Lean Is Not A Band-Aid

he software industry at the turn of the century needed a new direction. After years of preparing for Y2K, and then the dot com crash, it was time for change. Industry leaders came together and created their call to action, the Agile Software Manifesto. This helped to ring in the most creative and productive era of software that has transformed the world.

Our industry faces a similar imperative for change and transformation, and lean practices are touted as an answer. A 2017 Dodge Data and Analytics study of 162 construction projects found that lean tools can make projects three times more likely to meet schedule and twice as likely to meet budget.



HENDERSON

But lean can't fix badly flawed processes. This point was recently made for me while conducting lessons-learned sessions on two large, similar lean projects, one a flop and the other a success.

Project A's team had partners who all had some lean experience, and the owner mandated that the Last Planner System and a variety of other lean tools be applied. They adopted an integrated project delivery approach, including a multiparty agreement with shared savings arrangements. The team conducted its own project kickoff with all members of the agreement present, and then everyone retreated to their corners to complete their planning. A Big Room was established, but rarely did partners review plans or schedules together.

Significantly, the owner didn't engage any of the end-users in the planning process, and the project manager was not on site full time. In fact, the owner's project personnel rarely attended team meetings,

didn't engage in the design process and failed to provide timely input on the budget. The project concluded months (over 30%) behind schedule and cost overruns were significant in the owners' view, but ultimately immeasurable, as there had never really been alignment on scope and budget. All of the traditional construction challenges that lean is supposed to solve were amplified by lack of commitment and very limited owner involvement. The project manager's key takeaway was that they would never use this contracting methodology (nor this MEP firm) again. The project was a black mark on their careers.

Project B's team was newly formed and excited about lean, but had very little experience. True integrated project delivery (in the contract used) was out of the question, but the team used design-build and held a full weeklong, facilitated, planning and scoping session in lieu of a traditional kickoff. They invited key subs and trade partners; the project manager co-facilitated the session and the owner not only provided executive support but also brought three of its end-users to provide input into scoping, design and scheduling. The team spent almost a third of the session focusing on how they would operate and communicate as a collocated team: they aligned around conditions of satisfaction, dove into the business

case for the project and even developed a team culture. The work they did during that first week empowered the integrated team to work together, exceed every one of the owner's goals and turn over the new facility ahead of schedule. They labeled it the best project they'd ever worked on; each partner was successful, and they pointed to the upfront alignment as well as the owner's support and involvement as the two key enablers of that success.

So what can we learn? While lean construction holds great promise, too many teams act as though lean is a magic wand that can fix all the traditional construction project problems that have persisted for decades. Lean practices can't fix systemic issues like slow decision making, unclear objectives, an adversarial culture and poor leadership.

To be successful, our industry must first build strong, integrated project teams that work collaboratively, gain support from transparent information and are empowered to solve problems. It's about trust and culture more than it is about tools and technology. And, oh, it requires more, not less, owner involvement to be successful.

While lean approaches such as Last Planner and Target Value Delivery can give a team considerable advantages over traditional project delivery, we must do more to improve productivity and reliability. Our industry is ripe for disruption and if we don't acknowledge that the time for a revolution is now, others will do it for us.

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