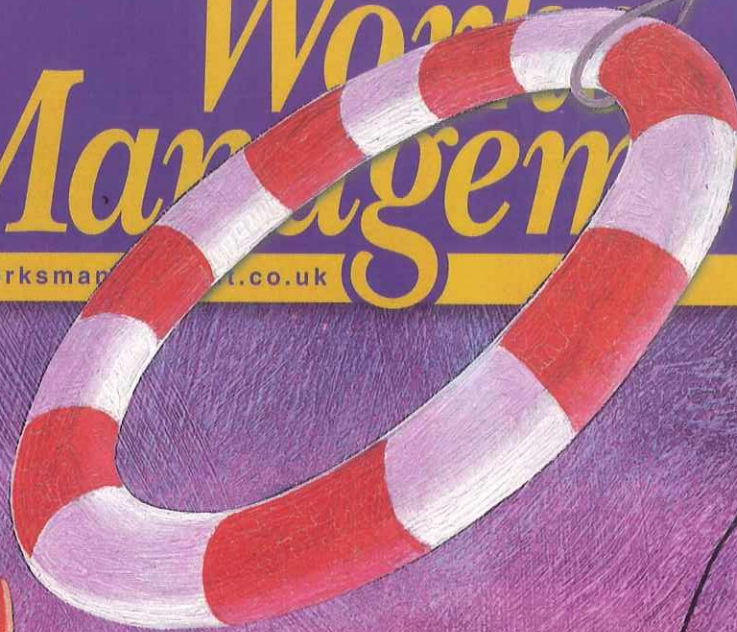


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Soft focus *on* hard results

To make continuous improvement really stick, you will need to ensure full visibility of the goals – and the results. Malcolm Wheatley reports

At Fareham-based Meggitt Avionics, the realisation that a range of accelerometers was delivering a low profit margin prompted a programme of corrective action. “We couldn’t change the products’ design: re-certification was out of the question,” recalls operations director David Craig. “So we had to strip cost out of the production process.”

Such challenges aren’t unique, of course. Across British industry, lean manufacturing methods and continuous improvement initiatives have reduced costs, boosted productivity and improved quality levels. But while familiar with lean manufacturing, Craig wanted hard, bankable cost savings – and wanted them quickly. Rather than a soft-edged focus on team-building and workplace morale, with no defined end point or objective, firm results were what was required. The solution? A thoroughly hard-edged initiative, led by Brentford-based consultants Jara, that stripped a very significant amount of cost out of the production process.

“Anyone can read a book on lean and say they’re doing it, but the challenge is to make things happen”

Fredrik Vejjarden, senior VP, Luvata

Team leaders reviewed operatives’ timesheets on a daily basis, identifying instances where standard times were not being met. Action plans were created to fix problems and drive the improvement process – aided by classic lean techniques such as videoing the production process, observing where mistakes were being made, and identifying and then eliminating non value-adding elements. The focus, stresses Jamil Rashid, Jara’s managing director, wasn’t on achieving the original standard times, but instead on achieving much, much lower target times, with all wastes and inefficiencies eliminated.

The impact was considerable. “What was a low-margin product has now become a product with a very reasonable margin,” says Craig. “We can’t publicly quote the precise level of savings, but we certainly know them down to the penny – and they are very significant.”

It’s a story that cuts to the heart of the present-day debate around lean manufacturing and continuous improvement,

and one that is being played out in factory after factory across the UK. Lean delivers – there’s no doubt about that. But in times like these, is it sufficiently direct, and ‘targetable’ enough? As British workplaces knuckle down to fight the toughest recession in decades, there’s a distinct view that there’s neither the money nor the inclination for soft-focused activities that are not directly linked to survival.

Clear evidence

Maybe so, but the evidence is clear that classic lean manufacturing techniques can certainly be credited with delivering significant improvements in an acceptable timescale – if required to do so.

Take Thirsk, North Yorkshire-based family-owned manufacturer Selective Covers, which produces customised high-grade waterproof covers for applications as diverse as swimming pools, vehicles and garden furniture. When Yorkshire & Humber Manufacturing Advisory Service specialist advisor Cedric Jeffries of industrial engineering consultancy Scott-Grant got involved, on-time deliveries had slipped to 25%. “Half the calls to the company were new business, the other half were complaints,” he recalls.

The company’s order book was healthy. The problem lay with how it was attempting to manufacture those orders: batch-based processes, it turned out, couldn’t – quite literally – deliver the goods. In short, the company was attempting batch production

without either the planning systems or expertise to do it properly, realised Jeffries.

Enter a lean-inspired, flow-based production system. “Cedric pointed us towards improved product flow,” explains Selective Covers’ managing director Debbie Knowlson. “Simple flow-based procedures were put in place, alongside visual management tools and a better shopfloor layout. Manufacturing throughput time very quickly reduced from about three days to just one or two hours.” On-time delivery performance dramatically increased, too, she adds, with 100% on-time now being the norm.

Talk to lean experts, and two distinct views emerge on how to reconcile this apparent conflict between ‘hard’ and ‘soft’ lean improvement initiatives.

To begin with, it’s vitally important to make the end point very clear. The objective is change, in other words, and not just the process of getting there. “Start with the basics, understand where the problems are, and firmly resolve to fix them,” says Graham Salters, head of process excellence at Richmond-based Celerant Consulting. “Keep

Breakthrough Management Group International, agrees. “We see a lot of managements focused on inputs – the number of people trained and certified, or the number of projects underway – but we prefer to think in terms of outputs, such as the number of key performance indicators significantly improved,” he says. “Too many initiatives are filled with training programmes: we prefer key performance indicators, and preferably key performance indicators that have an impact on the profit and loss account.”

in mind the extent of the improvement that you’re trying to deliver.”

Measurement is vital. “What drives decisions about improvement priorities is good data,” says Thomas Brand, a managing consultant with London-headquartered consulting firm PA Consulting. “Basic information about inventory levels, stock turns, revenue and profit per person: these are the metrics that tell you if you’re going in the right direction, and how quickly.”

Scott McAllister, Amsterdam-based European chief executive of consultants

Such sentiments are thoroughly endorsed by Fredrik Vejjarden, London-based senior vice-president of operational excellence at Finnish metals and component manufacturer Luvata, an 8,000-employee business with 36 plants worldwide.

“‘Lean’ has become a vague industry buzzword, and its use can sometimes be sloppy,” he says. “Anyone can read a book and say they’re doing it, but the challenge is to make things happen. To me, the issue is



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not about understanding what to do, but understanding how to do it – and then doing it.”

A two-year-old lean initiative within Luvata has therefore concentrated on tackling projects around the classic lean and continuous improvement themes of eliminating waste, but doing so with small teams of people directly involved in the problems concerned. Audited results have been impressive: inventory reductions of about 30%, customer returns down 15-20%, and on-time, in-full delivery performance improved by 15-20%.

“It’s not about top management preaching a message and launching a Six Sigma programme – it’s about taking a small group of people on the factory floor and working with them to change how things are done,” says Vejgarden. “The trick is not to try to change the whole world in one go, but to focus on manageable projects: learn, ensure the change is complete, and then move on.”

But if having a firm ‘hard-edged’ objective is important, so too is being able to continuously monitor progress towards it, say lean experts. Continuous improvement, runs the refrain, is difficult to sustain when you can’t see that you’re continually improving.

Access to data

“Ensure that the continuous improvement team has access to high quality trend data on performance and quality, and ensure that it has time to meet to review that data,” advises Ian Machan, director of Keyworth, Nottingham-based Machan Consulting. “Teach the team leaders the basic tools of root cause analysis, so that they can better ‘steer’ towards their goal, and encourage senior management to take time to go and look at the trend data once a week, and attend some of the improvement sessions.”

A basic common-sense approach like that, he believes, delivers real value for money. “In the desire to go for the new and the dazzling – such as Six Sigma – some of the basic improvement methods and disciplines are being lost, with the result that you’re spending more money, but getting fewer benefits. Where companies fall down is spending too much on training courses, when

on-the-job training working with their own problems in their own workplaces would be better.”

Barry Engstrom, manufacturing director at Tiverton, Devon-based linear slide systems manufacturer HepcoMotion, agrees. In the last year, even as the recession has begun to bite, HepcoMotion has made significant progress through the application of simple ‘visible factory’ techniques, he notes.

“Hourly and daily progress reports, linked to continuous improvement initiatives and improved workplace organisation, have done a lot to reduce waste in terms of time and movement,” he says. “Decisions are being made where they need to be made, and when they need to be made – rather than waiting for responses to come from further up in the organisation.”

Meanwhile, continuous feedback on progress towards objective achievement is credited with helping to deliver significant improvement at modular flooring manufacturer InterfaceFLOR’s factory in Halifax.

Overall Equipment Effectiveness (OEE) has improved year on year since it was introduced in 2004, recording a 10% improvement overall, while ‘Business Improvement Team’ activity boards drive projects on the factory floor. Downtime has been reduced by 71%, notes operations director Steve Martin.

While a series of ‘classic’ initiatives such as kaizen and 5S have helped to deliver the improvements, supported by cross-functional teams and a deliberately-fostered culture of encouraging people to take risks in the pursuit of improvements, focus has been provided by the factory floor bonus system.

“The bonus isn’t driven by just the usual metrics of quality and output, but also linked to waste elimination and energy use,” says Martin. “It’s more complicated, but it provides continuous feedback as to progress.”

Yet while the experiences of companies such as InterfaceFLOR, Luvata, HepcoMotion and others demonstrated that it is indeed possible to approach lean manufacturing and continuous improvement with a view to generating hard, bankable savings, that isn’t to say that the ‘soft-edged’ focus of many implementations is wrong. Far from it: the

‘soft’ side of lean, say the experts, is vital if generated improvements are to be sustained.

“The softer aspects of lean and continuous improvement undoubtedly have their place,” asserts Dennis McCarthy, director of DAK Consulting. “When initiatives fail, it’s generally because managements haven’t changed the way that they manage. You can make improvements, but if you don’t have the right culture in place, the gains will slip away over time.”

Set-up time reduction is often a classic example of this failure, he adds. “Typically, basic workplace organisation accounts for a third of the achieved reduction in a set up – but that calls for discipline and standards, and people being held accountable for sustaining that workplace organisation. Quite simply, introducing a technique without changing the management approach is a waste of time.”

Wider culture

The broader workplace culture is just as important if lean improvements are to stick, adds Tom Wedgwood, a director of Great Malvern, Worcestershire-based Newton Industrial Consultants. “If improvements are to be sustained, the culture needs to be right,” he stresses. “Just as importantly, the right culture doesn’t just sustain improvements, it builds on them to deliver further improvements long after the initial impetus has passed. Once you get people fixing problems, sustainably, instead of just complaining about them, there’s a huge sense of empowerment and achievement.”

Back at Meggitt Avionics and Selective Covers, directors David Craig and Debbie Knowlson agree. “We improved the process, but we also changed the way that people think about their work,” sums up Craig. “And if you change the way that people think about their work, then change will stick.”

“It’s all down to teamwork and morale,” adds Knowlson. “An environment where everybody is hungry for change and improvement is very different from an environment where only a few people are.” ■

