DEFINE PHASE







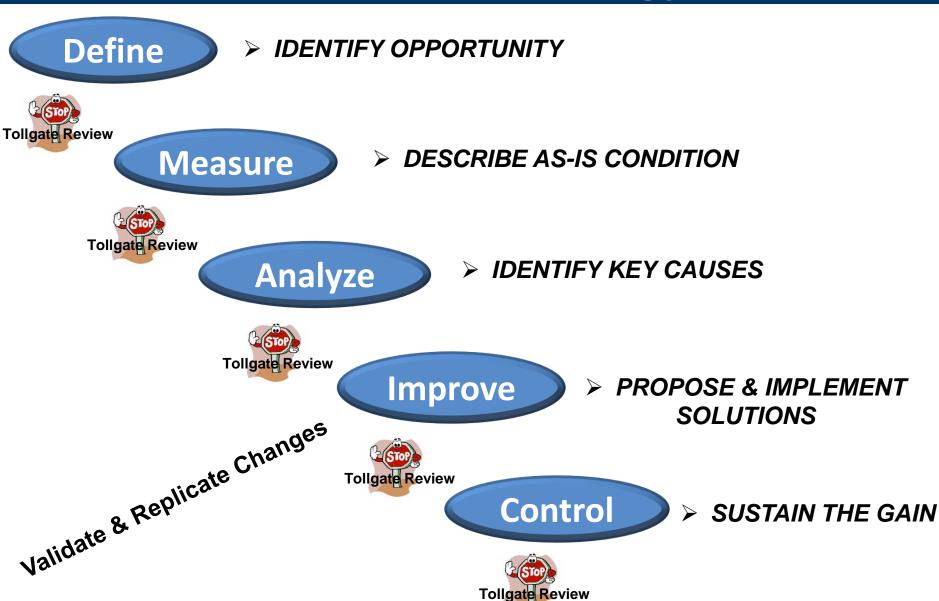
Learning Objectives: Define Phase

- > Understand the tools necessary to complete the Define Phase.
- ➤ Collect and analyze Voice of the Customer data to assist in understanding the problem.
- ➤ Complete a SIPOC analysis to define inputs and outputs of the process.
- Prepare an Event or Project Charter with input from project sponsor and team.
- Develop a Communication Plan that informs all Stakeholders.

"Knowing that things could be worse should not stop us from trying to make things better." - Anonymous



DMAIC Methodology





Voice of the Customer







What is a Customer?

The customer is whoever receives the outputs from the process, product, or service that a project will be improving.

"Quality in a service or product is not what you put into it, it is what the client or customer gets out of it." – Peter Drucker



Who Are Your Customers?



> External Customers

Those persons or organizations which purchase/obtain your products or services.

> Internal Customers

➤ Whomever is a user of your process output within your organization is an internal customer.



Voice of the Customer (VOC)



- ➤ Why is VOC critical?
- ➤ How is VOC data gathered?
- ➤ How is VOC data analyzed?

"There is only one boss, the customer. And they can fire everybody in the company from the chairman on down, simply by spending their money somewhere else." – Sam Walton



How Well Do You Know Your Customers? - Reactive

Reactive Sources

- Customer complaints
 - phone
 - email
 - social media
 - Yelp, Four Square, (reviews)
- Warranty issues
- Stop being a customer



How Well Do You Know Your Customers? - Proactive

Proactive Sources

- Surveys
- Direct Contact
- Focus Groups

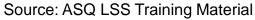
A proactive approach to VOC is essential to quality in your products and services.



Capturing Voice of the Customer (VOC)

In determining the VOC, we have to translate the customers' needs and wants into measurable requirements (qualitative to quantitative).







VOC Tools - Direct Customer Contact

- ➤ In customer-focused organizations, key employees often make personal visits to customers.
- > Does not always require a face-to-face visit.





VOC Tools - Field Intelligence

> Any employee who comes into direct contact with customers can obtain useful information by engaging in conversation and listening to customers.

> You gather information which are your customers needs and specifications.





VOC Tools - Customer Feedback

- > Can be a key source of customer information.
- ➤ Allows an organization to learn about external product and service problem defects.
- ➤ Potentially identify the gaps between expectations and performance.



VOC Tools - Focus Groups

- A panel of individuals (customers or noncustomers) who answer questions about a company's products and services.
- Substantial advantage by providing a direct voice of the customer to an organization.
- Disadvantage is that they are higher cost than other methods.



VOC Tools - Comment Cards & Formal Surveys

- > Easy ways to solicit customer information.
- ➤ Gain candid feedback about products and services.
- > Response rate is often poor.

		Any other Comments / Suggestions
	V.good Good Average Poor	
Quality of Food		(-
Cleanliness of Restaurant		
Quality of Service		
Friendliness of Staff		Y
Speed of Service		(Optional)
Appearance of Staff		Name
Value for Money		Tel
Restaurant Design		Workplace



Analyze and Translate VOC into Requirements

Voice of the Customer	After Clarifying, the Key Issue(s) Is	Customer(s) Requirements
"I hate filling out this form!"	1110 101111 1011100 100	The form takes less than five minutes to complete

Good customer requirements:

- Are specific and measurable (and the method of measurement is specific).
- Are related directly to an attribute of the product or service.
- > Don't have alternatives and don't bias the design toward a particular approach or technology.
- Are complete and unambiguous.
- Describe what, not how.

"If you can't explain it simply, you don't understand it well enough." – Albert Einstein



Translate VOC Input Into Customer Requirements

Voice of Customer Input	Key Customer Issue	Customer Requirement
Actual Customer Statements and Comments	The Real Customer Concerns, Values or Expectations	The Specific, Precise and Measurable Characteristic
 "This mower should be easy to start." "The cord shouldn't be too hard to pull." 	Wants the mower to start quickly and painlessly.	 Mower starts within two pulls on the cord. Mower starts with an effortless pull on the cord.
"I want to talk to the right person and don't want to wait on hold too long."	Wants to talk to the right person quickly.	 No additional menu items on voice system. Customer reaches correct person the first time within 30 seconds.



VOC Statapult Exercise

Voice of the Customer
Internal/External

Key Customer Issue

Customer Requirement

What does the customer want from us?

Identify the issue(s) that prevent us from satisfying our customer

Summarize key issues and translate them into specific and measurable requirements (Critical to the Process:

CTP; Critical to the Cost CTC; Critical to

Quality CTQ; etc.) Shooter will ensure balls are fired

Wants a ball fired at a 167 Degrees

Customer requires us to shoot balls from 167 degrees

at 167 degrees. (CTC, CTD, CTP, CTQ)

The Customer requires 30 passed balls in a timely manner

The Customer requires 30 passed balls in 5 minutes or less

Customer Liaison will provide balls within 5 minutes or less to the customer. (CTC, CTD, CTP) All markings will be removed prior

to delivery to the customer. (CTC,

CTD, CTP, CTQ)

Customer does not want markings on the balls

When the customer receives balls

with markers, they will be rejected



Knowledge Check: VOC

What is the purpose of determining the Voice of the Customer (VOC)?







Knowledge Check: VOC

How can Voice of the Customer data be captured?







SIPOC







Why SIPOC?

Serves two purposes:

- > Defines the scope.
 - > Helps a team and its sponsor(s) agree on project scope boundaries - start and end points of the process.
- > Helps teams verify that process inputs match outputs of the upstream process and inputs / expectations of downstream process(es).



What is SIPOC?

➤ A process snapshot that captures information to a project.

S-I-P-O-C

> SIPOC stands for:

<u>Suppliers Inputs Process Outputs Customers</u>

- ➤ <u>Identifies all relevant factors</u> of a process before detailed project work begins.
- Sets expectations for elements of the process that project team must consider.
- > Distinguishes key suppliers and customers of the process.

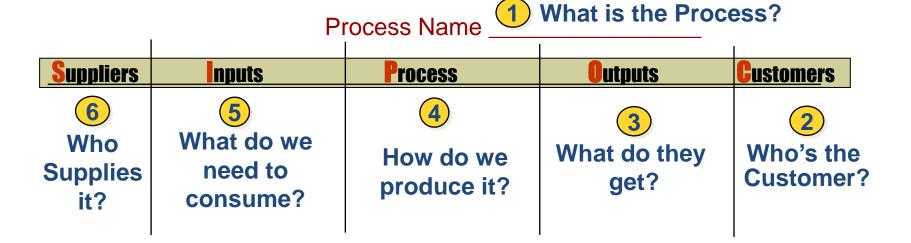


SIPOC Elements

- > Suppliers the internal / external people or organizations that provide materials, information, or other resources for a process.
- > Inputs the resources that are supplied.
- > Process the series of high-level work steps that transform inputs to outputs.
- > Outputs the product, service, or information that is delivered to the customer.
- > Customers the people, organizations, or process that receive the output. External and Internal Customers.



Developing a SIPOC Chart



Entries are not linear



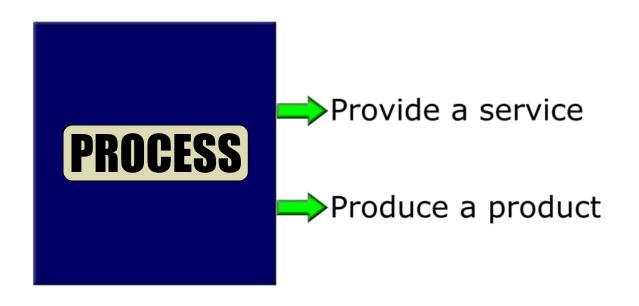
Customers (& Suppliers)

- External Customers & Suppliers: Those persons or organizations which provide or purchase your products or services.
 - Tenant Commands
 - HQ Elements
 - Other Services
 - Other Agencies
- Internal Customers & Suppliers: Whomever is a receiver / user of your process output is an internal supplier / customer.
 - Commander
 - Chief of Staff
 - G-7 Leaders
 - Divisions and Sections within a Command



Process Outputs

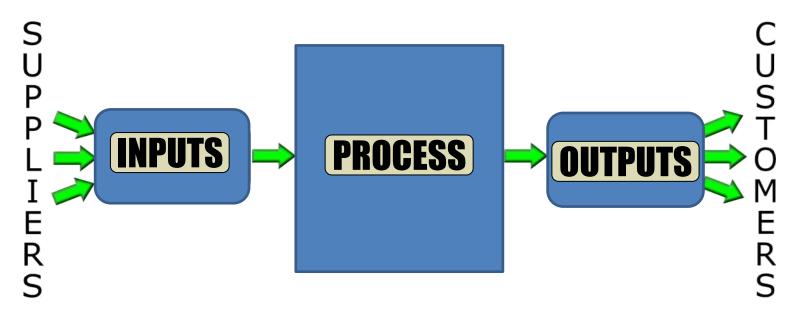
- Tangible products or services.
- Linked to the (Customer care-abouts)
 measures as defined by the customer.





What is a Process?

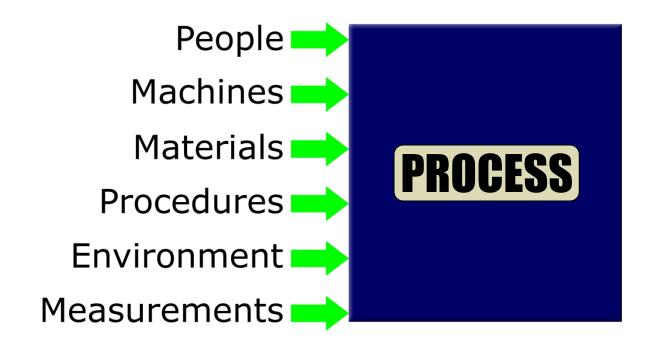
- A process is any activity that takes inputs, performs actions on the inputs, and results in outputs.
- ➤ A SIPOC defines the inputs the process receives and the outputs that a process delivers.





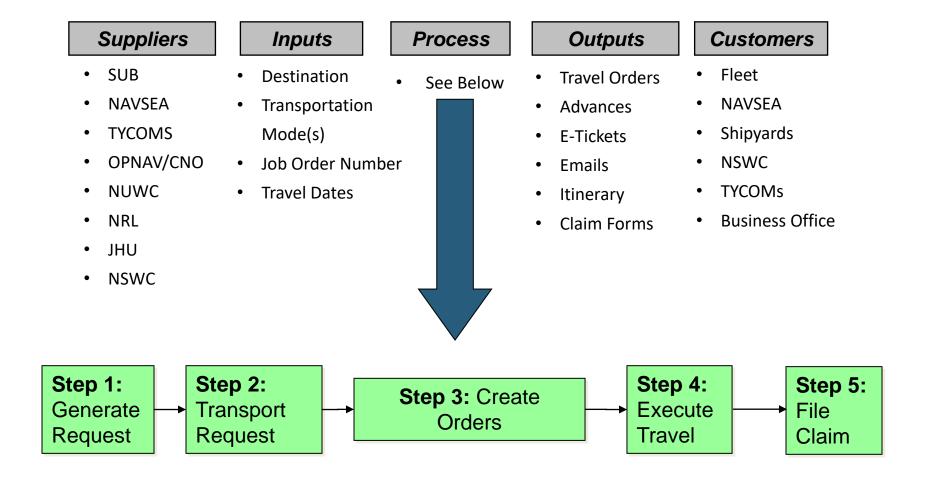
Process Inputs

Inputs are the resources that are required to create outputs.





SIPOC Example: Processing a Travel Request





Knowledge Check: SIPOC

What does SIPOC stand for?







Knowledge Check: SIPOC

What information does a SIPOC Diagram give a team?





Charter







Charter Defined

- > The team's commencement document.
- > Defines the team's project plan and mission.
- > The charter does not solve the problem.
- Charters are living documents that are subject to change.



USMC Charter Template



Project Charter Organization Name Project Title

Date Initiated: Revision Date:

1. Project Information							
Deployment or Implementation Char	mpion:	Project	Just Do It				
		RIE	Other				
Project Sponsor:		Value Stream/HICVS:					
Estimated Start Date:		Project ID #:					
Estimated End Date:		Parent Project ID #:					
2. Problem Statement							
	Problei	n Statement					
3. Go al Statement							
Goal Statement							
4. Project Scope							
In Scope	S	Out of Scope					
5. Team Members	I no a						
Name	Role	Organization					
		<u> </u>					
6. Approvals/Signatures	•	•					
		ature	Date				
Black Belt/Green Belt							
Project Sponsor							
Deployment/Implementation Champion							



Why a Charter is Important

- ➤ Is the foundation document to provide focus throughout the project.
- Serves as an effective project-planning tool and communication vehicle for tollgates and stakeholders.
- ➤ Is a key factor for project success or failure and avoids misunderstanding among stakeholders.
- Provides the authority to apply organizational resources to project activities.



Improvement Opportunity / Problem Statements

Improvement opportunity / problem statements should provide the following information:

WHAT

What is the problem or opportunity for improvement?

WHERE

Where is the problem? Is it in your workplace or someone else's?

WHEN

How long has it been happening?

EXTENT

What is the extent of the problem?

IMPACT

What is the impact (pain) of the problem?

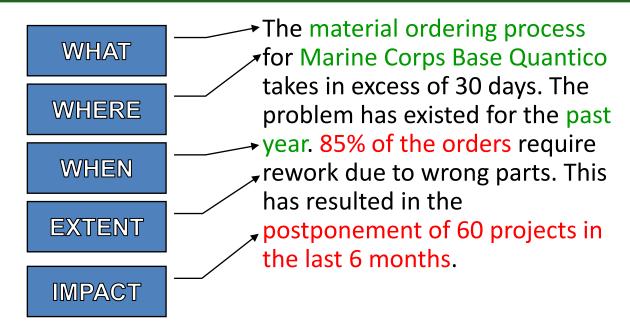


Improvement Opportunity / Problem Statements

Example of a bad opportunity or problem statement.

It takes too long to process a material order form and wrong parts are ordered.

Example of a better opportunity or problem statement.





Goal Statement

The goal statement describes the anticipated improvement.

It should be worded in concise terms. Creating a good goal statement is easy if you follow the SMART acronym:

SPECIFIC MEASURABLE ACHIEVABLE REALISTIC TIME BOUND



Goal Statement - Example

To improve the material ordering process for Marine Corps Base Quantico by reducing the number of orders requiring rework by 75%, as well as reducing the number of project postponements by 50% over the next 6 months.

Goal Statement should directly relate to the Opportunity / Problem Statement.



Project Scope

- > The project scope is:
 - Exactly what is included within the project.
 - Boundaries are 1st step to nth step.
- > The project scope isn't:
 - Everything else.
- > The scope purpose:
 - Provides an awareness of the specific boundaries of your improvement opportunity.
- Process maps can help define the scope of an event / project (Reference the SIPOC).



Completed Charter - Example



Project Charter Navy Movie Program Date Initiated: Jan 10, 2019 Revision Date:

D 1 . Cl		Project	1	Just Do It			
Project Champion:	Cpl Hancock	RIE		Other			
Project Sponsor: Liss	Value Strea	m/HICVS:					
Estimated Start Date:	Project CP	IMS ID #:					
Estimated End Date:	Mar 12, 2019	Parent Proj	ect CPIMS ID	#:			
2. Problem Statement							
excess time of 40 minut Requires weekly invent	tes instead of regularly 15 ory due to misplacing mo about 11% weekly. This	5 minutes. The provies in the wrong	oblem has exist g box. We have	741 movies, and about 82			
2. RIE Goal Statement	t						
	Iovie Program for the Re anization and time in exe			inventory rework by 80%, the program.			
4. Project Scope							
(in Scope) S-Drive mair movie listing	(out of scope) Communication amongst the staff.						
5. Team Members							
Name	Organization	n/Signature					
Lisset Justason	Project Supervisor	RSU					
Cpl Hancock, Dustin	Coordinator	RSU					
		-					
6. Approvals/Signatur	es						
o. Approvais/Signatur	Role/Name			Date			
		Signature					
Role/Name	rmonte	- Signiture					
Role/Name Black Belt: Frank Fie	rmonte	- Square					
Role/Name		Oh 1	an	3/11/19			



Project Charter [Enter Project Name] Date Initiated: Revision Date:

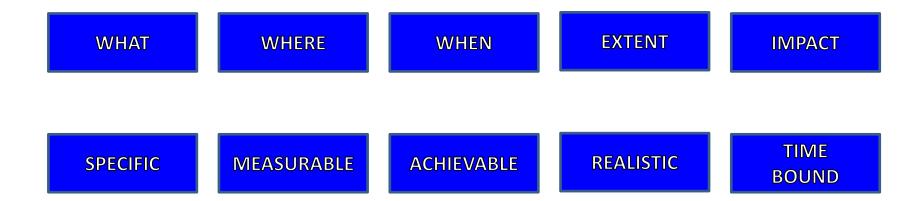
(1). The Project Sponsor's signature is an agreement to: 1) Provide sufficient resources to support completion of the plan, 2) Help provide data and insight as required, 3) Coordinate with required leadership to approve recommendations in a timely manner, 4) Assist with implementation of recommendations, following approval, 5) Sustain improvements and financial gains, and 6) Be available to discuss and rectify any concerns and remove barriers to success.

(2). The Champion's signature is an agreement to: 1) Assure sufficient resources are available to support completion of the plan, 2) Assist, as required to remove obstacles to project success, 3) Monitor progress through (tollgate) reviews, 4) Support implementation and sustainment of gains from individual projects/events, 5) As available, participate in any team activity to show support and provide guidance or input as required.



Exercise: Charter

At your seat and on your own develop the Problem Statement and Goal Statement



Instructions: Develop your Problem, Goal and Scope Statement Write each statement at your desk
Be prepared to share with your team





Knowledge Check: Problem Statement

The Problem or Opportunity statement on a project charter should be as quantifiable as possible.

True or False?





Knowledge Check: SMART Goals

What are the 5 Characteristics of SMART goals?







Communication Plan







Communication Plan Development

- 1. Determine audience.
- 2. Conduct Stakeholder Analysis.
- 3. Identify media to be used.



How Will You Communicate?

The best way to identify and communicate with your team, key stakeholders and event champion is to answer questions such as:

- ➤ Who is your audience?
- > What is the tool or media you will use to communicate?
- > What is the purpose of your communication?
- What are your key messages?
- Who is the owner of the communications task?
- > What is the timing and frequency of the communications?



Determine Audience and Media

Identify the various audiences you will need to communicate to:

Executive Team Managers Administration

Risk Management Sales Marketing

HR Consumer Relations Engineering

Finance Legal Customers

Salaried Hourly Marketplace

South America Distributors Europe

Asia North America

Identify the media by which you will communicate to the groups above:

Voice Mail Formal Presentations Posters

Memos Oral Communication E-Mail

Elevator Speech MCBQ SharePoint



Communication Plan Development

- 1. Determine audience.
- 2. Conduct Stakeholder Analysis.
- 3. Identify media to be used.



Conducting the Stakeholder Analysis

- > For each Stakeholder identified, determine:
 - ➤ Are they critical for development of project tasks (enabling stakeholders) or critical for the successful implementation of a solution (implementation stakeholders)?
 - What concerns can you anticipate for each stakeholder?
 - What positive outcomes exist for each stakeholder?
 - ➤ What will be your message for each stakeholder?
- ➤ A Stakeholder Analysis should be completed / revised as critical aspects of the project change (i.e. scope changes, solution options become more visible, etc.).
- A Stakeholder Analysis can be a sensitive document and is intended for internal team use only.



Example: Stakeholder Analysis

Stakeholder Name/Group	Project Impact On Stakeholder (H, M, L)	Stakeholder Level of Influence on Success of Project (H,M,L)	Stakeholder's Current Attitude Toward Project (+, 0, -)	Explanation of Current Stakeholder Attitude (list)	Stakeholder Score (H=3, M=2, L=1, +=1, 0=2, -=3)	Action Plan For Stakeholder
Team Lead	М	Н	+	ON-BOARD	6	MONTHLY UPDATE
Engineering Dept. Head	Н	Н	-	DEFENSIVE	9	SEPARATE BRIEF & FOLLOW- UP
Program Manager	М	Н	+	ON-BOARD	6	WEEKLY UPDATE (E- MAIL)
Comptroller	L	L	0	UNKNOWN	4	TOLLGATES
Contracting Officer	Н	М	0	WAIT & SEE	7	WEEKLY FACE-TO- FACE
Prime Contractor	Н	L	+	ON-BOARD	5	INITIAL/ MONTHLY



Communication Plan Development

- 1. Determine audience.
- 2. Conduct Stakeholder Analysis.
- 3. Identify media to be used.



Development of a Communication Process

Effective Communications

- Must have the following characteristics:
 - A consistent formal process.
 - Simple and understood by all.
 - Contain current information.
 - Have a feedback loop built into the process.

Benefits:

- Build and maintain trust.
- Prevent rumors.
- Enlist and enroll the participation of employees in the pursuit of achieving objectives.
- Manage expectations



Complete Communication Plan

- Comes in many forms, but key elements include:
 - > **Target** of communication.
 - > Frequency of communication.
 - > Media to be used.

• Be specific:

- Example 1: A 30 minute verbal conversation, every Friday at 4 p.m., including topics ...
- Example 2: A weekly written update, to be completed by Friday endof-day, to include, a) Activities completed this past week, b) activities to be completed next week, c) currents risk to on-time, on-budget completion, and d) action plan to resolve risks.
- Revise, as necessary, as project matures.
- Obtain agreements from those who have required tasks



Communication Plan (Example)

Audience	Media	Purpose	Topics of Discussion/Key Messages	Owner	Frequency	Notes/Status
Affected Functional Managers	Briefing E-mail	Support/ Remove Barriers	Team Status Expected Outcomes	Team Leader, Green Belt	Weekly	
Project Sponsor	Briefing	Buy-in Solicit Feedback	Support Needed Status	Team Leader, Green Belt	Monthly	
All Hands	ds E-mail Awareness Buy-in		"What" Progress	Project Sponsor	Kick-off After M and I	
Exec Sponsors & Deployment Champion	E-mail With Attachments	Report Progress Barrier Removal	Project Schedule Expected Outcomes	GB	Each DMAIC Phase As Needed	

Source: ASQ LSS Training Material



Exercise: Communication Plan

Break into Simulation teams and create a Communication Plan for your Statapult process.

Audience	Media	Purpose	Topics of Discussion / Key Messages	Owner	Frequency	Notes / Status
Area Supervisors	PowerPoint Brief	Support, Remove Barriers	Project Status, POAM & Expected Changes	Team Leader, Green Belt	Weekly	Keep the brief short

Instructions: Use your Communication Plan Board

Identify 3 audiences that will receive communications

Complete all the columns

Use Expo markers and write BIG





Knowledge Check: Communication Plan

What are the steps used to develop a Communication Plan?





Knowledge Check: Communication Plan

What are the characteristics of an effective Communication Plan?





Knowledge Check: Communication Plan

What are the benefits of an effective Communication Plan?







Develop/Execute Plans







Types of Improvement Opportunities

Name	Duration	Scope of Change	Size of Team	Time to Implement	
Just Do It	1 – 2 Days	Solution ready to implement – problem well defined	Project Sponsor	Immediate	
Kaizen / Rapid Improvement Event (RIE)	3 – 5 Days	Short term, high intensity effort to address a specific problem	4 – 12 (Full-Time During Event)	Immediate to Short Term	
Project	3 – 6 Months	Complex problem, no apparent root cause	3 – 15 (Part-Time)	Mid to Long Term	



Top Down Identification

Senior managers will typically use the Top Down approach to target value streams for analysis.

As a Green Belt, what should I expect?

Events / Projects are selected:

- To improve cycle or lead time.
- To perform at higher levels and with superior quality.
- To reduce costs.
- To situate the business for the future.
- To improve throughput.

Senior management will need your expertise for process improvement efforts and project / event success.



Bottom Up Identification

What should I be doing in my work area?

Based on the training, look for "low hanging fruit" around your work area.

- Bottlenecks (Inventory)
- Poor quality
- High rework / redo rate
- Confusion
- Redundancy



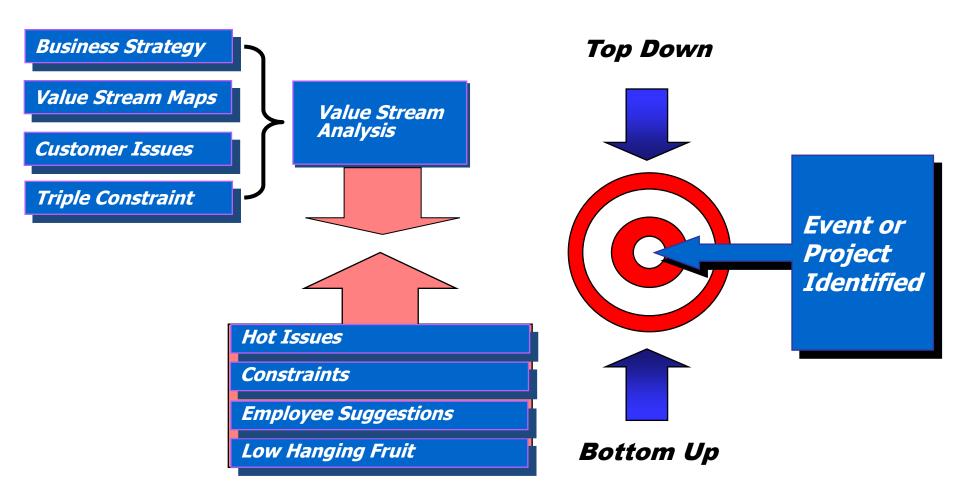
Identify processes that can be done better.

Identify your internal / external customers.

- What are their expectations?
- Would you be satisfied if you were in their shoes?



Identification of Improvement Opportunities







Why a Project and not a Kaizen/RIE?

A project is chosen because of one or more of the following reasons:

- Significant or unexplained variation in the process.
- Root cause of major problem not readily apparent.
- Complex problem.
- Significant quality problem.
- > Test failures without obvious cause.
- Significant data analysis required to understand problem.



Kaizen / RIE Follows the DMAIC Structure

Define (Prep Phase)

- > Clearly define the Kaizen / RIE objective.
- Pre-Event prep: Select team members, perform logistics, notifications, collect data, and prepare training.

Measure (Prep Phase or Monday of Event)

- ➤ Validate the value-stream map of the process.
- Complete a resource flow layout for all operations or tasks if necessary (people, paper, material, information).
- ➤ Carefully observe then collect needed metrics for tasks or steps in the selected process.



Kaizen / RIE Follows the DMAIC Structure (Cont.)

Analyze (Tuesday-Wednesday)

- Quickly validate root causes and identify/review sources of waste.
- Review waste elimination techniques and brainstorm process improvements for reducing variation.

Improve (Wednesday-Friday)

- Create action item list to accomplish improvements.
- Implement process improvements, train employees, test, fine-tune, and insure the process is capable.

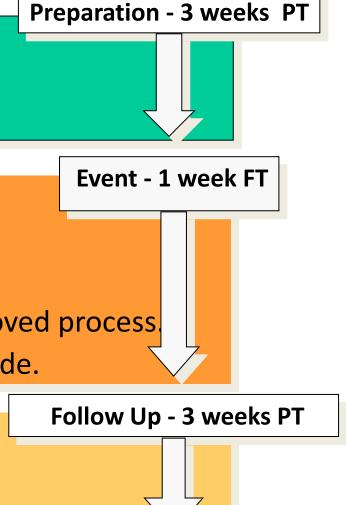
Control (Thursday-Friday)

- Create Standard Operating Procedures to document and sustain improvements.
- Present results to Management Team, complete follow-up, and monitor results over time.



Kaizen / RIE Schedule

- 1. Identify the process.
- Define the event.
- 3. Identify objectives.
- 4. Document current condition.
- 5. Analyze current condition.
- 6. Make improvements.
- 7. Create standard work for the improved process.
- 8. Document improvements to be made.
- 9. Closeout / Complete deliverables.
- 10. Measure new reality.
- 11. Sustain the gain.



Kaizen / RIE Planning Checklist

Rapid Improvement Events					DDEDADATION					
В	y: Date:]	Prep. % COT:		PREPARATION					
ו	Team:									
3r	3rd Week Before Event: (% COT:) 2nd Week Before Event: (% COT:) 1st Week Before Event: (% COT:									
	1) Select the RIE from the Value Stream Analysis' Rapid Improvement Plan. 2) Develop Charter with Value Stream Champion 3) Identify the Team Leader, Co-Leader, and Team Members. 4) Assure at least 1/3rd of participants are from the affected area. 5) Establish Voice of Customer.		1) Complete SIPOC 2) Determine process metrics that need to laddressed. 3) Develop data collection plan 4) Start gathering facts and data to populate starting numbers on Target Progress Report 5) Populate the Target Progress Report 6) Identify top three improvement metrics 7) Establish improvement targets on top thr metrics, be aggressive 8) Meet with affected stakeholders to communicate Improvement Event schedule, metrics, targets, and tools to be applied 9) Start Improvement Newspaper.	be e t eee	1) Communicate key metrics, targets, and tools to be applied to all team participants 2) Double check availability of all resources: - equipment or furniture moves - computer or phone moves - 5S, shadowing, kitting - Production Control Boards 3) Communicate with affected area, review items listed on flip chart and ask for clarification, make sure these are added to Improvement Newspaper 4) Make sure team break-out area is ready: - flip charts, markers, post-its, VSA blanks - forms, stop watches 5) Make sure Project Sponsor is set to give opening remarks on Monday morning 6) Make sure Project Sponsor is available for Team Leader Meetings Monday - Wednesday 7) Schedule Final Presentation with Project Sponsor and appropriate leadership 8) Confirm all team participants are going to be available full time for entire event 9) ID and gather appropriate instructions, documents, and SOPs					



Keys For A Successful Event

- ✓ Clear, precise definition of the problem.
- ✓ Well-defined goals.
- ✓ Clear project boundaries.
- ✓ Clear statement of requirements and expectations.
- ✓ Assigned responsibilities.
- ✓ Realistic timeframes for completion.
- ✓ Well-defined, written charter.



Barriers to Success

- Uninvolved Leadership
- Scope or team is too small / large
- Solution in mind
- Unavailable resources
- Politics
- Wrong people
- Unclear event objectives
- Conflict
- Insufficient resources
- Shifting goals and priorities
- Declaring victory too early
- Monument: barrier that can't be moved





Tollgate Reviews

A meeting after each stage of the DMAIC process to:

- Determine if all the goals in the phase have been met.
- Provide a project update to stakeholders.
- Ensure work on the problem is still needed.
- Receive approval to continue to the next phase.

Preparation for the tollgate should include:

- > All stakeholders are informed and available for the review.
 - Includes scheduling an adequate location for the review.
- Create a structure agenda for the review.
- > Prepare presentation consisting of check sheets, milestone lists, tools used, etc.
- Provide presentation to all stakeholders prior to review.



Knowledge Check: Project/Event

When Would You Choose a Project and not a Kaizen / Rapid Improvement Event (RIE)?





Knowledge Check: Develop Plan

RIE/Kaizen Events provide rapid change by skipping the Analyze phase of DMAIC and moving right into Improve.

True or False?





What We Have Covered: Define Phase

Define Phase Tools

- > Event or Project Charter.
- ➤ SIPOC analysis.
- > Voice of the Customer collection and analysis.
- ➤ Communication Plan development.
- ➤ Project Framework.



Questions

What questions do you have about any area of the Define Phase?

