Integrate a Robust Lessons Learned Process into Product Development

Best-practice organizations capture lessons learned to avoid repeating past mistakes

In an economy powered by knowledge, better use of product development (PD) knowledge can reduce time to market, minimize risk, and give rise to more vibrant new products. But how do you transfer PD best practices and lessons learned from project to project, from team to team, and from person to person?

To learn how top-performing organizations tackle this problem, APQC launched the Improving the Flow of Knowledge in Product Development Collaborative Benchmarking study. The best-practice organizations featured in the study have developed effective strategies to enable the flow of knowledge across organizational barriers.

Given the need to preserve knowledge over long-duration product life cycles and the impending retirement of a generation of engineers and experts, organizations want to speed up the transfer of knowledge in order to decrease cycle times and avoid repeating mistakes. To facilitate this, organizations must incorporate formal lessons learned processes into PD.

Documenting Lessons Learned Helps the Business

Lessons learned is a knowledge-sharing approach that facilitates the capture of lessons and proven practices from a problem or event in order to improve current or future processes or projects. An effective lessons learned program can help organizations:

- avoid redundancy and reinvention, reuse past designs and experiences, and build on existing institutional knowledge;
- improve the quality of products and services while reducing errors, rework, and cycle times;
- standardize best practices and, as a result, improve productivity and efficiency and reduce operating costs; and
- enhance learning proficiency and professional development, reduce time to competency, shorten learning curves, and integrate training and learning initiatives.

Lessons learned can be integrated with Lean methodologies and fit well with the milestone nature of the stage-gage PD process and a technically focused culture.
In previous research, APQC identified seven essential steps to creating a successful lessons learned approach.¹

1. Determine the strategic objectives for the lessons learned process.
2. Support current project and process teams: adapt and apply.
3. Foster reuse in other projects or domains in which sources and recipients are not the same.
4. Create governance processes and clearly defined roles.
5. Design the lessons learned process.
6. Ensure participation.
7. Measure the impact of the lessons learned process.

BEST PRACTICES FROM TORO

Toro captures lessons learned using A3 reports: single-page documents that communicate information or knowledge learned during the course of a project. In addition to conveying technical knowledge, an A3 report can be a mechanism for explaining a process improvement or new innovation.

Engineers are encouraged to work on their A3s throughout the course of a project. Each A3 addresses a specific corrective action, design requirement, or knowledge gain from the project. To ensure that future readers can ask questions or obtain further details about an A3, the A3 must list its author(s). At each gate review in the PD process, project teams are expected to review and update A3s from previous gates.

Conclusion

Capturing lessons learned provides organizations with a valuable opportunity to streamline their PD processes by avoiding past mistakes and adopting proven best practices. The lessons learned approach should have strategic goals that are relevant to PD and should be used consistently by all PD project teams.

For more information on how best-practice organizations transfer knowledge within PD, read APQC’s best practices report *Improving the Flow of Knowledge in Product Development*.

¹ APQC. *Cutting the Cost of Not Knowing: Lessons Learned Systems People Really Use*. APQC’s Collaborative Benchmarking, 2010.
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