

"Using Lean to make transformative improvements to service processes"

Special Thanks to Our Featured Presenter!

Steve Wall

Director, Lean Ohio

Department of Administrative Services

WEBINAR AGENDA

"Using Lean to make transformative improvements to service processes"

Steve Wall.

TPE Calendar 2013

Al Faber

*The Partnership for Excellence
The Nation's Most Respected State Based Baldrige Program...*





Steve Wall

Director, Lean Ohio
Department of Administrative Services

Steve Wall is the Director Lean Ohio, whose mission is to use the tools and strategies of Lean Six Sigma to make state government services simpler, faster, better and less costly. Steve manages a team of internal Black Belts that help agencies eliminate waste and reduce costs throughout state government.

Steve has been leading major improvement efforts for 25 years. Appointed by five Governors in two states and serving in two Cabinets, he has worked with thousands of people at all levels of state government. In Iowa, Steve developed and guided one of the nation's first big statewide continuous-improvement initiative. He moved to the Buckeye State in 1992 to serve as the nation's first Cabinet member focusing on quality improvement. Steve has testified before subcommittees of the U.S. House of Representatives, the U.S. Senate, and the U.S. Secretary of Labor's Office as an expert on improvement in government. He has also served as an Examiner, Judge, and is currently a Board Member for The Partnership for Excellence.



LEAN GOVERNMENT:

IT CAN BE DONE

Steve Wall
June 20, 2013

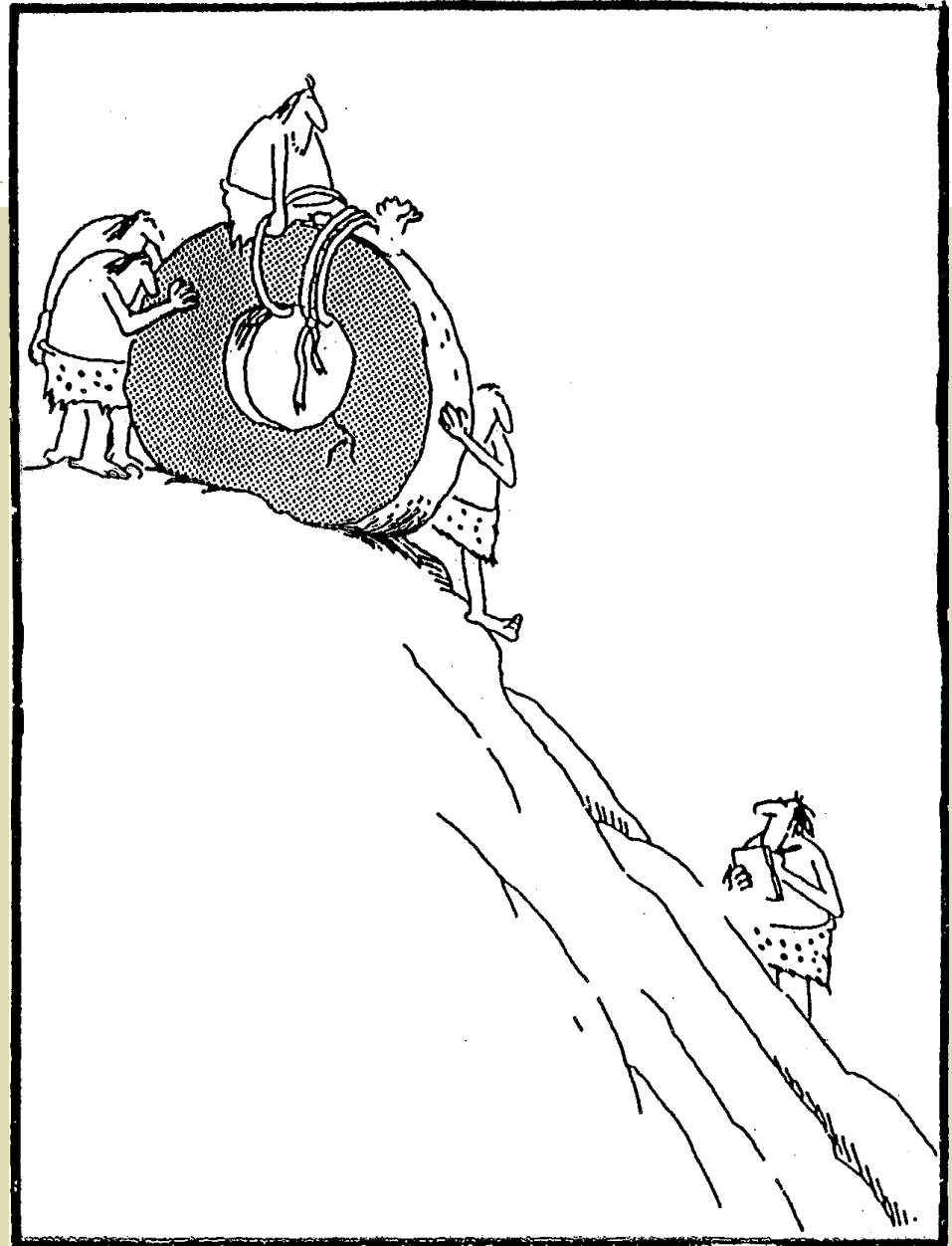
Agenda



- How to make “Lean Manufacturing” work in the service sector, or even government.
- Lean in Ohio State Government
- Sample of Results
- Lessons Learned Implementing Lean “Manufacturing” to Improve Services
- Next Steps

First Question

Do we need to reinvent the wheel to utilize “Lean Manufacturing” to improve services in State Government?



Manufacturing



INPUTS



PROCESS



RESULTS

- Man
- Machines
- Methods
- Materials
- Environment

Assembly
Line

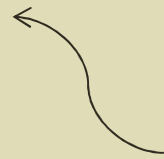
**Bolted to
Floor**

Car



Customer

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Rework



Waste

Government / Service



INPUTS



PROCESS → RESULTS

- People
- Equipment
- Methods
- Materials
- Environment

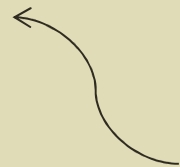
Weaves invisibly through cubicles and corridors

Service or Product

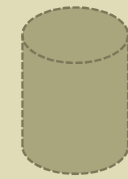
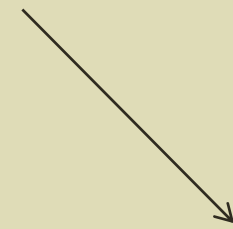
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Customer



Rework



Waste

The Key Differences



The main challenges for adapting “Lean Manufacturing” to Government are:

- Processes are not as visible in government
- Measurements, tolerances, specifications, and data are more routinely required in manufacturing

The Key Differences

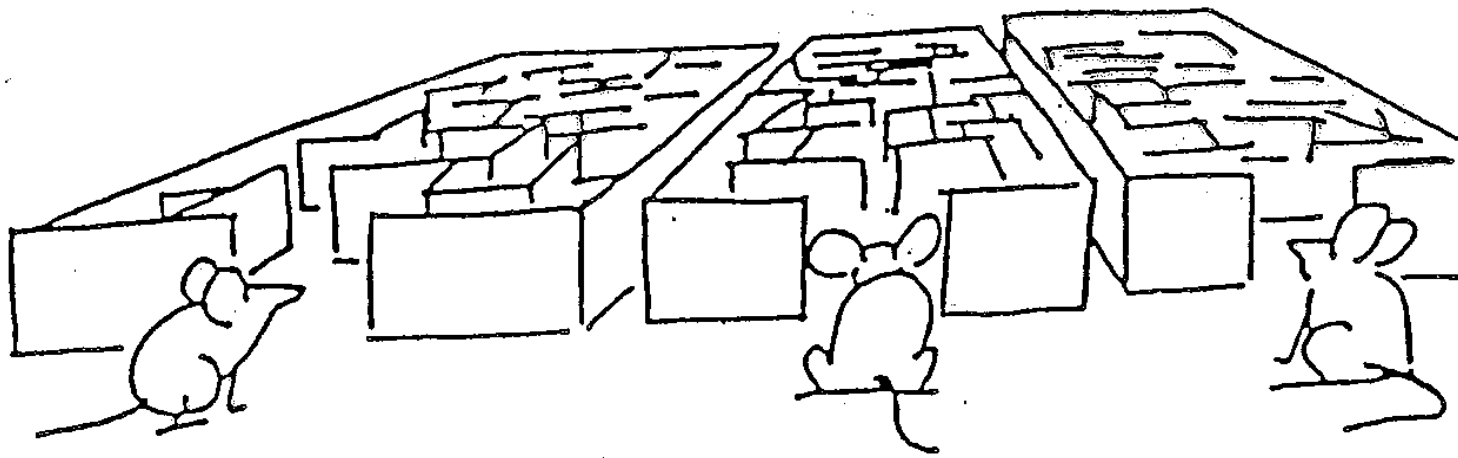


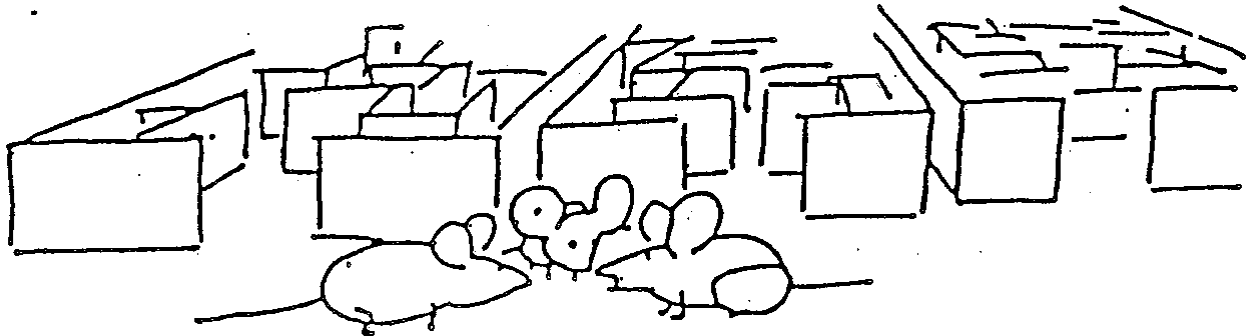
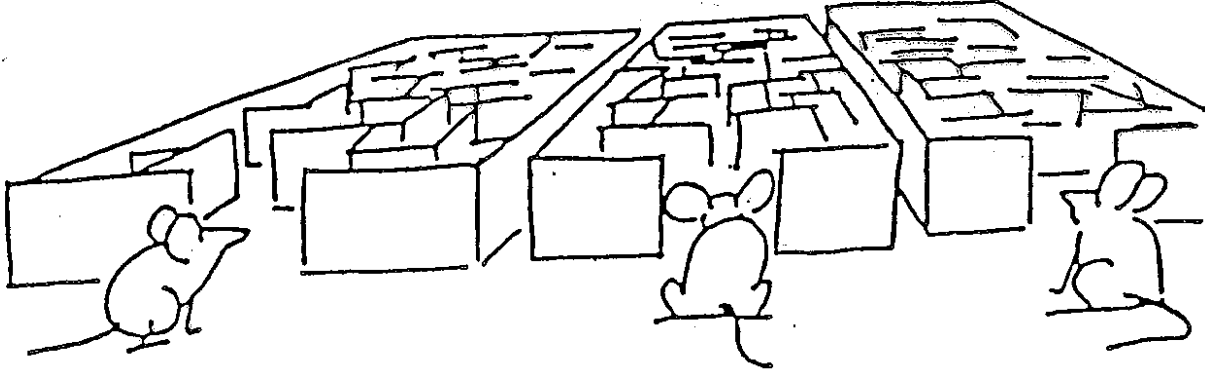
Even the private sector is more likely to apply Lean to the manufacturing processes that occur on the shop room floor than to the hiring, invoice, or other service process that occurs upstairs in cubicles

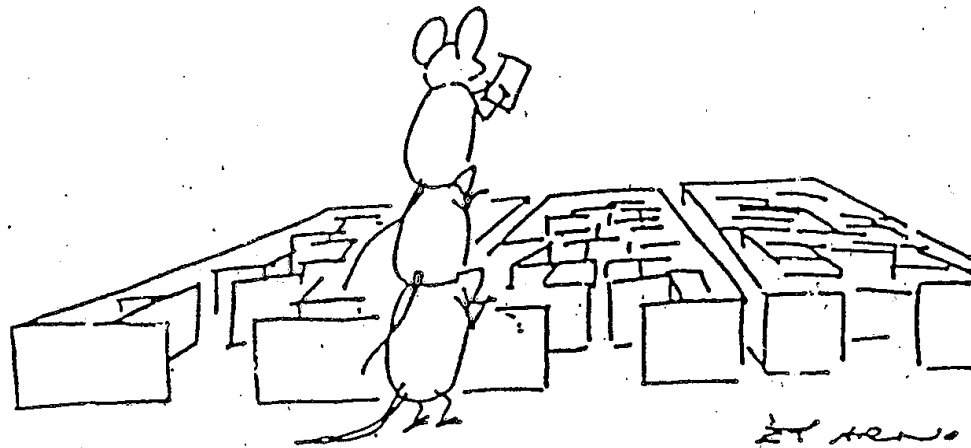
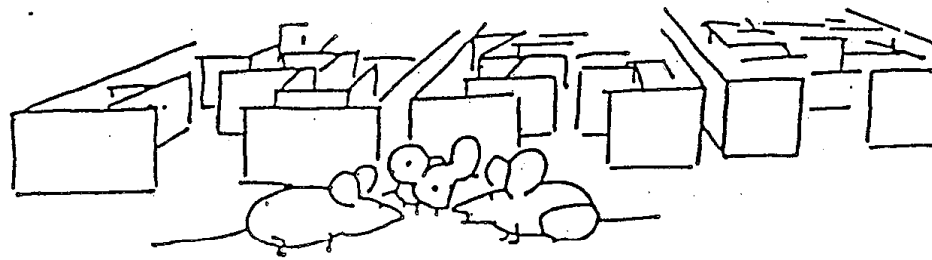
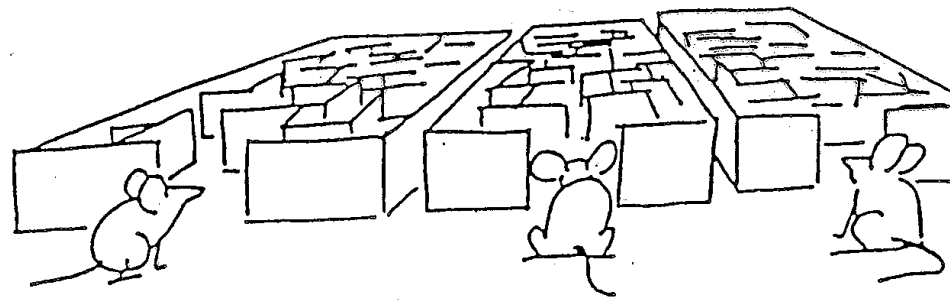
Kaizen Events



How do you “Lean Up” those invisible Administrative processes in places like HR or finance?



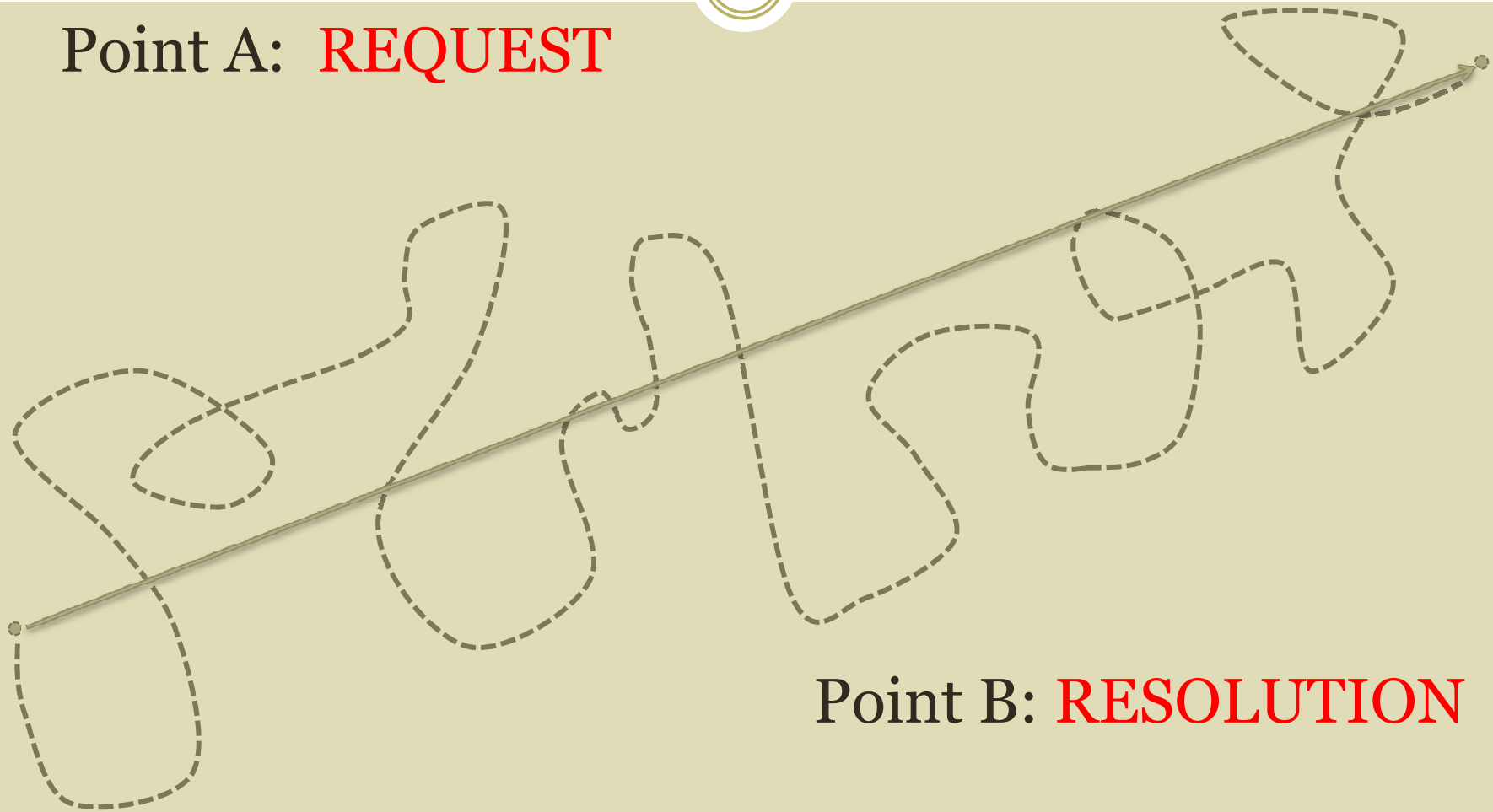




Processes tend to be invisible



Point A: **REQUEST**



Point B: **RESOLUTION**

In Manufacturing or Government, Whatever your results ...



- Lead time
- Cycle time
- Errors
- Costs
- Customer satisfaction or frustration

...your process is **PERFECTLY** designed
to achieve those results

What result is this process perfectly designed to achieve?



Fix processes, not blame



Current State = 143 steps, 4 entry points

Future State = 96 steps, 1 entry point

Lead time reduced from 32 months to as few as 7 - 20 days

LEANOhio
SIMPLER • FASTER • BETTER • LESS COSTLY



Taxation/Tax Appeals

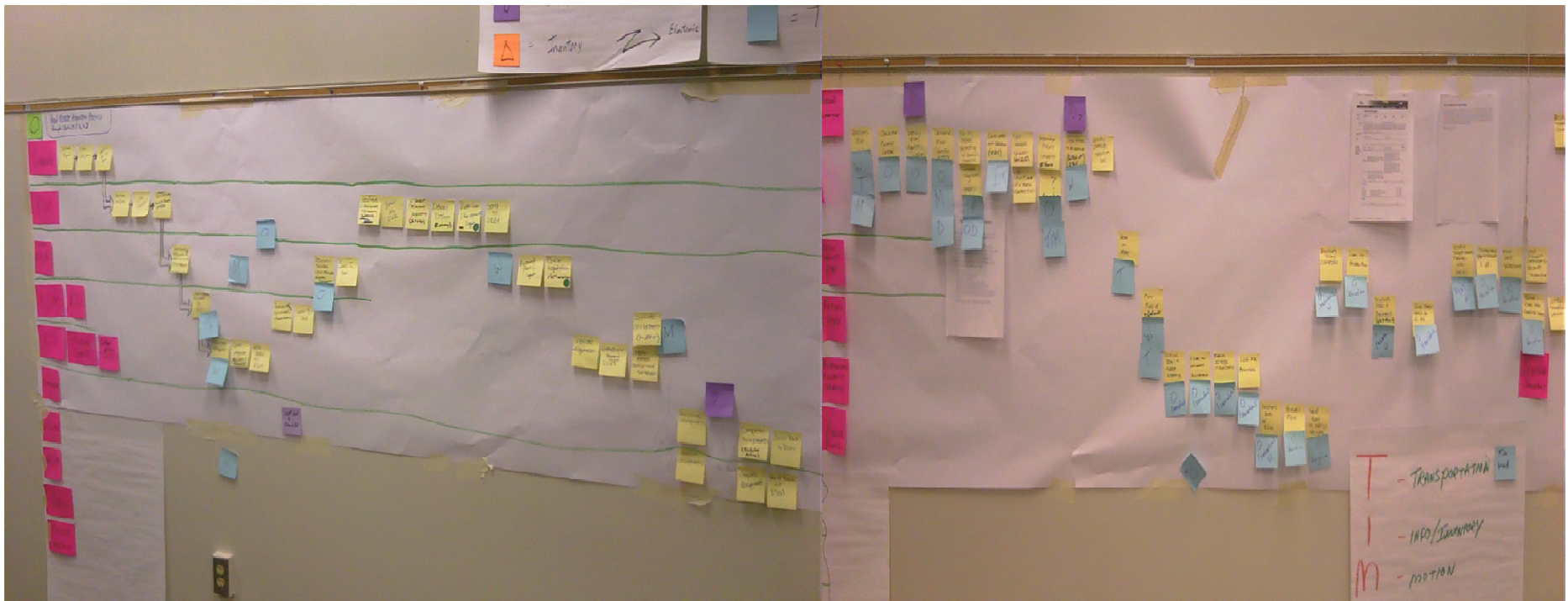


- Four entry points reduced to 1
- 18,000 backlog reduced to less than 2000 of the most complex
- Lead time from as much as two years to just a few days for common appeals
- \$529,200 reduced in cost avoidance
- Cost to process simple returns reduced from \$105 to \$7

Ohio Department of Transportation



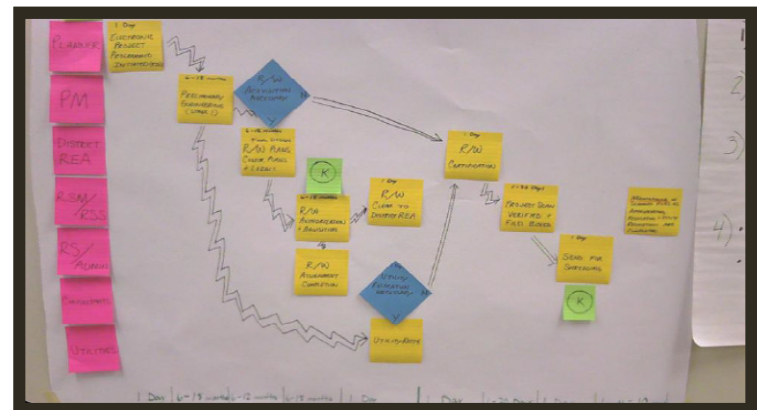
REAL ESTATE RECORDS RETENTION PROCESS



Current State = 61 steps, 22 handoffs

Future State = 11 steps, 8 handoffs

Cost to process each records box fell from \$705 to \$1 by processing electronically



More Out of the Box Results



- 82% fewer steps in process
- Lead time reduced as much as 40%
- 353 boxes backlog eliminated
- 700,000 sheets of paper touches eliminated



Ohio Department of Public Safety

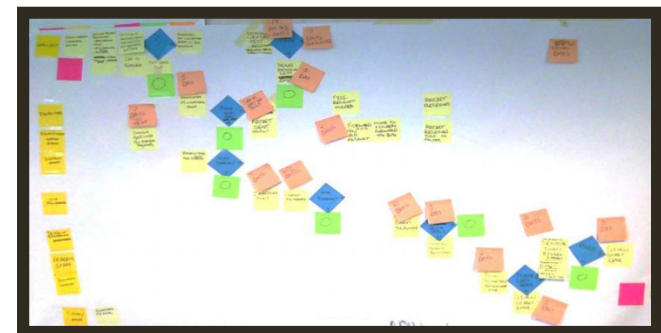
**HIGHWAY PATROL
TROOPER RECRUITMENT PROCESS**



Current State = 235 steps, 28 decisions,
76 handoffs, 50 delays

**Future State = 34 steps, 8 decisions,
11 handoffs, 15 delays**

**Lead time reduced from a range of
191 days to more than a year, down
to 61 days**



Communicating Cost Savings



BMV/Dealer Licensing Process

- Process reduced from 221 days to 37 days
- \$62,649 annual cost savings
- 5200 annual staff hours redirected
- New Dealerships save between \$200,000 and \$300,000 each
- Columbus based DMV “**concierge**” service for auto dealers

More Examples

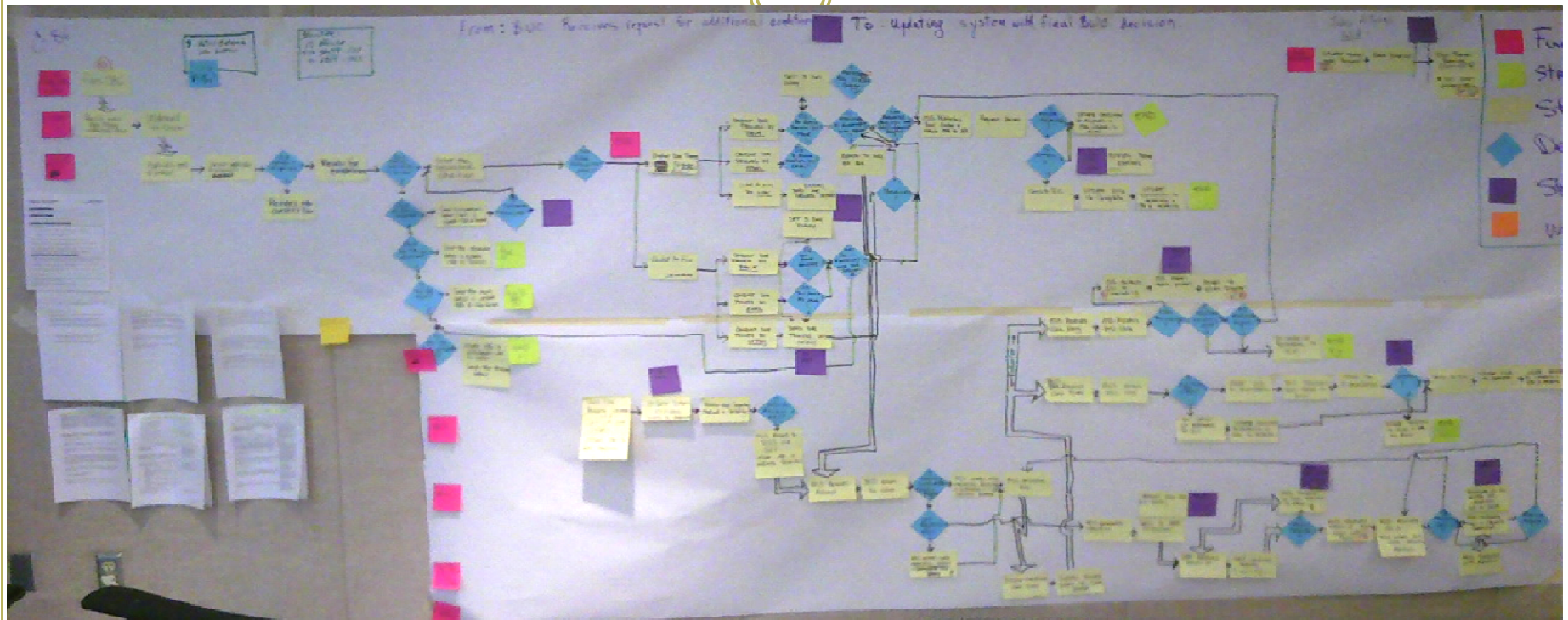


Ohio Department of Insurance: It used to take between 102 and 146 days for the state to respond to citizen's complaints about Ohio's insurance companies. It now takes less than 56 days, on average, to resolve those

Ohio Rehabilitation Services Commission: The time to determine eligibility for vocational rehabilitation services has been reduced by more than half so Ohioans with disabilities will be able to find jobs faster.

Ohio Development Services Agency: A new improved process for determining eligibility in the Home Energy Assistance Program (HEAP) program will mean Ohio citizens in need will be able to get heat for their homes in the winter more than 60 percent faster – and saved 250K by eliminating need for overtime. Temporary workers redeployed.

Current-State Process Map



90 steps 30 decision points 17 handoffs 30 points of waste

Orange “Post-its” are points of waste!

Bureau of Worker's Compensation



BWC Team Improvement Tangible Results:

Changes to Process

Reduced steps in process
from 87 – 43 (50%)

Loopbacks 6 – 1

Decision Points from 9 - 3

Metrics

63,000 hours of
staff time saved

Application lead
time 42% - 91%
faster

As A Result

Injured Workers will
return to work an
average of 4 days
sooner

Projected savings of
\$6.7 million

Less Tangible Results



“I was willing to try but didn’t think much could be done because of all the laws and rules and policies”

“I thought we might be the first team with no improvements implemented”

TO

“It changed my life”

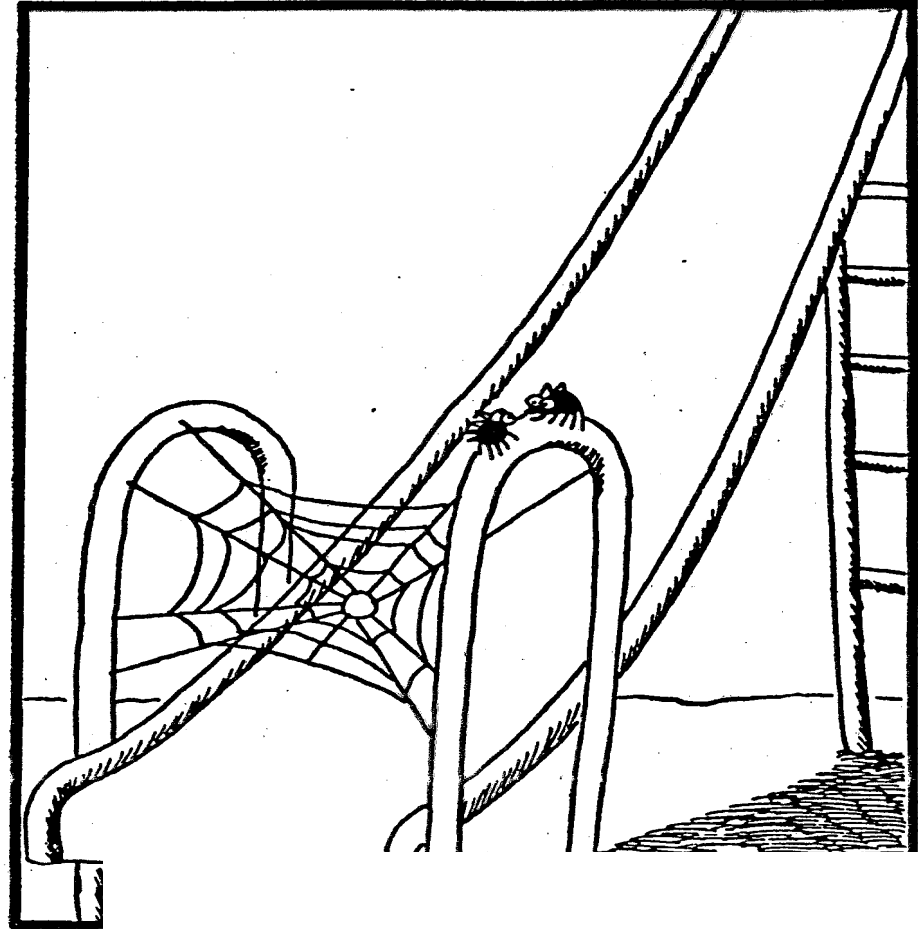
“I look at everything differently”

“We use lean tools everywhere now”

“Nothing will be good enough”

Leaning Up Invisible Processes

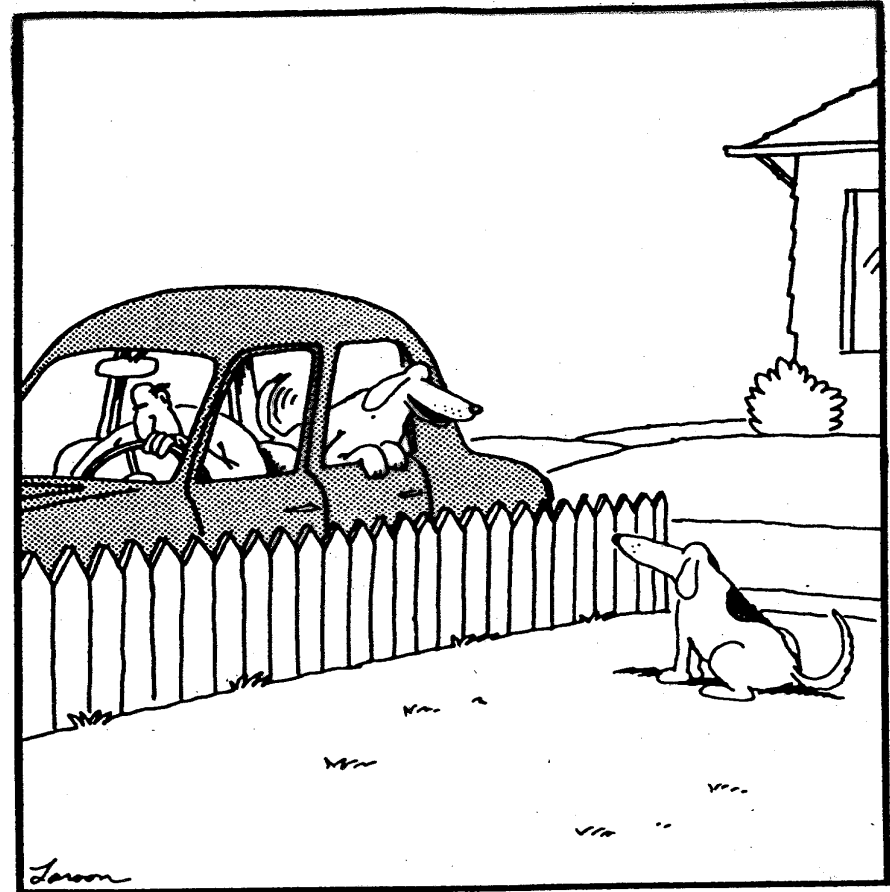
No Kaizen event is held without first developing a meaningful yet appropriately sized scope to ensure success



“If we pull this off we’ll eat like kings!”

Leaning Up Invisible Processes

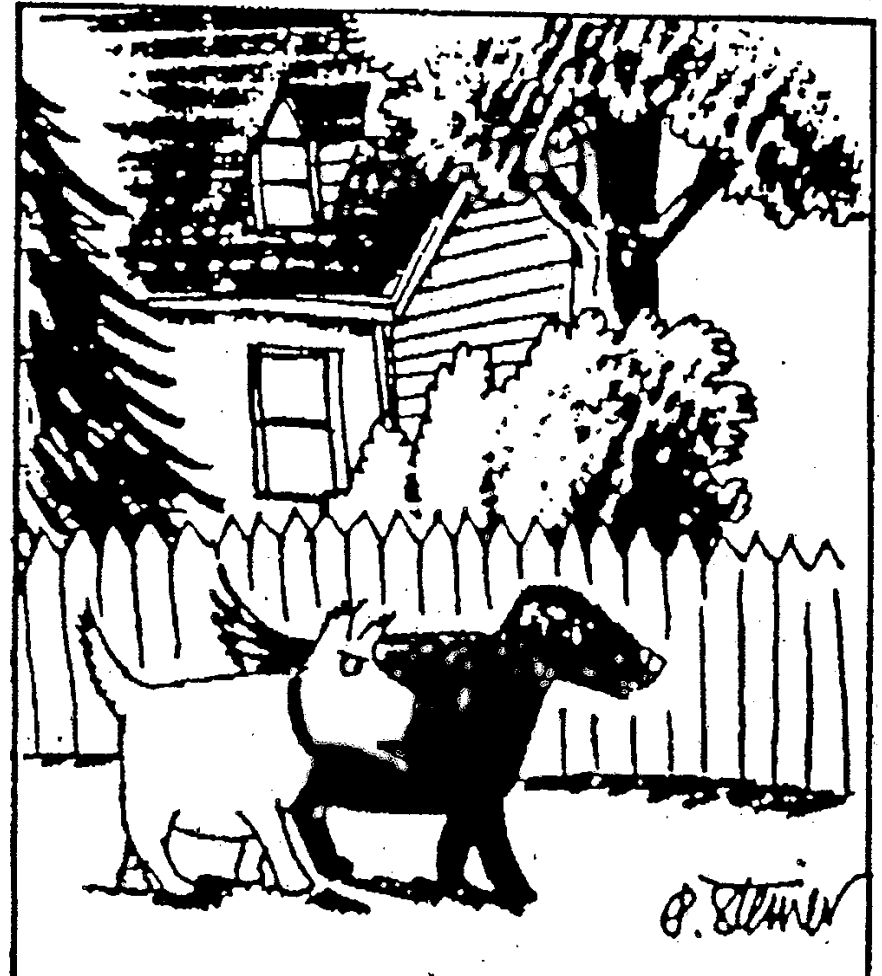
Each Kaizen event has a detailed charter that provides operational definitions and clearly defines the purpose and goals so everyone is on the same page.



**“Ha ha ha Biff. Guess What?
After we go to the drugstore and
post office, I’m going to the vet’s
to get tutored.”**

Leaning Up Invisible Processes

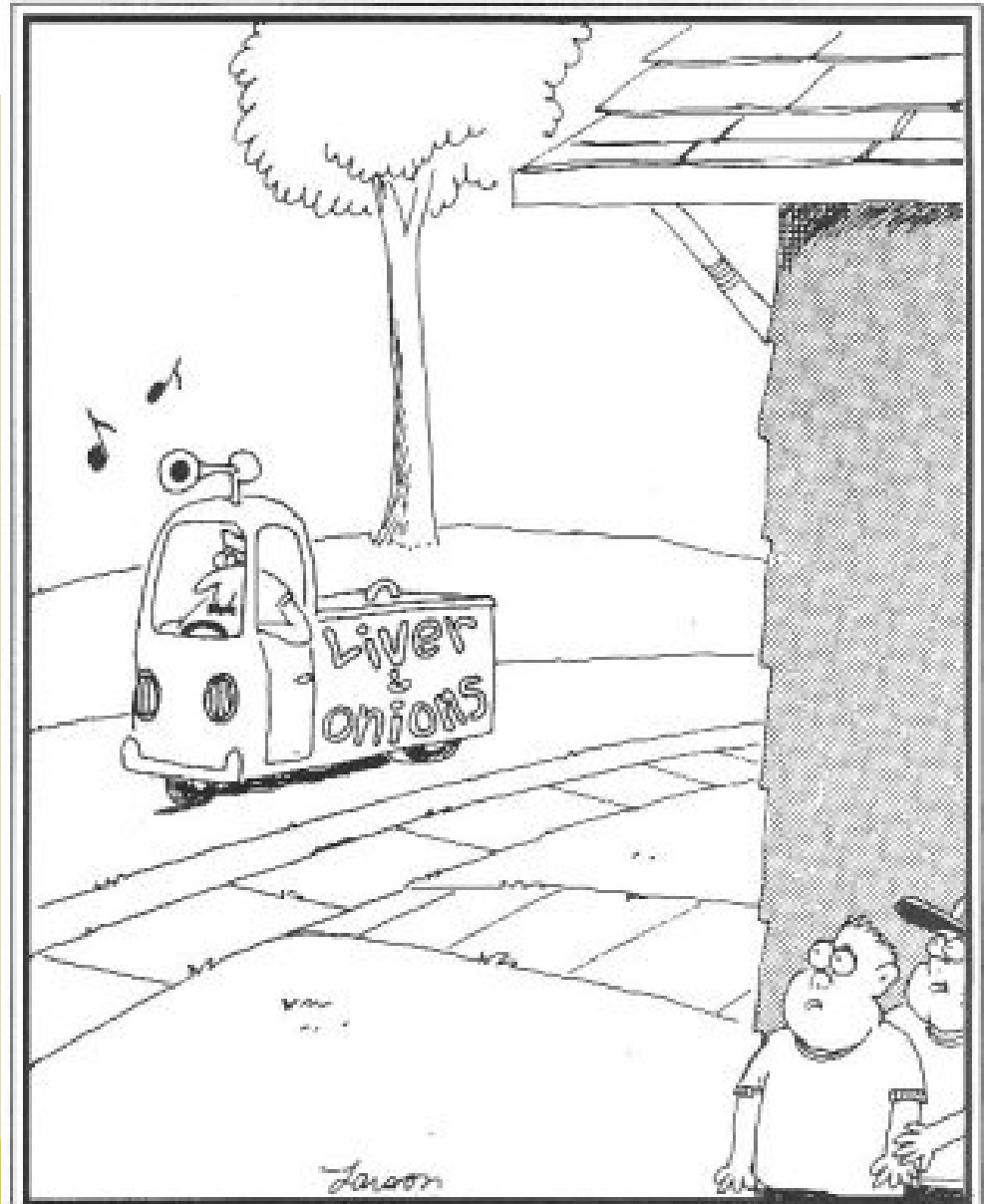
The people who do the work (and therefore know the work best) from ALL parts of process are involved in making the improvements



“It’s always ‘Sit,’ ‘Stay,’ ‘Heel’ – Never ‘Think,’ ‘Innovate,’ ‘Be Yourself.’”

Leaning Up Invisible Processes

Customers are part of the improvement team so their needs are more accurately identified



Leaning Up Invisible Processes

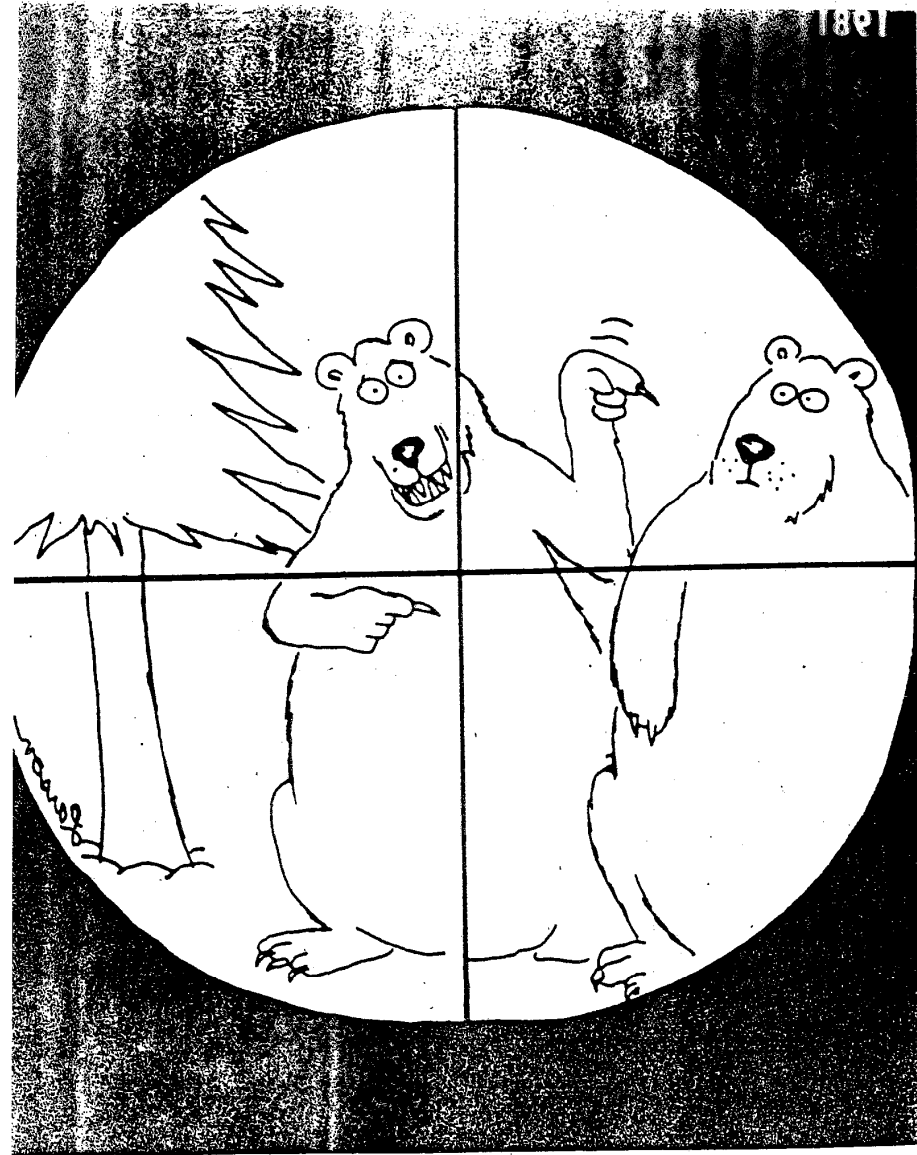
The team is taught the science of flow, sequencing and pull systems so they can design their own processes to work more efficiently



“I’ve got it too, Omar. A strange feeling like we’ve just been going around in circles.”

Leaning Up Invisible Processes

The process creates a blameless environment to help overcome defensiveness and resistance to change.



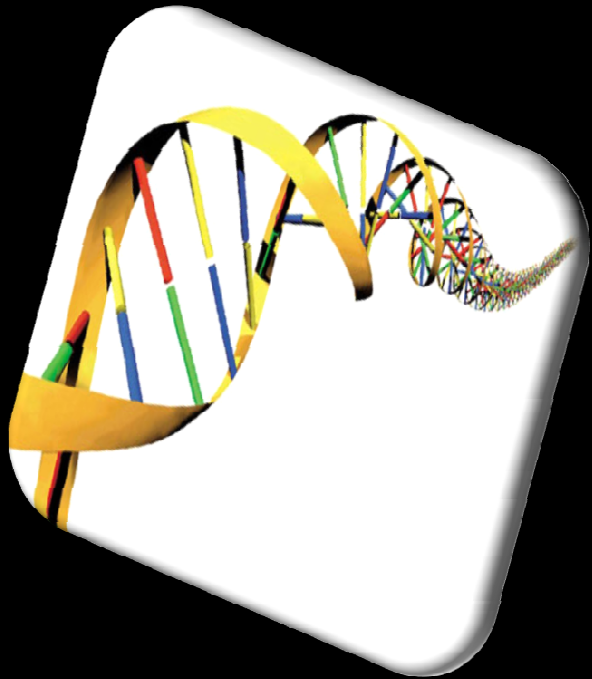
Leaning Up Invisible Processes

Implementation of the new process begins immediately so momentum is not lost.



“Again? Why is it that the revolution always gets this far and then everyone just chickens out?”

Ohio Bureau of Criminal Investigation



- FB & DNA Process Study
- Kaizen Event Report Out
- April 11-15, 2011

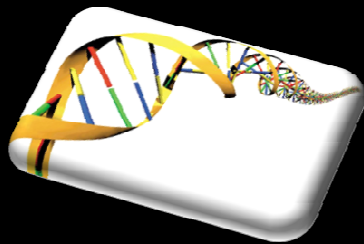
The TAQ Masters



Background

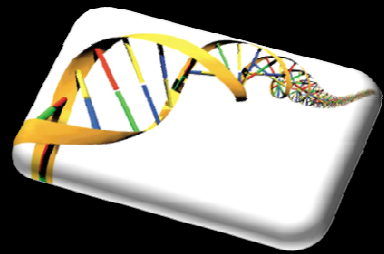
The Ohio Bureau of Criminal Investigation processes more than 7,000 DNA cases each year. Most cases are received and/or processed beginning with Forensic Biology and then DNA at three primary laboratories, 1) London, 2) Richfield and 3) Bowling Green.

The process is utilized by most law enforcement agencies throughout the state and the results of BCI testing impact the viability of related case prosecution.



Stakeholders

Victims/Victims Family
Law enforcement agencies
Courts
Attorneys
Accused offenders
Ohio Attorney General



Scope of Event

The process begins when agencies bring evidence to BCI and ends when the final report is issued or the forensic scientist testifies.

Overarching Themes:

The purpose of this event is to reduce processing time and improve customer satisfaction while maintaining high quality.

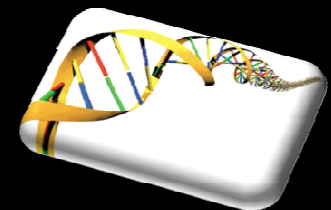
Out of Scope

Areas that will not change as a result of the Kaizen event are:

- **No one loses their job because of the Kaizen event, but duties may be modified.**
- **Need for additional staff is not dependent on improvement process**
- **Need for additional monies is not dependent on improvement of process**
- **No legislative changes or changes related to collective bargaining.**
- **No IT solutions until it is determined that an IT solution is needed.**

Goal

- Satisfy Customers (Law Enforcement and Prosecuting attorneys) by achieving an average report time of 35 days from submission with no loss of accuracy.



Baseline Data

DNA Lab Statistics				
	Days Until Assigned	% Assigned	Total Days at BCI	% Assigned
One Day	122	39%	1	0%
2-7 Days	10	3%	1	0%
8-14 Days	8	3%	1	0%
15-30 Days	19	6%	8	3%
31-60 Days	65	21%	46	14%
>60 Days	92	29%	262	82%

The average processing time for DNA cases was 126 days. 50% were not assigned to a scientist for 30 days or longer

Current-State Process Map



187 steps

52 handoffs

43 decisions

The original processes had:

- Too many steps
- Too many handoffs
- Caused too much process lead time
- Too many duties for the forensic scientist that could be done by others
- Lot of delays
- Lot of redundancies

The team brainstormed more than 70 improvement ideas

Garbage in=Garbage out
Only take complete cases
No non-sex cases at less than F3 level
Edit sub. Policy (limit rushes)
Establish better criteria for submission of evidence to reduce non-essential work
Require synopsis & standards on submission
Incomplete is unacceptable
Tighten up compliance with evidence protocol – must have svcs std & synopsis
Cases ready to be worked on submission
Require checklist to be completed prior to case acceptance
Incentives for status communication for Detectives & Court
Stop cases at the door if they don't have everything they need
Train LEA better
Tell L.E. & Pros. What is required
OHLEG Training & use
Give Detectives /Inv. OHLEG access to reports
No memos.. OHLEG
Give BCI staff “read” access to OHLEG
Electronic access to court dockets & OHLEG
Mideo access on other computers
Stop attaching CV to each report - stop mailing reports
Automated note taking
Purchase & install barcode system for sample tracking
Dictation software for staff
LIMS generate report from report input info
LIMS that works
LIMS creates reports FB/DNA little FS interaction wizards

Better LIMS – report writing – tracking sample types
IT support to include program for robots
Faster computers
Make more of process electronic
Paperless process
Go paperless
Better data mining tools to track trends and sample types
Take better advantage of OA3s
Have someone else order
Evidence transfer to a minimum
More support with admin functions (Purchasing ordering)
Reassign non-technical tasks to OA3s
Liz have dedicated OA3
OA3 to order supplies (2)
Delegate some responsibilities to OA3
Decrease amount of case transfer
Don't transfer cases/evidence
Less shipping around of case files
Minimize transfer between labs
Eliminate or reduce Fed Exing
Less movement of case pockets- only absolutely necessary transfers
Organize DNA vault for incoming evidence
Property room person to move evidence
Place in DNA vault (no transporting from vault to vault)
Good scanners for case files
Better define interpretation guidelines (i.e.: inconclusive)
Bar code readers for DNA sample tubes
Use colored folders to identify case typed priority
Assign additional counties to L&R – from BG area

Common Ground

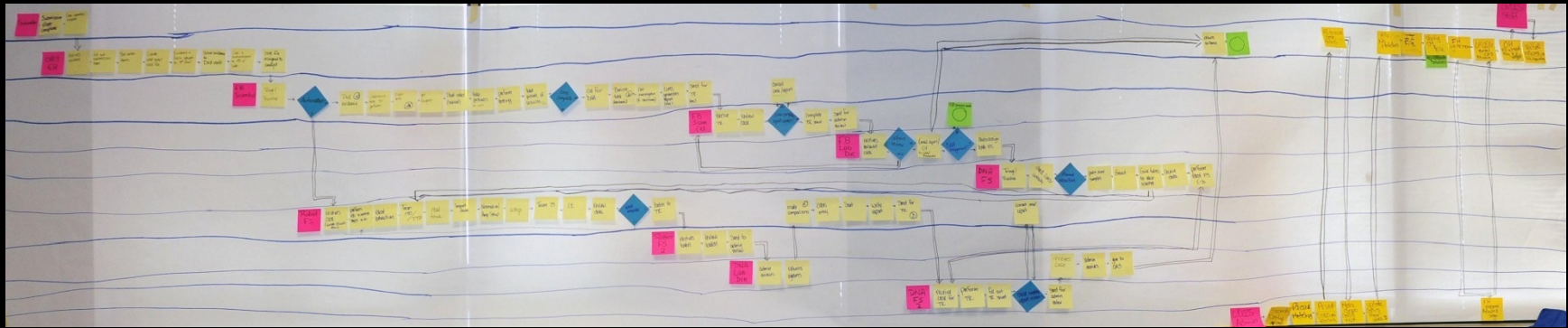


Common Ground

- Auto-Assign
- Submission Policy Enforced
- No more mailing
- QC Tech Responsibilities
- OAS's move evidence
- Bar coded Tubes
- Tablets for Notes
- Triage in analysts Hands

- Automated Flow Path.
- Paperless
- IDX - use it.
- LIMS enhancement
- Simple cases bypass FBI reporting
- Visual Prioritization
- CODIS - Forensic check by analyst - rest Admin-ORS.
(initials)
-

The New, Improved Process



84 steps

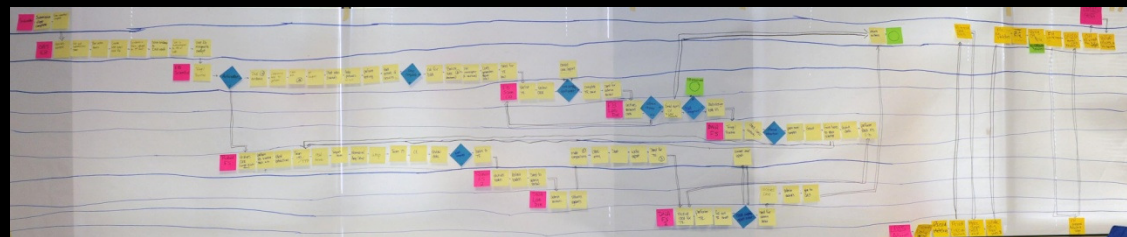
26 handoffs

8 decisions

Old Process



New Process



The Results

Measure	Before	Projected After	Difference
Number of Processes	3	1	66% reduction
Steps	187	84	103 less steps -55%
Decisions	43	8	81% fewer
Handoffs	52	26	50% fewer
Forensic Biology Processing Time	50 days	14 days	36 fewer days 72% reduction
DNA Processing Time	126 days	21 days	105 fewer days 83% reduction
Overall Processing Time	117 days	35 days	82 fewer days 70% reduction

More Results

- Reduced information-gathering steps
- Created a process that can be explained to the customers
- Reduced job frustration; revitalized job satisfaction
- Buy-in from all levels of staff

Projected Cost Savings

Laboratory-wide savings :

Paperless Reports:

Paper Savings: \$28,000 annually

Postage Savings: \$12,000

OA3 time spent mailing: \$17,000

Projected Annual Savings of \$57,000

Staffing Plan

2012 Budget includes money to hire 8 DNA Forensic Scientists (\$500,000/year)

Post Kaizen staffing plan:

4 DNA Forensic Scientists

3 Laboratory QC/QA Analysts

3 FT & 2 PT dedicated OA3s to the DNA Biology Unit

BUDGET NEUTRAL

Key Issues	Major Improvements
Each lab had a separate process	Standardized processes
Forensic samples came in incomplete	Created a new checklist and educational process to ensure more complete submissions.
Scientists doing too many other duties	Moving duties to more appropriate staff . Hiring and using office assistants.
	Future hiring of technicians to free up scientists to do more DNA work
Lead time too long	Reduced steps, implementing paperless process,
Purchasing procedures were burdensome & caused delays	Credit card, blanket POs, pre-approved standard lab supplies vendor
Employees took too long to get help	Dedicated IT staff at BCI

Implementation Plan

- Submission Expectation action items
- Training plan
- Communication plan
- IT action items
- HR action items
- Fiscal action items
- Data collection



Action Plans

Fiscal Action Plan

What	Who	When
P-cards x2	Jennifer B. (memo to COO)	4-22
List of most common vendors for - Blanket POs - "Preapproved" Std Lab Supply Vendors	Levi	4-22
Timing for Maintenance Contracts	Mike Jennifer B.	
Performance audit of local PCs - Help Ticket with PCs	Lynn and Liz (Liz)	4-22
Ensure IT is aware of all DNA IT projects needed	Mike, Levi, Liz, Lynn	4-22

HR Action Plan

What	Who	When
Potential intern Candidates fr. OSU	Erica	Mon, Apr 18
Create specs/P.D. for tech position	Erica + BCI mgrs. ect	June 18 (8 wks)
^{tech} Study tasks that can be reassigned to OA3	Erica	Mon, May 2 (2 wks)
OA3 - Designated per Lab. - Mike		
Study IT support staff for BCI - Mike		

Submission Form

HEADER

(susp. vic case #
dates agency
offense)

BARCODE

★

Charged yes no

Trial Date yes no

Grand Jury yes no

In Custody yes no

Other comments:

Agency Item	Description	Where?	Purpose/Why?
1	comforter	victim's bed	suspect's semen
2	pants	victim's pants	suspect's semen
3	underwear	suspect's underwear	victim DNA
4	knife	found @ scene	susp - handle vic - blade
5	swabs - standard	victim	for comparison (auto populate)
6	standard	suspect	for comparison (auto populate)

(Submitted by)

(Investigator)

Brief Synopsis: ★

Come Monday...



- Purchasing
- DNA can be stored upstairs (London)
- Help desk
- Eliminate simple biology blood reports

Benefits

- Less paper products
- Reduced postage costs
- Less waiting time
- Less frustration for employees
- Streamlined process
- Process is a product of the employees
- Reduces the opportunity for human error
- Fewer incomplete submissions
- More standardized workflow between labs
- Better use of scientists' time



Not there yet, but...



- **Since January 2011**
 - More than 140 Lean improvement efforts including 37 week-long Kaizen events.
 - In Fiscal Year 2012 the ROI was 42:1
 - Kaizen event teams on average eliminated 56% of the process steps they identified, meaning thousands of handoffs, loopbacks, decisions, and unnecessary red tape was eliminated.
 - More than 90 Lean Six Sigma Black and Green Belts graduated.
 - Over \$30 million in cost savings / cost avoidance
 - Transformative: Teams average a 51% reduction in process lead time
 - Millions of hours citizens and businesses must wait on government has been eliminated.

What's Next?



- “Lean Routines”
- Kaizen Academy
- Lean Liaison in every Agency
- Regulatory Reform
- Social / Professional Network
- State and Local Government partnership

Top Reasons Kaizen Events Work

Management is totally committed to implementing the new process

“Men, I want you to fight vigorously and then run. And as I am a little bit lame, I’m going to start running now.”

- General George Stedman
U.S. Army (Civil War)



Additional information can be found at LEAN.Ohio.gov

TPE Calendar for 2013

- August 22nd, TPE Webinar Series at 2:00pm
- September 15th, Annual Golf Classic
- September 16-17, Quest for Success Conference
- **September 20th, 2013-2014 Examiner Applications Due**
- **October 1st, Full Application "Intent to Apply" Due**
- October 1st & 3rd, New Examiner Orientation
- November, 2-day Examiner Training, 5 Locations
- December 1st, Full 50-page Applications Due to TPE
- December 12th, TPE Webinar Series at 2:00pm





14th Annual Quest for Success Conference!

September 16-17, 2013

Polaris Hilton, Columbus, Ohio

Golf Outing/Silent Auction – September 15, 2012

Registration Open - Early Bird Discount Still Available!



Questions?

A Special Thanks to Our 2013 Organizational Members!



Celebrating 125 Years of the Trust



The Partnership for Excellence
The Nation's Most Respected State Based Baldrige Program...

