

10 Essential Things to Do – and 10 Things NOT to Do – for a Successful Six Sigma Deployment

Rules of the Road

Ten Essential Do's and Don'ts for Six Sigma Deployment

A White Paper from Six Sigma Qualtec



No matter how powerful the methodology, how experienced the personnel, or how proven the analytic techniques, the ultimate success of any improvement program is largely determined at the crucial initial step: deployment. It's doubly important with Six Sigma, which requires the thorough training of employees in its techniques in order to create a culture of continuous improvement. Nevertheless, many companies devote insufficient attention to this critical phase of Six Sigma. This sometimes fatal inattention can be attributed to any of a number of mistakes or misconceptions: a complacent belief that the methodology will take care of itself, insufficient commitment on the part of leadership, misunderstanding of the business purpose of Six Sigma. In the course of many years of providing Six Sigma training and helping leading companies implement Six Sigma, we have developed a few simple principles – some do's and don'ts – that can help companies avoid those pitfalls and ensure that their Six Sigma program achieves maximum benefits.

Ten Essential Do's of Six Sigma Deployment

Six Sigma deployments can range from simply training a few employees to become Black Belts (the leaders of the teams responsible for applying the Six Sigma process) to a larger scale effort that embraces and mobilizes the entire organization. But whatever the strategy selected, as you embark on deployment, these ten essential positive principles should be kept in mind:

- 1 Ask yourself why you want to undertake Six Sigma.** The answer should be crystal clear: to help achieve your business goals and objectives. However, you must first clearly understand what your business aims and objectives are in terms of success factors, core processes, and performance metrics. You need to know where the shortfalls in performance lie and how much improvement is needed in each area, such as business performance, customer satisfaction, and employee needs and expectations. Often, however, these crucial elements may not have been completely and clearly defined at the outset. Further reviews and assessments may be required to develop a clearer picture. In addition, the principles of business process management (BPM) may need to be applied to provide a framework for determining precisely what the core processes are and what metrics will ensure alignment of the Six Sigma program with critical business success factors.
- 2 Get the backing and involvement of the executive team.** Sometimes the CEO or some other executive, upon learning about Six Sigma and understanding its enormous potential, becomes the driving force behind a Six Sigma deployment. Her enthusiasm alone may be sufficient to bring quick returns, but without the buy-in of the full executive team, the deployment will eventually falter. To secure this wider involvement, the deployment should be overseen by an executive steering group that can ensure that goals are set, priorities are agreed upon, projects are properly selected, resources are made available, and performance and achievements are tracked against expectations. Because Six Sigma is likely to be only one among several strategic initiatives, it must vie for attention with other priorities and goals. It is therefore even more important to make sure that the executive team agrees on the priorities, scheduling, and allocation of resources for Six Sigma. Only in this way can the deployment not only be effectively managed and successfully support strategic business goals and objectives but also work in harmony with other initiatives.

- 3 **Plan the deployment and infrastructure.** Good Six Sigma training at all levels of the organization is essential, but training without the necessary deployment infrastructure will not provide enough support and direction to achieve lasting results. Prior to implementing Six Sigma you should arrange a launch planning session to define and agree upon the necessary strategy, organization, supporting systems, resources, and roles for the program. Without the necessary planning, the deployment can overburden essential resources, cause conflicts with other established activities, and fail to deliver the near-term results that create momentum and the longer-term results that are its goal. The planning session should be attended by members of the steering group and it should address goals, implementation planning and scheduling, communication, human resources, training and support, project selection and tracking, financial guidelines, and IT support – in short, the infrastructure.
- 4 **Establish a formal project selection system.** This is one of the key roles of the steering group. Business cases and projects need to be aligned to business goals and objectives. They should be aimed at closing the gaps between process metrics and critical measures of success. Based on business needs and priorities, a project pipeline should be established so that resources can be allocated in advance. In planning for those resources, it's important to remember that not all problems can be solved by – or require – the Define/Measure/Analyze/Improve/Control (DMAIC) tools. The key is to choose the most appropriate and effective tools and resources, especially given that resources are finite and only a realistic number of projects can be effectively supported at any one time.

Further, each project may produce several solutions, and the impact of too many changes at once needs to be carefully controlled. The project selection process should also include a system for replenishing the pipeline. New project proposals should be reviewed and prioritized at each steering group meeting. The result should be a balanced project portfolio that will deliver both hard and soft savings, cost avoidance, competitive advantage, and other relevant strategic improvements.

- 5 **Select the right candidates for training.** Most companies are now running in lean mode and resources are generally in short supply. Nevertheless, any new venture requires an initial investment in order to deliver the final payback or return on investment. With Six Sigma the quality of people resources invested will have a large bearing on the degree of success of the deployment. The best people should be trained as Black Belts and Master Black Belts (who mentor Black Belts, provide support, review projects, and undertake larger scale projects). However, careful planning is required to ensure they can be released from their existing responsibilities without unduly disrupting the business. A formal selection process should be established to ensure that the right people are trained to be Black Belts and Green Belts (who participate in individual project teams). Typical selection criteria should include proven proficiency in leadership, change management, analysis, facilitation, and communication. With the right training and support, these Black Belts and Green Belts will soon become extremely valuable company resources. As a result, they will need to see a clearly defined career path to ensure they can be retained in the business.
- 6 **Provide on-the-job support.** Good training is essential for participants to gain knowledge about Six Sigma concepts and tools, but the real learning process starts with the application of Six Sigma to real business problems. As with any toolkit, the necessary skills must be learned by use and experience or their users will never become skilled practitioners. Often Black Belt and Green Belt candidates get good grades on their classroom tests but do not have the experience to successfully apply their knowledge to real problems. Support and mentoring for Black Belt and Green Belt candidates between each DMAIC training session, when they are working on projects, is therefore essential. Support sessions should be scheduled and structured to address each phase of the training plan and should be provided by an experienced Master Black Belt. The support sessions also provide opportunities for involving process owners and Champions, who select and scope projects that are aligned with the corporate strategy, choose and mentor the right people for the project, and remove barriers to ensure the highest levels of success. These sessions ensure that the project as well as the candidate is kept on track.

- 7 Ensure that Champions are involved and accountable.** The role of the Champion is often misunderstood. Most Champions have senior positions in the business and, because they are very busy people, sometimes find it difficult to become actively involved in the Six Sigma program. They should be trained at the outset of the deployment so that they can be made fully aware of the role they need to play and the time and effort it will require. For the deployment to produce lasting results, Champions should be made accountable for the success of their respective projects. To fulfill this role successfully they must proactively drive the project and schedule the necessary time to attend tollgate reviews and mentoring sessions, resolve issues and roadblocks, and provide support and encouragement to the Black Belt and the team. They must also be actively involved in candidate and project selection and sign off on the project charter and final report.
- 8 Get relevant process owners involved.** Without the buy-in and support of the process owner and the process owner's team, the project will fail. They need to be consulted at all stages, particularly at the start when the charter is being approved and at the finish when it's time to consider implementing solutions and setting up process controls. At the outset, it is essential that the process owner and his or her team fully agree with the problem definition and the targeted improvements and metrics; otherwise, they may feel threatened and will not support the project team. Equally, when clear solutions are emerging the full cooperation of the process owner and team will be required to ensure successful implementation and ongoing control. The process owner must be involved as the project progresses and should be invited to project presentations, support sessions, and tollgate reviews. Most importantly, the process owner needs to take ownership of solutions and control metrics in order to sustain results.
- 9 Communicate at all levels.** In any circumstances where proper communication is lacking, people will form their own views and conclusions. Further, unless people understand what is happening and why, they are less likely to cooperate. For most people, change causes anxiety so, at the start of a deployment, it is important to let people know how they will be involved and what changes are expected. As the deployment progresses, it is also important to report news of early successes to encourage further participation. This can be done via established channels such as notice boards, newsletters, or briefings. As the deployment matures, there will be a need for a structured communication system to track projects, report progress, and provide ongoing communication at all levels of the business. Most businesses have an intranet system that can be used to develop a communication platform, or one of several available software packages can be used.
- 10 Set up deployment reviews.** All companies pursuing Six Sigma programs review projects and report savings and benefits at some level, such as steering group meetings, project team meetings, and presentations. However, in order to maintain a strategic perspective and ensure continuing success, the whole deployment needs to be reviewed against agreed upon criteria. The review should be held quarterly and include members of the steering group and key stakeholders. The agenda should, at the least, include assessments of performance against critical success factors, ROI evaluation, stakeholder assessment and engagement, identification of strengths and weaknesses, review of projects and alignment to business needs, and resource utilization. One of the outputs should be an action plan to ensure that the deployment stays on track. A formal report should also be issued, extracts from which can be used for internal presentations and general communication.

TEN ESSENTIAL DON'TS OF SIX SIGMA DEPLOYMENT

Because the deployment of any major change or improvement program is complex and involves people with differing preconceptions of how it should be pursued, there are numerous pitfalls along the way. Some are obvious; some are less so. From our experience, we have distilled these dangers into ten mistakes that should be avoided in any Six Sigma deployment if it is to succeed:

- 1 Don't launch without planning.** A Six Sigma deployment requires real commitment at the outset. That commitment is often reflected in the care with which the program is planned. Introducing Six Sigma as merely a "pilot" program, without the necessary planning, usually reflects lack of executive confidence and commitment. As a result, employees may see the program as just another management tryout and will be skeptical about supporting it. At best, the outcome will be modest and uninspiring. At worst, Six Sigma will be perceived as a failure and be abandoned. Careful management planning is essential in order to establish the necessary organization and infrastructure to support an effective and productive deployment. Also, unless some basic education and communication is provided as to why Six Sigma is being introduced, employees will resist the resulting initiatives and changes and potential benefits will be lost.
- 2 Don't do Six Sigma training to get a "tick in the box."** Numerous Six Sigma training providers now offer their services for aspiring Black Belts and Green Belts. Providers include mainstream specialist organizations, open enrollment courses, colleges, or on-line self teaching. Candidates for training may be company sponsored, government subsidized, or even self-funded. With all of these alternatives available, some candidates are tempted to undertake training just to get a "tick in the box" or to enhance a CV. Investment in good training is essential, but you will not realize the full benefits from it unless the new skills acquired are properly managed and utilized in a structured Six Sigma deployment. Competence in the use of Six Sigma problem-solving tools diminishes quickly if it is not regularly applied to projects. A deployment strategy should ensure that this training ultimately leads to results and the expected ROI for the business, not merely to the self-development of individuals.
- 3 Don't let Six Sigma be seen as the "flavor of the month."** Over the past two decades most companies have been involved in a variety of different business improvement initiatives or campaigns. Some have succeeded, some have not. Many have simply faded away and been consigned to the "flavor of the month" bin. Against this background, Six Sigma may initially be viewed in the same way, making it difficult to gain early support and commitment. To counter this resistance, it is important to plan for and publicize some early project successes to demonstrate the power and value of Six Sigma to all employees. The first round of projects should address some well known problems that people understand and which will produce some quick wins for the business. Management must also take a proactive approach and, by their commitment and involvement, demonstrate that Six Sigma is there to stay.
- 4 Don't expect DMAIC to solve all problems.** DMAIC is a rigorous, structured approach to solving problems through statistical analysis and techniques as well as traditional quality tools. It is particularly suited to solving chronic business problems where there are no known or obvious solutions. With a new Six Sigma deployment there can be a misconception that DMAIC tools will be needed to solve all process problems. Improvement projects certainly need a structured approach, but they don't all need the same tools to produce results. It's a case of using the right tools and skills for the job. If the process cannot be improved, then Design for Six Sigma (DFSS) tools will be needed to redesign it. If waste reduction is the key requirement, then Lean principles will need to be applied. Some projects require technical solutions and need the help of specialists. Some may have known solutions and need project management skills. Others may require that you "just do it". It's the job of the steering group to see that the right tools and resources are used and are producing results.

- 5 **Don't attempt to boil the ocean.** It's easy to find problems to solve in any business. With a newly trained and enthusiastic group of Black Belts and Green Belts at your disposal, it is tempting to unleash them as soon as possible on all the major ailments in the business. However, a sure way to bring on disappointment and failure is to “boil the ocean” – that is, to set overly ambitious project scopes and objectives. Projects should be scoped into manageable chunks that can be completed within reasonable time scales and with available resources. Each business case needs to be broken down using Pareto analysis into major constituents, which can then be defined and prioritized into separate, workable project charters.
- 6 **Don't get hung up on the statistics.** “Sigma” is a statistical term for variance. Six Sigma relates to the level of defects in a process. Six Sigma methodology uses statistical tools and techniques along with other well known traditional tools to solve problems and improve process performance. Although statistics are necessary to increase the likelihood of making the right decisions when problem solving, the methodology and rigor with which those tools are applied is far more important. Six Sigma Black Belt training is not intended to turn candidates into professional statisticians. Rather, it is aimed at producing “problem solvers” who are both confident and competent at applying the DMAIC tools to provide optimum solutions to business problems.
- 7 **Don't run Six Sigma as a quality initiative.** Six Sigma is a business initiative. However, in the absence of full executive commitment, the implementation and management of Six Sigma is often left to the Quality Department and, as a result, can become just another quality program. As such, it will lack the necessary support and authority required to achieve lasting success. Launching the initiative at middle management level can work, but it requires more effort to drive the deployment successfully throughout the whole organization. As a quality program it will also lack the necessary strategic focus and remain a low priority in the business. Projects will tend to be biased towards traditional quality issues and will lack alignment with business goals and objectives.
- 8 **Don't expect Black Belts to do all the work.** Black Belt training is time consuming and relatively expensive. Consequently, management may tend to see Black Belts as “super heroes” capable of managing projects and driving solutions and improvements on their own. This is a recipe for disaster. It can lead to projects failing to deliver results and to frustration among the Black Belts. Without the proper deployment infrastructure to support them, Black Belts will have difficulty getting buy-in from process owners. They will also struggle with issues and roadblocks, face conflicts with other business priorities, and ultimately face delays with implementation of solutions. Black Belts should be assigned to a properly selected and scoped project and have a proactive Champion to drive it through to successful completion. They also need to be given a team with the necessary skills, experience, and sufficient time to work on the project. Unless Black Belts have the necessary support and involvement from the Champion, process owner, process specialists, and management team, they will fail.
- 9 **Don't allow the Black Belt role to be a part-time job.** Theoretically, Black Belts should be 100% committed to Six Sigma problem solving activities and usually serve at least a two-year term of engagement. This is the only way they can be fully available to work on projects without the risk of conflicts with their existing job responsibilities. Some organizations do cope well with part-time Black Belts, but managing time needed for projects is always made more difficult and project completion often delayed. Scheduling mentoring sessions, team meetings, and reviews also becomes more difficult. Sometimes Black Belts overcome time constraints by working excessive overtime or by doing their project work at home, but this is usually short-lived. Part-time working can also create management resource conflicts and send the wrong signals to employees about the company's commitment to Six Sigma. Experience across many businesses has demonstrated that full-time Black Belts deliver better results.

10 Don't allow stakeholders or specialists to overrule solutions. If the process owner does not agree to the project charter or is not fully involved in ongoing project reviews, there is a danger they may not agree with solutions and improvements identified by the Six Sigma team. Alternatively, they may have already decided how to solve the problem based on their own experience or input from process specialists. Even with initial buy-in and a deployment structure in place, all stakeholders may still not fully agree with the ultimate solutions, which can jeopardize successful implementation. It is the job of the Champions to ensure that all stakeholders are kept on board throughout the project. Thus, when solutions are agreed upon, the stakeholders will sign off on the action plans and control plans and own the ongoing metrics.

THE OVERARCHING PRINCIPLE

If there is one overarching principle for all of these do's and don'ts, it is this: the ultimate goal of a Six Sigma program is to have an impact on the business. During every phase of deployment, from training to executive involvement to communication to ongoing management, all participants should keep their eyes on the ultimate prize: achieving the strategic objectives of the organization. Whether those objectives are cost reduction, increased revenues or profits, higher customer satisfaction, or any other business goal, they are ultimately the guiding light for the Six Sigma deployment and the reason for its existence.



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