

+ AUTOMATION ADOPTION FOR SMEs: CBE+



A PROJECT BY THE

mtc

Manufacturing
Technology Centre



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The MTC has partnered with Chesterfield-based SME CBE+ to support the business on its journey towards implementing automation and robotics. Following the Automation Journey, the MTC has helped CBE+ specify an automated system which will help meet growing demand for its products and services, which include electroless nickel plating with complimentary metal testing, precision engineering, gear cutting, wire EDM, assembly, heat treatment paint and pressure testing, all from a single location. CBE+ came to the MTC because the business wasn't sure where to start with automation. The successful project sees the start of an ongoing relationship with the MTC and CBE+.

+ THE CHALLENGE

CBE+ is an SME based in Chesterfield, England. CBE+ is an innovative, integrated supply chain solution provider offering electroless nickel plating with complimentary metal testing, precision engineering, gear cutting, wire EDM, assembly, heat treatment paint and pressure testing, all from a single location.

Like many manufacturing SMEs, CBE+ is aware of new technologies that could be implemented within the business but has been unable to determine the impact, and where to start in the process of understanding how to integrate these new systems and processes.

CBE+ approached the MTC to assist its automation journey in order to be able to deliver against customer requirements at a cost-competitive rate.

The primary challenges that CBE+ was looking to address were in relation to the volume of parts being processed. The business wanted a robotic system to help with loading and unloading nickel plating lines, as large orders from customers in new sectors have driven the need to explore new ways of working.

The current task of loading and unloading parts is repetitive and not the best use of employees' time, with some colleagues picking parts from a box and placing them on a rack for entire shifts. It is also physically demanding, with a lot of physical movement required to load the rack. An automated system was needed to improve efficiencies of the task, reduce the manual labour required, further increase health and safety standards and better maximise the skillset of CBE+ Staff.



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AT CBE+ WE ARE KEEN TO EMBRACE NEW TECHNOLOGIES, AND ROBOT TECHNOLOGY WAS NOT SOMETHING WE HAD DONE BEFORE SO WE APPROACHED THE EXPERTS AT THE MTC.

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CHRIS BROWN
Co-Founder and Technical
Director, CBE+

“
THE MTC HAS
INTRODUCED US
TO THE DIFFERENT
TECHNOLOGIES
AVAILABLE IN TERMS
OF ROBOTS AND
HANDLING. THEY
HAVE HELPED US
IDENTIFY VARIOUS
OPTIONS IN TERMS
OF PICKING AND
PLACING THE PARTS,
THEY HAVE GIVEN US
IMPARTIAL ADVICE
AND INTRODUCED
US TO A NUMBER
OF POTENTIAL
SUPPLIERS AND
EQUIPMENT.”

+ THE MTC'S SOLUTION

The Automation Journey is a process followed by the MTC for bringing robotics and automation into a business. Following these steps, MTC engineers can support manufacturers with impartial advice and proven methods to ensure the right technologies are used and the business case is clear.

The process began with a line walk, where CBE+ demonstrated its production processes, before the MTC then helped to identify applications and opportunities for automation.

Next, the conceptualisation phase encourages the team to think about what could possibly be done to bring a robot into its existing processes. Once the concept with CBE+ was established, a business case was then put together to understand whether there was enough of a financial incentive for moving forwards with implementing a robotics system.

The concept and the business case were then brought together in a feasibility assessment, the aim of which is to truly understand if it's viable for automation to be brought into the CBE+ business at this current time.

As a supplier-agnostic organisation, the MTC helped CBE+ shortlist suppliers to support automation adoption, providing advice on what the next steps should be in bringing automation into their business.



+ THE OUTCOME AND BENEFITS

This project has seen the MTC help with initial research in demystifying the options available and building the business case. The MTC has worked to collate the requirements for the new system and approached a number of robot integrators and machine builders who can offer a solution to meet the requirements of CBE+. After receiving quotes from these suppliers, the MTC aided in understanding the options and selecting the right solution for CBE+.

Based on the success of the project, CBE+ envisages a longer-term partnership working with the MTC to introduce automation into other sectors of its factory.

“CBE+ have been really great to work with. We've been able to work through the requirements with them so that we can produce the best possible solution and hopefully we will be able to build on that relationship in the future and bring more technologies to CBE+”.

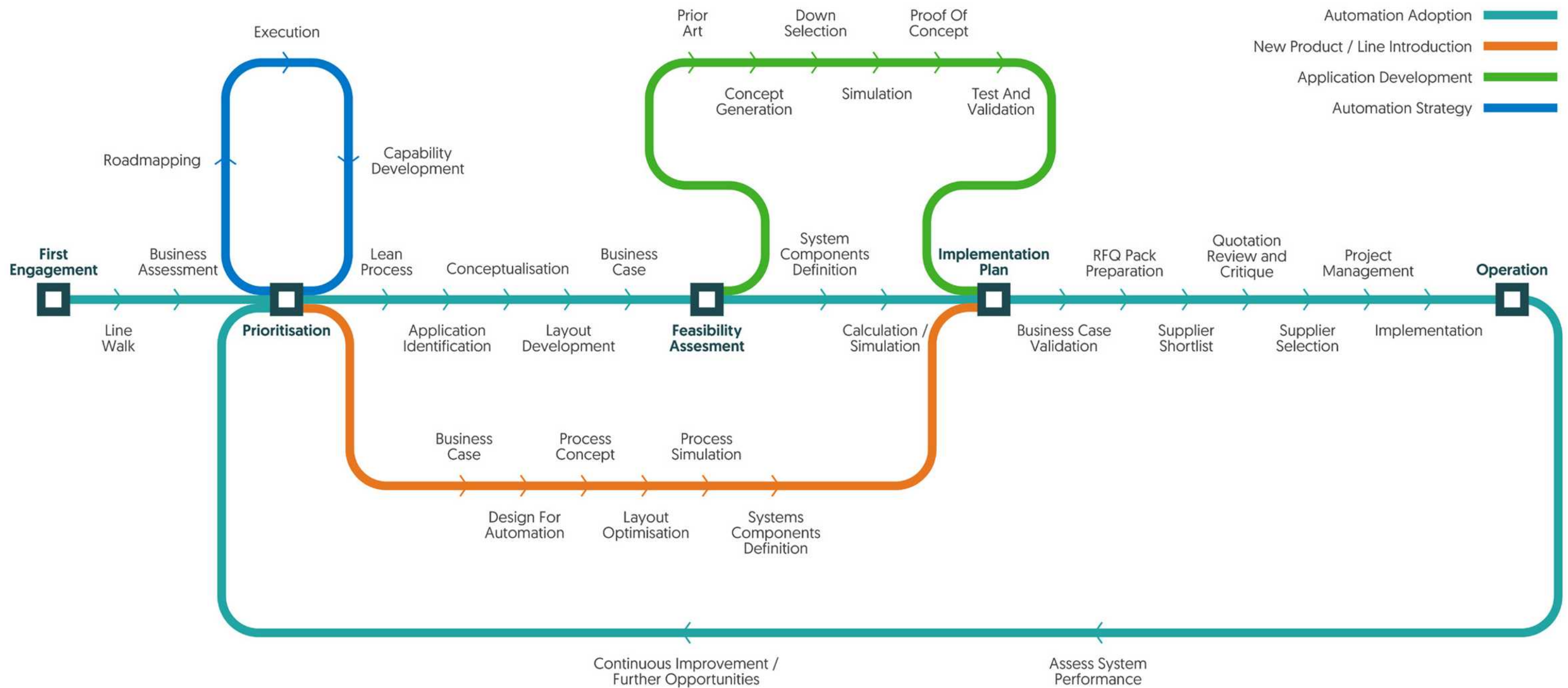
James Owens
Advances Research Engineer, MTC.

+ THE AUTOMATION JOURNEY

The need to improve manufacturing and increase productivity through the use of automation is becoming increasingly important, with many companies now seeking to understand how best to progress. There are many ways robotics and automation applications can be deployed to improve productivity, provide consistent quality, and undertake arduous, mundane, or dangerous tasks. Automation isn't about replacing jobs, but providing the UK workforce with the tools it needs to be productive.

There is a steep learning curve associated with the adoption of robot automation. The process involves many complex steps, beyond just the operation of the system once it is installed. The Automation Journey is an initiative by the MTC to provide impartial expert advice and guidance on the automation journey for manufacturers in the UK. Through this journey, The MTC aims to develop informed automation clients who can implement future successful projects independent of their support.

The Manufacturing Technology Centre is uniquely placed to help any business considering an investment in automation, particularly those who are taking these steps for the first time, like CBE+. The MTC works with businesses, both large and small and across a wide range of sectors, and aims to help them manufacture faster, at a consistently higher quality and lower cost, achieving performance improvements for their business.



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CONTACT US TODAY

Experts at the MTC are working collaboratively with UK SMEs to help them to effectively adopt automation.

We are actively looking to engage with organisations to investigate how introducing automation can increase efficiency, improve manufacturing processes, and reduce human risk in dangerous working environments.

If you are an SME interested in automation, contact our team at **MSS@the-mtc.org** and start your journey today. For more information on automation at the MTC, please visit **the-mtc.org/automation**

cbe+

