Why They Fail

Why over 90% of continuous improvement efforts either fail or quit within 18 months

...and the Simple Key to Success

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Why Continuous Improvement Efforts Fail and the Simple Key to Success

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Abbreviations used in this book:

- SME – Subject Matter Experts
- KPI – Key Performance Indicator
- MBB – Master Black Belt
- CI – Continuous Improvement
- CPI – Continuous Process Improvement
- BELT – Refers to a Green or Black Belt
- ROI – Return on Investment
- ERP – Enterprise Resource Planning
- MRP – Materials Resource Planning
- OPEX – Operational Excellence
- VSM – Value Stream Map
- DMAIC – Define, Measure, Analyze, Improve and Control
- SSDSI – Six Sigma Development Solutions, Inc.

Introduction

This book is not for the "easily offended." I have been engaged with hundreds of companies and have seen a plethora of epic failures in their attempts to start a continuous improvement program. In my classes, I use the saying, "common sense is not very common," and I rarely see common sense when building the culture of continuous improvement. In this book, I am going to show you how companies fail (and most do), and I am going to show you the simple key to success.

If you are reading this, you probably belong to one of three groups:

- You have been tasked by your company to implement a continuous improvement program, and you have no idea how. Don't worry, we would show you how not to fail.
- You have implemented a continuous improvement program, and it has failed. We would show you where you went wrong and how to fix your deployment.
- You are interested in how to implement a continuous improvement program for your organization and had the epiphany: "I have little experience and may need some help."

Stats on Failure

How often do continuous improvement efforts fail?

A Fortune magazine article stated, "… of 58 large companies that have announced Six Sigma programs, 91% have trailed the S&P 500." (https://en.wikipedia.org/wiki/Six_Sigma)

Aerofil Technology's President Pat Bergin stated in the company's August 12, 2010 press release regarding Lean Six Sigma, "Out of every 100 companies who undertake this process, 96 either fail or quit within 18 months." (https://sixsigmafails.com/)

How They Have Failed

How do companies **FAIL** at deploying a **sustainable** continuous improvement effort?

Have you ever bought a treadmill or a stationary bike, took diet pills, or registered for any of the popular diet programs in the hope of losing weight?

The results were most likely:

- a machine that sat in the corner of your bedroom and became a place to hang your clothes;
- a half-used bottle of diet pills that found a permanent home in the medicine cabinet; or
- in some cases, you found some success losing the weight, but was short-lived.

In this case, why did you fail?

- Reason #1: You wanted the quick fix.
- Reason #2: You did not change your habits.

I am going to give you six (6) common scenarios in which companies fail to deploy a sustainable continuous improvement effort. If your company has failed in the past, one or more of these scenarios is most likely the reason.

- Scenario #1: Our executives don't have time for "executive training." They support the effort, so do we really need the training?
- Scenario #2: We want to train a Green Belt to be our CI person (and single-handedly) save the world.
- Scenario #3: "When you expect the plumber to build the house" (leadership expects someone internally to lead a deployment although they have no clue how to deploy).
- Scenario #4: It is a myth that the CI's role is to improve processes!
- Scenario #5: When continuous improvement becomes leadership's "new toy."
- Scenario #6: We need a quick fix.

Scenario #1: Our executives don't have time for executive training. They support the effort, so do we really need the training?

I can't tell you how many times I have heard this statement when discussing a Lean Six Sigma deployment proposal with a potential customer. This is the first clue that the company's efforts would likely fail.

I also hear other excuses for not formally training the executives like:

- "One of our executives is a 'Black Belt' and would support our efforts, so we don't see the need to educate the other executives."
- "I (the newly trained Green Belt continuous improvement manager) have been chosen by our company to champion the efforts and report to the executives, so we don't really need an executive training."
- "We have given the executives a brief (less than 1 hour) overview of Lean Six Sigma so we can skip the executive training."

My team has one key metric to gauge the success of a deployment, and that metric is the engagement of the company's leaders. The more the leaders are engaged, supportive, and accountable, the better the chance of a sustainable deployment.

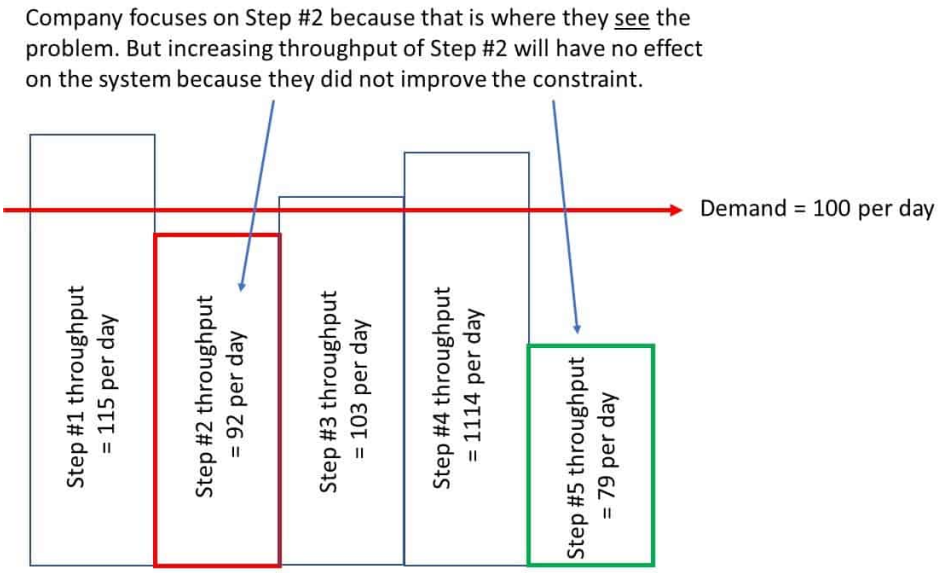
When executives do not "buy-in" to a continuous improvement program and are not educated as to their roles in continuous process improvement (or CPI), what is the result?

- **Turf wars** – When executives do not see a continuous process improvement program as essential, the leader's agenda takes precedence. And when a belt is engaged in solving a process problem and that problem impedes on a leader's agenda, the company's leaders would trump the continuous process improvement project. However, if the leaders go through an effective executive training, they would learn that each continuous process improvement project is prioritized to the company's metrics of success (or KPIs) and that when the

leader impedes on a continuous process improvement project, they are preventing the improvement of the KPIs.

- **Sub-optimization** – When executives do not see an executive training as necessary, they are unable to identify continuous process improvement projects. I have been in countless companies, where the Green Belts and the Black Belts become the "new toys" to the company's leaders. Projects are arbitrarily identified by the leaders based on where the present "pain" is experienced. Unfortunately, that "pain" in most cases is not the constraint in the overall system. The belt may solve the problem in that step of the process, but in the overall system, there is no improvement in the company's ability to produce.

An example of sub-optimization:



These effects (turf wars and sub optimization) quickly lead to the failure of a continuous process improvement program.

Executive training is the cornerstone in the foundation for a sustainable continuous process improvement program. Without bought-in and educated leaders, the efforts would quickly lose focus when the continuous improvement program generates little ROI.

Scenario #2: We want to train a Green Belt to be our CI person (and single-handedly) save the world.

Here is a phone conversation that I have, almost daily, with potential clients who call to get information about Green or Black Belt training:

> Me – "Hello, this is Kevin from Six Sigma Development Solutions, how may I help you?"
>
> Potential Client – "I want to get some information about your Green Belt course. We want to send an employee to one of your courses."
>
> Me – "Sure. Can I ask you a question first? What kind of infrastructure do you have in place to ensure the sustainability of the Green Belt improvement projects?"
>
> Potential Client – "We intended to have the employee trained as a Green Belt to lead our CI department and have them take on targeted improvement projects." (What the potential client is really saying is "We want to train a sole Green Belt to take on arbitrary projects that are the leadership's agenda in a haphazard attempt to improve continuously").

We teach several public Green Belt and Black Belt courses every week throughout the globe. One question that we ask our students at the beginning of each class is:

> "How many of you were sent to this class and are expected to go back to your company and 'save the world'?"

What I mean by this question is: how many of our students are expected to learn the tools and methodology of a Lean Six Sigma Green Belt and then go back to their company, and single-handedly improve processes.

It amazes me that nine out of ten students raise their hands.

I tell the students: "unfortunately, you have been set up for failure. You would learn excellent tools in this class that would follow you throughout your career, but you are likely to have little effect on your company's ability to succeed."

This statement catches several of our students off guard.

What happens when a new belt is expected to be the CI person and single-handedly take on "improvement projects" by a group of leaders who are likely not trained as CI champions and have little idea of how to choose the "right" projects:

- **Stepping in someone else's sandbox** – I'm sure you have heard this term before. If a department is not educated or bought into the entire continuous improvement process when the belt engages the department, a turf war begins. The department leader is likely higher on the hierarchical ladder, and if they do not understand what is happening, they and their team become defensive, resulting in the belt leaving with a figurative "black eye." This leads to a demoralized and un-motivated belt, and the project would stall or die altogether.
- **Sub-optimization** – When a belt or team of belts are expected to be the CI person (or team) and improve processes, then the foundation for continuous improvement has not been built. This usually happens because the company is not educated on the need for a foundation nor how to build the foundation (we would

discuss the Foundation and How to Build the Foundation later). When the foundation is not built, the company is unaware of how to identify continuous process improvement projects.

- **Trying to solve world hunger** – When the company's leaders have this new belt trained to solve problems, they take full advantage. Because they do not have the foundation built and aren't educated on the correct process to pick projects, they expect the belt(s) to "solve world hunger" (in other words, take on a project that is too large in scope). An example of a project that is too large in scope would be: "optimize on-time delivery." What you do not see in this is that the company is including all their 2,500 different products as part of the problem statement. This is a monumental task, but to the company's leaders, it appears quite do-able.

  Because of the broad scope, the belt(s) would get bogged down in trying to understand the thousands of inputs that affect the process they are trying to fix. In many cases, the belt(s) would get overwhelmed and implement a "solution" to appease the stakeholders, but one that is lacking a real impact on the process because it isn't the right fix. Usually, when the belt(s) is overwhelmed, they lose focus, leading to a project that stalls, dies, or fails miserably.

These effects and many more are evident in poorly educated leadership or when the leaders do not wish to invest in the infrastructure that should be in place for a sustainable continuous improvement effort. This would lead to the CI projects failing and the belt getting a bad rap. In this case, it is not the fault of the belt but rather that of the company's leadership.

Even worse, because continuous improvement projects fail, the company loses focus on continually improving their processes, eventually contributing to the company's demise.

Scenario #3: "When you expect the plumber to build the house" (leadership expects someone internally to lead a deployment although they have no clue how to deploy).

If you were constructing a house, would you ask your plumber to build it? In most cases, the answer would be "no" (unless he is an experienced builder as well as a plumber). Your plumber is an expert at plumbing, which is an integral part of the house but there is much more than plumbing involved when constructing a house.

In the same sense, when implementing Lean Six Sigma in an organization, you wouldn't ask a Green Belt or Black Belt with little or no experience to lead a Lean Six Sigma deployment. Yet, in most companies, this is precisely what happens.

In our public training, we usually ask the students, "Why are you here?" (at the Lean Six Sigma Green or Black Belt training). Most of the replies go something like: "to learn Lean Six Sigma, bring it back to my company and start a CI department." Not only are we asking the "plumber to build the house," but the plumber isn't even an experienced plumber.

What happens when you hire or give someone with little clue on how to build a house the task to do so? Truthfully, I do not know the answer to this question because I have never met someone foolish enough to try. My guess would be **the house would take a long time to build, go way over budget, and eventually, would be abandoned.**

While an individual having a house built would have the common sense not to let a plumber build the house, this happens regularly in organizations when deploying Lean Six Sigma. The result is an effort that does not have the ROI that was expected. Like the proverbial house built by the plumber, the CI efforts are abandoned.

Common sense is not very common.

What are some signs that an organization has fallen into this trap?

- ## Continuous improvement becomes the new toy of leadership

  When the company's leaders learn that they have a new Green Belt or Black Belt on staff, they can't wait to use their "new toy." Soon the new CI person is tasked with managing projects like the installation of a new ERP/MRP system, moving equipment to a new location, and managing an expansion project. You might ask, "what's wrong with these projects?" The answer is, they are not focused on finding the solution to an existing process problem through analysis. They are someone's idea of the "answer" (and most likely the wrong answer).

  I have seen CI personnel tasked with the project to "reduce queues in the company's cafeteria" because the CEO mentioned it to leadership. At the same time, those CI practitioners could have been working on issues that were affecting the company's KPIs, like on-time delivery issues.

The problem with these projects is that the leaders' agenda arbitrarily pick them. The leaders do not realize that they are doing something wrong, and they are unaware that infrastructure should exist where the agenda does not play a role in continuously improving a company. Lean Six Sigma is a methodology in which decisions are based on data. The one place that data-based decisions are the most important is in the prioritization of continuous improvement projects to the metrics of the company's success (KPIs).

- There is no plan

  I don't know anyone who builds a house that walks out into a field and starts swinging a hammer without first having a plan. However, this is the path that many organizations take. Most companies task an employee to be their lone CI person and then present them with the hammer.

These signs and many more are evidence of leadership not being educated on the true infrastructure that needs to be in place to create a sustainable continuous improvement effort.

Hiring/tasking a new Green or Black Belt with little to no deployment experience to implement Lean Six Sigma in an organization would, in most cases, fail.

Even worse, because the Lean Six Sigma efforts fail to provide the ROI that was expected, the company abandons the efforts and loses focus on continually improving their processes, eventually contributing to the company's demise.

Scenario #4: It is a myth that CI's role is to improve processes!

One of the worst ways a company can fail in their continuous improvement efforts is to promote the myth that "CI's role is to improve processes."

I hope I got your attention with that statement.

First, let me define the word myth: it is a widely held but false belief or idea.

It is a myth that CI's role (the role of a Green Belt or a Black Belt) is to improve processes, even though this is what most CI departments are tasked with and believe.

Before you decide that I am "full of it," let me explain further. Here is a scenario of a Green Belt who is trained and tasked to be a "problem solver" engaged in a continuous improvement project. This example shows how a project is haphazardly practiced in most organizations (you may have seen a similar situation in your organization):

> Johnny, a CI engineer in an OpEx department of three people (in a company of 820), is tasked by leadership to "speed up" the order entry process. This mandate came from corporate because they lost a customer and thought the order entry process could be the culprit.
>
> He schedules meetings with a small group of SMEs from the order entry process to analyze the process. They meet in a conference room (far away from where the problem happens) for an hour to discuss the process.
>
> Johnny, after the meeting in his office, draws a flowchart from his notes of the meeting. His analysis (the notes and the

flowchart) tells him that there are a lot of defects happening within the order entry process. These defects could be wasting most of the time.

He decides that a detailed checklist could significantly reduce the defects and reduce the order entry process cycle time.

He works with some managers who oversee the order entry process to come up with a checklist.

Johnny emails the checklist to each of the order entry personnel with a note that says, "The order entry process has been updated. Please fill out this checklist with each order and sign it to ensure that steps are not omitted."

How would you feel if you were a process owner, and this message and checklist were emailed to you?

There is so much that went wrong in this scenario:

- Analyzing the process far from where the process happens.
- Drawing a conclusion from just a subjective process map of a complex process that was developed in one hour.
- Developing an improvement from "could" and "might be" statements instead of data and facts.
- The belt, instead of the SMEs, "solved" the problem – this is the worst scenario.

In this scenario, the SMEs would likely ignore the improvement. They would not buy into the solution because they were not part of analyzing the process to come up with the solution.

It baffles me that some training organizations train belts to be "the Sage on the Stage" or the problem solver. This is not a sustainable

way to improve a company because you have broken the 1st rule of change management: "the process owner (SME) shall improve their process."

The belt's job is not to be the problem solver. Their job is to be the "guide on the side" by using tools to help the SMEs find the real solution. It is an amazing transformation when the SMEs see the "fix" to the process in the data using tools like swim lane maps, VSMs, spaghetti diagrams, hypothesis tests, etc. When the SMEs are the team to identify and implement the fix, the SMEs would take ownership of the new process.

My team and I at Six Sigma Development Solutions, Inc. teach our newly trained belts to be the mentor and facilitator of change. They are taught never to suggest an improvement, but rather, to let the data speak to the SME, and the SME should have the epiphany of what the improvement should be. When they discover through a methodology like Lean and/or Six Sigma and identify the improvement, they have a better chance of taking ownership of that improvement.

Scenario #5: When continuous improvement becomes the leadership's "new toy"

I remember getting a new cool toy for Christmas as a kid. It was called a Big Trak, a robotic lunar vehicle. Everyone had a Big Trak.

I was excited to rip open the packaging and play with it. It came with detailed instructions on how to program the Big Trak to perform over 100 different commands, but I was too excited to read the instruction, which were quickly lost in the chaos of Christmas and never seen again.

I learned a couple of commands by trial and error as there was no access to the Internet or YouTube back then. The few commands I knew where how to go forward, backward, and turn right. At first, the few commands I knew were great. I could use it to trip my Dad when he was walking down the hallway or chase my dog. A few weeks and I was frustrated with the Big Trak's limited functionality, eventually, I stopped playing with the toy.

This was unfortunate because I could have found so much more value in this awesome tool I had at my disposal. Because I didn't take the time to understand all that could be programmed into the Big Trak, within a month it was just another toy in the toy box.

This is precisely what happens to the newly trained Lean Six Sigma belts in most organizations. The belt becomes leadership's new Toy.

When leaders do not understand how to effectively deploy continuous improvement utilizing (and optimizing) the belt, they fail to get the return on investment that they expected. Eventually, they start pointing fingers - the methodology is blamed "Lean Six Sigma doesn't work in our environment", the belt is accused, and the timing is blamed - but the actual blame lies with leadership.

Because leadership opened the new toy without "reading the directions" or not understanding how to utilize the belt effectively, they eventually end up with just another toy in the toy box.

Hopefully, you are saying to yourself, "I don't want to be this kind of leader! How do I avoid making these mistakes?" The answer is simple: before you build "the house of continuous improvement," you must first create a strong foundation.

"What is the foundation?" you ask.

The foundation for a sustainable continuous improvement is made up of the following seven (7) elements:

1. Building the plan. Before you start building the house (including the foundation), you must first have a detailed plan of the continuous improvement deployment over the next 12-36 months.
2. The formal buy-in of the company's leadership (not lip-service). This is the cornerstone of the foundation. If the leadership is not engaged and responsible, the efforts would fail.
3. Someone (or a team of people) must own and manage CI.
4. The company must have a concrete understanding of site /departmental/organizational KPIs
5. Trained and bought-in "Champions" to be the project managers and cheerleaders at the site/department level.
6. A project hopper should exist, so everyone can have the opportunity to identify problems. These problems are then prioritized to their effect on site/departmental/organizational KPIs. This ensures that the next project that is delivered to the belt is the next most crucial project to the success of the company.
7. Training the masses to be the "Subject Matter Experts." If we don't let them know why we are doing this, how it affects them, and what their role is, they would be inherently fearful.

All these tasks must be completed before a Green Belt or Black Belt can make sustainable change.

Later in the book, we will discuss in detail the seven (7) elements for building a sustainable continuous improvement effort.

Scenario #6: We need a quick fix

I'm sure most of you have seen thousands of infomercials over the years of "get fit quick" gimmicks.

The man on the TV that I call the "Circus Barker" excitedly tells you of a way to lose weight and get fit in seven days. We fall for these gimmicks time after time with the same result, a new contraption that sits in the middle of the room as a clothes hanger.

Why does this happen? Because we want the quick fix with minimal investment.

Let's relate the above example with an organization's investment in process improvement.

When I am asked by people, "Kevin, what do you do? I answer, "I am like a fitness trainer for your organization except that I focus on the health of your company and its processes, not necessarily the people."

Organizations that invest in process improvement are investing in the health of their company. For those of you who have significantly improved your health and sustained that improvement, you know that this takes time and discipline.

I can tell you story after story of companies that start with good intentions, but because of the need for "the quick fix" and the inherent lack of focus, discipline, and buy-in, they change direction.

They listen to the "Circus Barker" and opt for the quick fix. I often follow up on these companies to get some data on the result of their new "quick fix" direction.

The outcome is often the same as those fitness contraptions that are now stuffed away in the closet or are now clothes hangers in the middle of the bedroom.

Einstein said, "we cannot solve problems with the same thinking that got us into them."

My interpretation of Einstein's quote is that we must change the way we think when our current path does not result in the required outcome.

I have a good friend who was overweight and had declining health. She was on several medications, including blood pressure medications. She smoked, drank alcohol often, among many other bad habits. She tried many of the quick fixes to regain her health, but nothing worked. Why? She didn't change her culture. She didn't change her habits. One afternoon, she had a mild heart attack, which happened in part because of diet pills, and because of her declining health.

This was the "burning platform" that altered her way of thinking. Fast forward to a year after the heart attack - she is now running several miles a week, she has chosen to be a vegetarian, she has lost over 50 pounds, and she is off all medications.

It took a catastrophic situation to make her change her habits. The quick fixes didn't work (and they never do) and almost led to her death. An organization is no different when it comes to the health of the company.

How do you keep from falling for the quick fix? The answer is simple: educate yourself. If you could see the future and know that the quick fix would not result in a healthy company, you most likely wouldn't fall for it.

If you want to build and sustain a healthy company, you must build a healthy continuous improvement culture.

In our workshops and courses, we talk about building the House of Lean and Six Sigma. We use the analogy of a house to help our students understand the elements of building a healthy continuous improvement culture. We discuss the structure of the house and what it takes to have a house that sustains over time.

The class discovers that the strongest part of the house must be the foundation. Without a strong foundation, the house would quickly weaken and collapse.

This is the fate of many company's continuous process improvement (CPI) endeavors. For want of a house to be built quickly, the "quick-fix" route is taken. In this case, the foundation is either weak or not built at all, and invariably, the house would fall.

Earlier, we talked about the seven (7) elements for building a foundation for a sustainable continuous improvement effort. Within these elements are two key topics:

1. Understanding the targets or goals of the company in terms that we can all understand equally.
2. The plan and the discipline to get to that target with measurable results.

I have seen implementations succeed and fail. Most failures can be attributed to the lack of understanding of the targets or goals in terms that we (the employees in the organization) can all understand equally. One of the first questions I ask when engaging a company is, "what are your targets?". Rarely do I get a straight answer. This lack of understanding of what our targets are leads to employees running

around like lemmings trying to affect their interpretation of what they think is the goal.

The 2nd key input is what I call the "stomach." This is the plan and the discipline to get to that target with measurable results. Many companies lose their stomach at the first sign of adversity or hierarchical push back (another sign of a weak foundation). Rarely do I find a company's leadership that possesses "The Stomach" to invest in the time and effort it takes to truly transform their company. This is because transformation starts with uncovering the uncomfortable truths about your processes. This is a scary proposition for most companies. If your organization (including your stakeholders) do not buy into uncovering the truth, the CI's efforts won't last long.

We all know that to make a true, positive alteration to our health takes work, perseverance, and discipline. For most of us, it also takes a good support system. It is no different for an organization.

Why Do So Many Continuous Improvement Efforts Fail?

Why do over 95% of continuous improvement efforts Crash & Burn!

When I was 18, I bought a 1967 Ford Mustang with a 302 Motor. The motor needed to be rebuilt, which was an expensive problem for an 18-year-old. I thought to myself, "how hard can it be? It's just metal parts and gaskets." I decided that I could rebuild the engine on my own. I'm sure you can imagine how this turned out. After many failed attempts and a lot of money wasted, I took it to an expert to have it rebuilt correctly.

This is similar to how most companies deploy continuous improvement methodologies like Lean Six Sigma. Leadership thinks "we are educated, how hard can it be?". Six months into their deployment when they have created a CI department (of one) led by a brand-new Green Belt with no previous project experience that has been tasked with finding and solving problems, they (and their stakeholders) are wondering "where is my ROI?".

This is what happens when you have no clue how to rebuild an engine, but you try anyway - you would likely "Crash and Burn!".

Does this mean that you need an external consulting firm to guide you? You would expect me to say "YES" because deployments are one of our core services. **The answer is, NO. You don't need an external consulting firm to deploy Lean Six Sigma.** What you do need is education on: (1) How not to do it; and (2) How to do it correctly.

However, I should add a disclaimer. Even the best instructions cannot replace experience. If you were having open-heart surgery, would you want a surgeon who has only read a book on performing open-heart surgery, or the surgeon with 20 years of experience performing successful open-heart surgeries?

Now, let's talk about "HOW NOT TO DO IT!" Below are five (5) reasons why Lean Six Sigma deployments fail!

Reason #1: Executive buy-in is just "lip service" (i.e., support for continuous improvement efforts is expressed in words but not backed by actions).

An example of executive lip-service is "We (the company's leadership) are too busy to be trained. We support the effort; do we really need the training?"

This is very common for me to hear when engaging organizations that want to build a continuous improvement culture. This kind of executive "lip-service" is the first clue that the company's efforts would likely fail.

My team has one key metric to gauge the success of a deployment, and that metric is the engagement of the company's leaders. The more the leaders are engaged, supportive and accountable, the better the chance of a sustainable deployment.

Reason #2: Leadership trains a single employee (or a small group) to be the company's "go-to" department for improving processes.

When I get on the phone with a potential client who wants to send an employee to our class to become a Green Belt, I always have the same discussion. I tell them that "of course, we can train your employee to be a Lean Six Sigma Green Belt, but what's your goal for the Green Belt?" Usually, I am answered with, "we want him/her to improve the processes in the company." While this is a good intent, the improvements would be short-lived. Eventually, the improvements would drift back to their original un-improved state. Why? Because someone in leadership was not educated on how to build the infrastructure for the Green Belts improvements to sustain.

Let's compare the newly trained Green Belt to a new surgeon (because they both are tasked with "fixing things"). Let's put that surgeon in an operating room without nurses to assist him or the right information to know what's wrong with his patients. Let's say that he doesn't have any way of prioritizing patients (no scheduling system); he just works on the next patient who comes through the door, whether he knows how to fix them or not. Even worse, he is the only doctor in the hospital with hundreds of patients. This scenario would end up in disaster. Yet, this is the scenario that leadership creates when they train a single employee (or a small group) to be their continuous improvement resource.

When the Green Belt does not have a formal infrastructure to support his/her efforts along with an army of organizational change agents, nor an effective way to identify and prioritize projects, the continuous improvement efforts would not produce the expected outcome and would eventually fail.

Reason #3: Leadership expects the newly trained Lean Six Sigma Green Belt or Black Belt to deploy continuous improvement in the company.

This is a common problem that employees who come to our training face. They have been sent as a single person, or a small group) to our class to learn Lean Six Sigma and return to the company to implement a continuous improvement effort. Earlier, I spoke of "asking a plumber to build a house," which, in most cases would not be a good decision. Although plumbing is an important part of the house, to build a house, you need an experienced general contractor.

In the same sense, when implementing Lean Six Sigma in an organization, you wouldn't ask a Green Belt or Black Belt to lead a deployment to build and sustain continuous improvement. However, in most companies, this is exactly what happens.

Reason #4: Leadership expects their newly trained Lean Six Sigma Green Belt or Black Belt to be the "company problem solver."

This is one of the fastest ways that a continuous improvement effort fails. The newly trained belt soon becomes "the cop." No disrespect to our wonderful police force, but "the cop" in a company comes around when something is going wrong. And when "the cop" comes, people tend to clam-up for fear of discipline.

It baffles me that some companies expect their belts to be the "the cop" (or company problem solver). They are expected to find (or be assigned) and resolve problems with processes that they know little about. They are expected to engage defensive SMEs who withhold

information because the SMEs (in most cases) have no clue why they are trying to improve his/her process.

This is not a sustainable way to improve a company because you have broken the 1st rule of change management: "the process owner (SME) shall improve their process!"

The belt's job is not to be the "sage on the stage" (the problem solver). Their job is to be the "guide on the side" using tools to help the SME's find the real solution. It is an amazing transformation when the SMEs see the "fix" to the process in the data (swim lane maps, VSM's, spaghetti diagrams, hypothesis tests, etc.). When the SMEs are the team to identify and implement the fix, then the SMEs would take ownership of the new process.

Reason #5: The belt becomes a tool of leadership reacting to the a.) "pains" that they presently feel and b.) leadership agenda.

This is another rapid path to the failure of a Lean Six Sigma deployment.

Here is a scenario that I have seen in many different companies: An employee from the organization is sent to a Green Belt course to learn Lean Six Sigma. When they return, the word gets around that the company has a new "problem solver."

The Green Belt quickly gets assigned random projects that are 1.) reactions to "pains" that they are presently experiencing, or 2.) the leadership agenda. Leadership has no training on how to effectively identify Lean Six Sigma projects. The company's idea of a project ranges from moving equipment, project managing a facility

expansion, to implementing a new ERP/MRP system. None of these are Lean Six Sigma DMAIC opportunities.

Because the organization has not built the foundation for a Lean Six Sigma deployment, they send the Green Belt on "wild goose chases" that would have little to no sustainable effect on the profit of the company.

Due to the little return on investment, the continuous improvement efforts lose focus and fail within 12-18 months.

How to Build a Sustainable Continuous Improvement Deployment?

Here is the million-dollar question! How do you avoid the mistakes that lead to failure? Well, keep reading, and I'll tell you.

Seven (7) steps to build the foundation for a sustainable continuous improvement effort:

When building a house, if you want the house to sustain over the long term, the first structure you must build is a solid, well-engineered foundation. The Lean and Six Sigma methodologies are no different than a house. With a weak foundation or no foundation, Lean and/or Six Sigma won't sustain for long.

We (Six Sigma Development Solutions, Inc.) are called into many organizations that have previously implemented Lean and/or Six Sigma. In these organizations, the methodologies had failed to sustain. Most of the improvements have reverted to their original unimproved state.

In our experience, this happens because the company didn't build the foundation for Lean Six Sigma to survive. What makes a good foundation for Lean Six Sigma? Planning, Buy-In, and Education.

There are seven (7) critical steps to build the foundation for a sustainable Lean Six Sigma continuous improvement effort.

Step #1: Building the plan

I compare deploying Lean Six Sigma to building a house. Before you start building the house, you must first have a detailed plan to work from.

This plan is called the Pre-Deployment Plan, and this happens before the training of the executives and the champions. The deliverables from the planning phase are:

- Detailed short term (1 year) deployment plan
- Long term deployment plan (years 2 and 3)
- Lean Six Sigma deployment goals
- Organizational/site/departmental KPIs
- Key participant selection
- Project hopper development
- Identification of Initial VSM candidates (to fill the project hopper)
- Initial development of the management dashboard (deployment feedback)

Step #2: Buy-in of the company leadership

The first education should be the training of your organization's decision-makers. If this level of your organization does not buy into the Lean and Six Sigma roll-out, the effort would quickly fail. As cost savings projects roll out, if the executive staff are not aligned, the projects would get road blocked by "turf wars."

The executive team goes through a Lean and Six Sigma executive workshop along with deployment champions. The Executive Workshop is normally eight hours (one full business day). The deliverables of this workshop are:

- Business targets or KPIs are defined to include key Lean and Six Sigma metrics
- Champions to be selected (if not already)
- Rough draft of the Lean and Six Sigma Marketing Plan is developed
- Initial belts to be trained are selected
- Current and future state value stream map of key products and services
- Initial founding projects are chosen. These must be tied directly to the identified KPIs.

The deployment champions are optimally trained at the same time as the Executive staff to guarantee better alignment. Champions are what we at SSDSI call the "Bulldozers" in that they remove roadblocks to the Change Agents. They are also known as the "Cheerleaders" of the Lean and Six Sigma deployment. We will talk more about this in step #5.

Step #3: Identify the continuous improvement deployment owner

The CI owner is not the "Head Problem Solver," as most leaders would think. The CI owner is the "manager" of change. Their role is to make sure everyone (change agents, leaders, and SMEs) are aligned and moving towards a common goal.

Step #4: The company (as a whole) must have a concrete understanding of site/departmental/organizational KPIs.

This is the most vital step in the building of a sustainable continuous improvement effort at any company. Yet, most organizations fail to see the importance. Most companies deploy Green Belts and Black Belts to solve arbitrary problems that are where they see "the pain" presently. This leads to belts reacting to the wrong problem.

How a potential issue affects KPIs should be the vehicle by which we prioritize CI projects. This guarantees that the next project pulled from the hopper is the "Next Most Important Project."

Step #5: Train "Champions" to be the project managers and cheerleaders.

An effective Lean Six Sigma Deployment Champion is key for a successful Lean Six Sigma deployment. They provide a faster and increased ROI from their projects.

Effective Lean Six Sigma Deployment Champions, in our experience, have three distinct traits.

- An Effective Lean Six Sigma Deployment Champion leads by metrics, not emotion or subjectivity.

  These champions realize the power of data. Their department or site is governed by well-defined KPIs. These KPIs are cascaded down to the operator level, so each team member knows how they are affecting the success of the organization.

  The Lean Six Sigma Deployment Champion chooses and priorities continuous improvement projects by their effect on those KPIs.

- An effective Lean Six Sigma Deployment Champion is "the bulldozer" breaking down barriers that get in the way of the Change Agents.

  The easiest way to kill the spirit of a Change Agent is to throw unnecessary roadblocks in their way.

  Without an effective Lean Six Sigma Deployment Champion, the Change Agent would "step in someone's sandbox and get punched in the eye."

  The Change Agent would take on a cross-functional project that takes them into other departments where the departmental Leaders might not be open to the agent. In such a case, the Lean Six Sigma Deployment Champion, who is high enough on the food chain, educates the department leaders as to why the KPIs have identified the project as critical.

- An effective Lean Six Sigma Deployment Champion is "the Cheerleader," and is consistently promoting Lean Six Sigma as how work can be improved.

  I'm sure you have heard the saying, "lead by example."

  If the organization is promoting Lean Six Sigma and the champions are not "walking the talk," the SME's would then follow their example.

  The champion must be the cheerleader for the Lean Six Sigma deployment. They must promote these methodologies, not as something we might do, but "the way we do things moving forward."

  The Lean Six Sigma Deployment Champion promotes these methodologies with training and feedback. They promote these methodologies by tying the outcomes with their effect on KPIs. They educate their teams about "what's in it for me."

Step #6: A project hopper should exist, so everyone can have the opportunity to identify problems,

Organizations need a holistic view of their process problems to understand the right problems to "fix." Using a Lean Six Sigma project hopper allows a company to identify problems (or potential continuous improvement projects) at all levels and then prioritize them based on their importance to the company's targets of success.

Step #7: Training the masses.

Once we have our leadership trained (executives and champions), then we must educate "the masses." If the employees within the scope of the deployment do not know what is happening and why they would assume the worst. If the purpose of the Lean and Six Sigma Deployment is not communicated clearly, then the masses would generate their buzz. This seldomly has a positive outcome.

This training can occur in one of two ways: Lean Six Sigma White Belt training and Lean Six Sigma Yellow Belt training. The White Belt training is a basic one-day education on the purpose of the Lean Six Sigma methodology and why the company is adopting the methodology and what effect it would have on them.

Yellow Belts receive two days of training, which includes basic root cause analysis. Yellow Belts can make small improvements within their functional area. In an organization of 500 people, 490 Yellow Belts would make a far greater impact than having only 10 Green Belts.

Once the foundation is built, we can effectively use our Change Agents to make sustainable change.

These Change Agents are trained as Lean Agents, Lean Six Sigma Green Belts and Lean Six Sigma Black Belts. These Change Agents are those team members in the organization who use the Lean and Six Sigma toolsets to return value to the organization's bottom line. Without foundation for Lean and Six Sigma (Executives, Champions, White Belts, and/or Yellow Belts), the Change Agents' efforts would have little chance of success.

The Most Important and Simple Key to Success!

Continuous improvement methodologies like Lean Six Sigma rely on data to solve process problems. Yet, most companies do not use data in the one place where data is needed the most - identifying and prioritizing continuous improvement projects.

My team and I are invited to many companies to help "revive" Lean and/or Six Sigma. It's easy to see where these companies have failed to sustain past continuous improvement efforts. Some of the common scenarios that, in our experience, are a result of failure are:

- 5S shadow boards that aren't used
- LEAN / Six Sigma information boards that have not been updated in months or years
- TAKT Time boards where the Actual and Target are far apart, and no one seems to care
- Work instructions at the process that are out of date, dirty (to the point of being unreadable), or non-existent.
- Employees not adhering to taped off areas and walkways.

When we talk to company leadership about the reason why the continuous improvement effort failed, the answers are usually:

- We had a change in leadership
- We are just too busy, and other parts of the business (like operations or production) took precedence

- We had little to no buy-in from the employees, so they didn't maintain the improvements we (the leadership) put in place

The reasons that the leaders of most companies give (change in leadership; production took precedence; operators would not maintain the improvements; etc.) are valid reasons in the eyes of leadership, but these reasons aren't the Key Input to why the continuous improvement efforts fail.

I am going to clue you in to the Key Input of why so many Lean and/or Six Sigma efforts fail.

My 8-year-old daughter is an aspiring Olympic archer (her words). She has already won several 1st place trophies in her division. She tells me often that "archery is a difficult sport. It takes focus, patience, and practice." I go to every practice that I can and watch all of her tournaments (sometimes by FaceTime if I am traveling). I asked her one day, "how do you keep score?" She explained, the target, and how the shots are scored. Once I understood how to keep score, I could easily measure her performance. Knowing the target has helped me (along with her coach) to train her and improve her performance.

You are probably asking, "How does this story relate to the key input of a successful CI effort?"

The answer is: a business is no different. Without targets (aka key performance indicators (or KPIs)), how can a company know how well (or badly) it is performing? Without KPIs, how would a company know what to improve? Even more important, without KPIs, how would a company know the priority of improvements to have the greatest impact on their success?

It seems like common sense to have good targets, but as I say in my classes, "common sense is not very common." My team and I rarely engage companies that have effective targets.

Ineffective targets (or KPIs) usually fall into one of three categories:

1. Fuzzy target(s)
2. No target(s) (or not knowing that there is a target)
3. Wrong target(s)
4. Too many targets

Aiming at a fuzzy target(s)

What if the target you were shooting at was really "fuzzy," and it was hard to see where you are aiming?

Recently, my daughter and I were at a tournament on a very bright sunny day. My daughter was the 1st shooter in a line of 12. The overhang behind her was blocking the sun from all the shooters except for her. The glare from the sun was making it difficult for her to see the target. Her performance suffered from not being able to see the target clearly.

This is a common problem in most organizations. They have KPIs that can be interpreted differently by different people. For example, "on-time delivery" can be measured from different origination points and different endpoints. Because we don't truly know the target, we aim at where we think the target is located.

No target(s) (or not knowing that there is a target)

What if you couldn't see the target at all?

I asked my daughter after a tournament, "What would you do if there wasn't a target?" She replied, "I wouldn't know what to shoot at."

I go on "the floor" of many different companies that we engage and ask the SMEs, "what is your target for today? Do you know how you are performing to your target presently?". I am usually answered by blank stares.

I ask the students in all my Lean Six Sigma belt classes: "What are your KPIs?" I get the same response as when I ask the SMEs the same question. Rarely do I encounter someone who knows their targets.

Commonly, I find that companies either don't have targets (other than profit) or they don't educate their employees on the targets. This results in an organization reacting to missing the targets that they couldn't see.

Aiming at the wrong target(s)

What happens if you aim at the wrong target?

For example, many companies use "efficiency" as a target. This is normally calculated as the number of units produced divided by the cost to produce the unit. Let me tell you a story of how efficiency is the wrong target because of the bad habits it creates.

> My team and I were called in to consult with a company that produced bricks. The company's margins were quickly shrinking, and they believed that starting a culture of continuous improvement would help. This was a very "siloed" company with a division between sales, front office support, and production. Each had metrics that showed the performance of their individual silo (vs. metrics that cascaded from each department and aligned with organizational metrics).
>
> The production unit used "efficiency" as one of their primary metrics. When talking to the SMEs on the floor, they told me, "our cost per brick is decreasing every week. We are

consistently breaking records. We get bonuses for increased efficiency. So why is our company losing profits?".

This was a valid question. What production didn't see was once the bricks were produced, they were moved offsite to a yard for storage. There were millions of bricks in the yard. Some had been there over 18 months and still had not been sold.

The example above is just one of the hundreds of examples of targets that are counterproductive and promote bad habits in an organization.

Trying to aim at too many targets

What happens when you have so many targets that you don't know at which target to shoot? You become overwhelmed trying to understand which targets to aim for, or you disregard the targets completely.

I have seen many organizations that have 50 or more KPIs. The companies do this because they think "we can better assess (and control) the performance of the company by setting detailed measurements of everything." What results is a book of KPIs the size of "War and Peace." To compile data and manage these measurements takes an army of people. The employees who are accountable to this mountain of metrics become overwhelmed and eventually become complacent as they can never achieve the metrics. Most of these KPIs measure the same thing with slight variation but have different names. I've seen many KPIs in a organization that contradict each other. Contradictory KPIs allow people to use this difference to altogether reject what the data is saying, particularly if they don't like the message.

Keep it Simple! If you get your targets wrong, then there is little chance your company is going to succeed.

What makes good targets (or KPIs)?

If you asked this question to my daughter, the aspiring Olympic archer, she would say, "one you can see clearly and know that it is the right target."

Below are the characteristics that make an effective KPI:

- They must be clear, simple, well-defined, and measurable
- They should always cascade down to sites and departments from the overall strategic goals of an organization
- They should be communicated throughout your organization and department(s)
- KPIs should be focused on customer requirements and demand

- They should be leading indicators: metrics that anticipate or predict further changes in your business to help you get ahead of problems
- The employees who are governed by the KPIs should know how to achieve an effective outcome (i.e., the KPIs must be achievable)
- They should be consistently evaluated and improved

Why are targets (or KPIs) important to a continuous improvement effort?

Recently, I engaged a company interested in training Black Belts, Green Belts, and Yellow Belts. I asked them, "How do you plan to identify and prioritize projects for the belts?" The reply was, "well, our leadership has a few projects that they want to see completed and we will send out an email to get more ideas."

When you read between the lines of this statement, you would find that:

1. Management would identify the projects (not the operators)
2. The priority of projects would be set by management (not prioritized based on their effect to the KPIs)

What this leads to is management picking arbitrary projects that are the most recent "pain." The project, when completed, may improve a process but have little effect on the bottom line because it was not the right project.

Over time, the failure to improve the right processes leads to little ROI, lack of focus, and the eventual demise of the continuous improvement efforts. In my more than 20 years of experience, **I find this is the KEY INPUT to a company's failure to sustain a continuous improvement effort.**

Establishing effective KPIs and prioritizing the projects by their effects on the KPIs is the most important key to success of a continuous improvement effort.

You take the first and most crucial step to building a continuous improvement effort that would sustain when you: (1) build a project hopper to collect improvement ideas from everyone in the organization, (2) empower and educate everyone in the company to identify projects, and (3) prioritize projects as to their effects on the KPIs.

How can key performance indicators (or KPIs) help maintain a sustainable continuous improvement effort?

Using KPIs is the key to a sustainable continuous improvement process. KPIs are used to establish improvement priorities and track the progress of improvement projects.

- KPIs help an organization to understand its performance levels at all levels of the company
    - Knowing the performance levels help to focus the right continuous improvement projects in the right areas of the company
- KPIs help to align and prioritize Lean Six Sigma projects to the site, departmental, and organization's strategic goals
- KPIs help to sustain improvements by providing a visual scorecard to show whether an improvement is maintained
- KPIs provide a basis for recognizing organizational, team, and individual performance

The Continuous Improvement Project Hopper

"Why do we need a continuous improvement project hopper? We (the management) already know the problems"

I can't tell you how many times I have heard this statement from leadership (whether inadvertently or directly). But, let me ask you a question - Who is going to make more of an impact on identifying problems to improve and increase the company's bottom line?

1. The leadership (who know the processes from a 30,000-foot view)?
2. The operators (who know the intricate details of their respective processes)?

Hopefully, you said, "BOTH." **Organizations need a holistic view of their process problems to understand the right "fix."** Using a Lean Six Sigma project hopper allows a company to identify problems (or potential continuous improvement projects) at all levels. Although, it baffles me that most companies only tune into the view of Leadership and are not interested in (or are deaf to) the operators view when it comes to the identification of problems.

Let me tell you a story of when a company ignored the Voice of the Operator and the company paid for it significantly:

> I was consulting at a company in Detroit that built tooling. They had recently won a contract with an aerospace company. The leadership believed that the machine they currently used was not able to keep up with the increased demand from the new contract, so they invested around $250k in a new machine.

> The new machine was a nightmare. It was constantly down. Tech support was not helpful, and field support took a long time to answer and resolve problems.
>
> Meanwhile, the old machine was moved to a different part of the facility to work on other parts. When the machine was moved, maintenance was able to make some repairs before installing it in the new location. These repairs were long overdue and had been brought up numerous times to the supervisors and the leads by the machine operators. Each time the operators brought up the issues, they were ignored.
>
> Because the old machine had finally received the needed repairs (which equaled around $21,000), the old machine was now producing at a rate that easily kept up with demand. The other leads and supervisors quickly noticed the extra capacity at the old machine, and more parts were scheduled on the old machine. It did not take long before the old machine was the machine running the new aerospace parts.

Why is this experience valuable? If the company's leaders weren't deaf to the Voice of the Operators and had a Lean Six Sigma project hopper, they would have heard the recommendations to maintain the old machine. If repairing the machine was the next most important project to improve the company's targets of success (or KPIs), then it would have been addressed.

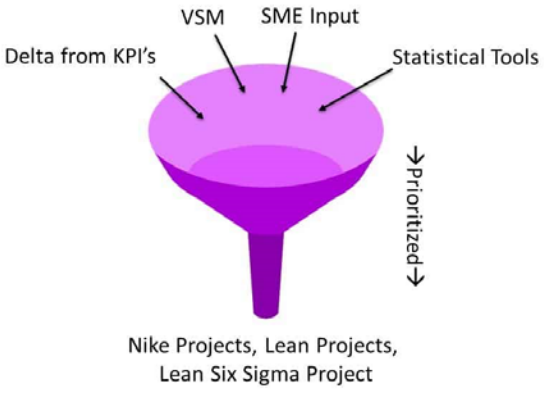
How do you Capture the Voice of the Operator?

Often there is a rift between management and the operators on the floor. The management believes they are there to manage the operators and the processes, which includes fixing broken stuff. While the operator is there to "work," that is, to build transactions, services, and/or products.

How do you break down the division between management and operators?

To break down the division between management and the operators and capture the Voice of the Operator (as well as the voice of everyone else), follow these six steps:

1. Educate your employees (management and operators) on what they should voice.
    - This can be done through training on the fundamentals of Lean and Six Sigma, which would teach the concepts like the "7-Wastes of Lean."
2. Provide a project hopper solution to capture the problems and/or ideas the employee identifies to improve a process and the company's bottom line



- This can be through a simple system like a physical suggestion box and hard copies of "Continuous Improvement Suggestion Forms."
- You can utilize digital tools to develop a project hopper — tools such as Microsoft Excel, Access, or SharePoint.
- You can invest in an online solution like KPI Fire, Companion by Minitab, or TRACtion by Moresteam.

3. Put together a team to evaluate and prioritize the problems and/or ideas the organization identifies. Optimally, the issues and/or ideas identified should be prioritized based on their effect on the KPIs.

Project Priority Matrix

	Weighting (1-10) --->	9	6	7	8	10	5				
	Key Performance Indicators (Output) --->	Dispatch Compliance	Inventory Turns	Productivity	Inv Accuracy	On Time Delivery	Scrap $	Urgency (1-10)	Total	Type	Project Complete (Remove from Matrix)
		Project Correlation Scores (1 - 10)									
1	Reduce Movement in the Weld Lead	8	5	9	9	10	0	8	2696	L	
2	Improve Flow of the Fidal Milling Process	9	6	10	5	10	7	6	1962	L	
3	Project #3								0		
4	Project #4								0		
5	Project #5								0		
6	Project #6								0		
7	Project #7								0		
8	Project #8								0		
9	Project #9								0		
10	Project #10								0		
11	Project #11								0		
12	Project #12								0		
13	Project #13								0		
14	Project #14								0		
15	Project #15								0		

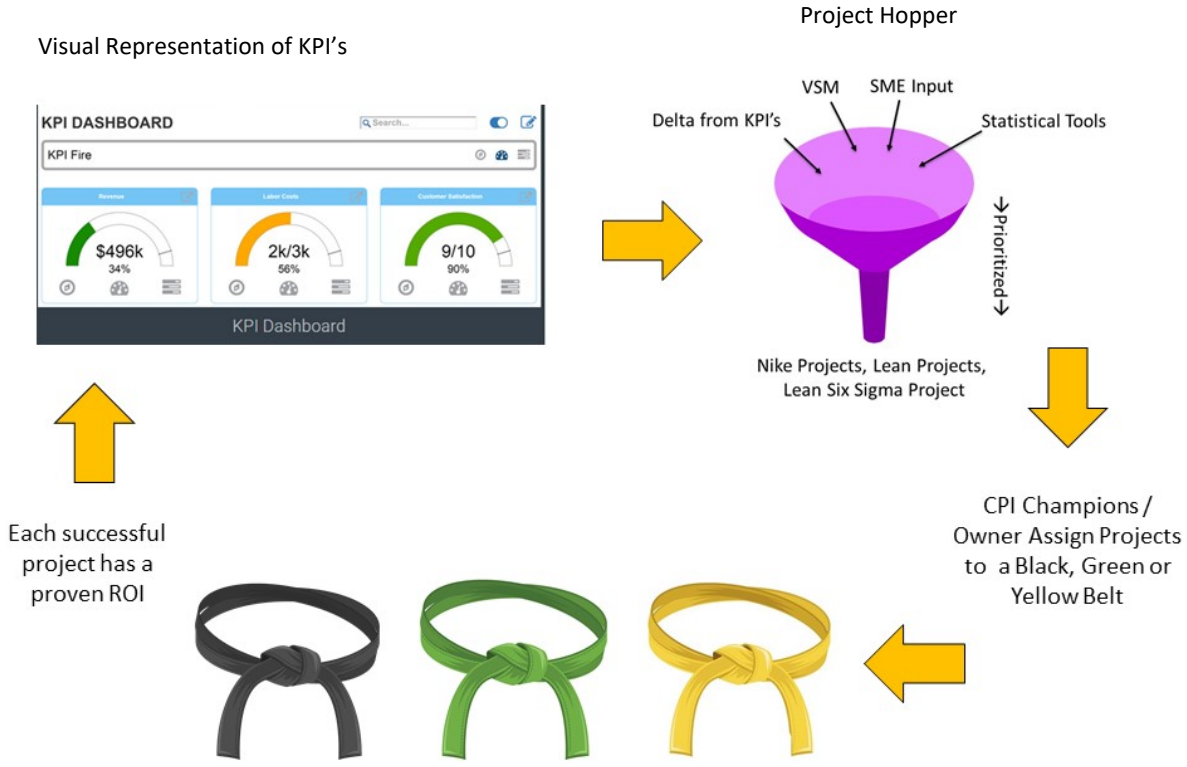
4. Advertise the prioritized projects so everyone can see what projects are being worked on and what projects are pending.
5. Invite the employee who identified the problem and/or idea on the team to solve the problem or implement the idea.
6. Advertise to the organization the success of the team in solving the problem or implementing the idea. It is important to

advertise the employee who identified the problem and/or idea and helped the team.

Imagine the impact you can have on company morale and cohesiveness when you follow these steps. When an employee has the power to identify a problem or idea, see it materialize into a project, and is a part of the team that implements the solution, the employee would feel like a valued part of the organization.

What are the Results of Building a Sustainable Continuous Improvement Culture?

- Key performance indicators cascaded at each level throughout the organization.
- A project hopper to collect ideas at all levels of the organization to improve critical business processes.
- Continuous process improvement projects prioritized based on their potential impact on the KPIs.
- Executives, champions, and a CPI leader to drive and manage the continuous improvement efforts throughout the organization.
- Lean Six Sigma Green and Black Belts trained throughout the organization to improve critical business processes and enact change system-wide.
- Lean Six Sigma Yellow Belts trained to solve local problems and enact change within their departments or cells.



Conclusion

After reading this book, you should see the red flags that warn of your organization's failure (or impending failure) at building a sustainable continuous improvement culture. Here is a summary of the most common scenarios that lead to failure:

- Little to no executive buy-in for continuous improvement (this is the kiss of death of any continuous improvement effort)
- Leadership wants to train a lone Green Belt to save the world.
- Leadership expects someone internally to lead a deployment; although, that someone has little to no experience in deploying
- Promoting the myth that CI's role is to improve processes
- Continuous improvement projects are identified solely by leadership (and not by the whole organization)
- Continuous improvement projects are prioritized solely by the leadership agenda (and not by the project's effect on the company's metrics of success (or KPIs))
- The company wants the "quick fix" without the infrastructure to sustain the fix

Why do companies fall into these traps and invest money in an effort that would inevitably fail? The answer is easy. In most cases, they don't know any better.

How do you succeed in building, promoting, and sustaining a continuous improvement effort and culture? Einstein's quotes says it best - "You can't solve problems with the same thinking that got you into them." You have to change your company's culture and habits.

Is there a key to success? Absolutely! Stop shooting in the dark!

About the Author

Kevin Clay, President, and CEO of Six Sigma Development Solutions, Inc., is a Six Sigma Master Black Belt and a Lean Master Practitioner. He has over 15 years of experience working with companies all over the globe, implementing operational excellence into their organization.

Kevin and his family live in Puerto Vallarta, Mexico, where his three young daughters have become not only bi-lingual but also bi-cultural.

When Kevin is not training in some location around the globe, he spends his time watching his daughters (the Archer, the Gymnast, and the Yoga Queen) as he totes his laptop to their events to multi-task. You might catch Kevin and his wife at night on a date in the Malecon at Devil's Bar or Cafe de Olla. He and his family like to spend time on their boat watching the Humpback whales, dolphins, and giant sea turtles that roam Banderas Bay.

Thank You!

I appreciate you downloading this book. I hope that it impacts your career and the health of your company. You can leave feedback at kclay@sixsigma.com. Your feedback is greatly appreciated.

Regards, Kevin Clay MBB