports to stakeholders, and use dashboards to present KPI data visually, highlighting key insights and actions needed.

If your project lacks clear and flexible KPIs, it will be difficult to determine if your plan is working, or if you need to make quick changes to meet stakeholder standards. They expect a certain yield and level of quality from each project phase, so performance tracking enables you to deliver on those promises. Therefore, implementing KPIs and metrics to view your portfolio's success is one of the smartest practices for any capital project.

8. Implement Ways to Keep Stakeholders Updated on Portfolio Progress

Building off the previous point, you should aim to consistently keep portfolio stakeholders updated on project progress. By keeping stakeholders updated on the progress of capital project portfolios, you ensure that everyone involved is well-informed, aligned, and able to contribute effectively to the project's success.

Keeping them involved and showing them project deliverables, resources, and key visuals will keep them satisfied and committed to your portfolio going forward. You will want to maintain open, honest, and consistent communication to keep stakeholders informed on the progress of projects. To keep stakeholders informed, you can send weekly status emails, hold monthly stakeholder meetings, set up interactive dashboards, and generate quarterly reports.

With a centralized project and portfolio management solution, you can automate emails and reports and configure dashboards to role-based views.

9. Implement Structured Change Management Processes to Handle Changes

There will be a time when a project needs to undergo changes, whether because of an unexpected variable or a stakeholder request. This can occur at any stage of the project, and without a proper change management process in place, you and your team may feel lost and overwhelmed at the sudden shift. This could result in lost time, money, deliverables, equipment, and other key variables.

To stay ahead of the curve and mitigate possible losses, you can implement structured change management processes throughout your portfolio. These processes will allow you to handle most changes in project scope, priorities, or resources effectively. This is not to say that something **will** always have to change quickly, but it's best to be prepared no matter what.

Having backup plans and a well-developed strategy in place to manage changes, regardless of their size, will keep you in control of your portfolio. Moreover, it will keep you and your team on track to meet project deadlines, and most importantly, demonstrate to stakeholders that you are flexible enough to adapt to ever-evolving business needs.

10. Regularly Review Portfolio Performance to Identify Areas for Improvement

Finally, every project manager should regularly review and assess their portfolio's performance. It might not always be pleasant, but it's essential to do this. Some projects might not perform as well as expected, but analyzing all projects in your portfolio enables you to identify areas for improvement.

You can conduct a comprehensive and effective review of your portfolio's performance by studying the completion time of each phase of certain projects. You may also want to assess pain points, risks, and slowdowns from past projects, so that you don't repeat the same mistakes in the future. Finally, it's wise to compare project budgets to overall financial returns, which will give you a general view of your portfolio's overall financial success.

To continue to improve your capital project portfolio management you need to maintain a culture that fosters continuous improvement and growth. Addressing and learning from past mistakes will aid you in streamlining your processes, incorporating best practices, and adapting to new methodologies.

Conclusion

By following these best practices, capital project portfolio managers and their organizations can effectively manage their project portfolios, maximize strategic value, and reach their goals. With the implementation of due dates, estimated budgets, assigned roles, and consistent phase gate processes, the portfolio management process can become more streamlined and transparent for all parties involved.

Having a centralized system for your portfolio will keep all information neatly in one place, enable you to maintain order within your team, and earn trust from key stakeholders. Keeping stakeholders in the loop on progress, being aware of risks, and adapting to unexpected changes all serve to strengthen your portfolio. Using a project and portfolio management tool to keep track of all your projects, workflows, KPIs, and deliverables can be a huge help if you have multiple different projects to keep track of at once.

Adopting these best practices not only brings your projects and portfolios up to a higher level of quality, but also guides project managers to grow and become even more competent within their space. **To learn more about how Prometheus Construction Management (CM) can help you centralize your capital project and portfolio management, [reach out to us](#) today.**

Learn more about how Prometheus Group can help your organization today.

CONTACT US

About Prometheus Group

Prometheus Group is a leading global provider of comprehensive and intuitive enterprise asset management software solutions that work within ERP systems and span the full work management life cycle for both maintenance and operations. Developed jointly with end users, Prometheus software enhances the customer experience for planning, scheduling, and executing work for both routine maintenance and shutdowns and turnarounds, all while protecting the workforce with safety solutions and electronic permit to work. Our straightforward functionality, graphical visualization, and simple processes enable customers to increase productivity, reduce costs, and improve reporting. For more information, please visit www.prometheusgroup.com.