Five years ago Bombardier commenced a journey of recovery for the long standing Crewe rail works. Despite its proud history, the business at that time had significant operational and commercial challenges and a transformational programme was required.

Now Bombardier’s facility at Crewe is the company’s Centre of Excellence for Component Repair and Overhaul (CRO) services in the UK. The facility has achieved near perfect execution in terms of cost, quality and delivery for each of the last three years. So how was the transformation achieved?

‘Right-sizing’ the business
The first challenge on assessing the business was to focus on its core competencies. ‘Delivery and quality performance weren’t where they needed to be’, says Tony Webb, Bombardier’s CRO General Manager. A team was brought in with different experiences from different industries to complement the existing skills at Crewe.

At the time the business was carrying out a range of work, including crash repairs and overhauls. Now the Crewe facility focuses its services on overhauls of wheelsets, bogies, AC and DC motors, as well as rewinds of DC motors. Larger contracts will also see overhaul work for items such as pantographs, compressors and other ancilliary components. The facility is also engaged in continuous improvement initiatives on Bombardier’s fleets.

Currently each week the Crewe facility produces approximately 120 wheelsets and 40 bogies on a single shift, for fleets throughout the UK. The facility can cater for a broad spectrum of fleets, from older legacy units to the latest generation passenger fleets.

Modern manufacturing methodologies
The leadership team took a ‘back to basics’ look at the business and adopted some techniques and approaches used in other industries which brought significant improvements. Within 12 months the customer delivery performance was back to the high 90s and within two years it was at 100% on time delivery.

The ‘back to basics’ approach included implementing lean manufacturing techniques to improve quality and productivity, as well as to promote employee engagement and involvement. More recently Bombardier has been working with key suppliers to implement kanban supply chain management.

Crewe was once notorious for product rejection, but this reputation has been turned around. Tony Webb notes: “Now quality issues are a rare event and when we get them they are minor. We’ve aligned our checks with those the customer would do.” He adds that the firm continues to strive to improve customer service. “Now it’s small things like the way we load the delivery lorries; ensuring they match the order in which a customer may want to unload them. Improving delivery and quality performance has really enhanced our customer relationship,” says Mr Webb.

Staff engagement
In practical terms much of the Crewe resurgence has been delivered through a willingness of the staff employed at the site to adopt new ways of
Tony Webb explains: ‘When we started the journey it wouldn’t have been very likely that somebody would have worked in two or three shops in one week, but now that’s quite likely. In some cases an employee may have worked in the same area for five or ten years and to move between workshops was not the norm. Now due to the increased flexibility of our workforce, we are more able to deploy our resources where customer demand is at any time.

‘The increased employee flexibility has been a key part of our turnaround strategy. It is seen by the staff as enhancing their experience, doing something varied and interesting. We get the added benefit of a "new set of eyes" that helps deliver continuous improvements.

‘The fact that we are now winning work has driven a much more upbeat feeling to the place. The strategy was always to get our quality and delivery right, control our costs, and then go back to the market.

Back to the market

I’m very happy to say that since we have been back to the market we’ve won new work and seen the business grow, throughout which performance has been maintained’ Tony Webb reflects.

As well as overhaul activities the facility works actively with its customers to extend periods between overhauls across the product ranges and develop solutions for obsolete components. A ‘systems’ approach is actively encouraged in preference to a single component level, as this may offer a more cost effective solution and improved reliability.

Tony Webb notes that this even applies to the older fleets. ‘We still have active engineering going on to improve components to extend life and challenge ourselves to look at things differently. Some businesses may have shelved improvement work on an older product but we’re still involved in a lot of those older assets and making sure they perform as reliably as they can.’

The leadership team identified that an improved maintenance offering could be achieved by closer integration with the company’s heavy maintenance operations at Ilford, providing customers with a more ‘joined up’ way of maintaining their vehicles.

Moving forward

Obviously Bombardier doesn’t want to stand still, and the challenge is to ensure the company continues to make progress. ‘There has been a huge shift in the way we do things and the team has done a great job’ Tony Webb concludes enthusiastically.

‘We’re undertaking a strategic review about what else we can bring to the market to support our customers. Being part of the larger Bombardier family provides the resource and expertise to develop engineering solutions to a problem, and we’re able to use the breadth and depth of that expertise.

‘Whilst we operate in a competitive marketplace we recognise that it is not just about price, but about value for money. There’s a huge pride in the facility now, we don’t have to talk about delivery performance anymore. The first thought of the team is “keep our customers happy”. We now have a business full of people who are pushing in the same direction, and with a huge desire to succeed.’