Making it Work

A Story of Improvement at the Colorado Department of Transportation

December 12, 2018

Master Black Belt Webcast Series

Ellen Milnes
Director of Marketing
MoreSteam

- Welcome
- Introductions
- CDOT Presentation
- Questions

About MoreSteam

Enterprise continuous improvement from training to project completion

550,000+

FORTUNE 500

55%

2,500

ASQ

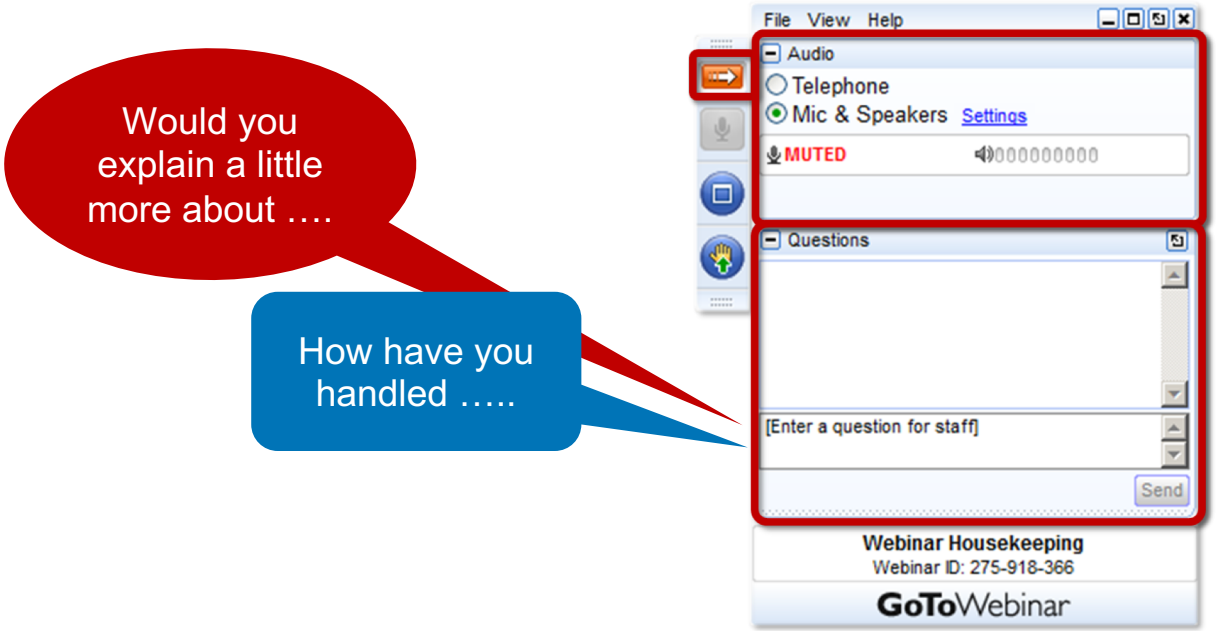
PMI Registered Education Provider

Project Management Institute

Course Provider

A Few of Our Clients

GoToWebinar Attendee Panel

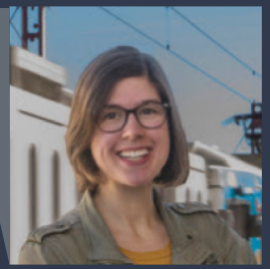


Gary Vansuch

Director of the Office of Process Improvement

Michelle Malloy

Senior Program Manager



Geneva Hooten

Innovation and Improvement Lead

In this session you will learn about:

The history of process improvement at CDOT and how CDOT is building a culture of innovation and continuous improvement

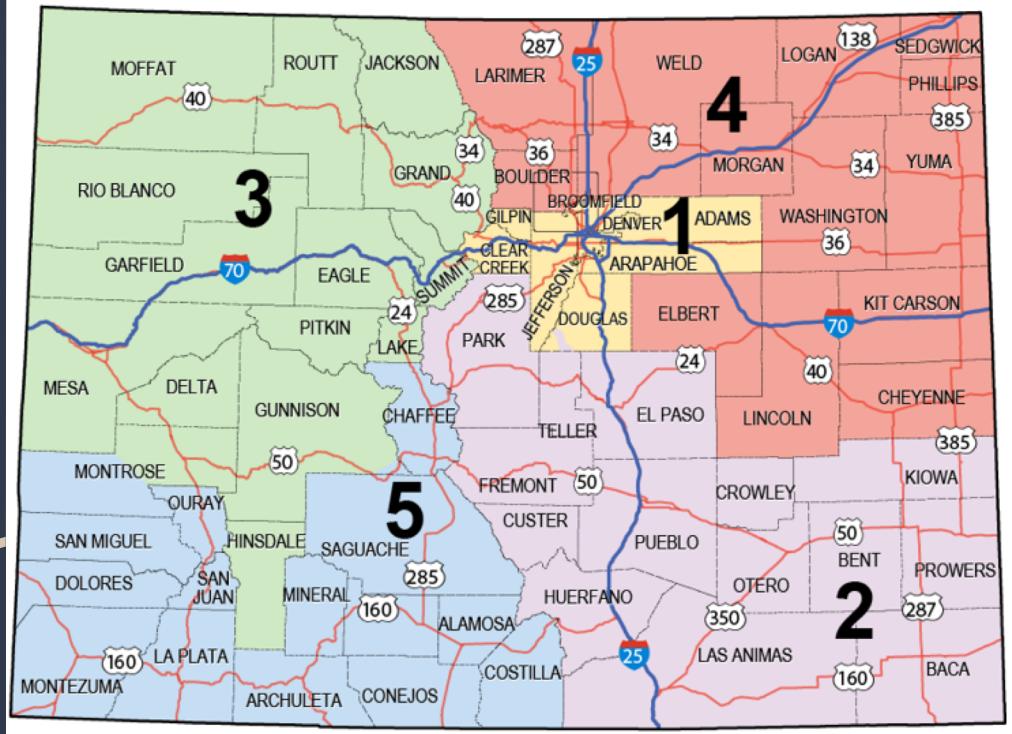
The evolution of how we are facilitating suggestions and increasing idea spread through the Lean Everyday Ideas program

How CDOT makes improvement stick through Change Management and a focus on the people side of improvement.

CDOT's Lines of Service

1. Plan
2. Build
3. Operate
4. Maintain

… the Colorado Transportation System



CDOT's Strategic Direction:

Enduring Values

CDOT Values

SAFETY
We work together to achieve a high-performing safety culture!

We promote and apply consistent and sustainable work behaviors in everything we do.

PEOPLE
We value our employees!

We acknowledge and recognize the skills and abilities of our coworkers and draw strength from our diversity and commitment to equal opportunity.

INTEGRITY
We earn Colorado's trust!

We are honest and responsible in all that we do and hold ourselves to the highest moral and ethical standards.

CUSTOMER SERVICE
We strive to provide the highest level of customer satisfaction and experience!

With a can-do attitude we work together with others to respond effectively to our customers' needs.

EXCELLENCE
We are committed to quality!

We are leaders and problem solvers, continuously improving our products and services in support of our commitment to provide the best transportation systems for Colorado.

RESPECT
We treat everyone with respect!

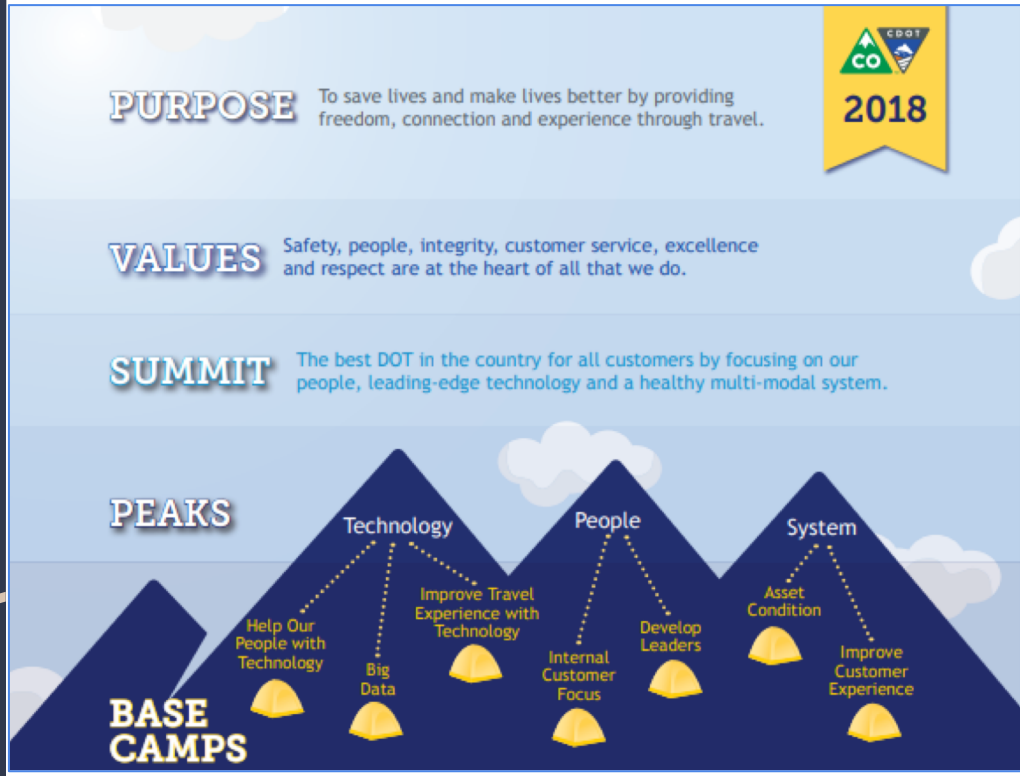
We are kind and civil with everyone, and we act with courage and humility

CDOT's Strategic Direction:

Enduring Values

CDOT's Strategic Direction: "The 3 Peaks"

1. Leading-Edge Technology
2. Our People
3. Healthy Multi-Modal System



Innovation and Improvement at CDOT

- How did we get to where we are today?

Everyone, every day, improving every process and every product, to benefit every customer

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Department of Transportation
Office of Process Improvement

Innovation and Improvement at CDOT

- How did we get to where we are today?

It’s all about leadership

It’s all about process

It’s all about innovation

It’s all about people

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Department of Transportation
Office of Process Improvement

Innovation and Improvement at CDOT

- How did we get to where we are today?

Late 2011

Effective, Efficient, and Elegant

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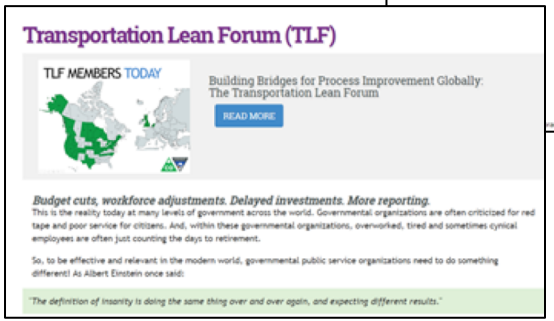
Office of Process Improvement

Innovation and Improvement at CDOT

- How did we get to where we are today?

2012



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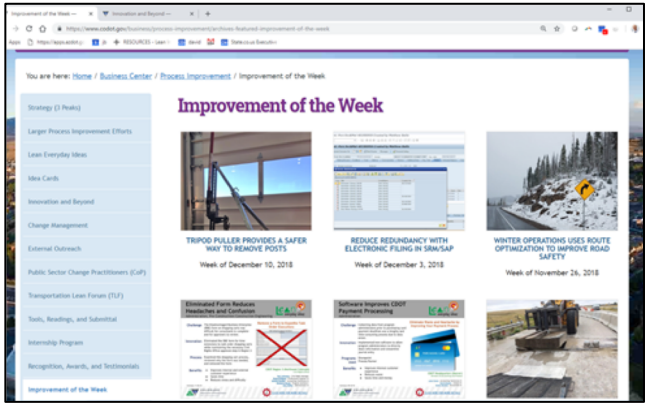
Office of Process Improvement

Innovation and Improvement at CDOT

- How did we get to where we are today?

2013

CDOT Change Agent Network
We CAN be the best at change!



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Innovation and Improvement at CDOT

- How did we get to where we are today?

2015, 2017, 2018

Bright Ideas

Innovations in American Government Award
TOP 25

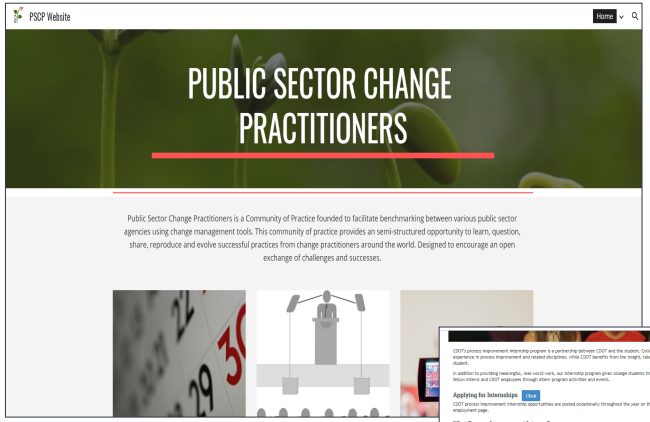
Employee Engagement Awards
North America
2017 Winner

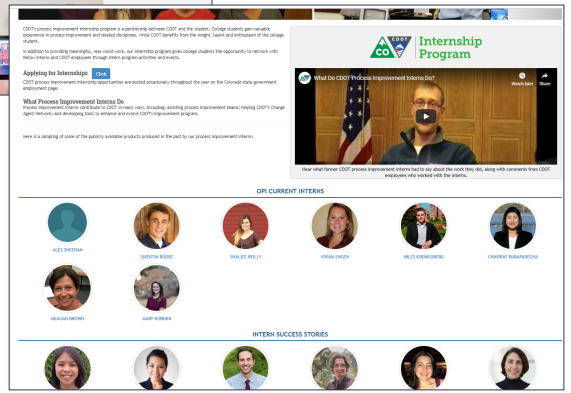
CDOT
Colorado Department of Transportation
Office of Process Improvement

Innovation and Improvement at CDOT

- How did we get to where we are today?

2018





CDOT COLORADO Department of Transportation Office of Process Improvement

Innovation and Improvement at CDOT

- How did we get to where we are today?

It’s all about leadership

It’s all about process

It’s all about innovation

It’s all about people

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Innovation and Improvement at CDOT

- How did we get to where we are today?

Everyone, every day, improving every process and every product, to benefit every customer

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Building a Culture of Innovation

Building a Culture of Innovation

The Ash Center for Democratic Governance and Innovation at Harvard's John F. Kennedy School of Government's

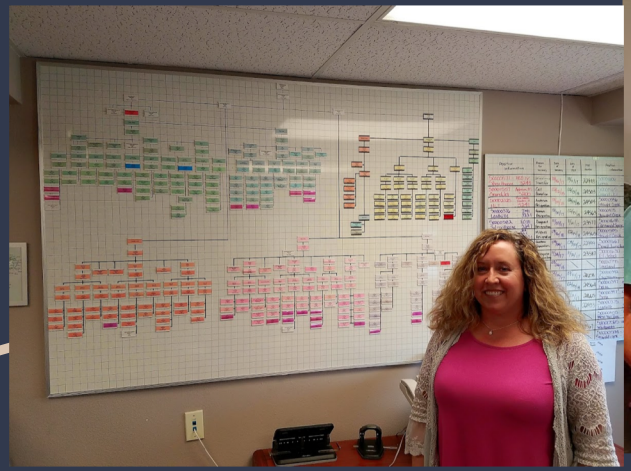
Top 25 Innovation in American Government for 2018

Lean Everyday Ideas

1. Identify problem
2. Devise solution
3. Implement it
4. Share it
5. Borrow from others

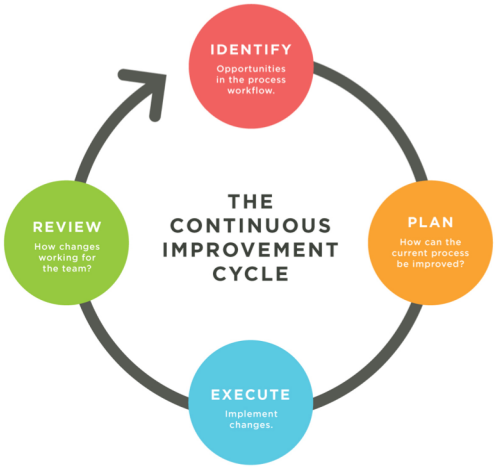
Lean Everyday Ideas

- Dencentralized
- Committee-based
- Employee empowered
- Best practices



Engagement through improvement, improvement through engagement

75% of frontline units engaged in improving the business by June 30, 2019



leankit

Solutions > suggestions

I fixed it!

In our efforts to improve safety and customer service while reducing waste, we thank you for taking the time to share your implemented solutions here.

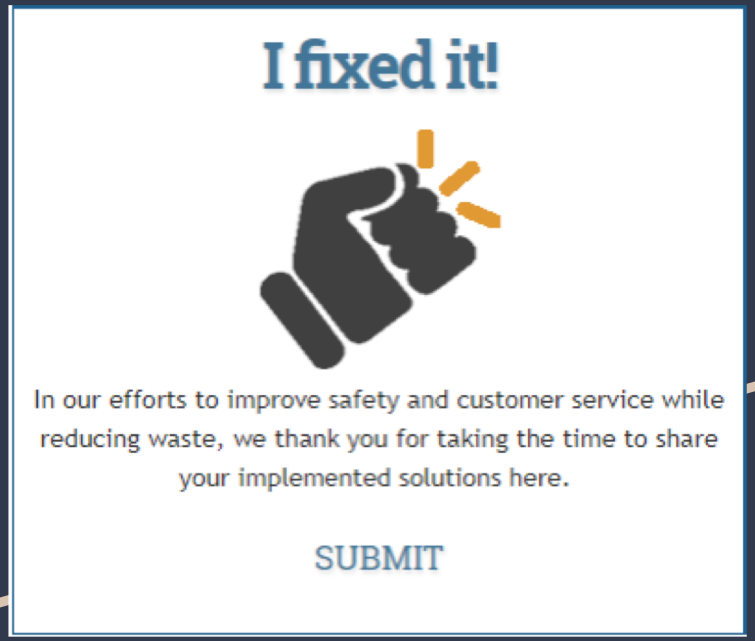
SUBMIT

I suggest!

Thank you for improving CDOT!
We are grateful for your suggestion to make CDOT the number one DOT.
What happens to my Suggestion?

SUBMIT

Solutions = implemented

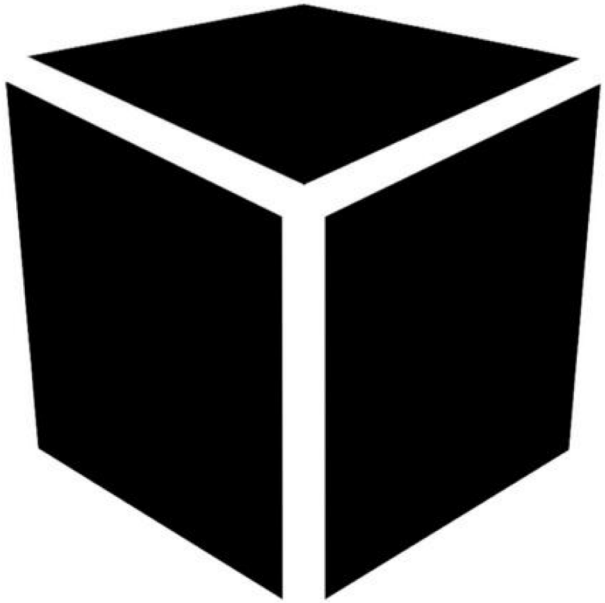


Clear vetting process
Safety review
Product review

Better transparency and clarity

Evolution of the Suggestion Process

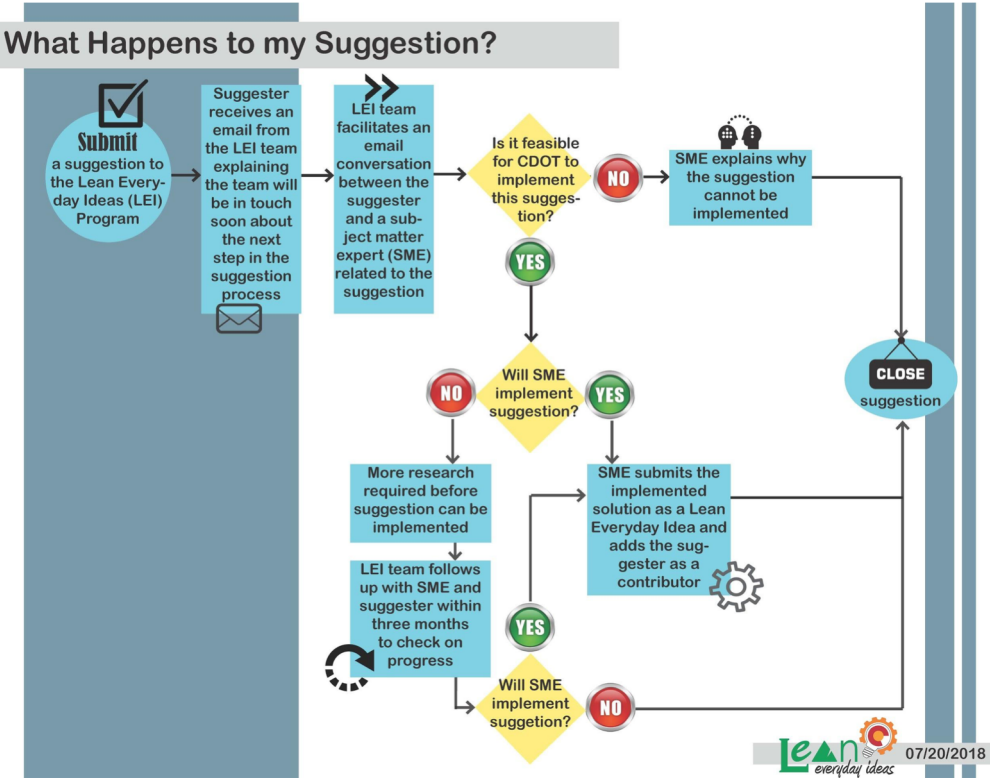
Before



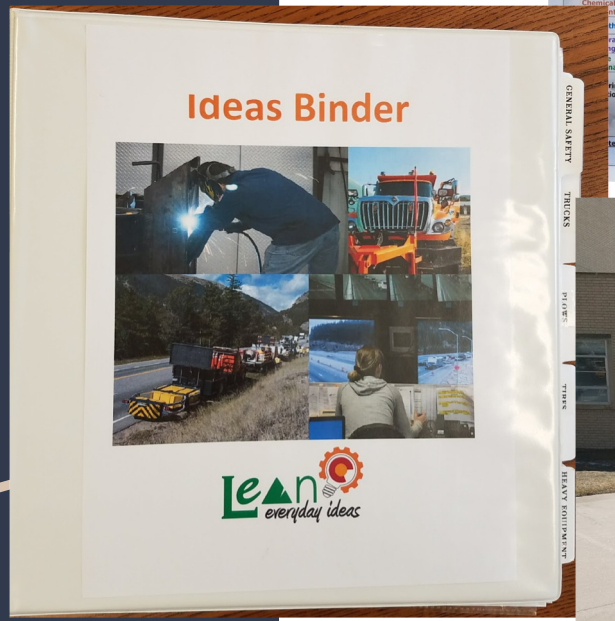
Evolution of the Suggestion Process

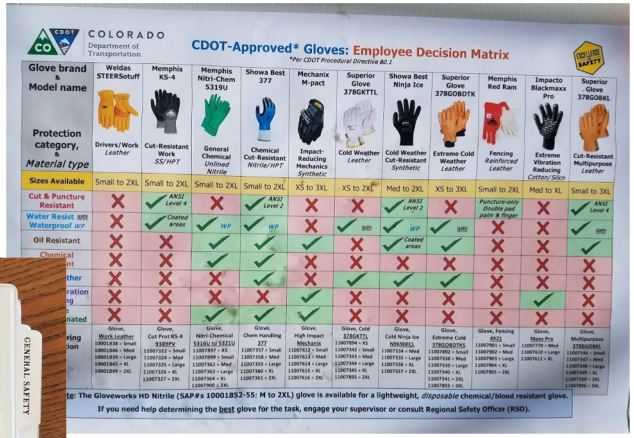
- 1 suggestion every 5 days
- Average 2.5 days to facilitate with a subject matter expert

After



Increasing idea spread





How do we help people access the best ideas and borrow them?

Before

Magnetic Plow Guide Markers

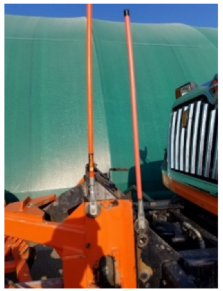
Magnetic Plow Guide Markers Increase Accuracy While Saving Time and Effort

Share Tweet Email Share Share Share

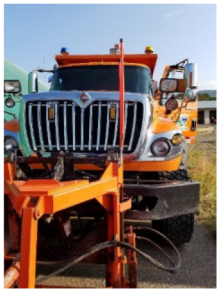
by Michael Avery, Process Improvement Intern
Nov. 20, 2017

Challenge

The act of hitching a snowplow to a truck can be frustrating. It seems pretty straightforward, but getting the truck and plow to line up perfectly can be stressful, especially if a driver is alone. In fact, unless there is someone else spotting, the driver will have to exit the vehicle to check the alignment, re-enter the truck to re-position it and repeat the process until the two are aligned. Besides being time-consuming, every time the driver exits the vehicle there is a potential safety issue if the truck is left idling.



Side view of the markers attached to the plow and truck



Vertical orange markers indicate the plow and truck are aligned

The Improvement

Keith Stillings from CDOT's Northwest region, along with Ryan Conrad, Mathew Etter, and Aaron Wagner, thought there had to be a better way. Together, they devised a simple solution to align a snowplow attachment to a truck without exiting the vehicle to check alignment and distance to the plow.

Their innovation consists of magnets bolted to a regular plow guide marker that indicates the alignment between the truck and plow. This solution is remarkably versatile; magnetic guides can easily be moved between trucks and plows of different sizes and configurations.

Key Benefits

- **Saves time:** It reduces time spent on exiting and re-entering the cab to align the truck into the plow.
- **Reduces frustration:** The guide reduces stress and frustration by making it easy to align the plow and truck on the first try.
- **Ease of implementation:** It can easily be replicated and used across the state.

Innovation Developed by Keith Stillings, Ryan Conrad, Mathew Etter, Aaron Wagner, all from CDOT's Northwest region

- Pull system
- Demand-side
- Helping to address the *“How do I get that?!”*

After

T-Post Puller

Maintenance

Lean everyday ideas

Challenge Removing or raising a T-Post is time-consuming, labor-intensive and dangerous

Innovation T-post puller allows for safe handling of posts and can be repeated down an entire fence line

Parts Used
- Angle iron
- Guardrail bolt
- Chain
- Loader

Benefits
- Saves time and money
- Reduces risk of injury
- Easy implementation

Check it out!
Read this to learn more!

Natale and the T-Post Puller in Action

CDOT Region 2 (Southeast Colorado)

Todd Natale - Transportation Maintenance II

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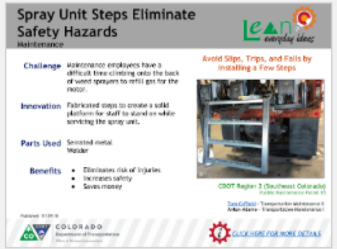
Office of Process Improvement

CLICK HERE FOR MORE DETAILS

BORROW THESE IMPROVEMENTS!



MAINTENANCE

Spray Unit Steps

MAINTENANCE

Key Lock Box On Maintenance Vehicles

ADMINISTRATION

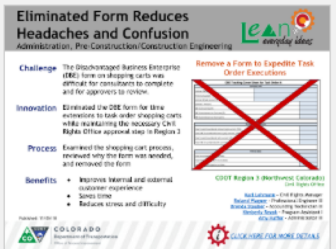
Instructional Trello Video

CONSTRUCTION ENGINEERING

Digital Recording Paint

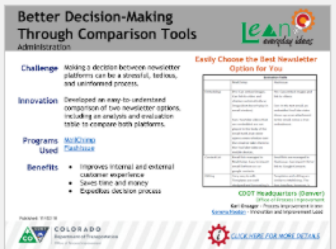
MAINTENANCE

Tripod Post Puller



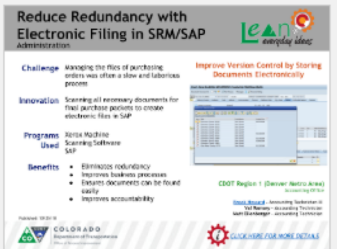
ADMINISTRATION, PRE-CONSTRUCTION ENGINEERING, CONSTRUCTION ENGINEERING

Eliminating DBE From On Time Extension Shopping Carts



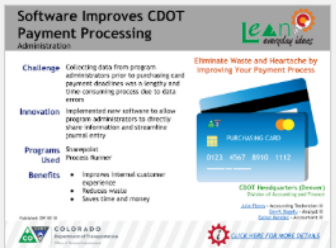
ADMINISTRATION

A Comparison: Flashissue V. MailChimp



ADMINISTRATION

Reduce Redundancy With Electronic Filing In SRM/SAP



Spread success with idea cards

A Dynamic Inventory Tracking System Simplifies Supply Room Management

Facilities/Administration

Lean everyday ideas

Challenge A smaller storage room was difficult to organize and to track ever-fluctuating inventories.

Innovation A new paper system in the storage room, coupled with a google sheet, are used to track the amount of inventory going in and out. The sheet shows when inventory of an item is getting low.

Tools Used

- Google Sheets
- Paper and pen
- Labels

Benefits

- Saves time
- Improves internal customer experience (fellow CDOTers)

An Active Storage Room Tracking Chart

Item	Count	Recommend	Location	Supply Set
Prosci Practitioner Program (Black Spiral)	8		Purple (CM)	Practitioner Program
Prosci Practitioner Student Handout Packet (White Spiral, Bound)			Purple (CM)	Practitioner Program
Prosci Practitioner Student Handout Packet (Printed Tab 1, unbound)	28		Purple (CM)	Practitioner Program
Prosci Practitioner Student Handout Packet (Printed Tab 2, unbound)	45		Purple (CM)	Practitioner Program
Prosci Practitioner Student Handout Packet (Printed Tab 3, unbound)	23		Purple (CM)	Practitioner Program
Prosci Practitioner Student Handout Packet (Printed Tab 4, unbound)	25		Purple (CM)	Practitioner Program
Prosci Practitioner Student Handout Packet (Printed Tabs 5, unbound)	18		Purple (CM)	Practitioner Program
Prosci Practitioner Student Handout Packet (Printed Tabs 6, unbound)	64		Purple (CM)	Practitioner Program
Prosci Practitioner Student Handout Packet (Printed Tabs 7, unbound)	97		Purple (CM)	Practitioner Program
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Prosci Practitioner Student Handout Packet (Printed Tabs 12, unbound)	18		Purple (CM)	Practitioner Program
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Prosci Business Change Assessment (Loose - Indiv Steps Cover Sheet)	28		Purple (CM)	MGR 1 Day
Prosci Managers Quickstart Guide for Communicating About Change (looseleaf)	202		Purple (CM)	MGR 1 Day
Prosci 1- Day Program for Managers (Spiral bound)	35		Purple (CM)	MGR 1 Day
Mngrs Quick Start Guide: Roles of Mngrs During Times of Change complete set	10		Purple (CM)	MGR 1 Day, Practioner Pro
Roles in Change Management Webinar	19		Purple (CM)	MGR 1 Day, Practioner Pro
Reinforcing Change Checklist Handout	8		Purple (CM)	MGR 1 Day, Practioner Pro
Mngrs/Supervisors Role in Change Management Handout	163		Purple (CM)	MGR 1 Day
Just Do It Form Example	39		Purple (CM)	
Just Do It Form	27		Purple (CM)	
Innovation Coaching Slide Deck Handout (one and double sided)	3 one-sided, 35 two-sided		Red (LEI)	
Three Peaks 8.5 x11	93		Purple (CM)	Practitioner Program
McKinsey Creating Organizational Transformations	42		Purple (CM)	Practitioner Program
Tall Tales Handout	In Tab 2		Purple (CM)	Practitioner Program
Why CEO's Get Fired Handout	35		Purple (CM)	Practitioner Program
Prosci PCT Assessment	In Tab 1		Purple (CM)	Practitioner Program
Prosci Single User License	7		Purple (CM)	Practitioner Program
Change Management Presentation Feedback	In Tab 7		Purple (CM)	Practitioner Program
Jeopardy Game Handout			Purple (CM)	Practitioner Program

CDOT Headquarters (Denver)
Office of Process Improvement

Alex Blum - Office of Process Improvement Intern

Published: 08/29/18

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Department of Transportation
Office of Process Improvement

CLICK HERE FOR MORE DETAILS

Providing direct access to extra information, photos, specs, etc.

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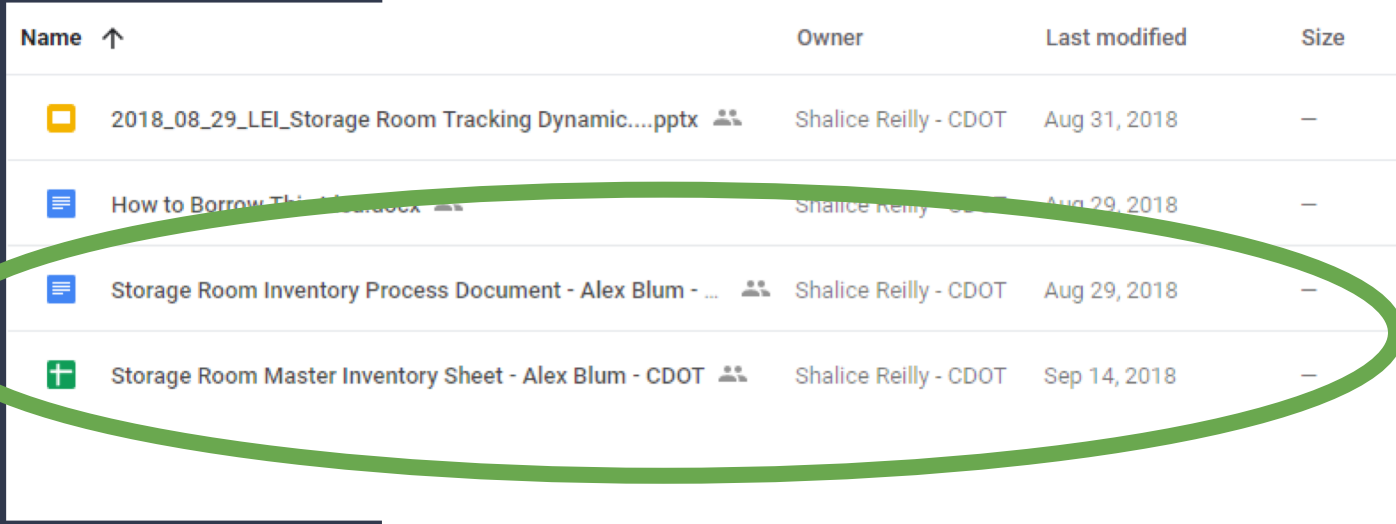
Connecting people to improvements



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2018_08_29_LEI_Storage Room Tracking Dynamic....pptx	Shalice Reilly - CDOT	Aug 31, 2018	–
How to Borrow Thi...	Shalice Reilly - CDOT	Aug 29, 2018	–
Storage Room Inventory Process Document - Alex Blum - ...	Shalice Reilly - CDOT	Aug 29, 2018	–
Storage Room Master Inventory Sheet - Alex Blum - CDOT	Shalice Reilly - CDOT	Sep 14, 2018	–

Providing clear guidance on *how* to borrow ideas

How to Borrow This Idea

This document will serve as a guide to implement the Supply Room Dynamic Inventory Tracking System…it's easier than you think!

Instructions:

1. Find the file named 'Storage Room Inventory Process Document' in the idea's folder and read over.
    a. You will notice this document references the 'Storage Room Master Inventory Sheet'. A copy of this document is also provided in the idea's folder.
2. Make copies of these documents to your own drive
    a. To make a copy of a drive document to your own drive, you need to right-click the document, and select 'Make a Copy'
    b. A copy of that document will be placed in your personal drive, and will be named 'A copy of [the name of the document you copied]'
3. Adjust the instructions/inventory sheet to fit the procedural and supply needs of your office.
4. Share this document with the members of your office, by clicking the blue 'Share' box in the top right corner. From here, list the email addresses of the members of your office.
    a. Your office members will need to be added by a google email account in order for them to be able to access and edit the documents
5. Once completed, please return to the Lean Everyday Ideas website and document how you've "borrowed" this idea
    a. We want to hear how you've improved upon the idea to fit your role, so please tell us how you've borrowed the idea!

Materials and Parts used:

- Paper
- Labels

Helping ideas spread at truck Roadeos

- Face-to-face
- 2 months, 9 Roadeos, 12 innovations, 100s of staff

Delineator Straightener

Challenge Improvised tools make delineator repairs dangerous

Solution Metal bar, similar to a crow bar, that helps to safely straighten delineators for routine repairs

Borrow this idea

Benefits
- Improves safety
- Simplifies repair
- Standardizes repair process

Parts Used
- Copper tubing
- Welder

Additional Info Tool fits securely around the U-shape of the delineator post. Versions with both round and flat handles designed.

Request one for your patrol today!

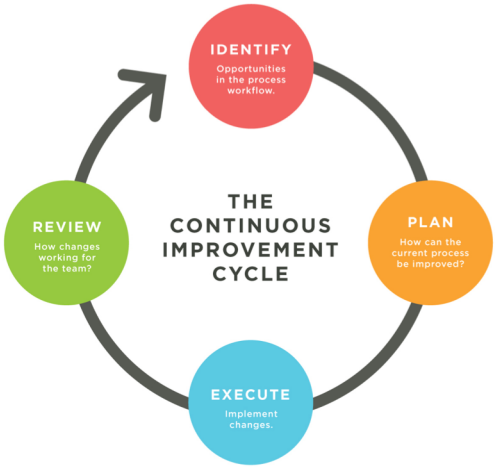
Learn more sites.google.com/a/state.co.us/everyday-ideas/

SAP Request Material #: 11007067
- Description: Post, delineator, alignment tool
- Price: $107.82
- BUn: EA

Innovator: Mickey Madalino (Region 4)

Engagement through improvement, improvement through engagement

75% of frontline units engaged in improving the business by June 30, 2019



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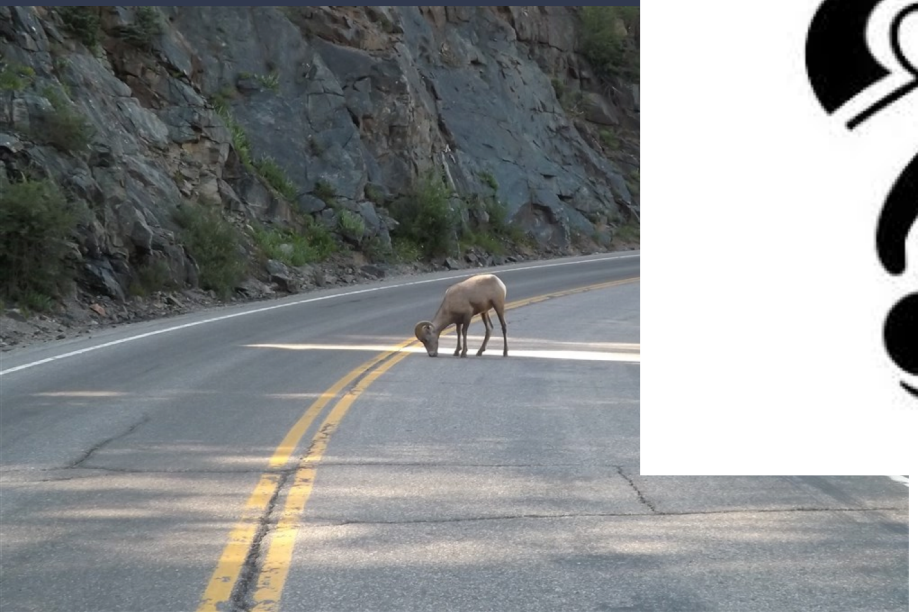
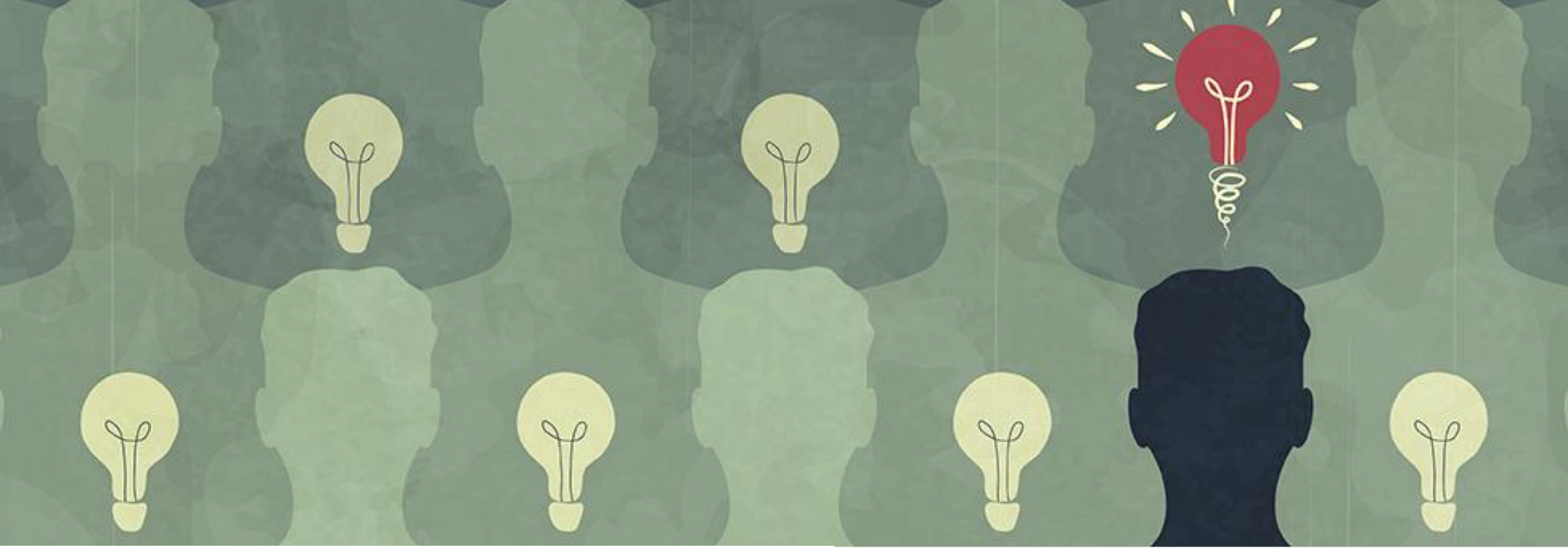
Let’s take a break for questions so far



Change Management at CDOT



In order for new ideas, and any changes to how people work, to stick, we need a structured approach to **Change Management**

Why?

- Ensure that all Team CDOT’ers are successful with every change that impacts them
- To build organizational competency and ability in order to be responsive
- To fully realize intended benefits of our desired changes

Change Management at CDOT

What is change management?

On a Project Level:

Change management is the application of a structured process and set of tools for leading the people side of change to achieve a desired outcome

On an Organizational Level:

A leadership competency for enabling change within an organization

A strategic capability designed to increase change capacity and responsiveness

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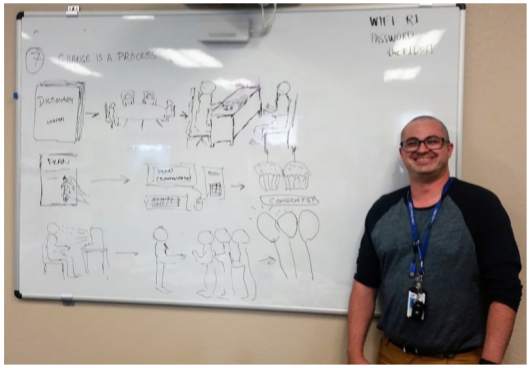
Change Management at CDOT

Role-Based Training



Change Management at CDOT

Change Agent Network

CDOT Change Agent Network
We CAN be the best at change!

Change Agent Network

CDOT CAN Change Agent Network

REINFORCEMENT GOALS COMMUNICATE VOICE FEEDBACK SUPPORT QUESTION LIAISON CULTURE UNDERSTAND EDUCATE FACILITATE SHIFT HELP CHANGE KNOWLEDGE PREPARE DESIRE INVOLVE ABILITY TRANSITION AWARENESS PARTICIPATION

2012

1 CAN Team
20 Change Agents
3 Sponsors
3 Projects
3 Project Managers
2 Support Resources

CDOT Change Agent Network
We CAN be the best at change!

2018

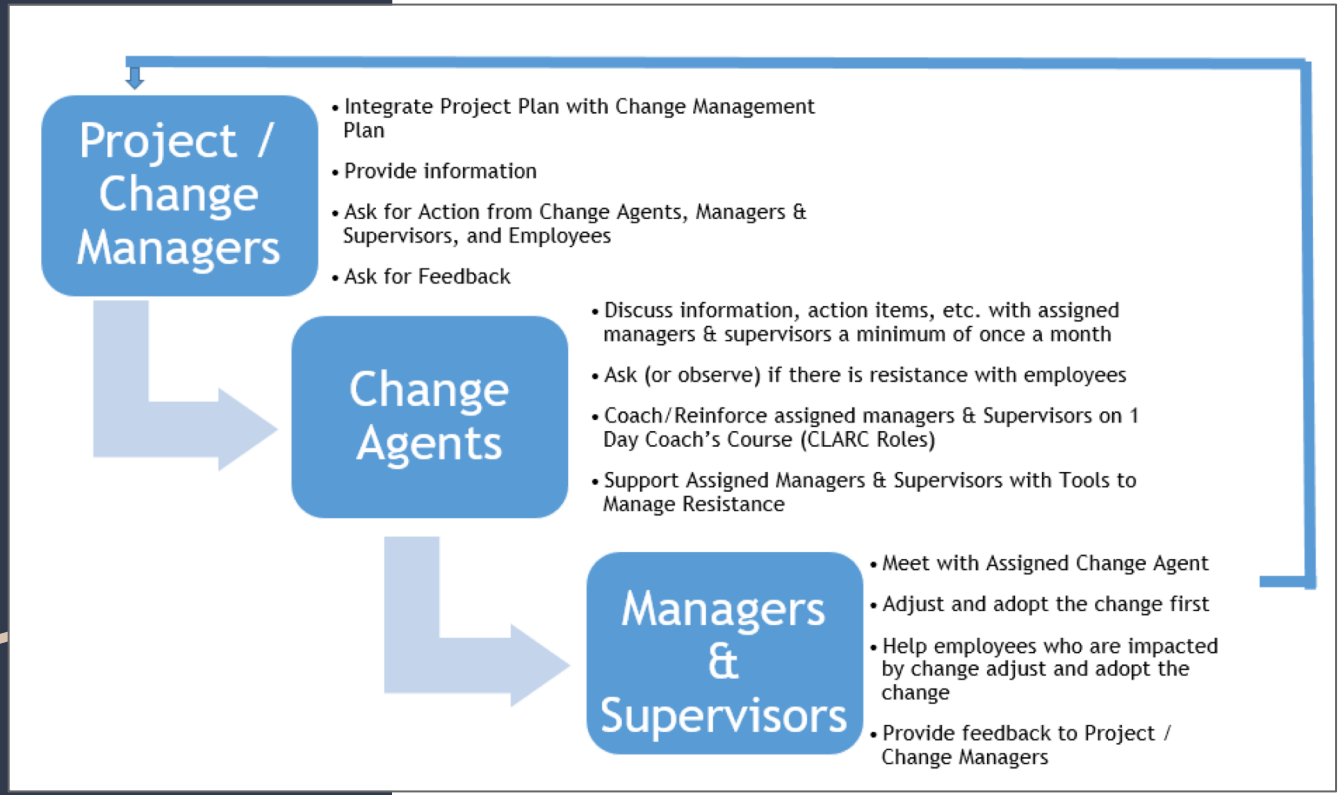
5 CAN Teams
100+ Change Agents
4 Sponsors
50+ Projects
35+ Project & Change Managers
2-4 Support Resources

Change Management at CDOT

Change Agent Network

- 5 Region Teams
- Executive Sponsorship
- Each Manager & Supervisor at CDOT is assigned a Change Agent for 100% coverage
- Creates in person 2 way conversation about changes
- Change Agents Support Managers & Supervisors

Change Agent Network



Bottom Line … if a change will impact people, you need change management

- It's simply a better approach
- It results in a more engaged culture
- It's a better way to support the roles in change (Sponsors, Manager & Supervisors, Employees, and Project & Change Managers)
- It results in more successful business projects = less $ spent on delivery of projects, less time spent on delivery of projects and quicker adoption of the changes from projects (People Dependent ROI)
- It helps to make change (improvement) stick!

Questions?

Thank you!

Questions? Contact Us!

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COLORADO
Department of Transportation
Office of Process Improvement

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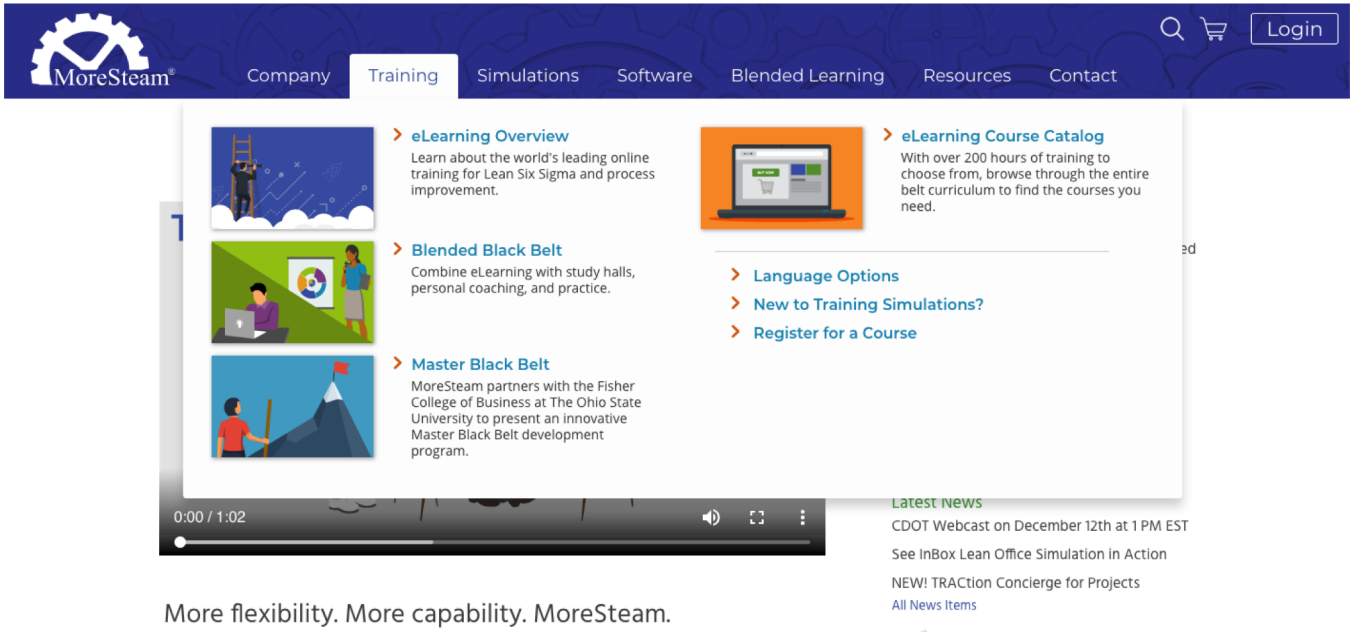

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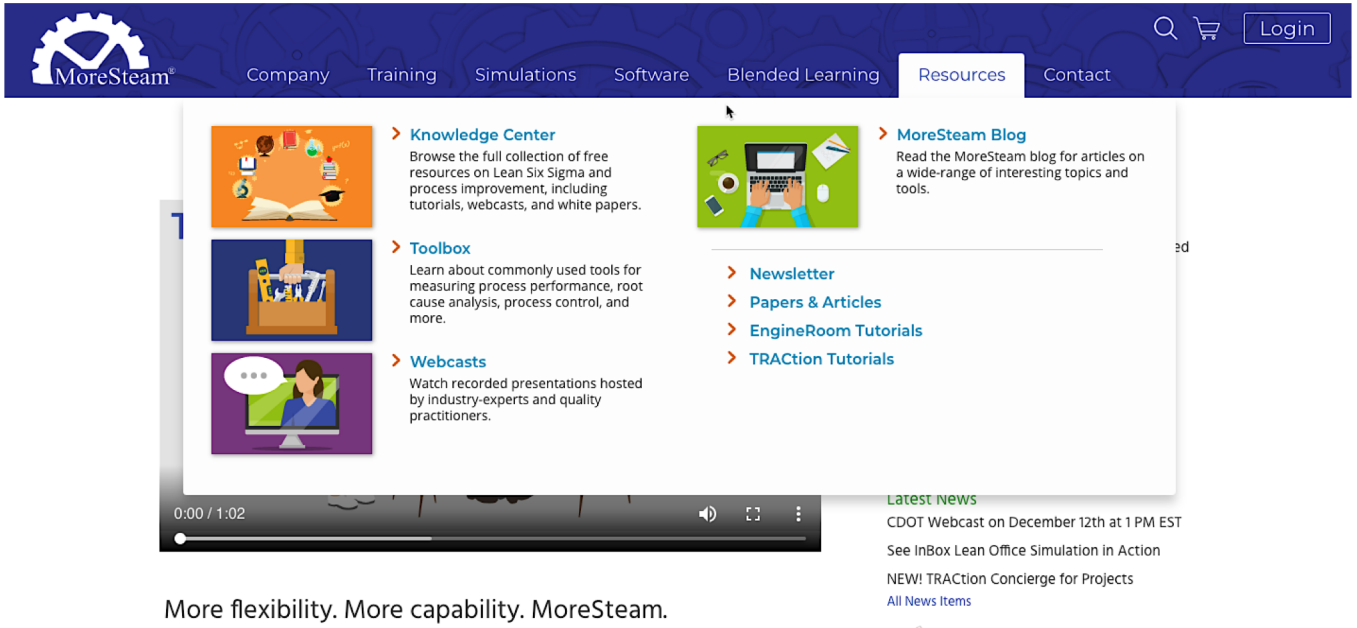

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