LEAN SIX SIGMA

Deployment: Start Off on The Right Foot

by **Robin Gates**

Aristotle advised, "Well begun is half done."[1] A thoughtful plan addressing critical issues makes any project deployment easier and produces better results. This includes any lean Six Sigma deployment and the many challenging issues that come with it.

Business executives and leaders planning or starting lean Six Sigma deployment projects can benefit greatly from a little preparation and prework.

Although geared toward large private sector organizations of 500 or more employees, the deployment management issues and principles detailed throughout this article are relevant to public sector organizations and can also apply to smaller organizations with the appropriate adjustments.

In 50 Words Or Less

- **The decision to deploy lean Six Sigma should not be taken lightly. Difficult questions must be answered before starting the journey.**
- **Identifying internal customers early on and staying connected is critical for success during project deployment.**
- **Four different deployment models can be used when mapping a course of action.**

Making the Deployment Decision

Deployment starts with the decision to do something. Deploying lean Six Sigma is difficult and should not be undertaken casually. Success is more likely if certain conditions are met. Here are four questions to ask when deciding whether to deploy lean Six Sigma.

1. Is there a compelling reason for deploying lean Six Sigma? A simple, compelling and motivating reason for deploying lean Six Sigma provides the driving force for overcoming the initial deployment barriers. Many people will need

convincing to get on board. Most will not accept that it is the right thing to do on blind faith .

The reason can be dramatic, such as poor financial performance or rapidly falling customer satisfaction. It can be that new competitors are threatening your future. A burning platform—a crisis that demands action—can be a powerful motivator, but it is not essential. Many healthy companies have successful deployments but commonly a threat or opportunity gets their attention and pushes them to action.

2. Are there specific goals for lean Six Sigma? A burning platform or a determined CEO provides the push for lean Six Sigma. But a pull is needed, too. Goals are needed to help paint an appealing picture describing how the future organization will be better. The goals should be specific and reflect the business case for deployment.

Some common goals are:

- Business transformation: fundamentally changing culture and management.
- Strategic execution: turning strategy into results more effectively.
- Problem solving: adopting a common method organizationwide.
- Cost savings: reducing costs while meeting customer requirements.
- Revenue generation: increasing sales or output.

Lean Six Sigma goals should guide early deployment decisions. For example, a deployment focused solely on saving money looks different from one that also is expected to improve strategy execution. Early agreement between the CEO and executive team on goals simplifies planning and reduces the risk of a false start.

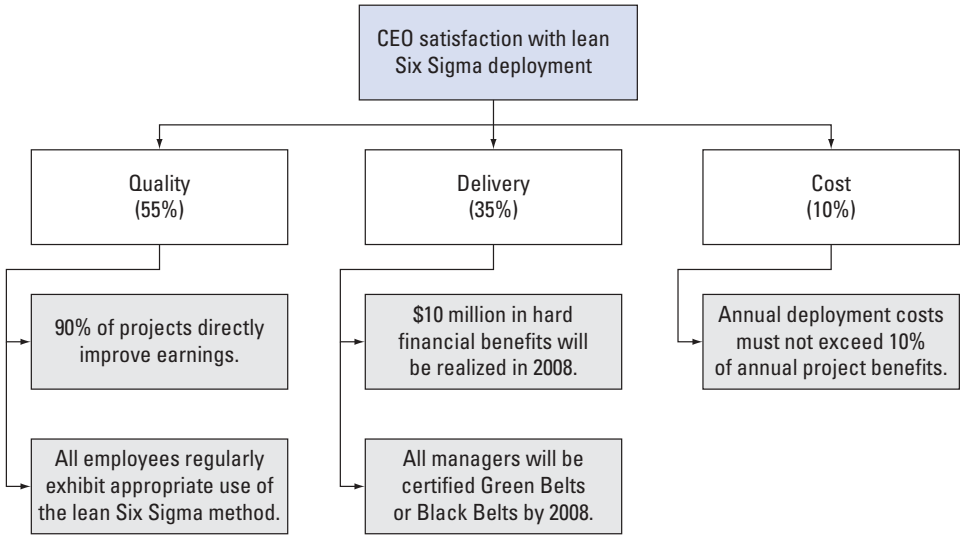
One energy equipment and services company focused deployment on improving customer relationships after key customers told the incoming CEO that the company was hard to do business with.

A manufacturer of advanced materials made changing the behavior of all employees the primary objective. It wanted Six Sigma to be the common business improvement language and the way of life for every employee, not just the Green Belts (GBs), Black Belts (BBs) and Champions.

3. Is there strong executive leadership for lean Six Sigma? There is no substitute for leadership. A high level executive (CEO, COO or a key business unit executive) is needed to maintain the focus on deployment, hold executives accountable for getting results from lean Six Sigma and to break down organizational barriers. A superstar CEO isn't necessary, but there should be no doubt about the sponsoring executive's determination to make lean Six Sigma work. Anything less greatly increases deployment risk.

4. Is lean Six Sigma right for the problems that need fixing? Sometimes organizations start lean Six Sigma hoping to solve all their problems. Lean Six Sigma is an execution method not suited to solve problems such as poor leadership, failing business strategy or financial restructuring. The process capability understanding provided by lean Six Sigma can

FIGURE 1 Example of "Critical To" Tree



help address those woes, but can't solve them.

Address these other problems separately and consider fixing them before deploying lean Six Sigma. Asking this question at the start pushes executives to better understand how lean Six Sigma works and helps focus it on the appropriate problems. For example, one company found it lacked a widely accepted business model. It realized it needed to fix that situation separately before lean Six Sigma could deliver all the anticipated benefits.

Understanding Deployment Customer Requirements

A deployment is like other business processes in which customer requirements should come first. The value of the deployment is determined by what the customer sees and is willing to pay for.

Understanding internal customer requirements is a good place to use some lean Six Sigma tools. Developing a "critical to" (CT) tree for the deployment will help go beyond general deployment goals and determine specific and measurable performance specifications. Figure 1 shows an example of a CT tree that illustrates specific metric goals for a lean Six Sigma deployment.

The following are steps for developing a CT tree.

- Identify the deployment customers—those who make the decision to pay (allocate organization resources) for lean Six Sigma or have the power to affect that decision.
- Go through a structured process (for example, interviews or focus groups) to thoroughly understand customer requirements. Use the standard quality, delivery and cost categories.
- Get measures and specifications. If saving money is expected, find out how much and by when.
- If culture change is required, determine what this means to the customer and how it should be measured. Customers won't always know what they want, so use this process to help them figure it out.

The value in developing a CT tree is that it can provide clarity and garner stronger executive support. Agreement is easy when expectations are vague. Getting specific and measurable specifications flushes out misunderstandings, hidden agendas and wishful thinking. Review any requirements with customers annually and adapt to maturing expectations, keeping the deployment fresh and relevant. Designing the deployment will be easier with unambiguous expectations.

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Selecting the Deployment Model

The deployment model is the deployment's basic scope, scale, structure and focus. There is no one right deployment model. Organizations are served best by a deployment model appropriate

for them. Each of the four generic deployment models highlights issues that must be considered:

1. Organizationwide: This is the conventional Big Bang deployment model. It is top-down driven with strong central management. All parts of the organization participate. This deployment quickly gets to critical mass and produces results. Cross functional processes can be improved because all functions are included. Strong executive leadership helps remove deployment barriers. This deployment approach can transform the business because of its scope and scale.

The disadvantage of this model is that it requires powerful leadership, clear focus and persistence—all uncommon characteristics for most organizations. The model uses many resources and crowds out other initiatives. A strong deployment team is essential. It is the most challenging model to execute.

Research suggests this model has the greatest impact and is most sustainable. Organizations are notoriously hard to change. A comprehensive, fast paced deployment with strong, committed leadership gets the priority and creates the momentum essential to overcome the natural inertia of organizations.

2. Business unit: This model deploys lean Six Sigma in one part or business unit within the larger organization. It has many characteristics of an organizationwide deployment, only on a smaller scale. An advantage is a smaller, simpler supporting infrastructure for functions such as training and project tracking. There is less complexity in a business unit.

The smaller scale makes the selling and adoption easier. This can be a way to start in highly skeptical organizations that need proof it will work. Strong business unit leadership is needed, but early CEO leadership is less critical.

Disadvantages include:

- Impact on the organizational culture is lessened.
- Cross functional improvement opportunities are often lost as teams find it difficult to reach across functional or business unit lines to improve processes.
- Using BB assignments to develop leaders is constrained because exposure is limited to the business unit and fewer promotional opportunities exist.

It can take years to turn a business unit deployment into an organizationwide effort because the pilot deployment must prove itself first. For example, a chemical manufacturer was successful in starting with a business unit deployment. Based on its success, the manufacturer expanded the deployment companywide, adding 18 months to the deployment.

3. Targeted: The targeted model focuses deployment on a specific problem or group of problems. The approach can involve many parts of the organization or just one.

This model can be implemented quickly and yield rapid results. The problem provides the impetus for action and a sharp focus. Little infrastructure might be required because the scale tends to be small. The change management workload is greatly reduced.

Resources such as BBs can be centralized and assigned where needed. Contractors and project employees can be used more extensively. It can demonstrate quickly that lean Six Sigma works.

This approach is unlikely to transform the business because of the narrow focus. Once the immediate problem is solved, the effort can be disbanded easily. Expanding the effort organizationwide is difficult because the supporting infrastructure has not been built.

4. Grass roots: In this approach, a small group far down in the organization deploys lean Six Sigma. This model is easily started, often with an enthusiastic advocate and a specific problem to solve. Little infrastructure is needed because of the small scale. Visible success can create interest in lean Six Sigma elsewhere in the organization.

This type of guerilla, "fly under the radar" deployment has many disadvantages and rarely leads to a broader deployment:

- Often missing is top level leadership to make deployment a priority and provide resources.
- Lean Six Sigma knowledge is localized and there is often little or no infrastructure to support expansion.
- Cross functional work is difficult because of the narrow scope.
- Results are often so small relative to the entire organization that capturing top executive attention is difficult.

Deployment and Results Accountability

Accountability is another deployment issue that must be resolved early. This is often determined along with the deployment's organizational structure. Two aspects of accountability should be considered:

1. Accountability for results: This should be placed with managers and executives. They are accountable for business results, and lean Six Sigma projects are part of getting results. Line managers and executives will quickly marginalize lean Six Sigma if they are not accountable for its project benefits.

Many organizations tie a significant portion of variable compensation to attaining lean Six Sigma improvement goals to reinforce this accountability. Executive accountability for project results leads to assigning key project resources, primarily BBs, to them. This aligns accountability for results and the resources to achieve them.

2. Accountability for deployment execution: This addresses the need to have someone responsible for deployment policies, procedures, training, GB or BB selection and project tracking. Generally, these functions should be centralized to be efficient. This individual should report to someone high in the organization to get the perspective to tie deployment to strategy, and the power to address cross functional opportunities. Reporting to the CEO or COO is a good option.

Assigning accountability can be challenging because many organizational forces fight against clarity. However, getting a workable resolution to these two aspects of lean Six Sigma accountability is necessary for a sustainable deployment.

A Midwest energy company developed performance contracts—including Six Sigma goals—for all its executives. General Electric and many other companies have tied executive incentive compensation to Six Sigma success as well.

Focus on What Matters Most

Maintaining a focus on what matters is a challenge for management initiatives. Too often you hear the story of the quality team completing a textbook project and solving a problem that no one cared about. Nothing is more deadly to a management initiative than irrelevance.

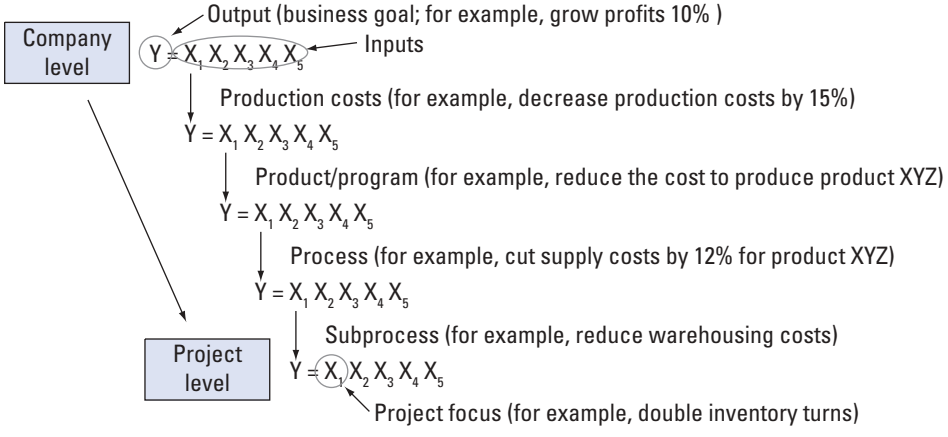
Plan from the start to keep lean Six Sigma relevant. The easy, low hanging fruit projects will be depleted quickly. Developing the next generation of projects will be more difficult. Early action can avoid assigning mediocre projects to BBs just to keep them busy.

Keeping lean Six Sigma relevant is about project development and selection. To find relevant projects, begin with the top business goals (for example, decrease unit costs or increase sales).

Perform a critical to quality (CTQ) flow down to the level in which a project can be properly scoped. Through this process, the transfer function [y=f(x)] is determined and dependencies for a particular business goal identified. The result is a direct link from what the executives care about to specific projects. The CTQ flow down concept is illustrated in Figure 2.

CTQ flow downs are simple in concept but complex in execution. Often, important data go missing, business processes are poorly defined, and the business model is obscure. Projects might be needed to collect data and define processes.

FIGURE 2 CTQ Flow Down for Project Selection



Constructing flow downs must involve top managers, because they possess the necessary perspectives and business knowledge. Getting top management engagement is tough, but the result is often a flood of excellent projects. This is where assigning executives accountability for project results can pay off.

Organizations have adopted a variety of ways to keep projects relevant. Many use project selection committees with top executive members to ensure projects align with company goals and strategies. Many organizations also provide specific training to Champions on project identification methods.

Monitor the project identification process by getting frequent feedback from executives. Ask whether they believe the projects are the right ones. See whether they are excited about attending project report outs or are just attending these meetings out of obligation.

Change Management

The challenge of making changes is not new. Niccolo Machiavelli noted, "There is nothing more difficult to arrange, more doubtful of success, and more dangerous to carry through than initiating change…"[2]

The ability to manage change rather than master tools determines lean Six Sigma success. Lean Six Sigma deployments disrupt and threaten organizations by emphasizing data and measures over opinion, highlighting performance problems with projects and making process owners accountable for better results.

Develop a change management plan early. Avoid putting this off in the rush to select the first BBs and start projects. There is an extensive body of knowledge on change management and many good books on the subject.[3] Build on what is known about how people and organizations react to change, what people need to hear, the role of leaders during change and how to communicate about change effectively.

Start with a quick assessment of the stakeholders and their parts of the organization. Identify the stakeholders (executives, managers, key staff and the lean Six Sigma deployment team) and ask:

- Do they understand the value proposition for deploying lean Six Sigma?
- Do they understand the basic plan for deploying lean Six Sigma?
- Do they support the lean Six Sigma initiative?
- Do they have the resources and business knowledge to support the deployment?

The matrix in Figure 3 can be used to display the results of the assessment. Change management challenges are readily apparent. The assessment provides a simple roadmap from which to start facilitating change and to overcome resistance.

Winning over skeptics requires personal contact and diplomacy. The root causes of resistance need to be understood and actions taken. Many people will become supporters if they feel their concerns are heard and positive steps are taken. Some will resist regardless, but most can be won over if engaged early before resistance becomes entrenched.

Talent Management

Talent management is a powerful way of spreading the lean Six Sigma way of thinking throughout the organization. Cultural transformation occurs when high potential employees become full time BBs for 18 to 30 months and then go back into the organization in leadership positions in which they apply lean Six Sigma principles in day-to-day management.

It is common advice to get the top performers for lean Six Sigma deployments. But less is said about how to do this on a sustained basis. There are many talent management issues such as defining high potential employees, procedures for placing people in selected positions, and managing perceptions and expectations.

For example, Honeywell recruited top performers to become BBs through its talent management process. Its objective was to take leaders and give them Six Sigma skills. This helped Honeywell revitalize its Six Sigma deployment. As part of a leadership development plan, another company took its top-tier performers and systematically determined who should become BBs and when that evolution should take place.

Many organizations do not have a formal talent management process to identify high potential employees and facilitate career development. Some organizations might have programs that don't work well. A rudimentary talent management process might be needed to supply the talent for the deployment.

There will be challenges here. Managers might not identify their stars for fear of losing them. It is

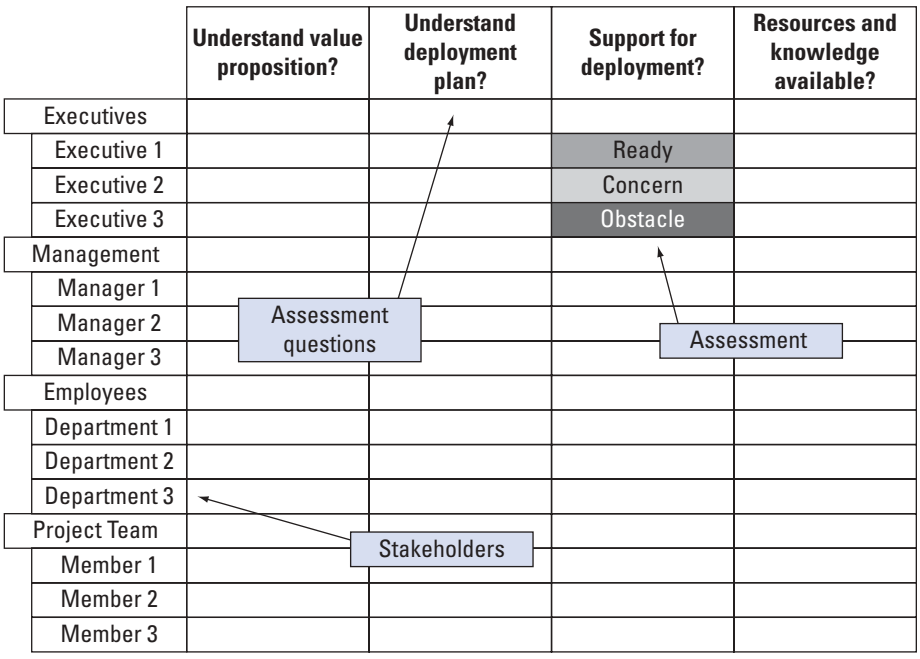
not uncommon to find disagreement among managers on who is a top performer. One person's star might be another's underperformer. Filling jobs might not be transparent, making it difficult to place BBs. Start working with HR early to develop these policies and processes.

Hard Work Pays Off

Deploying lean Six Sigma can produce fantastic results that are worth all the hard work. The risks with lean Six Sigma deployment are not technical. The methods work and the decisions about tools, terminology and training are relatively minor.

It is the ability to address the broader issues of managing change, securing leadership commitment, managing talent and getting the right accountability that will make the difference between a deployment that lasts and one that become another forgotten management initiative.

FIGURE 3 Change Management Assessment Matrix



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