

NYS Lean Basics

What is Lean & How Does it Work?

What is *Lean*?

A management philosophy used by world class companies to make their operations more effective and efficient

A lean definition of Lean:

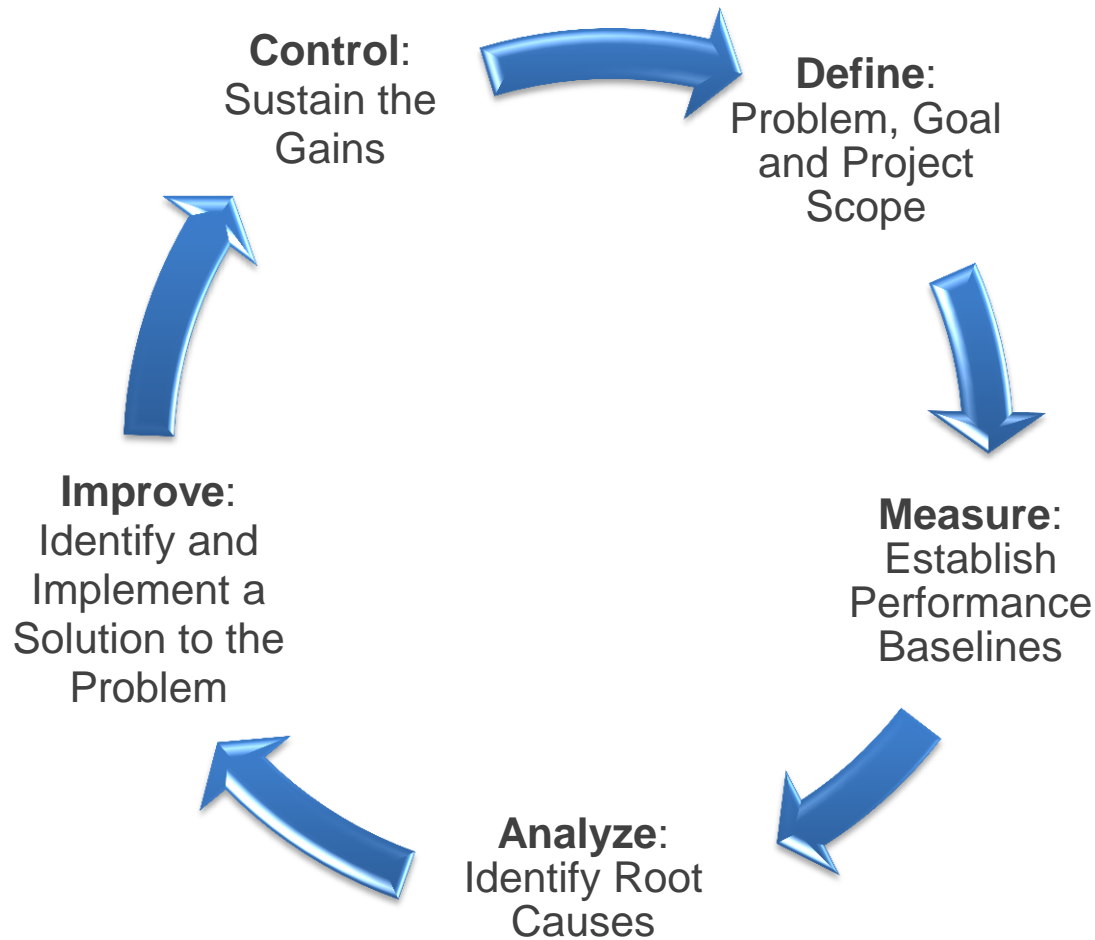
Making value flow at the pull of the customer.

Culture and People

Not only process transformation, but cultural transformation

- Training of employees in Lean concepts
- Empowerment of employees to make changes at all levels
- Investment in employees to be self sustaining in the future

Lean is a Continuous Process



3 Myths (+1) About Gov't Operations

1. We don't make widgets.
2. We don't have customers
3. We're not here to make a profit
4. We don't have competition (emc)



Lean Step by Step

- Project
- Team
- Value Stream Map
- Kaizen
- Implement
- Measure
- Adjust

Systems Mindset

94% of the problems are due to the system; 6% are due to the worker.

~W. Edwards Deming

Systems Mindset

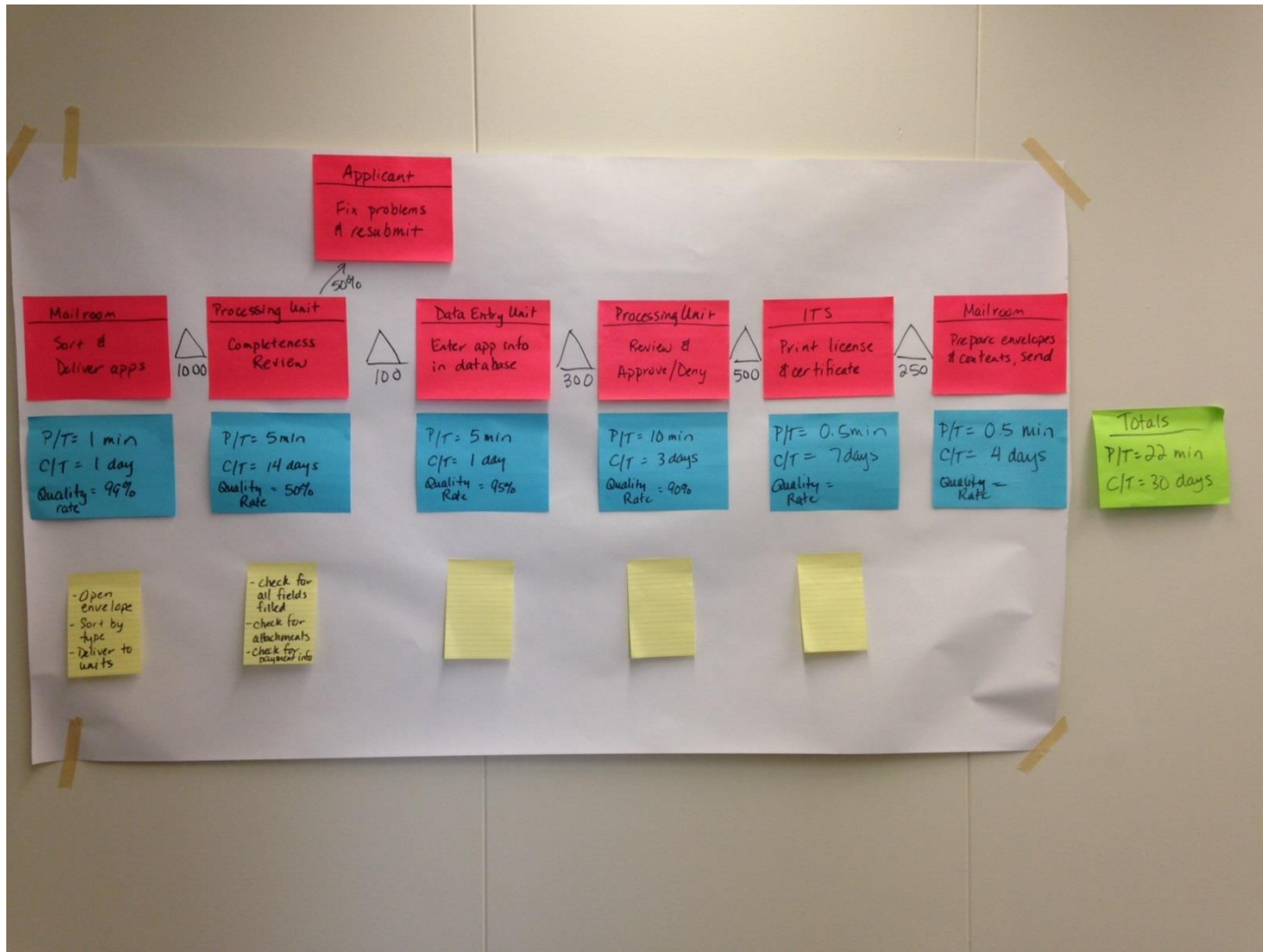
40% of the work that goes on is done in the “hidden plant” and is done to correct mistakes.

~A. Feigenbaum

Value Stream

All of the steps in a process, *customer value-added*, *business value added* and *non-value added*, required to transform raw material into a product/service through to the customer.

A NYS Value Stream Map



What is Kaizen?

- The term kaizen was popularized by a book published in 1986 called *Kaizen: The Key to Japan's Competitive Success* by Masaaki Imai
- Imai defines kaizen as “ongoing improvement involving everyone, without spending much money”
- The actual Japanese translation is:

改

Kai

to change

善

Zen

good

改善 – to improve

What is Kaizen?

- More commonly thought of as an accelerated team event aimed at rapid change
- Get the necessary people and resources together to make the change, lock them in a room, and don't let them out until the change is done.
- Duration typically ranges from 1 – 5 days
- We teach, then we do

Definition of Value Added

- **Customer Value Added**

An activity that transforms or shapes (for the first time) material or information in order to make the product for or provide a service to the customer. (These are things the customer is willing to pay for)

- **Business Value Added**

Activities that are required by law or regulation

- **Non-Value Added**

Those activities that do not transform or shape the product or service and do not add to the customer value

8 Wastes (non-value added activities)

- Transportation (of material)
- Inventory
- Motion (of people)
- Waiting
- Over Processing
- Overproduction
- Defects
- Skills/People

*Typically 90% of
all lead time is
non-value added!*

Transportation Waste

Unnecessary transportation of the work in progress
(WIP)



Inventory Waste

Work awaiting further processing or consumption

More than one piece flow:

- Projects awaiting completion
- Unprocessed transactions
- Overabundance of/or unnecessary supplies



Motion Waste

Any movement of people or machines that does not add value to the product or service

- Searching for items
- Awkward retrieval of items
- Unnecessary repetitive actions
- Switching back and forth between windows at a workstation
- windows at a workstation



Waiting Waste

Idle time created when waiting for...?

- ...instructions, direction
- ...a batch of product to be queued up
- ...a machine to be available



Overproduction Waste

- **Making Unused Product**
- **Making/doing something before it is needed**
- **Making/doing something “just in case”**
- **Examples**
 - Scheduling something way in advance
 - Creating reports that are not used
 - Making multiple copies for data storage

Overprocessing Waste

- **Effort that adds no value to the product or service from the customers' viewpoint**
- **Doing more for the customer than the customer is willing to pay for**
- **Examples**
 - Unnecessary requirements
 - Unnecessary approvals
 - Redundant data entry

Defects Waste

- **Detection and correction of material defects or processing mistakes**

- **Examples**
 - Incomplete or inaccurate applications
 - Miscommunication
 - Inspection of work
 - Incorrect data entry

Skill (People) Waste

- **Not using all of the workforce to their fullest abilities**
 - Underutilization
 - Underdevelopment
 - Turnover
 - Unplanned absences
 - Focus on status quo

TIMWOODS = NO VALUE ADDED!!

- Transportation (of material)
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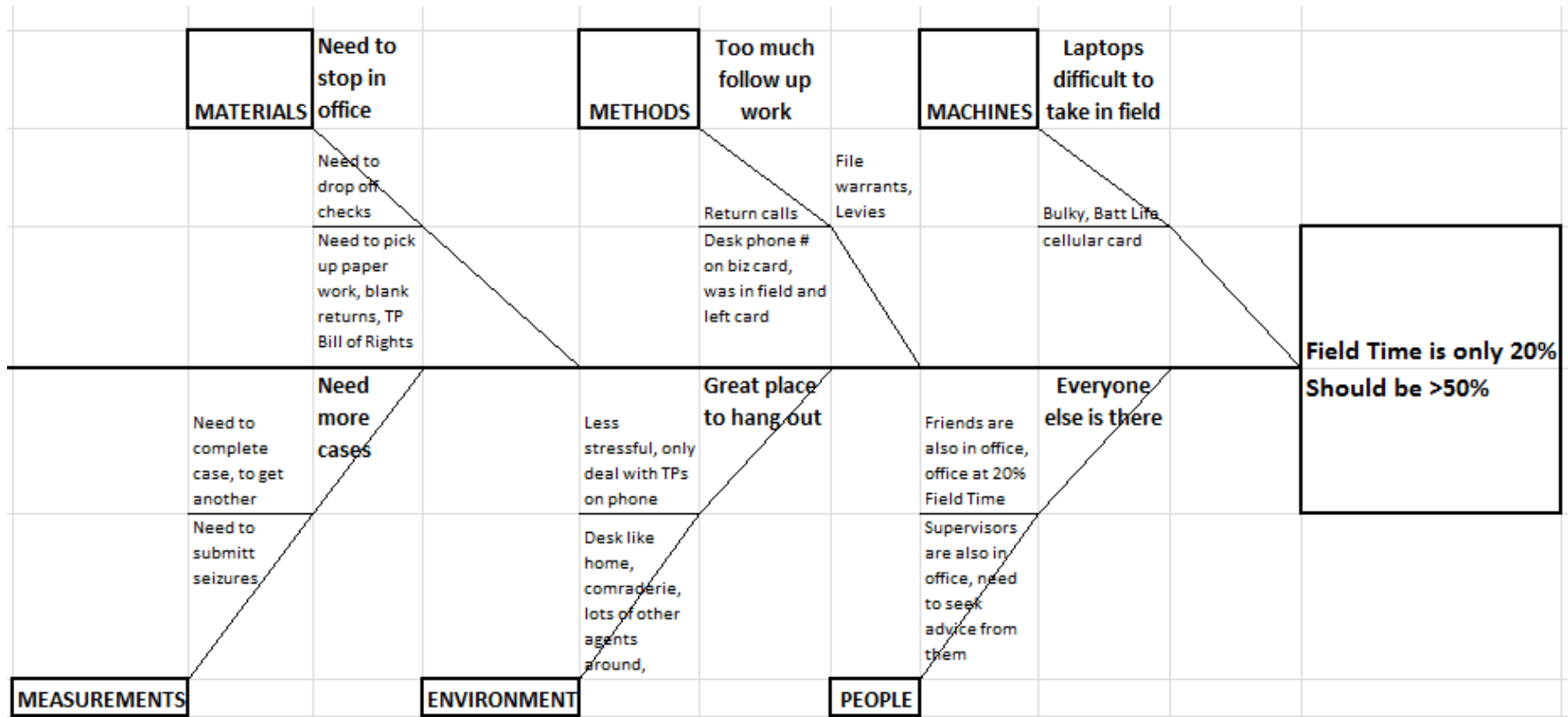
Root Cause Analysis of the Problems

5 Whys

Field Agent Field % is 20% (Should Be At Least 50%)

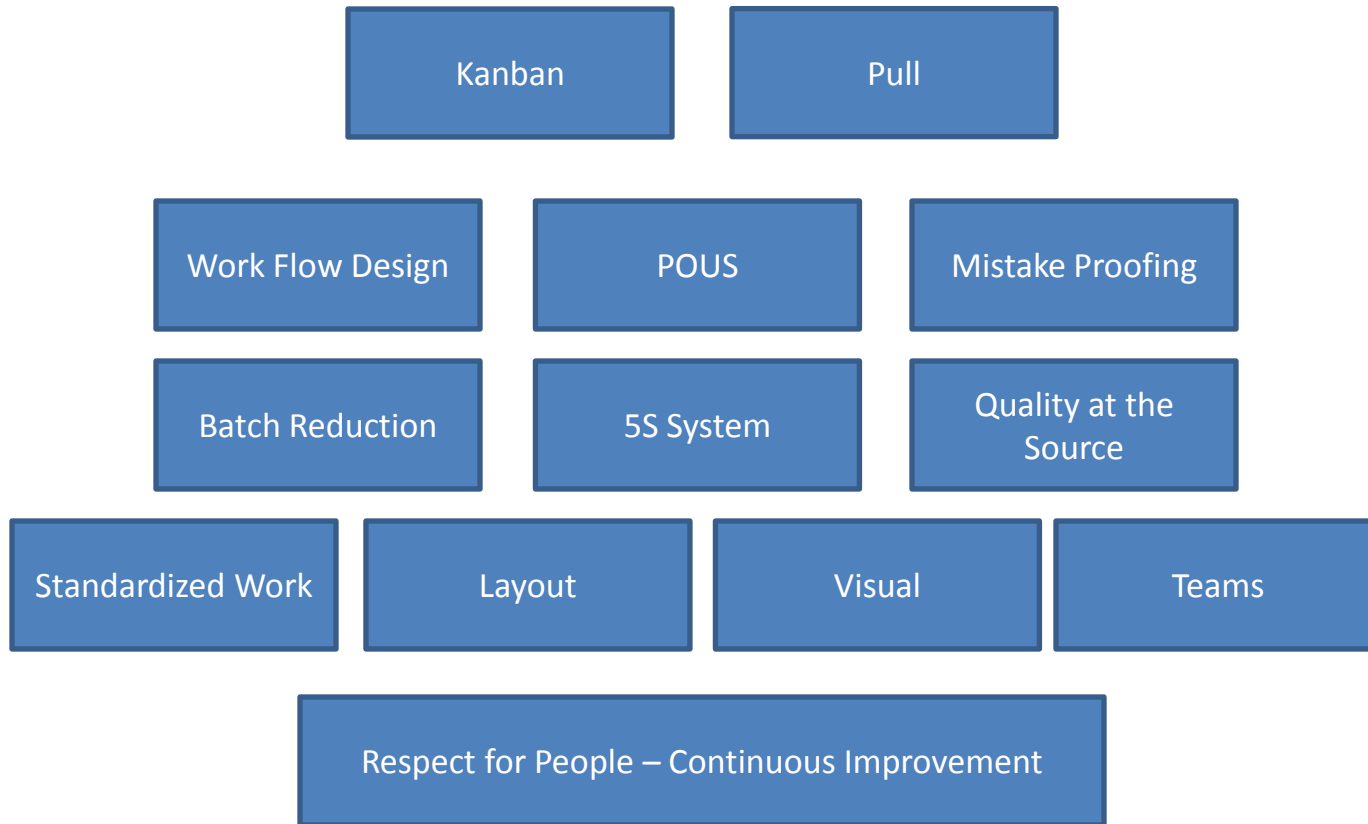
Like hanging out in office			Lot of follow up work for day in field				
Less stressful than work	Desks like home!	Comraderie	Return Calls		File Warrants, Levies	Submitt Seizures	Have to complete case
No Taxpayers face to face	lots of cool stuff!	Lots of other agent in office	taxpayers call # on card		Need to do next step	Next step	Uncollect able get new case
All on telephone			called on old issue	We left card this week	Part of doing case is admistrative/enfor cement follow up		
			had card	Didn't resolve at visit	TP Not there		
			previous case	Laptop			

Fishbone Diagram



Measurement

Lean Tools – Used for Solutions



Standardized Work

- Standardizing the *Best Known Method* for processing work including the use of people, material and machine in order to reduce variation and errors.
 - Is every piece of work really unique?
 - Is there a standard set of solutions that will work for 80% of the cases?
 - Can we use a standard formula?
 - Can we use check boxes instead of free format fields?

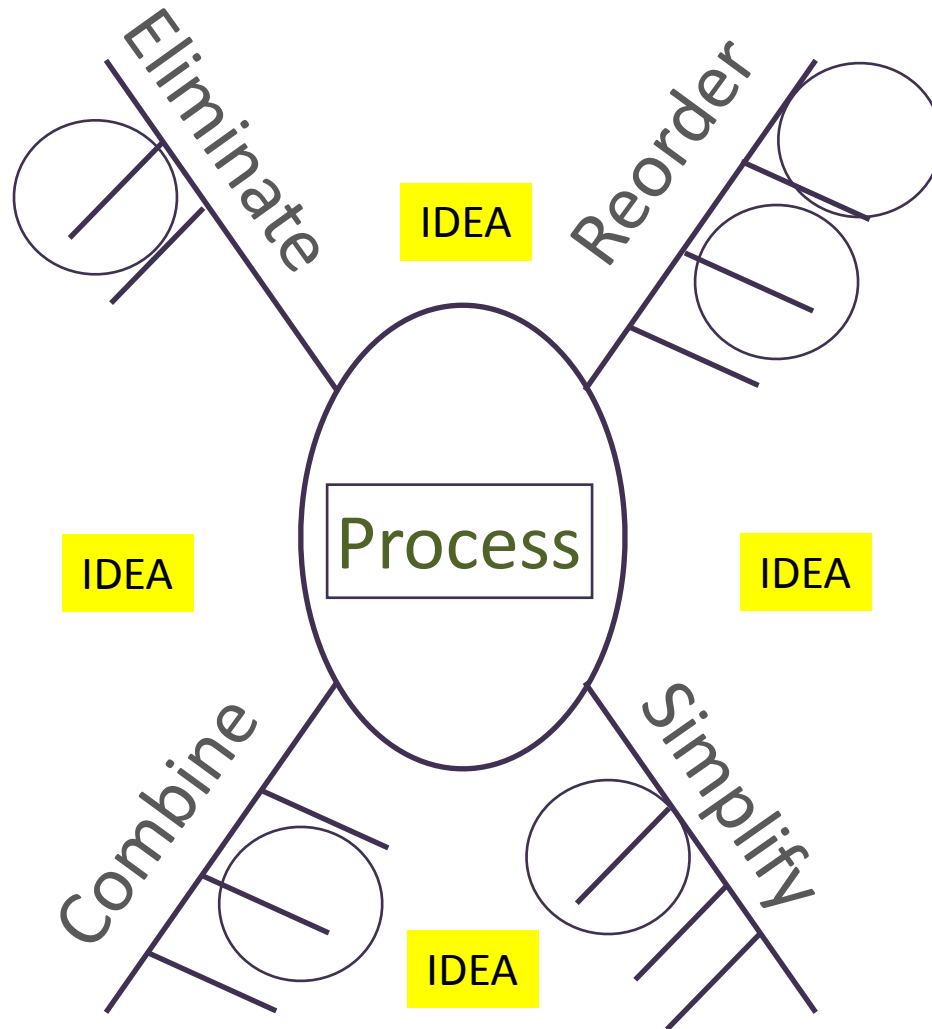
Continuous Flow

Continuous flow results when the product (can be a widget, service or transaction) is produced and moved from one processing step to the next, one at a time, without stoppages, scrap, or backflow.

Quality at the Source

Each individual is responsible for the quality of their work and inspects their work to ensure that the product they are passing to the next step is of acceptable quality.

Process Improvement Mind-Map



Ease/Impact Prioritization



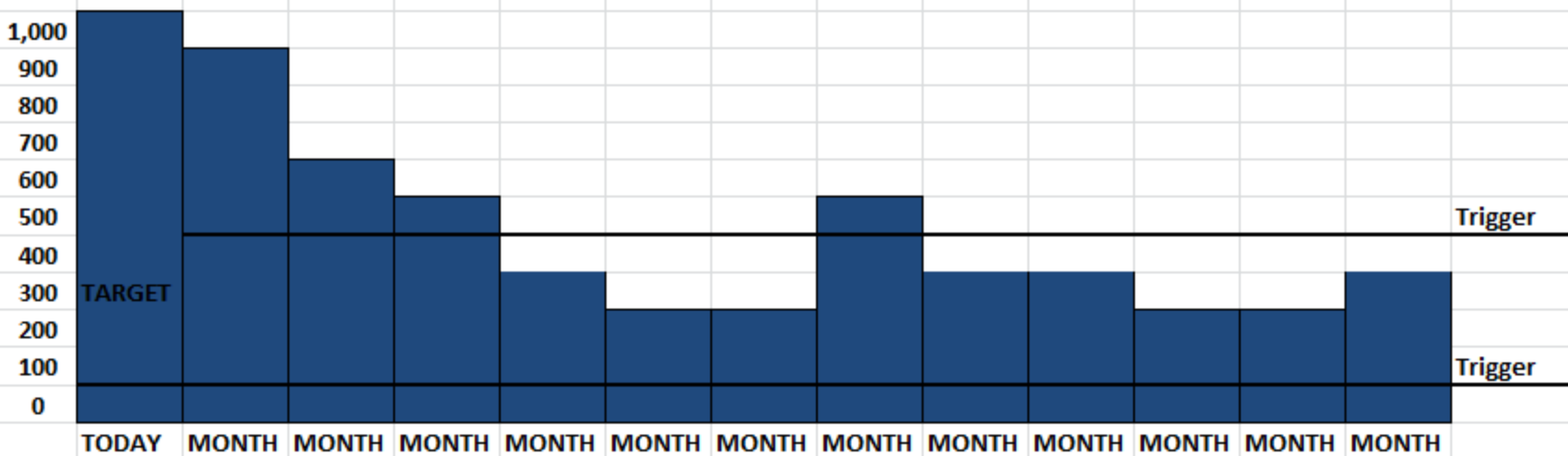
Future State Map

TIPS

- Focus on reducing “hand offs”
- Focus on reducing batches (i.e., work in progress)
- Focus on reducing rejections (i.e., mistake proofing)
- Focus on quick wins
- Focus on low-no cost solutions first

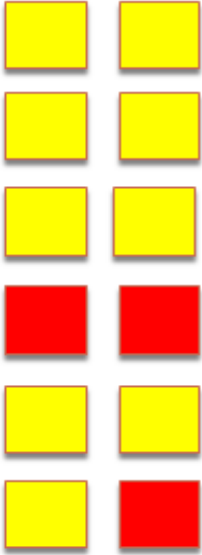

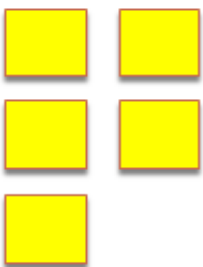
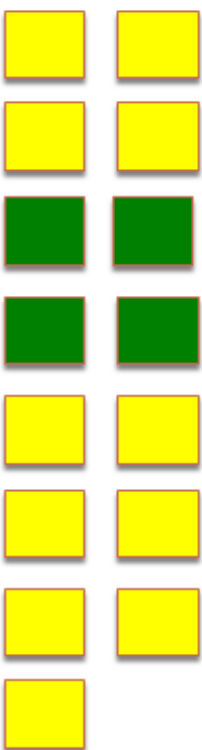

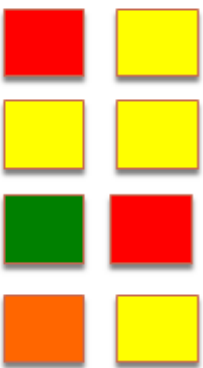
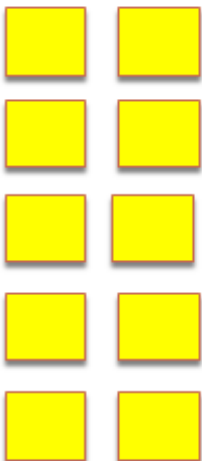
Scoreboards

Key Indicator - Backlogg



Target	300
Trigger	500/100
Action	Huddle

Scoreboards

Requests In	Step 1	Step 2	Step 3	Step 4	Step 5	Complete
						
Total 12	3	5	15	0	8	10

On Hold
Waiting for Approval
Incomplete

Implementation Plan

- HOW
- Filling out “Summary” on Project Charter
- Key Solution Components
- Implementation Plan (start with tomorrow and next week)
- Within 90 Day Period!
- Don't forget *Outbound Surveys* (VOC)

Executive Report Out

What	Time	Presenter
State name of project, review goals of project and Voice of the Customer	2	
Overview of current state value stream map, overall metrics and top problems identified from map	3	
Review quality rates and top 5 reasons for quality failures	3	
Review problems identified from CVA/BVA/NA, flow and standard work exercises	2	
Review root cause analysis results	2	
Review solution brainstorming results	2	
Review prioritization of solutions, and those selected for implementation	5	
Overview of future state map with target metrics	5	
Overview of implementation plan	2	

Lean is a Continuous Process

