Viewpoint

Stuart Smith

Standard for progress

Bespoke is not necessarily best.

ICE Fellow Michelle McDowell, recently named Veuve Clicquot Business Woman of the Year, has been a strong promoter of engineering and is perhaps best known for her conviction that architects and engineers thinking together from the outset of a project can produce better building design. We believe the benefits would be further increased through involvement of clients and a greater degree of standardisation.

Construction projects can benefit from standardisation

Manufacturing has realised that the key to reliability and low cost production is standardisation.

Less and less of the car you buy has a unique design. Skoda's four wheel drive system originally came from Audi. The platform for the Skoda Octavia is shared with the VW Golf. Car manufacturers increasingly share components across the different car brands they own. The cars still retain the individuality that make them distinct from one another.

If you look at large scale construction projects today, not nearly enough consideration is given to how designs, materials and activities could be standardised. This is not to suggest that the construction industry doesn't standardise. Companies such as Huf Haus and Toyota (yes they build houses as well) utilise standardisation to produce cost effective, high quality, but highly individual houses. Standardisation could have a much greater role in large scale infrastructure projects. These are the projects that can be subject to long delays, significant inefficiencies, and frequent changes of requirement.

Working together from the start

If architects and engineers worked together in the way that designers and engineers worked together in manufacturing companies like Rolls-Royce and BAe systems, then it would quickly become apparent that much of what is deemed to be "bespoke" could be designed to be standardised and modularised without compromising the unique and bespoke feel of the project.

This would be true whether it be an Olympic stadium or a bridge. Methodologies such as Design for Six Sigma could be utilised to build reliability in at the design stage and Overall Equipment Effectiveness (OEE) could be used, which calculates the quality, productivity and availability of a piece of equipment.

Also, Lean thinking which drives continuous improvement in operations is ideal in a construction environment where there is a need to reduce cost without compromising quality, delivery and service, while having to meet a greater variety of requirement under ever increasing time pressures. (Note: do not confuse variety of offering with variation in process performance which would be a bad thing.) These sorts of methodologies won't in themselves make people work together, they will greatly improve the benefits of doing so. The impediment to greater efficiency and co-operation in construction lies in the mind not in the bespoke nature of the work or the complexity of it.

■ *Stuart Smith is managing director of Bourton Group and its subsidiary The Six Sigma Group www.bourton.co.uk tel: 01926 633333*