



Project Planning and Controls in Hybrid Project Delivery Method

The Project Controls Process Reengineering, Article No.2

In the first article of The Project Controls Process Reengineering, we discussed the need to rethink the project planning and controls due to the statistics we had on delivering projects on time and budget. In this article, we will start the discussion how planning and controls works in hybrid project delivery framework.

Can Hybrid Project Delivery Works for Complex Projects

Integrated Methodology

In today's dynamic business environment, where projects are becoming increasingly complex, 77% of organizations report rising project complexity, according to the *PMI Pulse of the Profession 2024 Report*, traditional project management methodologies like Waterfall or Agile alone often fall short. Hybrid project delivery, a methodology that blends the best of predictive (Waterfall) and adaptive (Agile) approaches becomes more and more the preferred used methodology. Hybrid frameworks enable project teams to maintain structure while remaining flexible enough to adapt to evolving requirements.

How?

But how do project planning and controls work in a hybrid framework? And more importantly, how can you implement this approach successfully? Let's break it down step by step.

The Key Advantage of Hybrid Delivery

Hybrid project delivery combines the predictability of Waterfall with the adaptability of Agile, making it ideal for projects that require both structured phases and iterative development. According to the *PMI Pulse of the Profession 2024 Report*, 31.5% of organizations now use hybrid approaches, up from just 20% in 2020, signaling its growing popularity.

Plan Strategically

Define high-level objectives and milestones upfront.

Execute Iteratively

Break down work into smaller, manageable sprints or cycles.

Control Effectively

Monitor progress using both traditional metrics (e.g., Gantt charts) and Agile tools (e.g., burndown charts).

How Project Planning and Controls Work in Hybrid Delivery

In a hybrid framework, project planning and controls must strike a balance between structure and flexibility. Here's how they function:

Planning in hybrid delivery involves creating a roadmap that integrates predictive and adaptive elements:

High Level Planning (Predictive)

Use Waterfall techniques to define the project scope, timeline, and budget at the beginning. This ensures clarity on deliverables and milestones.

Iterative Planning (Agile)

Break down the project into phases or sprints, allowing for adjustments based on feedback and changing requirements for certain packages until construction. Then again use waterfall for construction. However, for changes approvals, use Agile.

Project Controls

Controls in hybrid delivery focus on maintaining alignment with the original plan while adapting to new information and changes:

Traditional Controls

Track progress against milestones, budgets, and schedules using tools like Gantt charts, earned value management (EVM), and risk registers.

Agile Controls

Monitor sprint velocity, backlog health, and team performance using burndown charts, Kanban boards, and retrospectives.

Hybrid Metrics


Combine predictive and adaptive KPIs to measure overall project health. For example, track both schedule adherence (predictive) and cycle time (adaptive).



Steps to Implement Hybrid Project Delivery Successfully

Define the Project Scope and Objectives

Start by clearly defining the project's goals, deliverables, and constraints. Use a predictive approach to create a high-level project charter and work breakdown structure (WBS). This ensures everyone understands the "big picture" before diving into iterative execution.



Steps to Implement Hybrid Project Delivery Successfully

Choose the Right Blend of Predictive and Agile Practices

Decide which phases of the project will follow a predictive approach and which will adopt Agile practices. This will work for each process and each package too. For example:

- **Predictive Phases / Process:** Use Waterfall for regulatory compliance, procurement, or hardware installation, where predictability is critical.
- **Agile Phases:** Apply Agile for packages, problems, change orders like software development, prototyping, or creative problem-solving, where flexibility is essential. Here, you give the assigned team the authority to deliver the defined values as agreed. In each step and approval to use Agile, we set the criteria, the R&R, The Results and Targeted Values to cover the compliance governance. Monitor the change on the approved criteria and R&R as needed.



Steps to Implement Hybrid Project Delivery Successfully

Establish Clear Roles and Responsibilities

Hybrid delivery requires collaboration across diverse teams. Assign roles such as:

- **Project Manager:** Oversees the overall project, ensuring alignment with the plan.
- **Scrum Master/Agile Coach:** Facilitates Agile ceremonies and removes impediments.
- **Product Owner:** Represents stakeholders and prioritizes the backlog.



Steps to Implement Hybrid Project Delivery Successfully

Create an Integrated Schedule

Develop a hybrid schedule that combines predictive timelines with Agile iterations:

- Use Gantt charts to outline major milestones and deadlines.
- Overlay Agile sprints or cycles within each phase to allow for iterative development.
- Consider the Agile sprints as a small schedule within the master schedule where you only monitor its milestone and the changes in the agreed plan (if any).



Steps to Implement Hybrid Project Delivery Successfully

Implement Robust Monitoring and Reporting

Track progress using a combination of predictive and Agile tools:

- **Predictive Tools:** Monitor milestones, budgets, and resource allocation using EVM and dashboards.
- **Agile Tools:** Track sprint velocity, backlog completion, and team capacity using burndown charts and Kanban boards.
- **Hybrid Dashboards:** Combine data from both approaches into a single dashboard for a holistic view of project health.



Steps to Implement Hybrid Project Delivery Successfully

Conduct Regular Checkpoints

Hold frequent reviews to ensure alignment and address issues:

- **Sprint Reviews:** Evaluate completed work and gather feedback from stakeholders.
- **Phase Gates:** Conduct formal reviews at the end of each predictive phase to approve progress and adjust plans.



Steps to Implement Hybrid Project Delivery Successfully

Foster a Culture of Continuous Improvement

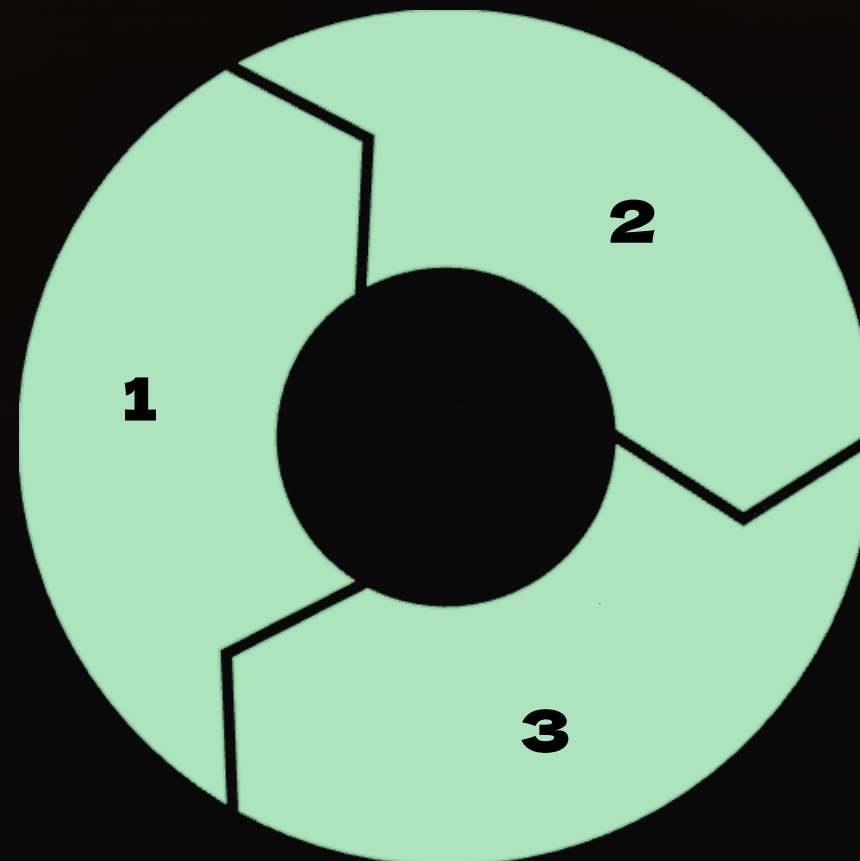
Encourage teams to reflect and adapt through retrospectives and lessons learned sessions. This promotes agility and ensures continuous improvement throughout the project lifecycle.

Real-World Example: NASA's James Webb Space Telescope

One of the most ambitious hybrid projects in history, NASA's James Webb Space Telescope, demonstrates how hybrid delivery can manage complexity:

Predictive Framework

- High-level phases like design, development, and testing followed a sequential structure to ensure compliance with aerospace standards.



Agile Practices

Within each phase, Agile sprints allowed teams to iterate on designs, test components, and address issues quickly.

The result

Despite a \$10 billion budget and decades-long timeline, the telescope launched successfully, delivering groundbreaking scientific capabilities. This achievement highlights how hybrid methodologies can manage complexity without compromising quality or timelines.

Key Success Factors for Hybrid Project Delivery

Leadership Buy-In

Ensure senior leaders understand and support the hybrid approach.

Solid Teams

Get the approved trustworthy and accountable teams for the Agile packages.

Training and Upskilling

Provide training on both predictive and Agile practices to equip teams with the necessary skills.

Key Success Factors for Hybrid Project Delivery

Technology Enablement

Use tools like Jira, Microsoft Project, and collaborative platforms to integrate predictive and Agile workflows

Stakeholder Engagement

Maintain open communication with stakeholders to manage expectations and gather feedback.

Flexibility and Adaptability

Be prepared to adjust plans as new information emerges.



Takeaways for Project Managers

Hybrid project delivery is not a one-size-fits-all solution; it requires careful tailoring to suit the unique needs of each project. By combining the strengths of predictive and Agile methodologies, organizations can achieve higher success rates, reduce risks, and deliver projects on time and within budget. As the *PMI Pulse of the Profession 2024 Report* highlights, organizations offering three or more enablers, such as **coaching, training, and communities of practice**, report significantly higher project performance rates. These enablers empower teams to navigate hybrid frameworks effectively, ensuring long-term success.



Conclusion: Embracing the Best of Both Worlds

In conclusion, hybrid project delivery represents the future of project management, blending structure and flexibility to tackle the most complex challenges. By following the steps outlined above defining scope, choosing the right blend of practices, establishing clear roles, and implementing robust planning and controls you can unlock the full potential of hybrid methodologies. As Steve Jobs famously said, *"Design is not just what it looks like and feels like. Design is how it works."* For project managers, designing a hybrid framework isn't about aesthetics. It's about creating a system that delivers results efficiently, adapts dynamically, and thrives in an ever changing world. So, are you ready to embrace hybrid project delivery with successful planning and controls which takes your project success to the next level?