Web-based Tool Identifies and Quantifies Potential Cost Savings Measures at the Hanford Site – 14366

Marisa Renevitz*, Brett Simpson**, Jon Peschong***, Briant Charboneau***
* Longenecker & Associates, supporting Mission Support Alliance at DOE Richland Operations Office
** Vista Engineering Technologies, supporting Mission Support Alliance at DOE Richland Operations Office
*** DOE Richland Operations Office

ABSTRACT

The Technical Improvement system is an approachable web-based tool that is available to Hanford DOE staff, site contractors, and general support service contractors as part of the baseline optimization effort underway at the Hanford Site. Finding and implementing technical improvements are a large part of DOE's cost savings efforts. The Technical Improvement dashboard is a key tool for brainstorming and monitoring the progress of submitted baseline optimization and potential cost/schedule efficiencies. The dashboard is accessible to users over the Hanford Local Area Network (HLAN) and provides a highly visual and straightforward status to management on the ideas provided, alleviating the need for resource intensive weekly and monthly reviews.

INTRODUCTION

The Mission Support Alliance's (MSA) Portfolio Management (PFM) group developed the tool and led a technical improvement program that enables DOE to identify and target projects and processes for cost savings. Site workers can submit ideas to the Technical Improvement system using a structured form that allows them to identify savings opportunities on almost any work being performed at Hanford. Figure 1 illustrates the process flow of an idea as it enters the technical improvement system.
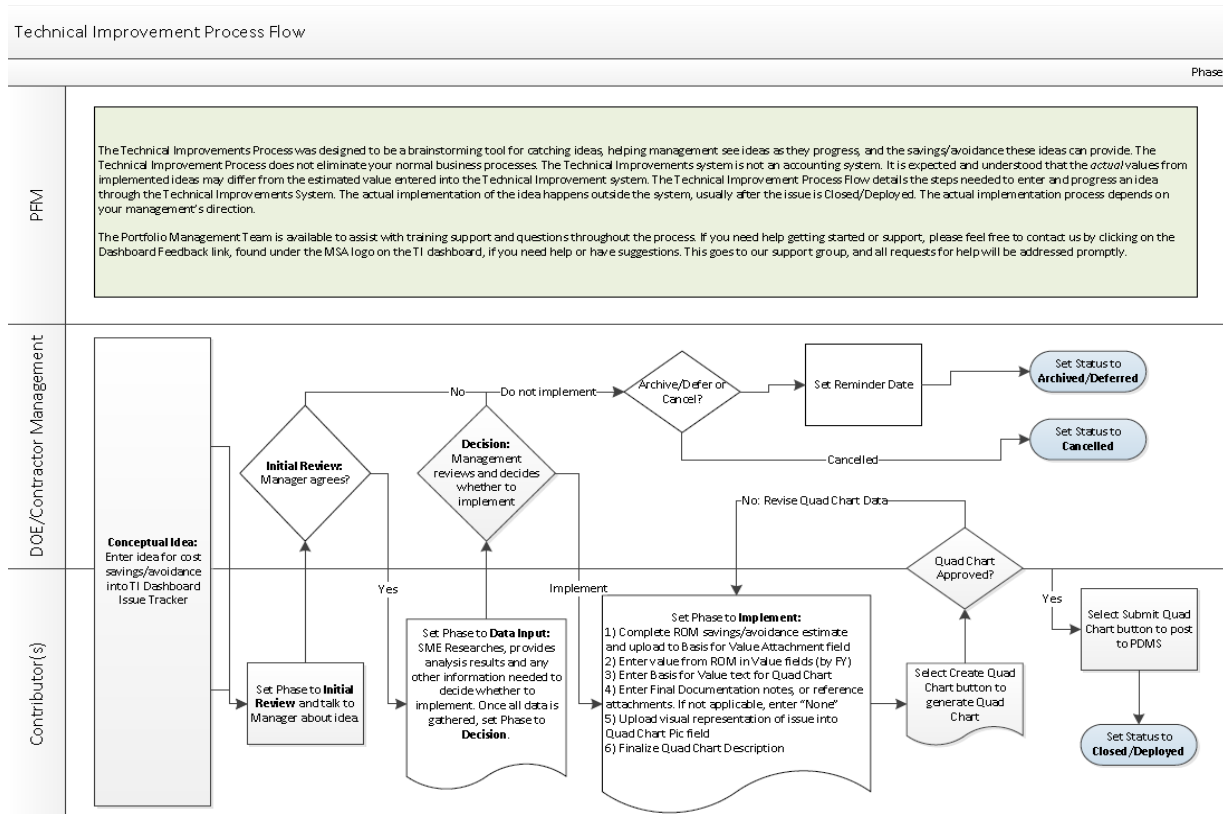
Fig. 1. Technical Improvements Process Flow

The PFM organization collaboratively administers and maintains this integrated system with the DOE Assistant Manager for Mission Support (AMMS) division.

DESCRIPTION

The Technical Improvement system is designed to be a brainstorming tool, capturing ideas as they emerge and allowing proposals to be refined over time through a series of peer and management evaluations. A database preserves these changes as the idea becomes more tangible. This structured data collection program makes it easy for DOE to prioritize and select opportunities. Figure 2 illustrates the web-based form that users access to populate the database and progressively complete as their idea matures. The database is able to capture a variety of artifacts that are generated as part of the process, and allows users to attach files, such as photos, financial analyses, or case studies that support the prospective efficiency.

Fig. 2. Technical Improvements Form

DOE assesses each suggested improvement or cost savings through the usual management chain and process, with the Technical Improvement system capturing the results. Ideas not promoted are archived/deferred so that the analysis efforts are preserved, and can be revisited later when implementation conditions are potentially more favorable.

The Technical Improvement dashboard is a key tool for identifying baseline optimization and potential cost/schedule efficiencies. The dashboard is accessible over HLAN and provides a highly visual and straightforward status on the ideas provided, alleviating the need for weekly and monthly reviews. Users can click on each phase of improvement maturity to see the list of technical improvements in that phase and drill down for more detailed information about the status of each improvement. Figure 3 illustrates the dashboard that users and management access to check on the progress of the portfolio of ideas submitted to the system and their potential savings.
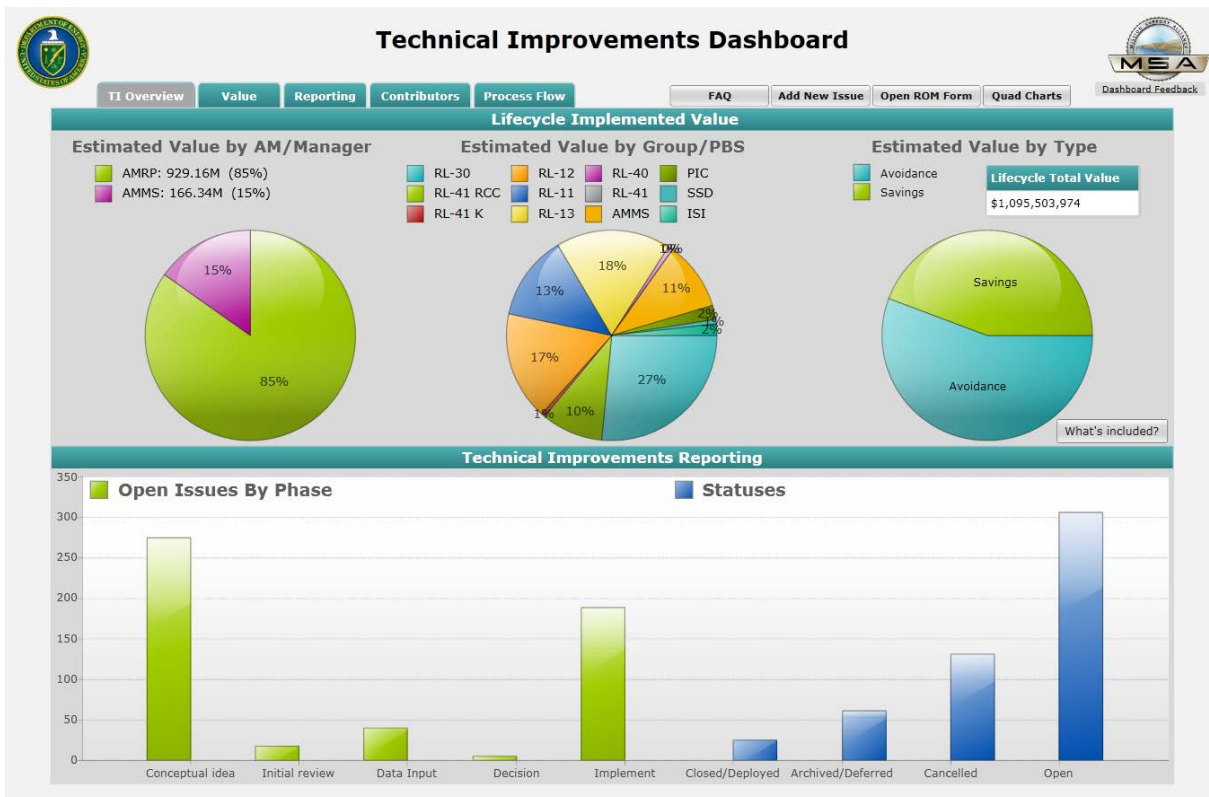
Fig. 3. Technical Improvements Dashboard Home Screen

The dashboard shows the estimated rough-order of magnitude cost savings or avoidance, tracks technical improvements as they move through the various process phases, and allows users to quickly and easily find and update their own improvement ideas. Figure 4 illustrates this feature and a suite of sorting capabilities that allow management to narrow their focus on proposed ideas. As time goes on and ideas move to implementation, their impact is quantified as part of various change control processes.
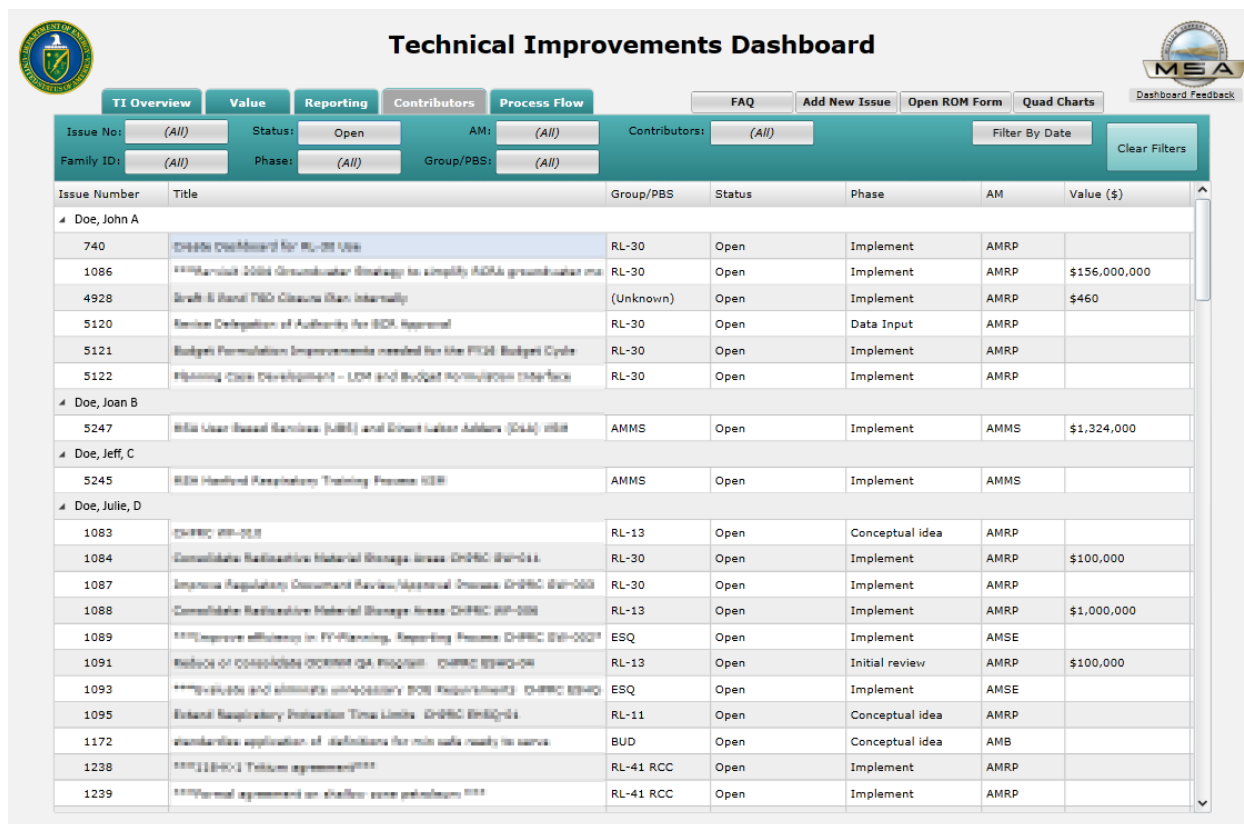
Fig. 4. Technical Improvements Contributors Tab

Additionally the transparency of the Technical Improvement system allows management and participants to track the progress and effectiveness of the system, and mine ideas for potential use in other areas on Site. Finding and implementing technical improvements are a large part of DOE's cost savings efforts. Going forward DOE's Key Performance Goals will routinely include analyzing and initiating technical improvements that will significantly reduce operating costs and enable more cleanup.

CONCLUSIONS

This integrated system of data collection, analysis and reporting provides numerous advantages in identifying efficiencies. The collaborative nature of the system allows participants to contribute their expertise in a way that does not overly constrain their creativity. The system provides a method for very brief and rough ideas to be captured, as they happen, and allows them to be refined after further studies and consultation with other experts. The magnitude of the idea does not have to be large; a small or unconventional idea can lead to much larger proposals. Allowing participants to explore low-value or routine items can often lead to a land of opportunity with regard to re-engineering business processes. This fortunate circumstance can happen because of the transparency and widespread sharing that the system allows; individuals across the entire Site can see the proposals and contribute to them, providing scale that in other process improvement methods was not previously available.