TACTICAL (LOCAL) PROJECT – EXAMPLE 1

Project Title: Candy Line Packaging Lead Time Reduction

Indicate the industry in which the project occurred and the part of the organization that was affected by the project. Two parts: which industry and which organization(s).	
Industry and Organization Function Affected	Candy & Snack industry, The Great Southern Candy Company (TGSCC), Nashville, TN, Final Packaging

Describe the problem the project is addressing. Describe the problem or opportunity using complete sentences. What were you attempting to accomplish? Why?	
Problem Statement	TGSCC opened a new Manufacturing Facility in Nashville and this product line was transitioning from Rochester, New York. Our current demand at the time was fairly manageable but the expectation and projected TAKT rate was much greater than what we had been exposed to. We needed to have an event to understand current state and to develop future state needs and actions in order to meet the increasing TAKT rate.

Provide the project start date. If you are no longer involved in the project, also provide the date you transitioned off the project. Projects should show a progression in dates to reflect a history of lean experience. When did the project begin and end, when did you join and leave?	
Project Dates	March 10-14, 2014

Describe your specific role in the project and how the team members were selected. Two parts: your role and how team members were selected. What did you do on the team? If you selected others to be on the team, explain; if you were selected, explain why.	
Role in the Project and Team Selection	1. Project Sponsor – secured CEO 2. Selected Team Leader – This was our recently hired CI Lead who came to us with years of Lean experience with other companies. 3. Recommended Team members to Team Lead – Since he was fairly new to our facility. Members represented a strong Cross-Functional Team consisting of: 　a. Production Controller – must involve finance 　b. Planner from a different Product Line – schedule information 　c. 2 Operators who have performed the packaging function, Quality Champion and a CI Rep from Rochester, New York with experience in candy packaging activities

PLAN

1 **How were you involved in project selection and definition?** Why did you select this project to work on? If you were assigned to this project, explain your understanding of why this project was selected. Define the problem in more depth than the problem statement above.
For example, you might explain its scope, and/or how it fit into the bigger picture for the organization.

Describe your involvement	I was the Project Sponsor. We opened a new Manufacturing Facility and this product line was transitioning from Rochester to Nashville. Our current demand at the time was fairly manageable but the expectation and projected TAKT rate was much greater than what we had been exposed to. We needed to have an event to understand current state and to develop future state needs and actions in order to meet the increasing TAKT rate.
Why was the project selected?	The praline product line had significant capital investment and was projected to be the "cash cow" for Nashville as well as a growth engine for TGSCC. The capital Invested was in excess of $10M just in machinery for this product line. I could not allow a packaging operation to be any sort of bottleneck preventing flow through this work cell.
What was the impact on the whole organization?	Praline was a growth engine for TGSCC and was gaining market share. We were #2 in the market and closing in on #1 year after year. Nashville and Hong Kong facilities were built with praline in mind to increase supply capacity in each hemisphere.
How did this project link to customer quality, cost, and delivery?	This product is extremely delicate (time, light, and fragile) so we need a fast efficient packing process but the process needed firm standard work to ensure that it was package in a manner that transit would not cause any poor quality to reach our customer.

2 **How did you participate in the documentation of the current condition and target condition?** Explain what was done to document the current and future states, but make sure you elaborate on what YOU did during this documentation activity.

What was the current condition (specific and measurable) and how did you document it?	I worked with our continuous improvement (CI) lead and we initiated a time study of our current process. We learned that it took 2 employees 10 mins to package 10 boxes (one case) or 1 minute per assembly. This was compared to TAKT and documented in our A3 for this event.
What was the target condition (specific and measurable) and how did you document it?	The Voice of Customer taught me that we needed to be able to produce praline to a TAKT rate of 840 boxes/day or 1 boxes 30 seconds. This was documented in the A3 for our event as our target and would eventually be used on our MDI/SQDC Visual Management Board in the area.

3 **What metrics did you use in the project?**

How did you measure the cause(s) of the problem and why were they relevant to achieve the target condition? State facts and figures to support your reasoning. Note: Company confidential data can still be used in an indexed or normalized data format.	I worked with our CI lead and we initiated a time study of our current process. While the time studies were taking place, I calculated the TAKT rate based on projections from my manager. Once we had both of these key pieces of information, I realized that in our current state we would not be able to meet our customer demand and hence sat with our CEO and began writing an Event Scope Document focusing on Lead Time Reduction for the pralines packaging process.

4 **What planning methods did you use?**

How did the team develop plans to attack the problem (e.g., charter document, VSM, process maps) and manage the project (e.g., activity network diagrams, Gantt chart, stop light charts)?	Working with our CI Lead, we mapped out the Current State Process flow as we knew it and utilized our time study data to populate time per step. Once I had projected TAKT as well, we were able to write an Event Scope Document (A3) with a Future State Map of the process as the deliverable. We knew Current State and knew the Goal we needed to obtain; now I needed a Kaizen Team to help us put the vision into reality.

DO
3 POSSIBLE POINTS

1   Describe your contribution to the project.

What were YOUR roles and YOUR responsibilities during your tenure on the project?	1. Project Sponsor
	2. Selected Team Leader
	3. Recommended Team members to Team Lead. Members represented a strong Cross-Functional Team consisting of:
	   a. Production Controller
	   b. Planner from a different Product Line
	   c. 2 Operators who have performed the packaging function.
	   d. Quality Engineer
	   e. Lean Leader from Rochester who had previous experience in praline packaging activities.
	   f. Took part in daily afternoon checkpoint meetings and offered direction when needed and assisted with resource allocation when needed.

2   Describe proposed countermeasures/solutions and implementation. What was changed by the team? What changes were YOU specifically involved in and how did you contribute to identifying and making them happen?

List specific countermeasures and solutions (that moved you toward the Target condition)	After utilizing some Lean tools during the Kaizen Event, the Team decided to really focus on the need for One-Piece Flow rather than batch processing up to 10 at a time.
	   a. Based on the Spaghetti diagram, we learned that the travel between the operators was significant and could be greatly reduced with one-piece flow.
	   b. Ergonomics would be improved in that we could design an adjustable work platform for one assembly versus needing 10 different stations to adjust work height.
	   c. This provided much more flexibility in processing so we would not fill an entire area of limited floor space with a job that may need to be reprioritized. With one-piece flow, we were never more than one box away from being able to easily reprioritize. (packaging lines run many types of candy based on variable demand)
	We learned that the Rochester facility was packaging the product differently and this was a potential cause of concern. Our team (Nashville) was packaging differently which was very time consuming compared to the Rochester method which was deemed acceptable.

Describe the actions taken.	1. Gemba Walk: Process walked from start to finish by the team to gain a full understanding of the process and do to gather data for the VSMs. 2. Spaghetti Diagram: Detailed map showing the operator and material movements while processing in batch mode. 3. VSM: Current State was mapped out and opportunity clouds were depicted on the map showing areas of focus for the remainder of the event. Future State was sketched out reflecting the changes based on auctioning the opportunity clouds. 4. Work Balancing: Each step of the process was broken out and timed. This was then compared to TAKT time for each operation. This was taken into account during the VSM Future State creation. 5. House of Lean Foundation Building: 5S- Area was cleared to make room for future state process Standardization was a key focus based on ensuring Best Practices from Rochester facility were effectively transferred to our new Standard Work. 6. Standard Work: Standard Work was created to ensure we did not over process. We learned that our Rochester facility was packaging differently. Our team adopted the Rochester standard. TAKT - Voice of Customer showed us that the projected go forward TAKT Rate would be 840/day or one box every 30 seconds. We were currently worse than that at 1 min per box but we would always reallocate a minimum of 3 resources to do the Non-Value Add Tasks. We needed to balance the line and make LT reductions to where we could as efficiently as possible meet or exceed TAKT rate and keep our employees on Value-Add tasks as much as possible. 7. Visual Management: Job Boards were created to show current job being processed and next jobs in queue. Warehouse was trained to check the board and ensure packaging and product was staged in time to always keep uninterrupted flow.
How did YOU identify and make the changes?	During the scope of the event I worked with the Team Leader to ensure these tools were used. I assisted in walking the Value Stream and creation of the Current State VSM and took part in identifying the opportunities from current state to move us toward our Future state Goals.

3	**Describe the lean principles and tools (methods) you used in the project.** What aspects of lean and the core problem solving tools did YOU employ and why?
What lean principles (Lean Thinking or Shingo Prize concepts and principles) were used in this project?	From a Shingo perspective we touched the four (4) areas in that we matured in Cultural Enablers in that we had a new team introduced to CI events and we gained their buy in and belief in the process. We improved the process through this event and made sure that we were aligned with our Customers both internal and external on expectations and we drove favorable business results. From a Lean Principle perspective we knew not meeting TAKT would create a loss of potential value. We mapped the process to create flow and to improve the process as we strive for perfection.
What Lean Tools were used in this project?	1. Gemba Walk: Process walked from start to finish by the team to gain a full understanding of the process and do to gather data for the VSMs. 2. Spaghetti Diagram: Detailed map showing the operator and material movements while processing in a batch mode. 3. VSM: Current State was mapped out and opportunity clouds were depicted on the map showing areas of focus for the remainder of the event. Future State was sketched out reflecting the changes based on auctioning the opportunity clouds. 4. Work Balancing: Each step of the process was broken out and timed. This was then compared to TAKT time for each operation. This was taken into account during the VSM Future State creation. 5. House of Lean Foundation Building: 5S- Area was cleared to make room for future state process Standardization was a key focus based on ensuring Best Practices from the Rochester facility were effectively transferred to our new Standard Work. 6. Standard Work: Standard Work was created to ensure we did not over process. We learned that our Rochester facility was packaging differently. Our team adopted the Rochester standard. TAKT - Voice of Customer showed us that the projected go forward TAKT Rate would be 840/day or one box every 30 seconds. We were currently worse than that at 1 min per box but we would always reallocate a minimum of 3 resources to do the Non-Value Add Tasks. We needed to balance the line and make LT reductions to where we could as efficiently as possible meet or exceed TAKT rate and keep our employees on Value-Add tasks as much as possible. 7. Visual Management: Job Boards were created to show current job being processed and next jobs in queue. Warehouse was trained to check the board and ensure packaging and product was staged in time to always keep uninterrupted flow.

CHECK   3 POSSIBLE POINTS

1	**How did your results compare to your target condition?** What happened to the measures you explained in Plan #3 above? Note it is not necessary that the project be successful to be used in your Portfolio, but you should still explain how the results compared to your expectations. Definition of check:
Was the expected target achieved?	Yes.
If so, what was the benefit?	We were able to reduce the lead time (LT) of the packaging process from 1 min per box to 25 seconds per box (75% improvement). I was about to hire a new candy processing operator so I could keep 3 operators in the packaging area to meet TAKT. I was then able to train one of the 3 on the candy processing operation and the other 2 were able to help out in the warehouse or wherever else needed as they were beating TAKT on a daily basis.
If not, why not?	

2	**What was your role in the check process?** What did YOU do to monitor that the changes were being followed? If you found an exception, what did you do to correct it?
Describe your personal role	I was responsible for the manpower allocation and the monthly shipment requirements. I was closely involved with ensuring we were efficiently flowing all of the assemblies that needed to be crated for delivery.
What actions were taken to monitor changes?	My Leadership Standard Work had a line for me to check on this project to ensure it gained momentum. Our daily Gemba walks would take us to this area and our new Visual Management Boards in the area gave us a quick visual reference as to whether we were winning or losing.

3   What is your assessment of the level and trend of improvement? Did the changes meet, exceed, or fall short of your expectations (explain why)? Are the improvements holding, improving, or sliding back to the old ways (explain why if you know)?

Level of improvement assessment	I was very happy to see that we could accomplish this task with 2 FTEs instead of the minimum of 3 we perceived this process to require. One of the employees I had doing this process was slated to go to a Value Add process on a candy processing machine and I planned on backfilling him with a new hire. Based on this event, we learned that I could move him to the candy process and not have to increase our head count in order to accomplish the necessary packaging tasks.
Trend of Improvement assessment	Praline packaging has not been an area of concern since this event as we are able to effectively process the candy and ship them on time consistently.
Explain why levels are responding the way they are	Elimination of waste from the process and then the visual controls and leadership commitment to not allow the process to reintroduce the waste that was eliminated.

ACT/LESSONS LEARNED   5 POSSIBLE POINTS

1   What have you personally done to sustain this project?

How long were YOU involved in ensuring the new processes became the new way of operating and what did YOU do to make sure the gains were held?	I was over this area for over 2 years after the event so it was near and dear to my success as a leader of the facility that this process be efficient and not create delays in praline shipments. Our daily Gemba Walks and MDI/SQDC Visual Mgt Board reviews were key to ensuring this was sustained and we continued to look for more ways to improve.

2   What do you think are the next improvement steps for this project?

What else should or could be done to continue to improve in this problem area, or area of opportunity?	We need to continue to gain Voice of Customer to ensure we are not over processing the candy our packaging and marking standards we have. A lot of work has been put in by Global Product Marketing to define and standardize the packaging standards. We need to continually study and challenge these standards and eliminate any more over processing that could be occurring. This will only happen if we can prove to the customer that we can achieve their requirements.

3   What lessons did you learn from/about the project? In place of Plan-Do-Check-Act some say Plan-Do-Check-Reflect. Reflect on your experience on this project. What new knowledge did you gain either technically and/or working with people?

What has the experience of planning and implementing this project taught you personally?	Planning this event was unique in that the entire team was new including our CI Lead so I really had to be involved and steer this team to use the tools and let the data from the tool usage guide us toward solutions. Having a SME on the team was key so being sure to spend ample time on team selection is critical. If I hadn't reached out to have a Rochester, New York member on the team I'm not sure if we would have identified the packaging differences. These changes impacted LT by as much as we did.
What did you learn about the work area that you did not know before?	I considered this an area where I could have entry-level employees do this task. While it can be, there is a lot of responsibility on them to ensure that they mark the candy correctly, tie specific "Batch #s" to the correct work order, pack in a manner that will not cause damage in the retail environment. Without strong Standard Work for these employees, I can see how waste had infested this process.
How does this knowledge inform you or deepen your understanding of what affects the target condition(s)?	It is imperative to map the current state and to get into the granular details as that is where a lot of the waste will be. Don't assume you know how to fix a scenario. Allow the tools to work for you and let the data drive your action.
What change in approach will you take for future projects?	I will ensure all projects will use an A3 thinking approach that clearly states Problem, Current State, Future State Goal and the steps to get there. The Current State will be thorough so that we can uncover all of the waste.
What new knowledge did you gain either technically and/or working with people?	I learned that employees will take on more and more responsibility and /or struggle with tasks but remain quiet and try to work through the issues the best way that they can. The quicker we can accomplish events throughout the facility and mature our facility to have a strong CI Culture then we can really gain momentum as a facility and eliminate this unnecessary waste that is dragging us down because everyone will look at a process and easily be able to identify waste rather than accepting it and coming up with the best way to deal with it on their own.

TACTICAL (LOCAL) PROJECT – EXAMPLE 2

Project Title: The Great Southern Candy Company: Key Performance Indicator Management

Indicate the industry in which the project occurred and the part of the organization that was affected by the project. Two parts: which industry and which organization(s).	
Industry and Organization Function Affected	Candy & Snack Industry, The Great Southern Candy Company

Describe the problem the project is addressing. Describe the problem or opportunity using complete sentences. What were you attempting to accomplish? Why?	
Problem Statement	The Great Southern Candy Company is a high volume candy producer with expected shipments of 50M pounds per year. Forecasting was used regularly by the individual planners but we did not have an easy method or process evaluating the accuracy of our forecast and hence if we were inflating Gross Inventory and driving down our Inventory Turns due to poor forecasting. This event was to establish current state, develop a process to improve accuracy, and then monitor the progress and be able to report to our leadership on a regular basis. This was a significant undertaking as we had 1,300 active item numbers in SAP and 6,500 items that had usage in the last 12 months.

Provide the project start date. If you are no longer involved in the project, also provide the date you transitioned off the project. Projects should show a progression in dates to reflect a history of lean experience. When did the project begin and end, when did you join and leave?	
Project Dates	January 19-23, 2015

Describe your specific role in the project and how the team members were selected. Two parts: your role and how team members were selected. What did you do on the team? If you selected others to be on the team, explain; if you were selected, explain why.	
Role in the Project and Team Selection	I was the Facilitator of the Event. Selected the Team to ensure we had Subject Matter Experts from a local plant level as well as Global and System levels. Provided Day 1 Training to the team including Overview of Lean, Overview of the PPRs, and how Forecast Accuracy fits into the Voice of the Customer. I showed them the tools we would be utilizing and explained why we do these events along with what we would be doing. I was responsible for Report Out Facilitation and organization, owner of the 30 Day Newspaper and owner of the A3.

PLAN

1 **How were you involved in project selection and definition?** Why did you select this project to work on? If you were assigned to this project, explain your understanding of why this project was selected. Define the problem in more depth than the problem statement above.
For example, you might explain its scope, and/or how it fit into the bigger picture for the organization.

Describe your involvement	I was the Demand Planning Manager for Nashville and a part of our Facility Hoshin Planning which included a roll down from the Global Hoshin Goals to improve Inventory Turns. I was the local A3 owner for Inventory Turn improvement with this Forecast Accuracy Event being one of my key initiatives.
Why was the project selected?	A Global Initiative was underway to help each location understand and measure "Key Performance Indicators" for their facility. This was driven by Global Hoshin Goals which then became part of our local Hoshin goals for TGSCC.
What was the impact on the whole organization?	Average Gross Inventory at that time was $44M with 50% of that being finished goods. If we could improve our forecast accuracy from 32% to 65% the potential was there to impact inventory favorably by ~$13M.
How did this project link to customer quality, cost, and delivery?	The TGSCC produces product based on distributor's orders to provide to our customers. If our forecasting was not solid, we ran the risk of not having product for our distributors which would impact our sales and customer service levels. This "First Pass Fill Rate" (based on retail pull) measure was a major focus and discussion point between my facility and the distributor's on a monthly basis.

2 **How did you participate in the documentation of the current condition and target condition?** Explain what was done to document the current and future states, but make sure you elaborate on what YOU did during this documentation activity.

What was the current condition (specific and measurable) and how did you document it?	The current Forecast Accuracy for my Facility was 32% and this was our baseline and documented in the event A3.
	1. Based on the Voice of the Customer (in this case the CEO wanted to ensure all areas of the business were doing their due diligence to improve the bottom line). The 2 key areas of focus in this regard were:
	  a. Ensuring the right product was available when needed to produce revenue.
	  b. Ensure Gross Inventory Turns were at acceptable levels so not to tie up potential Cash Flow in stagnant inventory.
	2. This was taken into account in our Hoshin Planning (first at a Global Level and then at my level at our facility). I was able to determine what our Current State was, perform a Gap Analysis between Current State and our Future State Goals and develop an Action Plan. My Action Plan included this Kaizen Event.
	3. The Global Team developed a tool called Chocview which was rolled out to each location. I was the interface between the plants using the new tool. As a team, we used the tool to determine which parts were being forecasted and what the accuracy was for each of the different Planner areas.

What was the target condition (specific and measurable) and how did you document it?	Our Future State Goal was to maintain or exceed 65% accuracy levels for forecasting. This was documented in the A3 for the event and eventually on our Key Performance Indicator Visual Management Boards (SQDC/MDI) as the goal by which the group was measured.

3 **What metrics did you use in the project?**

How did you measure the cause(s) of the problem and why were they relevant to achieve the target condition? State facts and figures to support your reasoning. Note: Company confidential data can still be used in an indexed or normalized data format.	Gross Inventory/Inventory Turns was the primary metric but it could be impacted by operations ability to accurately forecast Capital needed for the year. The part we could control the most and impact quickly was Forecast Accuracy around our praline inventory. We were able to retrieve historical data much easier than before with our new Global Chocview Tool and were able to develop a baseline score of 32% and a go forward methodology to measure the same way each month to ensure a fair comparison month over month. With the Praline business being 50% of our inventory, that meant that a pool of $12M of inventory could be impacted/reduced going forward through our efforts.

4   What planning methods did you use?

How did the team develop plans to attack the problem (e.g., charter document, VSM, process maps) and manage the project (e.g., activity network diagrams, Gantt chart, stop light charts)?	We took information obtained through the Hoshin Catchball process and then utilized Lean Tools to help problem solve such as 5 Whys, Fishbone Diagrams, Paretos of data to know which items would help us have the biggest bang for our buck on achieving 65% accuracy, SIPOC. The SIPOC really opened our eyes in that we needed to partner with the Asset Management group to gain intelligence to help us set up our new Forecasting Process.

DO   3 POSSIBLE POINTS

1   Describe your contribution to the project.

What were YOUR roles and YOUR responsibilities during your tenure on the project?	I was the owner of the overriding A3 from our Hoshin Event tied to improving Inventory Turns. This lead to me holding Catchball events with a cross-functional group from Procurement, Planning, Asset Management and Production. This feedback led me to schedule this Kaizen event in which I was the owner of the Event A3 as well as the Lead Facilitator of the event. I was responsible for team selection mentioned earlier. I was then responsible for the report out for the event, gaining buy-in from the rest of my Hoshin Team members and then implementation of the ideas and solutions developed by the Kaizen Team.

2   Describe proposed countermeasures/solutions and implementation. What was changed by the team? What changes were YOU specifically involved in and how did you contribute to identifying and making them happen?

List specific countermeasures and solutions (that moved you toward the Target condition)	Based on Catchball feedback as well as SME input from the Kaizen Team and some of my past training, I was convinced that some of the American Production Inventory Control Society (APICS) principles could be used in this event. We spent some time on Day one reviewing the APICS principles of ABC part classification by cost and/or usage and made that a major part of our Standard Work going forward.

Describe the actions taken.	1. We broke the part numbers into ABC classification:
	    a. A = 70% of Usage Value (10% of Material Numbers).
	    b. B = 20% of Usage Value (20% of Material Numbers).
	    c. C = 10% of Usage Value (70% of Material Numbers).
	    d. If any C or B part's Std Cost was > $5,000 we moved it to an A.
	    e. If any C part's Std Cost was > $500 we moved it to a B.
	2. Developed Std Work for managing the different classes of parts.
	    a. A Parts were adjusted manually in a set meeting with the Asset Mgt group.
	3. We would share with them our Statistical info based on recent historical usage and they would share with us intelligence they have for future needs. Together we would set the forecast accordingly.
	    a. B parts.
	4. If > than shipments in 4 of last 12 months then we would Autoload Forecast using our new Chocview Tool at the statistical level recommended if new criteria were met (Forecast Accuracy for SAS recommended values were High , > 80% 3 of last 6 months, OR there were 0 low, < 50%, and at least 1 High, >80%, in last 6 months.
	5. Manually review the remainder of B parts with 4+ months of 12 shipments that did not meet above Criteria. If <4 of months shipments then no forecast was loaded. C parts autoload if >4 of 12 months shipments.

How did YOU identify and make the changes?	I had learned in my APICS training that inventory is broken into ABC categories primarily for inventory cycle counting. When I brought this up to the team, we all agreed that this same concept could be used to manage how we can most efficiently forecast 6500 part numbers with usage in the last 12 months while being more accurate than our current score reflected. I then assigned a portion of the team to develop the Standard Work for this process with screen shots so we could then roll this out to all of our Production Controllers who were responsible for forecasting. As the manager of these folks, I then scheduled and arranged for the training and rollout to the team.

3 **Describe the lean principles and tools (methods) you used in the project.** What aspects of lean and the core problem solving tools did YOU employ and why?	
What lean principles (Lean Thinking or Shingo Prize concepts and principles) were used in this project?	From a Shingo Perspective, we built culture in a new way by driving Kaizen and Visual Metrics to the Planning, Procurement and Asset Management parts of the business that aren't usually involved as deeply as the Production team is. We improved our forecasting process and definitely gained enterprise alignment by having Asset Management work hand in hand with us as part of our Standard Work going forward and we did achieve favorable business results. From the Lean Principle viewpoint, we definitely knew that were losing value with a 32% forecast accuracy and we mapped our current process and developed a future state on our A3 with a short-term goal of 65% while we strove for perfection at 100% as the ultimate goal.

What Lean Tools were used in this project?	1. Hoshin Planning.
	 2. A3 Creation.
	 3. Catchball.
	 4. 5 Whys.
	    a. Facility's main focus was Output (Shipments) and needed more balance with the PPRs.
	    b. PPR performance was not easily obtained and visible.
	    c. Tools were not available for managing mass data quickly and efficiently.
	    d. Standard Work was not created.
	    e. Turnover was more prevalent and not conducive to mastering a product line.
	 5. Cause and Effect Fishbone Diagram.
	    a. Lots of inputs from various sources requesting forecasting but they did not have stakes in the game when it came to Inventory Turns.
	    b. Quantity of Part Numbers to manage was overwhelming.
	    c. Needed to be measured for success just like we rewarded/celebrated high shipments.
	 6. Pareto Analysis (Identified the big hitters to focus on and ensure our actions would have the biggest effect on moving the needle toward >65% Forecast Accuracy).
	 7. SIPOC Diagram really opened our eyes to whom was driving our inaccurate forecasting. Needed to partner with Marketing & Sales so they could understand how they were driving up inventory.

CHECK 3 POSSIBLE POINTS

1 **How did your results compare to your target condition?** What happened to the measures you explained in Plan #3 above? Note it is not necessary that the project be successful to be used in your Portfolio, but you should still explain how the results compared to your expectations. Definition of check:	
Was the expected target achieved?	Eventually. In the next 9 months after the event, before I changed facilities, we exceeded 65% in 3 of those nine months and averaged 57% over that time period up from 32%. The year after I left the team averaged 77% accuracy.
If so, what was the benefit?	I feel this event was a huge success and it is personally rewarding to know that the visual management boards are still in place and the team is excited to post and celebrate a good score each month. If you think about going from 32% to 57% and now to 77% on $44M dollars of inventory, that means that a lot more parts that are needed for revenue generation were available in much shorter Lead Times and that a significant amount of Cash was not tied up in stagnant inventory.
If not, why not?	

2 **What was your role in the check process?** What did YOU do to monitor that the changes were being followed? If you found an exception, what did you do to correct it?	
Describe your personal role	1. I actively took part in the A product meetings each month and ensured that the Standard Work for the meeting was being followed and that we adjusted the Standard Work if we learned a more efficient way of working toward our goals. 2. I put the goals for Forecast Accuracy into the PPRs (Annual Performance Review Documents) for each of the Planners. Their performance in forecasting was major area of focus when providing them a ranking in their Performance Review.
What actions were taken to monitor changes?	Visual Management Boards were used and my Plant Leadership would walk with me weekly to hold me and my team accountable for hitting our targets and working through setbacks as well as to offer any support we needed from them. Standard Work was updated for the Production Controllers so they understood the new process and what they were accountable for. Monthly meetings were setup with Marketing & Sales to review previous month performance and to learn about upcoming intelligence that might not be picked up in our forecasting tool that primarily looked at historical data to predict the future.

3 **What is your assessment of the level and trend of improvement?** Did the changes meet, exceed, or fall short of your expectations (explain why)? Are the improvements holding, improving, or sliding back to the old ways (explain why if you know)?

Level of improvement assessment	I feel this event was a huge success and it is personally rewarding to know that the visual management boards are still in place and the team is excited to post and celebrate a good score each month. If you think about going from 32% to 57% and now to 77% on $44M dollars of inventory, that means that a lot more product that is needed for revenue generation were available in much shorter Lead Times and that a significant amount of Cash was not tied up in stagnant inventory.
Trend of Improvement assessment	The trend was favorable as we went from 32% to 57% in the first nine months into 2014. Then when I checked back in August 2015 they were at 77% and still using the processes from our event with only slight tweaks being made for continuous improvement.
Explain why levels are responding the way they are	Forecasting is not being done in a silo and we have true Enterprise Alignment along with sound APICS principles to ensure the Controllers spend the most time and effort on the big ticket items and allow the software and Standard Work to work for us on the items that will not have as great of an impact. The Visual Management, Standard Work, and PPR helps to hold everyone accountable.

ACT/LESSONS LEARNED   5 POSSIBLE POINTS

1 **What have you personally done to sustain this project?**

How long were YOU involved in ensuring the new processes became the new way of operating and what did YOU do to make sure the gains were held?	I remained in the Planning Manager role for 15 months after this event. I developed our Planning PPR Gemba boards and modeled them after the Production SQDC Visual Management Boards that I had managed and taken part in Gemba Walks over the previous 5 years. I invited our Business Unit and Center Managers to take this walk with me and we would go to the different areas where the Production Controllers would review their boards that were now side-by-side with the production bds. I actively took part in the A product meeting each month and ensured that the Standard Work for the meeting was being followed and that we adjusted the Standard Work if we learned a more efficient way of working toward our goals. I put the goals for Forecast Accuracy into the PPRs (Annual Performance Review Documents) for each of the Planners. Their performance in forecasting was major area of focus when providing them a ranking in their Performance Review

2 **What do you think are the next improvement steps for this project?**

What else should or could be done to continue to improve in this problem area, or area of opportunity?	The team continued to learn from the process and to adjust Standard Work as lessons were learned. This allowed them to take the next progression from the 57% we were able to achieve in the first 9 months and now 3 years later be able to sustain between 75-80%. I would like to see Technology have a list of the product we replace the most (field failures) and how often and then perhaps do some redesign to increase the packing/logistics Mean Time Between Failures which would then drive down the amount of cash we have to tie up in inventory and allow the company to invest that elsewhere for higher returns.

3 **What lessons did you learn from/about the project?** In place of Plan-Do-Check-Act some say Plan-Do-Check-Reflect. Reflect on your experience on this project. What new knowledge did you gain either technically and/or working with people?

What has the experience of planning and implementing this project taught you personally?	We had some debate early on whether or not a Kaizen Event with the Lean Tools would be the correct forum for accomplishing our PPR Goals. I was able to convince myself and others that it would work and I was very happy with how the Lean Methodology systematically led us to sound new processes and strong results over time. What I have learned is the power of A3 Thinking and Lean Tools can help in almost any business challenge to provide a systematic blue print for problem solving and then sustainment (PDCA).
What did you learn about the work area that you did not know before?	I learned that the team, when challenged with a specific problem statement, had a wealth of knowledge and ideas for accomplishing our goal. However, in the day-to-day firefighting, all of the creativity was suppressed as they were caught up in tactical activities. As a leader, being able to pull them out of that for this project and giving them a clearly defined problem statement allowed them to free their minds and focus on solving the problem at hand.
How does this knowledge inform you or deepen your understanding of what affects the target condition(s)?	It has taught me to really do some self-evaluation as to whether I have effectively communicated the overarching Voice of our Customer to the staff at all levels and coached/mentored them on how they can favorably impact the measurables tied to that Voice. There is a lot of untapped talent in our organization that is consumed with the functional part of their jobs that they can't see bigger picture and utilize their experience and skill sets to help drive favorable results. By using the Hoshin process to help me see big picture VoC and then using the Lean Methodology to have a local Hoshin, develop A3s, play catchball and then choose a diverse Kaizen Team with SMEs involved and able to think freely and clearly on problem solving, I now have a blueprint going forward for the success that can be had by staying committed to this process.
What change in approach will you take for future projects?	This project really opened my eyes to how powerful Lean Principles can be. I saw this project develop from Voice of Customer to a high level Global Hoshin Plan to a Local Level Hoshin Plan to a specific A3 to a Kaizen Event to Standard Work that is being sustained and continuously improved today. That coupled with the documented proven results from 32% accuracy to 77% accuracy 3 years later is very rewarding.
What new knowledge did you gain either technically and/or working with people?	I will share this example during all future Hoshin and/or Kaizen events to help motivate the team anytime that it may seem that Lean Methodology "doesn't fit" the situation at hand. There were times during this process that I wondered if we were doing the right things and approaching this the right way because it seemed like such a daunting task. I feel this success will help me push through those feelings in the future and to help motivate others who might be feeling overwhelmed about the task at hand.