

## Bring in new tech but invest in people as well

At AES Engineering, the way we do things is changing rapidly

The Institute for Fiscal Studies' warning on Britain's "dire" productivity record over the past two decades cannot have come as news to UK manufacturers. It is just the latest in a stream of similar reports in recent years, with government figures published in August showing that Britain's productivity was 18 per cent lower than America's last year.

Boosting output was paramount for AES Engineering Ltd as we planned how to spring back from Covid while facing increased volatility in global markets and war on our doorsteps. The temptation might have been to plan for just profit growth at all costs. Usually that means at least cutting some actual business costs, pruning staff, putting pressure on suppliers to lower or maintain prices, and skimping on contributions to environmental and social causes.

Instead, we decided to go for massive investment in technology and in up-skilling staff across our business, which designs and manufactures mechanical seals. Since 2021, we have invested millions in our apprenticeship schemes and in staff development at all levels. In parallel, group capital investment during 2021-23 was £66 million, of which £55 million was spent in the UK. Targeted investment in both staff and technology is the only sustainable way to respond at a time when the way we do things is changing rapidly and whole job sectors are disappearing.

Manufacturing companies are often described in terms of buildings and machinery. In the case of Aesseal, our main global brand, we doubled the size of our factory in 2024 and completely re-imagined the space to create a "factory for the future" in Rotherham, South Yorkshire. When complete, the 175,000 sq

foot facility will be gas-free, as only electricity can be green. This can happen due to our investment in almost 3,000 solar panels, heat pumps, modern transformers and 2.2 megawatts of battery storage.

The factory is a showcase for sustainable business, with investment in robots, AI, and advanced end-to-end ordering and fulfilment. This includes a £2 million investment in 26 AutoStore robots which double the efficiency of the picking part of our assembly operation.

Another part of our business uses internet of things instruments, gateways and cloud-based reporting and diagnostics of customers' machines. The round-the-clock surveillance, and timely intervention, helps customers prevent catastrophic failure so they can also be as productive as possible and consume fewer of the Earth's precious resources. Preventative maintenance is always better than having to respond to a crisis.

The goal of productivity enhancements is to remove every repetitive, dull, boring, and unnecessary human intervention. In our business this never leads to lost jobs, instead it creates new career opportunities in modular design, AI, robotics, the service and maintenance of advanced tools and equipment, software, and so on.

The goal is to become more productive. A business that assembles to order is much more productive than any business that manufactures to order, but such a business needs to be designed right from the beginning, and having the right tools or technology is critical. To put it simply, special one-off orders cost you money. At Aesseal, it takes at least 50 times more direct and indirect labour to produce a special one-off order for a mechanical seal than



Chris Rea with a robotic production line at the company's new factory in Rotherham DOMINIC LIPINSKI /THE TIMES

it does to produce a standard product. No customer is willing to pay the real price.

To remain productive in a high-wage economy we need to have modular production with more standard products as well as round-the-clock and throughout the year operation. Only robotically controlled machines will do that. However, there also need to be people in attendance — people with the right skills. Failure is not an option.

Our digital roadmap includes automated quotations that give a customer certainty about when a vital order will be shipped. With other high-tech tools, including our design automated software, we are reaching a gold standard where more products and their common adaptations will not require time-consuming human design. The first steps to embracing artificial intelligence are under way with the development of AI mechanical seal and machine condition monitoring experts that can improve customer service, productivity, and the reliability of our customers' operations.

For the record, during 2021-23, labour productivity at Aesseal in Rotherham rose by 28 per cent. Sales at AES Engineering group rose to £261 million with exports accounting for more than £100 million — that's a 42 per cent increase. Our headcount in the UK went up by 13 per cent to 790 and group employment rose to 2,010. Group pre-tax profits also more than doubled to £57 million.

I hope our story shows there is a path towards a more productive and sustainable future for UK manufacturing, but it requires investment in people as well as in technology. Some businesses can do this without help, and they should therefore just get on with it. For the chancellor and her colleagues in government, the goal must be to create the right investment and training environment to help, not hinder, those willing to future-proof British manufacturing.

*Chris Rea is founder and group managing director of AES Engineering*