



Lean Development
The Eurostar Production Temple Mills Journey

Our Objective



- **Fit for future growth with on-rail competition:-**
 - Improved focus on production and planning which will improve overall service to the customer.
 - Improved processes making us more lean and more cost-efficient. – Plan to move all heavy maintenance work in to Temple Mills by end of 2012.
 - Improved teamwork and more open communication.
 - Greater support to the shop floor on a shift-by-shift basis.

How will we Achieve our Objective

- Change the way we work today.
- Improve our Planning.
- Implement and become lean.



Performance Improvement

- Before any improvement in performance can be implemented the organisation must be well positioned and address some key areas:-

- Mindset
- Behaviours
- Culture
- Operational Practices

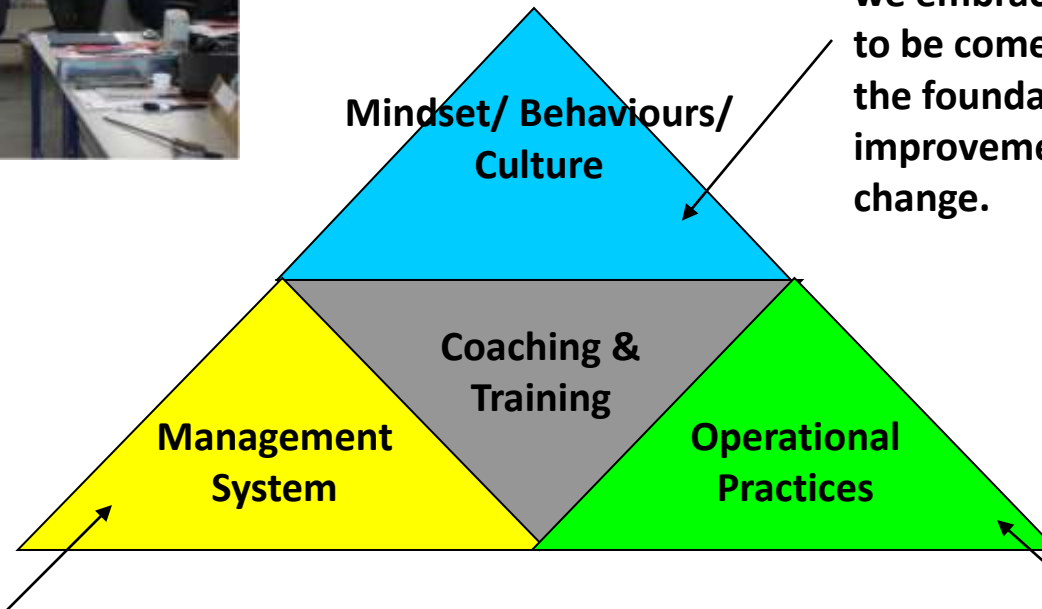


- Before any implementation of a change in process or lean transformation a pre-assessment of the suitability of the lean principles for the particular situation must be conducted. Sigi Osagie Engineering & technology Manufacturing Lean article 28 Feb-13 March 09

Performance Improvement



The evolution of change and how we embrace it to improve needs to be come second nature. This is the foundation for continuous improvement and sustainable change.



The management system that support and monitors, tracks performance.

Process improvement techniques (value Stream, etc, Policy Deployment). The tools and techniques we uses to create the plan, and improve the business

Lean

- Baseline current activities to understand what and how it works today.
- Create an improvement plan that has a clear programme and stick to it.
- Ensure you have senior management support.
- Develop a dedicated team and train them in the Lean Techniques so the continuous improvement becomes a way of working and embedded in everything we do.
- Uses techniques such as Kaizen for Value stream mapping for events and a system called Policy Deployment as a management system for your journey.
- Bring in professionals to get you started and support your journey.
- A strong Communications plan is a must.



Where to start?

- Get professional help early doors and agree what is needed for your business as early as possible.
- Ensure before any launch there is a good level of basic training and understanding. This may also include the Trade unions.
- Make sure there is a need to become lean and a real requirement for change.
- Ensure that if you become lean the additional capacity is utilised.
- A strong communications process is key for deployment and sustainability. The effects of lean deployment are business wide and not just management tools.
- Go and see other business and discuss the journey see how it works.



The link to the greater plan

- The development of a longer term plan will help establish your need for lean and process improvement.
- Policy deployment process is a great tool to link key business and personal objectives and targets to specific events.
- Policy deployment give the leaders of the business a clear focus on the priorities and helps support the cultural change needed for continuous improvement and problem solving to be come a way of working for the entire business.
- Baseline your current activities with a “path finder” event to understand how it works today and what the issues are.
- Measure performance daily. Key techniques and process such as MDI (Managing for Daily Improvement) again helps establish a key focus and support continuous improvement and change at all levels.



The first 12 Months Targets

- Develop and 1 -3 years plan which for Eurostar included:-
 - All Heavy Maintenance exams to be overhauled at TMI within a time line of three years with existing resource and same level of availability.
 - Challenge the ways of working currently to reduce the fleet from 26 to 25 and still cover the diagrams to ensure customer demands.
 - Analyse the current processes for comfort on all Heavy and ECF exams to avoid any extra supplementary work.
 - Improve the fleet and production planning.
 - Implement improved KPI's and MDI.



Results

- MDI training complete and implemented for every department in the depot measuring daily performance SQCD.
- Full roll out across all function in the depot and in use day to day.
- Tangible improvements seen in daily with data to support.
- Problems picked up much quicker as trend as negative trends are seen much quicker.



Results in summary

- **Hard**

- The results from the first 6 events have seen a good return with an approx 50 days extra availability of sets (where before the sets were stopped on maintenance they can now run in service), and an approximate 11000 man hour capacity generated.

- **Soft**

- More robust ownership of work.
- Defined standards for comfort (customer focused).
- Improved relationship and understanding between production and stores.
- Comfort work load smoothing – resulting in improved reaction to defects.
- Consistent standard.
- Elimination of excess work (overproduction), eg. Door record sheets.
- Having reviewed ITE and V documentation, errors have been identified
- Local work instructions have been updated (eg. Part numbers, guidance notes).
- Training of the shop floor staff in sources of information, as well as Lean tools and Techniques.



Future Benefits

- More confidence in the planning process.
- Smoothing of workload across all exams and other maintenance work.
- Improved morale through the realisation that work is being optimised, and not duplicated.
- Better communication and understanding between all teams and departments.



Conclusions

- The lean journey at TMI has been very well received by the shop floor with the process of involvement and inclusion. The savings and additional capacity achieved so far have been of a good standard and have established a sound platform for both Temple Mills and Eurostar to challenge the on rail completion from day 1.
- Already in 2011 we plan to transfer 8000 man hours of heavy maintenance work into the Temple Mills depot. Due to the improved level 2 maintenance activities as a result of Kaizen we were able to run extra trains to support the international Volcanic ash problem with only 25 (out of the 27) active sets available (2 sets on test for winter modification). We have also seen a considerable improvement in our comfort standards.
- The swift results are also encouraging with a real focus on improving the way we operate on a daily basis in terms of ownership, relationships and focus to improve.

Please Remember

- Your organisation must be ready to improve.
- Lean is only a tool!
- Improvement requires Senior Management sponsorship.
- Use the professionals to get started and support your journey.
- Your planning system, methodology is key for generating and a target for the removal of waste.



Thank You