



# Lean Six Sigma - Green Belt Project



*Caltrans*

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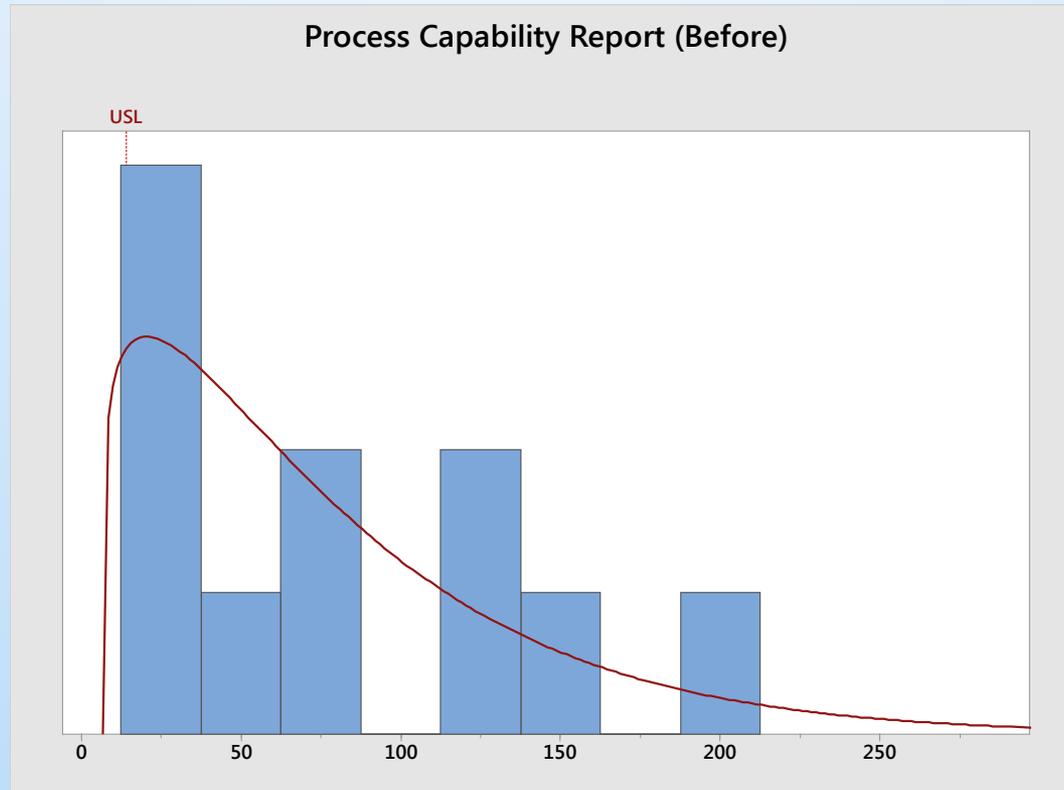


# IT Effort Initiation Process Project

- ❖ **Background:** The IT Effort Initiation Process consists of conducting a viability assessment to determine if a proposed IT Effort is a good fit with our enterprise architecture and to obtain a high-level estimate of the resources needed (PYs, dollars, time) to make the effort a reality.
- ❖ **Problem Statement:** The IT Effort Initiation Process has been cumbersome, confusing and inefficient. The average assessment timeframe was approximately 79 days, but as high as 197 days.
- ❖ **Objective:** To reduce the IT Effort Initiation Process timeframe so that 95% of all assessments are completed within 2 weeks.
- ❖ **Project Team:**
  - ❖ *Sumi Smith – Champion*
  - ❖ *Adrian Sanchez – Green Belt*
  - ❖ *Iris Bettencourt – Team Member*
  - ❖ *Roger Westrup – Team Member*
  - ❖ *Ron Clemens – Team Member*
  - ❖ *Paul Allen – Team Member*
  - ❖ *Gene Soohoo – Team Member*
  - ❖ *Perry Flores – Team Member*

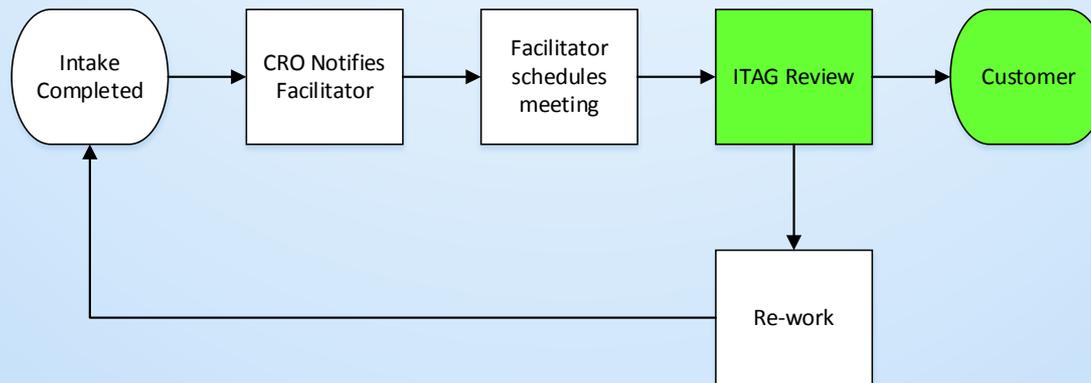


# Baseline Capability



- ❖ Sample Mean - 79 days
- ❖ Expected Performance - 6% within 2 weeks

# Initial Process Map



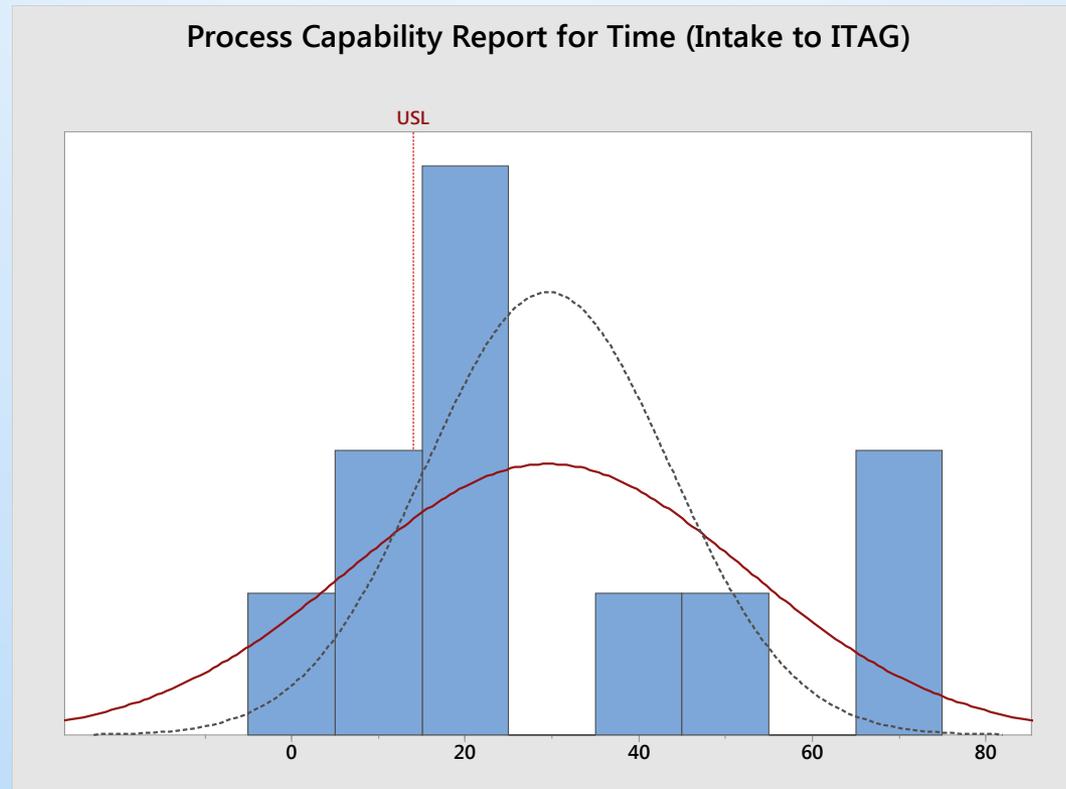
- ❖ The non-value added steps are highlighted in white, while the value added steps are highlighted in green. The original process seen here was new and unrefined. The lack of developed processes resulted in a large amount of rework.

# Analysis Tools (10 different tools)

- ❖ Fishbone Diagram
- ❖ Attribute Agreement Analysis
- ❖ Capability Analysis
- ❖ Boxplot
- ❖ Pareto Chart
- ❖ Measurement System Analysis
- ❖ Failure Modes and Effects Analysis
- ❖ Hypothesis Testing
  - ❖ One-Way ANOVA
  - ❖ 2-Sample t
- ❖ I-Chart

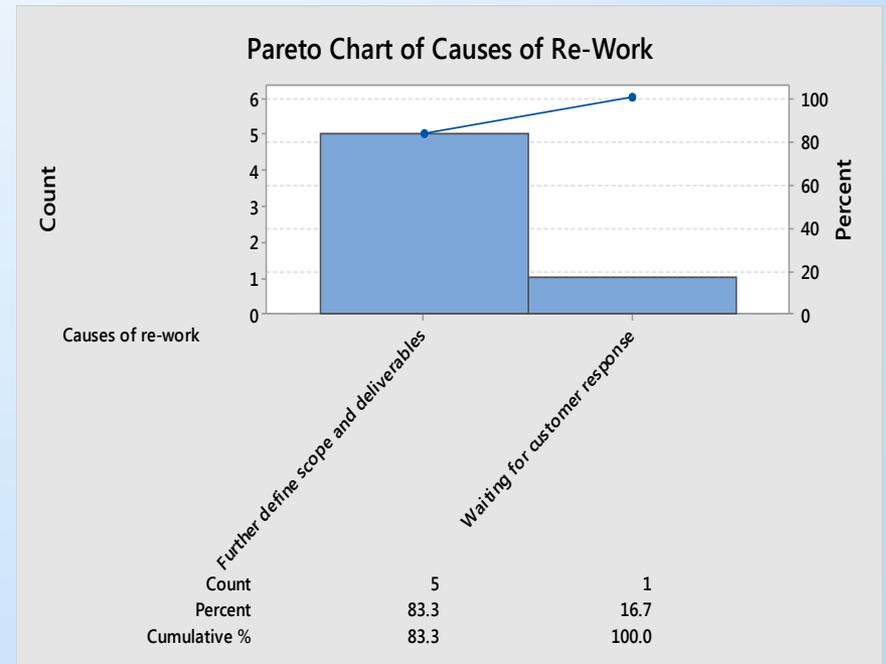
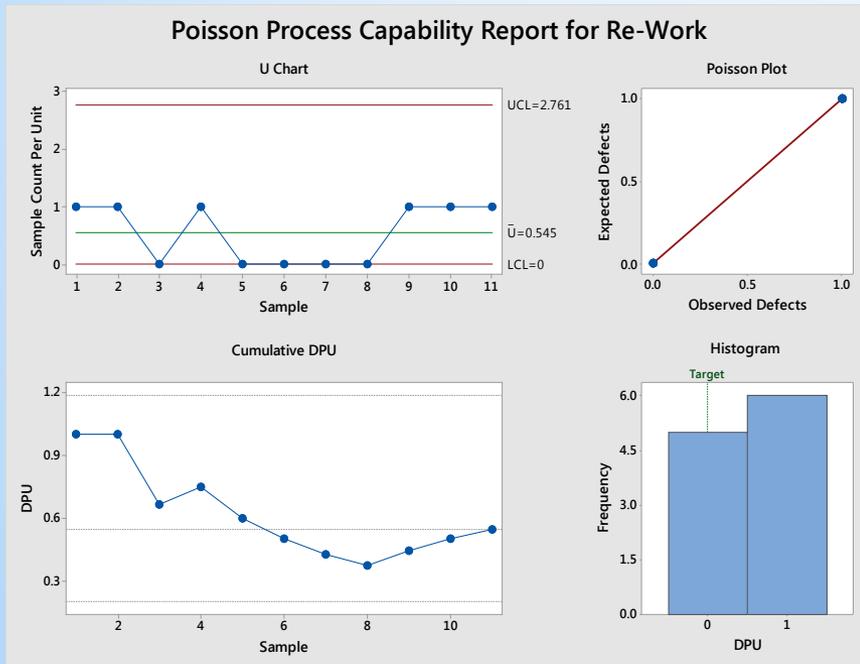


# Key Finding #1 - Scheduling



- ❖ The graphical summary shows an average time from completion of an Intake form until an IT Advisory Group (ITAG) review was 30 days, but as long as 70 days. There was excessive variation and inconsistency in the process.

# Key Finding #2 - Rework



- ❖ The first graph (left) shows that 6 of 11 Intake forms (55%) were returned to the customer. The second graph (right) shows that 5 of the 6 Intake forms (83%) that were returned to the customer required additional information for the ITAG to make a recommendation. The problem appeared to be that the Intake form was not capturing the information that the ITAG required.

# Critical X's (root causes of problems)

## ❖ Intake form

- ❖ New and unrefined
- ❖ 55% of Intake forms were returned for additional information

## ❖ Scheduling of the ITAG Meetings

- ❖ Inconsistent scheduling of meetings
- ❖ Lack of accountability for scheduling meetings in a timely manner

## ❖ ITAG Meeting

- ❖ Lack of structure
- ❖ Review time up to 60 minutes per IT Effort
- ❖ Discussion that would go too deep or digress from the topic



# Improvement Techniques

## ❖ Intake form

- ❖ Revision of the Intake form with input from IT Solutions, Infrastructure, Security and Network Services
- ❖ IT Subject Matter Expert review prior to finalizing the Intake form
- ❖ ITAG previews Intake form prior to ITAG meeting

## ❖ Scheduling of the ITAG Meetings

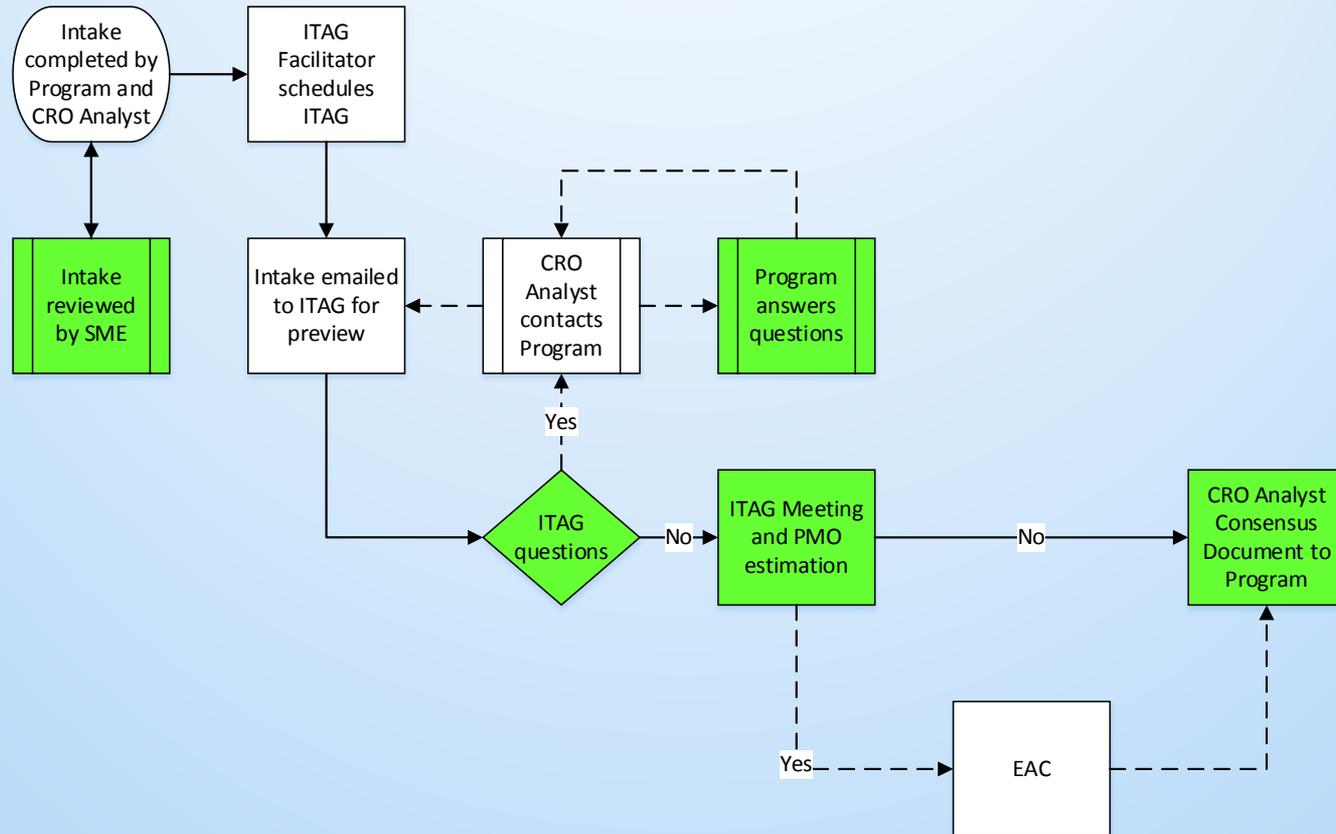
- ❖ ITAG meetings are scheduled for once a week
- ❖ Backup ITAG Facilitator

## ❖ ITAG Meeting

- ❖ Participation guidelines were put in place and standard questions printed on large posters to guide discussion
- ❖ Zero-based IT Effort Estimation performed at the completion of the Intake form is refined during the ITAG meeting



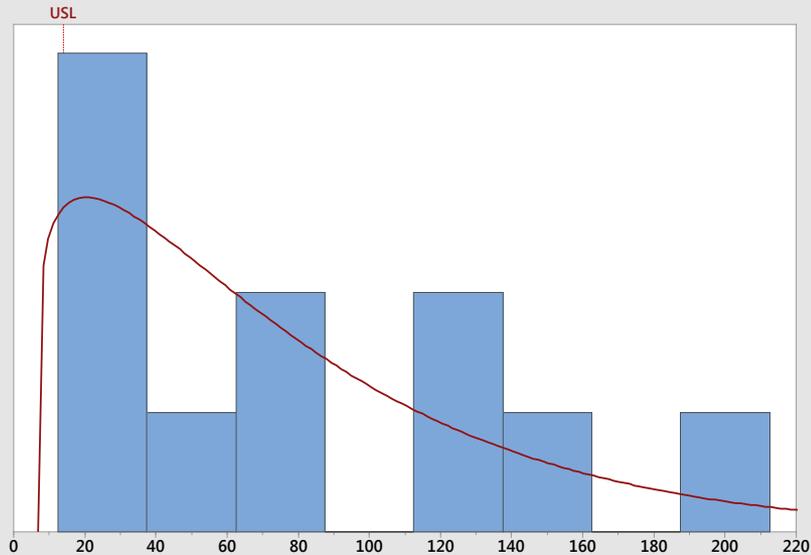
# New Process Map



- ❖ Most of the value added efforts are completed prior to the ITAG meeting. The new process helps ensure that the meetings are scheduled in a timely manner and the ITAG is well informed, allowing them to make a recommendation the first time.

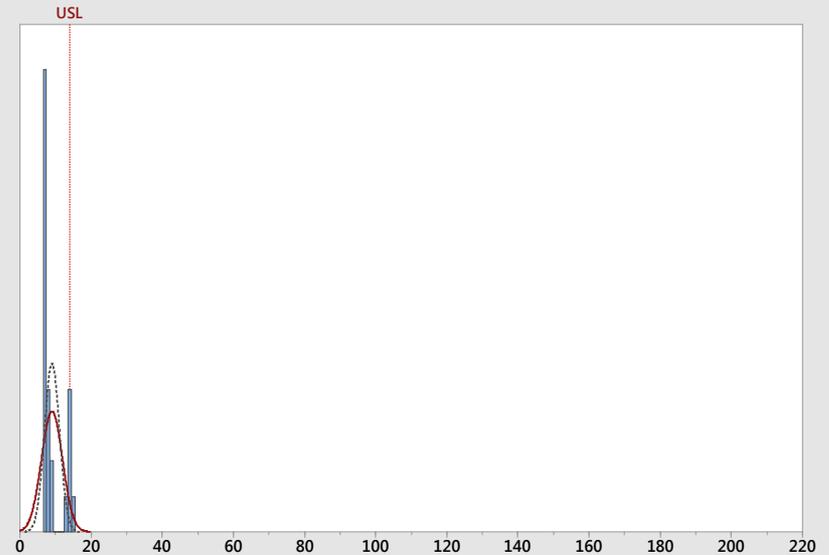
# New Capability Analysis

Process Capability Report (Before)



- ❖ Sample Mean – 79 days
- ❖ Expected Performance – 6% within 2 weeks

Process Capability Report (Projected)



- ❖ Projected Mean – 9 days (89% decrease)
- ❖ Expected Performance – 95% within 2 weeks (1483% increase)

# Control Plan

- ❖ Control elements to be utilized
  - ❖ Standard Operating Procedures (SOPs) – Create procedures
  - ❖ Mistake-proofing – Addition of the IT Subject Matter Expert prior to finalizing the Intake form
  - ❖ Process improvements – Quarterly process reviews to discuss potential areas for improvement
  - ❖ Training internal staff and stakeholders on the IT Effort Initiation process and the Intake form requirements
- ❖ Total days (Y output) to be monitored using a time stamp database
  - ❖ Monitored by Customer Relations Office Manager with a reaction plan



# Additional Benefits

- ❖ Improved staff communication between the different Divisions
- ❖ Greater awareness of each other's roles and needs during the process
- ❖ New perspective that each Division is part of a larger team rather than independent from one another



# Contact Information

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