

The Relationship Between Strategic Planning and Lean Six Sigma

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ASQ Section 1508

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Outcomes

- Understand the Strategic Planning Process
- Be able to identify the main Inputs, Activities, and Outputs of Strategic Planning
- Relate Strategic Planning to Lean Six Sigma
- Understand Your Role as Change Agent



Futurity

"Strategic planning is the **continuous** process of making present entrepreneurial (risk-taking) decisions systematically and with the greatest knowledge of their **futurity**; organizing systematically the efforts needed to carry out these decisions; and measuring the results of these decisions against the expectations through organized, systematic feedback."

Peter Drucker



Clarification



Peter Drucker,
Management Guru



Sam Drucker, Store Proprietor
Petticoat Junction, Green Acres



Strategic *Quality* Planning Principles (SQP)

Strategic Planning =

a high level plan to achieve one or more goals

- Use SQP to identify and prioritize strategies that will improve quality
- The product or service does not define Quality:
Quality Must Be Measured by Customer Value.
- Implementing Strategic Planning requires a “Culture of Quality”
- Deployment of the SQP is vital to your Lean Six Sigma initiative



Economic Considerations of Quality

- Easily Measured Costs (5-10% of Sales)
 - Inspection
 - Warranty
 - Scrap
 - Rework
 - Rejects
- Hidden Costs (25-35% of Sales)
 - Expediting
 - Excess Setups
 - Late Delivery
 - Lost Customer Loyalty
 - Lost Sales
 - Long Cycle Times
 - Change Orders

How do these operational defects affect the customer's experience and perception of value?



Why Non-Value Persists

- No coherent strategy to link the efforts of individuals to customer value
- Shared processes are not under the control of any single department or function
- Functional goals are often sub-optimal to the organization
- The needs of all stakeholders are not considered in a systematic way



Strategic vs. Operational

- Strategic Goals
 - Objectives that help achieve long-term organizational goals
 - Help translate the corporate vision into specific projects
 - Identify metrics useful to making decisions about process improvement
- Operational Objectives (a.k.a. Tactical)
 - Periodic benchmarks that help deploy strategic objectives
 - Help resolve strategic goals into tasks
 - Narrower focus than Strategic

Example:

Strategic : Reduce Cost of Manufacturing 20%

Operational : Eliminate 32% of the Defects from the
Widget Type A Product Line



Vision, Mission, and Quality Policy

- Vision – A brief statement describing what the company will look like in the future
- Mission – What is the organization's function? Why does it exist?
- Quality Policy – A guiding statement that discusses how the organization delivers value as experienced by customers



Seven Steps of SQP

- 1 Discover Customer Needs
- 2 Customer Positioning
- 3 Predict the Future State
- 4 Gap Analysis
- 5 Closing the Gap
- 6 Alignment
- 7 Implementation



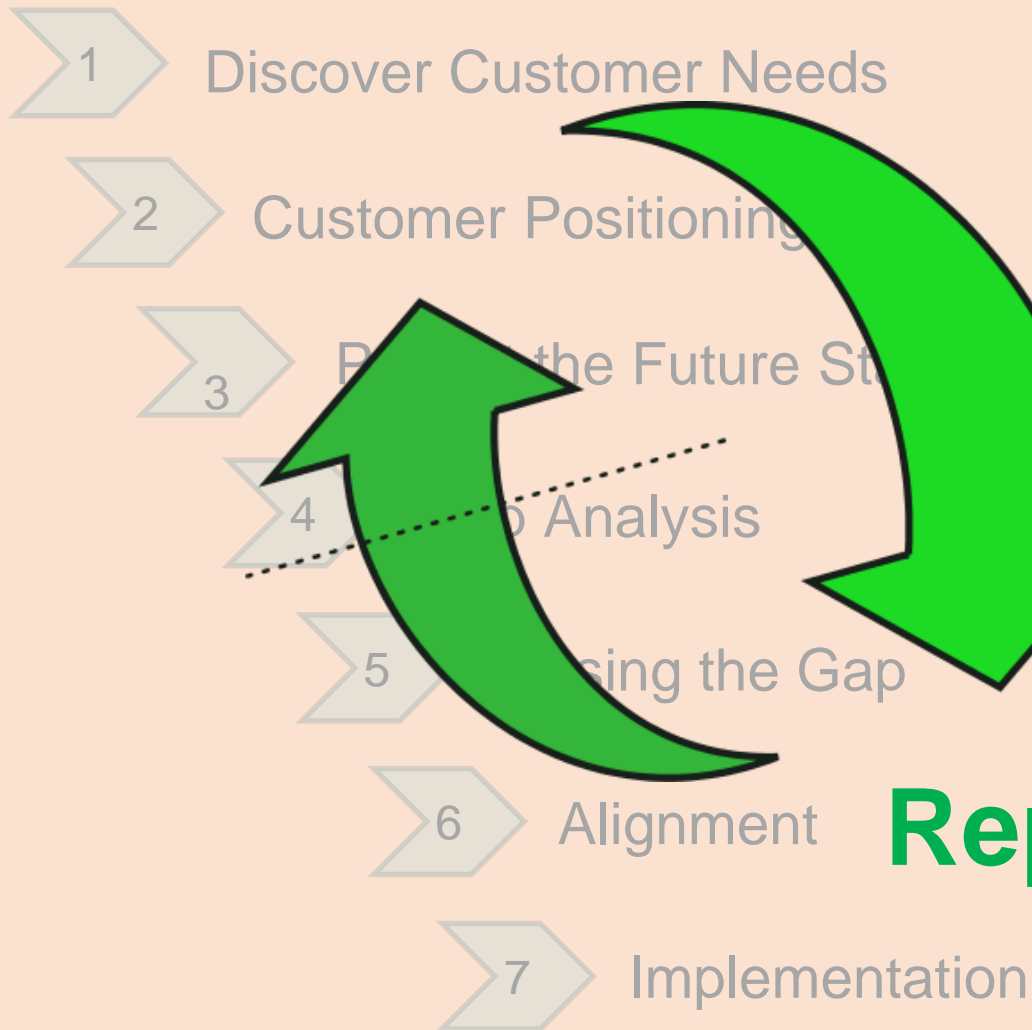
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- 7 **Implementation**

**Executed with
Lean Six Sigma**



Seven Steps of SQP



Relating SQP to Lean Six Sigma

Strategic Quality Plans

- Provide organizational structure and metrics
- Often fail (70%) due to poor execution

Lean Six Sigma

- Key structure for projects that execute the SQP
- May fail due to poor alignment of objectives with projects



1. Discover Customer Needs

- Who will future customers be? What will they want ?
- Seek the “Voice of the Customer” – do not assume what the customer wants
- How will the organization meet the future expectations?



2. Customer Positioning

- How can the organization provide the most future value to customers?
- Evaluate where organization can perform with excellence:
 - Potential new products or services
 - Fix or eliminate poor performers



3. Predict the Future State

- Use forecasting tools and research
- Determine the conditions that will probably exist in the future with impact to your organization's success.



4. Gap Analysis

- Identify where the gaps are between the current state and the future state of the organization.



5. Closing the Gaps

- Develop options for filling the gaps.
- Use the gaps to determine potential Lean Six Sigma projects
- Involve all stakeholders in the development of the plan, responsibilities, and timeline



Example: Gap Analysis in Strategic Planning

- An electronics manufacturing company plans to focus its product offerings on consumers

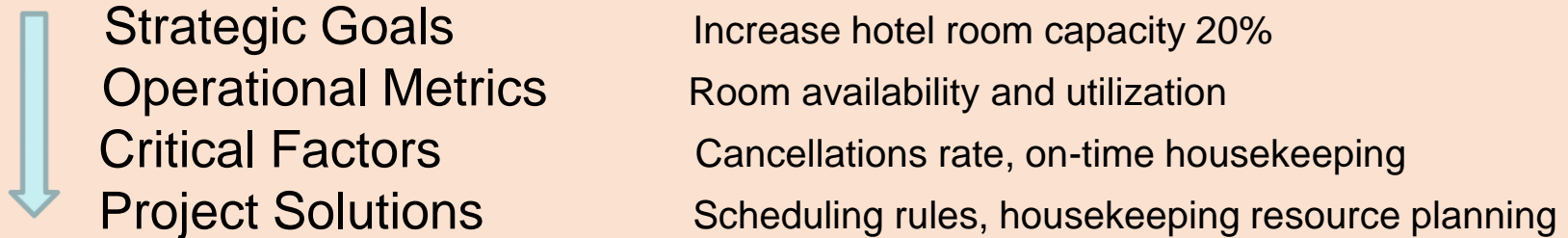
Current State of Products	Future State
Industrial Motors	Smart Appliances
Power Plant Control Systems	Kitchen Appliances
Home Theater	Home Theater
Kitchen Appliances	Internet-Ready Televisions

- To achieve the future state, two product lines must be eliminated, and two added
- The following gaps were identified
 - Internet connection technology needs to be developed or acquired
 - Consumer marketing needs to be expanded
 - The current manufacturing process produces too many defects for the consumer market
- As a result the company puts action plans in place to close these gaps. The defects in manufacturing are addressed with Lean Six Sigma



6. Alignment

- Assure the plan aligns with
 - the organization's Vision and Mission
 - Strategic Goals that translate into project solutions



- Communicate the Plan widely to leadership and employees
- Continually to align as necessary – the Plan is not supposed to sit on a shelf!



7. Implementation

- Use Lean Six Sigma methodology
- Meet frequently on the progress of projects
- Reassess progress on the Strategic Quality Plan at least annually



Strategic Planning Inputs

- Interviews
- Research
- Competitive Benchmarking
- Voice of the Customer (VOC)
- Company's Opportunities and Risks
- Vision, Mission , and Quality Policy



Strategic Planning Activities

- Discussions and communications, organization-wide
- Discovery of what customers value, products, services, and geography
- Assessment of organizational capability and improvement, such as training
- Tools
 - Benchmarking
 - Gap Analysis
 - Strengths/ Weaknesses/ Opportunities/ Threats (SWOT)
 - Porter's Five Forces
 - Political, Economic, Social and Technological Analysis (PEST)



Strategic Planning Outputs

- Well-defined strategy
 - Documented
 - Accountability Established
- Specific metrics and action plans
- Communication to all included leadership



Quick Refresher- SQP Tools

- Voice of the Customer
- Stakeholder Mapping
- Benchmarking
- Porter's Five Forces
- SWOT
- Gap Analysis
- Quality Function Deployment (QFD)
- More



Voice of the Customer (VOC) - Defined

- Formal process to obtain customer feedback, especially unstated needs
- Customers may be internal or external
- May obtain VOC through surveys, interviews, complaints and warranties, social media, etc.
- Used to decide what is critical to the process, product, or service that the customer values
- When used as a continuous process may drive customer loyalty



Stakeholder Analysis – Defined

- Evaluation of the specific needs of each shareholder of a Lean six Sigma Project, and plan to manage stakeholder attitudes
- Increases commitment and positive involvement
- Reduces potential for conflicts and problems



Who are the Stakeholders?

- Stakeholder is anyone who may be impacted positively or negatively by the Lean Six sigma project
- Sponsors, team members, customers, suppliers, shareholders, employees, community, etc.



Stakeholder Mapping

Name	Positive Effects	Negative Effects	Current Attitude	Desired Attitude	Communication Plan
Bill M.	Defect rate (CTQ)	Line rate (CTD)	Neutral	Need to make a sponsor	Weekly verbal updates on project status
Sally Q.	etc.				
Mike R.					



Benchmarking

- Process to determine the best practices, performance, products, or services for comparison to organization's
- The “best” becomes the standard to beat

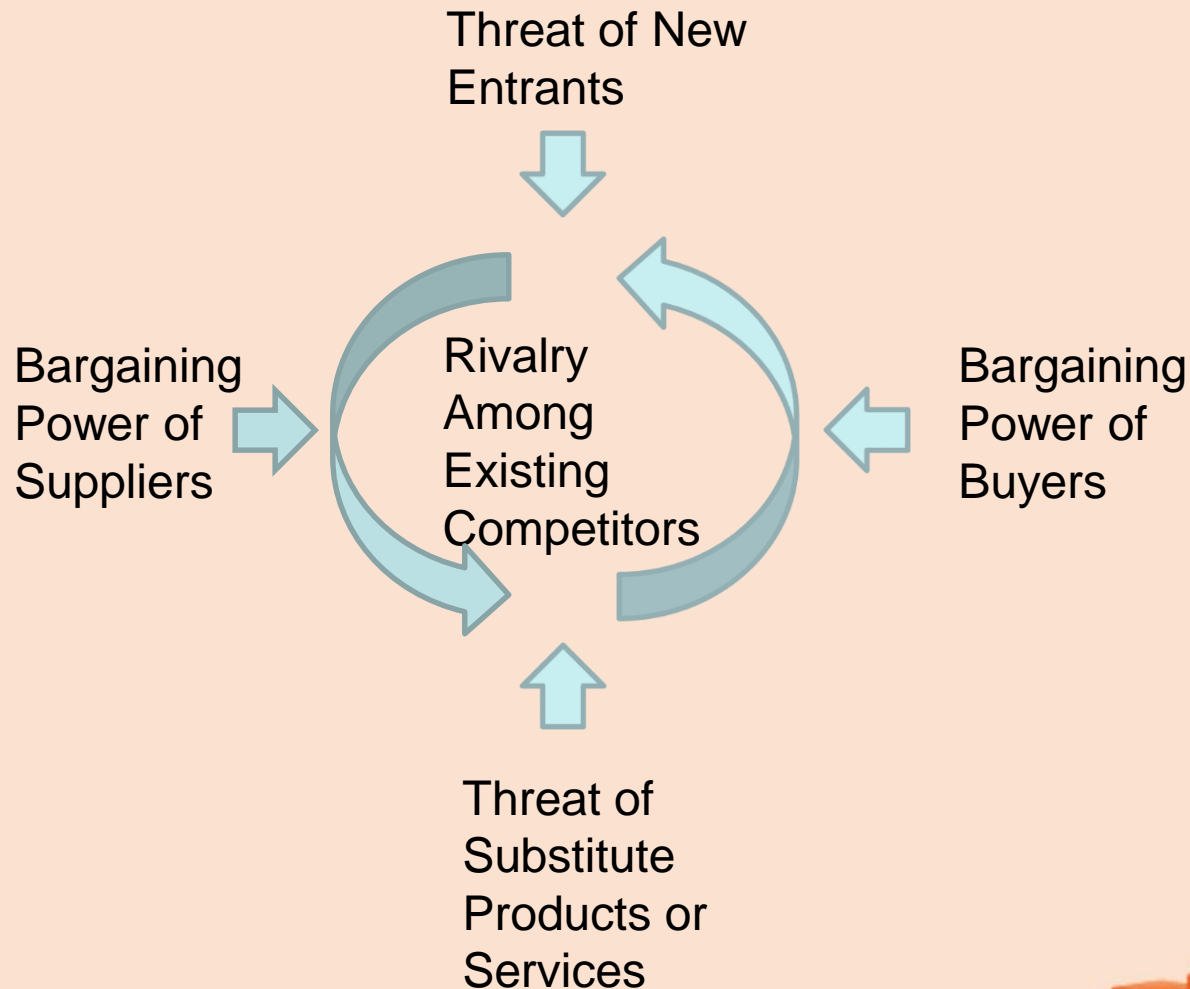


Advantages and Disadvantages of Competitive Benchmarking

- + Helps stretch an organization's standards for excellence
- + Discovery of alternatives and new ideas
- + May provide useful operational metrics to achieve
 - Does not reveal the *effectiveness* of operational metrics. (Does the metric actually matter to the customer?)
 - May hinder further improvement if an organization is already "best"
 - Competitor data may be proprietary; difficult to obtain and validate



Porter's Five Forces Model of Competition (Michael Porter)



S.W.O.T.

	Helpful	Harmful
Internal	Strengths 1, 2, 3....	Weaknesses 1, 2, 3....
External	Opportunities 1, 2, 3....	Threats 1, 2, 3....



S.W.O.T. Example

Strengths

1. High operating margin
2. Unique products in development
3. Growing LSS Initiative

Weaknesses

1. Computer infrastructure out of date
2. No capital budget available
3. Manufacturing quality problems

Opportunities

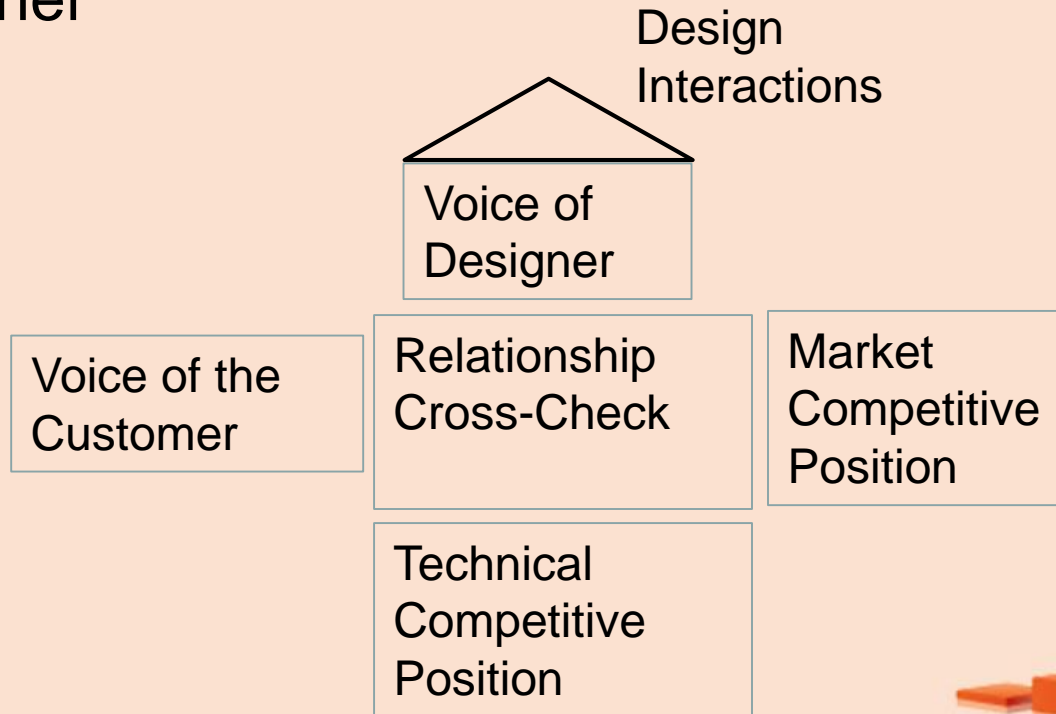
1. Strong brand recognition
2. European competitor is dropping out
3. Competitors profits deteriorating

Threats

1. Patent lawsuits
2. New regulations will require significant redesign
3. Market maturing, getting saturated with competitors

Quality Function Deployment

- Quality Function Deployment (QFD) is a way to systematically develop products based on customer input
- Compares Voice of the Customer with Voice of the Designer



Needs, Characteristics, Metrics

- Needs are the “wants” a customer expresses
“I need my car to be reliable”
- Characteristics describe specific “whats”
 - Example : High Powertrain Reliability
 - Some Characteristics are Critical (CTQ, CTD, etc.)
- Metrics are the quantitative expression of a characteristic.
Often have a related goal
 - Powertrain Mean Time to Failure, Goal >2000 hrs.
- Use S.M.A.R.T. Metrics
Specific, Measurable, Achievable. Relevant, Time-bound



Defining Product and Process Characteristics

- Voice of the Customer is intended to
 - identify customer needs in their own words, and
 - translate the needs into product and process characteristics, metrics
- Never assume a customer need - always ask!

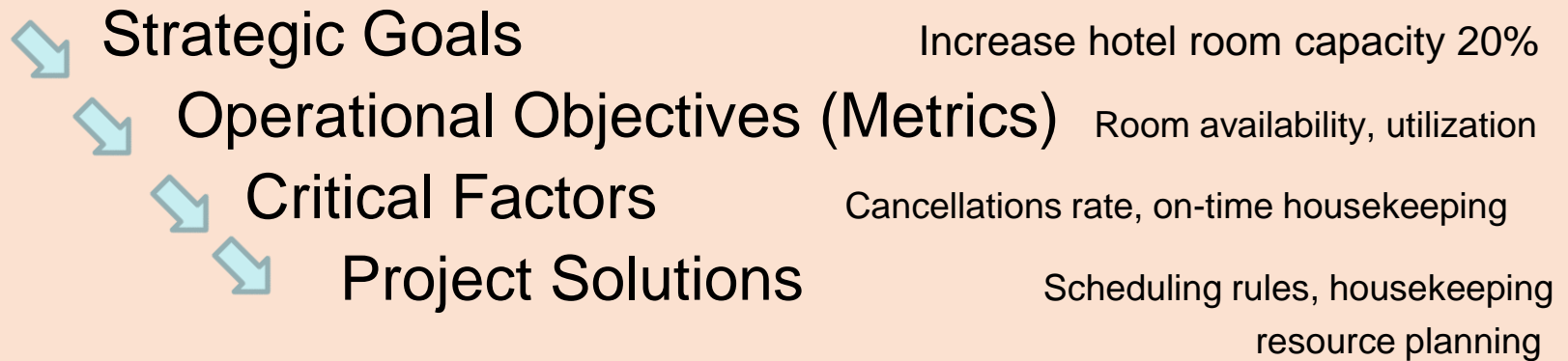


How Metrics Drive LSS Improvement

Benefit	Impact
<ul style="list-style-type: none">• Assess Overall Performance Compared to Strategic Quality Plan	<ul style="list-style-type: none">• Help identify performance gaps and assure strategic goals are met
<ul style="list-style-type: none">• Prioritize Improvement Projects	<ul style="list-style-type: none">• Assure limited resources and investments are used for maximum effect
<ul style="list-style-type: none">• Identification of Best Practices	<ul style="list-style-type: none">• Allow organizations to set benchmarks to evaluate and improve competitiveness
<ul style="list-style-type: none">• Improve Operational Performance	<ul style="list-style-type: none">• Reduce costs, improve quality, increase customer satisfaction
<ul style="list-style-type: none">• Drive Cultural Change in the Organization	<ul style="list-style-type: none">• Allow individuals to see how they impact the performance of the organization as a whole. Use data to transform into a “Learning Culture”

Aligning Projects with Strategic Quality Plans

- Alignment means the requirements of the strategic objectives translate into project solutions



- Each strategic or operational objective may require several LSS projects to result in a significant improvement



Your Role as a Change Agent

“Keep the End in Mind” at all Times

“Will the Lean Six Sigma initiative assure that the organization will meet its objectives?”

The Plan is not the book on the shelf !



Integrating Business Strategies Across the Enterprise

- Encourage cross-functional teams
- Identify the key, shared business processes
- Assure department/ functional goals are aligned
- Assure alignment among improvement projects and teams
- Set up strategies to communicate at all levels of responsibility



Assure Correct Organizational Structure

- Have all key stakeholders been identified and involved?
- Formally define Champions, Process Owners, and Black Belts, Green Belts, and others. Clarify roles and responsibilities.
- Implement training plans specific to each role
- Complete training early to assure capability
- Assure project objectives are aligned with functional responsibilities
- Know who the *Early Adopters* are, and make sure they have all the support needed to succeed!
- Mentor leadership to demonstrate unyielding commitment



Communicate, Communicate, Communicate....

- Keep all levels of the organization informed at all times
- Keep communication two-way; be responsive to concerns
- Establish a high traffic area to post goals, metrics, projects, and teams such as the cafeteria
- Facilitate ways to let Black Belts and teams make direct input into the Strategic Plan
- Make a plan that shows how SQP topics will be communicated, frequency, and method



Facilitating Consensus with Strategic Quality Planning

- Continuously link activities to achieving strategic and operational goals
- Assure all relevant stakeholders are represented
- Focus first on shared processes that will create a shared need
- Resolve conflicts through negotiation in light of higher level objectives
- Recognize that complete consensus may not be possible



Creating a “Learning Culture”

- Learning Cultures embrace discovery and learning to make frequent breakthroughs in their processes
- Transforming into a Learning Culture is a continuous process
- Most organizations go through stages
 - Chaos
 - Repeatable Processes (ISO, Baldrige, etc.)
 - Optimizing (DMAIC, Lean, etc.)
 - Lean Six Sigma as a “Way of Doing Business”
- The transformation will take time; use the appropriate tools and methods for the current stage



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Conclusion : “The Process”

Identify customer value,

Define strategic goals,

Translate into operational objectives
and Lean Six Sigma processes, then

Repeat to transform into a
“Learning Culture”



