Improving Lean Through Communities of Practice



Tuesday, October 18, 2016
Gary Vansuch





Helps answer this question

How do we grow a culture of engagement and improvement?





What was advertised for today: long version





Communities of Practice (CoPs) are formed by people who engage in a process of collective learning in a shared domain of human endeavor: a tribe learning to survive, a band of artists seeking new forms of expression, a group of engineers working on similar problems --- and, Lean practitioners in the same industry, facing the same set of issues and problems. That is exactly what the Transportation Lean Forum is: Lean practitioners in government transportation agencies, supporting each other!

This presentation would cover:

- 1. The origins of the Transportation Lean Forum;
- 2. The Forum's membership;
- 3. How the Forum operates;
- 4. Successes from the Forum; and
- 5. Future plans for the Forum

Additionally, the session will provide participants with tips and guidance regarding formation of similar Communities of Practice.

What was advertised for today: short version

Lean is cool



And, it can be hard!

Do you ever wonder if there are others out there, trying to do the same thing?

And, if so, how can Communities of Practice help? What are the first steps?

My expectations

Cell phones on stun

Focus

Active involvement



The only really dumb question is the one you don't ask

3 sheets in the back – take one of each

| Improving Lean Through Communities of Practice Tuesday, October 18, 2016 | | |
|--|--|--------------------------|
| My learning objective(s): | | |
| In support of this (these) organi | zational goal(s) : | |
| My Key Takeaways and My Action Items | What I am going to do with this, and by When | People I need to involve |
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| | Plan-Do-Check-Adjust method for improvement Name of Improvement Project: |
|--|---|
| | 1 PLAN What do you want / need to improve, and why. How much "impact" do we need to get (how much improvement) - including a clear, measureable target (gaal) that quantifies that desired impact. Who is in charge of making this improvement happen, and who is helping. |
| | 2 DO Implement a) "quick hits" and b) other items that require additional analysis and/or testing — using good project management practices. QUICK HITS ("Just Do It's") Test Person Responsible Start Date Desiline Dependencies and other notes Task 1: [exc] [exc] |
| | TEMS REQUIRING ADDITIONAL ANALYSIS AND / OR TESTING Test Person Responsible Start Date Desilline Dependencies and other notes Task 1: Task 2* |
| | (etc) 3 and 4 CHECK and ADJUST Did we do what we planned to do (from step 2 above)? a. If No: why not, and what do we need to do about that? Adjust your plan as needed, and continue |
| | to implement. b. If YES: did we actually get the impact (the improvement) we wanted / needed? - If NO: why not, and what do we need to do about that? Adjust your plan as needed, and continue to implement. - If YES: Celebratel Then, move onto your next improvement. |



Improving Lean Through Communities of Practice

| My learning objective(s): | Tuesday, October 18, 2016 |
|---|---------------------------|
| In support of this (these) organizational goal(s) : | |
| | |

| My Key Takeaways and My Action Items | What <u>I</u> am going to do with this, and by When | People I need to involve |
|---|---|--------------------------|
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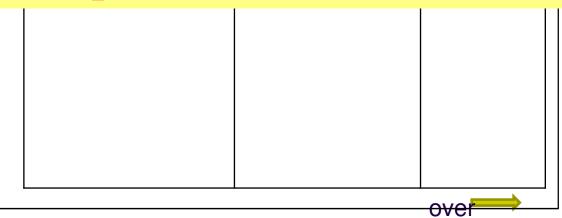
| Improvir | ng Lean Through Comr Practice | munities of |
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| | Tuesda | ay, October 18, 2016 |
| My learning objective(s): | | |
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| In support of this (these) or | ganizational goal(s): | |
| In support of this (these) or | ganizational goal(s): | |
| In support of this (these) or | ganizational goal(s) : | |
| My Key Takeaways and | d What Lam going to do | People I need to |
| | | People I need to involve |
| My Key Takeaways and | d What Lam going to do | • |

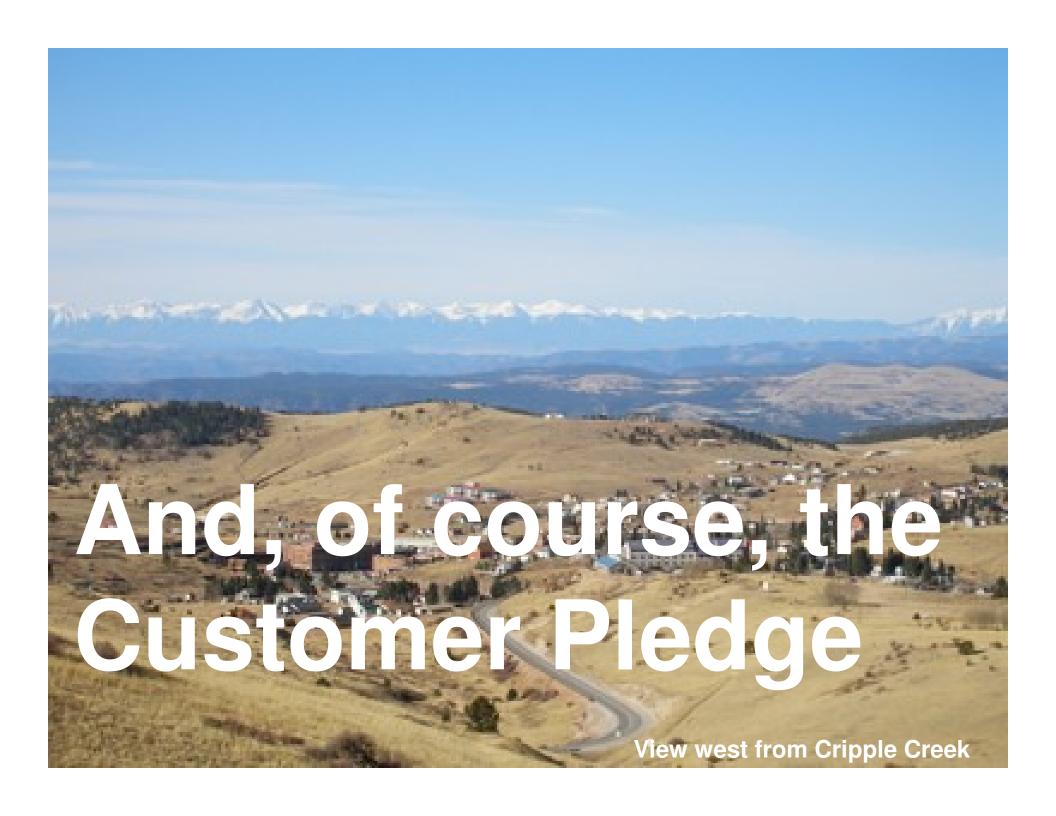
I hope you will have several takeaways today

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| Improving | Lean Through Comr Practice | munities of |
|----------------------------------|-------------------------------|----------------------|
| My learning objective(s): | | ay, October 18, 2016 |
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| My Key Takeaways and | What I am going to do | People I need to |
| My Action Items | with this, and by When | involve |
| | | |

What are your expectations?



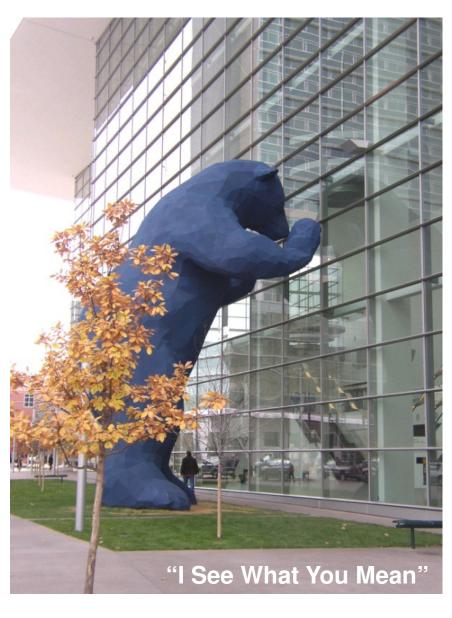


Thank goodness for good competition!

- Exhibit Hall B: Lean Culture at Dept. of Enterprise Services
- Ballroom A: A Model for Change: Harnessing the Speed of Thought (HST)
- Ballroom BC: Simulation: You Can Learn A Lot By Doing the Work
- Room 315/316: Lean is part of the change management equation

- Room 317: Coaching Leaders to Create a Culture of Engagement and Improvement
- Room 318: Mapping Your Continuous Improvement Journey
- Room 407: Leading Lean for Success: How to Drive Out Fear

What's inside



- A little bit about CDOT
- A little bit about one Community of Practice: the Transportation Lean Forum
- Some tools and tips
- Recommendations on what you could and should do regarding Communities of Practice

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WHAT is CDOT



WHAT is CDOT

Maintain and Keep Transportation Safe

- •23,000 lane-miles of Interstate and State highway system
- •3,400 bridges
- •routine maintenance
- bridge repair and resurfacing
- snow removal
- safety improvements
- •FLOOD RESPONSE!

Get More Out of the System

- traveler information
- ramp metering
- signal synchronization
- •express toll lanes on I-25

Distribute Funding to Local Governments

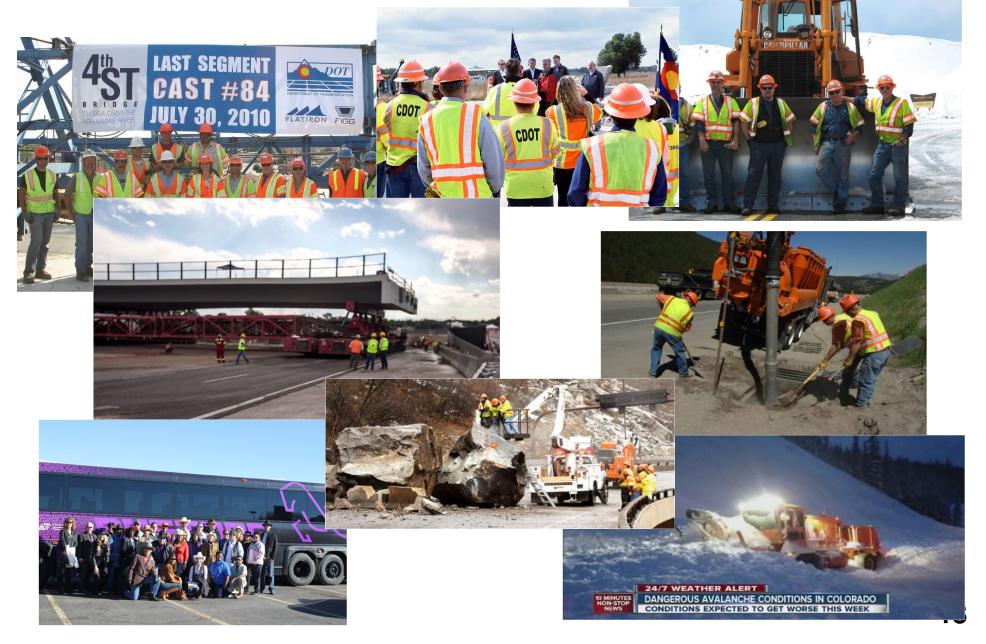
- aviation
- •federal funds to Metropolitan Planning Organizations
- •grants to local governments
- •transit







WHO is CDOT

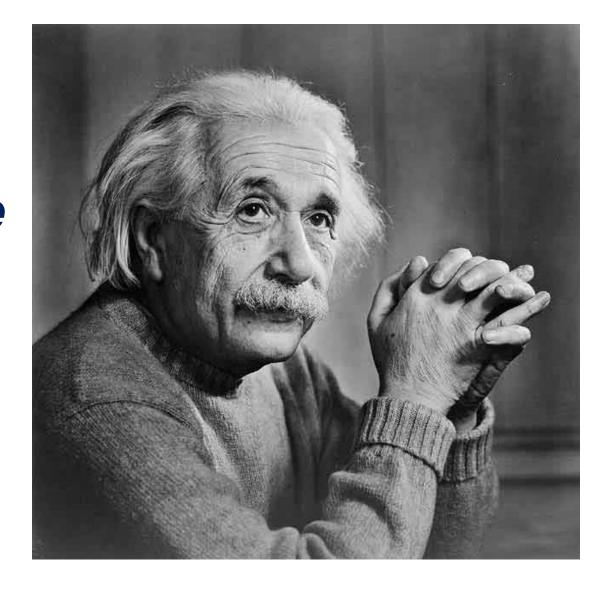


What's inside



- A little bit about CDOT
- A little bit about one Community of Practice: the Transportation Lean Forum
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"The significant problems we face cannot be solved at the same level of thinking we were at when we created them."



- Dr. Albert Einstein

One way to help us change our thinking: Communities of Practice



Communities of Practice

Communities of practice are groups of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly.



Communities of Practice

- A community of practice is not merely a club of friends or a network of connections between people.
- It has an identity, defined by a shared "domain of interest" (concern, passion, issue, etc.)
- Membership therefore implies a commitment to the domain.



"Great things in business are never done by one person; they are done by a team of people." – Steve Jobs



Building and Implementing a Community of Practice

Spectrum of "types" of Communities of Practice: level of commitment

Sharing, and the occasional joint effort

Sharing only

Extensive joint work

Building and Implementing a Community of Practice

Spectrum of "types" of Communities of Practice: level of commitment

Transportation Lean Forum started here

Sharing, and the occasional joint effort

Sharing only

Extensive joint work

Transportation Lean Forum: What it is

- Many governmental organizations which operate highway and transportation systems are utilizing Lean.
- To help promote Lean and provide support to each other, some of these organizations formed the "Forum for Lean Process Improvement in Governmental Highways / Transportation organizations" in June 2012.
- This group is also referred to as the Transportation Lean Forum (TLF).

"Never doubt that a small group of thoughtful people can change the world. Indeed, it is the only thing that ever has."

Margaret Mead



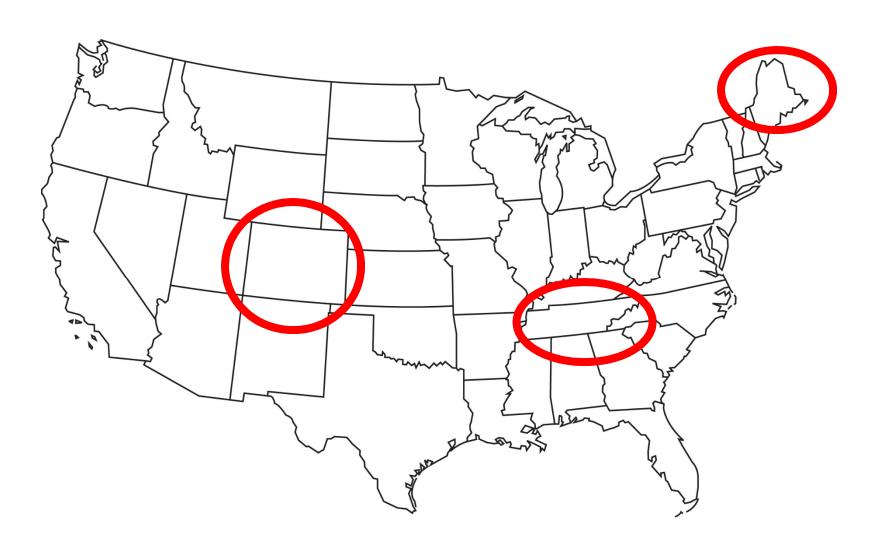
'Making government more effective, efficient and elegant means listening to our state employees and learning from them how we can do better."

-Governor John Hickenlooper, State of the State address, 2011

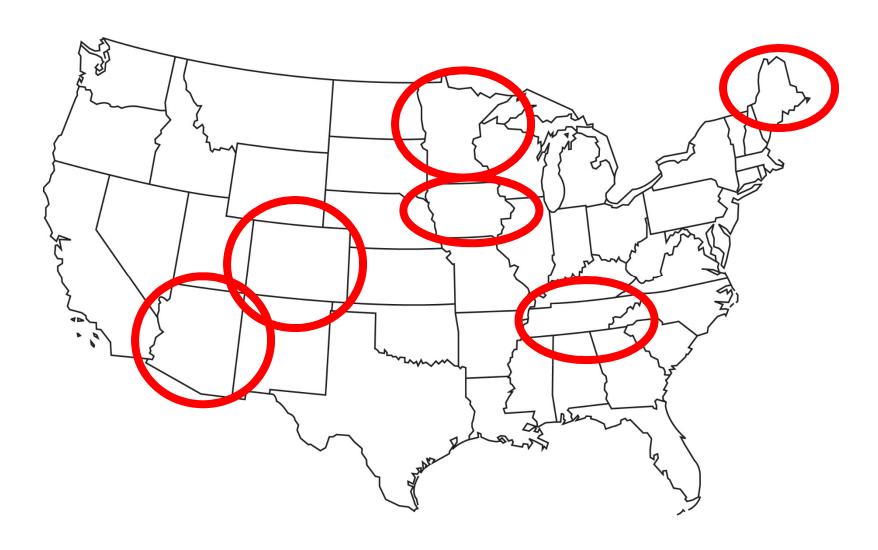


Transportation Lean Forum ... Origins

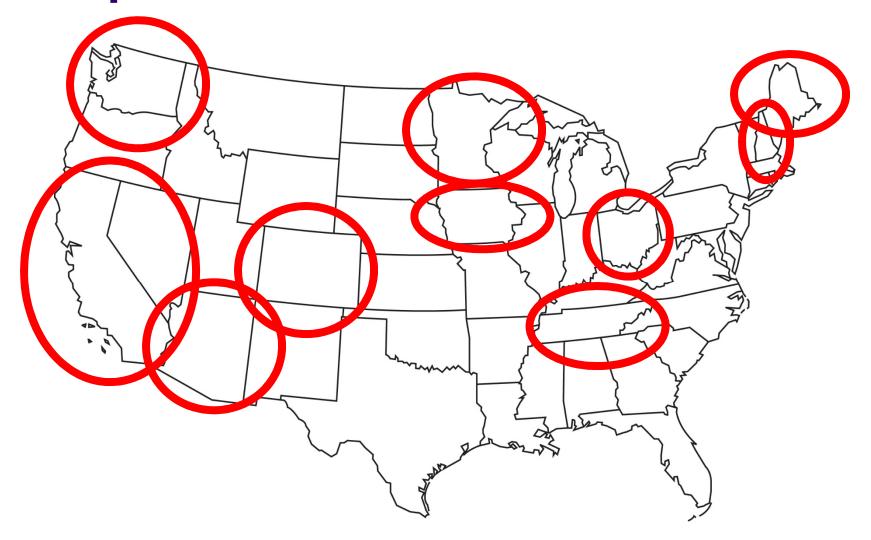




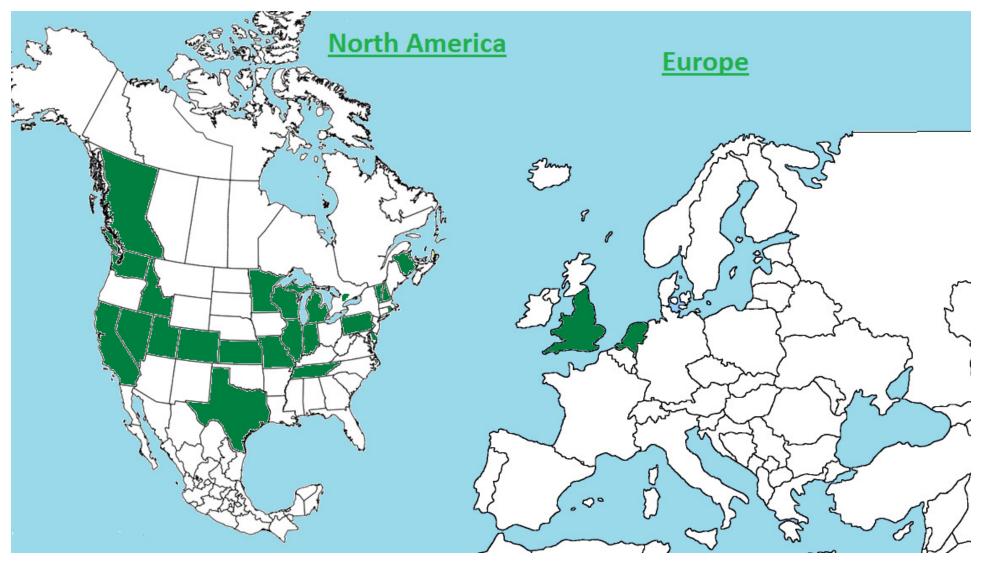
... the start, in June 2012



... September 2012



... December 2012



... participants on October 18, 2016 teleconference

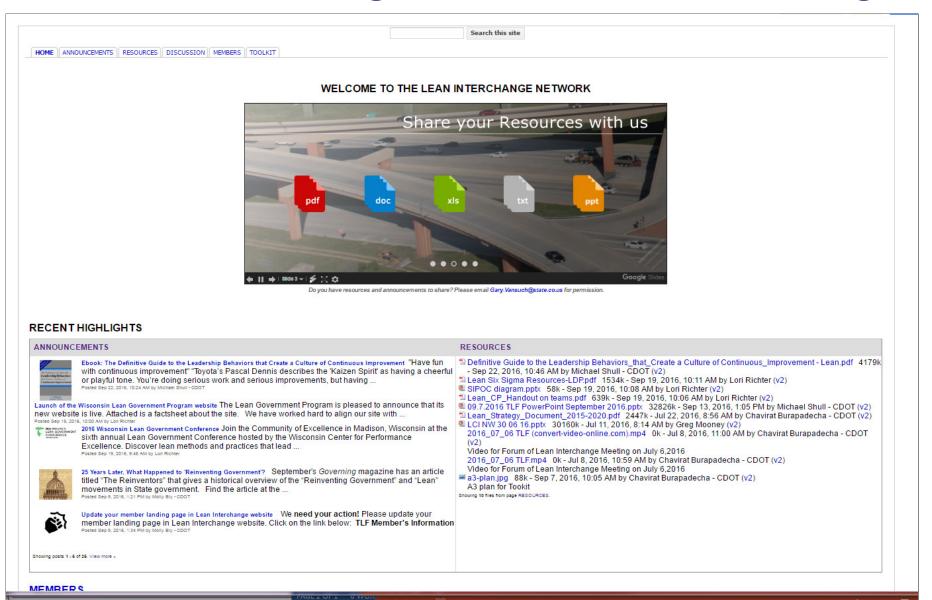
Transportation Lean Forum ... everyother-month teleconferences

- INTRODUCTIONS AND ROLL CALL Where are we all located?
- John Baranzelli Office of Rapid Results State of Illinois Central Management Services
- Jason Hallett, Dawn Vincent-Dixon, & Greg Bryden

 Lean Six Sigma tools & principles used during their org. realignment New Brunswick Department of Transportation and Infrastructure
- 4 Molly Bly & Chavirat Burapadecha Lean Interchange Colorado Department of Transpiration Office of Process Improvement
- 5 AASHTO SCOPM Organizational Excellence Task Force
- **OPEN FORUM** What's on your mind?
- **7** CLOSE OUT

AGENDA Oct 18, 2016

Between meetings: "The Lean Interchange"



updates from workgroups on their progress

Building and Implementing a Community of Practice

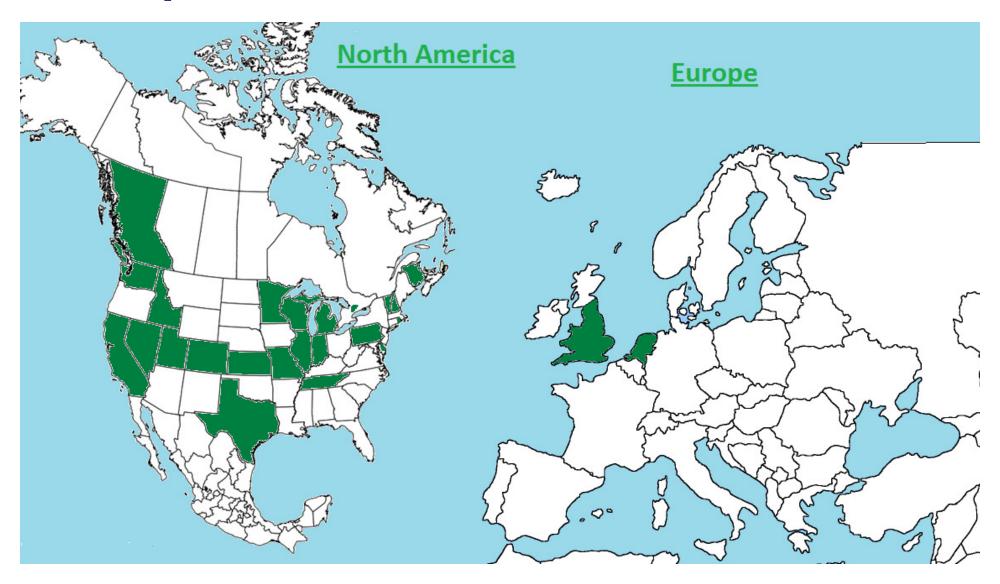
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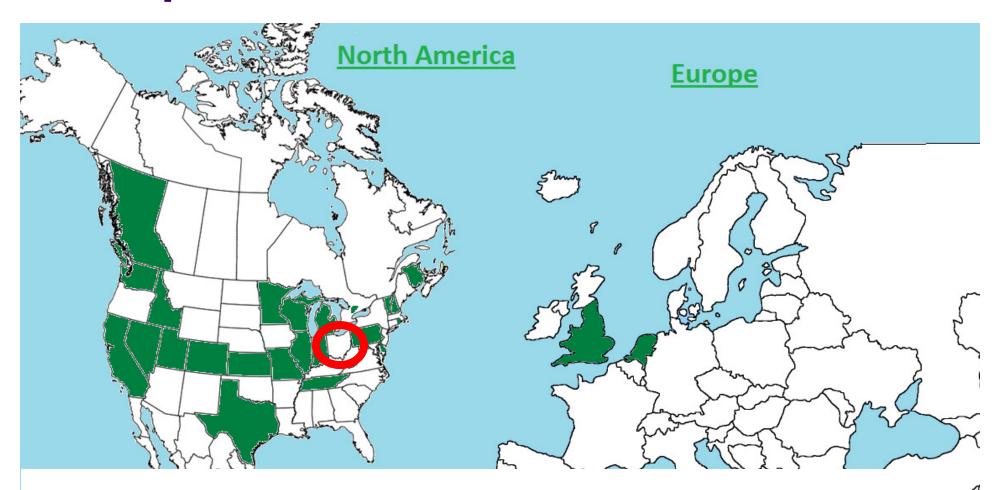
Transportation Lean Forum started here

Sharing, and the occasional joint effort

Sharing only

Extensive joint work





Borrowing of Lean "Project Selection Toolkit"

PAGE 1



With this quick-take assessment, you can pinpoint opportunities for putting your Lean know-how to work.

PROJECT SELECTION ASSESSMENT

INSTRUCTIONS: Read each item, then check a box on the 1-to-5 scale to show how often this occurs in your workplace:

1 = never 2 = rarely 3 = sometimes 4 = often 5 = very often

Have a well-defined scope as you respond to each assessment item. Avoid trying to evaluate the agency as a whole.
Rather, focus on the work area or office or section that you manage, and maintain this same scope throughout the assessment. If you don't manage a given office or section, narrow your scope to your immediate work area.

| 1 | In my work area, we spend too much time looking for the items we need to do our jobs: files, materials, equipment, and so on. If the physical work area was better organized, we'd be more productive and less frustrated. |
|---|--|
| | |



When we get inputs from customers or from other sources (from paper forms or online web forms, for example), we often find that the incoming information is incomplete or inaccurate. We have to circle back to people to get the information we need. If we received complete information from them the first time around, we'd be a lot more efficient.



3 We find ourselves wondering what our customers are thinking. Are we meeting their needs and expectations? Are they happy with our work? Are there things we can do to increase their satisfaction? If we had answers to these questions, we could serve our customers better.



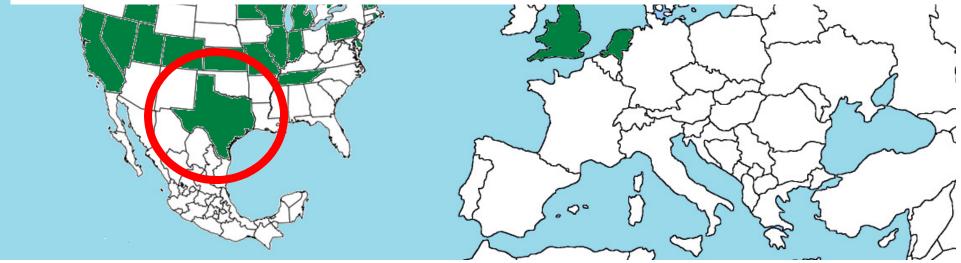
4 My co-workers and I don't really know whether our day-to-day work is having a positive impact. We can't tell for sure whether it's meeting customer expectations, helping the agency achieve larger goals, or contributing in some other way. If we had a set of meaningful measures that were easy to see and understand, we'd have a better sense of how our work makes a difference.

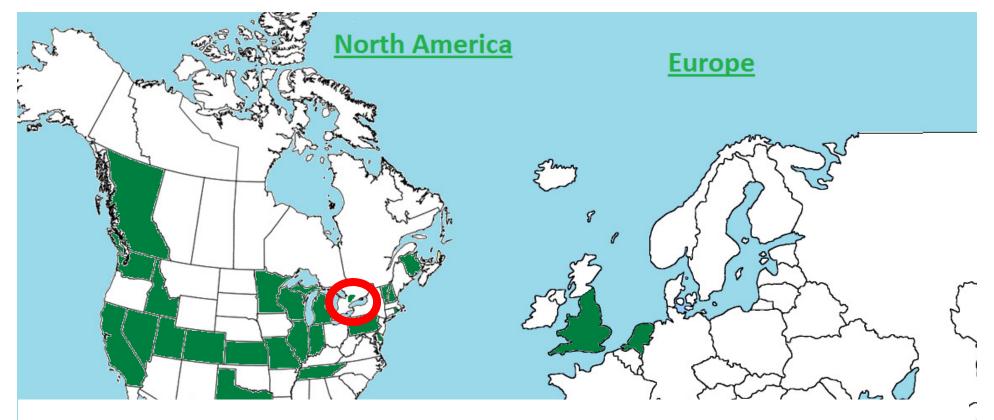


I work with good people, but it sometimes seems like one person doesn't know what the other person is doing, even though we all work in the same work process. If we had a better sense of what each person does and how we all fit together as one system, we'd be more productive and probably even happier.

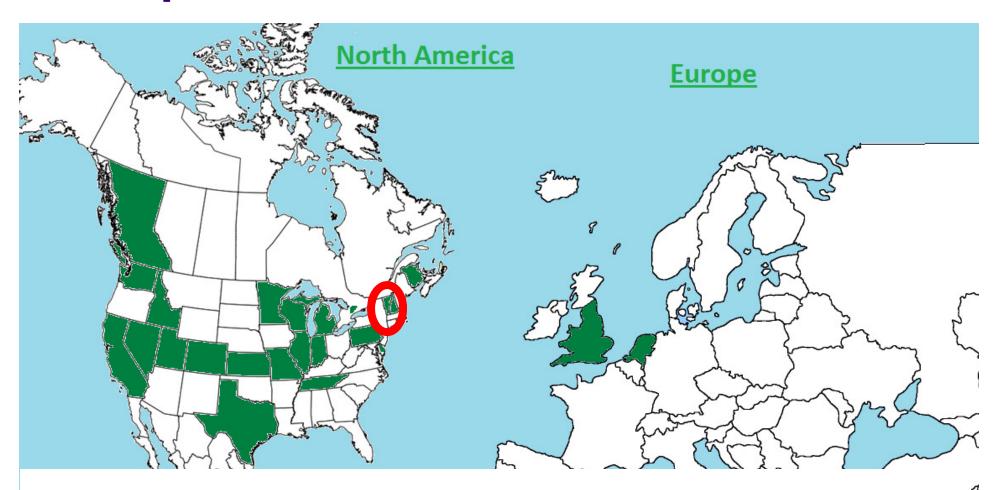


"... Can't thank you enough for sending ... been a great resource as I work through the content to get a flavor of the body of work. ..."





"... the Transportation Lean Forum continues to grow – and we are thrilled to be a part of that. ..."



Benchmarking about Change Agent Network, February 2016

Building and Implementing a Community of Practice

Spectrum of "types" of Communities of Practice: level of commitment

Transportation Lean Forum evolving to here



Sharing, and the occasional joint effort

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Extensive joint work

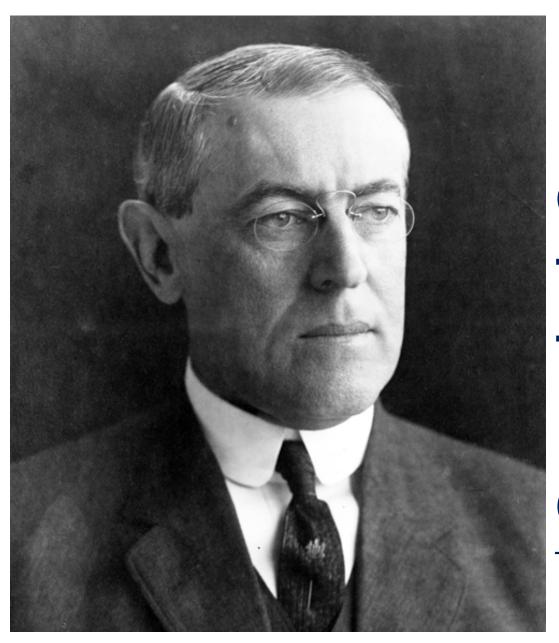


AASHTO SCOPM Organizational Excellence Task Force

Created June 2015 Objectives

- Help transportation agencies achieve Organizational Excellence (OE)
- Identify, analyze and share info to improve organizational performance
- Fill gap within AASHTO to focus specifically on OE
- Support states during and beyond implementation of national performance measures





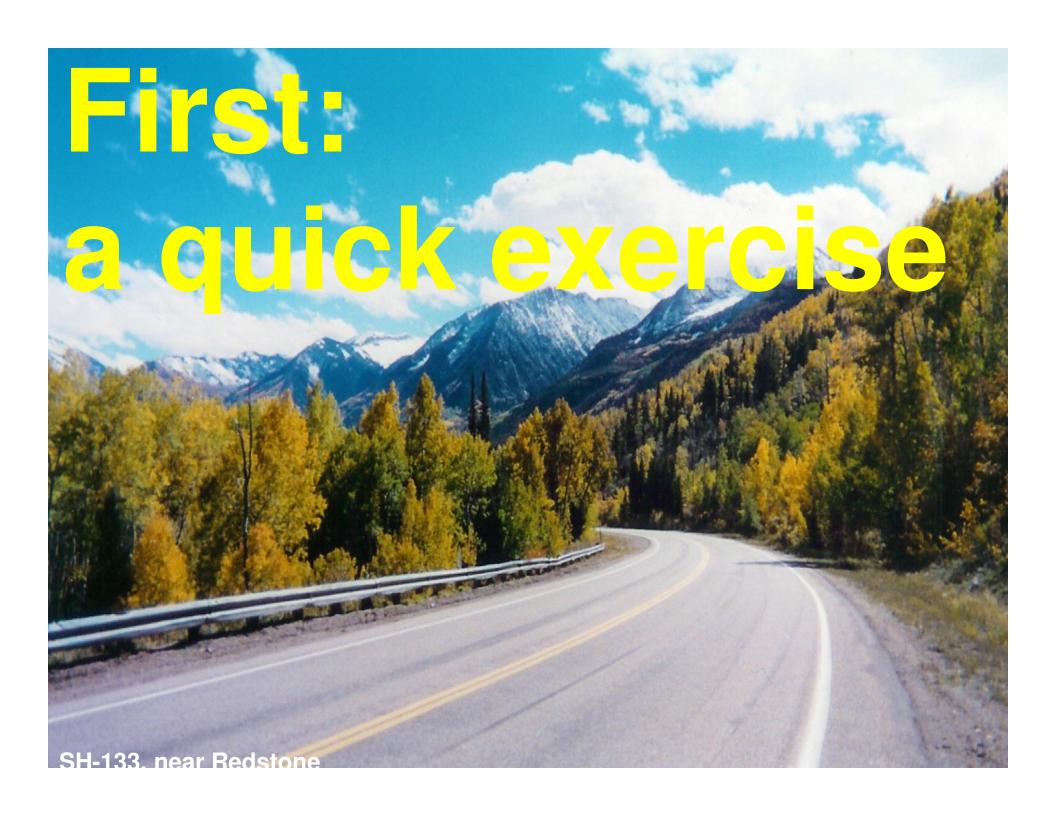
"I use not only all of the brains that I have, but all that I can borrow.

President Woodrow Wilson

What's inside

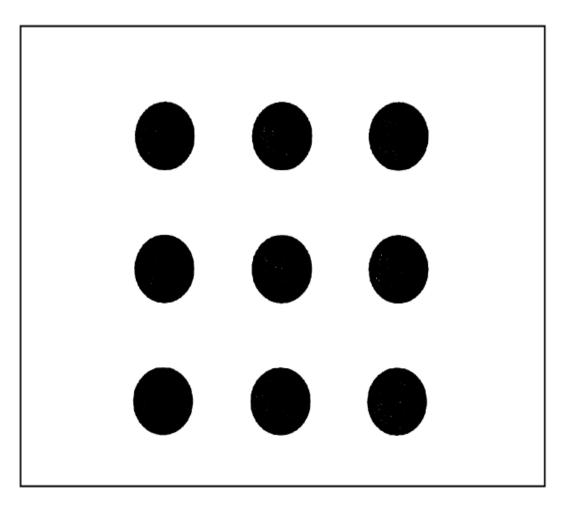


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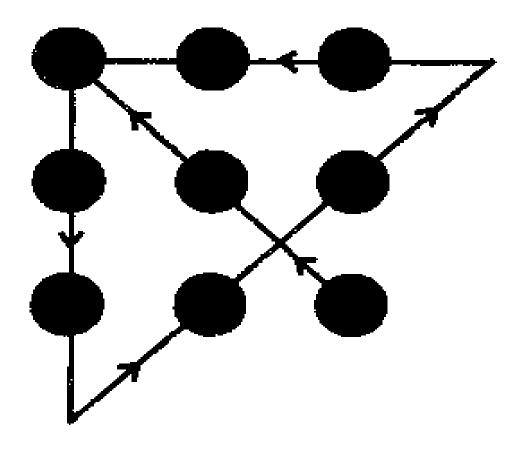
9 dots

Without lifting pencil/pen from paper, draw no more than four (4) straight lines that will cross through all nine dots



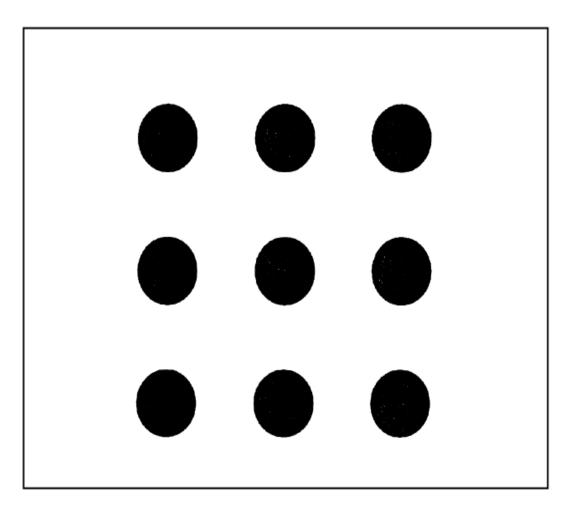
A 4-line solution

Did you think you were NOT supposed to let the pencil go outside an imaginary square drawn around the nine dots?



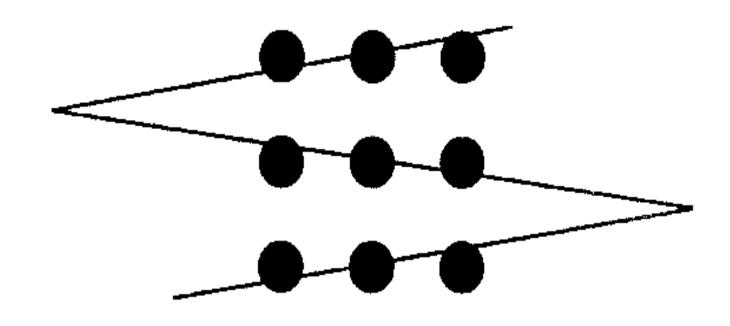
9 dots, again

Again -- Without lifting pencil/pen from paper, draw no more than three (3) straight lines that will cross through all nine dots



A 3-line solution

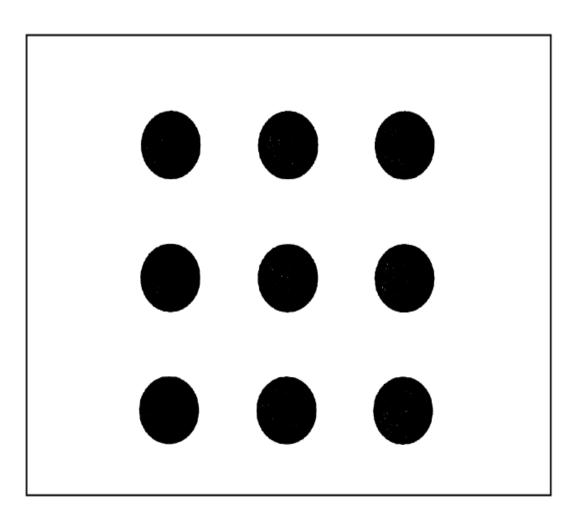
Did you think the lines must pass through the center of the dots?



9 dots, again

BONUS POINTS

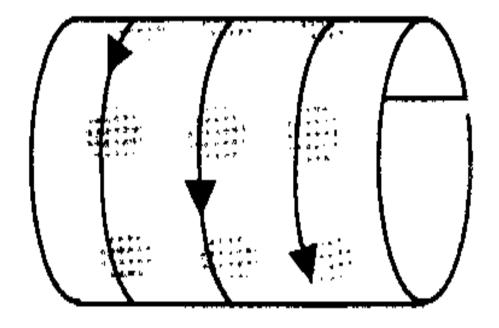
Without lifting pencil/pen from paper, draw one straight line that will cross through all nine dots



And Yes, one of the 1-line solutions

A more subtle and more pervasive mental block is the assumption that the problem must be solved within a two-dimensional-plane!

One solution: If you think in **3** dimensions, you can roll the paper to form a cylinder, and it becomes possible to draw a single straight line that spirals through all nine dots



Thinking outside the box

Some of the most wonderful people are the ones who don't fit into boxes.



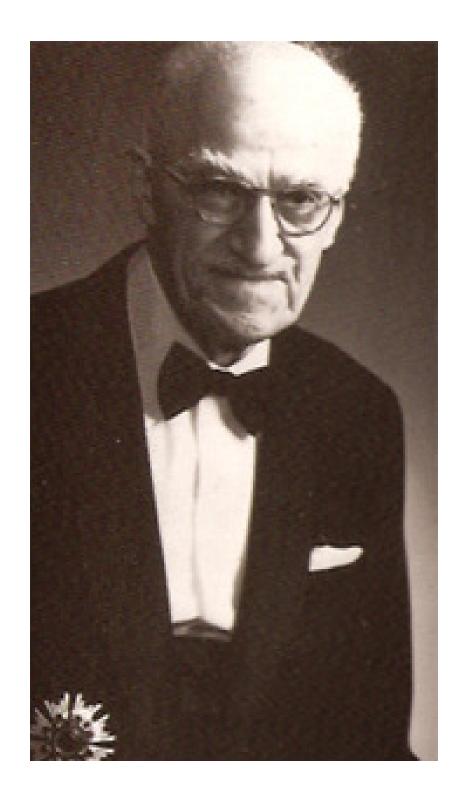
How can you help form a Community with outside-the-box thinkers, like yourself?



What do you do?

Tip 1

Treat this like an improvement project



"All improvement happens project by project, and in no other way."

- Joe Juran





Plan-Do-Check-Adjust method for improvement

Name of Improvement Project: ___

1 PLAN

What do you want / need to improve, and why.

How much "impact" do we need to get (how much improvement) - including a clear, measureable target (goal) that quantifies that desired impact.

Who is in charge of making this improvement happen, and who is helping.

2 DO

Implement a) "quick hits", and b) other items that require additional analysis and/or testing — using good project management practices.

QUICK HITS ("Just Do It's")

| Task | Person Responsible | Start Date | Deadline | Dependencies and other notes |
|---------|--------------------|------------|----------|------------------------------|
| Task 1: | | | | |
| Task 2: | | | | |
| (etc)) | | | | |

ITEMS REQUIRING ADDITIONAL ANALYSIS AND / OR TESTING

| Task | Person Responsible | Start Date | Deadline | Dependencies and other notes |
|---------|--------------------|------------|----------|------------------------------|
| Task 1: | | | | |
| Task 2" | | | | |
| (etc) | | | | |

3 and 4 CHECK and ADJUST

Did we do what we planned to do (from step 2 above)?

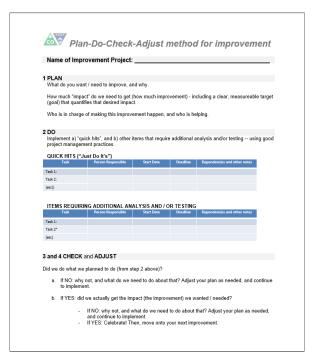
- If NO: why not, and what do we need to do about that? Adjust your plan as needed, and continue to implement.
- b. If YES: did we actually get the impact (the improvement) we wanted / needed?
 - If NO: why not, and what do we need to do about that? Adjust your plan as needed, and continue to implement.
 - If YES: Celebrate! Then, move onto your next improvement.

1 PLAN

What do you want / need to improve, and why.

How much "impact" do we need to get (how much improvement) - including a clear, measureable target (goal) that quantifies that desired impact.

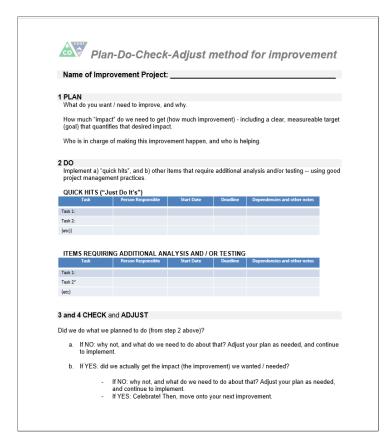
Who is in charge of making this improvement happen, and who is helping.



2 DO

Implement a) "quick hits", and b) other items that require additional analysis and/or testing -- using good project management practices.

| Task | Person Respons ible | Deadline | Dependencies, people I need to involve and other notes |
|---------|---------------------------|----------|--|
| Task 1: | | | |
| Task 2: | | | |
| (etc)) | | | |



3 and 4 CHECK and ADJUST

Did we do what we planned to do (from step 2 above)?

If NO: why not, and what do we need to do about that? Adjust your plan as needed, and continue to implement.

If YES: did we actually get the impact (the improvement) we wanted / needed?

If NO: why not, and what do we need to do about that? Adjust your plan as needed, and continue to implement.

If YES: Celebrate! Then, move onto your next improvement.

Tip 1, Revisited

- Treat this like an improvement project:
 - Plan it
 - Do it
 - Check it
 - Adjust it
 - Celebrate, and continue



Tip 2

Make First
Contract:
Don't wait
for them to
come to
you, seek
them out







How can I make First Contact, to start forming that Community?

How Can I Make First Contact?



How Can I Make First Contact?



Presentations by States / Provinces

Mapping your journey in continuous improvement

Brian Wakefield, State of Wisconsin - Dept. of Administration

Lessons Learned from Arizona Lean Transformation Bob Plummer

How Can I Make First Contact?

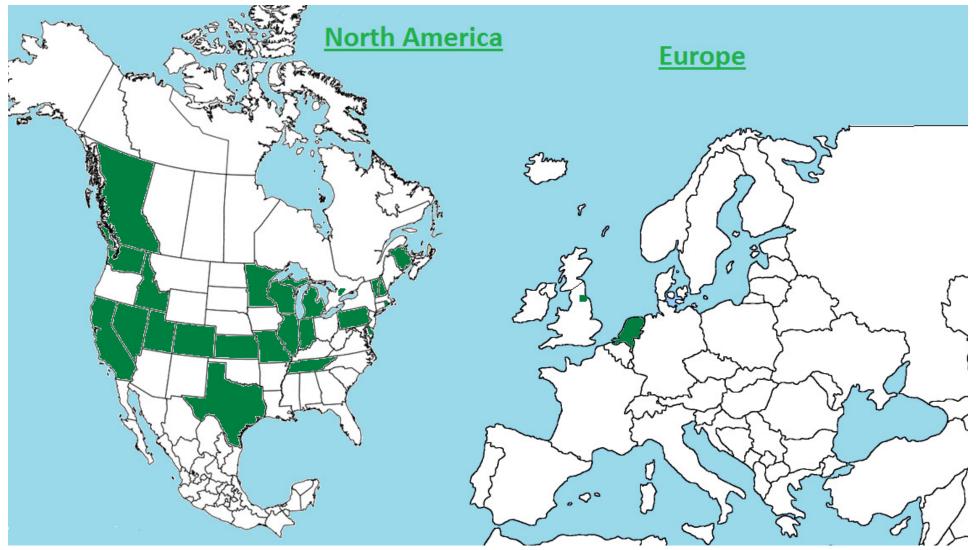


States / Provinces

Improving Lean Through Communities of Practice

| State | Website or Contact | QR code | | |
|------------------------------|--|---------|--|--|
| Colorado | sites.google.com/a/state.co.us/colorado-performance-management/performance-planning-and-lean/department-lean-champions | | | |
| Connecticut | www.ct.gov/opm/cwp/view.asp?a=4595&Q=540012±=1&opmNa v=l | | | |
| New Hampshire | lean.nh.gov/ContactUs.aspx | | | |
| Ohio | lean.ohio.gov/Network.aspx | | | |
| Rhode Island | Andy Manca, Andrew.Manca@omb.ri.gov 415-574-8471 | | | |
| Tennessee | Emily Passino, emily.m.passino@tn.gov 615-924-7543 | | | |
| Wisconsin | lean.wi.gov/Pages/AgencyContacts/ContactList.aspx | | | |
| Transportation Lean Forum | www.codot.gov/business/process-improvement/multinational- transportation-lean-forum-tlf | | | |

State / provincial transportation agency ...



... join us in the Transportation Lean Forum!

How Can I Make First Contact? Local Government



Building organizational capacity for continuous improvement

Ted Burley, The Regional Municipality of York

Embracing employee ideas

Alex Ogunju, Los Angeles County

We're not robots - reorganize for speed! John Dickson, Spokane County

Data-driven everything: The 10 plays to driving performance and impact Michael Jacobson, King County

There are no barriers to innovation Brian Elms, City and County of Denver

50 things we learned while implementing Lean: City and County Panel

Tip 2, Revisited

- Initiate First Contract:
 - Start today: Don't wait for them to come to you, seek them out
 - Network at this conference
 - Network elsewhere

Tip 3

Treat this like a change

Tip 3

- Treat this like a change
 - Just because you want to do this, does not mean they will agree

Tip 3

- Treat this like a change
 - Just because you want to do this, does not mean they will agree
 - Apply change management principles

Change Management: The People Side of Change

| Awareness | Why is the change needed?Why now?What if we don't? |
|-------------------|--|
| Desire | Personal motivatorsOrganizational motivatorsInhibiters |
| K nowledge | Needed skills and competencies |
| Ability | Demonstrated capabilityOvercoming barriers |
| Reinforcement® | Mechanisms, Rewards, Celebrations, Measurement |

Include change management in your improvement project plan



Alone we can do so little, together we can do so much.

- Helen Keller



Recap of Tips

- Treat this like an improvement project
- Initiate First Contact
- Treat this like a change

Recap



- A little bit about CDOT
- A little bit about one Community of Practice: the Transportation Lean Forum
- Some tools and tips
- Recommendations on what you could and should do regarding Communities of Practice

"A good plan, violently executed now, is better than a perfect plan executed next week."

General George Patton



What's on your list to do?

| Practice Tuesday October 18-2 | | | |
|---|--|-----------------|--|
| y learning objective(s): | | | |
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