



Case study

Name: Nottingham Trams Limited
Sector: Site/Depot based tramway maintenance
Location: Nottingham, UK

Transforming Nottingham Trams engineering operation to achieve substantial performance improvements

Over the last year the tram network expansion has effectively doubled preventative and reactive maintenance workloads, posing a significant operational challenge for the engineering team of Nottingham Express Trams.

Working with the team, Managementors successfully developed new processes, implemented a new scheduling system, combined with an integrated management operating system, that allows the company to forecast, plan and measure work carried out by its field engineers.

This smarter way of working has enhanced operational performance and consequently created the capacity to improve delivery against targets, reduce backlogs and, more importantly, significantly cut financial performance penalties.

Key Challenges:

- To effectively manage the increased workloads, track construction issues and increased first line response call volumes since the network expansion.
- To meet Performance Management System (PMS) targets minimising financial penalties.
- To create a robust working practice to allow for moving towards 24 hour working.
- To enable effective control and good communication between operational levels.

Key Gains:

- Introduction of tracking and scheduling has improved control and visibility across all functions and helped develop a close connection between operational levels.
- Accurate information is now readily available to quickly resolve issues and consequently drive productivity.
- Working smarter has decreased backlogs and significantly reduced financial performance penalties.
- A new structure for Planned Preventative Maintenance (PPM) has helped flex PPM work and rebalance workloads.
- The capacity has been created to deliver a nightshift without taking on additional headcount.

Background

The Nottingham tramway is a 32-kilometre-long (20 mile) line which first opened to the public in March 2004. A second phase, which more than doubled the size of the original system, opened in August 2015. The operation and maintenance of this is undertaken by Nottingham Trams Ltd (NTL), which is a joint venture between Keolis and Trent Barton.

Challenge

Having opened the expanded tram system, there was a key challenge as to how the business took on board and maintained the new assets successfully. Paul Robinson, Managing Director NTL, says: "We always knew this would be a stretch. Initially we managed pretty well, however after a couple of months we saw overdue orders increase as we were diverted to deal with several teething problems and we struggled to recover from that position. We are only a small team and all you need is one absence for project timescales to slip. We also had the holidays over the summer, which made it even more difficult." Lindsay Murphy, Head of Engineering, adds "We were growing the team in preparation for rolling out the two new lines, but we were not really managing our resource effectively."



Paul admits “We were struggling – we had to do something but we didn’t know what.” In light of these needs, a colleague recommended Managementors to Paul, suggesting he get in touch. As a first step, Managementors carried out an in-depth analysis of the operation, looking at the maintenance teams, supervisors and supporting staff based at the Wilkinson Street depot.

There was the realisation that the company needed to address its structure and conduct a deep dive review of the operation; however Paul admits they “didn’t have the expertise to do this internally”. Lindsay comments that “Whilst we had good technical knowledge in the team, we were very pushed for time. We didn’t have the bandwidth to step back and carry out an objective review of the operation, or identify the opportunity for improvement.”

The findings of the analysis confirmed that there was substantial opportunity for performance improvement within the operation. There were many factors impacting the productivity of the workforce, compounding the existing under-utilisation of resource. As well as this, there were gaps in the current management operating system, for example the lack of an effective process. This, along with little active supervision, meant that unless major changes were implemented, the level of performance was unlikely to improve.

A number of issues were creating significant frustration for staff, which appeared to be institutionalised and, as such, had become part of the job. For example, poor control and communication with technicians was resulting in limited awareness of technician performance and poor visibility of loading. An absence of proactive follow-up of jobs meant technicians could dictate their own priorities and workloads. Also, ineffective planning and co-ordination of jobs led to excessive travel and multiple visits. Thus backlogs were building up, increasing the risk of missing agreed service levels/response times.

“When these findings were presented back to us, it’s fair to say it was a bit of a shock. We knew we needed to gain control, but it was hard to believe our organisational planning was so weak” admits Paul.



“Managementors were fantastic, down to earth and approachable – ultimately they put our team at ease with their behaviours. What could have been a real challenge resulted in a real opportunity to break down barriers and help our team understand the benefit to them.”

Lindsay Murphy, Head of Engineering, Nottingham Express Trams

Approach

Managementors embarked on a 12 week project with the objective of developing new ways of working, ensuring an efficient end-to-end process, focusing on planning, control and co-ordination of the work, together with the implementation of an effective management operating system, to deliver an improved and more efficient maintenance operation. “Managementors were very efficient at pinpointing where the problems lay and identifying the activities to fix the issues,” comments Lindsay. The end result would be an improvement in the quality of the service provided, together with increased workforce productivity, thus enabling management to be in a position to quantify resource required within the operation.

The solution was based on Managementors’ proven methodology and principles. The approach was to quickly get each area under control, ensure accurate information was available to understand the impact of the solutions and then to drive productivity. This was to be achieved through the introduction of improved processes, especially around the planning and control of the work, together with new roles for supervisors and managers, aimed at driving performance. Full support and coaching enabled the supervisors to move from a passive to an active style of management; which together with realigned processes and the implementation of an effective management operating system, delivered the project objectives and benefits in a sustainable manner.

“The Managementors team quickly rolled up their sleeves and got stuck in,” continues Paul, “they were able to take our team with them so that they didn’t see it as a threat. Managementors were skilful in explaining the opportunity they could deliver for us.”

During the life of the project, Managers and staff were coached in deploying the new Management Operating System and operatives were briefed on the new ways of working. The new scheduling process has enabled the loop to be closed, with regards to what was completed versus what was planned. This in turn has led to improvements in the scheduling process and a clearer view of the issues that impact a technician’s performance.

“The project was entirely necessary,” states Paul, “Managementors’ approach was professional, considered, up close and personal – whilst also being competitive.”



Outcomes

The project has resulted in a reduction in overdue work and backlog, whilst highlighting the ability to cover a 2 man night shift using manpower from the existing pool of staff. “This is a great success for me in terms of cost savings,” comments Paul. “We wanted to create a fluid team that worked better together, particularly the link between supervisors and technicians, we wanted to understand the problems and issues we had, and to be efficient in delivering maintenance. Ultimately, we wanted to create the capacity to deliver a nightshift – and were successful in doing so, which in turn will deliver a financial benefit,” adds Lindsay.

Reviewing work orders on a daily basis and introducing an effective scheduling tool has increased the daily rate of job completion. With clarity of the manpower required for specific work orders brought to the forefront of supervisors and managers minds, capacity has been identified which has been used to support other elements of the business. Paul says: “We get a sense now that there are more people working out on the tramway than being in the depot; people are seeing the benefit to their professional development.”

Whilst other benefits are more intangible, by bringing the business under control there will be a significant positive impact to the business. For example, changes in the supervisors’ behaviour and the improved interaction of the supervisors and technicians has enabled otherwise hidden issues to surface and be actioned. The business is now more open, with the operatives having a more constructive dialogue. This has led to changes in the way of working and will continue to do so going forward.

“We now have a team that communicates more closely. We’ve managed to break down the barriers and deal with the day-to-day issues. Previously we were seeing the same issues time and time again, but they were not being resolved and fell off the radar. We’ve now taken away a lot of the frustration from the supervisors and technicians – we have been able to bring back the focus into the team and as a result we are much more engaged and working better together, more effectively” summarises Lindsay.

“For me this has been a successful project,” adds Paul, “we have achieved our 4 key aspirations for the engineering function; being efficient, with good planning, reducing the overdue work orders, to reduce penalties from the local authority and to generate capacity so we could start a nightshift with the same headcount.”

“We now know this was the right thing to do. Managementors taught us how to measure performance – before we were running hand to mouth and pillar to post. We now have a professional approach to maintaining the new tramway – we are measuring our performance in terms of productivity and efficiency. We have implemented a new way of working, which is a significant improvement on where we were before.”

Paul Robinson, Managing Director NTL

Contact us to find out what Managementors can do for you

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