

Possible Title, ***“Six Sigma at Honeywell Aerospace....a journey in Leadership and Change.”***

***Summary***

In the aggressive world of Fortune 500 firms there are certain associations which get assigned to a company after a substantial period of time. As time passes the company earns a reputation with their customers, industry peers and of course Wall Street. Honeywell International Inc. over the past decade has gained a clear reputation for having a culture of execution and productivity. This legacy has the distinct fingerprint of its former Chairman and CEO Larry Bossidy. The challenge that faces this industrial giant today is how to translate that productivity into a true growth engine that will perpetuate Honeywell to an even greater level of performance. This is one of the greatest challenges that face the current Chairman and CEO Dave Cote.

Honeywell International Inc., is a diversified technology and manufacturing company, serving customers worldwide with aerospace products and services, control technologies for buildings, homes and industry, automotive products, specialty chemicals, fibers, plastics and electronic and advanced materials. This well-known industrial company has a rich heritage of successful Aerospace companies in its pedigree including, Sperry Flight Systems, Garrett Turbine Engines, Air Research, AlliedSignal and now Honeywell.

The following case study will examine the path that one of Honeywell’s successful Aerospace businesses has been travelling to utilize Six Sigma as the core productivity strategy that will fuel its aggressive growth plans. The case study will examine how Honeywell has successfully evolved Six Sigma from a process improvement initiative to a fundamental component of their leadership system. They are achieving this end-state with the powerful combination of Six Sigma, Lean and Leadership.

In the mid 90’s Larry Bossidy brought a new way of thinking to at that time AlliedSignal. Looking back on this key decision, business has never been the same for this company since Bossidy breathed life into the Six Sigma initiative and created a healthy passion for productivity. Since that time AlliedSignal and the companies they have acquired have continued to gain momentum at a rate must greater than the majority of their industrial peers. Today, after a successful merger combination, Honeywell has positioned itself as one of the leading Six Sigma companies in the marketplace. It is well-positioned to take advantage of this discriminating core competency to attract new customers, new talent and drive profitable growth.

***Initiative de Jour – Another Attempt at Seatback Management***

When Larry Bossidy decided Six Sigma was going to be the new initiative that would create unlimited opportunities for improved quality, on-time delivery and productivity, you can only imagine the groans from the audience. Great another seatback initiative, one where the CEO reads the magazine from the airplane seatback in front of him and decides he wants to try a little experiment on the business when he gets back to the

office! Well, it didn't take too long for the employees to realize this initiative had much more staying power than most people would have imagined.

As always, launching a large-scale change initiative is difficult at best, particularly if the organization has already launched several "false starts" with a similar look and feel. Total Quality was the rave of the 1980's and this Six Sigma program sounded like a curiously similar game with a different name. Well, as expected, when Bossidy first began the implementation of Six Sigma it was driven with typical Bossidy fashion – aggressive deployment, failure is not an option, and resistance is futile. Bossidy's zeal for Six Sigma was without a doubt exactly what the company needed to get this initiative off the ground and on the radar screen of every leader and employee.

#### *The Proof is in the Pudding:*

What commonly follows the rollout of initiatives with such strong senior management support is a sudden adoption of the initiative evidenced by the inclusion of the initiative in every leader's annual goals and objectives. Additionally, you now begin to see the Six Sigma language appearing throughout presentations and reports across the business. Wonderful you might think, you had what most initiatives would die for, senior management support, what else could you possibly ask for once you have achieved this milestone? True acceptance would be one key component that comes to mind! Not too many leaders would be so bold as to stand up to the Chairman and tell him that they do not accept Six Sigma as a critical element to achieving their aggressive business objectives. No one would make such a career-limiting decision – at least not openly. While many stood up and cheered for Six Sigma on the outside, they were sitting down on the inside and hoping this too would pass.

#### *The Journey of Change:*

So, the change journey began. Despite the fact that many leaders were less than completely on-board with Six Sigma, vast operational improvements and excellent productivity resulted from this new methodology. Six Sigma was added to the operational excellence toolkit and didn't appear to be leaving any time soon. From 1995 – 1999 AlliedSignal, Motorola and GE became the three large industrial firms to implement Six Sigma across their companies. During this time AlliedSignal began to create an excellent Six Sigma technical training program that was second to none. They continued to grow in their breadth and depth of Six Sigma knowledge, experience and personnel. Once Bossidy saw significant improvements in the manufacturing area he began creating an urgency to drive Six Sigma into all aspects of the business.

*"It's time to stop paying lip service to moving Six Sigma beyond the factory floor and simply do it – the potential here is huge." Larry Bossidy*

#### *A New Family Member:*

The year 2000 would prove to be a great challenge for Honeywell Aerospace. The Aerospace business nearly doubled in size with the completion of the AlliedSignal-Honeywell merger. Now the Aerospace leadership team needed to bring the former Honeywell Aerospace employees up to speed with Six Sigma and how it would be used

to drive productivity and help the company realize the merger synergies and cost savings they promised to the Street. The former Honeywell Aerospace business was not new to process improvement, they were however, new to Six Sigma. Honeywell had used the Malcolm Baldrige model as their framework for continuous improvement and for the most part had made significant improvements in many areas of their business. In an attempt to combine the best of both worlds, a team was put together to understand if there was room for both improvement initiatives to live under one roof. The team determined that a marriage between Six Sigma and Baldrige was plausible. It was clear if you properly deployed the Baldrige model as the assessment tool to diagnose where your business needed improvement and then utilized the Six Sigma methodology to generate the process solutions you would have a winning combination. As you can imagine the personal biases and emotional energy around the two sides of the tug-a-war line were HUGE! This was a hill that people were in fact willing to die on. It was seen by many as dilutive to focus on two improvement initiatives. As often happens in large industrial mergers, initiatives that are viewed as competing will ultimately end with someone losing and someone winning. This was no different, once the determination was made that Six Sigma would be the overarching improvement initiative and the Baldrige model “could” be used as one of many supporting tools in the toolbox, the proverbial writing was on the wall. Several pilots were conducted to determine the practicality of combining both initiatives into one synergistic program. Although, the two could have complimented one another and made a reasonable marriage, it was seen as a distraction to most of the Six Sigma saints and an uphill battle to the Baldrige believers. Six Sigma was the clear choice for the go-forward improvement strategy.

*[Greg should we add something here about “dualing” strategies and how change management techniques can allow for more than one initiative to live under the same roof???? At a minimum I think we need a change model graphic to break up the text]*

#### *Bringing Them into the Fold:*

Now it was time to focus on bringing Six Sigma into the former Honeywell businesses and maximize productivity across the combined bigger and better Honeywell Aerospace business. It was very evident within six months of the merger combination that former Honeywell and former AlliedSignal had a lot to offer in terms of their experience in deploying successful initiatives. Both companies understood the importance of having a standard approach and even more important a consistent deployment of that approach. They began by ensuring all of the new Aerospace leaders had fundamental Six Sigma training. Many companies call this Champion training. The objective is to teach leaders the fundamentals so they can effectively influence the deployment throughout the organization. Black Belt and Lean Expert waves were initiated in 2000 and best practices were being shared across former company boundaries. Progress was beginning to take place and customers and employees could begin to see the potential benefits of the newly combined company.

#### *Another Merger Attempt – the burning platform:*

By now, Larry Bossidy had fulfilled his obligation as Chairman and CEO and handed the reigns over to former Honeywell CEO Michael Bonsignore. Bonsignore saw the clear

benefit of the Six Sigma methodology and what it could do for bottom line performance, but before he had much opportunity to help or hurt the cause the newly formed business had underperformed in its first several quarters. Wall Street and the Honeywell Board of Directors did not have the luxury to see if the situation would improve over time. After an attempt to attract United Technologies as a potential suitor to help bring Honeywell out of this quagmire, GE 's Jack Welch stepped in and made a last minute purchase offer the Honeywell Board of Directors could not refuse.

It appeared unavoidable that another large-scale merger was on the horizon for Honeywell. Albeit this one had a bit more of the acquisition/takeover mentality than that of the previous Honeywell-AlliedSignal experience. One bright spot for those who lived in the world of Six Sigma and continuous improvement was that GE had taken Larry Bossidy's advice from the mid 90's and implemented their own very successful Six Sigma program. What GE found when analyzing Honeywell's Six Sigma program was not quite what they had expected. They found a company with dozens of highly trained Masters, hundreds of technical Black Belts and thousands of working level Green Belts who were all trained in the Six Sigma tools and methodologies...but something was missing.

#### *The missing ingredient*

It was the Leadership Component. Wait a minute...I thought you said Honeywell had the full support of senior management? They did in fact have the full support of management but they did not have a leadership-driven Six Sigma model ensuring the disciplines and behaviors of this powerful change tool permeated the business. No one would argue that Honeywell Aerospace had a very solid Six Sigma program but it was clear that the time was right to move from a good program to a great program. It was time to exploit Six Sigma into all areas of the business, including leadership. We needed to move the leadership team from sitting in the bleachers to warriors out on the field. Six Sigma has never been and will never be a spectator sport. It is all about alignment and engagement of leadership. Let's be honest, senior management cares primarily about three things - business performance, business performance and finally business performance! And that is exactly what they should care about. Honeywell Six Sigma champions found themselves in the all-familiar trap that often accompanies large-scale change initiatives. Senior management understood and embraced the value Six Sigma brought to the table and conversely the Six Sigma team saw a solid effort on the part of management to support the initiative. Yet often times the owner of the initiative has an unrealistic expectation of management. It is often expected that management will virtually maintain a singular focus on that particular initiative. It is a huge failure mode to expect management to be consumed with the perpetuation of the Six Sigma initiative, or any initiative for that matter. There is a big difference between genuine support of Six Sigma and asking leadership to create an organization that is Six Sigma-centric. There are countless examples of where the initiative has moved from being an enabler to drive improved business performance to where the initiative has been the end unto itself. The Six Sigma zealots believed so strongly in Six Sigma as a measurement system, a methodology and a strategy that they often found themselves upset at management because they were not able to recite the Six Sigma pledge or perform the secret

handshake. Now, of course you would be hard-pressed to find an initiative owner to actual verbalize this approach as the actual strategy or goal but the behaviors exhibited from the individuals driving the initiative often speaks the loudest.

**Optimal solution:**  
**Business Performance is the end - Initiative is the means to the end**



Graphic "Divergent Expectations"

In some instances the exhibited behavior is asking that we rearrange or modify the business model to fit within the Six Sigma model versus the correct approach which is modifying Six Sigma as appropriate to fit within the model of the business. At Honeywell there was evidence that some forms of this behavior were alive and well. For example, a Black Belt would get certified and then get assigned the task to go out into the organization and find a million dollars worth of savings. What transpired would be a very excited and well-trained process expert would begin the hunt for savings. Like a bloodhound in search of its prey, the very well intentioned Black Belt would get discover an excessive pile of inventory sitting in a particular manufacturing cell. The Black Belt would then begin to hone in and lock on this as "their" million-dollar project. The Black Belt confronts the manufacturing manager and informs them that the inventory in their area is targeted for remove. Subsequent to the discussion the Black Belt then would begin explaining the cadre of tools that would be used to take out the inventory enemy. Of course this initial meeting marked the beginning of the organizational brick wall that would quickly be built to keep out these renegade Black Belts. It was not that the manufacturing manager did not want to eliminate inventory and improve the performance of the their area, it was just that there was a significant disconnect in goal alignment. This misalignment caused the key stakeholder of the potential project to reject the potential benefits due to the fact that it was perceived as a scud missile from out of nowhere. Although this type of project misalignment was not an every day occurrence, it

happens enough to create a cultural barrier at Honeywell that caused the Six Sigma initiative to plateau and in many regards even decline. It was perceived by many to be a self-serving initiative. One that was so focused on doing what was “right” for the business it did not consider the most important element of a change initiative, absolute stakeholder acceptance.

{ Greg – adding a section here on how other companies have struggled with not getting stakeholder equity before deploying an initiative might be appropriate }

This common approach of overzealous deployment did not keep Honeywell from making countless number of improvements and generating very respectable productivity goals it was just that Six Sigma found itself slipping into the abyss of been there done that, nothing new or exciting here.

Now we had come full circle, the father of the Six Sigma initiative at Honeywell, Larry Bossidy was returning to the scene. Bossidy was asked by the Honeywell Board of Directors to come out of retirement and help get the struggling corporation back on its feet. As Larry returned to his comfortable position of leading the ship he quickly saw the company-wide distraction that had occurred due to the GE merger attempt and the removal of CEO Michael Bosignore. Larry knew Honeywell needed an injection of energy around the struggling Six Sigma initiative. It was obvious the merger activities had a dilutive effect on Six Sigma. It was time to re-charge the troops.

#### *Six Sigma – an encore performance:*

Not being new to the Six Sigma initiatives proved to be one of Honeywell’s greatest strengths and also one of their greatest challenges. In order for Honeywell to be successful in their re-vitalization of Six Sigma they desperately needed to leverage the past years of technical knowledge and expertise while significantly beefing up the leadership component of the program. How this took shape at Honeywell’s Engines, Systems and Services business was with the renewed vigor that President and CEO Steve Loranger had brewing in his mind. Loranger was convinced that without Six Sigma becoming a game-changing strategy across his nearly \$5 billion business, he would be unsuccessful in executing the aggressive strategies he had outlined for the next 2-3 years. One of the defining questions that needed to be answered was, “Is this a face-lift to Six Sigma, or is this a complete new game plan”. This was precisely the question that was asked by Jeff Osborne before he agreed to accept the challenge of leading the effort to revitalize Six Sigma at Honeywell’s Engines, Systems and Services Aerospace business. Loranger answered the question with clarity and simplicity, we must take Six Sigma to a greater level of impact if we are to be successful in today’s challenging Aerospace climate. The mission was clear, change the game and take Six Sigma to a new level. This would not be a tweak to the current program but rather a completely different approach to how they deployed, utilized and reinforced Six Sigma. Now that Loranger and Osborne were aligned, how would they convince over 16,000 employees that this all too familiar program was really going to be different. As the new Vice President of Six Sigma, Jeff Osborne, had to quickly figure out how to make sure the organization knew it was not business as usual for Six Sigma. The good news for Osborne was that this business

within Honeywell was relatively agile and had the ability to make change happen at an aggressive pace. Additionally, this organization was well down the Six Sigma journey and had done many things well in driving this initiative into the business. So as with any re-start or re-vitalization program you have to carefully assess what you did well and where you need to change. You must balance the temptation to hold on to past sacred cows with throwing out the baby with the bath water. These are the some of the clear strengths the Engines, Systems and Services business had within their organization:

### **Strengths**

- Senior Executive support of Six Sigma
- Excellent technical capability
- Solid training curriculum and learning program
- Dozens of Master Black Belts and Lean Masters
- Hundreds of certified Black Belts and Lean Experts
- Thousands of certified Green Belts
- Common Six Sigma language and terminology across the business

Many companies would be envious of this starting point. In fact most companies invest several years and millions of dollars just to arrive at this so-called starting point. Of course the task at hand was not initiate a Six Sigma program but take the current one from good to great. Osborne discovered an interesting observation. Most of the key ingredients for a successful Six Sigma program were in place. Why was it then that the recipe was not generating the desired outcome – an unquenchable drive for continuous improvement and a demonstrated capability to sustain the improvement gains. As you probably have experienced in your own attempt at cooking, there is typically no margin for error to leave out even one key ingredient. All ingredients are required to have a healthy and vibrant Six Sigma program. Beyond simply having all of the necessary components there is a bit of leadership magic required to properly bring the components together to create a compelling vision that will generate the desired end-state. So let's look at what challenges Osborne faced as he began the journey to rebuild Six Sigma at Engines, Systems and Services.

### **Challenges**

- Leadership saw Six Sigma primarily as a group of process consultants
- Training and certification had become a checkmark for most employees
- Tools were often taken to an extreme and became more important than the business issue trying to be solved
- Talent level within the Six Sigma organization had become mostly average players
- Many certified Six Sigma Masters and Black Belts were leaving the company for attractive outside offers
- Projects were often self-selected by the Six Sigma resource versus business leaders
- Six Sigma in many ways had become the end-state versus the means to the end

Six Sigma momentum had waned at best. Osborne realized that at Engines, Systems and Services the Six Sigma initiative had become way too focused on the initiative itself. Osborne's rally cry became "*It is time to take Six Sigma from being about Six Sigma*

*activity to being about business performance.” No longer would they give teams credit for simply training teams and consulting them on how to use the tools. Now it was time for Six Sigma to rally the Honeywell leadership team and take them to a new level of performance. If there was one concept Osborne understood it was that *Leadership rallies around business performance not initiatives!**

### The Vision:

The process to create a new and compelling vision began by gathered data from sources inside and outside the Six Sigma organization. To do this they utilized the Six Sigma tools and methodology to look at the failure modes and successes of the prior Six Sigma program. Once Osborne had a good understanding of where they were (baseline) he created a clear and simple vision statement that described what he wanted from the Six Sigma efforts – “*Six Sigma a core business value...the way we think, act and execute.*” You may say to yourself, okay, clear and simple but not overly unique. As with many vision exercises they all have a propensity to end up on a plaque on the wall or a poster in a building but never to be bothered with again. One more thing checked off and put on the list of completed actions. That would not be the story in this case. Far from it, this was only the beginning but a significant beginning it would turn out to be. The Six Sigma leadership team formulated what key components made up the desired end-state and what would it really look like if they got there. After many discussions with leaders and employees they created a clear description of where it was they were headed. It was now imperative that they defined a set of clear strategies that would take them to that end-state. Also needed was a set of goals and objectives that would align with these strategies and vision. It was imperative that the overall end-game for Six Sigma was precisely that of the Engines, Systems and Services executive team. The path to get to that end-state is where Six Sigma would make all the difference.

In order to get to the new end-state with momentum and speed, there were several key perspectives and behaviors that would create the success criteria for the new Six Sigma model.

### Success Criteria:

- Six Sigma is a mindset not a quality program
- Six Sigma vision and strategies would be a subset of business vision and strategies
- Six Sigma organization must align directly to business and functional organizations
- Project selection must be top-down versus bottoms-up
- Focus will be on application of Six Sigma tools versus certification
- Measure business results not Six Sigma activity
- Six Sigma resources should be full-time and dedicated
- Six Sigma resources must be business leaders not statisticians
- Never over-state Six Sigma benefits – math wins every time
- Six Sigma serves the business - the business does not serve Six Sigma

In order for Engines, Systems and Services to get to a place where Six Sigma was clearing serving the business, several factors had to be considered:



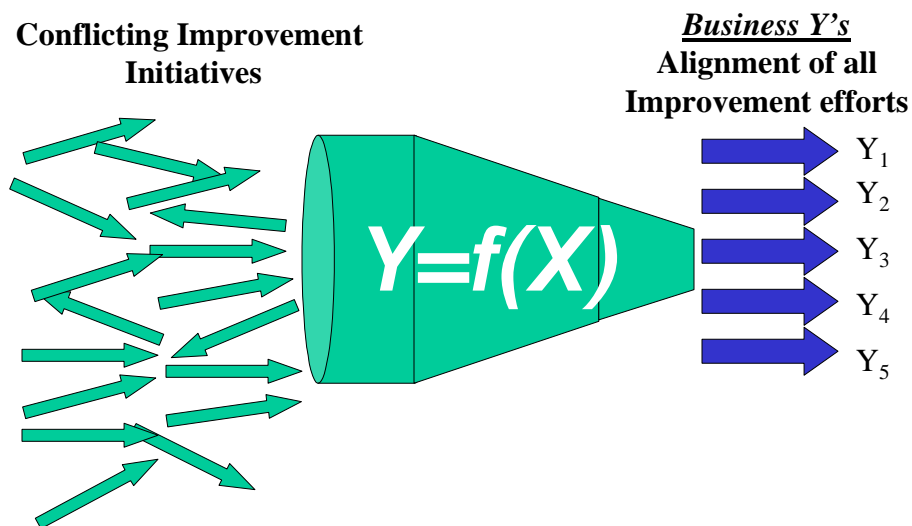
- Management will never buy-into a program or initiative that is self-serving – make the objective clear and unquestionable.
- Six Sigma is the means to the end not the end itself – avoid focusing on metrics and systems that reward the “behavior of the checkmark”. For example, management told me I had to take this Six Sigma training class so I will do it, get my checkmark and they will leave me alone.
- Speak the language of the business - language should be focused on business impact not the perpetuation of a particular tool or methodology
- Create business leaders not Six Sigma leaders
- Business ALWAYS takes the priority over the initiative – if it is unclear to leaders and employees where the priority lies, you have already lost.
- Let your results be the compelling “why” when someone asks why we are doing this Six Sigma thing anyway. The Why is always more compelling than the What.

And finally to ensure there was full and complete leadership buy-in across the board it was essential for leadership to have the correct perception of Six Sigma. It was determined that there were three key perceptions Osborne wanted the executive staff to have regarding Six Sigma.

- ***Sigma must be seen as an entrée not a side-dish***  
Making sure leadership considers Six Sigma as a primary strategy to generate and sustain business productivity, not as an afterthought. So when teams are being formed, products are being transitioned from suppliers and new products are being designed, Six Sigma skills and resources need to be a core component of the team design. The idea that there is a time and place for Six Sigma is a bad idea. This is why at Honeywell Six Sigma is not subordinated under Quality or Manufacturing. This would only limit its impact to those important but by no means inclusive functions within the business. Six Sigma has a time and a place already, the time is now and place is every crack and crevice of the business.
- ***Six Sigma must be an accelerator not an anchor***  
There was a common perception within many elements of the Engines, Systems and Services business that if you include a Black Belt in the problem you are trying to solve it will greatly slow down the process. This perception did not evolve without due merit. There were many times when the Black Belt was so adamant about using each tool to the fullest degree that they lost sight of the need for the team to analyze the problem quickly and to make a decision and move forward. If the tools and methodologies of Six Sigma are seen as devices to hold back, hinder or slow down the pace at which decisions must be made it will fail in the minds of business leaders.
- ***Six Sigma maturity is a marathon not a sprint***  
As with any significant cultural change initiative you can't rush the change process. You would be hard-pressed to find any professional or consultants that would suggest systemic culture change can happen in a matter of months. Since you cannot change culture but you can change behaviors, which greatly influence the culture, you can expect it to take anywhere from 3 to 7 years to have a lasting effect on your organization. Many of us in executive leadership positions love to challenge and often short-circuit this principle. In doing so we often pay the price and end up at

best with several false starts and at worst a completely failed deployment. Six Sigma must be seen as a journey that will transcend several years and often several rounds of senior leadership. We must operate with speed and agility but coupled with realistic expectations of what can be done in a year or less.

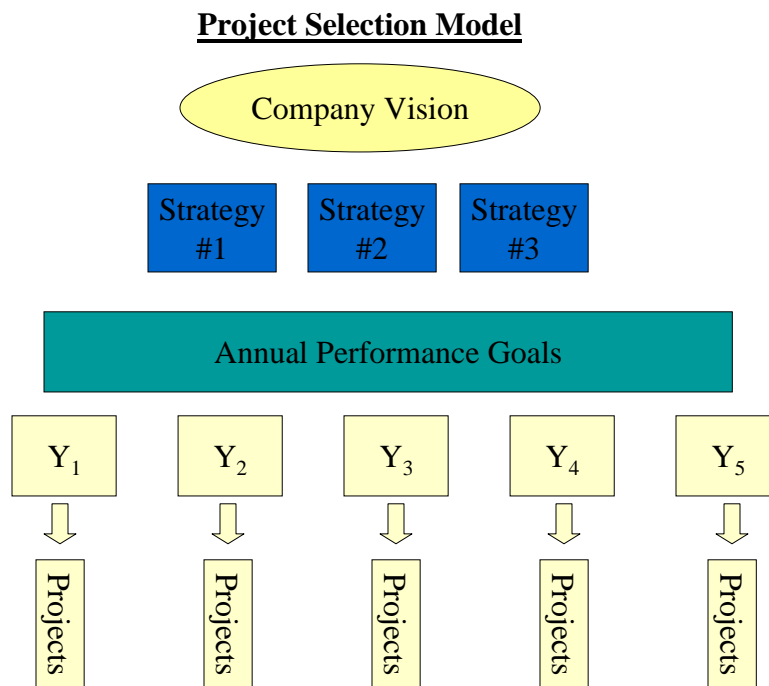
Now with this calibration and expectation leveling Engines, Systems and Services was ready to drive through the rest of the rebuilding process. The process began by getting the executive leadership to agree on what the top improvement areas were that we wanted Six Sigma to address. At Engines, Systems and Services they called these the Business Y's. Where the foundational equation for Six Sigma is  $Y=f(x)$ , expressed as  $y$  is a function of  $x$ . This means that the output ( $y$ ) that you are trying to achieve is really a function of many inputs ( $x$ ). The premise here is if you understand the inputs and how they effect the output you can drive an improvement in the output by focusing on the most critical inputs. The executive team agreed on a half dozen Business Y's that would be the focus for the Six Sigma organization. One of the many benefits in selecting a handful of focus areas such as the Business Y's is that you create a natural alignment for your improvement efforts. This approach allowed Honeywell to ensure improvement efforts were not suboptimized by Six Sigma projects being performed in parallel at various locations across their global business. An executive owner was assigned to each of these Business Y's as well as an accompanying Six Sigma leader. This ensured ownership, accountability and congruency.



Graphic "Business Y Model"

This approach proved very effective for Honeywell. They were able to align there large-scale improvement projects to these Business Y's as well as the hundreds of Green Belt projects being performed at any point in time. The Six Sigma leader and the associated

executive champion could drive improvement priorities and synthesize the organizations activities through this model. One of the common pitfalls companies run across when deploying a Six Sigma initiative is once there is a large number of Masters, Black Belts and Green Belts across the organization, project selection tends to become a bottoms-up approach. Where this often becomes a problem is when the Six Sigma resource is driving an improvement effort that is not on the radar screen of the business leader. This is when misalignment often results. Now that Honeywell had a Business Y model in place they were able to effectively ensure all Six Sigma improvement projects were absolutely aligned to one of the Business Y's and subsequently approved by the Business Y champions.



Helpful questions that Six Sigma leaders asked when deciding what projects to select:

- Is the project tied directly to the objective of the Business General Managers and Functional Vice Presidents?
- Will the customers see the benefits if we execute this project?
- Does this project fit within current business initiatives?
- What are the consequences of **not** doing this project?
- Assuming the project is aligned to the critical business objectives is the timing right to execute this project right now?

Selecting Talent:

Even with the best vision, strategies and aligned projects we must not forget the most crucial piece to the puzzle. Top talent. Honeywell knew if it was going to take this initiative over the top it must recruit and develop the best talent within its business. Leadership creates vision and sets the strategy and direction. Six Sigma provides a tremendously powerful set of analytical tools and skills to create data-driven decisions.

Top talent within an organization creates energy and a culture of getting things done – execution. When all three of these elements are combined you have an amazing outcome...

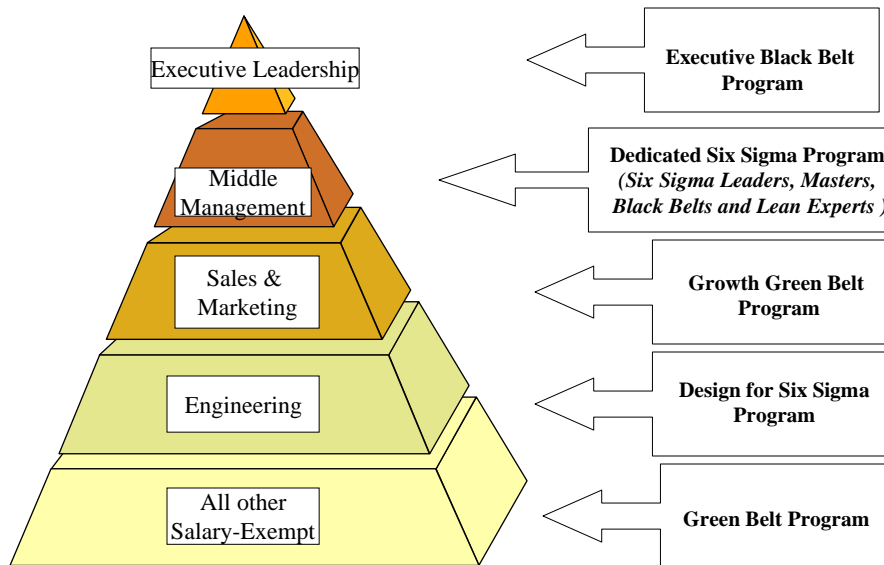
## **Leadership + Six Sigma + Top Talent = Power!**

When Engines, Systems and Services began the rebuilding process for their Six Sigma organization they went after the best of the best. They now only bring in their top talent to fill Six Sigma positions. Whether it be Six Sigma Leaders, Master Black Belts, Lean Masters, Black Belts or Lean Experts, Honeywell makes it an imperative that these individual have the capability and desire to hold key leadership positions within the organization once their Six Sigma tour of duty is complete. Although many companies claim this as their mantra Engines, Systems and Services actually made this a reality. They spend 2001 and the first half of 2002 building a team of talent that would meet this criteria. Six Sigma Vice President Jeff Osborne puts it this way, “ We used to hire black belts and try to develop their leadership skills, now we hire leaders and train them in black belt skills.” This subtle but distinct difference has made all the difference for Honeywell.

### *Changing the DNA at all levels:*

As Engines, Systems and Services set out to change the basic make-up of Six Sigma across its diverse global organization, it was necessary to target three different employee groups. The masses would be trained and equipped via a whole-scale Green Belt program that included all salary-exempt employees consisting of over 6,500 people. Within this population there are nearly 3,000 engineers who would need a specific flavor of Green Belt training call Design for Six Sigma. This step would ensure that all engineers and supporting personnel involved in the design of a product, process or service would utilize the fundamental principles of Six Sigma from the genesis of all projects. To address the unique needs of the Sales and Marketing and customer facing employees a Green Belt program was created titled Growth Green Belt which focuses on how to utilize the Six Sigma skills to understand customer needs and requirements. To transform primarily the middle level management within the business, the centralized Six Sigma organization of nearly 200 dedicated and full-time resources would be the mechanism. As these Masters, Black Belts and Lean Experts fulfill their 24 month commitment to the Six Sigma program they would repatriate back into other business or functional roles at the middle to upper-middle management level. Finally, they needed to address the several hundred folks who were already in upper management positions and would never realistically take a detour in their career to partake in one of the full-time Black Belt roles. For these individuals the Executive Black Belt program was established. This intense program consists of the very same Black Belt and Lean tools that Honeywell’s experts learn. At the end of the 3 to 4 month training program and another 4-6 month project application, these executives end up with an actual Black Belt certification. This comprehensive learning program ensures that all aspects of the Engines, Systems and Services culture is impacted with the Six Sigma methodology and analytical skills necessary to achieve premier business results.

## Changing the DNA at all Levels



Graphic - "Changing DNA"

### The Results:

The best litmus test of course is whether or not a company is to translate all of this activity around organization alignment, culture change, leadership development and training and mentoring into tangible business improvements. For Engines, Systems and Services the test results were unquestionable positive. In the year 2002 they restructured their Six Sigma organization to align directly with the business while creating a tremendous pull from leadership to utilize and embrace Six Sigma resources and tools. In addition Six Sigma organizational talent was upgraded to consist of the best and brightest Engines, Systems and Services has to offer. The business-wide Green Belt, Growth Green Belt and Design for Six Sigma programs have now trained nearly 5,000 employees. One hundred executives from the business completed the Executive Black Belt training and bottom-line hard savings far exceeded management's expectations and positioned the Six Sigma team well for the upcoming year. All these efforts resulted in alignment, credibility and accountability that will only continue to increase as Honeywell's Engines, Systems and Services continues on the journey of continuous improvement.