How **Good** Is *Your* Six Sigma?

Warning Signals, Causes, and Solutions: How to achieve the full potential of your Six Sigma investment

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3CIRCLE PARTNERS®

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Executive Summary

What expectations did you have for Six Sigma in your organization when it first began? Most initiatives begin with high hopes for significant operating profit improvements. But a year or two down the road, it seems many companies look around and see modest, if any, gains from their Six Sigma investment, and dissension where there should be enthusiasm. While there are organizations that have seen Six Sigma become a powerful engine for driving corporate strategy—companies like Allied Signal, GE, ITT Industries and Starwood Hotels—many are wrestling with the challenge of sustaining the initial momentum of their programs.

Long before Six Sigma fades into a program-du-jour, there are clear warning signals of danger:

- downward trends in deployment and results indicators
- lagging support for Six Sigma projects
- isolation of Six Sigma into a separate silo
- people increasingly sliding back into old ways of doing work
- an erosion of Six Sigma roles and responsibilities

The solution to these and many other Six Sigma deployment challenges lies in fully integrating the three dimensions of implementation: strategy, execution, and interaction. Along the way, every company needs to answer one core Six Sigma question, What's In It For Me (WIIFM), for all their key influencers.

An in-depth evaluation that combines interviews and objective performance metrics can reveal gaps and misalignments within a Six Sigma initiative, and provide the information needed to reinvigorate deployment and accelerate results.

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Almost two years into its Six Sigma initiative, a **Fortune** *500 manufacturer with over 10,000 employees was at a crossroads. The original enthusiasm, fueled by promises of quick gains and spectacular successes, had long since dissipated, along with the excitement of creating a substantial Six Sigma infrastructure. Where once the best and brightest competed for Six Sigma positions, trained Black Belts were now requesting transfers back to their old jobs. Where the initial projects generated up to $750,000 per project and incremental operating profit per Black Belt per annum was running in excess of $500,000, the current project pipeline was drying up and projects were dropping to around $100,000. Project duration had been a problem from the outset: on average, projects had taken 6 months or longer to complete. Throughout the organization, there was a growing resentment of the special treatment afforded the Six Sigma resources, and growing frustration with the lack of alignment with the rest of the organization.*

The CEO and executive leadership faced a critical decision: Could they revive the initiative and achieve the significant gains that had convinced them to adopt Six Sigma, or was it time to drop it altogether and invest their time and money in something else?

Rather than give up, the executive team at this company conducted an in-depth diagnostic of what had gone wrong with their Six Sigma initiative. Here's what they uncovered:

1) **They had not structured the deployment of Six Sigma correctly**. On the one hand, all the executives from the CEO on down believed that Six Sigma needed to be an integral part of the company in order for it to succeed. That's why they had put the VP of operations in charge of coordinating the effort. But other elements of their deployment plans were inherently flawed from the perspective of integration. For example, the Black Belts, Master Black Belts, and official Six Sigma projects had no official relationship with any of the executives, division presidents, or others who were held accountable for financial performance. That automatically set up the Six Sigma effort in competition with the everyday work of the company.

2) **They hadn't selected the right kind of person to oversee deployment.** True, the corporate Champion had spent most of his career in process improvement and problem solving, and was widely acknowledged as one of the best in those areas within the company. However, he lacked similar expertise in the art of leadership. He was therefore unable to wield his influence effectively to create and maintain widespread commitment.

3) **They had not prepared the organization to be receptive to and supportive of such a major change.** The people directly involved with the Six Sigma implementation had received extensive training and support, but there was little communication with others or training of others in Six Sigma, especially the key influencers.

Because of what they learned, this executive team rethought their approach to Six Sigma deployment. They're now implementing new tactics to better wield Six Sigma as a tool for accomplishing their strategic goals.

Its supporters emphasize how much better Six Sigma is than predecessors like continuous improvement and TQM: much more tied to customer priorities, much easier to track throughout the company, much more structured in its implementation. And we all know the companies—like GE, Starwood, ITT—who have used Six Sigma to drive customer satisfaction, improve quality, and generate impressive financial payback. Yet for each Starwood there are hundreds of other companies who have achieved only a fraction of the full Six Sigma potential. Could it be that Six Sigma is in danger of ending up just like its predecessors: a program-du-jour, forgotten or ignored at executive levels, living on only in the work of a few passionate zealots?

The question for every executive and Six Sigma support is "how good is *your* Six Sigma?" For many the answer will be "not as good as we hoped." Even those who are on the right track with Six Sigma can find ways to improve their deployment strategies and results. This article looks at the warning signals of trouble, exposes common roadblocks that impede achievement of rapid results, and establishes a framework you can use to evaluate and improve your own Six Sigma initiative.

Warning Signals and Decelerators

Long before a Six Sigma effort collapses, there are warning signals of trouble. Sometimes, those signals are gut feelings or an uneasiness that employees are just paying lip service to Six Sigma. But in many cases, there are more concrete signals that Six Sigma has become disconnected from the core business.

1) Downward trends in deployment and results indicators

- Projects take longer and longer to complete
- Financial returns drop steadily (Black Belts begin working on smaller projects that would be better suited to Green Belt leadership)

Warning Signs of Six Sigma Trouble

1) Downward trends in deployment and results indicators

2) Flagging support for Six Sigma projects

3) Evidence of Six Sigma isolation

4) People increasingly sliding back into old ways of doing work

5) A gradual erosion of Six Sigma roles and responsibilities

- The time for completing Black Belt certification creeps upward
- Stated goals for projects become increasingly modest

2) Flagging support for Six Sigma projects

- Black Belts and Champions have a difficult time recruiting people to staff projects
- Attendance at meetings drops off
- More and more people question their involvement in Six Sigma ("it's taking time away from my regular job"; "this isn't helping me get more efficient, it's just adding to my workload")
- Participation, commitment, and philosophy varies widely between locations and/or divisions
- Instead of devoting high-caliber employees to Six Sigma deployment, "problem" individuals that others don't want are assigned to the Six Sigma team

3) Evidence of Six Sigma isolation

- The Six Sigma staff show signs of becoming a clique
- Project selection becomes a local activity leading to sub-optimization of Six Sigma resources: some areas are overstaffed, good projects in other areas languish because of a lack of available Black Belts
- Cynicism mounts toward the Six Sigma initiative and cross-team collaboration problems start to develop
- Metrics for Six Sigma projects are set independently of corporate strategy, and are measured only in terms of cost reductions or amount of dollars generated per Black Belt (no customer, quality, or cycle time indicators)

4) People increasingly slide back into old ways of doing work

- The initial focus on customer needs dissipates; internally oriented metrics slowly creep in as the main measures used to select and monitor project success:
  - Projects are selected based on imposed executive mandates and/or managers' hot buttons, not on objective criteria
  - Projects are chosen based on cost cutting criteria only (customer priorities are lost in the shuffle)

- Projects aren't checked against corporate priorities
- Best Practices sharing is inconsistent or non-existent
- Black Belts are diverted to "quick hits" that do not require Six Sigma skills; newly learned Six Sigma skills atrophy from lack of use
- Senior executives' behavior contradicts the basic tenants of Six Sigma (they don't base decisions on data, react inappropriately to special/common causes, fail to strive for consensus, etc.)

5) A gradual erosion of Six Sigma roles and responsibilities

- Champions being pulled into non-Six Sigma related work
- Black Belts spending more time on project selection and chartering than driving results by leading projects
- Master Black Belts being assigned to projects that really should be handled by Black Belts
- Sponsors focused solely on day-to-day operations, relegating Six Sigma to the zealots who are increasingly separated from the main culture of the organization

You may have already seen some of these warning signals in your own company, and may have even instituted some countermeasures in hopes of restoring the original enthusiasm and commitment to Six Sigma. But often times these efforts end up having either no effect or the wrong effect because they address the symptom not the cause:

- Ironically, even as Black Belts in one company struggled to get project teams properly staffed, they compensated by launching more projects. As knowledgeable Lean (and Lean Six Sigma) practitioners can tell you, raising the number of projects in process (just like increasing the amount of Work in Process) increases cycle time on project completion, reduces learning, and increases the problems of coordinating resources. This ultimately leads to falling output, in the same way that high WIP and long cycle times erode the efficiency of any process.

- Concerned about long project completion time, executives in another company imposed a time limit of three months on all projects. Unfortunately, they hadn't first checked to see why the projects were taking longer. The result? Projects got done within the time frame, but only because teams either rushed to completion or chose unimportant projects that could be completed quickly.

- Aware of a growing skepticism about Six Sigma, another CEO sent a memo to every employee stating how important Six Sigma was to the company and expecting everyone to support the effort. Yet the memo wasn't followed up by behavior that demonstrated her own support for the effort, nor did she work with other executives to define concrete ways in which all employees can contribute to the effort. The result? Employees just tossed aside the memo and continued doing what they've always done. There is a truism in management (and even in life) that applies to situations like this one: what people do makes a much bigger impression than what they say. In the workplace, employees take their cues on what's important by watching how leaders spend their time, much more so than listening to what those leaders say.

- In an attempt to build management commitment to Six Sigma, some companies have modified their performance evaluations to include Six-Sigma-related measures for all managers. Typically, however, few of the managers can actually affect the measures they are being evaluated against. The result? They are forced to make futile efforts to achieve Six Sigma goals to the detriment of their primary business responsibilities.
- Recognizing that a lack of widespread understanding of Six Sigma within the company was hindering progress, a deployment team designed mandatory training events for all employees. Yet most people at the training had little immediate need to know or apply the concepts and tools being discussed, and the training was not followed-up by actions to help people get involved in or actively support the Six Sigma efforts. The result? Though such training helped employees understand why their company was investing in Six Sigma, it didn't really help them in their daily work and was therefore viewed as a waste of time.

If you look carefully at each of these examples, you can see a common thread. The companies had good intentions, and they all took actions they thought would help improve their Six Sigma results, but there was something missing in their approach, some link needed to achieve Six Sigma's full potential.

Finding the Missing Link

> *Just three years into its Six Sigma initiative, a multinational, multi-industry conglomerate finds itself in an enviable position. The company is into the third wave of training Champions and Black Belts (in all, over 400 high caliber individuals have gone through the training). A program is underway to train Greenbelts. Annual Black Belt contribution remains above $500,000 per annum and cumulative profit improvement is in excess of $200 million.*

What does this company know that many others don't? They've mastered a skill that many CEOs and managers fail to master, described here by Ram Charan and Geoffrey Colvin in their article "Why CEOs Fail" (*Fortune* 6/21/1999):

> *Consider the [Eckhard] Pfeiffer episode. The pundits opined … that his problem was with grand-scale vision and strategy. Compaq's board removed Pfeiffer for lack of "an Internet vision," said USA Today. Yep, agreed the New York Times, Pfeiffer had to go because of "a strategy that appeared to pull the company in opposite directions."*
>
> *But was flawed strategy really Pfeiffer's sin? Not according to the man who led the coup, Compaq Chairman Benjamin Rosen. "The change [will not be in] our fundamental strategy—we think that strategy is sound—but in execution," Rosen said. "Our plans are to speed up decision-making and make the company more efficient."*
>
> *You'd never guess it from reading the papers or talking to your broker or*

studying most business books, but what's true at Compaq is true at most companies where the CEO fails. In the majority of cases—we estimate 70%—the real problem isn't the high-concept boners the boffins love to talk about. … It's bad execution.

For anyone who's struggling with the implementation of Six Sigma, Charan and Colvin's article is a wake-up call. For years, even decades, the experts have told us that the most critical leadership skills were mobilizing the troops around a clear vision and having a winning strategy. A leader's job was to clearly communicate where she or he wanted to go, then trust employees to find a way to get there. As Charan and Colvin point out, it's becoming increasingly clear that we need to put as much *or more* emphasis on implementation. If used correctly, Six Sigma is one of the best approaches there is for implementing strategy, but to reach that point we have to figure out how to do Six Sigma right—or we'll be missing a huge opportunity to successfully implement organizational strategy.

Charan and Colvin are far from alone in this belief. In a follow-up commentary on their article, for example, consultant Tom Curren described a two-year research effort by McKinsey and Company that identified nine mistakes responsible for 80% of the failures of significant change efforts:

1. No performance focus
2. Lack of winning strategy
3. Failure to make a compelling and urgent case for change
4. Not distinguishing between decision-driven and behavior-dependent change (not understanding that behavior-based change requires a very different mindset and different leadership skills result in more languishing change efforts than just about anything else)
5. Failure to mobilize and engage pivotal groups
6. Over-reliance on structure and systems to change behavior
7. Lack of skills and resources
8. Leaders' inability or unwillingness to confront how they and their roles must change
9. Inability to integrate and align all the initiatives

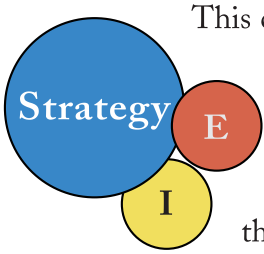
As you can see, only one of nine factors deals with **strategy**. The remaining eight relate to implementation: either (a) poor **execution** or (b) a lack of attention paid to behavioral or **interactional** issues (a failure to effectively involve *people* in supporting the effort). The answer to achieving significant results with Six Sigma is therefore going to lie in some combination of strategy, execution, and interaction.

Three Dimensions of Implementation

There is nothing revolutionary in knowing that effective implementation requires good strategy, execution of good plans, and effective collaboration or interactions. But it seems all too easy and almost natural for companies to fall into the trap of ignoring one or more of these elements.

The Strategic Thinkers

At one extreme, we are all familiar with companies who seem to have a clear strategy but never the results to match.



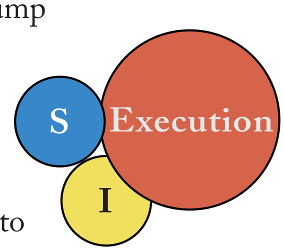
This commonly happens in two situations: (1) A strong, egotistical CEO who imposes his or her own strategy on the organization without appropriate consideration being given to execution or commitment; (2) Companies who are enamored with deciding *where* they need to go and *planning* for execution, but never actually get much done:

> *Though the explosion in companies going online had started to wane somewhat, in the mid-1990s a personal care products company in the northwest still thought it sounded like a good idea for them. They had a good reputation and their store business was going strong. So with help from a venture capitalist, they set up a dot.com spinoff charged with creating the "best website on the planet" for their e-retail business.*
>
> *Eleven million dollars later, the dot.com still had no web presence, and its President was back at the home office asking for more money. An expert sent in to review the situation before more money was invested came back with a clear message: "Pull the plug."*
>
> *What went wrong? It wasn't for the same reasons that many dot.coms failed in the 1990s: in the majority of cases, dot.coms floundered because they didn't have an economically viable business plan. This dot.com has an extremely detailed, economically viable plan… the problem was they just couldn't get out of the Strategy circle, so to speak. What the expert found was literally reams and reams of plans—quotes from hundreds of potential vendors, pages galore detailing the new image, files and files on product options—but not a single action had been taken to make the plans a reality.*

We've never seen this extreme obsession with planning among Six Sigma practitioners, largely because Six Sigma is executional by its very nature. But it's easy to find glimmers of this problem in some quarters: a company that spent months interviewing hundreds of consultants to help with their Six Sigma initiative before the first team was launched, companies where project selection and chartering takes longer than the projects themselves. On the one hand, it's good to be thorough, but on the other, going too far in thinking and planning delays any results you can hope to see from your Six Sigma investment.

The Nike Approach: Just Do It!

There are companies who do the exact opposite: they jump right into executing Six Sigma without thinking about what they want to accomplish or trying to involve lots of people in the effort:



The CEO of a midsized custom manufacturing company was excited. He'd just been to an Executive Roundtable on Six Sigma and thought it sounded like the answer to his prayers. His company was suffering from a steady drop in sales due to product defects and an accompanying increase in costs due to warranty servicing. He'd already had three bad quarters in a row and couldn't afford many more. He was a little skeptical of claims that other companies were seeing net benefits of five hundred thousand dollars or more per Black Belt, but even half that would be significant to a company like his.

After a little more research, the CEO called together the senior management team and spoke enthusiastically of Six Sigma and what it could help them do. He appointed the VP of operations to be in charge of getting it up and running, "and soon." He was most emphatic about the need to see results within the fiscal year and sooner if possible, telling the VP, "Be sure to give me monthly updates."

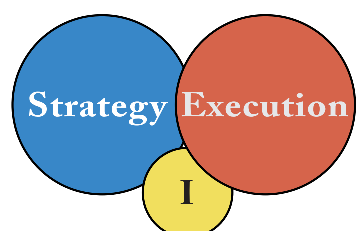
Teamwork is the Answer

For many years, the interactional, or "people," issues were given little attention in most organizations. That changed with the rise of the quality and human potential movements in the mid to late 20th Century. What began then as an interest in teamwork blossomed in the 1990s into empowered or self-directed teams. Some companies have become overly enamored with their focus on "people issues", often resulting in an excess focus on process at the expense of focusing on results.

Over the course of in-depth workshops, nearly 120 key managers at a manufacturing firm were trained in basic teamwork concepts. At the end of each workshop, the participants were asked to identify projects they wanted to work on where they could apply what they'd just learned. A lot of worthy-sounding ideas were identified (such as developing better strategies for launching new products) and people self-selected onto the projects that interested them. In all, about 20 teams were launched within just a few months.

The problem? No one had done any up-front strategic planning to set guidelines for team projects, nor did the company set up a structure for monitoring or guiding execution. As a result, few of the teams produced tangible results and the whole exercise left a bad taste in everyone's mouth for anything that smacked of "teamwork."

Two for Three?



You probably know companies who exemplify the three situations described above—focusing almost solely on strategy, execution, or teamwork. But even more common are those who get several of the pieces right. Perhaps they have a solid strategy and detailed plans for execution… yet still they don't get as much out of their Six

Sigma effort as they'd like:

All the key decision-makers from two companies agreed with the recent decision to merge two of their specialty divisions. The complimentary skill sets and expertise was critical to a rapidly changing marketplace. The strategy around timing and goals were clearly thought out; they knew which product lines they wanted to expand (some of them substantially), which should be phased out, and which would remain firmly established cash cows.

Under pressure from his Board and the appeal to quickly generate bottom line results, the CEO of the newly merged company agreed to also undertake an effort to implement Six Sigma principles. He assigned Six Sigma responsibility to a senior VP, and set some cost-cutting goals.

Several of the key influencers at the top of the organization were very smart people, and they started using Six Sigma methods on top-line-growth projects directly related to the corporate growth goals. That made an immediate and strong connection between execution and strategy.

They still had a ways to go, however, to reach the full potential of Six Sigma. While integrated within pockets of the organization, there was an equal or larger number of pockets of cynics, staff who saw little benefit to applying Six Sigma within their own work areas or supporting its use elsewhere.

A very common blind spot in implementation is a poor understanding or lack of awareness of behavioral issues, and, more specifically, a lack of fostering interactions throughout the organization that link results to strategy. Charan & Colvin highlighted this point in their *Fortune* article: "So how do CEOs blow it? More than any other way, by failure to put the right people in the right jobs—and the related failure to *fix people problems* [our emphasis] in time." Tom Curren did the same in his follow-up article: "Creating higher performance always requires a mix of decisions (e.g., changes in business portfolio, market positioning, pricing) and behavior change (changes in skills, culture). Not understanding that *behavior-based change* [our emphasis]requires a very different mindset and different leadership skills results in more languishing change efforts than just about anything else."

We've seen many, many companies who have mastered the technical part of Six Sigma quite effectively. Their Black Belts have an amazing depth of knowledge in topics such as variation, problem solving, customer focus, designed experiments, and so on. The problem these companies face is that Six Sigma hasn't really been integrated into their management structures and business flow. They haven't yet managed to integrate the three circles—strategy, execution, and interaction—in a way that exploits the full potential of Six Sigma.

A Question of Balance… and Integration

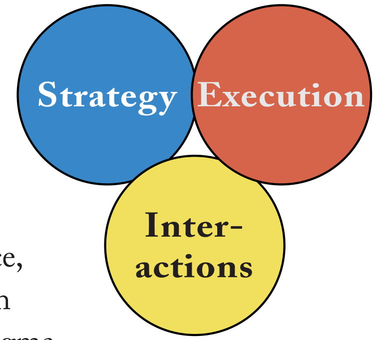
If you could spy on the executive, human resources, and Six Sigma offices at a $300 million division of one manufacturing company you'd see a lot of good work going on. The presi-

dent and executive management team are clear and consistent in describing their strategy for this growing business. The HR department just put the finishing touches on an innovative leadership program that is already being well-received. The Six Sigma champion has charts showing substantial savings gained in just the first year.

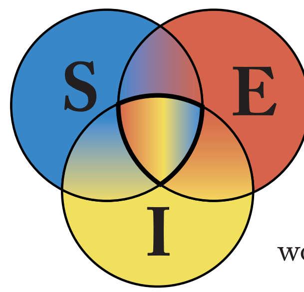
But step back to a 10,000 foot level and you might notice something missing: there is no sign of cross-collaboration between these offices at all. The new leadership training program is top-notch, and participants come away with a greater appreciation for their own strengths and weaknesses. But they don't learn how to link specific behaviors to driving the corporate strategy more effectively, nor do they learn how their leadership style might be helping or hindering efforts to implement Six Sigma.

Similarly, the Six Sigma Champion (who is also the head of Quality Assurance) is well-respected for his deep knowledge of quality and process improvement, and his ability to coordinate the efforts of multiple Black Belts and projects. He feels he's well-versed in corporate strategy having been briefed by the CEO some months ago. Yet if you looked closely at the project selection process, you would find that it does not involve key decision makers, and you'd see little ongoing connection to corporate goals or changes in strategy.

At a superficial level, this company seems to have mastered three ingredients of business success: good strategy, coordinated execution, an emphasis on leadership.



But the problem is that they haven't integrated these elements to support, reinforce, and feed off each other. If a Six Sigma strategy isn't aligned with execution and highly functional behaviors, your efforts will have limited success at best, and Six Sigma will stand a good chance of fading into a program-du-jour as time passes. For an initiative (such as Six Sigma) to become "the way we do things around here" (a norm), it has to integrate all three components of the framework.



The WIIFM Leverage

When we start probing into what companies have done to make sure that Six Sigma projects feed into strategic priorities and contribute to key financial goals—and that these links are visible within the organization—we see light bulbs going off. "We haven't really done anything like that," is what a lot of people say. If they don't make and publicize these links, however, organizations have no way to:

- Give people a compelling personal reason to support the Six Sigma initiative (What's In It For Me = WIIFM)
- Not give them reasons to actively resent Six Sigma

Unfortunately, far too many organizations fall short on both these efforts:

> *Trying to survive in a market where customer needs change quickly, one company decided to use Six Sigma as part of its core business strategy. They hired a Champion who had extensive experience with Six Sigma, trained several waves of Black Belts, launched a number of critical-to-quality projects. But still the results weren't quite what they hoped it would be.*
>
> *Two years into the effort, they did a diagnostic review, including interviews with key decision makers throughout the organization. One of the more revealing interviews came from the VP of Product Development—a key role in a product-driven organization.*
>
> *First, he said, he had not been invited to attend any Six Sigma training, nor had any of the Champions or Black Belts sought him out to understand his priorities. Second, he and his staff were keenly aware of all the money and effort being devoted to the Black Belts, especially now that the company had created performance incentives for Black Belts based on their average return per project. "Don't these people realize that what we do here in Product Development has a much greater impact on our customers and our financials than anything the Black Belts do? Why don't my engineers receive bonuses when they develop a really great product?"*

This VP and his employees had absolutely no reason to actively support Six Sigma, and instead had grown to view it with some resentment. By ignoring the importance of their commitment and support, the organization missed a prime opportunity to capitalize on all its resources. The product development staff were very comfortable with several key pieces of Six Sigma, including the scientific method and data analysis, and could have worked effectively on project teams. Some also had the people skills necessary to make effective Black Belts. Getting these people involved could have been accomplished rather easily in the beginning of the deployment; now, it would take a huge amount of effort to overcome the built-up skepticism.

Like most companies, this one has spent nearly all its Six Sigma budget on the people directly involved in Six Sigma deployment (the newly formed cadre of Six Sigma Champions and Black Belts). Only a small fraction of time and effort was spent communicating with others and explaining the what, why, and WIIFM to those not directly involved. By not paying any attention to "non-direct" resources, companies limit what they can expect from Six Sigma. The companies we've seen who follow this path often have some initial success, but results tail off quickly and are hard to revive.

If your P&L managers don't identify with Six Sigma, if they view it as taking *away* from their resources rather than adding capability, as eating up vital budgetary allotments rather than investing in what will soon be significant financial payback and activities that help them achieve their goals, they will never fully support your Six Sigma efforts.

It doesn't take much to change the equation entirely. For example, a relatively modest increase in time, effort, and dollars devoted to non-direct resources can lead to much broader *and sustained* support for the initiative, leading to much more significant returns in the long run. Organizations such as Starwood, for example, who have invested heavily in bringing the *entire* company up to speed, are more likely to achieve ever-increasing payback from their Six Sigma investment.

Minimally, early education and training in Six Sigma needs to involve all the **key influencers** in the organization, the 5% to 10% of the employees who manage/lead the rest of the organization (first line supervisors on up). For Six Sigma to become the way you do business, the majority of these influencers must truly believe Six Sigma will help them in the portion of corporate strategy that they are held personally accountable and are paid for—in other words, they must have a clear answer to the WIIFM question ("What's In It For Me?").

How Well Is Your Company Doing?

How well is your company doing? Is Six Sigma integrated into your business operations? Are you getting the kind of results you want and need from your investment?

The best way to answer these questions is to build an "executive" version of the DMAIC (define - measure - analyze - improve - control) improvement strategy that lies at the heart of all Six Sigma processes. Perhaps the biggest advantage of DMAIC is the discipline it brings in helping us avoid the urge to jump into actions before we've defined, measured, and analyzed what is really going on. When applied to accelerating an existing Six Sigma initiative, the first step is an evaluation that helps you check on how well you've Defined the goals for Six Sigma, and Measure the impact of all your Six Sigma efforts.

An Evaluation Strategy

Typically, an executive-level team oversees the evaluation of Six Sigma roadblocks. Depending on the scope of the effort, and their own comfort level with Six Sigma deployment, they may involve others in the organization or even outside experts in helping to conduct the evaluation and develop plans.

The evaluation itself often has two main components: (1) in-depth interviews with a spectrum of people throughout the organization (see Table 1, and Table 2, next page), and (2) a review of objectives and metrics that reflect Six Sigma performance (Table 3, *p. 18*).

Having a mix of objective and subjective data is important. The objective data is needed so you can confirm whether the projects have had any measurable impact. In cases like these, however, subjective data gained from interviews is key to understanding the reasons for success or failure. (Survey data may also be informative, but not as helpful in probing for potential causes or problems.)

Continued on p. 18

Table 1: Interview Strategy

An executive-level team oversees internal or external experts who conduct 1 to 1.5-hour interviews* one-on-one with…

– The entire executive team (VPs and Execs)

– Their direct reports

– Selected key influencers (both people who are pro-Six Sigma and some skeptics)

– Anyone who is or will play a critical role in Six Sigma implementation

Include focus groups for all the other layers of the organization, down to the frontline.

* If you have a very large organization, it might not be feasible to do many one-on-one interviews. If so, do one or more focus groups (~5 to 10 people at a time) for each group.

Table 2: Common Topics for Evaluation Interviews

Champions: Where are they placed in the corporate hierarchy? Do they have direct ties to managers with bottom-line responsibilities

Project selection and chartering: What processes are used to generate project ideas? What selection criteria and filters are used? Who develops the charters? What are the approaches taken to ensure that projects are aligned with corporate strategy?

Targets / Financials / Results: Who defines project targets? How are targets linked to business strategy? How are financial goals defined? How are results tracked? What happens if a project is not achieving the desired contribution level? How do Six Sigma project targets relate to overall business goals? Do any Six Sigma goals/targets conflict with other company goals (budgets, profits, plans, standards, etc.)?

Training / Coaching: What people/roles get what kind of training? How much of the training is devoted to Six Sigma concepts/methods? How much to developing leadership and teamwork skills? What kind of follow-up support is provided (coaching, networking, etc.)?

Commitment: What level of understanding and support would you find at the executive level? senior and mid-level managers? other employees? dedicated Six Sigma resources? what has been done in the past to inform and involve each of these groups?

Best Practices: Are they documented? shared across the organization? What mechanisms are used to ensure sharing and encourage learning?

Placement / Hiring: How were people screened for placement in a Six Sigma role? What skills and knowledge were considered essential? To what extent did you hire from the outside or promote from within?

Leadership & Teamwork: How well do Black Belts and Champions handle conflict? How effectively do they interact with others on and off their teams? How effective are meetings?

Oversight / Monitoring: How often and in what way do Sponsors, Champions, and others review projects? What metrics or indicators do they watch? What other processes are used to monitor progress and keep projects on track?

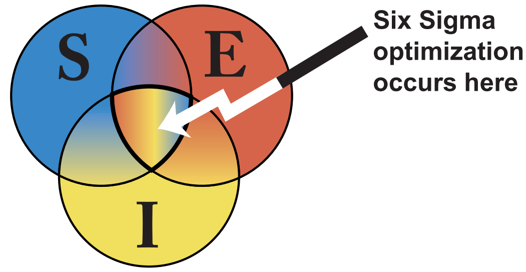
Roles & Responsibility: Is each Six Sigma role defined? What authority and responsibilities do Black Belts have? Master Black Belts? Champions? Do line managers have the authority to change team assignments or project goals?

Teams: How are team members selected? What skills, background, and knowledge are considered important? What accommodations are made to allow members to balance their team responsibilities with other work?

Table 3: Metrics Used for Evaluating Six Sigma Initiatives
Financial results
Project Return on Investment[1,2]
Average return per Black Belt or per project[2]
Before/after project results, such as…
Process cycle time[2]
Defect/error levels[3]
Customer satisfaction ratings[3]
Waste/scrap[3]
Rework[3]
Inventory reductions[3]
Scope of effort
Number of projects completed[1]
Number of projects-in-progress[1]
Number of people trained to date[1]
Average time to certify Black Belts[1]
Project duration
Overall time to completion[2]
Average time spent in each phase of DMAIC[2]
Number of projects per Black Belt per annum[2]

1 = single data point (or time plot[s] of periodic measures)
2 = histogram(s) showing average and variation
3 = time plot(s) or control chart(s) for each process or metric

When developing interview questions, it's important to explore each of the three elements, and particularly how they affect each other: "in what ways were execution plans linked to the corporate strategy?"; "does the way in which Black Belts behave encourage or discourage support for Six Sigma within and beyond their teams?"; "how were line managers involved in developing the strategy? what role do they play in ongoing support and guidance?"



Leverage Points for Six Sigma Optimization

A business initiative like Six Sigma can reach its full potential in terms of both business results and resource deployment only when they are fully integrated into the regular management structures and business flow of an organization. If not, they will eventually become isolated into silos or program-du-jours that fade away.

Achieving this level of success requires dozens or even hundreds of people coordinating their efforts on thousands of details. But you don't have to go crazy paying equal attention to every single action related to something like Six Sigma. Our experience with companies who are and aren't successful at deploying major initiatives (including Six Sigma) has exposed leverage points that are the biggest determinants of success or failure. For Six Sigma initiatives in particular, the following ingredients are most critical:

1) **The people who serve as Champions:** In any major initiative, there will be just a few people (or roles) that have a bigger influence on success or failure than practically everyone else combined. The qualities those people have are key to their success.

Brian is a highly regarded Champion in one of the premier organizations using Six Sigma. Ironically, he credits his ability to work outside the Six Sigma infrastructure for his success. He learned how to "sell" his ideas. His skills in using tools such as style flex, understanding team roles, understanding leadership styles helped him navigate through a corporate "jungle" and be successful. It really boiled down to influence management

In discussions with successful champions like Brian, the majority state that their ability to effectively manage people—to influence individuals or groups within their sphere of influence—was even more important than their knowledge of Six Sigma.

2)Experiential understanding among all key influencers: Six Sigma will reach its full potential only when all key influencers (and eventually the rest of the organization) view Six Sigma as a vehicle for them to achieve personal success in their roles in the organization?

Hearing a gung-ho presentation is one thing; understanding at a gut level what Six Sigma can and cannot do is another. For senior management and other key influencers to use Six Sigma as a powerful performance engine, they must be familiar with its basic precepts, tools, and requirements. Only then will they be able to effectively guide Six Sigma efforts and allocate sufficient resources to guarantee a reasonable chance of success.

Ideally, every management member should undergo a Six Sigma simulation or other experience, and participate in chartering a project. Such an approach immerses these key influencers in the organization in the discovery and project selection process. It creates an emotional connection with Six Sigma, helps executives and managers begin internalizing the benefits of Six Sigma, and helps ensures that it will be integrated in the management processes and priorities.

3) Project discovery and selection: Six Sigma lives and dies with project discovery and selection. In companies who exemplify Six Sigma success stories, project selection is a well-developed process that involves people from all parts of the organization in project identification. Further, the process uses a wide range of filtering criteria that represent everything from customer impact to quality levels, and, most importantly, linkage to corporate strategy and potential impact on key corporate metrics. The Champions are responsible for managing the queue of projects, and especially involving management in restocking the project pipeline with high-potential candidate projects.

Above all else, projects must support business needs. If management does not know how to or is not prepared to spend the effort on properly structured processes to select projects, Six Sigma programs may turn into cost cutting exercises that operate as silos of experts able to ferret out opportunities to cut costs (and heads). This causes even more alienation from the organization as a whole. Involving all key managers in project selection creates an instantaneous link between line management and the Six Sigma team, which

Six Sigma Leverage Points

1) The people who serve as Champions

2) Experiential understanding by all key influencers

3) Project discovery and selection

4) Project management

5) Devoting sufficient resources

preempts the possibility of a Six Sigma silo developing.

Scope and quantity are both important criteria in project selection. Choose projects that are too big, and you'll end up with a lot of floundering teams who have trouble finishing in a reasonable timeframe. Choose ones that are too small or insignificant, and you'll never convince anyone that Six Sigma is worth the investment. Choose projects that don't significantly contribute to financial payback (increased revenue or decreased costs), and everyone from line managers to the senior executives will quickly lose interest.

4) **Project management:** There are two dangers to guard against once projects have been selected and deployed: The first is that they will drop off the radar screen, and six months or a year later people can only wonder what's happening. The second is that there will be too many projects undertaken at the same time, which clogs the pipeline and reduces productivity the same way that too much work-in-process leads to delays and waste in any process.

The first pitfall can be avoided by following a good DMAIC system that includes so-called tollgate reviews by Sponsors and other managers between phases. In addition, it must be clear which people or roles have what accountability and responsibility. Monitoring and accountability provides the means to judge whether a project is on track to contribute to positive business results, or straying from its original charter.

The second pitfall requires judicious deployment of resources to the projects with the greatest potential for contributing to strategic, financial, and/or customer-centered goals. The rule of thumb is that it's better to focus on getting a few high-potential projects done right than to just flood your workplace with dozens of less-important projects. When you have the right resources working on the right things, learning and results are maximized by short project cycle times.

5) **Devoting sufficient resources to Six Sigma:** Resource allocation is a key factor in determining whether Six Sigma becomes an effective tool for

your organization. Too few resources, and it will be difficult for teams to attack meaningful problems, and complete their work on-time and within budget. Too many resources, and you have a greater investment in Six Sigma than can reasonably be recouped by project outcomes.

Regrouping & Relaunching

If you find gaps or miscalculations in your deployment plans or strategies, you obviously want to fix those as soon as possible. The complexity and extent of the re-launch will depend on the extent of what you find. Some organizations could do well to almost start over from scratch; most will just need to tweak or expand on existing plans/activities.

Take MegaCorp, for instance, the company that discovered it had put the wrong person in the role of Champion, and not taken any specific actions to integrate Six Sigma with organizational behavior. Here are some other ways they set about improving their Six Sigma deployment:

- **Participation in a Six Sigma simulation by all executives and key managers.** They realized that few of the executives had any direct experience with process improvement and problem-solving techniques. They therefore designed and conducted a two-day training event where they all got to work on a simulated improvement challenge and to see how Six Sigma methods and tools could be applied.

- **New ground rules for allowing open criticism of the new Six Sigma deployment.** During the first Six Sigma launch, the efforts were accompanied by so much hype that no one felt they could criticize anything without risking reprisals. The new corporate Champion worked hard to change this norm and make it OK for people to speak up if they felt the plans or new deployment actions were unworkable or could be improved.

- **Leadership training for all champions, Master Black Belts, and Black Belts.** Most of the dedicated Six Sigma staff were great on the technical side but weak on leadership and team management skills. Teaching these critical players how to evaluate and improve their own leadership skills made a huge difference in team effectiveness.

- **A purposeful communication plan.** A team that included a very experienced and widely respected Master Black Belt, a Black Belt and a process leader worked with one of the VPs to identify different audiences, tailor the methods of communicating to suit each audience, and distinguish between general communications (such as regular updates in the companies newsletter) and targeted communication (information directed towards those who would be directly impacted by Six Sigma in the next ninety days). The new strategies included presentations and guided discussions that explained WIIFM for the entire company and its employees.

- **New ways of linking Six Sigma projects and corporate priorities.** In most companies, the link between Six Sigma and business needs occurs during the project selection phase. In this case, the organization developed a process for evaluating and rating project ideas against numerous criteria: potential impact on cost or revenue, links to customer priorities, fit with stated corporate goals, feasibility, and so on. All key managers were involved in this process, assuring that future projects would be viewed as integral to the company's success, and that managers would deploy resources to the projects knowing that they were supporting their own priorities in doing so.

The primary thrust of their corrective actions was to bolster the processes that support integration and the **interaction** elements of their deployment plan, to ensure the creation of stronger linkages between them all. The communication plan they developed, for instance, was designed to not just *tell* employees what was going on with the Six Sigma effort, but to actively involve them in defining expectations, developing support strategies, generating project ideas, and refining existing plans.

Your company may already be doing these things; the key point is that MegaCorp developed countermeasures to address the specific faults they discovered in their own execution plans and tactics. In hindsight, the need for these steps seemed obvious to MegaCorp, but as we all know, it's difficult to be objective when we're in the middle of a situation.

Getting it Right: An Example of Three-Circle Thinking

One of the companies described earlier in this article has done pretty well in covering all three circles in its implementation of Six Sigma. At a practical level, that means they put as much effort into *how* the strategies are implemented as to *what* the strategy is. To demonstrate how they link strategy, execution, and behavior, here's a sample of what they've done to ensure their divisional Champions are highly effective:

1) **They carefully selected and groomed Champion candidates.** The current Champions are all well-respected senior managers who were on the fast track to advancement. All underwent extensive training on basic Six Sigma principles and tools (including DMAIC) and on leadership (including building awareness of their own leadership style). When confronted with a problem, these champions can not only analyze it from the perspective of special & common cause variation, but from an understanding of people dynamics.

2) **The Champions are extremely effective in managing their spheres of influence.** Yes, technical knowledge of Six Sigma was considered essential in the people running the initiative, but the ability to work with people to develop commitment was given equal or more weight. As a result, Six Sigma has become "business as usual" within this company, and the strategy of using Six Sigma as a tool for improving profits continues to produce tangible results.

3) The company has the right structure for deploying strategy. The Six Sigma Champions report directly to divisional presidents; the Corporate Champion reports directly to the CEO. These linkages ensure that the Six Sigma resources are kept informed of corporate priorities and that the managers who have bottom-line responsibility have a chance to influence the selection and monitoring of Six Sigma projects—which, again, is essential in making sure that Six Sigma efforts contribute to areas of the business that are seen as critical to market success.

4) Champions led an exhaustive project-selection process. It falls to the Champions to see that all project ideas are appropriately screened and vetted to make sure that the few chosen for implementation truly are the best candidates. This company knows that to use its Six Sigma resources most effectively, projects must meet five basic criteria:

a) be aligned with corporate strategy

b) be of critical importance to customers

c) contribute significant cost savings/ quality improvements

d) have a realistic chance of being completed within a reasonable time-frame

e) Support the key influencer / process owner's goals and accountabilities in his/her role in the organization

5) The Champions foster collaboration within all dedicated Six Sigma resources. The Champions have been instrumental in creating a supportive informal network among everyone involved in Six Sigma. By both example and directive, they encourage a lot of behind-the-scenes sharing of tips, lessons learned, guidance, etc. This networking improves the technical and personal skills of everyone involved with the Six Sigma efforts, making it easier for them to build commitment to the effort and complete projects on time and within budget.

6) Six Sigma experience is considered a prerequisite for corporate advancement. The question many companies face is how to keep Six Sigma from becoming an isolated silo, an "organization within the organization." This company reinforces their statement that Six Sigma knowledge and experience is critical to its future success by explicitly requiring Champions to rotate back into more mainline corporate responsibilities within a few years. Several Champions have already been promoted to senior leadership roles, and have been replaced by high-performing Black Belts who had a proven track record of producing results. In this way, they help to bring Six Sigma knowledge and expertise into everyday corporate operations.

7) Champions apply DMAIC principles to Six Sigma deployment. This company made sure the executive team defined goals for Six Sigma implementation. Periodically, they conduct in-depth diagnostics to measure the impact and success of current procedures, then analyze the results and act to improve their implementation processes. And last but not least, they develop control plans for monitoring ongoing implementation: the corporate Champion, for example, has overseen development of processes for capturing and sharing successes and for setting up early warning systems for quickly identifying if and when projects go astray.

Ironically, the one potential problem at this company lies in the strength of its Champion-led deployment network. If they aren't careful, this strong infrastructure could soon be viewed as a separate clique by others in the organization, which could backfire by positioning Six Sigma as something peripheral to the company's "real work." Fortunately, they have started taking steps to create more explicit links between people working on Six Sigma full-time, and those only partially deployed or not directly involved at all.

Now four years into its implementation, this company continues to sustain Six Sigma momentum and, more importantly, results. What we can learn from their success is the need to pay attention to the critical linkages between the three dimensions of implementation, strategy, execution, and interaction. In doing so, we will get better answers to the questions each of us face every day, and more control over critical issues such as where we need to go as a business, what we need to do to get there, and how we can ensure that people are excited about going that direction.

Conclusion: A Little Effort Goes a Long Way

Throughout this article, we've witnessed what one company went through to revitalize its Six Sigma effort: the warning signals they saw of a Six Sigma initiative headed for failure, the results of their diagnostic intervention, some of the steps they took to better link Six Sigma to their business priorities. The best part of this example is that it didn't take much for them to accomplish this turnaround. They decided fairly quickly that they wanted to hire outside experts to help them conduct the evaluation and formulate new plans, and **within a few weeks** had the diagnostic results and **within a month** had reconfigured their Six Sigma deployment efforts.

This timeframe is by no means exceptional. With the right resources and expertise, most organizations should be able to complete their evaluation and analysis within three to six weeks, depending on the size and scope of their Six Sigma initiative.

Be careful though, most experts will tell you that when any effort starts to falter, you have to act quickly, and you have *just one chance* to put it right. Any delays in taking corrective action, or having another failed attempt at implementation, and you've lost your window of opportunity.

So the question comes back again: how good is *your* Six Sigma? Are you getting what you expect and need form your investment? If not, a little effort spent exploring the roadblocks and linking your strategy, execution, and interactions can have a big impact on the speed and size of the results you see.

# # #

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Anton brings to 3Circle Partners over 20 years of hands-on experience successfully growing, turning around and managing companies all over the world.

In North America, he has served as: President of the Canadian affiliate of a Fortune 400 multi-national, Estée Lauder Cosmetics; President of an Internet start-up, Sparks.com; COO of a 1500 unit retail chain, Premier Salons International.

Internationally, he filled several general management roles for L'Oréal in Japan, Hong Kong, and France, and for Procter & Gamble in the UK.

As a strong communicator who can motivate and bring diverse teams together to achieve a common goal, Anton leverages his deep personal experience and general management skills to the benefit of our clients. Over the last three years his work has included major global implementations of Six Sigma programs in Fortune 500 companies. His focus has been on fundamental organizational change, acceptance of the programs into the culture of the company and creating high performance executive teams. He is a co-author of 3Circle Partners' *The Third Circle: Interactions that Drive Results.*

Anton earned his MBA in International Business & Marketing from the London Business School and his BSc in Zoology & Psychology from the University of Exeter, England.

Max Isaac

Max is a founder of 3Circle Partners a consulting company that specializes in assisting senior executives and their organizations in the management and integration of Six Sigma initiatives. He has over 30 years of general management and consulting experience in North America, England and Europe.

He contributed a Team Leadership chapter to Mike George's *Lean Six Sigma* (McGraw-Hill, May 2002) and four chapters on deployment in George's *Lean Six Sigma for Service* (McGraw-Hill, June 2003). He is a co-author of 3Circle Partners' *The Third Circle: Interactions that Drive Results.*

Prior to moving into the field of organizational development in 1989, Max was the CFO for the Retail Division within The Molson's Organization, where he took a lead role in growing the business to over $1 billion in revenues, doubling its size in four years through acquisition and internal growth.

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