



# Introducing Lean Culture at a Top 50 Chemical Organisation

Both Lean Manufacturing and organisational cultural change are subjects often talked about, but seldom fully realised, especially outside the automotive industry! Changing mindsets, value systems or behaviours takes a lot more than an internal memorandum, especially if the changes are to be sustained in the long term. Achieving these objectives requires a great many new skills and the alignment of every part of the organisation's management systems to drive the right behaviours.

This can be a bewildering, time consuming and costly exercise, unless it's approached with expertise and commitment.

## **Client Situation**

Our client is a top 50 chemical organisation and a global player in the speciality chemicals market. The organisation constitutes a hundred group companies, employing approximately twenty thousand people. Having gone through a series of mergers and acquisitions, manufacturing cultural maturity varied significantly between sites. In some sites, advanced continuous improvement was already in place, in others, operators primarily operated the plant and had little ownership over assets or plant improvement.

Poorly performing sites were typified by low standards of cleanliness, even with relatively new machinery. In these sites there was no culture in place to challenge the levels of housekeeping or take steps to improve them by identifying root causes of contamination. Capacity losses were not measured at some facilities which, coupled with poorer plant standards, created unpredictable and significant downtime. Strategic maintenance was also in its infancy so little preventative or predictive maintenance existed and plant replenishment and refurbishment were not properly controlled. Furthermore, load was set to increase dramatically for certain sites so eliminating unplanned capacity losses was becoming imperative.

*The challenge was, therefore, to sow the seeds of lean cultural transformation; quickly implanting the necessary skills and mindset in the teams to allow self-sufficient and sustained improvement in the future.*

## **WCI Solution & Benefits**

### **Sustained Cultural Change**

It was clear a significant cultural change was required, but we couldn't just ask people to start behaving totally differently next Monday morning! Culture is never something that can simply be switched on or off. It is indirectly engineered and embedded through implementing all the necessary management controls that drive the desired behaviours and attitudes. The WCI approach encompasses procedures, training, measurements, meeting structures, audits, roles and responsibilities, job descriptions and communications; to name but a few! The controls work in harmony, ensuring change is embedded in the long term.



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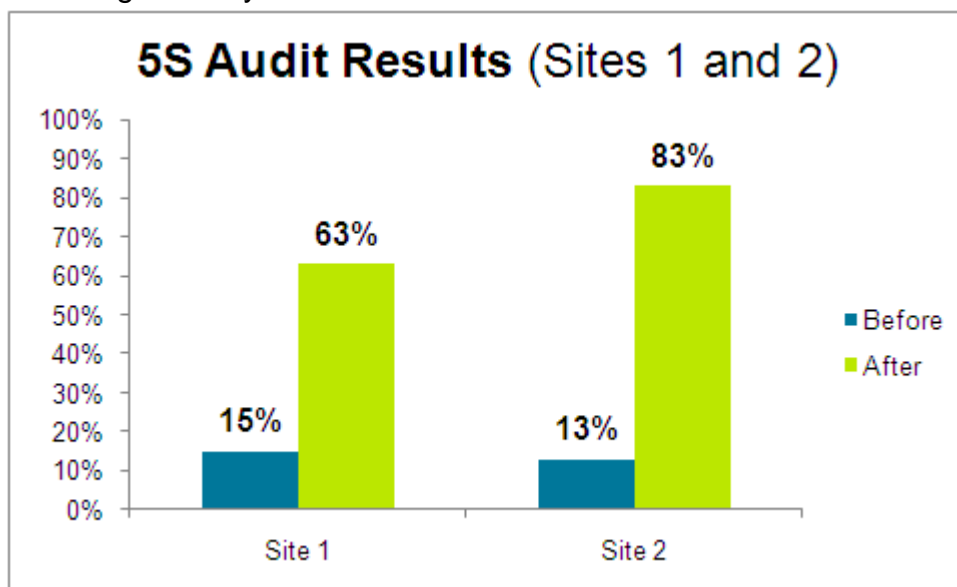
Many cultural change programmes fail because different levels of the organisational hierarchy are not fully committed to a common vision and do not push for the same outcome. At our client, WCI trained global and regional managers in lean techniques to prepare them to champion and drive the cultural change. Production and site managers received more detailed lean training and sponsored the local improvement workshops. Production operators, supervisors and maintenance personnel were brought together to conduct improvement workshops and develop and implement the resulting solutions. This approach ensured the whole team were rallied around a common objective.

WCI Blitzes promote a hand-on approach from all those involved, consultants and managers included. Jackets and ties are exchanged for overalls and everybody gets involved in mucking-in to deep-clean the working environment. This important uniqueness results in all personnel being fully engaged in the change programme.

## Rapid Skills Transfer

Rapid and thorough coaching of client staff is integral to WCI's way of working so that skilled resource is quickly mobilised within client teams to run blitzes independently, thus enabling the removal of consulting resource as early as possible. Key individuals are identified at the outset to be trained to run future improvement work and ultimately to lead Centres of Expertise. After only a couple of blitzes per site, our client achieved self-sufficiency, and ran further blitzes independently.

5S skills and standards were introduced so working environments were clean, efficient and self-ordering. Unnecessary items were removed from the work place and remaining items including tools and spares were placed on shadow boards and in work-place cabinets. The plants and surrounding areas were then deep cleaned, inspected and painted. Floor markings and labelling were improved. Clean and check procedures were created and visibly displayed to standardise regular care of machines with audits and performance measures further embedding the new standards. The 5S challenges at two of the client's sites were huge and, in only two months, the average 5S Audit scores were improved significantly.



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Basic Asset Care skills and standards were implemented. The first step was to run Condition Assessments to identify and assess breakdown risks. This approach highlights critical plant and systems and enables informed decisions to be made about maintenance strategy, spare parts stock and plant refurbishment and replacement. Basic maintenance activities were identified (including clean and inspect, check and top up fluid levels) and production operators trained to carry out these themselves. This drives greater operator ownership of assets and reduced capacity losses. Like 5S, Asset Care procedures were developed and visibly displayed at point of use to standardise care of machines.

## Rapid, Low Cost Approach

Operational improvements were quickly implemented during the two-day blitz events which involved multi-functional teams rapidly implementing changes in order to realise benefits on a specific asset. The blitz approach creates a dramatic level of participant engagement; personnel are shown what good looks like, are trained to implement the changes and are then let loose to realise all those improvement ideas that have quietly built up over time. One-day follow up sessions were conducted thirty days after each blitz to gauge progress, define next steps and focus on embedding the cultural changes in management controls. Not bad for only three days' consulting support per plant!

## Lean Culture Emerging

Within two months of the blitzes, personnel were demonstrating strong intolerance towards poor standards. When reviewing old photos of the plant, operators said they felt 'embarrassed' and were amazed with what they had previously considered normal. Plant teams were motivated and engaged by the approach and are now seeing the benefit of the work they have been doing. People are enjoying the wider remit they have; taking greater ownership over equipment and its performance. To illustrate this new way of thinking, the root causes of major powder contamination throughout an entire six-floor plant at Site 2 were traced back to only three contamination points. These were rapidly addressed and the plant now looks like new.

This project shows how significant changes to plant standards can be implemented quickly. WCI didn't change the whole organisation, far from it. But, we did rapidly and cost-effectively implant the skills and tools to the client teams that sowed the seeds of a very different way of thinking.

## Client Testimonial

*'The introduction of 5S and TPM methodology at Site 2 was used as the first step in initiating culture change on site. The outcome over a relatively short space of time was a dramatic improvement in standards across the site; but, more crucially, the process created a new belief and a greater self confidence through the empowerment and inclusivity of the workforce.'*

*WCI played a pivotal role and not through simply providing a series of well articulated training sessions but, more crucially, by leading practical hands-on events with those plant teams selected to bring 5S and TPM to life on the site. This practical engagement was vital to the overall success of the project as it built in-house confidence to enable the process to continue after the external support had left the site. In summary, WCI provided the overall training package to make the process sustainable at the site.'* **Site Manager, Site 2**



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