

Turn the Vision for Your Manufacturing Plant into Reality

7 Tips for Executing Your Improvement Project

Lessons Learned from CURT Manufacturing

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Introduction

CURT Manufacturing, a trailer hitch manufacturer based in Eau Claire, Wisconsin had a vision to optimize its 150,000 square foot manufacturing plant, and fast. The manufacturer once had a plant that met their needs, but the implementation of new equipment to meet the extraordinary sales growth over several consecutive years had slowly transformed their plant into a crowded and inefficient operation. The factory was at max capacity and needed additional functionality. To intensify the situation, CURT was forecasting continued growth in the coming years and needed to act immediately in order to capitalize on the positive prediction.

The company wanted to reorganize the plant and bring in additional equipment, while improving material flow and reducing the Cost of Goods Sold (COGS). They had a vision for what the optimized space would be capable of and wanted the project to be completed in time for their “busy season” but didn’t know where to start. CURT looked to IPM to execute their manufacturing improvement project and transform their manufacturing site into a plant prepared for future growth.

These seven tips were gleaned from the improvement project at CURT and can help any manufacturer seamlessly execute his vision:

1. Establish Quantifiable Measures of Success
2. Enforce Management’s Support
3. Allocate Time to Plan
4. Calculate a Contingency Budget
5. Create Cross-Functional Teams
6. Customize Communications
7. Demand Lessons Learned



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Tip 1

Establish Quantifiable Measures of Success

Instead of running straight to the known problem areas, hold back. In order to execute a vision well, you first need to ascertain all aspects of the vision. Begin with the project's visionary and help him/her put his/her ideas down on paper. It's a basic step, and sometimes tedious, but extremely important to the project. How will you know if your project is successful if you don't define what success is? Follow up with other leaders and ask them what the new manufacturing site layout will look like once it's completed. Define primary and secondary metrics, incorporating the company's strategic goals to ensure alignment. Primary metrics outline the goals that must be met for the project to be considered a success. Secondary metrics are tied to the project but don't determine its overall success.

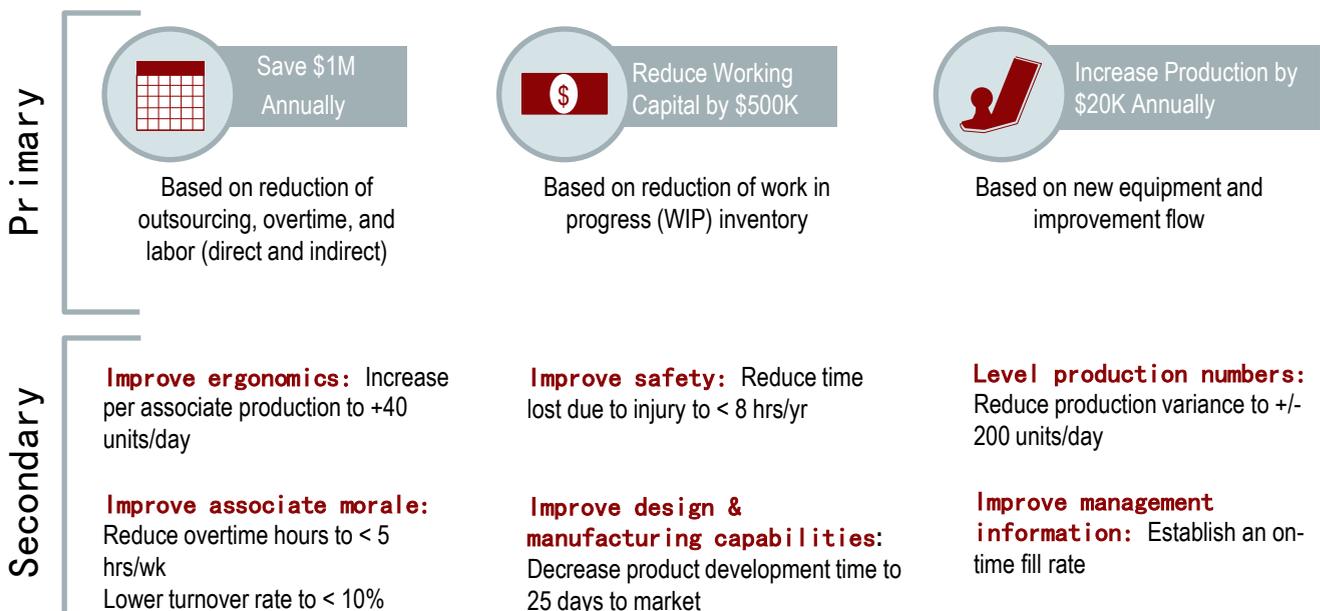
Encourage everyone to be as specific as possible. Don't let individuals give you ambiguous and vague values. For example, try to avoid words like improve, reduce, increase, or decrease, unless there are numbers or percentages associated with them.



STEERING COMMITTEE

Individuals who take responsibility for guiding the feasibility, business case, and the achievement of outcomes of the project.

CURT's Steering Committee, comprised of seven individuals from the C-suite, used the company's strategic goals to develop the measures of success for the plant improvement project. The project's core team - comprised of 22 employees responsible for execution - then agreed upon the following primary and secondary metrics:



* Numbers altered to protect company privacy

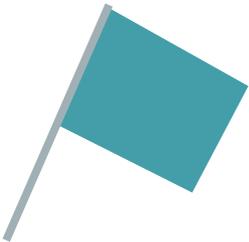
Tip 2

Enforce Management's Support

There's no quicker way to implement a lackluster improvement project than to execute it without the support of management. Most likely these are the individuals with persuasive power, and when utilized properly, they will be the key to transforming the plant improvement initiative into a motivational project. Believe it or not, the importance of stakeholder buy-in often gets overlooked, so you need to address it right from the start.



Kick-off Meeting Involvement:



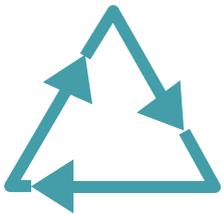
Once you can easily articulate the vision and rationale for the plant improvement, host a kick-off meeting for all associates. The goal of this meeting is to set expectations of the various stakeholders and reinforce the project's importance to the company. Host several meetings if you are unable to get everyone in a room at the same time and provide every shift with the same content.

Encourage all of your company's senior leadership to attend and actively participate in each of these meetings, even if they take several days. Leadership should provide their vision for the project and demonstrate strong support for its success. Additionally, select someone to present expectations of the associates and project team.

KICK-OFF MEETING TOPICS

- ✓ Project Overview
- ✓ High-level Schedule
- ✓ Overall Budget
- ✓ Expectations

Continuous Support:



Appointing the majority of C-Suite leadership as the Steering Committee helps to ensure continued buy-in of the project's success. Consider having them tour the facility throughout the project to show the associates their active involvement.

Project Closure:



Similar to the kick-off meeting, include the same leadership individuals in a final communication meeting with all associates. Reiterate the project's objectives and discuss how the project met (or missed) each one. By including management, you bookend their support and set up the company for success on future endeavors.

STAKEHOLDER

An individual, group, or organization who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project.

Tip 3

Create Cross-Functional Teams

In order to create a team of stakeholders with representatives from various functions, it's important that you widen your gaze. Remember that stakeholders aren't just the heads of the functional areas, they are employees across the organization who have a vested interest in the success of the site improvement project. By including a cross-section of functions and employees, you'll foster a greater sense of involvement and increase the overall satisfaction with the outcome.

There were several points during CURT's improvement project that a broader cross-functional team was engaged to help make crucial project decisions. Department heads and employees from Facilities, Maintenance, Engineering, Operations, Safety, and IT were part of the review and approval for each layout design. All members were encouraged to raise concerns and make suggestions.

It's important that the users of the new spaces are involved during the design of their work areas. For example, welders from CURT helped design the Manual Weld Booths. Their involvement ensured a functional work area that satisfied the user and fell within the budget and time constraints.



Helpful PM tools to aid project acceptance:



Stakeholder Management Plan identifies the personal needs of each stakeholder



RACI clearly delineates the responsibilities of each team member



Communication Plan ensures that team members provide and receive the proper communications throughout the project

Tip 4

Allocate Time to Plan

The biggest differentiator between project success and failure is a comprehensive plan. It's also often the first thing teams gloss over with all the excitement and enthusiasm surrounding a new project. This generally happens for two reasons.

First, the project completion deadline is set arbitrarily, which causes the project team to start executing the project before it can be fully planned.

Second, people want to see action. Extensive planning takes time, which makes project teams anxious about showing results.

There are ways to alleviate these issues:



Assess and revise the project deadline when possible

Unless all tasks must be completed prior to a hard deadline, give careful consideration to the project's timeline in order to set realistic expectations. If the deadline isn't feasible, you're destined for disappointment.



Expedite low-risk and/or long lead time tasks

Execute *something* right away, just make sure it's low risk. That way the project will show progress, relieving some of the tension to get things moving.



Use repetition where it makes sense

Use common terms throughout the plan to help organize the document and to speed up the time it takes for you to create it and for others to understand it.

CURT Manufacturing felt similarly about thorough planning. The project completion deadline was self imposed and based more on the sales cycle rather than any project task duration. In order to adhere to the given deadline, IPM used the date as a constraint. All of the other factors (scope, budget, risk, etc.) were used as variables to allow the project to be completed on time. When planning your project, determine what is most important to you and set that as the main constraint.

CURT's stakeholders were adamant about starting to execute as fast as possible. By executing some low-risk tasks early in the project, it afforded IPM the freedom to continue extensive planning. The comprehensive planning process comprised about 1/3 of the entire project life cycle.



Other helpful tips:

Include all "constraints"

Assess and plan all constraints simultaneously. Consider scope, schedule, budget, risk, quality, customer service, and resources.

Remember day jobs

Consider ongoing operations during project planning and don't forget the factory still needs to run. Unless your entire project team is dedicated 100% to the completion of the project, it is necessary to understand and plan for the team members' primary responsibilities.

Tip 5

Calculate a Contingency Budget

The key to setting a realistic budget is to plan for each activity, but what happens when you don't have enough information to get a fixed bid quote? You'll need to

use good judgment to estimate cost when the detailed requirements are unknown. How you make these estimates is just as important as the estimates themselves.

CONTINGENCY

An event or occurrence that could affect the execution of the project that may be accounted for with a reserve.



First, define how you plan on making your estimates. This will help:



Increase speed on the budget planning process.

If the team had to make an estimate for every unknown, it would be a time consuming process.



Standardize the contingency.

With uniform contingency for different scenarios, comparisons can be made to actuals and lessons can be drawn from variances.



Cover the project team.

If an agreement can be made on the rules for contingency funds, then there won't be any debates when they are used.

Next, establish a contingency guideline.

There are no hard and fast rules for establishing contingency guidelines, however, historical information, expert guidance, and best practices can help you create something appropriate for your industry.

At CURT, the team agreed to introduce a 10% contingency for line items that had a verbal or preliminary estimate and a 20% contingency to the team's best estimate of items with no quote to ensure they had coverage for the worst case scenario.

CURT's Contingency Guidelines:

1. Fixed bid quote (contract in hand): **+0%**
2. Budgetary estimate (verbal or preliminary estimate): **+10%**
3. No quote or estimate: **+20%**

Finally, update the budget as you gather additional information so that it accurately reflects the project's latest best estimated cost to complete.

Tip 6

Customize Communications

Stakeholders have different needs when it comes to project communications. Some only need to know the project status. Others need to know details about upcoming tasks. Some like to hear project information directly, while others prefer to seek out information as it becomes important to them. It is critical for you to understand these varying needs and develop a communication plan that addresses them.

The team at CURT used various communication tools to connect with a diverse set of stakeholders. Here's a snapshot:



Steering Committee

- Dashboards
- Presentations
- Weekly Meetings



Core Team

- Team Member Priorities & Action Plans
- Layout Drawings
- Weekly Meetings



Associates

- Breakroom Monitors
- Team Meetings
- Cut Sheets



Other Employees

- SharePoint Site
- Newsletter Articles

TIP:

For a unique way to disseminate the status of your improvement project, take photographs to show progress. This visual record of accomplishments is a great way to capture successes in an easy- to-understand way. Broadcast them on monitors throughout the plant, if possible. Your stakeholders will appreciate it!



Tip 7

Demand Lessons Learned

At the finale of your plant improvement project, it's quite possible that your project team will be ready to move on to the next project, and fast. Before they do, however, it's important to ensure that all issues are resolved – all equipment works, is in the right place, and all employees know how to use it. When all remnants of the renovation are cleaned up, there's one last crucial piece of the equation – documenting and learning from the experience.

If your team shudders at the term “lessons learned,” it might be because they view the exercise as “what went wrong and how can I avoid it next time,” instead of as “what went well, and how can I make sure I do that next time or that others learn from it”. The exercise can be turned into a positive experience so that lessons learned benefit you and others who manage similar projects.

It's a good idea to lay some ground rules for the lessons learned meeting, such as:



- Stay on topic
- Everyone actively participate
- Be specific
- Respect others' opinions
- Refrain from sidebar conversations

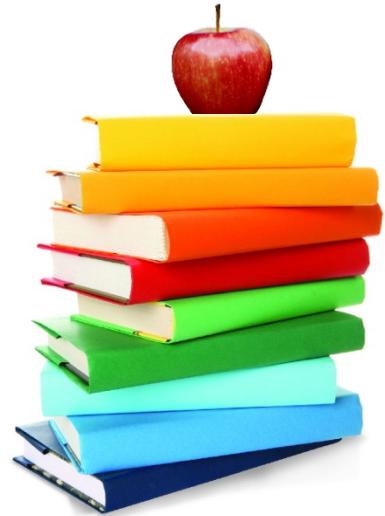
For each discussion topic, ask these questions:



What went well?

What did not go well?

Recommendations for improvement?



Even more important than capturing lessons learned is using them. Make sure you communicate the interesting outcomes of your project as widely as possible. You never know who might glean something from it. Post your lessons learned on your company-wide database so anyone can access them, and don't forget to sit down and read your previous lessons learned before taking on the next project.



Lessons learned benefit you and others who manage similar projects.



Conclusion

Although it's time consuming and costly to embark on a company-wide initiative like a plant improvement project, the results often pave the way for future growth, repaying the company after only a few years.

CURT's \$5M, six-month time investment prepared them to actualize their potential because the facility no longer hinders their ability to manufacture and distribute the company's desired quantity of products. The project was completed on time and on budget. At completion, the project was on track to meet these three primary metrics: \$1M in annual savings, \$500K working capital reduction, and \$20K annual increase in production.



IPM moved mountains to make this project a success and helped our associates learn how to properly run a project.



*Tim Hau, CIO
CURT Manufacturing*



About the author

Andy Olson is a director at Integrated Project Management Company, Inc. (IPM), a consulting firm that advises on and executes companies' most complex initiatives. IPM applies the discipline of project management to manufacturing initiatives like quality systems deployment, capacity rationalization, product mix rationalization, and IT systems and applications implementation. Through careful planning and rigorous execution, IPM helps clients meet their goals and sustain them—efficiently, cost-effectively, and often ahead of schedule.