

## LORIEN ENGINEERING SOLUTIONS – PRESS RELEASE

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### **Food Industry Focus**

For the past 20 years the main focus of Midlands-based Lorien Engineering Solutions has been to provide capital project solutions for the food, drinks and pharmaceutical manufacturing sectors. The company also has a thriving consultancy-based business it calls ‘Manufacturing Reliability’, and has been engaged by clients on performance related assignments since the mid-1990’s. Bill Treddenick is the Lorien director who heads up this part of the business, and he discusses his group’s experience in delivering change programmes to consumer goods manufacturing businesses.

*Given Lorien’s experience in leading manufacturing improvements, why do you believe that food manufacturers should be chasing the ‘high reliability’ holy grail?*

“Within the consumer goods sector, and particularly in food and drinks, there is continued pressure by retailers to drive down the purchase price of goods. Manufacturers need to concentrate heavily on the Cost Of Goods Sold (COGS) as a key measure, and focus strongly on how best to get into the driving seat to ensure that their business is not damaged as a result of retailer’s discounting policies. There are two basic methods of reducing COGS; lowering supply chain costs (including reduced inventory and low cost purchasing), and lowering conversion costs. The latter generally demands the automation of volume production and most importantly high levels of efficiency. In our book the most positive impact a manufacturer can have on efficiency and thereby COGS, is by ensuring factories produce with very high levels of manufacturing reliability. Unfortunately this message doesn’t appear on many manufacturers radar screen, or if it does, insufficient importance is given to it.

*If it's so important, why don't food manufacturers generally seem to place enough emphasis on production line effectiveness?*

The problem we find is that most food companies don't measure their effectiveness correctly, and some are so intent in getting product to their customers that they don't measure effectiveness at all. This is particularly true when it comes to fresh or chilled product that needs to hit delivery windows. We also often have reports that lines are running well over 100% - we measure them and they're running closer to 40%. With such over-stated efficiencies companies often don't realise how poorly they are running, and how far behind they are versus their most efficient "world-class" competitors.

*Where should an organisation suffering low efficiencies focus its attention?*

Achievement of world-class performance is ultimately about obtaining appropriate behaviour from the people who are intimate with the manufacturing process. Having great decision-makers only at middle and senior management levels will have next to no impact on outputs.

There is also often too much emphasis on the capability of the machinery, and not enough attention paid to the capability of the people who are running the machinery. Machines are great at repetitive actions – either they're consistently good or consistently bad. Machines can't correct running problems, people can – provided they are knowledgeable about the process. We have seen new plant start-ups, NPD and business transfer projects fail simply because the plant operators and maintainers have not been allowed to acquire a working knowledge of the plant or product prior to start-up. There has got to be knowledge and good decision-making at the production line level so that intervention can be done in a timely manner, and operating faults are corrected at the root cause level ("root cause level solutions" means that the problem will never happen again). It is the job of management to create the ownership and desire to deliver better results at the shop floor, enabling, energizing and empowering their people.

Driving all this empowerment and good decision-making requires the correct support through training and the development of 'systems of work' that are critical to highly reliable and highly efficient production. This includes organisational and leadership systems, plus very straightforward systems addressing product changeovers, cleaning, set-ups, maintenance and so on.

*When talking about very high efficiency levels, what do you consider is achievable in an industry where the range of products is continuously increasing, there are shelf life issues and supply chain costs are forcing shorter production runs?*

My group has experience of delivering Manufacturing Reliability systems to over 100 factories world-wide, covering a wide variety of food products. However, all parts of the manufacturing sector are facing similar issues around inventories and customer / market demands. The food industry has an added dimension of shelf life preservation, but even here line changeovers don't need to be a drain on efficiency. The best in this sector are now enjoying OEE (Overall Equipment Effectiveness) figures of over 90%. I am also interested in the belief that when you get much above 85% OEE the benefit gained by going higher is not worthwhile – we have never seen this to be true. High reliability leverages so many other things – inventory, maintenance costs, depreciation, energy as well as expensive overtime and capital spend for capacity increase. The manufacturer is also much more in the driving seat – with the absolute certainty of the ability to manufacture comes cost certainty, delivery certainty, quality certainty. In essence, you know where your baseline is.

*What type of business employs Lorient to run such a programme?*

Our customers tend to be made up from those businesses that empathise strongly with our Manufacturing Reliability ideals, and they recognise that they are not realising their full potential. Many are larger organisations with established mission statements around good quality, reliable service and lowest cost production. There aren't many manufacturing businesses around that don't publicly state these as their goals, but we are also keen to establish that the management team is truly

committed to driving such a programme to maturity. Manufacturing Reliability should be an on-going state of mind and not a short-lived intervention.

*So what is the biggest differentiator between a business adopting Manufacturing Reliability, and those that don't?*

Well first of all, there are many successful businesses that don't use our MR programme, but if you were to ask them what they were doing I would guess it would be pretty close to MR. The most striking characteristic of a highly effective manufacturer is the ability of people at shop floor level to make the correct decisions and be able to act upon them. That's what MR delivers; acting upon correct decisions needs knowledge of the plant, the right systems and techniques and good ownership of the results. There are a number of 'enablers' to achieve consistently correct decisions: Leadership System – throughout the organisation leaders need to understand what is required of them; Organisation System – constantly reviewing plant KPI's, and ensuring there is a manufacturing team in place that has all the skills within it that are required for highly efficient manufacturing; Techniques such as root cause analysis and focussed improvement. Possibly one the key enablers is the long-term commitment of the senior management team to the ideals of Manufacturing Reliability – if this were to drop, even momentarily, then the whole factory will pick up on it and be thrown back into a state of confusion and suspicion.

*If it is so simple, why don't all manufacturers already adopt the same approach?*

It does surprise us that companies seem to spend their energies on a whole range of initiatives without ever getting down to the basic systems of work within the factory. Managers tend to jump to the outputs, "We need to spend less on fixed costs and capital", or "We need to get higher levels of plant up-time", and start graphing the data - trying to drive the change without first assessing what enabling and energizing steps are needed. Occasionally we also see 'hit squads' or centralised performance groups being established with a brief to reduce costs across the business. These roving groups have certain outputs to achieve, and may succeed in the short term.

But without establishing the ownership of the results with colleagues in the factory, the improvement is short-lived, sending the factory on a roller coaster ride.

Sustained improvement comes from consistent management focus, enabling people to do their jobs well, energizing them and enforcing the critical systems of work and creating ownership of the factory results at shop floor level. Correct decisions and intervention at shop floor level should be present and obvious to anyone visiting the factory.

The food industry has had a comfortable time to date, one in which measures of true plant effectiveness and utilisation of 40 – 60% have been tolerated. Cost pressure from retailers is driving manufacturers to rethink life – business expansion is no longer about speculatively building more volume to gain more business, it's now about making best use of the facilities you have and striving for the lowest cost producer badge.”

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### **Notes to Editors**

Lorien Engineering Solutions is a multi-disciplinary engineering design and project management organisation based in Lichfield, Staffordshire, and forms a division of Lorien plc, which is headquartered in Manchester, UK.

The company has a staff of more than 60 specialists who design and deliver manufacturing capital projects and manufacturing performance improvement consultancy in the brewing, drinks, food and pharmaceutical industries. Working for many of the world's top manufacturing organisations within the UK and overseas, they were recently presented with the President's Award for occupational health and safety in construction by RoSPA (Royal Society for the Prevention of Accidents), the company's 14<sup>th</sup> successive top-level safety award.

Pictures are available upon request.