

CBES provides constructive solutions for new and existing clients within a variety of sectors including retail, health and education across the UK. The company's extensive portfolio of services is delivered from six regional offices providing UK wide coverage under the following disciplines: construction, mechanical and electrical, security systems, food systems, risk management and refrigeration.



Lean Team

Ashley Bryson – Administrator

George Muir – Project Manager

Guy Hawkins – Quantity Surveyor

Graeme McAulay – Installation Manager

David Crawford – Regional Design Manager

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Lean Project Objective

The Lean objective was to focus on the refrigeration business and the team created a process map of a refrigeration project from inception stage through to final account. This analysis highlighted that the most problematic area within the process was the allocation and management of stock cases.

A stock case is a refrigerated cabinet which can be seen in all supermarkets throughout the world. CBES currently manage 6,000 stock cases per year with the key benefit to clients being cost savings and surety of supply.

Starting the Lean Analysis

Having created a high level process map, the team utilised the Deming cycle to give them a structured approach. Mapping activity continued with a more detailed analysis of the stock case environment and this resulted in process issues being categorised under the following headers:

Logistics and storage:

- Many suppliers across the world
- Complexity of tracking cases from initial tender through to storage and installation
- Some case manufacturers hold their own stock
- Other case manufacturers hold stock with CBES

Financial:

- Restriction of allocating stock cases to specific stores
- Variation in costs depending on specification of stock cases, and the

manufacturer utilised

- Duplication of staff activity in demonstrating the cost savings to the client
- Senior management involved in resolving issues that should be carried out within operational teams

Lean tools utilised

By studying the process in detail the team identified the potential to release significant cost benefits related to the management of previous stock cases and high levels of management time on non value added activity. The analysis was presented visually within the business using Ishikawa diagrams and "Time Audits" demonstrating where inefficiencies appeared in the process.

This led to a detailed cost breakdown incurred by CBES on each store project – this allowed the team to create current state costings that could be compared to future state costings once a new process had been developed.

Implementing Change

Having identified the issues and linking these to detailed costs, a plan for change was instigated, as follows:

- Formulation of a new, simplified costings sheet to compare costs
- Allocation of cases to stores ring-fencing product to specific orders
- A system to track returned stock
- Collation of delivery notes at final accounts stage

Benefits to the business

- Reduced time spent on re-costing projects
- More accurate pricing of projects
- Quick and easy identification of cases
- Improved invoicing to clients
- Commercial team reducing time spent on rectifying errors
- Improved information flow to reconcile supplier invoices
- Stock write-offs reduced/removed

Projected cost benefits to CBES will be gained as a result of a more efficient use of labour across the business. Further gains will also be realised with improved management of stock cabinets.

Improved cold room procedures (see environmental benefits below for further detail) will save the company £4,437.60 p.a. in energy costs.

Ongoing Lean Implementation

The team will be actively involved in ensuring that their project is fully integrated into the business. This will involve the following:

- The implementation of newly developed cost plans
- Training of all refrigeration staff members initially in the North region
- A quarterly monitoring process to assess progress
- Roll-out new processes to all other regions upon successful application

Environmental benefits of "Lean"

The case replacement plan is currently saving 4029 kWh per case per annum. Multiplied by the Carbon trust conversion factor of 0.545 this gives 2195.8kg (2.2 tonnes) of carbon emissions per case per annum. Multiplied by 3000 (an estimate of units produced per annum, given by CBES), this gives a total carbon saving of 6588 tonnes CO₂e.

The team also investigated cold room procedures, noting that the cold room door was left open for long periods. A speaking alarm was fitted to a cold room as a driver for behavioural change in the staff, and to assess the energy savings made. The cold room with the speaking alarm showed an energy saving of 105kWh per day, equating

to a yearly total of 46,720 kWh. This gives a total reduction of 25462.4 kg of carbon dioxide, or 25.5 tonnes CO₂e. This has the potential to be 38,700 tonnes CO₂e if rolled out to every UK store.

Additional benefits from the Lean Management Thinking Programme

Process mapping will continue as it is clear there are many other areas requiring similar investigation. The improved management of site shortages will reduce the effort required for snagging activity and will provide customers with a better image of CBES. Analysing business activities is demonstrating how small changes can impact significantly on reducing costs. In particular Health & Safety documentation is becoming less cumbersome through Lean analysis.

"CBES committed to utilising the ethos of Lean Management Thinking to provide Constructive solutions to our clients, stakeholders & colleagues"