Phil Sunley

Head of Defence and Aerospace, Newton

Building a joined up or end-to-end operational plan to design, build, and deliver complex defence equipment is vital in ensuring it is delivered on time and on budget, according to Phil Sunley, head of Defence and Aerospace at UK-based consultancy Newton.

Experience across UK air, land, and maritime programmes has convinced Sunley that the earlier an end-to-end plan that links together the engineering designs, the supply chain, and production operations is in place the better. "I don't like being called in to be a troubleshooter or a fireman," he said, adding that Newton aims to be involved earlier in a programme's life cycle to head off problems before they hit because, "once programmes are under way, it is more difficult to pull them back on the first foot".

For more than a decade Newton has been involved in some of the highest-profile defence programmes in the UK, working at all levels from the shop floor to the board room. "I have been shouted at by welders and electricians at the coalface of the defence industry on many occasions and that gives me an understanding from the ground up," Sunley told *Jane's*. As a result of this experience he has learned that making a success of complex engineering programmes is not straightforward. "Often it is easy to understand what is wrong with a programme," he said, "but it is harder to decide what to do and then stay with it until improvements are successfully made."

Sunley said that computer-aided design technology, outsourcing work to supply chains, and reductions in skill levels of shop floor workers make it critically important that a programme's life cycle is planned and organised properly from the start. Without a realistic end-to-end plan that brings all these elements together it is difficult to plan a programme efficiently and have robust confidence in cost projections, he noted.

"We have transitioned from an era where industry relied on hands-on experience within their organisations and it has moved to relying on processes and systems that are needed to deal with the complexity of modern supply chains," he said, noting, "This is a step up in complexity; in the past organisations did not rely on the supply chain as they do now."

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Moreover, "Optimism bias often stops people doing things up front," said Sunley. "Getting resources up front and putting processes in place sets up programmes for success early in their life. This is almost common sense, but the hard thing is doing it."

Sunley described building an end-to-end plan for a programme as a unique experience, at the heart of which is pulling expertise and experience within organisations together with Newton's own people. "We have to understand the programme and not just cut and paste solutions," he said, pointing to joint working as vital to the success of a project. "On all projects we form a joint team," he continued. "We use facts and data to make decisions. There is usually lots of noise about why things are going wrong or could go wrong, but we cut through that and see what gives you the biggest bang for your buck."

Describing Newton's approach, Sunley said, "We are purely operationally focused, looking at engineering, supply chain, and production output. It is a very practical way of working."

Once a realistic plan is in place, Sunley suggested that the next most important thing is to engage with the workforce to execute it. "You have to make sure that all the people are bought into delivering the programme," he said. "This means that at the higher level senior management have to stop talking just about cost. You have to install an end-to-end delivery approach and break down the silos between individual departments."

A vital component for success, according to Sunley, is having "clear visibility on what is happening. You have to know what a good week looks like. Everyone in the programme needs programme data, not just the people turning the spanners."

Next, he said, "It's about engagement; 50% of what we do is engaging the work force – chief executives, middle management, engineering teams, supply chain, and production people." Underscoring this point, Sunley said, "The people in defence programmes have skills and pride. Giving them a feeling of success does change the way they do business."

The fact that companies such as Newton are routinely involved in UK defence programmes suggests they are considered to be just as integral a part of the country's defence industry as prime contractors or specialist equipment suppliers. Moreover, the stop/start nature of British defence procurement over the past 30 years means that critical operational expertise and experience often only exists in the consultancy and business advisory sector.

Sunley noted that on a day-to-day basis more than 90% of Newton's 306 staff work out in industry away from the company's Abingdon headquarters and that, as a result, they feel like a part of the UK defence industry. "Our people love working in this industry," he said, "We worked on the UK aircraft carrier programme and I still have great pride when I go to visit HMS *Queen Elizabeth*."

This pride, he said, extends throughout the workforce. "Our young people have the same enthusiasm," he noted. "We don't have a problem recruiting. They have a passion to want to make a difference. We want to see UK defence sector perform."

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