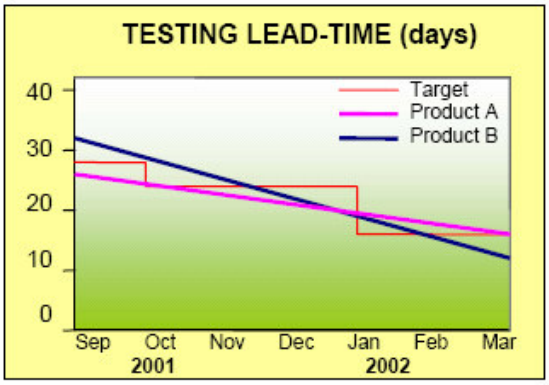
Lean Transformation Case Study: Pharmaceutical Lab

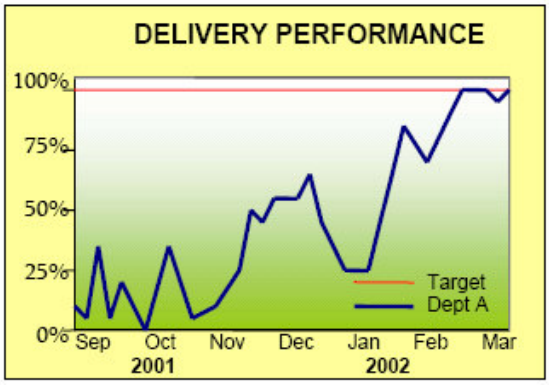
Setting the Scene

Tefen was asked to conduct an evaluation of a major international pharmaceutical company's Quality Control Operation in Europe. The main purpose of the evaluation was to assess whether it would be necessary for the labs to expand, bearing in mind that a year-on-year increase in requirements of 10% was anticipated, and the labs were already suffering from overcrowding and extended cycle times.

The assessment showed sub-optimal service levels to the company's customers, and that lack of space was indeed contributing to this. It also highlighted the fact that current overall work practices had an even larger effect on delivery performance.

Tefen and the client carried out a 6-month program to implement Lean techniques to achieve better use of the lab space, improve customer satisfaction, and delay the need for expansion.





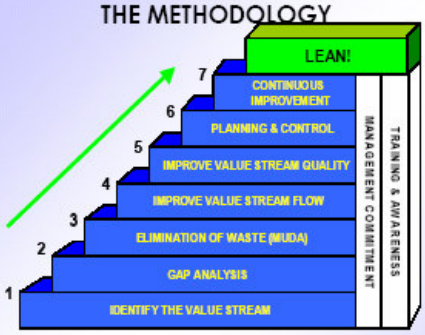
THE OPPORTUNITY

- ☐ Poor delivery performance from QC labs
- ☐ Long lead-time to release test-results
- ☐ Higher throughput needed in terms of samples per head

THE RESULT

- ☑ On-time Delivery from 67% to 87%
- ☑ Lead-time from 25 days to 16 days
- ☑ Lab Backlog reduced by 80%
- ☑ Improved analyst productivity by 20%
- ☑ Improved lab compliance
- ☑ Continuous Improvement culture instilled
- ☑ Project payback period of 6 months

THE METHODOLOGY



TEFEN's 7-step approach to implementing the Lean concept has been applied in many industries worldwide. Its success is based on maximizing value-adding processes, using team-based problem solving methods, and employing visual control, cellular layout and pull systems where appropriate.

THE 7 STEPS: HOW WERE THEY APPLIED?

1. **Identify the value stream** – The processes on site were mapped to understand how the QC Operation interfaced with its customers and suppliers. The strategic objectives of QC were established to ensure that the improvement activities would be steered towards customer satisfaction and compliance.
2. **Gap Analysis** – The current state of QC's performance was determined in terms of its drivers (delivery performance, lead-time, efficiency, etc). A proposed state, with the lean concepts designed in, was established, and the benefits estimated. A prioritized, phased roadmap with assigned actions was agreed for implementation of the modules for the Lean Programme.
3. **Elimination of Waste** – Non-value-adding activities were reduced through team-based Kaizen workshops, involving internal staff, managers, internal customers and technical experts. Problem-solving tools, such as brainstorming, pareto, root-cause analysis and prioritization techniques were used to identify, develop and implement solutions. These included introducing working cells, removing unnecessary duplicated documentation, reducing set-up times, and segregating non-analytical work to support staff.
4. **& 5. Value Stream Flow & Quality** - Activities which could not be reduced or eliminated were taken out of the critical path, thus leading to a further reduction in lead-time. These included unbatching of checking and validation, and parallel testing. Further removal of wasteful processes and standardization of ways of working led to more stabilized testing methods. This reduced performance variance and led to increased compliance.
6. **Planning & Control** - A culture of a due-date driven organization was instilled through implementation of better scheduling practices, and increased visibility of

job status. Pull systems were introduced for consumables, to increase their availability for testing requirements.

7. **Continuous Improvement** – Systems were provided for ongoing improvement to the value stream. Training in all the activities was carried out (problem solving, Kaizen, etc), and in all the systems implemented. A comprehensive Key Performance Measurement system was introduced, and owners for each measure were assigned and trained. An infrastructure for formal continuous improvement was also recommended.

For more information regarding this case study or to request an introductory meeting, email us at info@tefen.com.