

22ND ANNUAL



22ND LCI CONGRESS
OCTOBER 19-23

A3 Thinking

For new roles, company-wide initiatives, and problem-solving

Felipe Engineer-Manriquez,
McCarthy Building Companies, Inc.

THE ABC'S OF LEAN: TRANSFORMATION THROUGH ACTIONS, BEST PRACTICES AND COACHING

Wednesday, October 21, 2020

Problem Statement:

People filling in boxes or checklists called A3 templates don't engaged in A3 problem-solving.



Who are we? National General Contractor



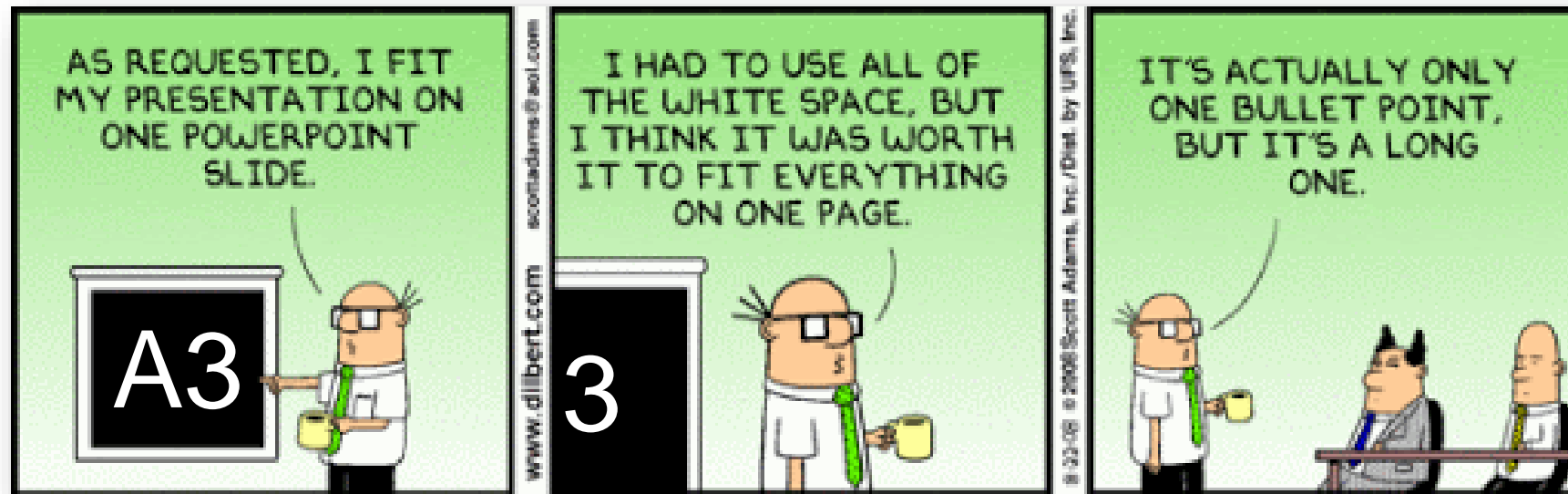
100%
EMPLOYEE OWNED

150+
YEARS OF BUILDING EXPERIENCE

1,700
FULL TIME EMPLOYEES

15
OFFICES

Are A3s more than an 11x17 sized paper reports?



Yes

A3 preparation to reap what you sow



A3 preparation to reap what you sow

Select suitable soil

- WHY DO WE NEED PROBLEM SOLVERS:
 - GROWING BUSINESS - NATURE
 - OUR BUSINESS
 - EMPOWERMENT @ A LEVEL
 - BETTER SOLUTIONS
- WHAT MAKES THINKING DIFFICULT:
 - COACH & IMPROVE - TRYED TO STOP AND THINK
 - CHANGE WAY OF THINKING
 - CONCLUSIONS RATHER THAN THINKING
 - TELLING SOLUTIONS
- COMMON FAILURES:
 - COMMUNICATION
 - CULTURE
 - COWER UP
 - RUSHING



Tend/prepare soil

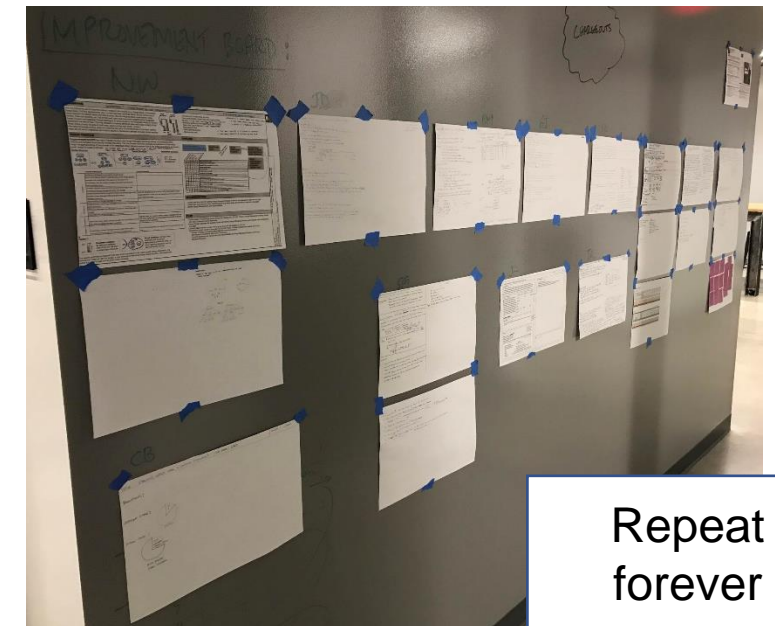
Allow conditions for growth



Encourage continued growth

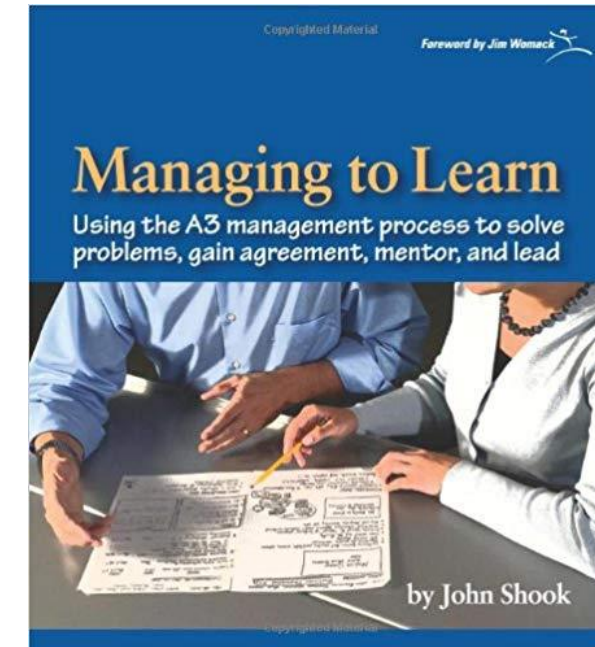
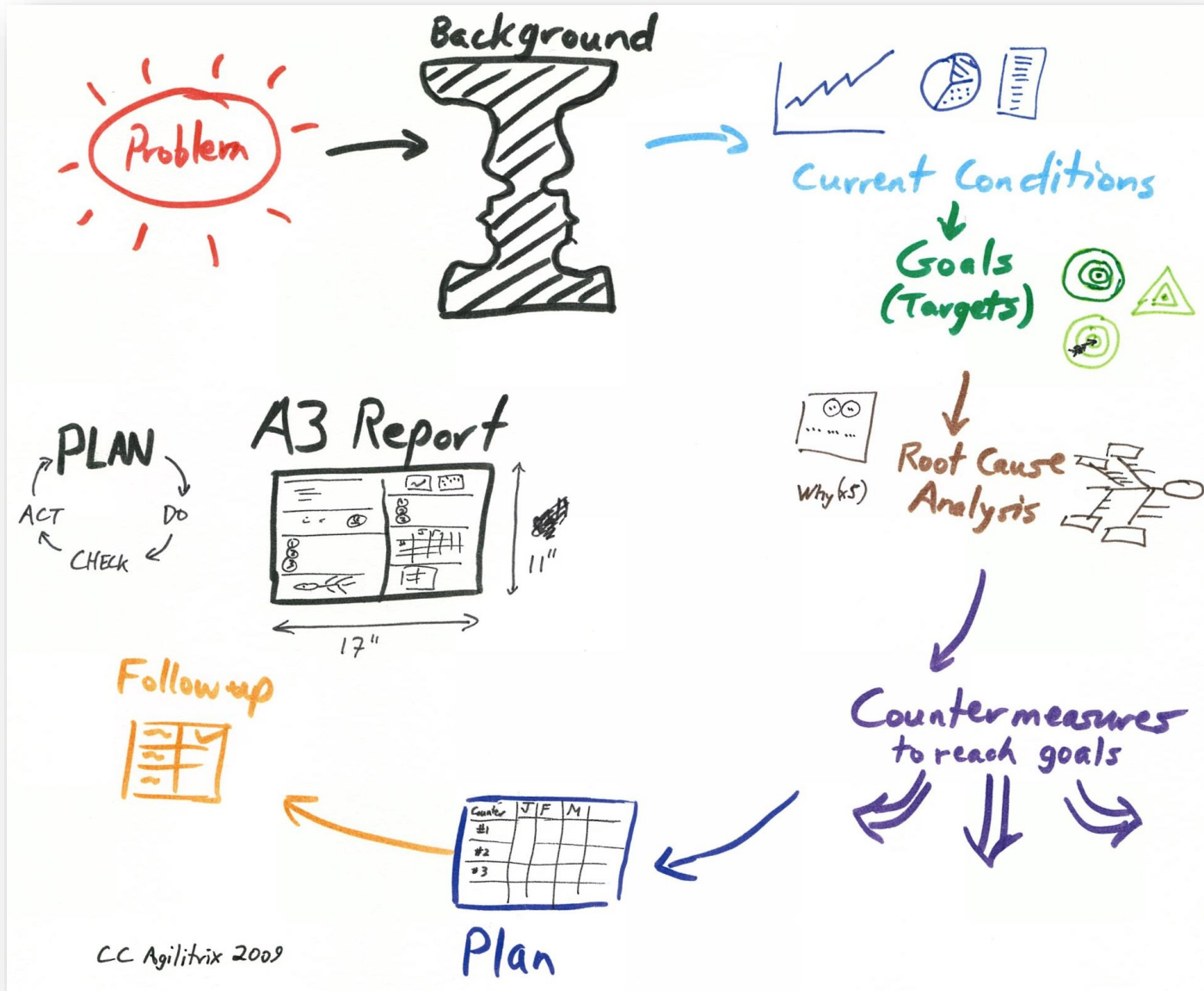


Plant more seeds

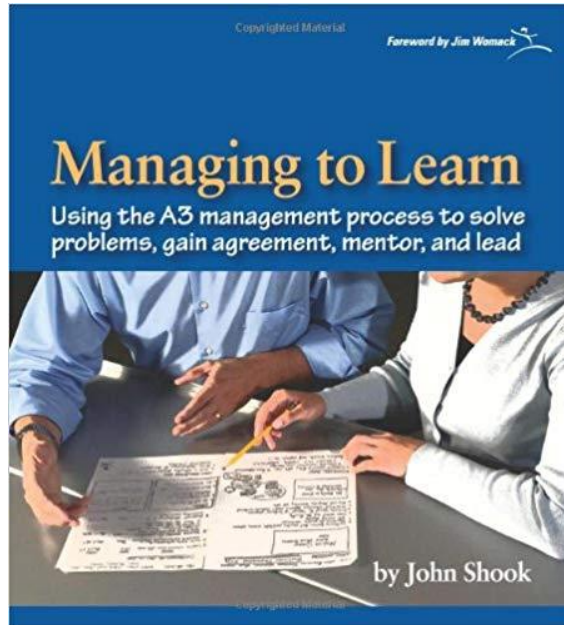


Repeat forever

Basic A3 and book recommendation



Basic A3 template and other template downloads



The Lean Enterprise Institute image compliments John Shook's book.
More Info at <https://www.lean.org/common/display/?o=1314>

Title: **What you are talking about?**

Background

Why are you talking about it?

Current Situation

Where do we stand?

→What's the problem?

Goal

Where we need to be?

What is the specific change you want to accomplish now?

Analysis

-What is the root cause(s) of the problem?

Recommendations

What is your proposed countermeasure(s)?

Plan

What activities will be required for implementation and who will be responsible for what and when?

Follow - up

How we will know if the actions have the impact needed? What remaining issues can be anticipated?

30
8/10



BACKGROUND:

- Our company requires leaders in all functions who:
 - Can deliver performance results
 - Can lead
 - Can utilize lean system concepts, tools & practices yielding improved and sustainable processes
- As an initial step, our lean steering committee sponsored the company Lean Boot Camp in 2007
 - 160 executives trained
 - Very positive feedback



Keys:
+ = positive
0 = neutral
- = negative

CURRENT STATE:

- Reflecting on 2007 boot camp & planning 2008 approach
- Reaction to boot camp in '07 was:

FUNCTION	FEEDBACK	DEMONSTRATED USE OF LEARNING
Mfg	++	+
Prod Cntl	+	0/+
Quality	0	0
HR	+	0
Program Mgmt	-	-
Purchasing	++	+
Engineering	+	0

PROBLEM STATEMENT:

Maximize our company's leadership development & lean implementation w/limited resources

ANALYSIS & RECOMMENDATIONS

OPTION	CHAMPION	MARKET SIZE	MARKET'S CURRENT LEAN MATURITY	ESTIMATE OF RECEPTIVITY	Relative IMPORTANCE TO COMPANY	RECOMMENDATION
1 Continue 2007 style	Lean steering Committee	200	+	++	+	10 sessions for 160 executives
2 Grad-school concept for former students	Lean Steering Committee	160	++	+	0	Non-boot camp issue, address need w/ one-on-one mentor
3 Program mgr focused	None	100	-	-	0	Need sponsor & basic lean understanding prior to consideration
4 Engineering Directors	Eng VPs	30	-	+	++	Link to 1 Allocate 30 spots to engineering
5 Purchasing Supplier Dev (Key suppliers)	VP Purch	300	-	++	+	Support Purchasing in development of separate bootcamp
6 Quality focused	VP's of Quality	60	-	0	+	Not to be considered separately. Quality integrated into existing boot camp

ACTION PLAN:

0 = Planned start
● = Actual start
Δ = Planned end
▲ = Actual end

Description	Responsible	October				November				December				
		1	2	3	4	1	2	3	4	1	2	3	4	
Stake holder communication	LD													
Schedule 2008 sessions	EE													
Poll grads for mentor requirements	EE													
Assign mentors	LD													
Hold kick-off mtg w/supplier development	EE/BP													
Create supplier dev. college A3	BP													

A3 STAKEHOLDERS:

EE Ethington LD Dillard OK - 10/12/07 mtg
Lean Steering Committee

Shared learning



Natural issue ownership

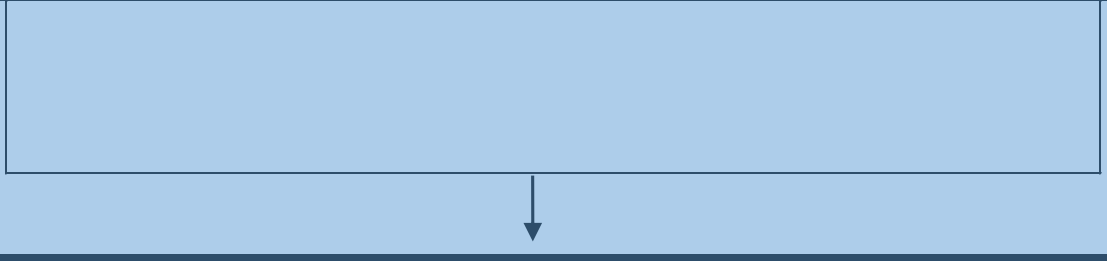


A3 Workflow and Examples



Theme

Background

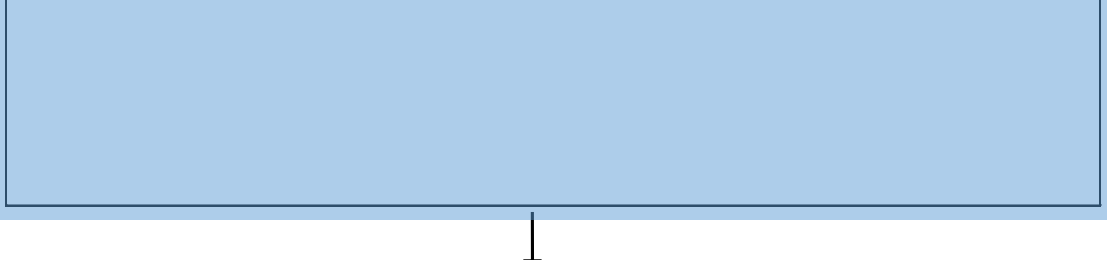


Current Condition

Grasp the Situation



Goal



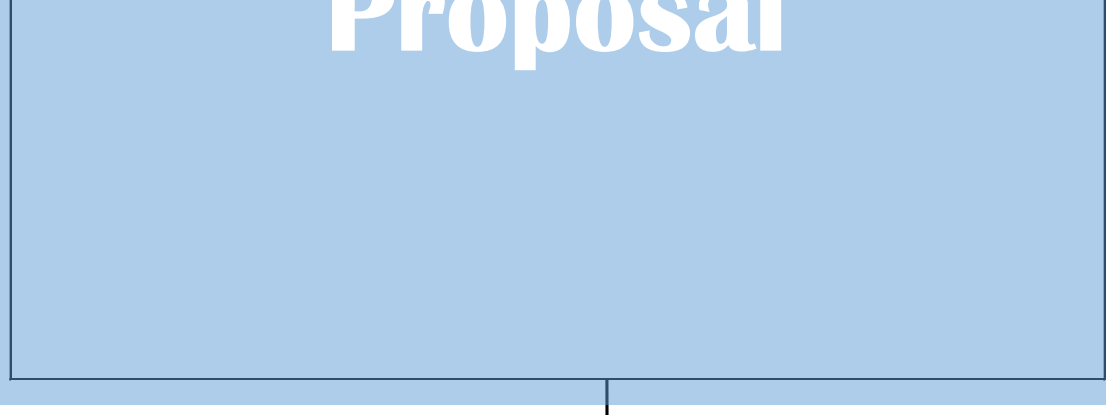
Root-cause analysis

Root Cause Analysis

Countermeasures

**Synthesis
and
Proposal**

Effect confirmation



Follow-up actions

More PDCA Cycles

Plan

***Problem Solving
A3
Report***

*Do
Check
Act*

2019 Policies and Procedures Update Team Codified A3s


19+
Project A3 Tools
from
Safety to
Recognition



Benefits:

- "Seeing" the work - visible problem-solving
- Develops more problem solvers
- Prevents project failures
- Increases alignment and agreement
- Catalogs how an issue was resolved
- Solves business problems

Set of solutions based on facts and data



A3 # MEP 003 TITLE: Mechanical (HVAC) Trade Partner

CHAMPION: Greg I. **CoCHAMPS:** John C., Brian, A. Kristin E.

DATE: 8-24-2020

APPROVED BY: Anytown Hospital Owner

Owner Values: Innovation World Class Quality Sustainability

Vision Statement: Position our hospital as the innovative leader for world class, sustainable, healthcare for every patient and family in our community.

BACKGROUND:
New Bed Tower project is seeking MEP design/build Trade Partners to perform the Tower Phase 1 scope of work. RFP is for best value selection with fee, GC and labor rates.

CURRENT CONDITION:
Selection Process is as follows:

8/3 Send
out Invites

8/5 Confirm
Intent to Bid

8/19 Pre-
bid

8/28 Last
clarifications


9/2 RFP
response
due

week of
9/14
Interview

RFP package includes but not limited to 1.) RFP narrative, 2.) D/B scope of work, 3.) Bed Tower program, 4.) Milestone schedule, 5.) Program drawings, 6.) RLWP, 7.) Bid form, 8.) Draft BIM plan, etc.

Problem Statement - Identify a design / build partner who can assist enhance the existing preconstruction & design team deliver the vision and values important to our Owner.

GOAL / TARGET CONDITION:



McCarthy, Elect.
HVAC FP, Plumbing

Overall Procurement Goal: Establish a high performing and collaborative team from early design to construction to optimize delivery of the Owner's values in the highest quality, most cost effective, and most efficient manner.

ANALYSIS:

FACTORS / (Criteria)	HVAC Partners	Duct Above	Mech Industries
01 Experience – Construction	-	(4) more relevant Const. proj	(3) more relevant Const proj
02 Experience – Design Staff	-	2 more rel OSHPD design exp	-
03 Safety Record	-	0.22 lower EMR 2015	0.25 lower EMR 2015
04 Relationship – OSHPD Personnel	More local AHJ connection	-	-
05 Experience – Design/Build	-	5 more DB/OSHPD/high rise	-
06 Design Resource	In-house MEOR / Design capabilities	More In-house Design cap.	-
07 Experience – Owner's Campus	26 more years	-	-
08 Experience – Master Plan	-	(5) Complex MP Campuses	2 more MP campus exp
09 Self Perform Work - Field	-	33% more SPW	33% more SPW
10 Shop Fabrication	✓	✓	✓
11 Experience – Precon Staff	✓	✓	✓
12 Experience – Construction Staff	-	At least (5) more rel. staff exp	At least (5) more rel. staff exp
13 Staff Exp – Lean & IPD	-	5 more IPD projects	-
14 Lean/IPD - Culture and Desire	More eager to learn IPD	eager to learn about IPD	-
15 Schedule - Approach	✓	✓	✓
16 Sched Management – Other Trades	Slightly better teaming approach with other trades	Slightly better teaming approach with other trades	-
17 Manpower	More Manpower flexibility	-	-
18 Sched Mngt – Contingency Plan	✓	✓	✓
19 LPS – 5 principles	-	5 more projects using LPS	✓

20 BIM - Resource	-	More in-house detailers	More in-house detailers
21 BIM – Technology Resource	✓	✓	✓
22 BIM – IPD Projects	-	1 more BIM project using IPD	7 more BIM project using IPD
23 BIM - Leadership	✓	✓	✓
24 Claim / Lien History	✓	✓	✓
25 Commissioning – Role & Experience	✓	✓	✓
26 Commissioning – IPD Projects	✓	✓	✓
27 Management – Cost & Estimate	-	More proven reliability in estimating and target costing	Reliable in estimating and target costing
28 Innovation in Design	-	More experience with innovation during design	-
29 Target Value Design	-	More proven TVD experience	Some experience in TVD
30 Collaboration Approach	-	(5) more collaborative IPD proj	-
31 Problem Solving Approach	-	Creative in solving problem	-
32 Efficient Transfer of Knowledge	✓	✓	✓
33 Quality Plan Approach	✓	✓	✓
34 Precon Resource Loaded Work Plan	-	Better understanding and resources for Precon	Good understanding and resources for Precon
35 Workload - Backlog	30 months less overlap	-	40 months lesser overlap
36 Minimize waste in any form	Focus on application of lean	Focus on application of lean	-
37 Experience – Co-Location	-	1 more co-located exp	1 more co-located exp
Importance Of Advantages:	557	1,122	540

RECOMMENDATION / PROPOSAL:

Final recommendation to the Board will be drafted by Owner

IMPLEMENTATION PLAN:

- Approval to award from Owner facilities & construction management – October 2020
- Approval to award from Owner's Board – TBD
- Notice of award to subcontractor – TBD

FOLLOW-UP PLAN:

- Review and finalize labor rates, direct and indirect cost
- Bonding
- Payment retention program

Analysis:

- 3 HVAC Trade Partner Options
- Factors and Criteria present facts/data
- Team synthesizes information with input from owner
- Client presents set of solutions to stakeholders for rapid decision making
- Next steps are clear and A3 gets updated to record learnings and choices

Dynamic Discounting / Improve Our AP Process on all jobsites

Background: McCarthy has about 100 plus projects spread over the continental U.S. each buying from local, regional, and national vendors. Our bank has provided industry metrics on typical process timing for invoice payments by credit or check.



+100 McC Projects ← +800 Vendors Nationwide serving our jobs

Corporate accounting has absorbed California accounting operations as of June 2017 putting about 40% more volume on an existing team.

Current Conditions: Vendor payment processing requires subsite resources including project admins, project managers, email, COR360, Oracle, MS Excel, corporate accounting, BOX, NAS, and McCarthy's bank. New vendors currently take between 1 to 21 days to get to payment process. Payment process takes between 2 to 30 days. It typically takes 15-20 days to pay new vendors. See process maps below that show each payment type and process.

Problem: There is too much variation on this process that is

1. Paying some vendors beyond agreed payment terms [damaging relations]
2. Causing McCarthy to miss out on discounting potential
3. Creating unreasonable work for our people causing inconsistency in the outcomes



- Goals:
1. Process new vendor setups in less than 24 hours (3 days)
 2. Improve process to enhance McCarthy's revenue (Net 60 days)

Analysis: Even 3rd Party solutions require McCarthy to process invoices in less than 10 days such as APEX that can provide a vendor portal website, onboarding vendors, dynamic discounting, visual payment processing and address and w-9 error checking.

Insert Corporate Accounting data on issues and frequency for additional process steps (OVER processing) here

Questions from PA Advisors (Comments applicable to each division)

1. McCarthy Admins fill out Vendor (Supplier) Request Form but who is responsible for special designations? These may be needed for MCC reporting or can help with negotiations.

2. PM approval (secondary approval) is a major bottleneck in this process often taking days to over 2 weeks. Do vendor updates need to go through entire process, it seem really redundant for vendors in our systems?

3. Printing forms, signing, and scanning cause a lot of work and imp

4. Oracle PA's

5. COR Vendors

6. As why

7. Sum why che

8. Why imp

9. Why is searching for vendor names so difficult? Is it due to similarly named firms, uncorrected typos, etc?
10. What is the right process to see if vendor is active in Oracle and which remit address is correct?
11. Exceptions process is unknown & from field's perspective is referred to as the COR black hole. What can be done to process to dramatically reduce exceptions processing?
12. Many suppliers continue to submit mailed invoices, what can be done to get electronic submissions?



Merrick PA Advisor - Alison Blake Bonnie Hinger Money, Theresa Cribari, and Tracy

VA 9/6/17 A3 Felipe E.M. Treasury - Dan D V1 8-8-17 Robyn Feezel

Safety A3

Root cause clearly understood

Recommendations agreed upon

OHH SUPER WEST EXPANSION - HEAT STRESS PREVENTION PLAN

OSHA - NIOSH Heat Safety Tool

Use the camera on your phone to scan the QR code for the OSHA Heat Safety Tool!

- This app will keep you updated on the current and future heat index values for you specific location.
- It also includes:
 - Precautions recommended to prevent heat illness!
 - Signs and symptoms of heat related illnesses!
 - First aid measures!

95 - 100 Heat Index

- Shaded Break Areas with Mechanical Ventilation
- Mandatory 5 minute water-break every hour
- Workers required to drink minimum of 12 oz. of cool water or other non-caffeinated beverage during each break.

100 - 105 Heat Index

- Shaded break areas with mechanical ventilation
- Continuous monitoring of work area by McCarthy field staff members.
- Rotate workers performing strenuous activities in the direct sun every 30 minutes to non strenuous activities or to shaded ventilated work locations.
- Rotate workers performing welding/torch activities every 15 minutes.
- Mandatory 5 minute break every 30 minute.
- Workers required to drink minimum of 12 oz. of cool water or other non caffeinated beverage during each break.

Heat Index Above 105

SUSPEND ALL NON-EMERGENCY RELATED WORK ACTIVITIES

- If other activities are required to be performed, the Project Manager Must Obtain Authorization from Divisional Safety Director.

HEAT EXHAUSTION OR HEAT STROKE

- Get to a cooler, air conditioned place
- Drink water if fully conscious
- Take a cool shower or use cold compresses

CALL 9-1-1

Take immediate action to cool the person until help arrives

OSHA QUICK CARD

Protect Yourself Heat Stress

When the body is unable to cool itself by sweating, several heat-induced illnesses such as heat stress or heat exhaustion and the more severe heat stroke can occur, and can result in death.

Factors Leading to Heat Stress
High temperature and humidity; direct sun or heat; limited air movement; physical exertion; poor physical condition; some medicines; and inadequate tolerance for hot workplaces.

Symptoms of Heat Exhaustion

- Headaches, dizziness, lightheadedness or fainting.
- Weakness and moist skin.
- Mood changes such as irritability or confusion.
- Upset stomach or vomiting.

Symptoms of Heat Stroke

- Dry, hot skin with no sweating.
- Mental confusion or losing consciousness.
- Seizures or convulsions.

Preventing Heat Stress

- Know signs/symptoms of heat-related illnesses; monitor yourself and coworkers.
- Block out direct sun or other heat sources.
- Use cooling fans/air-conditioning; rest regularly.
- Drink lots of water; about 1 cup every 15 minutes.
- Wear lightweight, light colored, loose-fitting clothes.
- Avoid alcohol, caffeinated drinks, or heavy meals.

What to Do for Heat-Related Illness

- Call 911 (or local emergency number) at once.

While waiting for help to arrive:

- Move the worker to a cool, shaded area.
- Loosen or remove heavy clothing.
- Provide cool drinking water.
- Fan and mist the person with water.

For more complete information:
OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

OSHA DATOS RÁPIDOS

Protéjase del Estrés por calor

Cuando el cuerpo no puede bajar su temperatura mediante el sudor, pueden ocurrir varias enfermedades debido al calor, tales como estrés o agotamiento por calor e insulación o golpe de calor, las cuales pueden resultar en la muerte.

Factores que llevan al estrés por calor
Alta temperatura y humedad, calor o sol directo, movimiento limitado de aire, esfuerzo físico, pobre condición física, algunas medicinas y tolerancia inadecuada para lugares de trabajo calurosos.

Síntomas de agotamiento por calor

- Dolores de cabeza, mareos, vertigo o desmayo.
- Debilidad y piel húmeda.
- Cambios de humor como irritabilidad o confusión.
- Náuseas o vómitos.

Síntomas de insulación

- Piel seca y caliente sin sudor.
- Confusión mental o pérdida de conocimiento.
- Convulsiones o ataques.

Evita el estrés por calor

- Conozca las señales y los síntomas de las enfermedades relacionadas al calor; observe a sí mismo y a sus colegas.
- Bloquee el sol directo u otras fuentes de calor.
- Utilice ventiladores (abánicos) o aire acondicionado; descanse con regularidad.
- Beba mucha agua, como 1 taza cada 15 minutos.
- Vístase con ropa ligera, de colores claros y no ajustada.
- Evite el alcohol, bebidas con cafeína o comidas pesadas.

Qué hacer en caso de enfermedades relacionadas al calor

- Llame al 911 (o otro número local para emergencias) inmediatamente.

Mientras espera por ayuda:

- Mueva a la persona a un lugar fresco y sombreado.
- Suéltale o quítale la ropa pesada.
- Dile que beba agua fresca para beber.
- Abanque y rocíe con agua a la persona.

Para información más completa:
OSHA Administración de Seguridad y Salud Ocupacional
Departamento del Trabajo de EE.UU.
www.osha.gov (800) 321-OSHA

Am I hydrated? Urine Colour Chart

Use this simple urine colour chart to assess if you are drinking enough fluids throughout the day to stay hydrated. Match the colour of your urine sample to a colour on the chart.

1			
2		1 to 3 = Hydrated This is ideal	
3			
4			
5		4 to 6 = Mildly dehydrated Start to increase your fluids	
6			
7		7 or 8 = Dehydrated Drink more fluid	
8			

Note: Use of a urine colour chart is suggested for people with adequate renal function and not by people who wear incontinence pads.
Best results are obtained when the average urine colour baseline is calculated over several days.
The colours you see on this chart should only be used as a guide.
Reference: Armstrong, L.E., Soto, J.A., Hickey, F.T., Casca, D.J., Kanousis, S.A., Marsh, C.M. (1996). "Urine indices during dehydration, exercise, and rehydration." Int. J. Sport Nutr. 6: 345-355.

Urine that is plentiful, odourless and pale in colour (pale straw) generally indicates that a person is well hydrated.
Dark, strong-smelling urine, like the colour of apple juice, in small amounts could be a sign of dehydration.
Certain foods, medications and vitamin supplements may cause the colour of urine to change even though you are hydrated.

Temperature (°F)	
Relative Humidity (%)	80 82 84 86 88 90 92 94 96 98 100 102 104 106 108 110
40	80 81 83 85 88 91 94 97 101 105 109 114 119 124 130 136
45	80 82 84 87 89 93 96 100 104 109 114 119 124 130 137
50	81 83 85 88 91 95 99 103 108 113 118 124 131 137
55	81 84 86 89 93 97 101 106 112 117 124 130 137
60	82 84 88 91 95 100 105 110 116 123 129 137
65	82 85 89 93 98 103 108 114 121 128 136
70	83 86 90 95 100 105 112 119 126 134
75	84 88 92 97 103 109 116 124 132
80	84 89 94 100 106 113 121 129
85	85 90 96 102 110 117 126 135
90	86 91 98 105 113 122 131
95	86 93 100 108 117 127
100	87 95 103 112 121 132

PLANNING

COMMUNICATION

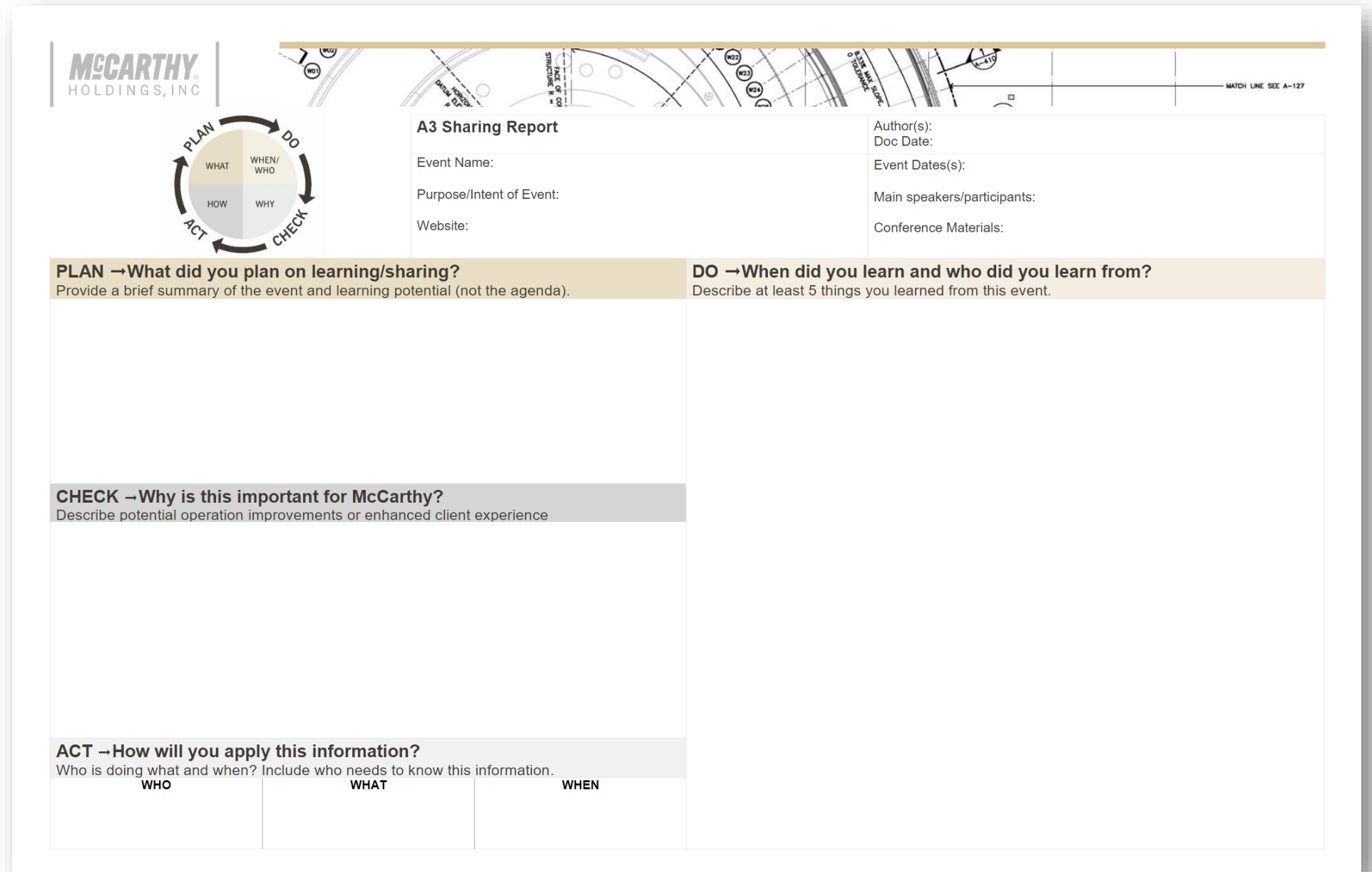
ENGAGEMENT

A3 Example for Shared Event Learning

“By failing to prepare, you are preparing to fail.”
 Benjamin Franklin

Share training, events, key meetings, and other knowledge exchanges.

It is meant to be printed out and filled in by hand.



MCCARTHY HOLDINGS, INC.

A3 Sharing Report

Event Name: _____

Purpose/Intent of Event: _____

Website: _____

Author(s): _____

Doc Date: _____

Event Dates(s): _____

Main speakers/participants: _____

Conference Materials: _____

PLAN →What did you plan on learning/sharing?
 Provide a brief summary of the event and learning potential (not the agenda).

DO →When did you learn and who did you learn from?
 Describe at least 5 things you learned from this event.

CHECK →Why is this important for McCarthy?
 Describe potential operation improvements or enhanced client experience

ACT →How will you apply this information?
 Who is doing what and when? Include who needs to know this information.

WHO	WHAT	WHEN

A3 to evaluate LPS Software

30+ Collaborators

5 Regional Offices

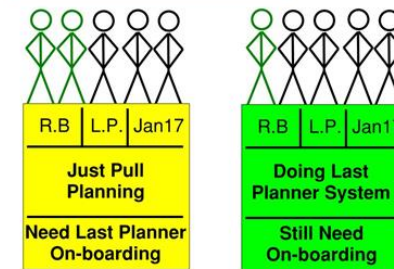
5+ Software LPS® Tools Evaluated

A3 led to development of McCarthy's LPS® A3 Facilitation Guide

Title: Support teams that want to use eLPS® Tools for production planning

Background: Teams implementing LPS® are looking for a tool that supports the LPS® process. Many options exist from sticky notes and makers to cloud based applications. Much variance in price and complexity to implement are causing a burden for project teams and support partners.

Current Conditions:



Training is currently done by third party consultants or by superintendent to superintendent. There is measurable variation in the implementation and people's attitudes towards LPS®. Another A3 is required to address training problem.

Problem: Project teams need a tool or process to support their LPS® process but every project has unique needs.

Goals/Target: Support projects that are using LPS® with an informed, visual, and accurate analysis for their unique selection of a process or tool for their specific needs.

1. Provide alternative options
2. Improve LPS® implementation and bridge experience gaps

Analysis: Choosing by Advantages



- CBA Steps**
1. Identify alternatives
 2. Define factors
 3. Define "must-haves"
 4. Describe attributes
 5. Decide on advantages
 6. Decide importance of each
 7. Evaluate cost (select alternative)

Source: The Choosing By Advantages Decisionmaking System by Jim Suhr

CBA Definitions
Factor - element or component of a decision, a container for criteria, attributes, advantages, or other data
Criterion - decision rule (guideline)

Attribute - a characteristic, not good/bad except in comparison with another attribute (feature)
Advantage - favorable difference between the attributes of two alternatives (difference)

A3#	Date	Champion	Participants
2	5/9/17	F.E-M.	+30 Partners from 5 Offices

	Oracle	Touchplan	Vernox	vPlanner	AutoDesk
CBA Factors (26 reduced to 11)					
AH. Reporting flexibility -more options are better	Very limited, few reports available	Yes	Customizable + can be created	Customizable + can be created	Yes
G. Emphasize critical activities -easier to ID critical tasks is better	Planned but not yet ready	Milestone & tag dates via colors in plan spaces	Yes, float in plan view via colors	Yes as calculated	Milestones show project dates
F. Efficiently respond to changes in the plan -less time to update is better	Planned but not yet ready, only manual moves	Manually update like sticky notes	Logic tree table update tasks Admins only	Auto data calc + logic passes	Bulk updates in Calendar view only
AJ. Physical involvement by Last Planners -improve Last Planner ownership	Mobile or Web for Admin Role Only	Intuitive interface. Mirrors sticky experience	Admins set resp. LPS can enter / commit	Foremen use physical tags, only Admins input	Mixed feedback from pilot teams
W. Track change history -options ok, visual tracking is better	Report only, not yet used	History tracked per tag + Support Facility	Database w/ custom reports	Database w/ custom reports	History in activities
AA. Efficient activity creation -faster is better	Not observed during demo	Template canvases or groupings options	Yes in tags + uploads Excel	20 min. to an hour	Bulk edits and imports via Excel
V. Must have user access -more LPs editing in parallel is better	Limited by cost	Cloud w/ Multiple users editing in parallel	Yes	Cloud w/ Multiple Admins edit in parallel	yes but w/ glitches
AE. Compatible w/scheduling software	Yes	Imports Excel. No PG planned. Can read PG via Excel	Yes, in and out	Imports Excel. No PG planned. Can read PG via Excel	Imports Excel. Can read PG via Excel
M. Visual filter representation of tasks -more views, like stickies is better	8 colors now, 16 planned for next release	Pull board stickies w/ Split screen. Gantt chart and tag views	Colors and swim lanes	Colors, swim lanes, and user defined views	Colors, swim lanes, and user defined views
AH. Implementation/setup -less time to setup is better	Not observed during demo	Simple to create new project, little training time	Simple, little training	Simple, little training	Simple, training is req'd
AI. Implementation resources	Not observed during demo	Very little time required to setup	Very, very little time required to setup	Needs many people	Few coaching meetings needed
Total Importance:					
Total Cost	\$	\$	\$	\$	\$

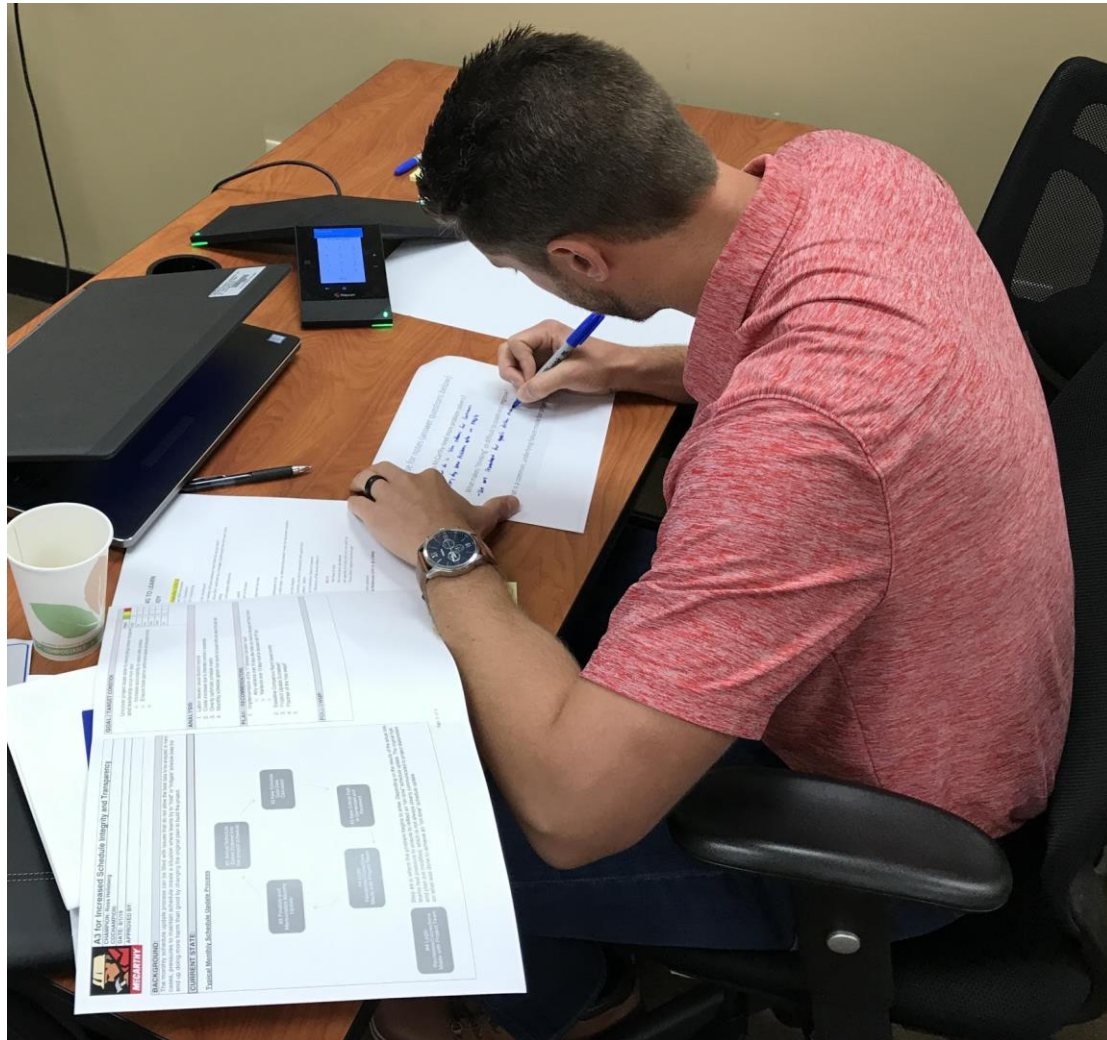
Recommendations: As eTool requests arrive from new teams, engage in a detailed discussion with team stakeholders. Seek to mutually understand the CBA and differences among the evaluated eTool options as well as planned LPS® implementation.

Follow-up Plan: Team will route new requests to Felipe. He will be the first resource for requesting teams and assisting with on-boarding.



LCI Congress 2017

Are A3s a tool or method?



Problem-Solving A3 | Much more than a one-page report prepared on a single 11 x 17 sheet of paper, A3's a process. The process adheres to the discipline of PDCA thinking as applied to collaborative problem solving, strategy development or reporting.

Think of the A3 as less of a tool and more of a thinking/acting process.

Keys to writing the “right” title



Titles should...

- Reflect the overall story
- Help the reader quickly discern the **WHAT**
- Use the theme to help store/file the document
- Be objective and focus on the observed problem, not a solution statement

Do

- Ask questions, use the PDCA process
- Practice patience with self and others
- Start on a whiteboard or with pencil and paper (preferred)
- Engage with others, go and see the current state firsthand

Don't

- Fill out a template alone, skip PDCA process steps
- Rush the process or assume others can follow a template
- Try to use fancy software right away
- Assume you understand based on secondhand info

Problems are great to have

Select suitable soil

WHY DO WE NEED PROBLEM SOLVERS:

- GROWING BUSINESS - NATURE
- OUR BUSINESS
- EMPOWERMENT @ A LEVEL
- BETTER SOLUTIONS

WHAT MAKES THINKING DIFFICULT:

- COACH & IMPROVE - TRYED TO STOP AND THINK
- CHANGE WAY OF THINKING
- CONCLUSIONS RATHER THAN THINKING
- TELLING SOLUTIONS

COMMON FAILURES:

- COMMUNICATION
- CULTURE
- COVER UP
- RUSHING



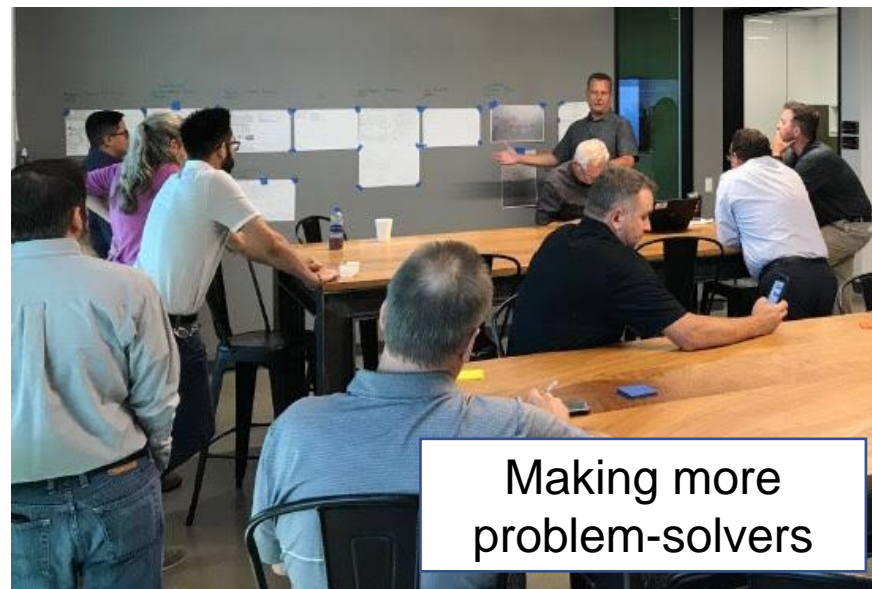
Tend/prepare soil

A3 Project Planning

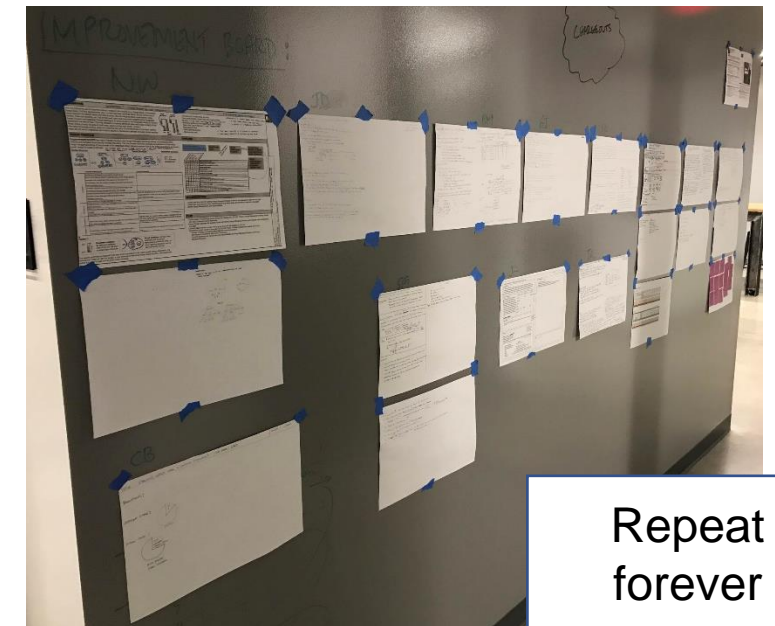
A3 New Role



A3 co-author on Lean team leader role



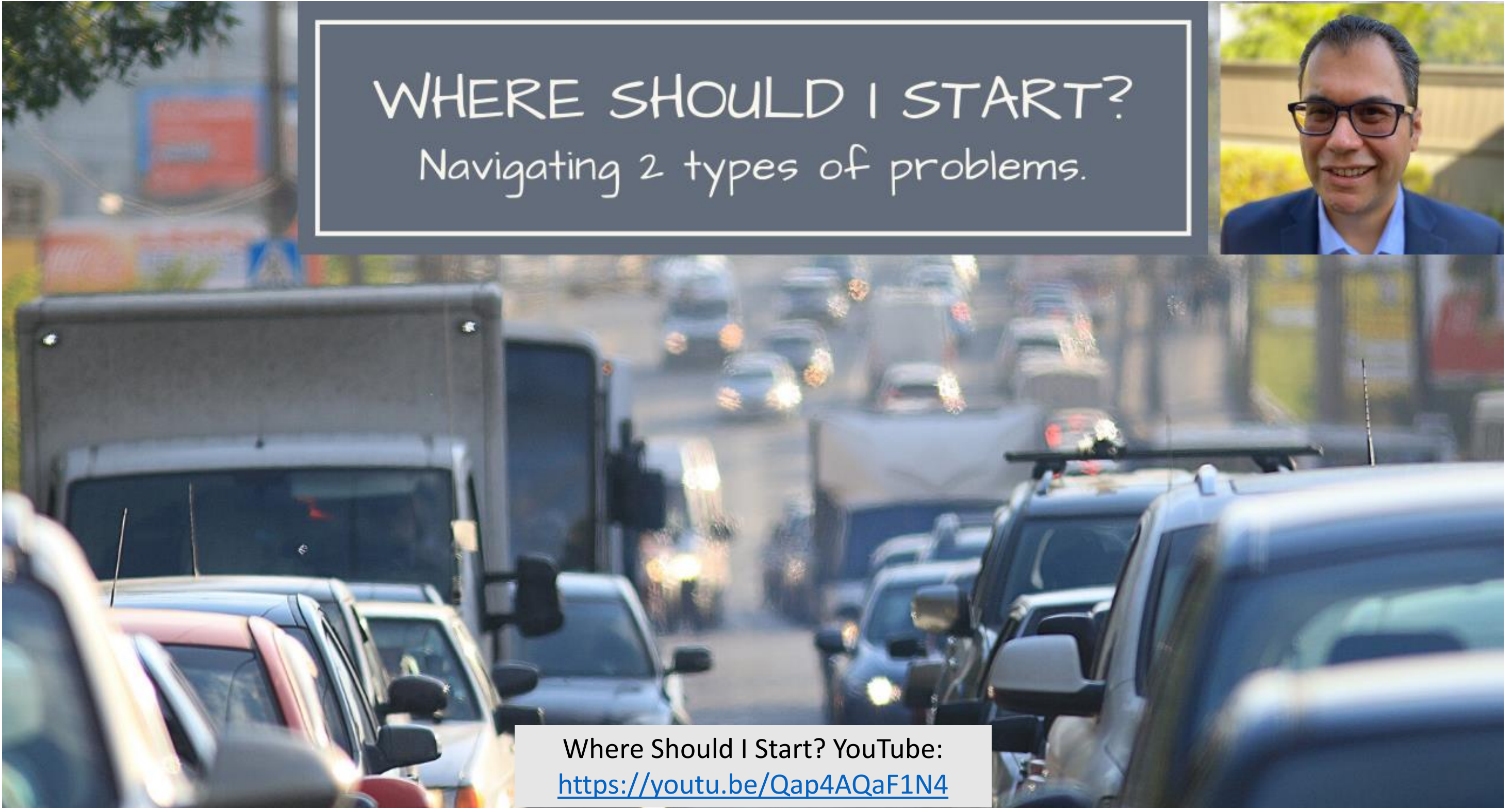
Making more problem-solvers



Repeat forever

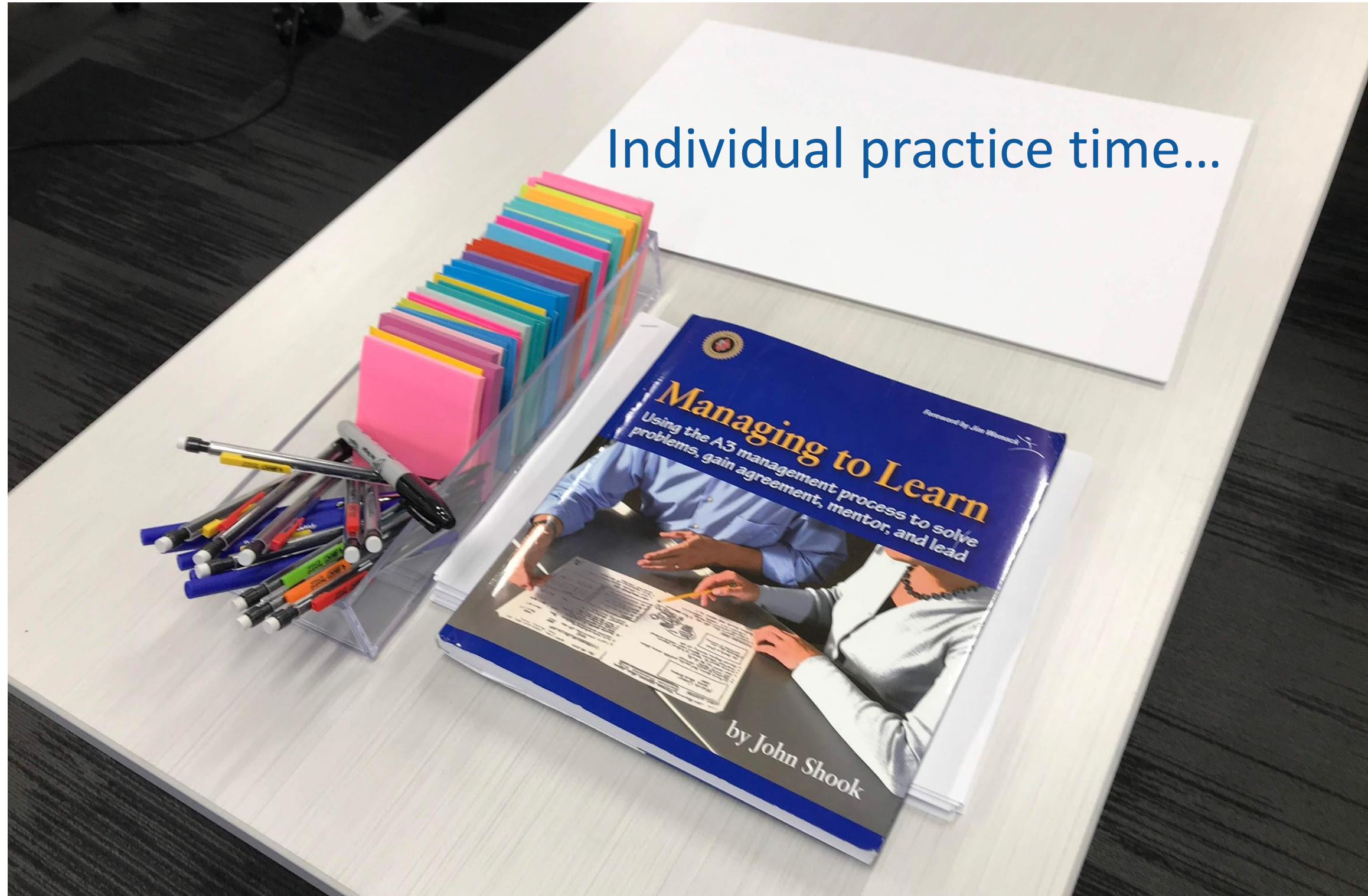
WHERE SHOULD I START?

Navigating 2 types of problems.



Where Should I Start? YouTube:
<https://youtu.be/Qap4AQaF1N4>

Individual practice time...



How can I apply this tomorrow?



Start with a problem you own.

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Questions?





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In the spirit of continuous improvement, we would like to remind you to complete this session's survey in the Congress portal. We look forward to receiving your feedback. Highest rated presenters will be recognized.



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Thank you for attending this presentation. Enjoy the rest of the 22nd Annual LCI Congress!