

Re-shaping the professional engineer

The transition from traditional manufacturing, technology, or product-focused industries to customer-focused service industries has not been, nor is, easy, and a key factor in its successful achievement is a new kind of professional engineer, writes Dr Stephen McLaughlin, FIET



The 21st century service organisation requires a new kind of professional engineer

The reasons for this are many, and in certain cases sector specific. However, two major reasons are the way we view service-led customer engagements, and the way we develop the mechanisms to get our offerings to the customer.

Many organisations have realised the benefits of knowledge management, or, more specifically, the need for better ways of transferring knowledge across their respective organisations. Moving on from this, it requires no stretch of the imagination to realise the importance of knowledge transfer to the process of innovation. The realisation of the need for better knowledge transfer in order to drive more competitive business practice through innovation has become an absolute requirement for businesses wishing to compete on a global level.

However, within the new 'service-orientated paradigm' this requires a very different approach to how organisations trigger or spark innovation, especially in relation to the process of delivering service.

Once again this is an aspect of operating within a global marketplace that organisations such as IBM, HP, BAE, and Rolls Royce, to name a few, are keen to understand and master. Through an initiative called service, science, management, and engineering (SSME), IBM has highlighted a need for organisations and academic institutions to take a multi-disciplined approach in driving co-creation of value with their customers through the provision of services.

A key aspect of this initiative is the evolution of organisations away from the usual localised, business unit related innovation, towards an environment where innovation flourishes across the organisation in a manner that supports strategic objectives and makes the organisation more responsive to changing customer needs and expectations.

A tall order indeed, you might say. However, whether this view of the 21st century service organisation is achievable, or is simple a utopian ideal, there are real elements of the SSME paradigm already identified, and realisable that can drive growth and competitive advantage.

One of these elements is what some organisations are now referring to as the development of the 'T-Skilled' professional; this is a specialist with broad skills who has emerged to help organisations drive service as a key competitive advantage. The 'T' in T-Skill symbolises a deep professional subject knowledge coupled with a broad business understanding.

If we accept the importance of establishing a customer-focused, innovative culture across organisations, it then becomes necessary to ensure that cross-functional, or inter-disciplinary knowledge transfer is encouraged, that, in turn, stimulates and encourages cross-functional innovation. In order to achieve this level of activity there is a growing realisation across industry that our traditional business function, silo- aligned, professionals need to develop a new set of skills.

In The Engineers Journal Vol 64: Issue 10, Stephen will explore this topic in more detail, outlining the attributes of these new professionals and their new skill sets. More information on SSME and Service Innovation can be found at the UK SSME Academic/Industry portal www.SSME.net/UK.org and the University of Glasgow's Services Innovation site www.gla.ac.uk/csirn/.

Additional information can also be found on Service Science Research and Education site at www.service-science.info/

Stephen McLaughlin is a Senior Research Fellow at the University of Glasgow and a researcher at the Innovation Value Institute (IVI) at NUI Maynooth. stephen.mclaughlin@nuim.ie