

Innovate Before You Automate:

The importance of Process Improvement before Technology Implementation

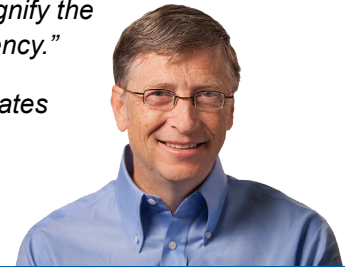
It is a best practice that LeanOhio relies on for almost every process improvement project we participate in: *No IT solutions until you improve the process first.* We at LeanOhio hold this theme up as a guidepost because we believe that sequencing process improvement ahead of technology implementation is critically important to maximizing the gains that automation may offer.

7 Reasons why you should put PI before IT:

- 1. Faster Implementation:** Following a process improvement initiative, your business process will be less cumbersome and involve far fewer steps. This can translate into less time required for design and development of your IT solution.
- 2. More Standardization, Less Customization:** Lean and Six Sigma tools can help identify and consolidate branches of the process where different people or sections “customize” the process to either tailor it to their needs, or to work around a deficiency in the process. Bringing the team back to a single, standardized process reduces inefficient workarounds and means less for your IT team to have to develop and document.
- 3. Easier to Maintain:** Having to account for previously mentioned customizations in an IT solution can quickly add up to make your new system more cumbersome and complex than it needs to be. A leaner business process is not only easier for your IT staff to develop and implement, but also easier for them to maintain, as programming changes in a leaner system are less likely to cause unintended ripple effects.
- 4. Less Costly:** All of the above points – less development time, less complexity, less maintenance time – very simply add up to one big factor: dollars saved. It’s no secret that a less complex IT system is a less costly IT system; and a leaner, more efficient business process up front translates into a less complex IT system.
- 5. Money Spent More Wisely:** On top of reduced costs, you’ll be able to rest assured that the money you do spend on developing a new IT system is not being spent to automate steps in a process that add no real value to you or your customers.
- 6. Preliminary Requirements Gathering:** As team members are developing a new and improved business process, it’s an excellent opportunity to have IT representation in the room. Not only will those IT folks get to hear first-hand dialogue on how the team members might want a new automation system to work for them (essentially high-level requirements), but IT staff can share knowledge and set appropriate expectations about infrastructure and platform capabilities.
- 7. Create Buy-In:** For many people, change is a difficult thing to manage. This is no less true when we’re talking about introducing a brand new IT solution to manage a business process. Allowing front-line staff to have a hand in what their future is going to look like gives them a chance to get excited about it and fosters more acceptance to the coming changes.

“The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency. The second is that automation applied to an inefficient operation will magnify the inefficiency.”

– Bill Gates



MORE INFO:

[NCSC Case Study](#) (page 2)

The virtues of process improvement and operations management in sequence with automation are highlighted in a 2013 case study series conducted by the National Center for State Courts.

[Enterprise Grants Management System](#) (page 2)

Read about how the Governor’s Office of Health Transformation, with facilitation from LeanOhio, brought multiple state agencies together to devise a common business process to be supported by a state-wide grants management platform.

[eLicensing](#) (page 3)

When the OIT eLicensing project team identified red flags from their development consultant, they leveraged LeanOhio’s services to correct course and avoid a sub-optimal IT solution.

NCSC Case Study

In a series of case studies on business process automation compiled by the National Center for State Courts in 2013, operations management methodologies, including Lean and Six Sigma, are elevated as best practices to be gleaned from the private sector. Throughout the briefing, the NCSC illustrated the importance of properly sequencing improvements in operations management with implementation of automation:



Business leaders examine each process to determine how to optimize it, while applying technology to automate it. To optimize a business process means to maximize both effectiveness and efficiency – to do the job as completely and thoroughly as possible, with a minimum expenditure of resources.

The Phoenix Municipal Court succeeded because it was not just looking for a computer system, it was trying to be a more effective court; fast, fair, and efficient. Technology was a facilitator of better operations management, not an end in its self.

The document also highlighted commonly occurring pitfalls and cautionary tales:

Progress in automating courts is often “two steps forward, one step back.” For instance, courts often install new technology solutions without eliminating the processes or systems they are intended to replace.

Courts lack business process discipline. Some courts have made no attempt to even enumerate all of their business processes, let alone document them.

Another aspect of business process discipline is variation in court operations... Each court business process in a state may have dozens or even hundreds of local variations. This complicates the application of uniform tools and processes.

... as a whole, process variation is the enemy of successful automation because of the exponential increases in complexity that it creates.

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Source: Webster, L. P., & Matthias, J. T. (2013). Business Process Automation Case Studies. National Center for State Courts.

Enterprise Grants Management System

In 2013, leadership from the Governor’s Office of Health Transformation took an exploratory look at the landscape of federal grants being administered by the State of Ohio. It was discovered that 22 different state agencies handled approximately \$25 billion annually in federal grant dollars. These agencies used a total of 57 different software systems, at an annual cost of over \$4 million. These figures, coupled with an inherent lack of visibility and other potential business risks, led the exploratory team to recommend the development of an Enterprise Grants Management System.



With this lofty goal set, it was decided that the first major phase of the project would be to optimize and standardize the disparate processes involved in the grant life cycle across various agencies (prior to releasing an RFP to

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Grants Management System *continued*

technology vendors). A core team composed of representatives from 9 state agencies met continuously across the span of approximately one year to participate in what was dubbed the Business Process Re-engineering project (or BPR); a carefully coordinated series of LeanOhio-facilitated Kaizen events, Value Stream Mapping events, and other Lean activities.

The agencies also leveraged their own in-house Lean/Six Sigma practitioners to complete their “homework” of mapping their existing business processes. The end result of the team’s efforts was an efficient, standardized process model for managing grants throughout the State of Ohio, which will be used as a roadmap in the development of the enterprise system that will eventually support grants management. Norm Crouch, project manager for the BPR, offered a retrospective of critical success factors and lessons learned from the massive project. Of the many points offered, a few were relevant to the theme of this briefing, namely his thoughts on the roles of the business process and technology:

The ultimate purpose of this project was to develop a solid process with which to drive technology, and this was clearly stated and reiterated over the course of the project.

On the role of in-house Lean practitioners:

The impact of Lean Leaders was significant... Having a person with Lean capabilities to support the effort at the agency level can greatly increase the odds of success.

On the involvement of LeanOhio:

Projects such as these must engage LeanOhio’s help and expertise to be successful. Without the efforts of LeanOhio this project would not have succeeded.



Enterprise Grants Management System
Kaizen Event

DAS/OIT eLicensing

In 2014, a project team with the Office of Information Technology was tasked with replacing the aging system used by Ohio’s various licensing boards to manage license issuance and renewal. An RFP was issued to solicit bids, and a consultant was selected to design and develop the new system. Work on the new system began, with three separate licensing boards selected to participate in the piloting of the new system. However, as the new system began to take shape, the OIT project team noticed a major issue with the way the consultant was approaching the development of the solution.

While the overall work that each board did was similar from a high level, the processes they followed to do that work were notably varied. Rather than attempting to reach consensus with the boards on a standard way to model these processes in the new system, the consultant opted to produce a series of customizations to accommodate the processes just as they were.

As more and more one-off customizations were implemented, the OIT project team quickly recognized that the consultant’s approach would result in an extremely cumbersome and costly system to maintain. The team made the decision to terminate the contract with the consultant and start again with a different approach.

Prior to selecting a new development consultant, OIT brought LeanOhio into the picture. Staff from LeanOhio worked with the pilot group of licensing boards to document their current business processes, reduce the number of process steps by eliminating waste and non-value added elements, and reach consensus on a standardized core business process among the three pilot boards.

To the delight of the project team, the licensing boards were able to reach that consensus with incredible ease. The outputs from these sessions are currently being utilized by the newly-selected consultant as they work to develop the new eLicensing system.