



The Problem

A large multinational manufacturer upgraded their facility through the procurement of new equipment. This new piece of kit was marketed as being able to manufacture their products faster, and with a reduction in some raw materials required. The manufacturing company wanted to make sure that new formulations would be able to meet the performance standard required even with the reduced material usage.

Looking at the entire problem

At first glance this seemed like a straightforward problem. Design an experiment for the lab, make sure that worked, then do the same as a production trial and test.

The difficulty we faced, though, was a new technical manager who was very risk averse. He was unwilling to accept the results of the tests as conclusive until he had “sufficient data” to guarantee the performance standard. What he couldn’t do was define what that was!

With a cost incurred every time a production test was performed in both money and time, the production manager was very enthusiastic to get these experiments finished, as well as realise the benefits of the reduction in raw material use.



What was apparent very quickly is that the competing demands of quick production decisions and the technical guardianship of customer quality were creating tension. Things

were getting decidedly un-fun!

Our Conclusion

Risk management is incredibly important when it comes to making a change that can affect many customers. It doesn’t have to be crippling to your business though. By careful consideration of the real drivers for maintaining or improving the process through a change a sensible, pragmatic and beneficial approach can be worked through. Bringing together the stakeholders views, and working with them to design and manage the process is typically the best way to get support for the process, the result, and just as importantly, the way in which teams work together.

When differences aren’t really different



The real challenge was getting production and technical teams to see things the same way. A training workshop was run to get everyone using the same language and to see that the

common goal was a product that met the customer requirements when they needed it, at a price that they were prepared to pay.

Through the approach of a *driver tree* the technical and production teams were quickly able to see that the changed formulation, provided that it met the performance tests already agreed with the customer would be sufficient to show that the new and old formulas provided equivalent quality. Furthermore, this allowed the teams to determine a *process flow chart* to quickly modify the finished product on the production line to replicate the old formula and test again, if the new product failed the tests.

A *simplified Gage R&R analysis*, a *Six Sigma* statistical method, was used to show that some product formulations could already be placed safely in production, reduce the number of tests for others, and permit more time for products that required greater analysis or testing.

Six months of analysis, round the clock production trials and delay in *realising benefits* were saved in just one day of working together.