



Lean Six Sigma Green Belt Project Storyboard

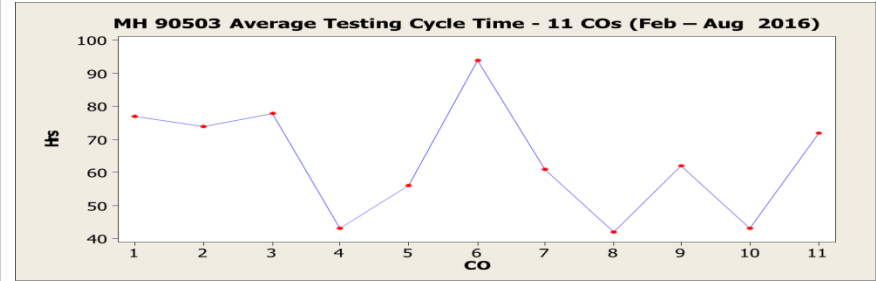


Project Name: Optimise the testing of Product A in the QC Laboratory	Start Date: 07 Oct 2016
Project Leader: A N Other	End Date: 07 Apr 2017
Project Type: LEAN	Industry: Pharmaceutical

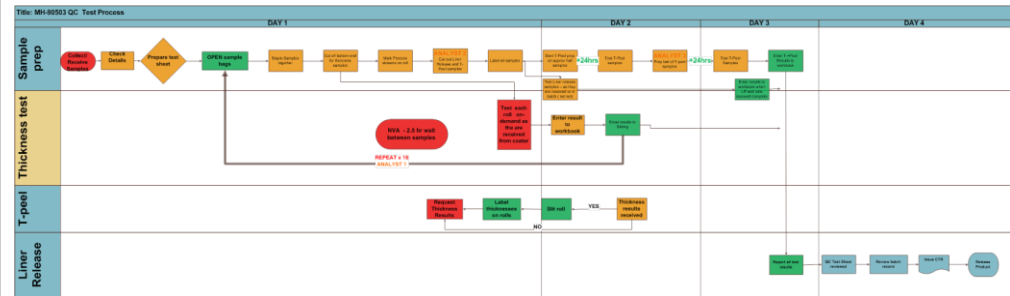
DEFINE: PROBLEM / BASELINE / GOAL

The cycle-time for the Product A Testing Process (based on a Pareto Analysis) in the QC Lab is too long resulting in resources being tied up and late delivery of other products. In the past 6 months, the average cycle time was at 64 analyst Hours. Plan to reduce this to 40 hours with a cost saving of \$33,600

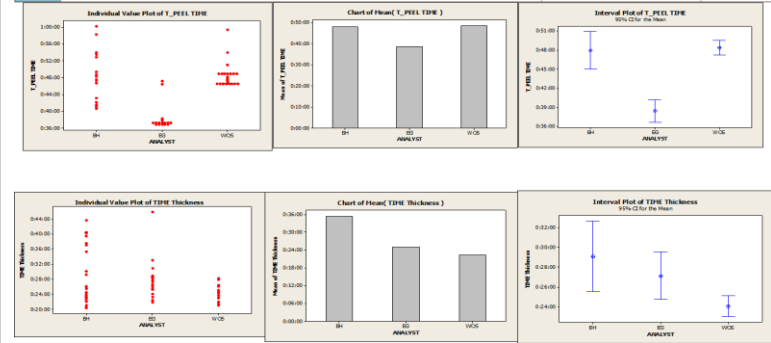
MEASURE: PROCESS / EXPERT KNOWLEDGE / DATA



Trend on Run Chart shows a long and unpredictable cycle-time

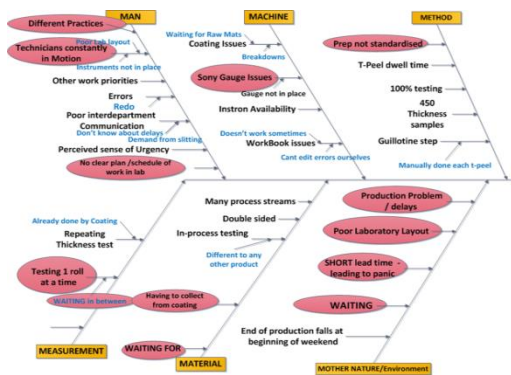


Process Map Analysis identified a number of different Non Value Added issues – in particular wait times



Box plot and Interval Variation Analysis showed differences between analyst times and their practices

ANALYZE: DRIVERS / ROOT CAUSES / VITAL FEW



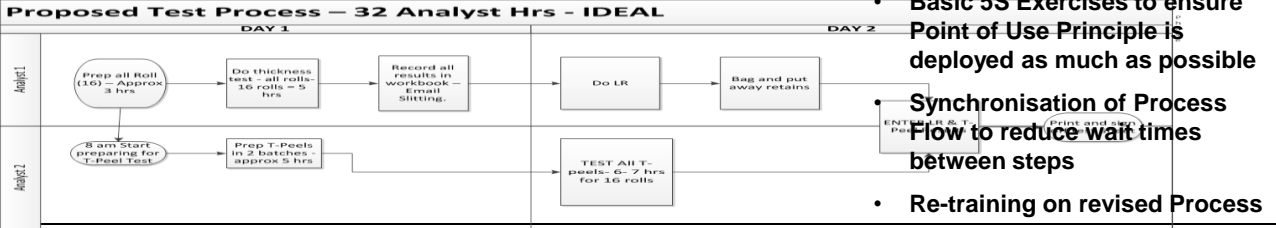
Problem Statement/ Issue	Why	Why	Why	Why	Why	Conclusion/ Recommendation
Different Practices in lab	Different ways of doing same thing	Individual analyst preferences	Documentation not specific enough	Procedure not standardised	Not thought about- no-ones responsibility	Standardise prep procedure
Technicians in constant motion	Poor lab layout	Not designed for specific process	Equipment added to lab without thought of point of use etc	Not thought about- no-ones responsibility	Not priority	5 S Lab
WAITING between rolls	Samples not made yet	Slitting demand result for 1 st roll asap	Want to complete slitting step in short lead time	Scheduling	Delays on coater/ short lead time/	Communication with slitting re-schedule as there is time at end .
t-peel condition – up to 3/4 days to get through – 2 analysts	Testing & preping half samples on 2 different days- 2 conditioning time built-in	Rolls not made yet – implied panic to get through testing	Short lead times	Scheduling	Coater delays- customer demand – schedule full	Prep -1 day-Test all t-peel on one day- 1 analyst

- Fishbone and subsequent Cause Screening identified the Top Xs or Drivers
- 5 Whys were then conducted in these to identify Root Causes to address in the Improve Phase

IMPROVE: INNOVATION / IMPLEMENTATION PLANNING

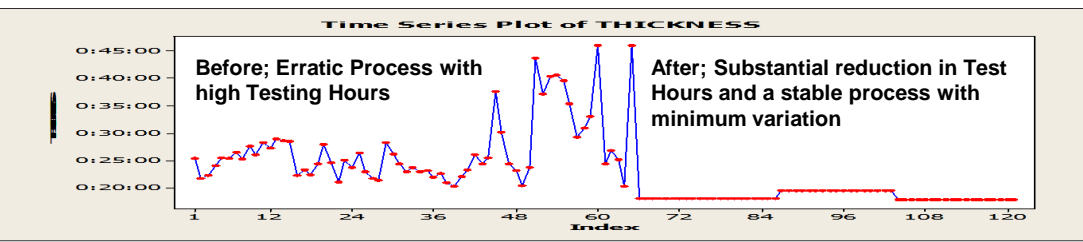
Recommendation	Action	Owner	Deadline	Status
Create LTM to prep samples	Document control	Emma	End Nov	Achieved
Training in new LTM	Training Session	Emma	End Nov	Achieved
Standard template in place	Place under glass	Emma	End Nov	Achieved
Test in batch when coating step finished	Communication to slitting as when the results available	TEAM	Dec 2016	On-going
5S LAB	Training, Schedule events	TEAM	Jan 2016	Achieved – on-going process

- Main Actions included;
- Standardisation of Sample Preparation Process using the most efficient Analyst Method
 - Design of a Mechanical Template to ensure correct loading of samples in Test Fixture
 - Basic 5S Exercises to ensure Point of Use Principle is deployed as much as possible
 - Synchronisation of Process Flow to reduce wait times between steps
 - Re-training on revised Process



CONTROL: RESULTS / SUSTAINING

- Product A Testing Process down from 42 shift hours to 5 shift hours with variation in test time reduced from 25 minutes to 1.5mins
- On-Time deliveries now @ 90% for Product A in last 6 months
- Overall analyst hours cycle-time reduced to 32 hours with annualised cost saving of \$76,800 (versus a baseline of 64 hours and a Target reduction to 40 hours)



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