



# The Organisation of inventory Utilised by the Estates Electrical Department, to Improve Efficiency, Eliminate Waste and Cut Costs

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## Introduction



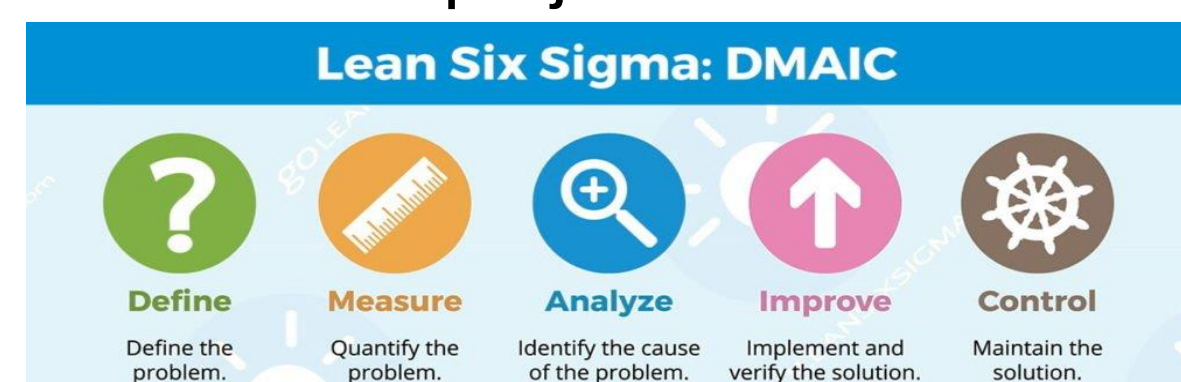
Ford's Bridgend Engine Plant is tackling all aspects of waste within its organisation, through lean principles and streamlining its operations for the uncertain times ahead. By eliminating all appropriate non-value add processes/procedures, departments will run more efficiently and will hopefully create a cost saving, in the aim of making the plant more attractive for future investment. This project concentrates on the Estates Electrical department, and its ineffective inventory management protocols which are creating inefficiency within the departments daily routines.

## Project Aims

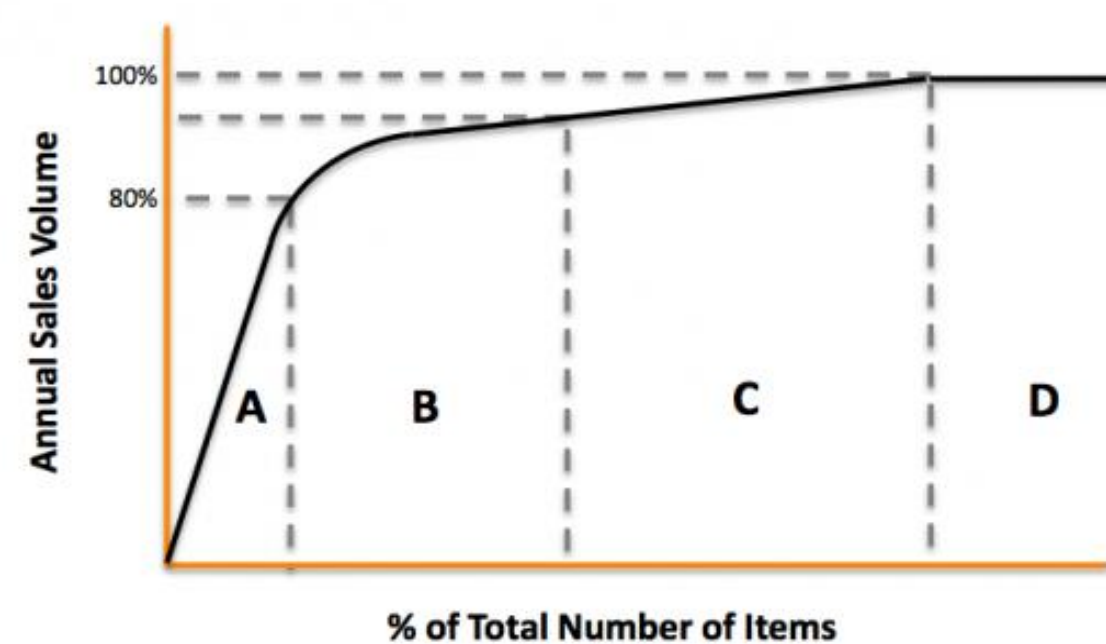
- Identify the Estates electrical departments stored inventory levels, their baseline statistics for efficiency
- Research six sigma methodologies and Inventory control strategies that could be utilised to improve Estates Electrical Department process efficiency.
- Analyse the Inventory levels in terms of quantities and cost that the estates department control and the time studies to identify waste.
- Implement inventory management protocols and standardised working practices to improve the estates departments efficiency by removing wasteful activities.
- Ensure process control with change management techniques being utilised.

## Methodology

The DMAIC Six Sigma Methodology was utilised to structure the project.



Inventory was categorised in terms of cost and demand by means of ABC Analysis and Pareto's 80/20 rule.



ABC Analysis and Pareto 80/20 rule (Kubasakova, 2015)

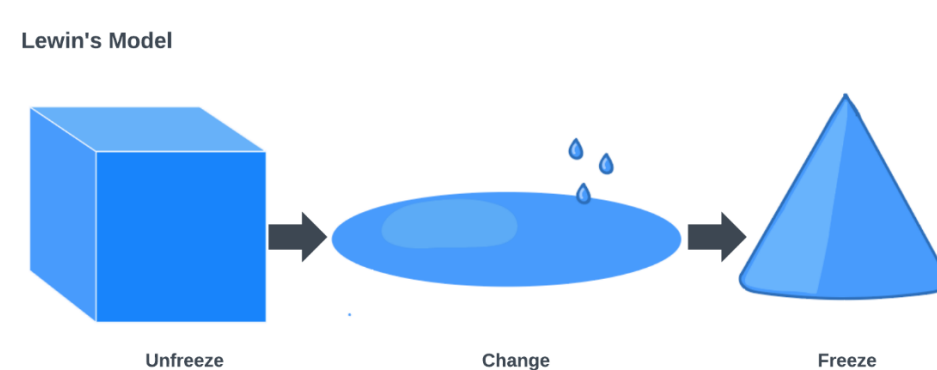
Time studies were conducted on estates daily routines to highlight inefficient activities.



John Kotter's 8 step and Kurt Lewin's 3 step change models helped to facilitate the required changes.



Kotter's 8-Steps to change (Vogelzang, 2016)

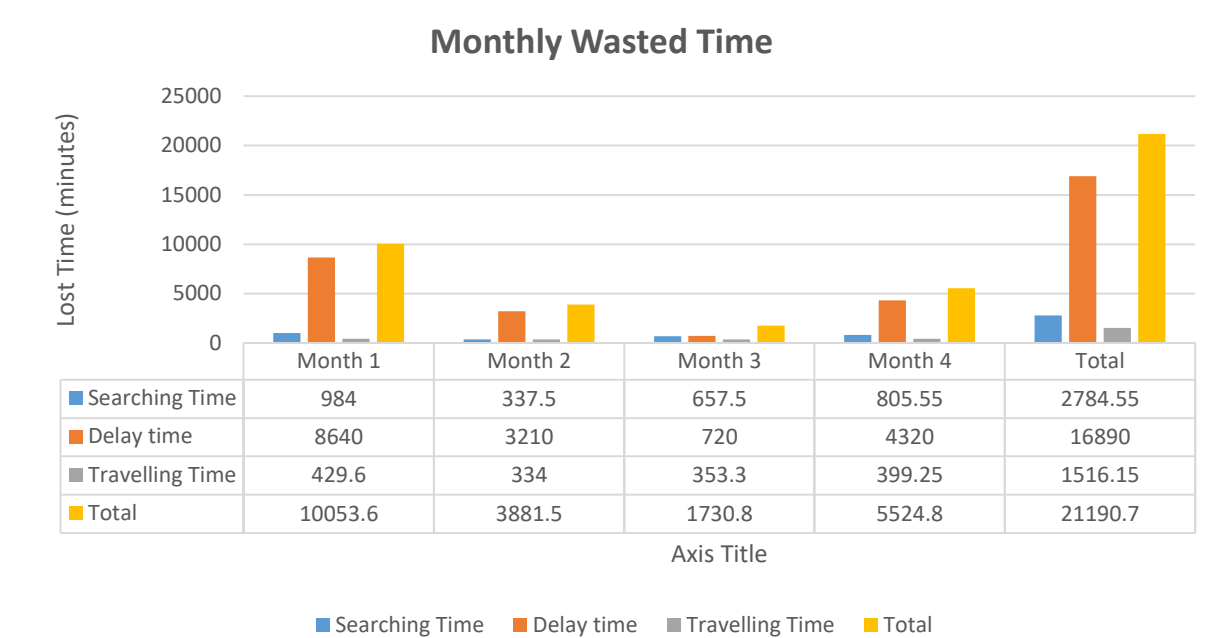


Lewin's 3-Step Change Model (Cummings et al, 2016)

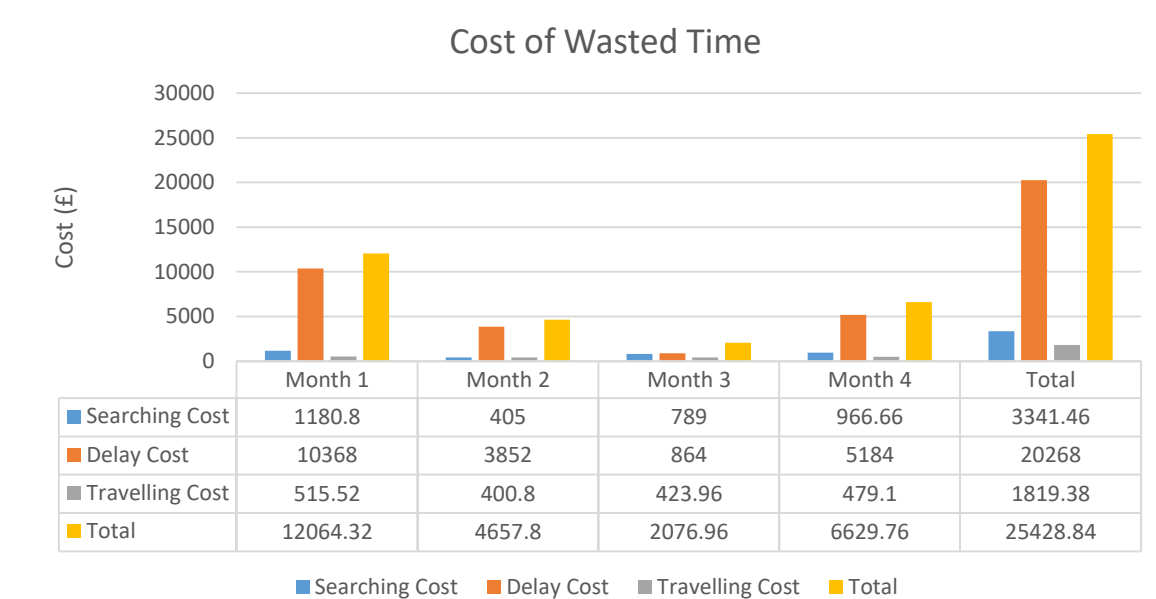
## Results

- 3,336 untraceable inventory items collated
- With some items stored in quantities that could cover a year or several years total demand
- A total net cost of inventory in the 6 satellite stores of £44,976.64

- Total wasted time over a 4 month period 21190.7 minutes (16 days).



- With a direct cost of £25,428.84.



## Conclusion

By returning items back to the non-production stores, the implementation of dedicated warehousing with online manifests, standardised working practices such as; Scheduled Maintenance Sheets; Single Point Lessons; and a Project Planner the estates electrical departments efficiency has dramatically improved. A control team has developed a control plan to ensure the ongoing success of the project, with medium term goal to implement these strategies in other departments.

## Acknowledgements

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## References

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