



PROJECT RECOVERY IN PLANT ENGINEERING

PULLING THE RIGHT LEVERS FOR SHORT-TERM FINANCIAL IMPROVEMENT

Many machine builders and plant engineering companies experience profitability pressures in their project business. Structural changes are required to address issues sustainably and over the long run – but they cannot deliver quick results. Short-term improvements even in running projects, however, can be achieved through a project recovery approach that helps to detect and mitigate upcoming risks and to identify quickly realizable savings. For a portfolio of projects, the resulting profit improvement impact can be more than ten percentage points.

For many machine builders, increasing competition and more demanding customers are putting pressure on project profitability. Weaknesses in order execution and project management become more visible under such scrutiny. On top of this, manufacturers often struggle with high project complexity, time and technical risks, and contractual challenges. The consequence: a large share of projects incur unsatisfactory or even negative results.

Major loss drivers typically include poorly clarified cost budgets during the proposal phase; no process to “freeze” changes; and incomplete documentation of work incurred due to customer change requirements, leading to a forfeiture of claim management power. Companies can of course systematically change their structures and processes to improve project returns over the long term. But to stop the hemorrhage immediately, a project recovery approach can deliver short-term financial gains across a portfolio of running projects.

SETTING UP THE RECOVERY PROCESS

Project recovery should tackle a portfolio of projects that reflect a significant portion of total sales and is best run as an intensive process for a few months in parallel to structural changes, particularly as the recovery process can provide lessons learned for long-term optimization.

The project recovery process requires a team of dedicated resources, with a balance of commercial and technical understanding, which can act as an engaged project management office (PMO). This team should hold regular meetings involving project managers and line units as the basis for cross-functional recovery discussions. Results should then be regularly reported to senior management in a transparent way to enable pragmatic decision making when necessary. Within 2-3 months, this intensive process should become part of the regular project reporting cycle.

Project recovery starts with building a complete fact book on the projects in scope. This is the basis for root cause analysis on time, quality, and budget deviations as well as critical path assessments. For the most important projects, forecasts on costs by plant sub-section should be developed. In particular, forecasts for engineering hours and on-site hours should be examined due to their typically high impact and likelihood of deviation.

PULLING THE RIGHT LEVERS

In project recovery, potential short-term measures can be identified across all of the delivery phases of a project, from design and engineering to purchasing and on-site installation.

- **Design:** “Design-to-budget” is an important up-front step, supported by clearly communicated cost budgets and additional savings targets. For example, opportunities to change out functionally neutral components should be assessed to exploit cost advantages in purchasing and assembly. Technical “de-risking” can be achieved by (re-) negotiating standard solutions with the customer or through a temporary engineering resource ramp-up if renegotiation is not possible. In addition, change approval processes and layout change tracking during the design phase can help reduce the risk of budget and time deviations in engineering.
- **Engineering:** Engineering (and on-site) hours often overflow due to missing control procedures. Overtime guidelines and weekly tracking and approval rules, however, can keep hours under control. Approval procedures for changes that could impact the budgets of specific project sub-sections must be developed and communicated as well.
- **Purchasing:** Given the many third-party inputs in plant engineering, purchasing typically provides large savings opportunities. Renegotiation and identification of alternative international suppliers can be an effective lever – especially in the early stages. Synergies from bundling should be taken into consideration in the case of a portfolio with several projects running in parallel. Investment in expediting and quality control at suppliers can pay off if cost savings and quality concessions need to be balanced

- **On-site installation:** Ways to leverage local resources should be explored to reduce staff and travel costs. Frequently, delay and penalty risks are rooted in the lack of availability of on-site assembly staff or missing ex-works components/materials. These types of risks can be mitigated by optimizing on-site resource dispatching, as well as closely monitoring engineering time plans prior to the on-site phase.

Across all delivery phases of a project, managing claims both from a customer and supplier perspective is a strong bottom-line lever. This requires reconciled documents that are agreed upon with the customer in the early stages of the project. Finally, savings opportunities and transparency on budget risks must be regularly tracked. For savings opportunities, action plans should be defined and the degree of implementation regularly monitored across the project portfolio.

TANGIBLE RESULTS

Our experience has shown that project recovery can improve profit by ten percentage points or more across a portfolio of projects. In addition, project recovery can help unveil a significant percentage of risks early in the process – enabling mitigation steps to be developed as early as possible as well.

Project recovery does require extra resources over the short run, but the savings it generates provides an immediate return on investment. And there are other benefits worth considering: project managers move up the learning curve faster from participating in an intensive recovery process, while operating departments typically become more reliable once given adequate process and approval guidelines.

Wolfgang Krenz

Wolfgang.Krenz@oliverwyman.com

+49 89 939 49 403

Daniel Kronenwett

Daniel.Kronenwett@oliverwyman.com

+49 89 939 49 591