



**COLORADO**

**Department of Transportation**

Office of Process Improvement



## Lean Workflow & Collaboration Boosting Productivity, Engagement & Morale

September 22, 2016



# Contact Information

---

**Gary M. Vansuch**

Email: [gary.vansuch@state.co.us](mailto:gary.vansuch@state.co.us)

Phone: 303-757-9017

**Michael J. Shull**

Email: [michael.shull@state.co.us](mailto:michael.shull@state.co.us)

Phone: 303-757-9970



# Gary M. Vansuch

---

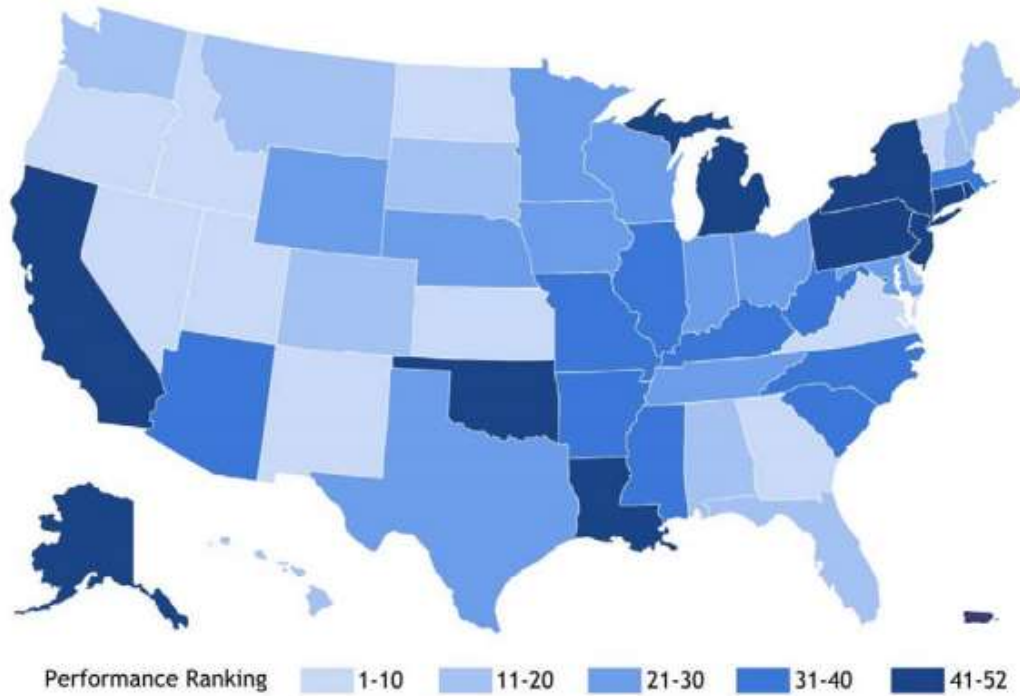




# SUMMIT

to be the best DOT in the country for all of our customers

## Transportation Department Rankings

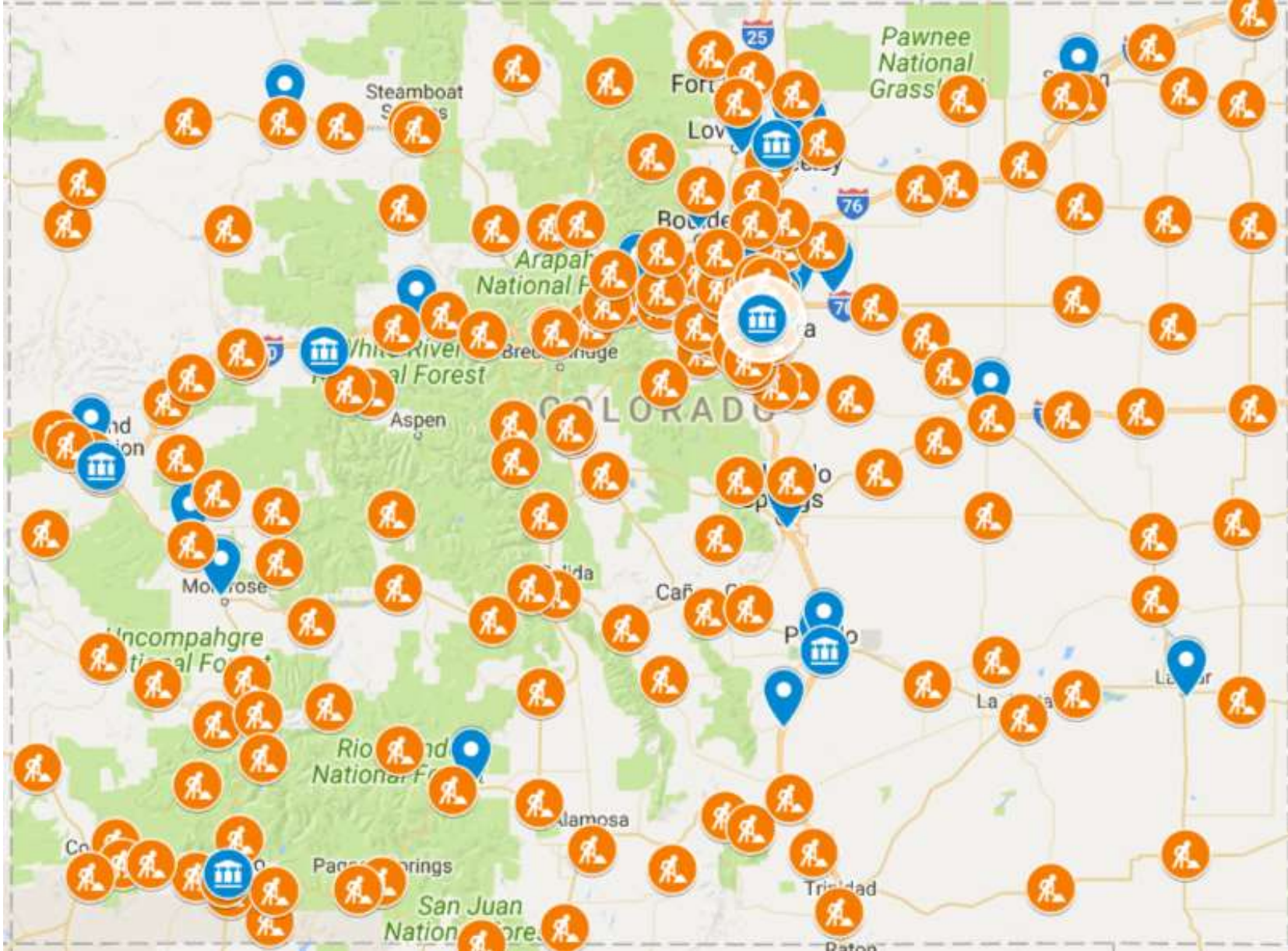


## Currently Ranked #13





# CDOT Map



## Key



Headquarters



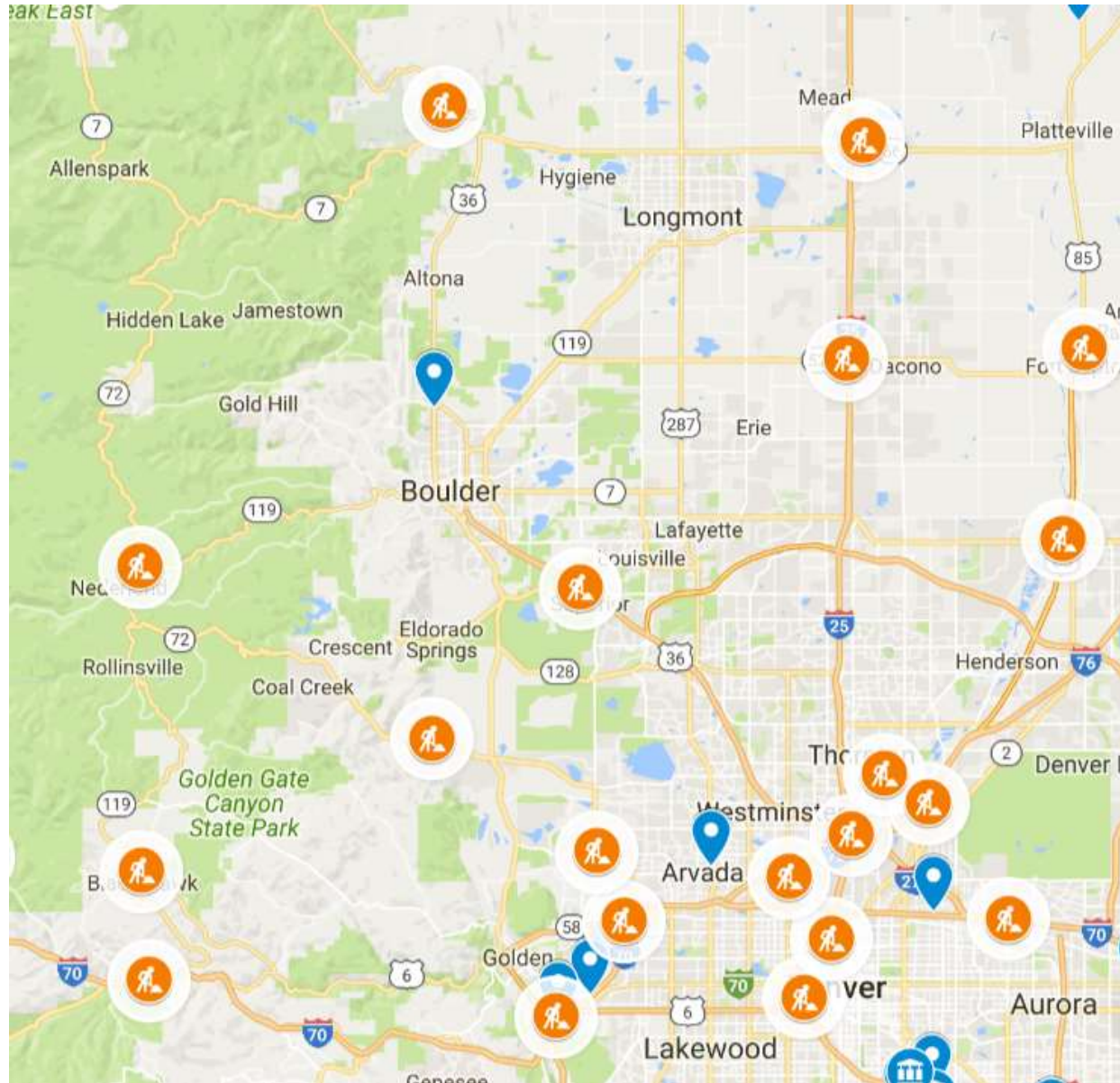
Maintenance Patrols



Engineering,  
Admin &  
Mixed Use



# CDOT Map: Boulder County



## Key



**Headquarters**



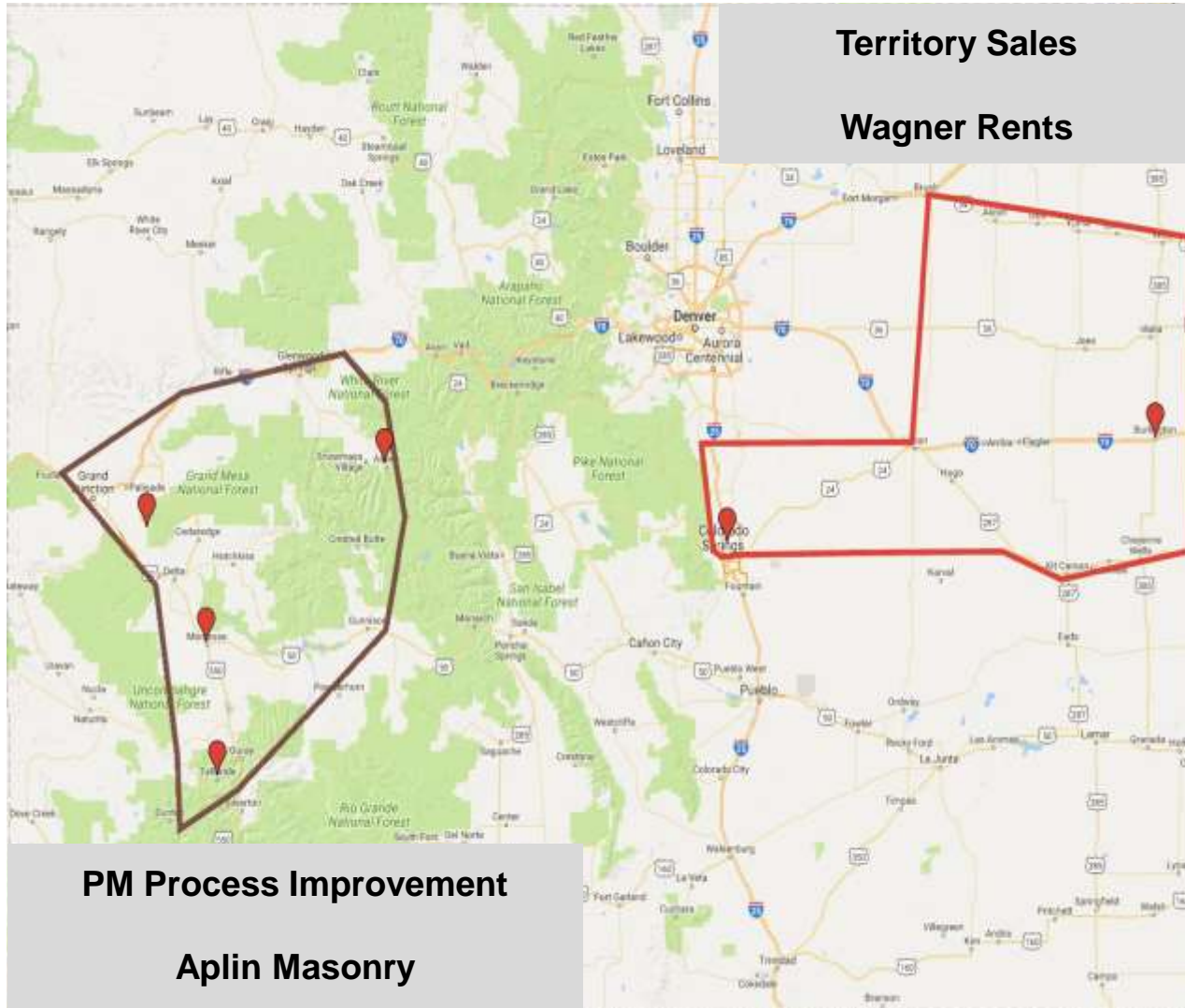
**Maintenance  
Patrols**



**Engineering,  
Admin &  
Mixed Use**



# Michael J. Shull



- 1995: Daily Camera
- 2005: The CAT Rental store
- 2010: Aplin Masonry of Telluride
- 2016: CSU-Global
- 2016 CDOT



# Lean Workflow & Collaboration Methodologies

---

Kanban  
Workflow  
Visualization

Lean Coffee  
Collaboration

6S Lean  
Organization



# Sources

www.bmgi.com

[www.personalkanban.com/pk/](http://www.personalkanban.com/pk/)

www.ksmartin.com



# Lean Workflow & Collaboration Methodologies

---

**Kanban  
Workflow  
Visualization**

Lean Coffee  
Collaboration

6S Lean  
Organization



# Kanban

---

## What is Kanban?

- 17<sup>th</sup> century Japanese term for sign
- 1950's American pull system
- Today Kanban means “visual signal”

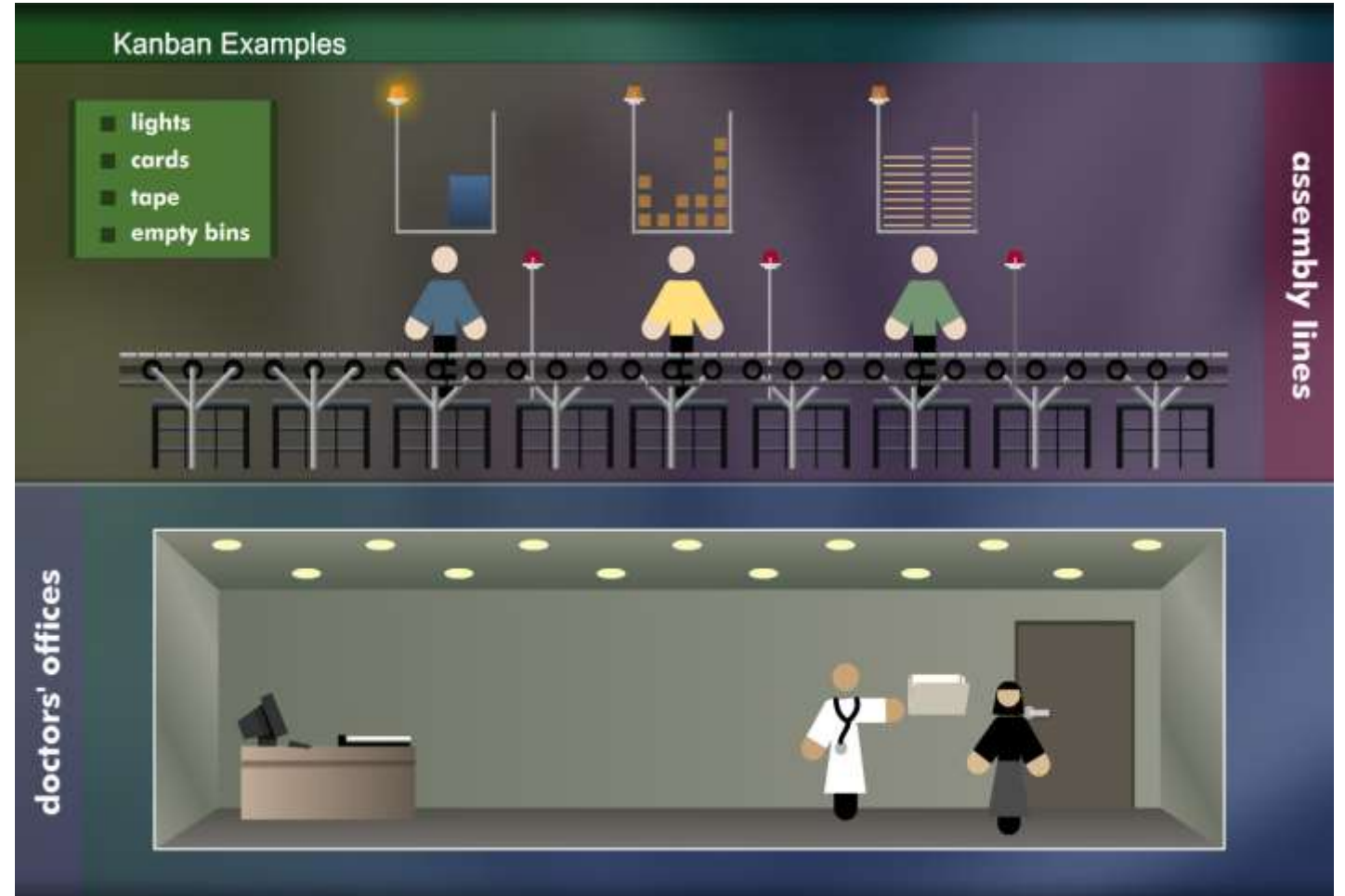
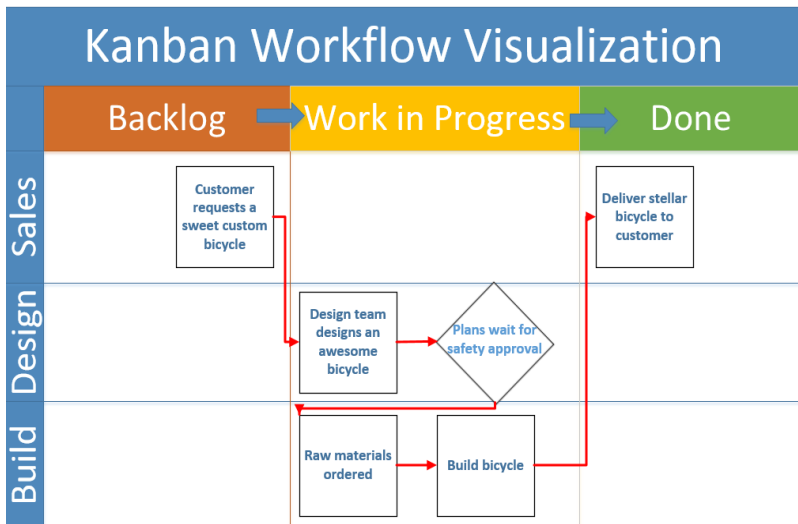




# Types of Kanban



Source: [www.leanfactoryamerica.com](http://www.leanfactoryamerica.com)



Source: [www.bmgi.com](http://www.bmgi.com)

# Toyota Production System

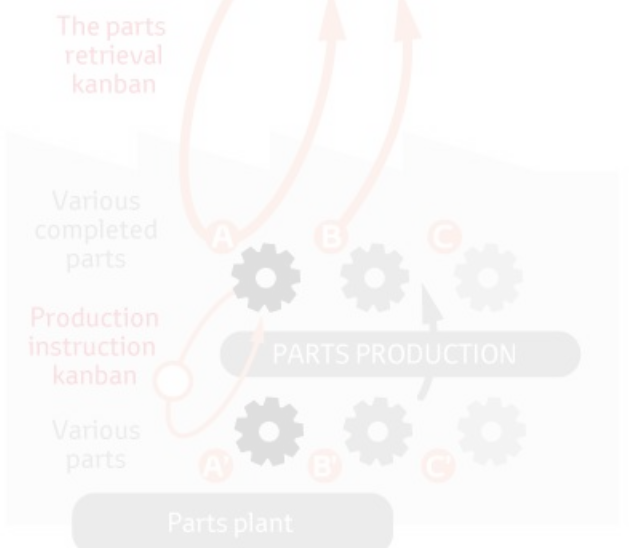
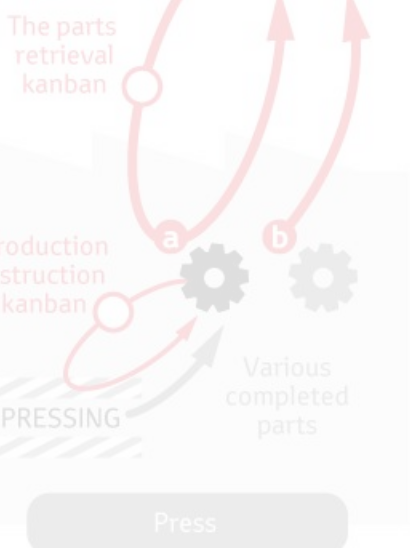
**1** PRODUCTION ORDER INFORMATION  
The order information is quickly incorporated into the production line

Production instruction



**2** TIMELY PRODUCTION  
Efficiently producing vehicles with different specifications one at a time, in a timely manner while ensuring high quality

“Pull”



**3** REPLACEMENT OF PARTS USED  
Only those parts that have been used up are retrieved in a timely manner

**4** PRODUCTION OF PARTS RETRIEVED  
Efficiently producing and replenishing only those parts that have been retrieved



# Kanban Pull System

---





# Kanban Pull System

---





# Disorganization

---





# Workflow Visualization (Prior State)





# Workflow Visualization (Prior State)

---

In Progress	Follow-up	Intern Applicants	Weekly Organizing Meeting Agenda
Project Production Training	Communication with Euph	Coryn Nemmer	Next Meeting Date 5/19
Budget expenditures by...	Communication Coaching	Cecilia Hernandez	Wed: Thursday, April 14 @ 11 am. -- E
Project Temporary College		Alex Spading	
Leadership Core Project		Rachel Lockwood	
Facilitator T&M Vision Pa		Jonathan Serrano	
Organizing the GH Google L		Anthony Christian	
W2 Intern Report Card		Jacob Finger	
Project Health Work Model		Kevin Reimer	
Project T&M		Alex (Susan) Chen	
		Fanachal (Josh) Sopany	

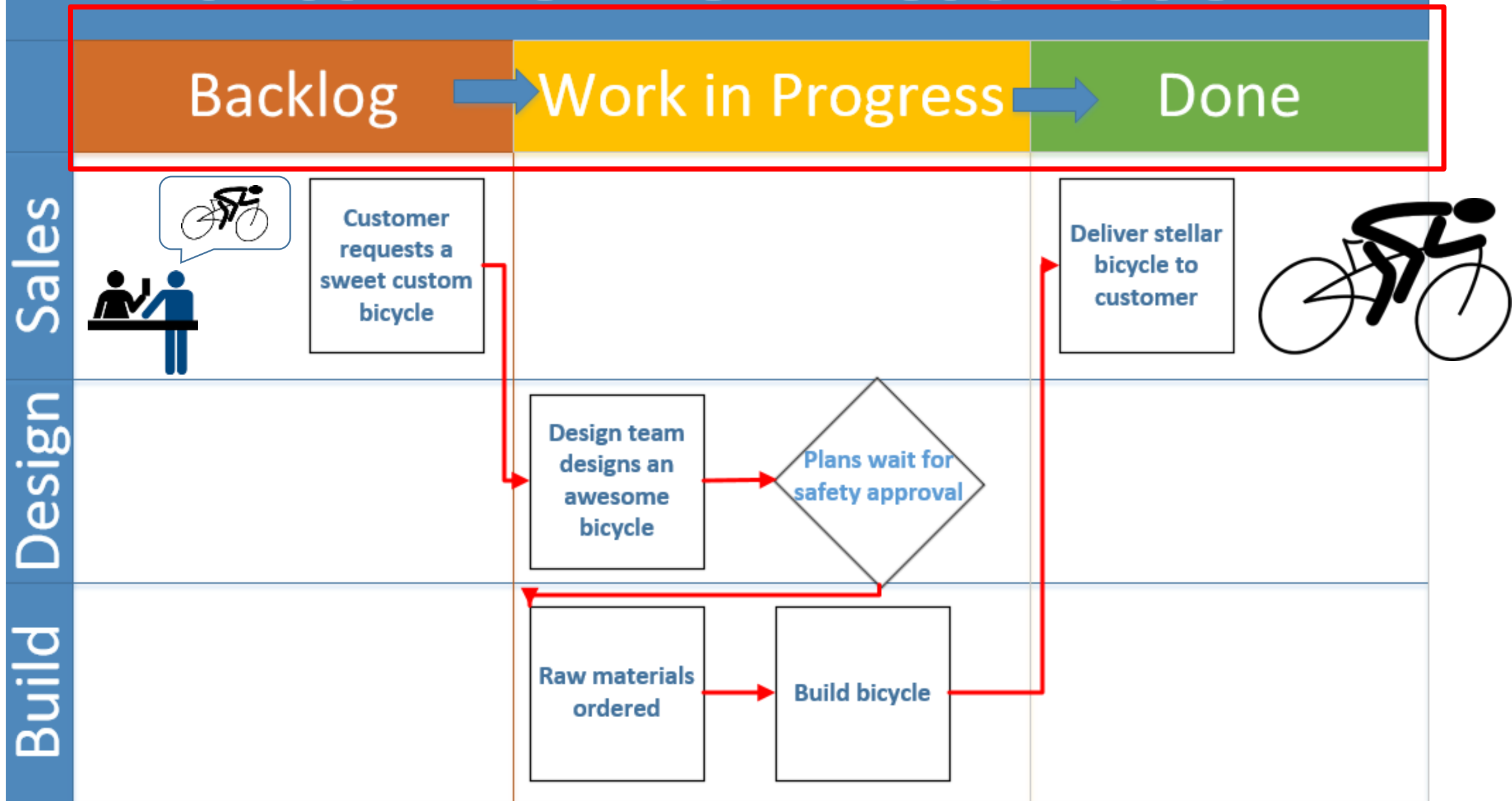
## Prior State

- 10 Project Management Boards
- 195 Projects Listed
- 1 Hour Standup

## Current State

- 1 Project Management Board
- 96 Projects
- 20 Minute Standup

# Kanban Workflow Visualization



**Parking Lot**

- Motor pool inventory management system?
- Ideas Landing Page
- Dartboard Work Selection: Hit the Target
- Statewide Prosci Site License-- Multiple Agencies
- EMT Meeting - Change Management Topic October 2016
- CM Consultations
- Information- Discussion on how to help employees find information that is important and relevant to them.
- HQ Team Set up ON HOLD
- Project Management System - ON HOLD

**Upcoming**

- Monthly CAN Process September
- Car reservation article
- Lunch and Learn: PM
- City of Centennial: revise paperwork/ process SES for \$25,000.00/ Change date for for FY17
- Article: EMS
- Ideation Sept. - Oct. 2016
- Sit withs for Jen
- Intern Report out - Feb 14, 2017
- Retirement package for Ken

**WIP: Long-Term (>3 Weeks)**

- Support PMO Meetings + Drafting PMP Guidance Documents
- Change Management Presentation to NCHRA/SHRM
- DOT Master Calendar
- Communication with Ease -
- Article: Workforce of the Future
- Update the Change Hub

Google Drive

Organizing the OPI Google Drive

**WIP: Short-Term (<3 Weeks)**

- Prosci Training Plan
- CM Listening Session in the Regions
- Employee Engagement Action Plan article - Prosci 1 courses
- R2 Project Closure
- Develop LEI 2017 Goals
- Lean Interchange - Google Site
- R1 Work Plan: Employee Recognition (Contact Cards) Video



**Waiting for Feedback**

- Lanyard Management
- CDOT Google Address Update Project
- Weed Eating Seat
- Article: Waste, Fraud and Abuse
- 3 Peaks Website
- 3 Peaks Magazine
- Signpost Wedge Puller - R5

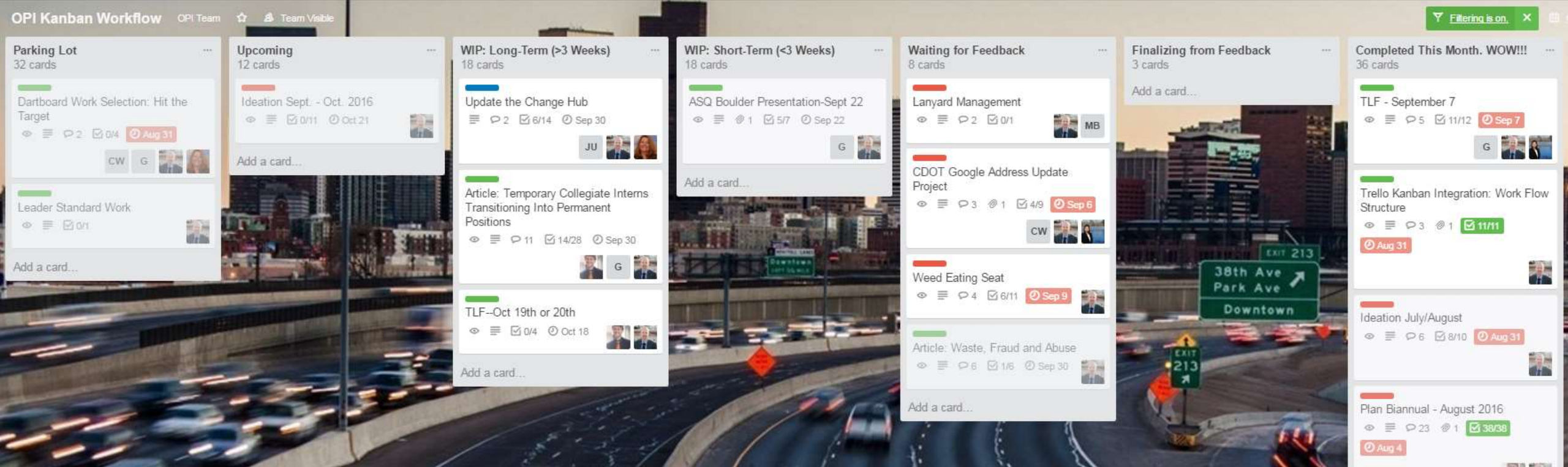
**Finalizing from Feedback**

- Tech Savvy Team - CLOSE OUT PHASE
- MWO Recognition Plan



**Completed This Month. WOW!!!**

- September 2016 is Below
- TLF - September 7
- August 2016 Below
- Region HQ - Number 48-TETP
- Monthly CAN Process August 2016
- schedule next years worth of CAN meetings
- 6S Storage Room
- 1 Day Prosci Course Process Flow
- Update Training Needs Spreadsheet
- Update change agent list



Pinning Process Check: Articles 83-93 (October 2015 - present)  
11 comments, 18/18 checked, due Aug 31



# Lean Workflow & Collaboration Methodologies

---

Kanban  
Workflow  
Visualization

**Lean Coffee  
Collaboration**

6S Lean  
Organization



## Lean Coffee

---



*“When we invite people to meetings and we give them a strong agenda upfront, we are completely robbing ourselves of all of the wisdom that the meeting attendees would bring with them.”*

–Jim Benson



# Lean Coffee

To Discuss

Discussing

Discussed

Meeting  
Next  
Week

Learning  
Resources

WIP  
Mapping

Kanban

PTO and  
Benefits

Training  
Seminar

Training  
Seminar

Project  
Innovate





# Lean Coffee

---

To Discuss

Discussing

Discussed

- Meeting Next Week
- Learning Resources
- WIP Mapping
- Kanban
- PTO and Benefits
- Training Seminar
- Training Seminar
- Project Innovate





# Lean Coffee

To Discuss

Discussing

Discussed

## Two Votes

Meeting  
Next  
Week

Kanban  
Map

PTO and  
Benefits

Training  
Se

Learning

Project  
Innovate

Training  
Seminar





# Lean Coffee

To Discuss

Discussing

Discussed

Training Seminar  
||||

Project Innovate  
||

Kanban  
||||

PTO and Benefits  
|

Meeting Next Week  
|||



Epiphanies

To Dos





# Activity Thoughts

---





# Lean Workflow & Collaboration Methodologies

---

Kanban  
Workflow  
Visualization

Lean Coffee  
Collaboration

**6S Lean  
Organization**



# What is Lean 6S?

---

- 1. Sort:** Distinguish between necessary and unnecessary
- 2. Set in order:** “A place for everything and everything in its place.”
- 3. Shine:** Maintain cleanliness and functionality
- 4. Standardize:** Clear and simple visual cues
- 5. Sustain:** Effective, ongoing application
- 6. Safety:** Develop and maintain safe workplaces













# 6S at the Bookcliff Facility

---



## 6-S: STANDARDIZE

- Consistency and repeatability
  - Within a space
  - Between spaces
- Maintain a specific result
- Standard work for keeping the area organized
- Develop maintenance schedule



Public Works Tool Storage





# Lean Workflow & Collaboration Methodologies

---

Kanban  
Workflow  
Visualization

Lean Coffee  
Collaboration

6S Lean  
Organization



# Questions?

Careers | Contact Us | Search

**BMGI**  
PROBLEM SOLVED.

SERVICES | STRATEGY MODEL | ABOUT BMGI | INSIGHTS & RESOURCES | EDUCATION & TRAINING

Together, anything is possible.

When your people and our people come together to create and execute strategy, anything is possible

**Strategy**  
Building a core strategic foundation that's poised for execution.

**Innovation**  
Systematic ways to develop novel new processes, products and business models.

**Performance Excellence**  
Delivering on your strategic goals with proven methodologies in *Lean* and *Six Sigma*.

[www.bmgi.com](http://www.bmgi.com)

[www.personalkanban.com/pk/](http://www.personalkanban.com/pk/)

[www.ksmartin.com](http://www.ksmartin.com)