ACCELERATING LEAN SIX SIGMA RESULTS How to Achieve Improvement Excellence<sup>™</sup> in the New Economy

**Terence T. Burton** 

# **Key Models, Templates** and Frameworks

**Celebrating 20 Years** 1991-2011



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Celebrating 20 Years 1991-2011

#### FROM OK TO GREAT

Execution and RESULTS

Creative Engaged Leadership Strategic Improvement Vision Baseline Performance and Opportunities Assessment Goals, Objectives, Feasibility, Approach Education and Skills Development Strategy



WHAT, HOW, WHEN, WHO, WHERE

Leadership Infrastructure Project Selection/Scoping Team Development Project Management Financial Benefits Customized Education Key Metrics Improvement Methodologies - Six Sigma

- Lean
- Kaizen
- Enabling IT/Infotech
- Awareness and Communication

Deployment Planning

> MAKE IT HAPPEN Daily Management Leadership Mentoring Progress Reporting Business Process Knowledge Technical Improvement Expertise Experience and Track Record Project, Team Mentoring Change Management Cultural Alignment Projects Closure and Results Performance Measurement

Strategic

Leadership & Vision

> GROWTH MARKET SHARE INNOVATION PERFECT PROCESS QUALITY COST REDUCTION ELIMINATION OF WASTE VELOCITY IMPROVEMENT CUSTOMER SERVICE SUPPLY CHAIN INTEGRATION CULTURAL TRANSFORMATION

### Improvement Excellence<sup>™</sup>Infrastructure

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## Improvement Excellence

Operations and Technology Excellence Transactional Business Process Excellence

Improvement Projects - Integrate Quick-Strike, Lean, Six Sigma

### KAIZEN

#### LEAN

Basic Improvement Quick Strike No Brainer Containment Incremental Steps Value Stream Management Speed, Velocity Cycle Time Waste Elimination Flow, Balance Synchronization Standardization

Quality Process Perfection Statistical Engineering Variation Reduction KPIV/KPOV Controls Complex Variation

SIX SIGMA

#### Basic Improvement

<u>*"The Foundation":</u> DMAIC Methodology Leadership and Infrastructure*</u>

### Improvement Excellence<sup>™</sup> Integrating Kaizen, Lean, Six Sigma, and Enabling IT



### Scalable Lean/Six Sigma<sup>™</sup> Model Characteristics



#### Strategic Leadership and Vision

1. Reset Deployment Leadership, Strategy, and Vision

#### Deployment Planning

- 2. Develop a Robust Deployment Plan
- 3. Provide Customized Education and Development
- 4. Communicate, Communicate, Communicate
- 5. Launch with the Best in Mind

#### Execution

- 6. Provide Strong Extensive Mentoring Support
- 7. DMAIC the Deployment Process Regularly
- 8. Accelerate Individual Project Paths
- 9. Complete the C in DMAIC
- 10. Practice Concurrent Continuous Deployment

Figure 3.3 Accelerators of Lean Six Sigma Results





**Celebrating 20 Years** 



Courage Conviction Charisma Creativity Curiosity Strategic Thinking Guiding Beacon Goals Oriented

Logical Thinking Answering Why Answering What Answering How Answering Where Answering When Know How Needs Driven Consequence Enforcer. Resource Balancer Skill Builder

Knowledge

Passion

Vision

Motivating Challenging People Oriented Team Builder. Inclusive Unmeddling Engaging. Empowering Developmental

Commitment Objectivity. Patience Communication Competence Common Sense Consistent Constancy. Structured Balanced Realistic Focused Attentive



Conscience

Trust Authenticity Candor Character Ethical Respectful Transparency Dignity Admissive Accessible Integrity Recognition and Rewards Inspirational

### Figure 4.8 Best Practice Leadership Behaviors

Strategic Leadership Deployment Planning Execution



### **Figure 5.1 Elements of Deployment Planning**

Business D	iagnostic Summary					
Business Unit	Primary Functional Area	Problem Discussion Summary	Effect on Business	Probable Root Causes	Key Business Processes Affected	
Consumer Products	Sales & Operations Planning (focus PURELY on demand forecasting)	Low forecast accuracy leading to premium freight, inventory, OTD and customer service issues; Europe 70% of Sales - Can better manage variation than US with 30% of orders with wider variation; Don't access sell-through info, access sell-to info to dealers; Don't know sell-through to ultimate customers (Media Market in Europe, like XXXX); Not getting (any or reliable) sales forecasts from regions; Not a priority for the Sales group, not measured for performance; Handle everything the same, proliferation of products and SKUs; Sales does not recognize problems - Top \$ forecast is accurate; COnstant changes throughout month especially last week;	More of a pareto relationship in Europe than US with lower volumes; Priority, lack of process (evolving); Frequency of review, Dropping in requirements without impact on whole; Revenue-driven; Way too much manual intervention	Forecast, Master Schedule, MRP but can't handle multi- whse, SAP process will be automated by April ; Currently analyzing product data to clarify root causes, where to focus to get largest quickest improvement, etc.	same	
Aerospace Products	Quality	Warranty and non-warrantee returns are growing significantly; Some returns have been in system for as much as 268 days; Many "No Problem Found" returns - Send back to customer and fails again; Rev updates not getting done; Customers are unhappy because we are not turning these around fast enough; Customers applying their own billing adjustments causing wast in invoicing and collections; Non warranty returns in queue represent \$8.2M in incremental revenue'	Lost revenue opportunities, customer complaints, potential catastrophy at customer, excessive costs of on site repair, airline costs, expedited freight, disruptions, etc. when products fail and customer has no spares;	Warrantee and non warranty turnaround not a priority, Sales talks customers into buying more new products, giving deep concessions when there is a warranty problem, probably giving away new products; Product documentation weak on rev level change dates, difficult to tell what configuration customer purchased, may have sat in warehouse for 6 months before purchase;	Sales, Warehouse, Quality, Customer Service, Finance (Returns and Billing processes)	
Consumer Products	Operations	Poor On Time Delivery; Sales sells and the organization falls down; Customers angry, complaining about OTD and availability of stock, threatening to cancel orders; Don't order enough inventory, vendor quality issues, designs failing in field: Shipping departmer: mar	Losing market share, one of our largest retailers threatening to throw us out; Lots of constant crisis m	Consumer market moves fast, customers will buy competitors product if ours not available CHina manuf		
	F	Figure 5.2: Mad	cr <u>o C</u> hart	ter, Tab 1	-	

Project Definition and Scopi	ng									
Problem Statement	Project Name	Project Objectives and Scope	Key Performance Metrics	Baseline Performance	Improvement Goal	Benefits Statement	Quantified Benefits	Savings Category	Project Deliverables	Barriers to Success
Forecast Accuracy is extremely low; Not enough effort is put into S&OP process to tie Sales, Supply Chain, and Finance together; All products treated equally; Measure and report out forecast error monthly, no corrective actions or accountability;	S&OP Improvement	Improve Forecast Accuracy (the combo of forecast and MPS that drives MRP)	Forecast Accuracy; Forecast Error; By product, category, region, sales associate, customer, distributor. etc.	Current US is 40%- 50%; EMEA is 60%- 70%	Shoot for 80%-90%+	Forecast accuracy will improve OTD and F/G turnover	\$784K	A, B, D	Accurate Forecasting Process with proven best practices and metrics	Sales not interested, want to sell and hit \$ goals; New forecasting process will expose waste and accountability
There is no distinction of customers; Treat a \$100 customer exactly as a \$150M customer, often at expense of premier customers; Invoicing cost more to apply individual discount agreements and collect receivables than the value of the order; Obvious negative margins on too many orders. 14 customers represent over 90% of US sales, sell to 3874 customers	Customer Rationalization	Develop more targeted sales, customer service and fulfilment practices that recognize distinctions between customers; Eliminate excess hidden costs to service low volume, unprofitable market segments; Look for other options to smooth out selling cycle. Might consider new policy for small customers to deal direct with dealers but determine based on data	\$ revenue by market, region, distributor, customer; P&L \$ by same	Billing employs 6 fte people (\$238K) to deal with errors on orders under \$250; Sales spending too much time on same (COPQ being determined);	Work with Product Rationalization Team; Reduce low and negative margin orders, including cost of quality to sell and service smaller customers	Significant COPQ reductions and wast from handling low and negative margin customers; Sales will have more time and resources to focus more on top 50 customers, tall pole selling	This project will reduce COPQ by \$370K - \$438K	A, B, C, D, E	Recommended actions to reduce, re- align customers to appropriate channels;	Sales does not want to lose the flexibility of selling to these customers;
Too many products, many with low and negative margins, especially the disruption and expediting costs; Sales meets \$ goals but XYZ falls short on P&L, Asset Mgmt goals	Product Rationalization and Pruning	Reduce the number of SKUs through data driven logic and analytical science; Also develop a formal ongoing process to evaluate and phase out old SKUs	Number of SKUs, Profitability by Category, Product, SKU	Current 876 SKUs	Reduce the number of active SKUs by at least 25%;	40% of order entry time is spent on orders under \$250. Estimate a P/N reduction of over 6000 R/M components; Many products with negative margins	Eliminate negative margins on \$170M revenues (\$18M drain to profits); Improve ave. profit margin by 6 points	A, B, C, D, E	Recommended SKU reductions with justification; Ongoing SKU Rationalization process with metrics	Sales will not give up SKUs, will complain that they can not sell x without offering Y; Some customere prefer older products;
Spending \$25M/year on premium freight from suppliers; 36% of F/G receipts to Denver warehouse are premium freight, then excess inventory next months. Sales instructing warehouse to ship premium freight. Premium freight is a free for all, everyone using as a security blanket, no process or controls.	Premiun Freight Reduction	Define best practice to control and reduce premium freight by 75%; To be at goal by year end;	Premium freight \$; Look at premium freight by supplier, category, product, by time of month, etc.	Current \$25M	Reduce by 75%	Defining root causes of premium freight will identify future projects; These savings are hard \$, bottom line savings	This project should reduce premium freight by \$15M-\$18M	A, D	Premium freight procedure, controls, and ongoing metrics; Visibility to root causes (who, when, why, approved, etc.)	Will need to do a much better job in S&OP to enable this; Engineering and Supply Chain groups will argue they need this to get products out on time;

## Figure 5.3: Macro Charter, Tab 2

Project Objectives and Scope	Executive Sponsor	Process Owner	Team Leader	Team Participants	Extended Team Resources	Standard Team Meeting Schedule	Next 4-6 Week Plan Complete	Initial Mining Data
Improve Forecast Accuracy (the combo of forecast and MPS that drives MRP)	Steve Boeder	Dave Johnson	Christine Williams	John McKrill, Scott Claywell, Larry Bonner, Amanda Griggs	Jeffrey Spands, William Heidke	Monday, 11AM- 1PM, Executive Conference Room	Y	Pareto analysis by revenue \$, customer, dealer, distributor, region; Prior pareto forecast accuracy by product line;
Develop more targeted sales, customer service and fulfillment practices that recognize distinctions between customers; Eliminate excess hidden costs to service low volume, unprofitable market segments; Look for other options to smooth out selling cycle. Might consider new policy for small customers to deal direct with dealers but determine based on data	Sandra Smith	William Trask	Steve Miller	Ben Burton, Sandra White, Tim Hardwig	Marc Flint	Tuesday, 1PM- 3PM, Conference Room 1	Ŷ	Pareto analysis of Revenue \$ by customer, gross margin by customer & by product;
Reduce the number of SKUs through data driven logic and analytical science; Also develop a formal ongoing process to evaluate and phase out old SKUs	Bradley Jones	Brenda Rooks	John Bender	John Lawson, Craig Allen, Roger Marconi, Richard Caldwell	Sales - TBD	Wednesday, 10AM-12PM, Conference Room A-2	Y	Analysis of products and revenues, volumes, gross margins;
Define best practice to control and reduce premium freight by 75%; To be at goal by year end;	John Moore	Melanie Shafer	Richard Hertz	David Arthur, Robert Mondavi, Katherine Hall, Raymond Partridge	Kelly Quigley, Tammy Lamborne, Randy Rodregas	Thursday, 9AM- 11AM	Y	Premium freight dollars by month;
	Project Objectives and Scope Improve Forecast Accuracy (the combo of forecast and MPS that drives MRP) Develop more targeted sales, customer service and fulfillment practices that recognize distinctions between customers; Eliminate excess hidden costs to service low volume, unprofitable market segments; Look for other options to smooth out selling cycle. Might consider new policy for small customers to deal direct with dealers but determine based on data Reduce the number of SKUs through data driven logic and analytical science; Also develop a formal ongoing process to evaluate and phase out old SKUs Define best practice to control and reduce premium freight by 75%; To be at goal by year end;	Project Objectives and ScopeExecutive SponsorImprove Forecast Accuracy (the combo of forecast and MPS that drives MRP)Steve BoederDevelop more targeted sales, customer service and fulfillment practices that recognize distinctions between customers; Eliminate excess hidden costs to service low volume, unprofitable market segments; Look for other options to smooth out selling cycle. Might consider new policy for small customers to deal direct with dealers but determine based on dataSandra SmithReduce the number of SKUs through data driven logic and analytical science; Also develop a formal ongoing process to evaluate and phase out old SKUsBradley JonesDefine best practice to control and reduce premium freight by 75%; To be at goal by year end;John Moore	Project Objectives and ScopeExecutive SponsorProcess OwnerImprove Forecast Accuracy (the combo of forecast and MPS that drives MRP)Steve BoederDave JohnsonDevelop more targeted sales, customer service and fulfillment practices that recognize distinctions between customers; Eliminate excess hidden costs to service low volume, unprofitable market segments; Look for other options to smooth out selling cycle. Might consider new policy for small customers to deal direct with dealers but determine based on dataSandra SmithWilliam TraskReduce the number of SKUs through data driven logic and analytical science; Also develop a formal ongoing process to evaluate and phase out old SKUsBradley JonesBrenda RooksDefine best practice to control and reduce premium freight by 75%; To be at goal by year end;John MooreMelanie Shafer	Image: control of the control of th	Improve Forecast Accuracy (the combo of forecast and MPS thatExecutive SponsorProcess OwnerTeam LeaderTeam ParticipantsImprove Forecast Accuracy (the combo of forecast and MPS thatSteve BoederDave JohnsonChristine WilliamsJohn McKrill, Scott Claywell, Larry Bonner, Amanda GrigsDevelop more targeted sales, customer service and fulfillment practices that recognize distinctions between customers; Eliminate excess hidden costs to service low volume, unprofitable market segments; Look for other options to smooth out selling cycle. Might consider new policy for small customers to deal direct with dealers but determine based on dataBradley JonesBrenda RooksJohn BenderJohn Lawson, Craig Allen, Roger Marconi, Richard CaldwellReduce the number of SKUs through data driven logic and analytical science; Also develop a formal ongoing process to evaluate and phase out old SKUsBrenda RooksBrenda RooksJohn BenderDavid Arthur, Robert Marconi, Richard CaldwellDefine best practice to control and reduce premium freight by 75%; To be at goal by year end;John MooreMelanie ShaferRichard HertzDavid Arthur, Robert Mondavi, Ratherine Hall, Raymond Partridge	Image: constraint of the second sec	Index	Index

## Figure 5.4: Macro Charter, Tab 3

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Project Prioritiza	tion Matrix		$\frown$			$\gamma   $			$\gamma / \gamma$			$\mathbb{N}$		/
*=Reverse Scoring,	High Score=Low Cost, Low Difficulty													
Project Name	Project Objectives and Scope	9	10	9	7	5	6	4	6	5	7	9	Weights	
SOP Improvement	Improve Forecast Accuracy (the combo of forecast and MPS that drives MRP)	7	9	9	7	8	8	8	9	7	8	9		629
Customer Rationalization	Develop more targeted sales, customer service and fulfillment practices that recognize distinctions between customers; Eliminate excess hidden costs to service low volume, unprofitable market segments: Look for other options to	4	9	7	6	6	5	7	7	7	6	8		510
Product Rationalization and Pruning	Reduce the number of SKUs through data driven logic and analytical science; Also develop a formal ongoing process to evaluate and phase out old SKUs	6	9	9	6	7	7	7	8	7	6	8		569
Premiun Freight Reduction	Define best practice to control and reduce premium freight by 75%; To be at goal by year end;	5	10	8	8	9	9	9	9	9	9	9		651
				1								1	1	

Figure 5.5: Macro Charter, Tab 4

Project Norma	Billing Er	rors	A	nual Sa	vings	\$ 6.7	M cash flow	w, \$70K			
Troject Name.						avoic	lance				
Green Belt:	Hancock Champion od Business Unit				Mike	Hall					
Team Members:					All						
Start Date	Sandy Ran 6/6/2009	nsey	Та	rget Co	12/10	)/2009					
Problem	* Billing er	rors are cause	d somev	vhere in I	the quote the	rough invoice	e process.				
Statement:	(wrong price * Extend A collect our	e, incorrect qu /R, creates NV money.	antity, <b>I</b> VA in re	RMAs, ma conciling	anual NRE invoices an	billings, etc.) ad correcting	errors befor	e we can			
Project	What impro	ovement is targe	eted								
Objectives:	and what w	ill be the impac	t on	Projoc	to V'o	Rocolino	Cool	unit			
	Critical Bu	siness Metrics?		Project	o Dilling	Daseinie	Goal				
	1 mary w	icuic		F	rors	25	1.5	70 QI			
	Metric		Errors		unknown	100%	/υφ				
	Other Metr	ics		Education		unknown	10070				
	Counterbal	nnce									
	Financial I										
Benefits and		* Reduction in payment delays									
Improvement Goa	ıls:	* Reduce manual corrections/transactions									
1		* Accurate co	ısh avai	lability							
		* Improves m	ionthly i	revenue p	projections (	accurate base	eline)				
		* Enhance B	usiness	Control I	Processes						
Baseline Performa	ance:	* Perception * Actuals M	t of high Ian May	i percenti 2000	age of error	S					
		- 3% cree	ar-may lit trans	2009 actions ()	non RMA)						
		- 2.5% of	<sup>r</sup> revenu	e							
		* Delays in	paymen	ts							
<b>Current FiPerfor</b>	mance:	% cree		dit	% credit						
			transa	tions	of dollars	Comments					
		Mar-May		3.03%	2.50%						
		June		1.30%	0.41%						
		July		1.01%	1.40%	MPO Contr	act				
		Aug		3.26%	1.21%	Closure					
		Sept		1.21%	0.59%						
		Oct		1.58%	0.86%						
		Nov		1.88%							
		THE CLE			1	63					

## **Figure 5.6: Project Charter**

Celebrating 20 Years





Education

Business Diagnostic

Ongoing Awareness Plans

Resistance Strategies Recognition Of Need

Lean/Six Sigma Vision

Communicate Lean/Six Sigma Vision

Communication Planning Rationalize Vision for Change

### **Effective Communications Strategy**

Low

#### Medium

High

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## On Demand

### High

Extensive experience with various improvement methodologies and tools, and how to deploy the right methodologies to the highest impact opportunities.

### High

Executive leadership expertise in transforming a variety of executives and organizations in many with their strategic improvement initiatives, particularly in achieving breakthrough results and superior competitive position.

## Lean Six Sigma Knowledge

Business Process Improvement Experience

### High

Experience and knowledge about IT architectures and functional capabilities, and key business processes, practices, and controls.

### High

Knowledge of industry best practices through benchmarking, networking, and direct experiences creating best practices in previous consulting and/or career assignments.

Executive Industry Experience External Best Practices Experience





### **Leveraged Mentoring**