The Arizona Management System



ARIZONA MANAGEMENT SYSTEM

Agenda

#	Торіс				
1	Our History of Collaboration between GTO and Results Washington				
2	Overview of AMS				
3	Visual Management				
4	Tiered Huddles				
5	Basic Problem Solving				
6	Other Wins				
7	Challenges				
8	Q&A				



About me



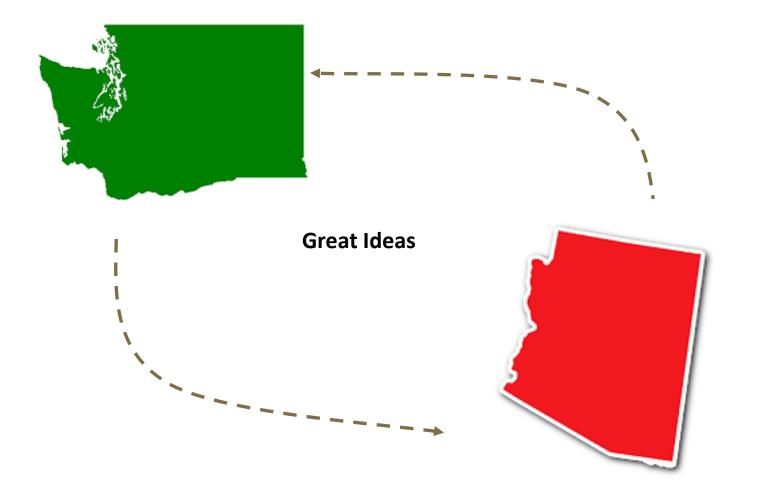




JPMorganChase 🛑

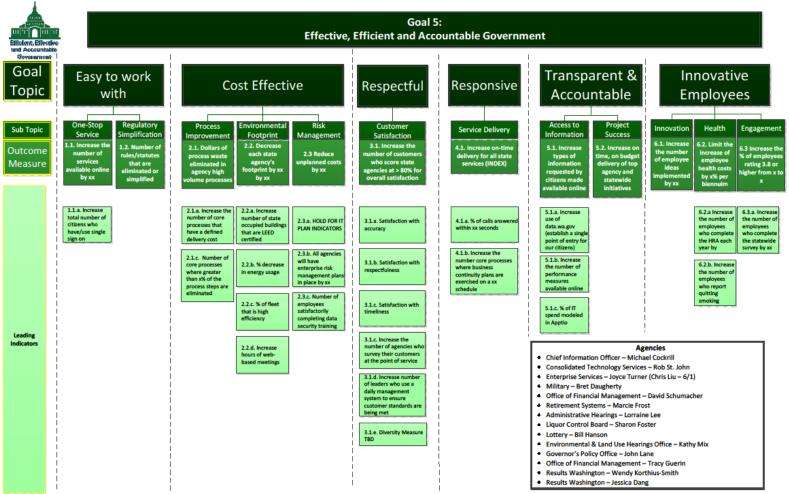


A History of Collaboration

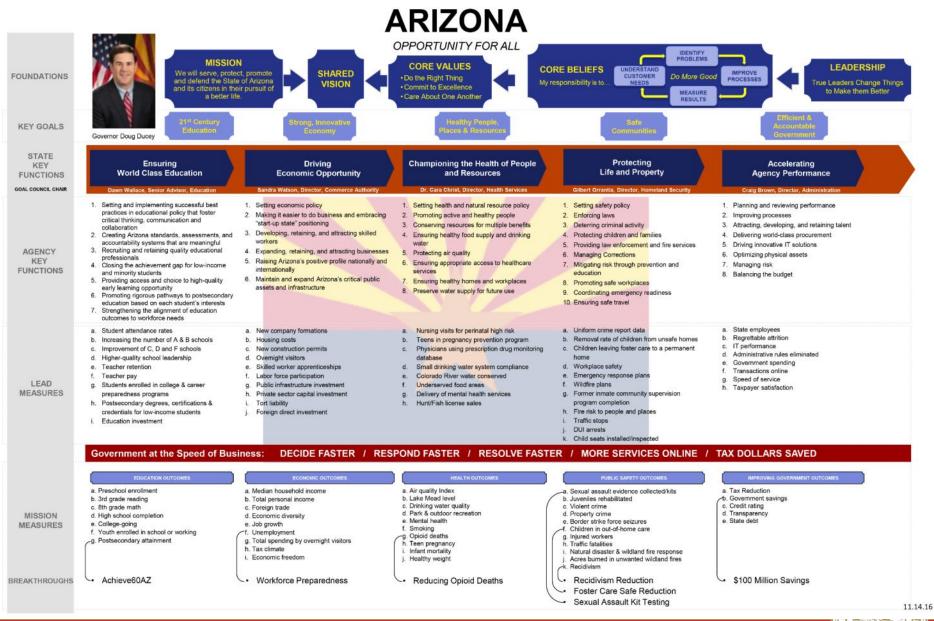




Game Changer



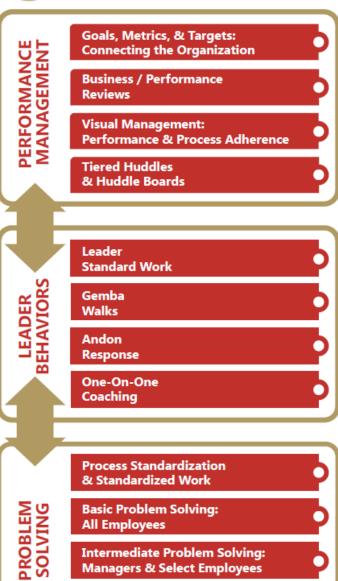








ARIZONA MANAGEMENT SYSTEM



Managers & Select Employees

Continous Improvement Staff

Complex Problem Solving:

GOAL - priority mission outcome an agency seeks to achieve

O

Π

METRIC - the actual score measured at a given point in time

TARGET - a measurable item that defines the status of achieving the goal

BUSINESS / PERFORMANCE REVIEW - The foundation of the management system, this comprises a review of the agency performance metrics and countermeasures, financials and business breakthrough projects.

VISUAL MANAGEMENT - The visual indicators that enable quick, informed assessment of how a process is performing whether standard work is being adhered to and if outcomes are being met.

TIERED HUDDLES & HUDDLE BOARDS - Brief daily or weekly meetings performed by teams using visual management to reflect on performance, identify and solve problems and commit to making adjustments. The tiered structure facilitates communication and problem solving at each level of the organization.

LEADER STANDARD WORK - The maintenance system for processes and the overall management system. It is the written plan that ensures leaders model AMS behaviors and provide coaching to teams. The plan includes Gemba Walks, Andon Response and One-on-One Coaching.

GEMBA WALKS - The personal observation of work by leadership for confirming standardized work and providing coaching.

ANDON RESPONSE - The Andon is a communication tool that announces a process problem at the place and time it occurs so that leaders provide support in a timely, effective manner.

ONE-ON-ONE COACHING - The regular cadence of discussion between managers and staff for the purpose of developing employees and providing regular feedback.

STANDARDIZED WORK - The documented current one best way to perform a process. It is the foundation for the Plan-Do-Check-Act cycle of continuous improvement.

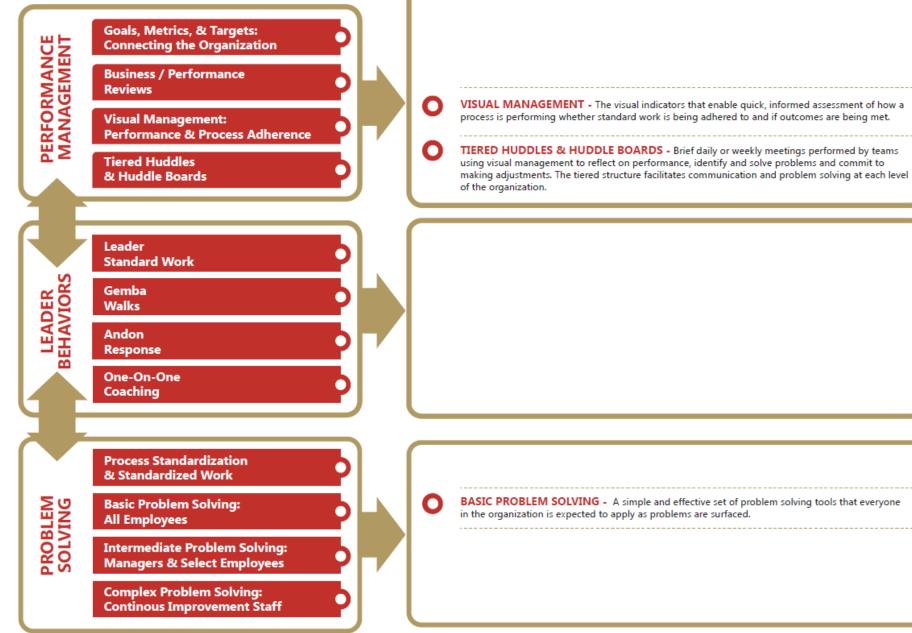
BASIC PROBLEM SOLVING - A simple and effective set of problem solving tools that everyone in the organization is expected to apply as problems are surfaced.

INTERMEDIATE PROBLEM SOLVING - This builds on the basic problem solving methods with a structured approach to identifying and documenting root causes and potential countermeasures. Problem solving at this level is documented using an A3.

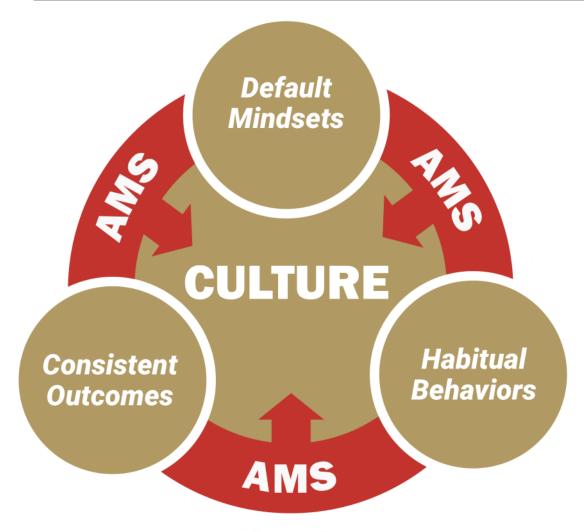
COMPLEX PROBLEM SOLVING - Advanced skill sets and tools for breakthrough or high-impact, cross-agency projects involving staff trained in Lean/Six Sigma techniques.



ARIZONA MANAGEMENT SYSTEM



Anatomy of Culture



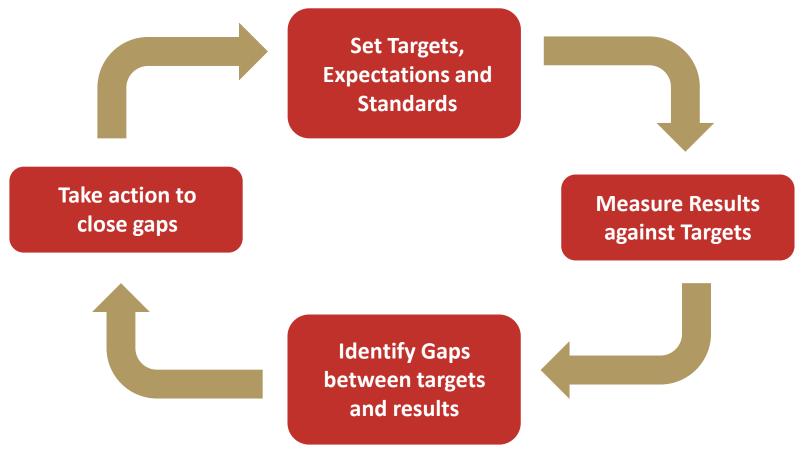
Our Goal in Arizona:

Everyone, every day, asking:

- How did we do yesterday?
- Where is the waste?
- How can we do better today?

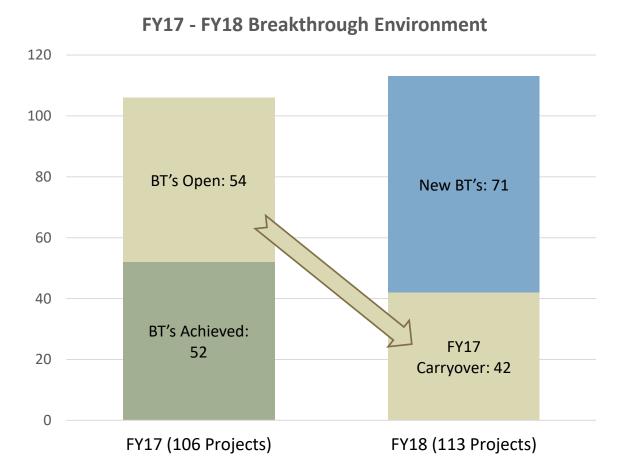


High Performance Culture





Breakthrough Performance



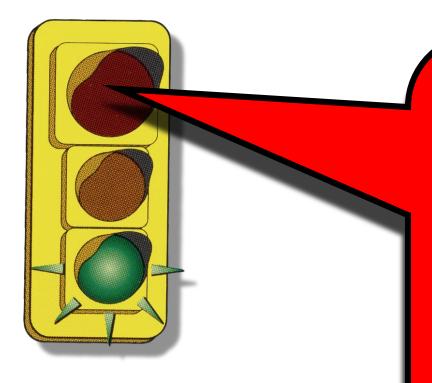


Visual Management



ARIZONA MANAGEMENT SYSTEM

Principles of Visual Management



Quickly communicate standards and status

Shows normal vs. abnormal or plan vs. actual in near real time



Principles of Visual Management

Manage



Directs leadership to areas that need support.



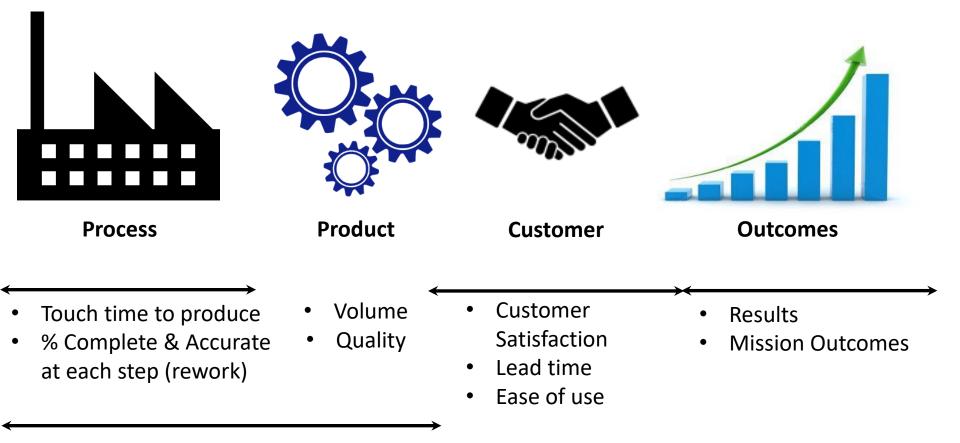
Principles of Visual Management



Primarily through surfacing and solving problems (Indicates actions or countermeasures in process)



Visual Process Performance



• Cost to produce



Keys to Effective Process Metrics

Enable rapid problem <u>identification</u> by front line.

(Stop & Notify)

Enable rapid problem <u>response</u> by management.

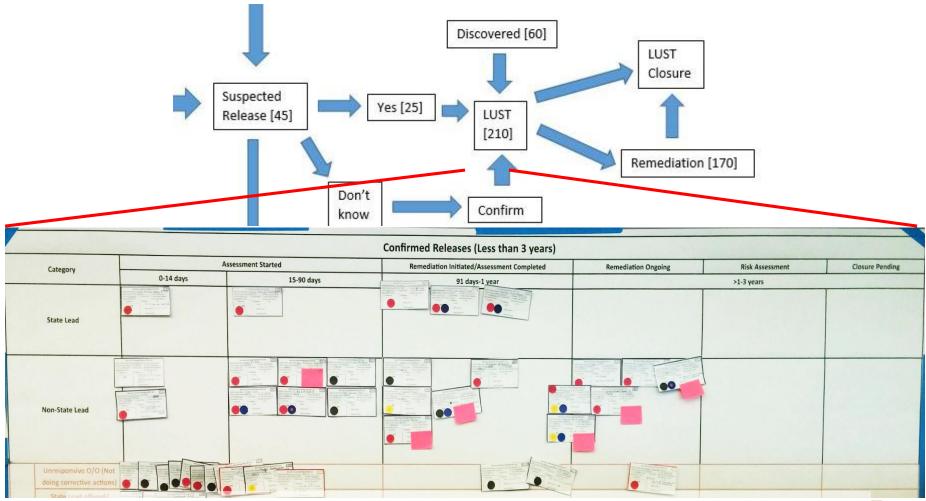
(Sense & Respond)



Make it normal for the flow of the product to be continuous. Reduce or eliminate stagnation.



Visual Process Adherence

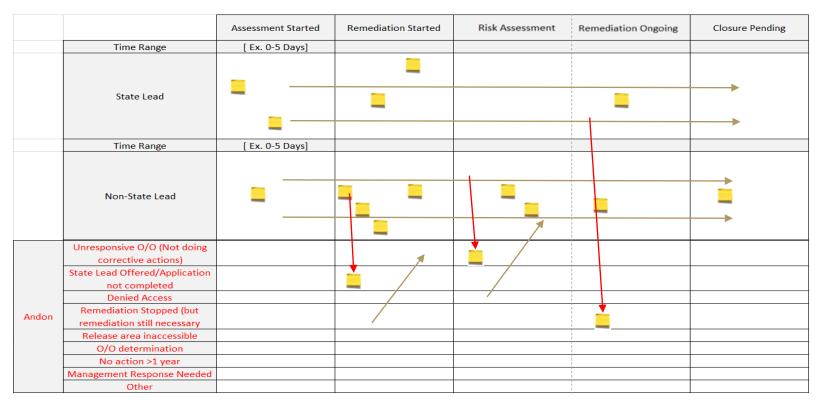


• Each step includes time



SIMULATING "PRODUCT" BY PROXY

To simulate the "product" on the flow board we use a proxy, "cards" or post-its containing necessary information to help track and identify.

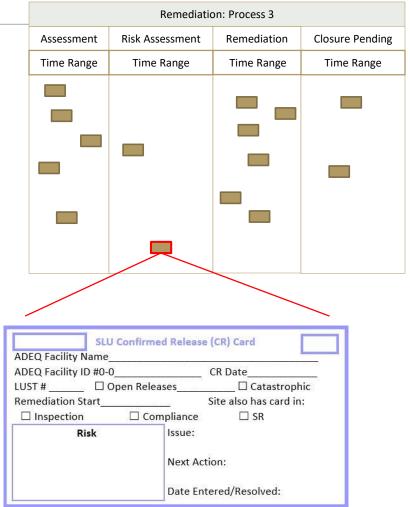


UST/LUST Remediation Work Flow w/ Andons



PRODUCT PROXY

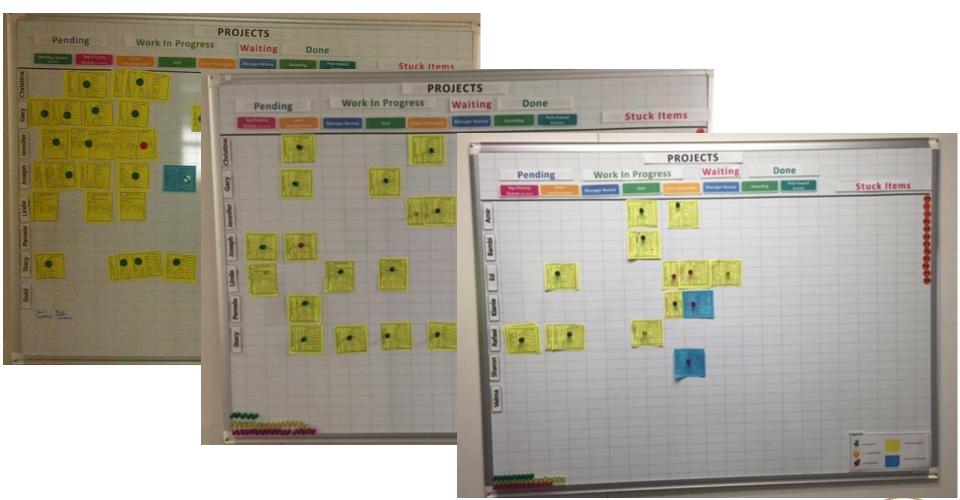
- Includes data crucial to the product and tracking for that function of the process. It may change as it passes thru the VS.
- Do not make the card more complex than it needs to be. Radical Simplicity!
- Examples include Customer Name, Start Date, and Due Date



The entire Value Stream (VS) inventory must be shown on the Flow Board, consider this when sizing the "card"



ADOT Procurement - Tracking Boards



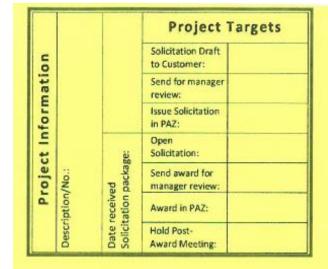


Visual Tracking Forms

Direct Contracts



Solicitations



Assistance Needed

	Stuck	ltem	
Description/No.:			
Need help from:		Stuck Since:	



Tiered Huddles

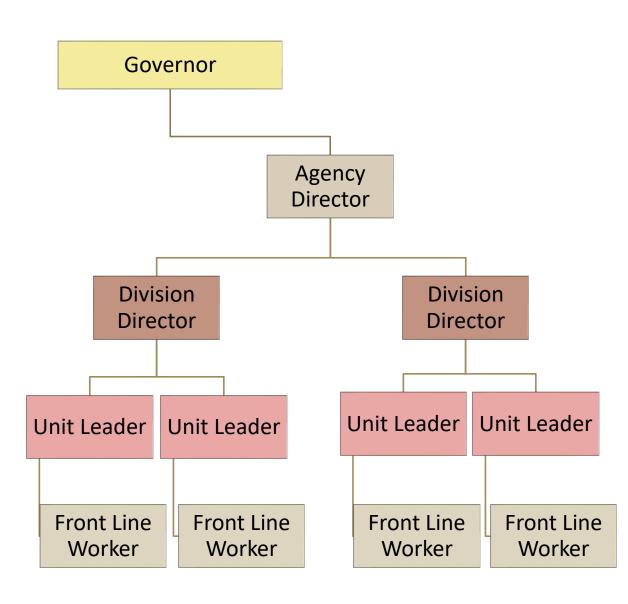


Huddle Boards



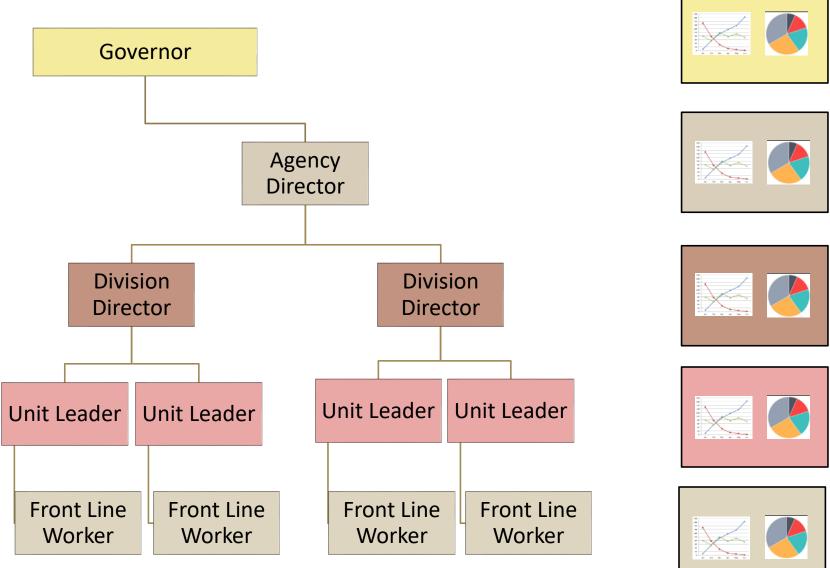




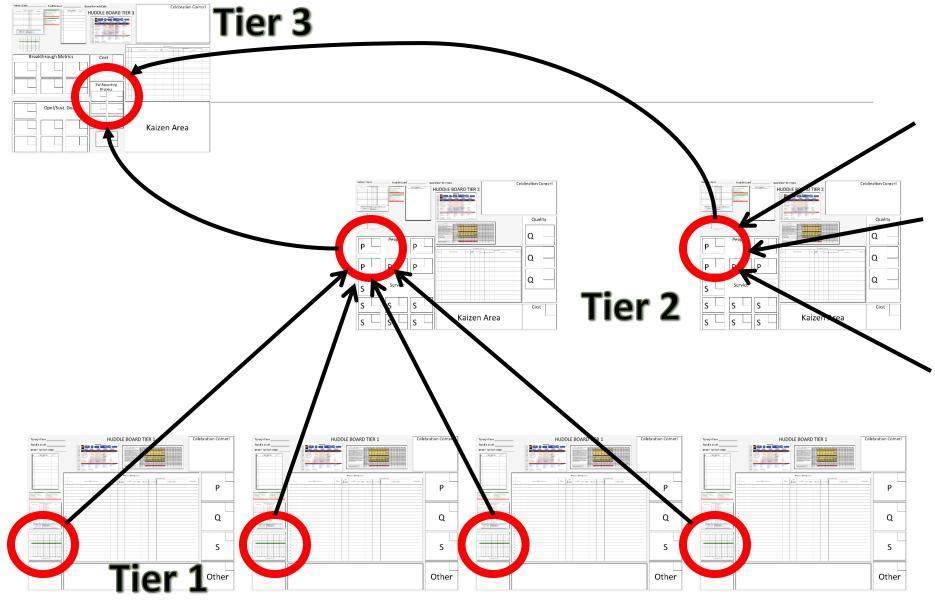


"Tiered" Huddle Boards

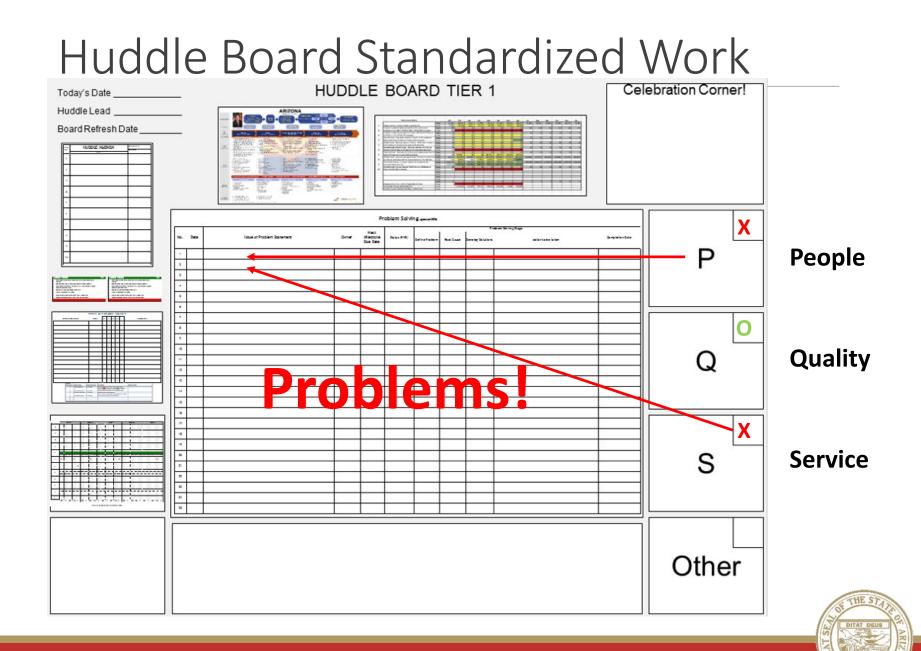










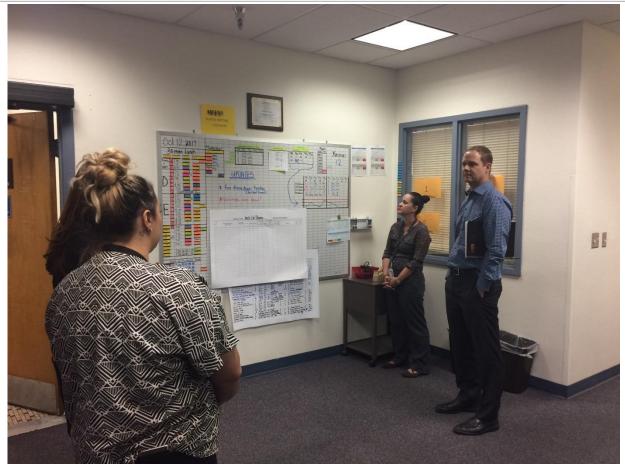


If you take only one thing away...

	Problem Register rev. 5/3/20											
# (A)	Date (B)	Issue or Problem Statement (C)	Owner (D)	Next Action (E)	Next Action Due Date (F)	Status (G) (R,Y,G) (H)	Target Completion Date (H)					
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												



A Real World Huddle Board



Stop and Notify:

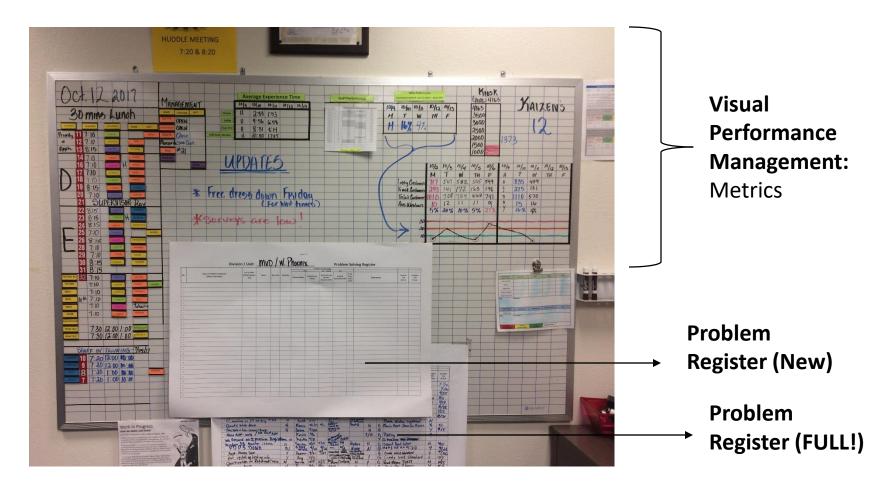
 Problem Identification by the front line

Acknowledge and Respond:

- Problem Response by Management
- Prioritize problem solving effort



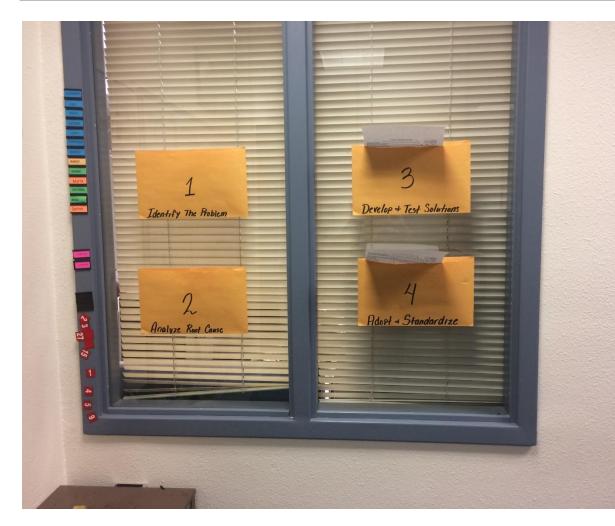
A Real World Huddle Board



This team identifies at least one problem every day!



Basic Problem Solving



Basic Problem Solving

- 1. Identify the Problem
- 2. Uncover potential causes
- 3. Develop & test countermeasures
- 4. Standardize & Sustain

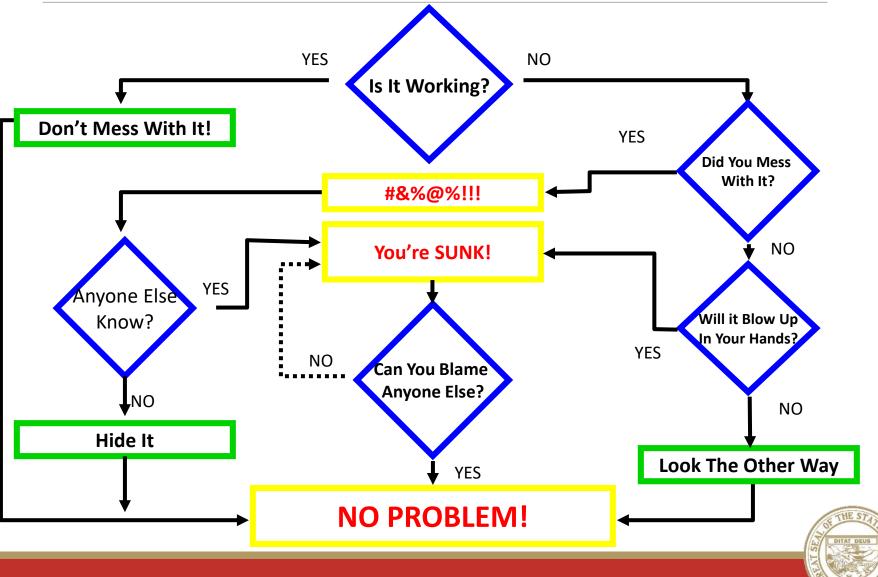


Basic Problem Solving



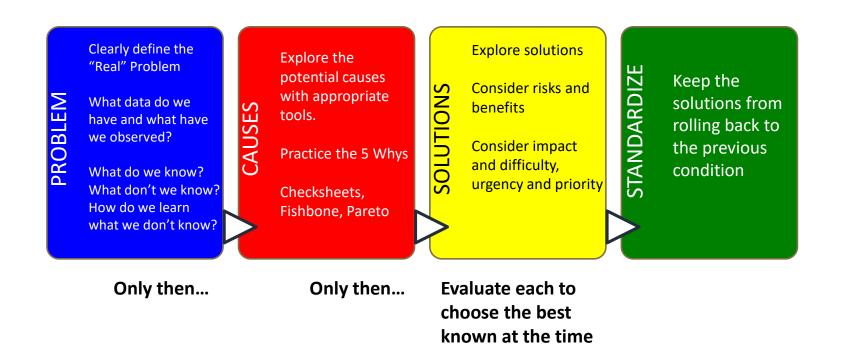
ARIZONA MANAGEMENT SYSTEM

Conventional Problem Solving





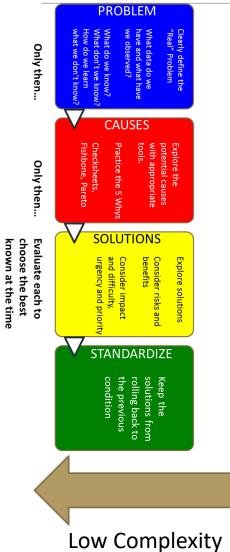
Basic Problem Solving







Continuum of Problem Solving



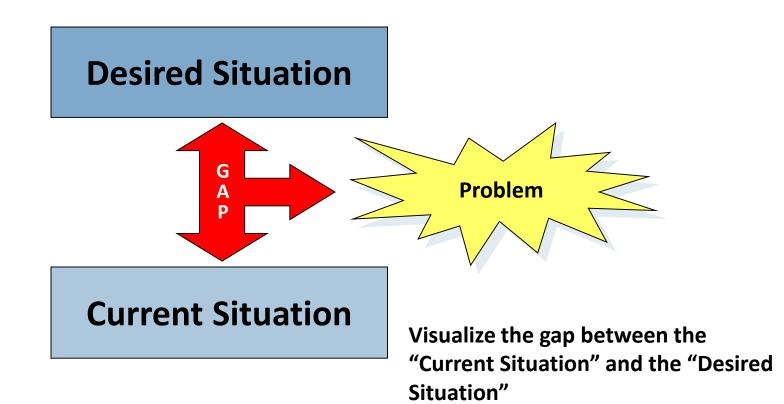
Breakthrough Project						Agency:				Report Date:				
1. DEFINE (PLAN) Communicate the context of this project in the owner Problem Statement (what specifically is bein	prosess or project	Problem Statement	<u>3. IN</u>	NPR	OVEMENT ACTION	NS (D	OO) Develop and communicate actions/changed few "actions that lead to improvement. Base in box 2	to the "oritical action from date			teept. Pfan Gaet	TEAM	lat project tear	n members and their role. Role:
ribbion otatoment (what opcomodity to bei	g 001100).	Project Chater	Cat		Action Su	ub-Action	n / Analysis / Status	Owner	Date		chart 008	reams:		Process Owner
											0.04			Project Lead
														,
Scope (Specifically what process or bounds	exist:								<u> </u>	_				
				+				-						
				+										
				+				-						
Goal Statement (format specific "From X to	Y by When"):			+				-	$ \rightarrow $					
	, ,			+								ISSUES	List inst	nediate obstacles that are g progress on this project.
				+				-				100010	alooolo	bobatt ou per bolect
			_	-										
2. MEASURE and ANALYZE (PLAN)		Measure												
XXXXXXX Communicate discovery of possible process floar-value atmain map. 38	oor cause factors, e.g., fishbone diagram, 5 why's,	Volue Stream Map]											
protect tourvalue chean map, so	DC; #62.	Spaghetti Mag												
		SPOC												
		Process Map												
		Metric												
			4.0	501	JLTS (CHECK)				1			Project I	Manag	ement
			<u>4. R</u>	ESU	JLIS (CHECK) abar pro	raject comp	: that beat indicate progress towards goal statement pr defon, e.g., control charts, Facel charts, capability cha	ni, costi, elc.	l				-	
												Day and time	for regula	ar update meeting:
		Analyze										Regular Lind	ator are d	ue to project lead
			1									by:		
		C&t Dagram												
		Mathematic	1										_	
		chait Hypotheck					Communicate developed actions, plan					External Cos	t for this p	roject (if any):
		Failure SLate	<u>5. S</u>	UST	TAIN & ADJUST (AC	CT)	achieved improvement, e.g., poka-yok audits, measurements, etc. Recognize	 ayatekta that w a standard work, and sham achim. 	a sustain the training, equipment entern	4				
		Марс	1							Malake	+ Proof		100	
			1							Standars	d Mark	PROGRE	SS and	project start and end dates I shade in progress through PDCA steps.
										Samuel	2	Project S	-	
										Celebral	0	P	D	C A
												1 3	2 3	4 5
			1									Est. Proi.		
												Comp. D	ate:	
												Comp. D	u.u.	

Consistent methods build upon one another : Simple Four Box vs A3





Box 1 - The Problem



Make ambiguous problems clear



The Problem Statement

A Problem Statement includes:
What's wrong
Where the problem appears
How big the problem is
The business impact

A Problem Statement does not include: •Solutions •Speculation on causes



Problem Statement Exercise

Evaluate this problem statement

 "We need a bigger budget because we do not have enough people to get our jobs done measured by the growing pile of backlogged work."



Problem Statement Exercise

Evaluate this problem statement

 "We need a bigger budget because we do not have enough people to get our jobs done measured by the growing pile of backlogged work."

Or how about this?

 "Our monthly report shows our backlog growing by 15% and our service times growing from the standard of 15 days to over 30 days to issue a permit. This is causing our customer an unacceptable wait times which impacts their ability to grow their business and create jobs."



Analysis

Basic Tools Help You Understand, Analyze, and Communicate Facts

- Check Sheet
- Pareto Chart
- Process Map
- Five Why's

- These basic quality tools are useful for addressing most problems and process-improvement opportunities
- Additional quality tools (e.g., Scatter Diagram, Control Charts, Affinity Diagram, Analysis Of Variation, and others) enable more advanced analysis and decision making



Check Sheet

Reason	Day								
	Mon	Tues	Wed	Thurs	Fri	Total			
Wrong number	-1111	1	A I	1111	11111	20			
info request	11	1	11	11	11	10			
Boss	-111-	1	-####111	1	111	19			
Total	12	6	10	8	13	49			

Telephone Interruptions

C15 Extension Tracker

Date:

Reviewer's name:

Provider code	Valid?	Battery?	Retest?	Arrival test?	Circumvention?	Total
001	0	0	2	1	0	3
002	1	0	7	3	1	12
003	1	0	4	1	0	6
004	0	0	3	1	1	5
005	0	0	1	0	0	1
006	4	1	20	8	1	34
007	1	0	5	2	0	8
008	0	0	2	1	1	4
009	1	0	6	0	3	10
Total Count	8	1	50	17	7	83

- Use when data can't be pulled from a computer report
- A generic tool for a wide variety of purposes
- A structured, thoughtfully prepared form for collecting data

Useful when:

- Collecting data on the <u>frequency</u> of events, problems, defects, causes, etc.
- Data will be observed and collected by <u>one or multiple</u> people
- Data will be observed in <u>one</u> <u>location or many</u> (virtual shared form)



Pareto Chart

Displays the Factors that Contribute Most to a Problem

When to use: For identifying the "vital few" factors

Key points:

- Decide on how to stratify the factors, then collect data
- Consider plotting both cost and count data on separate charts (they may give different answers)
- Document improvement with before and after Pareto Charts

Food Chain D - Annual Complaints 900 800 700 600 50 7 300 200 100 0 overpriced onewaitline NotClean 100 MOISH cood is too salty olsy sasters interdysat No Atmosphere SmallPortions

Pareto Principle Also known as the 80/20 Rule 80% of the problem from 20% of the factors

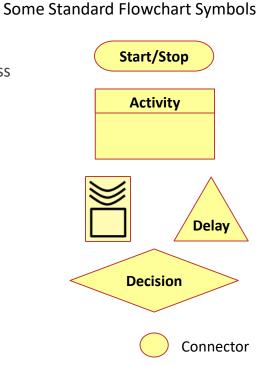


Process Map

Illustrates the Major Steps in a Process

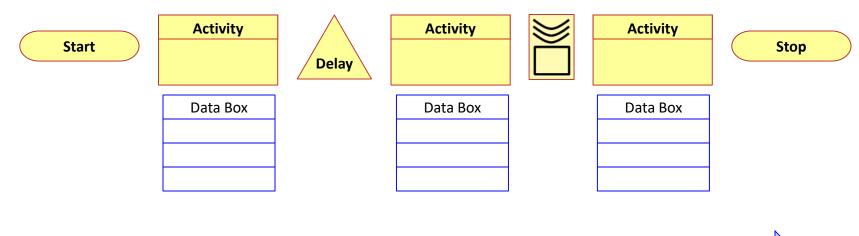
When to use:

- For starting an analysis (understand the flow of the process)
- For aligning everyone to the start, end, and actual steps of the process
- Key points:
 - Rigorously follow one service or product
 - Note problems and wastes





Process Map







Box 2 – Root Cause Analysis Problem Causes Solutions Standardize

Keep asking Why? Keep asking Why? Keep asking Why? Keep asking Why? Keep asking Why?



Jefferson Memorial Problem

The Jefferson Memorial was disintegrating rapidly because of the frequent cleaning needed to remove the bird droppings.

How would your team solve this problem for the National Park Service?

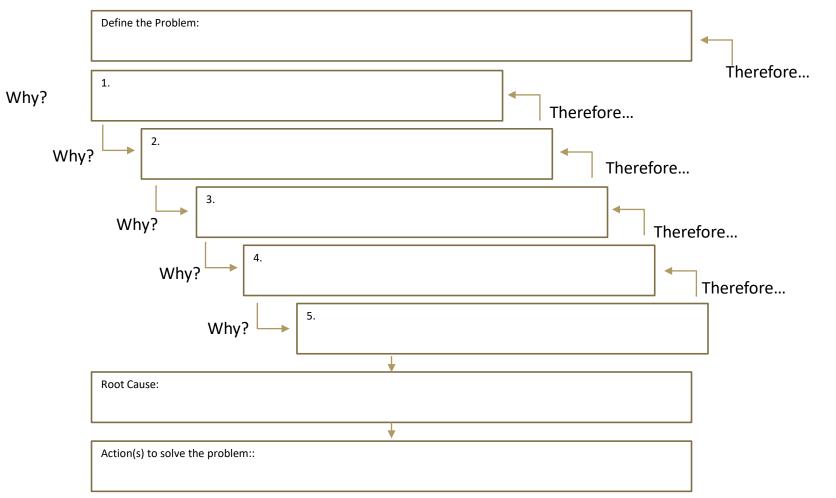
What information would you like to have?



Click on the photo in presentation mode to run YouTube video clip

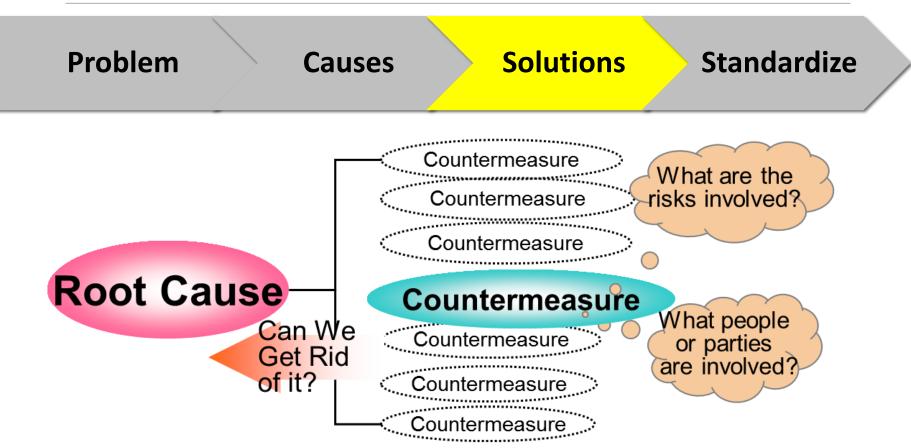


5 Whys Worksheet





Box 3 – Solutions



Develop as many potential countermeasures as possible



Evaluation Factors

Low Cost

Easy buy-in

Direct impact on causes

Sustainable

Fast implementation

Use these to evaluate the alternative solutions and find the best!



Simple Fixes

Many common issues have very simple fixes
 More training is not usually the answer

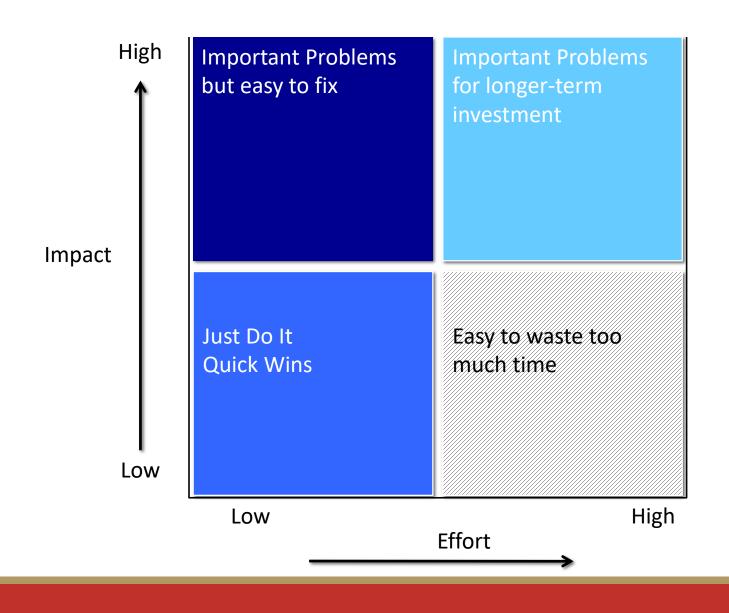
Focus on truly eliminating problems by making a "physical or structural change" and training the physical change

Make the solution visual whenever possible

Just Do It!

 Once the team has agreed on the path, document the action and just go do it







Box 4 – Standardize



Establish successful processes as precedent, and continue to raise the standard level of success

To ensure that the result will not slide back to the previous condition

- Embed the solution into people's methods or way of working
- Be sure that the solution will remain over time, even if current stakeholders were moved/relocated

Standardization



Standardization

Problem

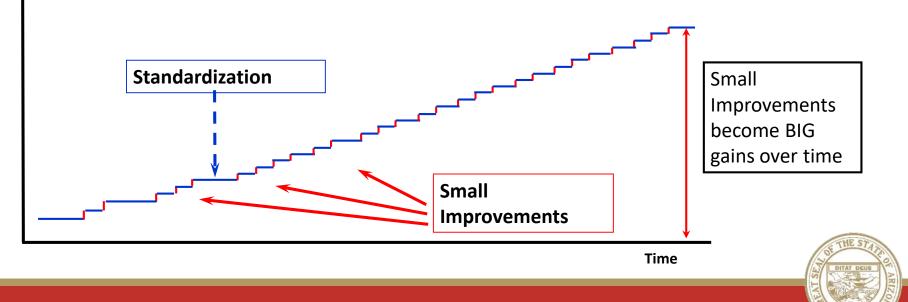
Standardization

Will make improvements consistent

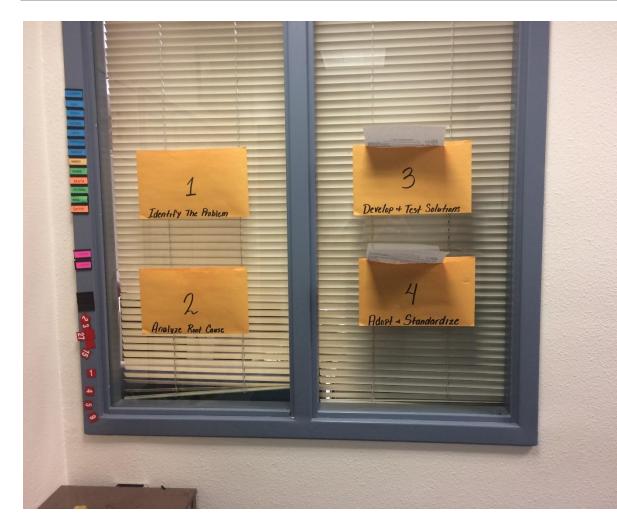
Will make results predictable

Will ensure improvements stay in place

Will allow a continuous improvement instead of a repetitive one



Remember this picture?



Basic Problem Solving

- 1. Identify the Problem
- 2. Uncover potential causes
- 3. Develop & test countermeasures
- 4. Standardize & Sustain



After Action/Reflection/Retrospective

When you've solved a problem, take a few minutes to reflect on what you learned through that process

- Could add 5 minutes to a Thursday Huddle to discuss what things the team discovered in solving problems that week
- Make a point to review the problem, how you may have changed the problem statement, how you found the root cause and how you developed solutions.
- Ask if you followed the process well or if there is something else you should have done
- This is a BRIEF reflection. Bigger problems and projects will require more focused and structured sessions.



Success Story: Motor Vehicle Department





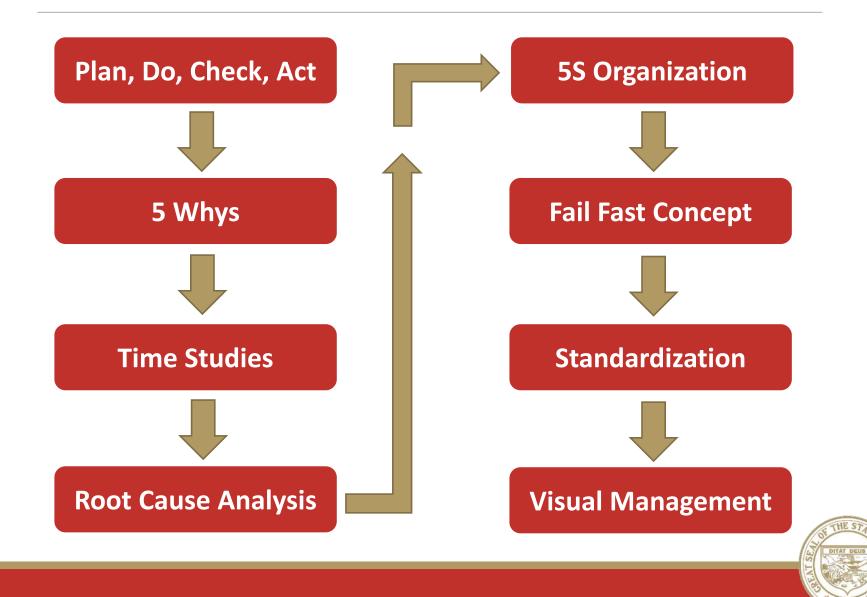
63-minute average wait time



Without data, you're just another person with an opinion.

- W. Edwards Deming











24-minute average wait time



Other Wins & Challenges



ARIZONA MANAGEMENT SYSTEM

Other Wins

- 1. Reduced backlog at DCS from over 30,000 open reports to under 6,000
- 2. Veteran hunting and fishing license permit reduction from 38 days to 7 days
- 3. Completely eliminate ROC application backlog 700 to 0
- DES Unemployment Insurance call center reduction 100 minutes to 10 seconds
- 5. DES Adult Protective Services backlog reduction by more than 60%
- 6. DEQ has reduced permit lead times from a JOP of 138 days to under 50 days (on average across the agency
- 7. State Procurement Office negotiated savings over \$37M in FY'17



Internal Mindset – "Embrace the Red"

Complexity – Is Unemployment like MVD wait times?

- Case Management, Call Centers, Investigations, Permitting
- Opioid Deaths, Recidivism Reduction are large social issues
- & more

Balancing AMS with our "real work"This thinking shows how far we still have to go

Interagency Collaboration



Questions?

Robert Woods

Administrator

Arizona Government Transformation Office

Robert.woods@azdoa.gov (602) 826-5899 <u>https://ams.az.gov/</u> <u>http://azgovernor.gov/</u>

