

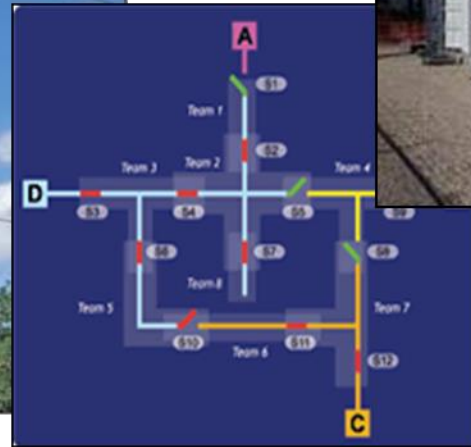
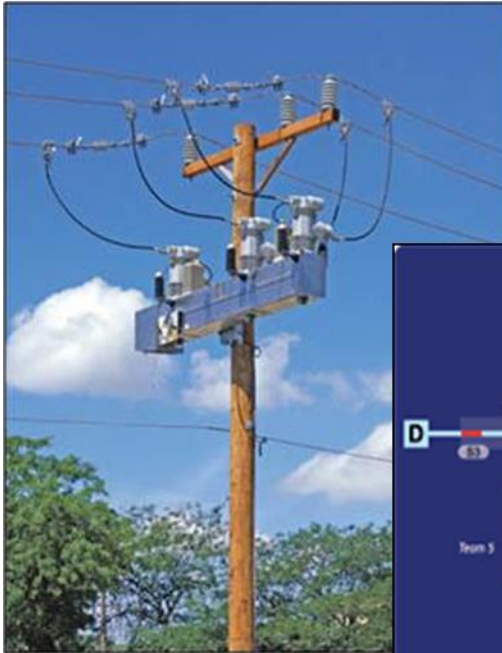
# Daily PDCA Coaching

**Boyd Rice**

VP – Quality and Lean Performance Systems  
**S&C Electric Company**



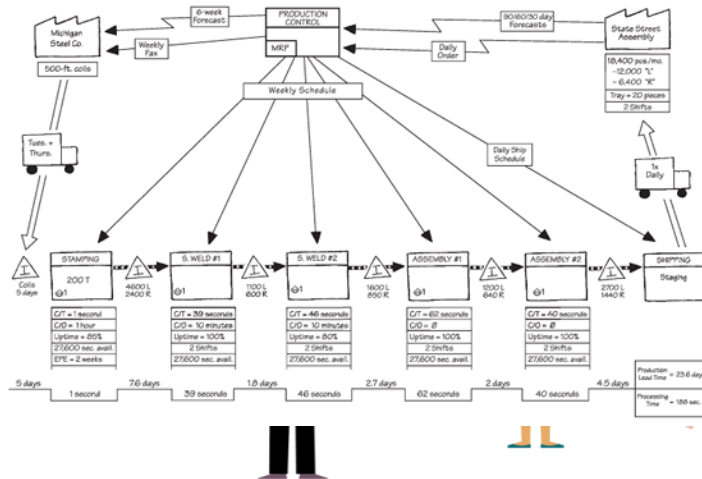
# S&C Electric Company



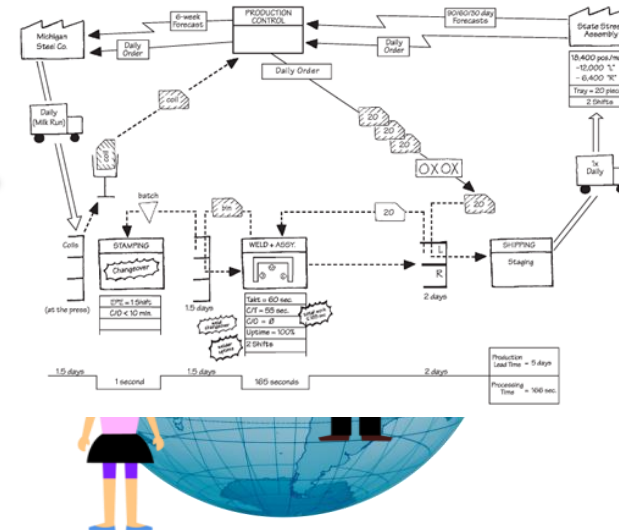
# Lean Performance System Strategy

- Develop leaders (particularly mid-level managers)
- Transform value streams

**Current-State Value-Stream Map**



**Future-State Value-Stream Map**



# Mid-Level Leaders are the Key



# Strengthen the Fulcrum

First, leaders must master PDCA problem solving...

- 8-Step, DMAIC, 4-Step, etc.

...then they can learn to coach

- Building PDCA problem-solving capability in direct reports
- Achieving results through others

# Aside - 4-Step Problem Solving

1. Define the problem
2. Identify root cause
3. Test for cause and effect
4. Confirm countermeasures

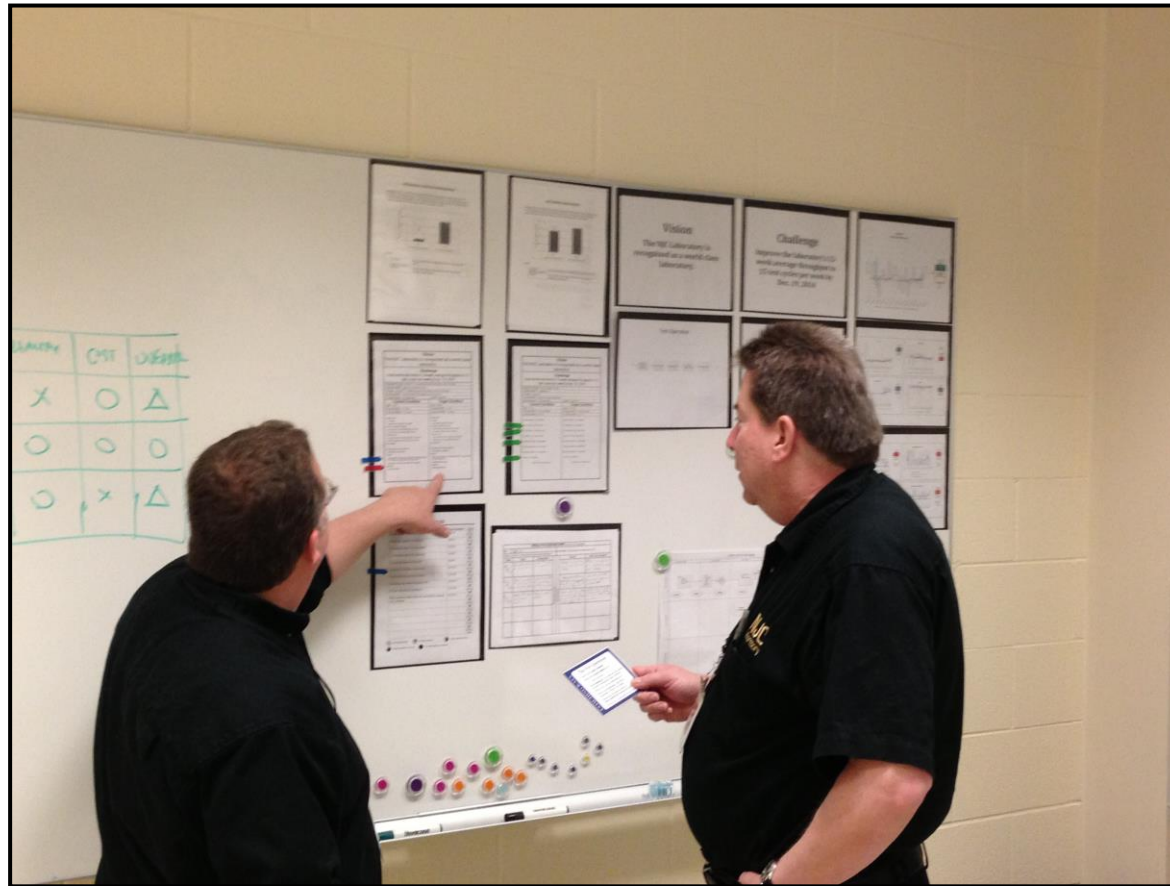
# The Approach

- The ancients invented it
  - Shifu–Xuesheng or Sensei-Deshi
  - Master-Apprentice
- Toyota made it a way to do business
- Spears wrote about it in *The High-Velocity Edge*
- Rother operationalized it and called it “Toyota Kata”

# Show of Hands

- How many of you are functional leaders?
- How many of you are in a full-time Continuous Improvement role?
- How many of you have been using Toyota Kata for more than a year?
- How many of you just started Toyota Kata?

# One Leader at a Time



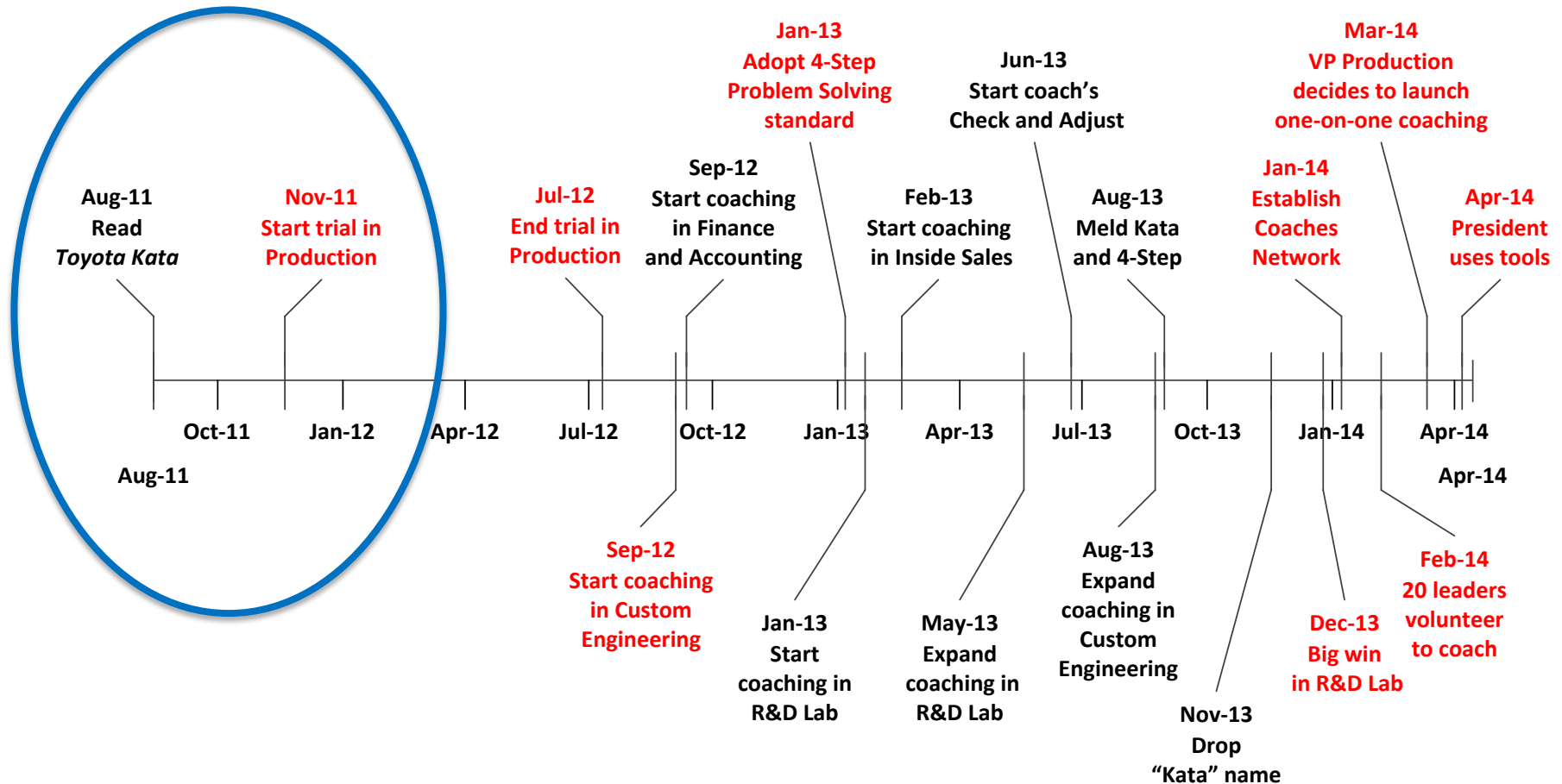
# Why try this approach?

- Dissatisfied with pace of improvement activities
- “Everyone in the pool!” approaches to 5S, leader standardized work, etc. had not yielded sustained improvements

# Vision

Daily, one-on-one,  
problem-solving coaching  
for every S&Cer at the  
lowest possible cost.

# Timeline

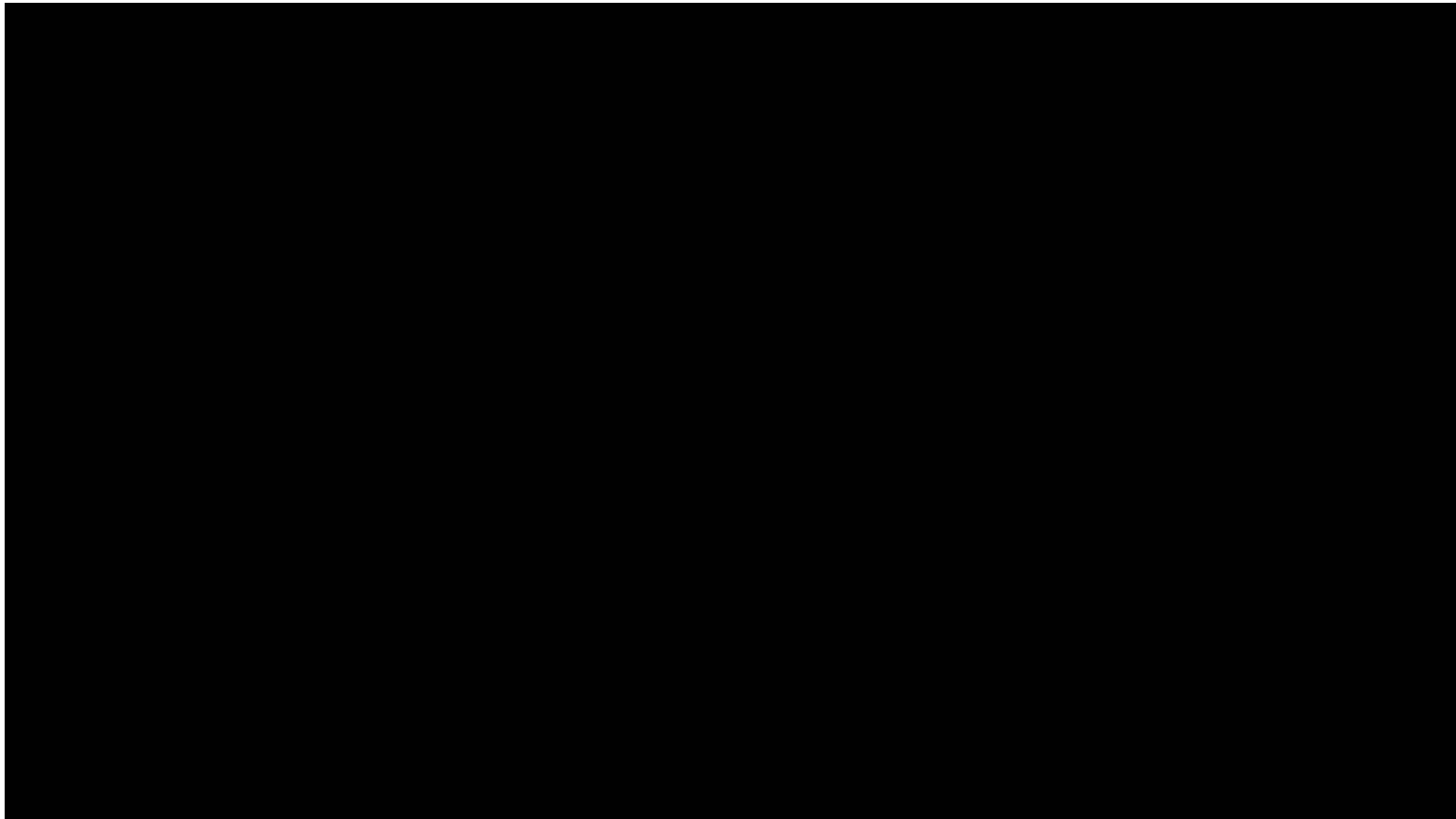


# Transmission Fuse Assembly Experiment

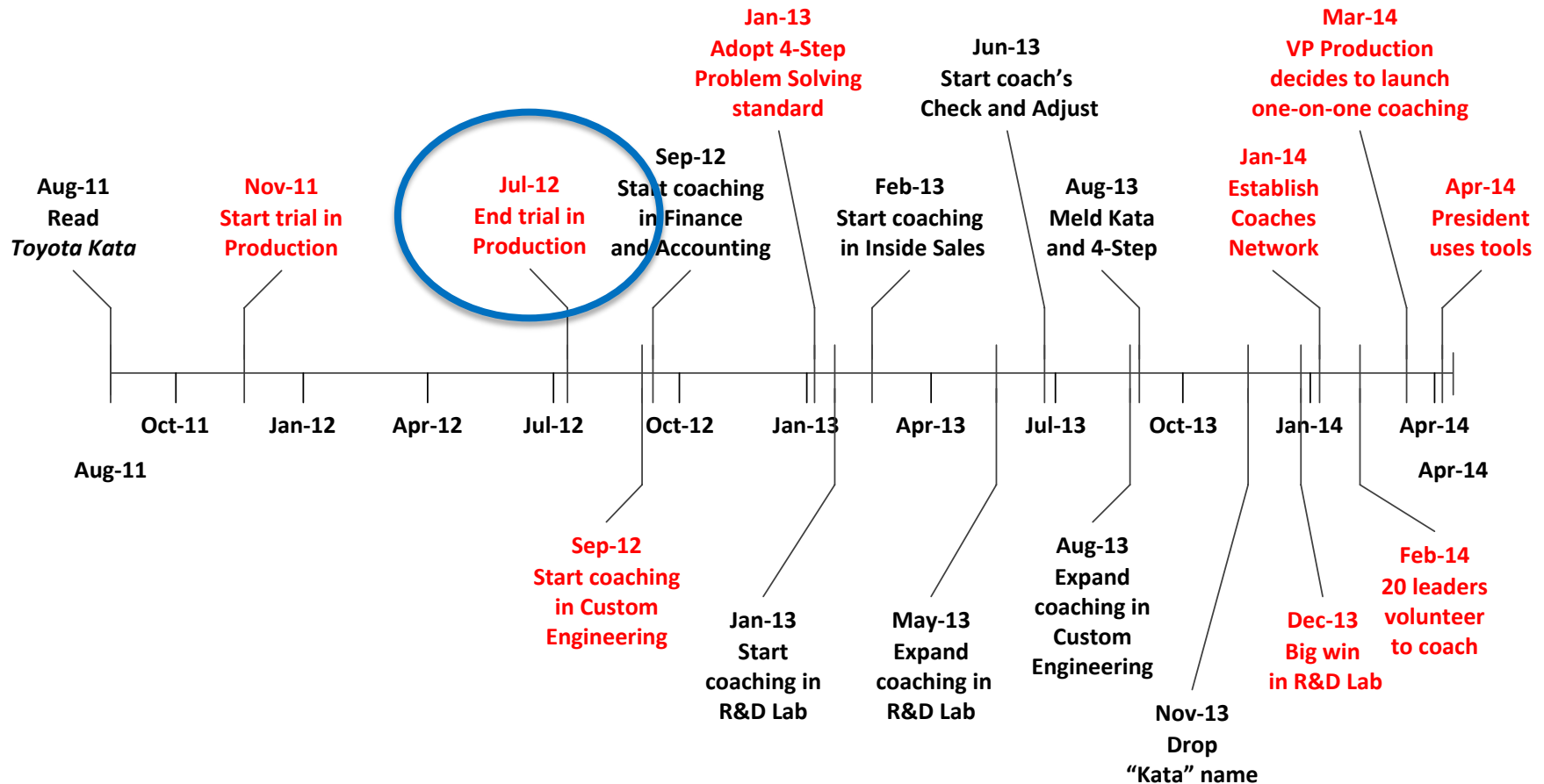
- Low volume
- Make-to-order with some make-to-stock subassemblies
- Goal was 10% reduction in labor



# Daily Coaching + Team Meeting



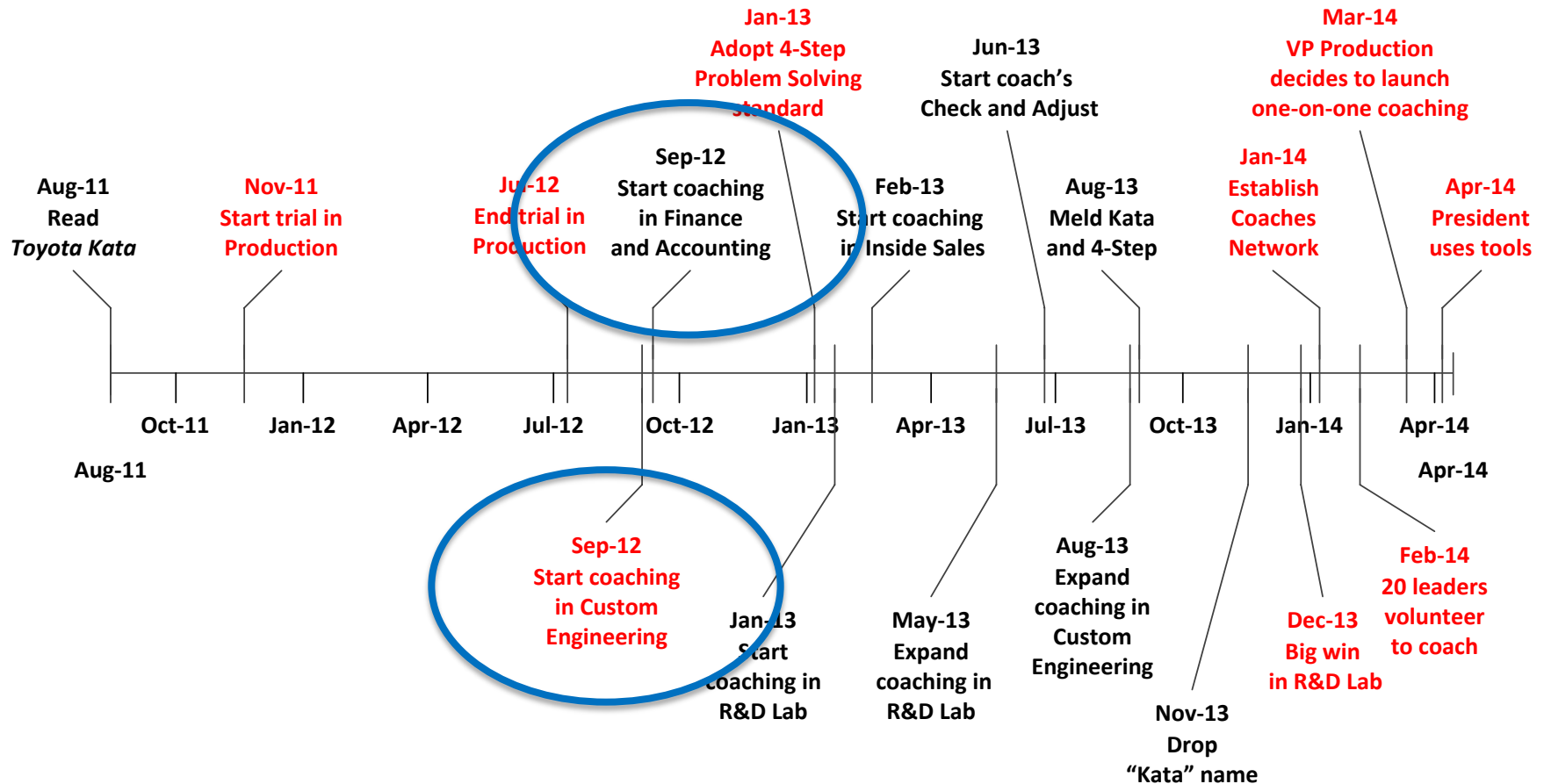
# Timeline



# Lessons Learned

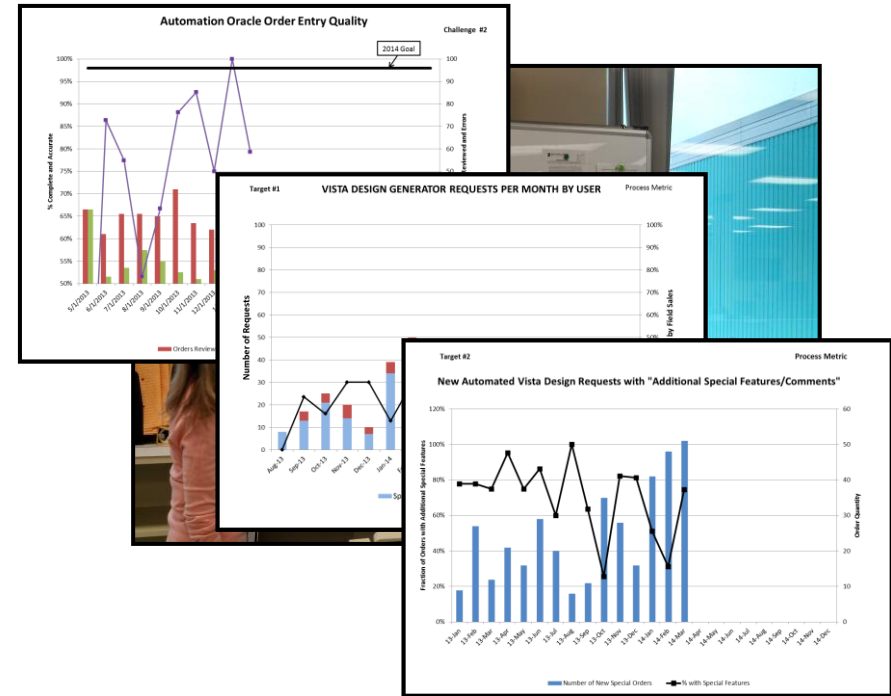
- The Kata approach gets business results
- Daily coaching can change leader behavior
- Changes introduced slowly are more likely to stick
- Spillover effect into daily run-the-business activities can be significant
- Guerrilla improvements only get you so far

# Timeline



# Office Process Pilots

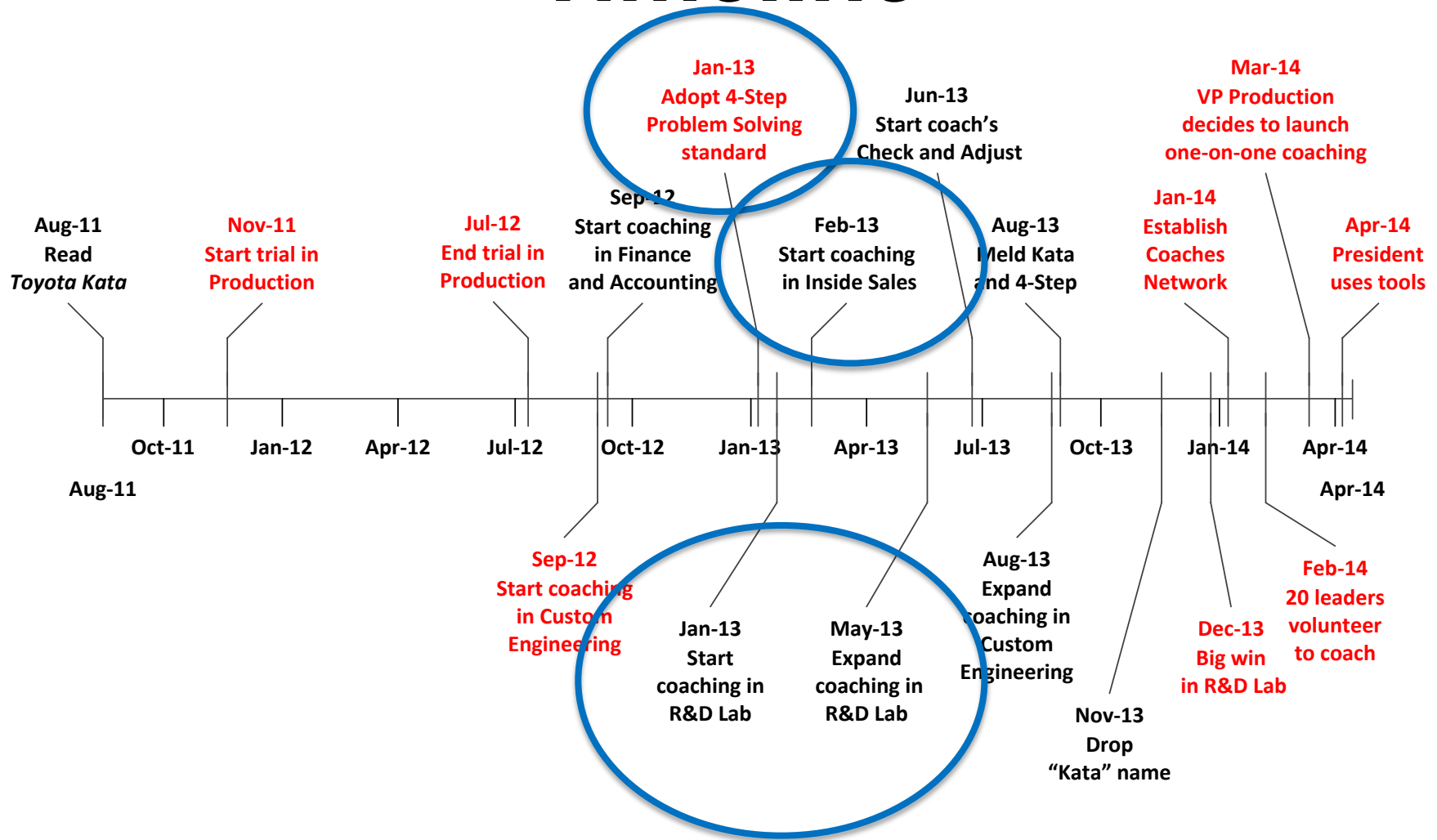
- Custom Engineering (drawing lead time)
- Inside Sales (blanket order renewal schedule attainment)
- Inside Sales (order entry quality)



# Lessons Learned

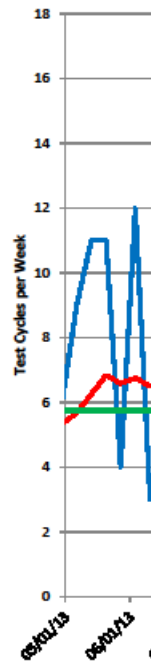
- Confirmed results seen in Transmission Fuses
  - Kata approach gets business results
  - Slow changes stick
- Dissatisfaction with status quo necessary ingredient for change
- Formal sponsorship makes a big difference

# Timeline



# R&D Test Laboratory

re



Vision	
The NJC Laboratory is recognized as a world class laboratory.	
Challenge	
Improve the laboratory's 12-week average throughput to 15 test cycles per week by Dec. 19, 2014	
Outcome Process : IEC 62217-111 Rated Symmetrical Interrupting Current Test Cycle	
Outcome Metric : Speed Loss Efficiency (hours)	
Process : IEC 62217-111 Rated Symmetrical Interrupting Current Test Operation	
Process Metric : Fault Interrupting Test Operation Cycle Time (min.)	
Process Owner : Jim Ruessensam	
Coach : Boyd Rice	
Current Condition	Target Condition
Date : 3/31/14	Date : 4/25/14
Process Metric : 19.7 min	Process Metric : 7.0 min
Outcome Metric : 14.1 hours	Outcome Metric : 1.6 hours
<b>Standard Work:</b> Not defined Test operator and engineer not trained Adjust test operator paradigms Shot sequence is not identified before test cycle Test setups are not always ready for testing <b>Prep work for shot:</b> No visual indication of when next shot is to be taken Standard preparing for shot is used for every test Test Operator	<b>Standard Work:</b> Defined Test operator and engineer trained Adjust test operator paradigms Shot sequence is identified before test cycle Test setups are always ready for testing <b>Prep work for shot:</b> Visual indication of when next shot is to be taken Preparing for shot is optimized for every test Test Operator
<b>Test Operator to Analysis Data Flow:</b> Data transfer is inconsistent <b>Analysis:</b> Many waveforms, many current waveforms, No data taken from 0.1% of spark and longer than 83 milliseconds Combination manual and automation data analysis Verification Manual verification	<b>Test Operator to Analysis Data Flow:</b> Data transfer is consistent <b>Analysis:</b> Clear current waveforms, Noise less than 0.5% (spark and more than 83 milliseconds) Automated data analysis Verification Automated verification

12-Week  
Average

10.8

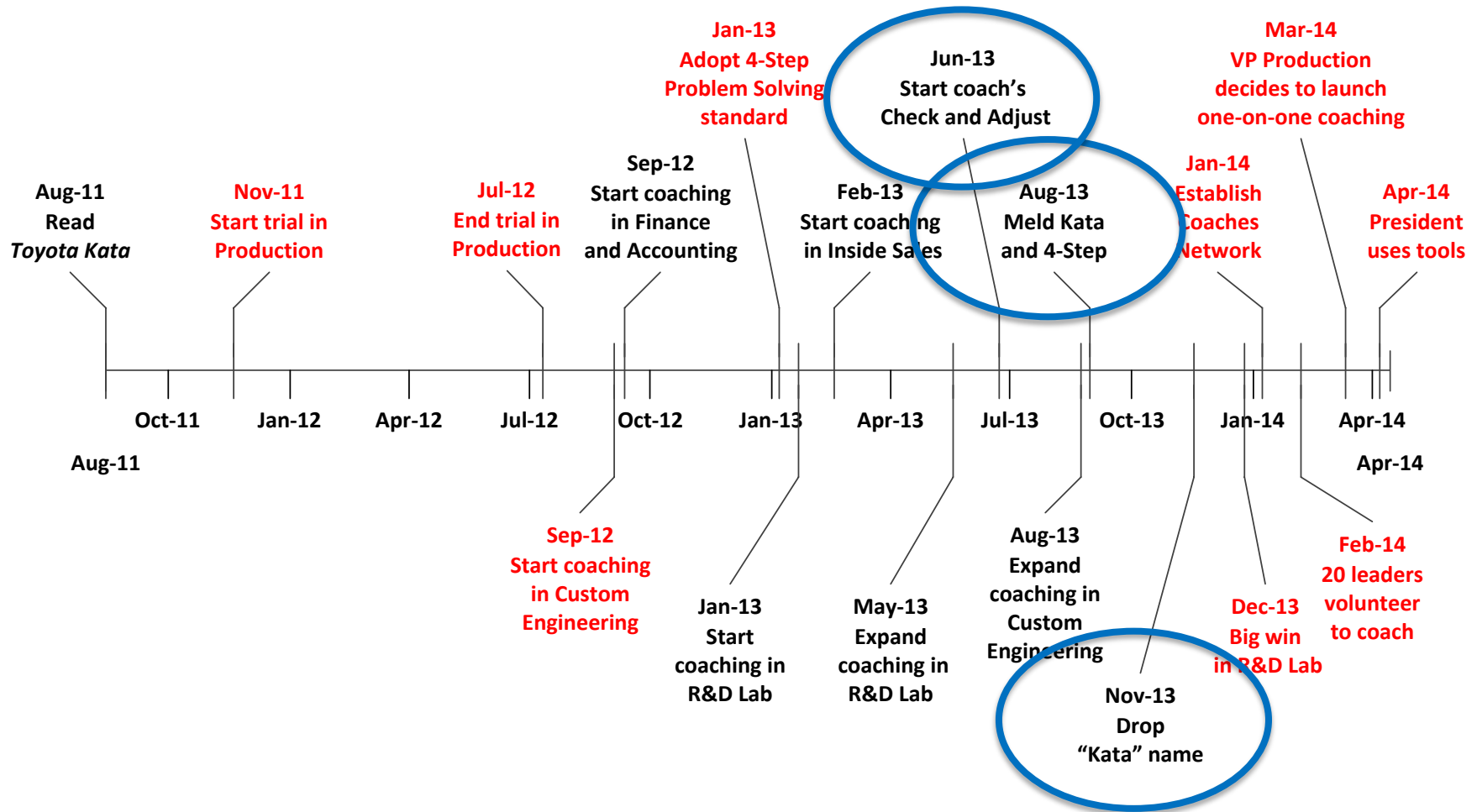
7.3

Test Cycles  
per  
Week12-  
t to  
by

# Lessons Learned

- Starting where the shoe pinches is an OK approach
- “Let’s try it and see what we learn” is a powerful statement
- Transitioning from project manager behavior to coaching behavior is a difficult challenge

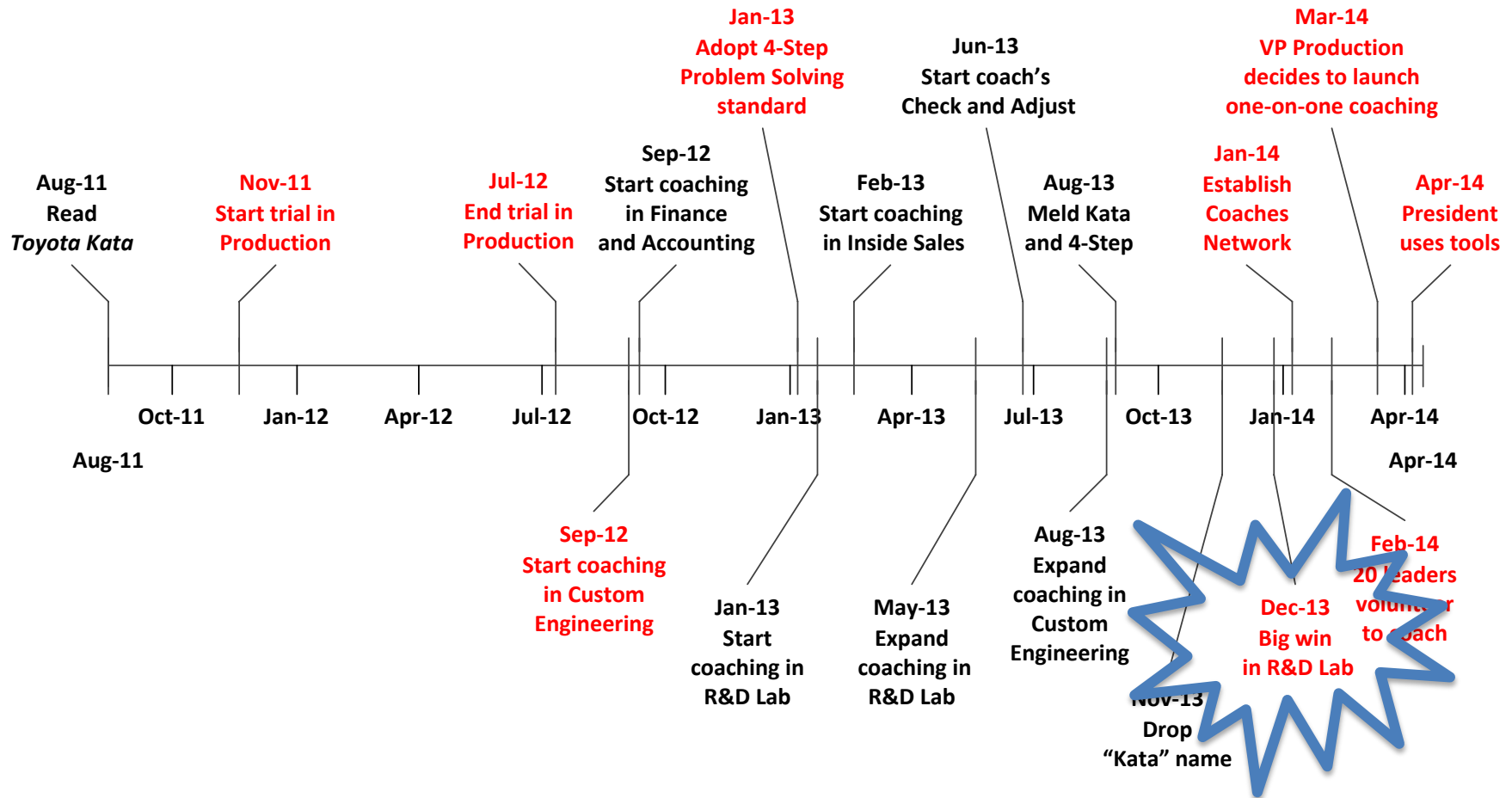
# Timeline



# Lessons Learned

- Assimilate Kata into your existing Continuous Improvement efforts
- Build infrastructure as you go
  - Standardized work
  - Metrics
  - Knowledge sharing

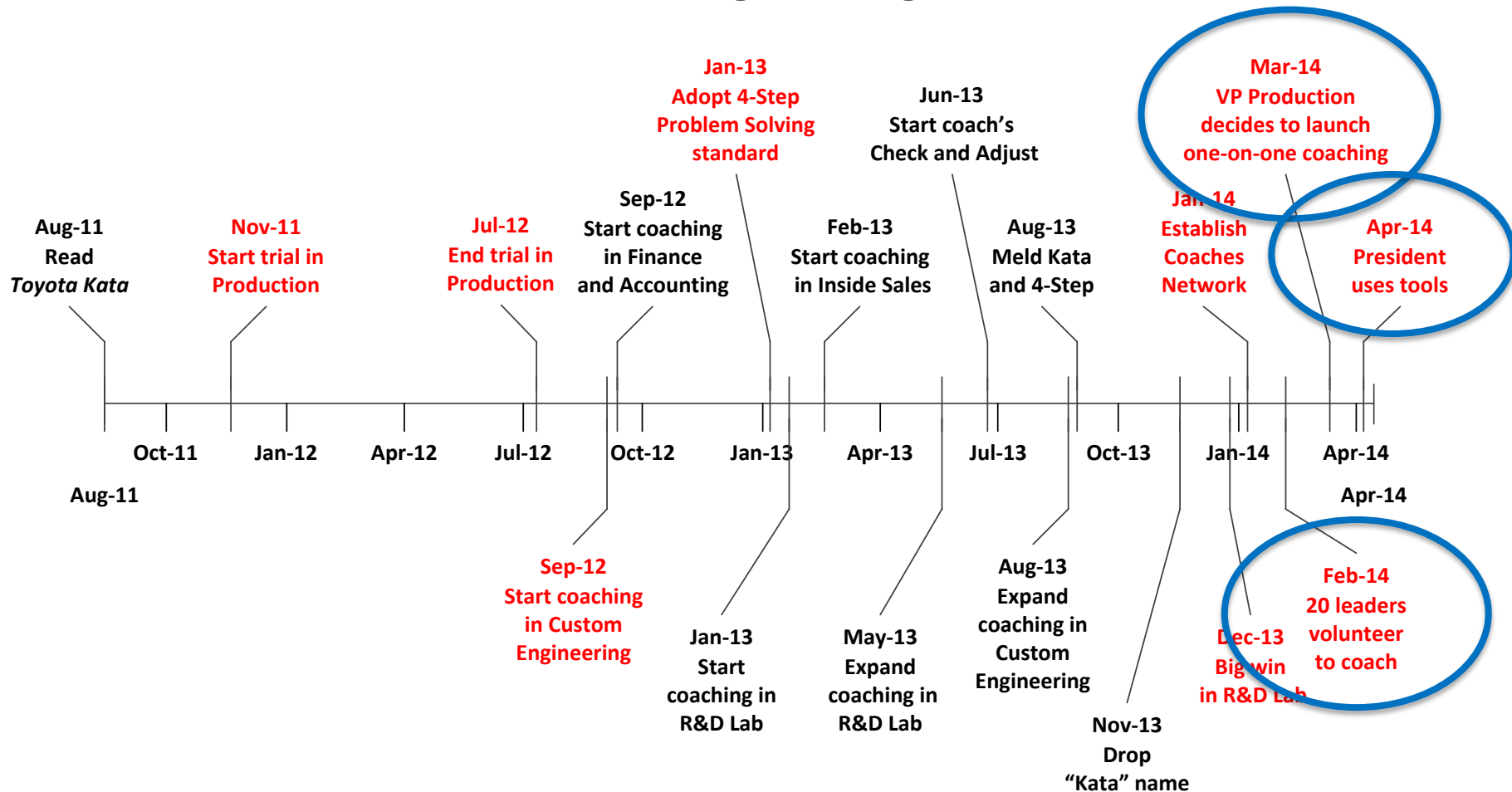
# Timeline



# Lessons Learned

- Daily coaching can bring big results
- Daily kaizen has a different dynamic than kaizen events because it allows for ongoing reflection

# Timeline



# Overall Lessons Learned

- Daily coaching leads to sustainable improvement
- To be successful:
  - Find a dissatisfied leader with a willing-to-try direct report
  - Practice daily PDCA coaching yourself
  - Connect existing PDCA practice with daily coaching
  - Develop supporting infrastructure as you go along
- Don't expect instant pudding

# Thank You!

Please complete the session survey at:  
**AMESurvey.org**

**Session Code:** (To be advised)

**Daily PDCA Coaching**

**Boyd Rice**

S&C Electric Company

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