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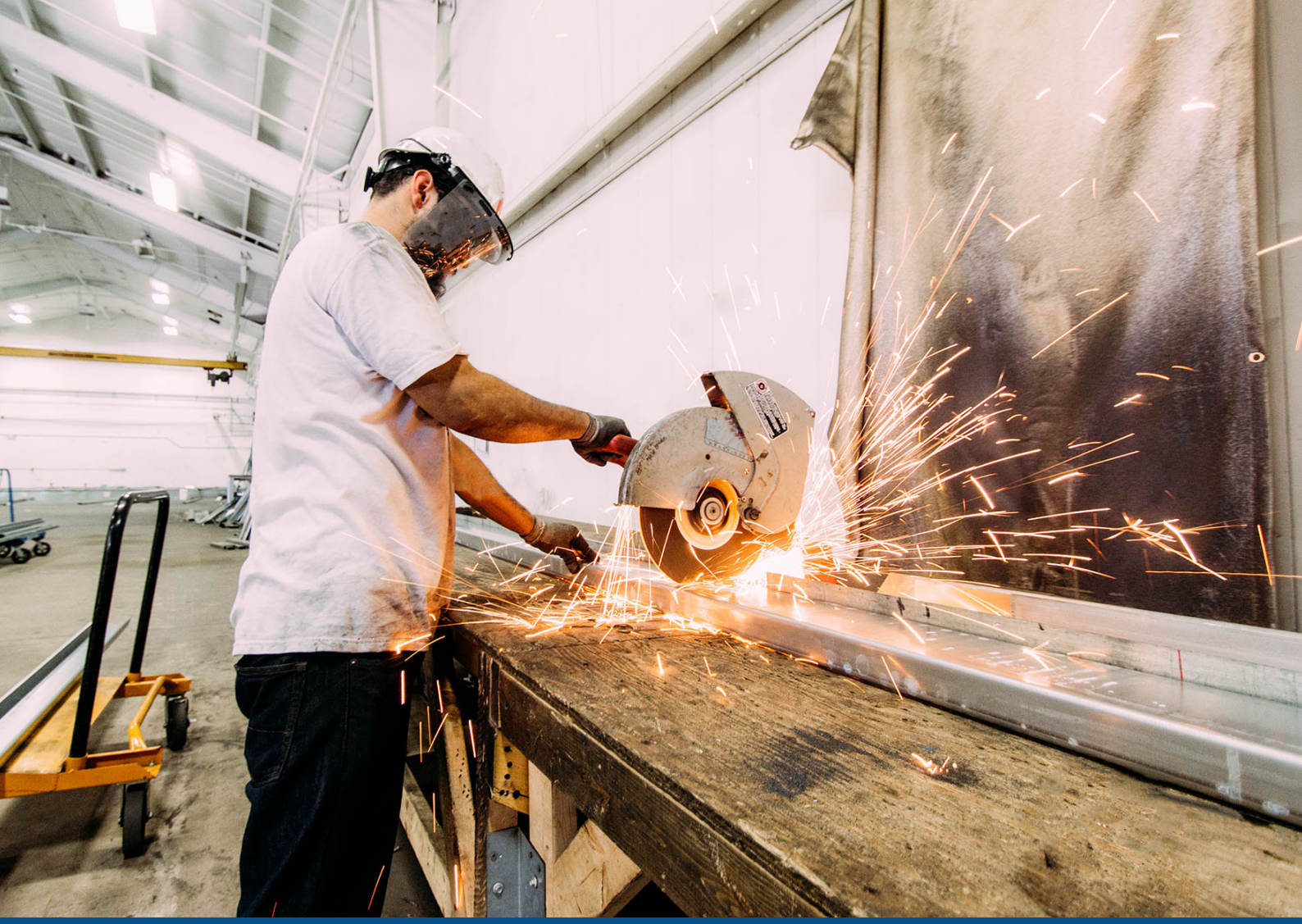
Traditional vs. Agile Project Managment

Understanding Agile Versus Traditional Project Management

Project Management Guide



Understanding Agile Versus Traditional Project Management

The Traditional Project Management process is markedly different than an Agile Project Management Process in how it is structured and utilized to run a project. This Whitepaper will provide you with a primer on how both project management processes differ from one another and when it is appropriate to use either process.

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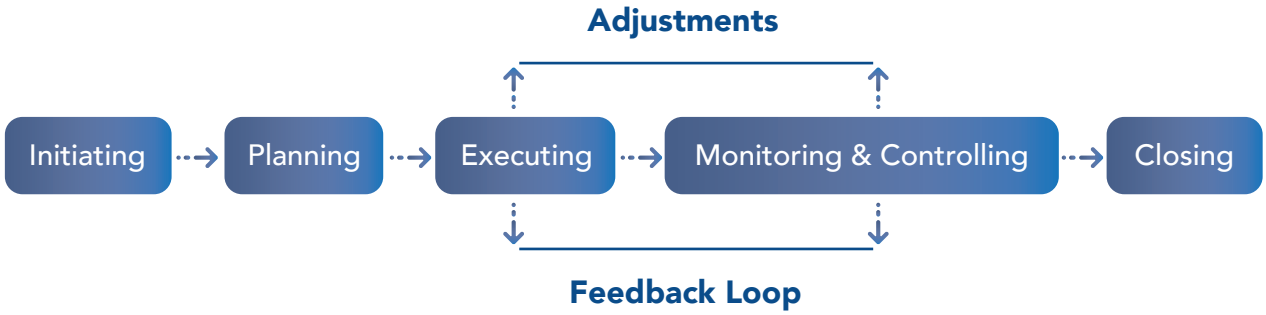
Traditional Project Management



A Traditional Project Management Process is a linear progression of events that utilize five basic process groups: Initiating, Planning, Executing, Monitor/Controlling and Closing. Each process group has clearly defined sub-processes and procedures to develop a Project Scope, Project Management Plan, Project Budget and Project Schedule.

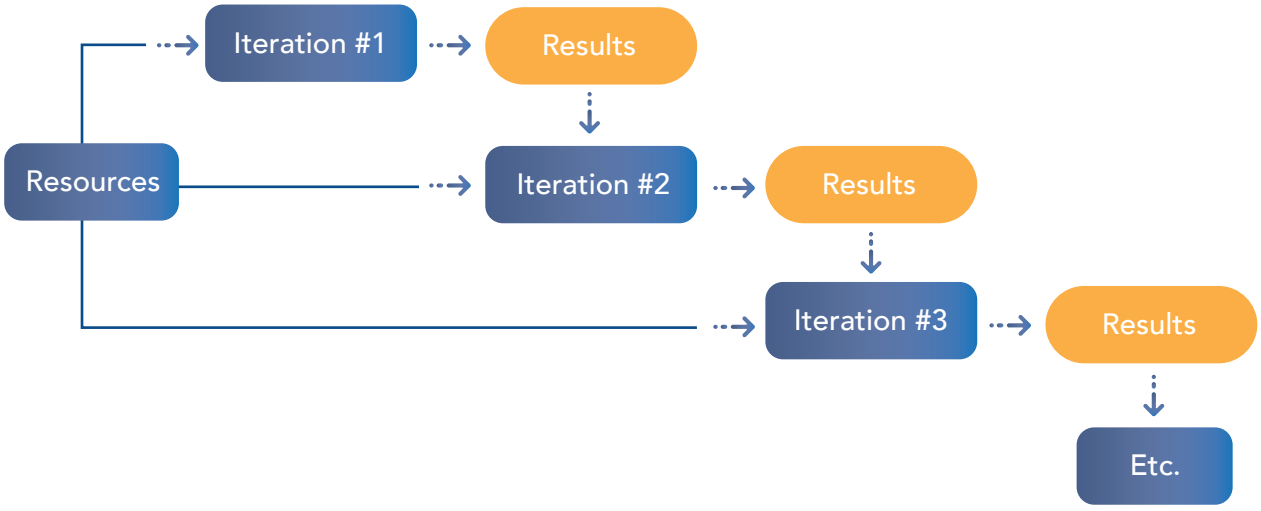
Additional sub-processes and procedure processes exist to qualify/quantify project risks, identify resource requirements, understand procurement needs, develop communication tools and processes to manage project stakeholder involvement in the project. A Traditional Project Management Process utilizes feedback loops as the project is executed and monitored/controlled to enhance communications in order to keep the project on-budget and on-schedule.

Generically speaking, the Traditional Project Management Process is best utilized when:

- The Project Scope is clearly defined
- A Project has minimal risk or uncertainty associated with it
- Estimates for project cost and schedule can be easily defined
- Any changes to Project Scope can be accomplished using a controlled process
- A formal Project Management Plan can be used to execute, monitor/control and complete the project

If there is a high degree of uncertainty, unanticipated risk and/or the magnitude of a project is larger than the experience of the project team, using a Traditional Project Management Process is not a good idea.

Agile Project Management



Agile Project Management was originally developed to run projects related to IT/Software Development but can be applied to non-IT/Software Projects as well. It is an iterative approach to project management that emphasizes business value over uncertainty.

Projects are broken down into incremental tasks sometimes referred to as "User Stories, Iterations, Probes or Learning Experiences". Each iteration is prioritized to deliver the most value to the customer in the shortest amount of time. Usually, an iteration is no more than four (4) weeks long in duration.

Under Agile Project Management, the Project Scope is defined at the launch of a project, but it becomes more detailed with each iteration as the project team receives feedback from the customer from prior iterations on what they liked or did not like, as well as, what they consider to be most valuable to them.

There are several unique features to an Agile Project Management Process:

- The Agile Project Management Process is best suited for projects where the Project Scope or Requirements are evolving, there is a high level of project planning and/or execution uncertainty and/or when the range of potential project outcomes is very wide.

• Agile does not utilize decision-making tools used in Traditional Project Management that assume project predictability such as Earned Value Analysis, Return on Investment, Net Present Value, and Internal Rate of Return.
• Project execution and focus relies heavily on customer collaboration to set the pace of the project and creating usable value quickly for the customer in the form of tangible attributes/results.
• Projects are run using Iterations or User Stories in short durations. The outcome of each iteration dictates ongoing discovery and refinement. Agile methods rely on building and reviewing of prototypes and multiple releases to continuously define requirements.

• Cost and Timeframe for each iteration is fixed, but the Iteration Scope is allowed to vary.
• Product attributes are held in a prioritized "Product Backlog" that is used to prepare each iteration.
• The Product Owner (Customer) owns the "Project Backlog" not the Project Manager or Project Team.
• Iterations are short in duration to deliver maximum value quickly to the to the customer.
• The Project Manager is a coach and mentor to the project team on Agile Project Management

Let us dive further into how the Agile Product Management Process differs from a Traditional Project Management Process by taking a closer look at its features.

How an Agile Project Team Operates

Unlike a Traditional Project Management process where the project manager has ultimate responsibility to create and execute a project management plan, in an agile project the Product Owner creates and maintains a "Product Backlog" or List of Requirements/Features desired for the intended product or service. The Project Manager (Scrum Master) and Project Team does not own the Product Backlog but helps the Product Owner to prioritize them, as well as executes the project to achieve them.

Desired Product features/benefits in the product backlog are referred to as **"User Stories, Iterations, Probes or Learning Experiences"**. They are prioritized based on their value to the customer. Each Iteration or Sprint of an agile project is comprised of User Stories most valuable to the product owner. As each Iteration is completed lessons learned are reviewed and customer feedback on iteration results is solicited.

Once this process is completed the next iteration is planned and launched. The goal of each iteration is to deliver value to the customer in the shortest amount of time. Usually, an iteration is no more than four (4) weeks long in duration.

Progress for Agile Projects is tracked using a **"Task Board"** to help the Project Team keep track of individual user stories and their status. Any changes to individual user stories or additions/deletions of user stories are tracked using the task board. Agile team member can add or delete user stories, as well as change the order of how a particular user story will be accomplished.

Task Boards are 3x5 index cards organized into Columns to Display individual user story status (e.g., Open, In-Progress, Completed). The front of the user story explains the task to be completed and the back of it describes the criteria to verify the user story has been completed.

Agile Teams meet Daily in what is called a "Stand-up Meeting" to review the previous day's work, current days' work and to review issues impacting the project.

This keeps all team members informed as to who is doing what and when to expect certain user stories to be completed. The Project Managers responsibility is to remove obstacles for the project team to help them execute each Iteration/Sprint.

Project Scope Considerations

In the early stages of an Agile type of project, less time is spent compared to a traditional type of project defining project scope.

More time is spent on defining and establishing the process for discovery and refinement that will best define the ultimate project scope.

Project Schedule Considerations

Due to the high degree of uncertainty for a project where Project Scope or Requirements are evolving the Agile approach to Project Management uses Short Cycles, (i.e., Backlogs, Iterations, Phases, tasks, etc.) to conduct its work.

Results from each iteration are reviewed and learnings are utilized to plan subsequent iterations and what it must accomplish. This allows for rapid feedback on how to achieve project deliverables, as well as opportunity to adjust the process used to achieve them.

A Project Manager works with their project team to compare the amount of work delivered and accepted against the estimates of work completed;

Analyze completed iterations for lessons learned and apply them to subsequent iterations and to prioritize what elements ought to be included in subsequent iterations based on backlog and lessons learned.

Furthermore, the Project Manager has the responsibility to ensure that each iteration is completed within the agreed upon timeframe by managing all changes to keep the project team and stakeholders calibrated on current and desired results.

Project Budget Considerations

Due to the degree of uncertainty, changes per iteration and lack of a fully defined project scope, it is harder to create a highly detailed budget for an Agile project than it is for a project run using a traditional project management process.

An overall estimated budget for an Agile type of project can be developed. However, it is strictly an estimate used to stay within cost constraints for the project. A detailed cost estimate for each iteration of an Agile type of project is calculated based on the required resources needed to execute the iteration. At the end of each iteration a comparison ought to be conducted of budgeted versus actual cost.

> Project cost control is an iteration-to-iteration process. If each iteration produces its intended results to achieve the ultimate project goal/objective, the project continues to be funded. If it fails to produce intended results, the project can be cancelled.

Traditional project management financial tools such as Earned Value Analysis, Return on Investment, Net Present Value, and Internal Rate of return are not applicable to predicting Agile project progress. Instead, it is the outcome of each iteration that dictates the ongoing discovery and refinements to achieving project success.

Agile Project Management: Quality Considerations

Agile project management methods focus on incremental steps and/or small batches of work that incorporate as many elements of project deliverables as possible into each iteration.

This helps identify quality issues early in the project life cycle when the overall cost of making a change is lower. Hence there are frequent product and process quality checks to identify the root cause of issues and to create new approaches to improve the quality process.

Agile Project Management: Resource Considerations

Agile project management requires collaborative teamwork to maximize productivity and facilitate innovative problem solving.

Agile teams are most successful when they can self-organize to integrate their work activities, proactively share knowledge through cross-functional teamwork and have flexibility within their work assignments to achieve targeted results for each phase or task.

Agile Project Management: Communication Considerations

Because of the ambiguity and frequent changes associated with a project being run using Agile Project Management, the Project Manager needs to facilitate more frequent communications and updates versus a project run using a traditional project management process.

Project Stakeholders and Project team Members require frequent access to data/information, more frequent team meetings to keep everyone calibrated on project status and data/information needs to be posted 24/7 in an easy to access portal.

For maximum productivity Agile Project Teams ought to be co-located as It helps drive **"real-time"** results quickly. One of the most effective tools to promote communication during an Agile type of project is the use of a daily **"Stand-up Meeting"**. At this meeting teammates explain the work completed the previous day, the work to de done today and if they have any concerns/issues that may impact the speed and value of their work.

Agile Project Management: Project Risk Considerations

Risk is evaluated as each iteration is designed, as well as, after it is completed to understand its level of severity, chance of reoccurrence and how it can be managed.

The level and severity of risk is utilized to design subsequent iterations to improve the quality of deliverables, reduce risk and accelerate achievement of overall project objectives.

Agile Project Management: Procurement Considerations

It is not uncommon to have specific suppliers of key components critical to project scope, definition, and success to be part of an agile project team.

Usually, this arrangement involves some degree of shared risk whereby both the company who will purchase the component and the manufacturer (Seller) of it share in the risk and reward connected to the project.

Agile Project Management: Project Stakeholder Engagement

Projects that experience a high degree of change to progress to achieving its goals/objectives require aggressive and proactive participation from its stakeholders.

> It is not uncommon for an Agile Project Team to directly connect with the project stakeholders as opposed to the project manager having this task.

Project Stakeholder connection helps to secure alignment with project goals/objectives, get agreement on acceptable project risk and how to mitigate it,build understanding on project status and support for adjustments as each phase is completed which in turn can help reduce project cost and increase likelihood for project success.

About the Author

Richard Broo is the President and Founder of True North PMP Consulting Incorporated. He has been actively involved in the plastics and composites raw materials industry for over 40 years in leadership roles involving, sales, marketing, new product development and operations.

He has been president of two plastics companies prior to starting True North PMP Consulting, a company dedicated to coaching and teaching the best practices utilized in professional project management, as well as, providing contracted project management services.

Characterized as a Turn-Around Agent, Problem Solver, Value Creator and Visionary Leader he has optimized revenue, profit, and growth for companies such as Owens Corning, Black & Decker, General Electric.

Competencies include: Sales & Marketing Leadership, Operational Management, P&L Optimization, Project/Product Management, Technical Program Leadership, New Product Development and Commercialization and leading Start-ups & Turnarounds.

He earned an MBA from Walsh College, a BA degree from Western Maryland College and is a Certified Project Management Professional (PMP).

Contact Us

If you would like to learn more about how your company can become more effective and efficient at project management, contact True North PMP Consulting

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