Maximising Value in Rail Supply
Information Sheet

An Introduction

Things are changing fast in the rail supply chain. With £35 billion expected to be spent on new services and equipment in the United Kingdom (UK) alone – a supply chain expansion of 140 percent – the market looks set for a steady period of growth.

This investment comes at a time when the British rail network is being transformed by technology through the digital railway. The opportunities are there for those ready to step up and take them, but it's not always straightforward to adapt your business to this new reality. Although new technology is delivering better value for passengers and freight users, for suppliers this transformation can put pressure on the bottom line. As the rail network becomes more complex, all suppliers have to look again at how they deliver value for their customers in the face of the higher cost of quality. Rail systems with greater capabilities mean more effort for those who work to keep the network up-and-running. Greater software content in the rail network pushes up costs for everyone who has to interact with it. More bespoke and specialised components drive up time-to-market for those who develop and maintain them.

These challenges are only going to get harder as the years go by, and rail suppliers which can't adapt will face an uncertain future. Every little piece of infrastructure, every part of a train, increasingly needs to be looked upon as a detail in a big picture rather than as something more discrete, with its own discrete maintenance schedule and separately identifiable requirements. Rail suppliers must adapt to this new reality to keep delivering value. Walls need to come down and communication needs to step up. The pace of change in technology demands it of us, but it can't happen without the right skills, the right process and the right tools.

To keep delivering value, the rail industry as a whole needs a 'left-shift' in its approach to development, extending all the way across design, engineering, construction, maintenance and refurbishment. Left-shifting is about reducing risk by moving certain processes, especially testing, to an earlier stage in your product's life cycle, pushing as many costs as possible to after you have assurance that you are building the right product in the right way. In an ideal world, you would know almost everything about whether your plans are going to work before you go anywhere near anything physical. Left-shifting would bring an engineering mindset to more parts of rail supply, and delivering better value by getting it right the first time, on time and every time. The skills and tools needed to make this a reality are out there, developed by industries which have faced conditions like this before. Rail supply could do a lot, today, to deliver greater value in the face of the change it faces now and in the future.

It could be better equipped to keep things in budget when the objectives at the end of the project are in danger of changing from where they were at the start. It could mitigate risk by discovering and addressing defects at an earlier stage of the product life cycle, before incurring the associated costs. It could be using a more transparent workflow, giving managers and stakeholders a clear and real-time view of what's going on and what's being spent. And most importantly, technology could be working to the advantage of the rail supply industry, by helping it understand the value of its products in the context of the ever-changing and ever-smarter network.

Finding ways to deliver better value is always a challenge but running headlong into a problem isn't always the best way to solve it. Often, it's better to spend five minutes before you launch into looking for solutions, thinking instead about how to make the problem easier to solve. We have some ideas you might find valuable.

This information sheet is an excerpt from SyntheSys Technologies White Paper about Maximising Value in Rail Supply. Read the full White Paper [here].

About SyntheSys

SyntheSys provides defence systems, training, systems and software engineering and technical management services over a spectrum of different industry sectors. Along with distinct support and consultancy services, our innovative product range makes us first choice provider for both large and small organisations. Established in 1988, the company focus is on fusing technical expertise with intuitive software applications to solve common industry challenges.

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