## INTEGRATING SUSTAINABLE PRODUCT DESIGN INTO A DESIGN PRACTCE

## Dr. Deborah Andrews, London South Bank University, UK

## Luke Robbins, KTP Associate

While legislation has forced many businesses to recognise that they must engage in sustainable practice other businesses also recognise the value of offering 'sustainability' as a service to clients, as in the case of an established UK-based SME, specifically a product design consultancy. This paper describes and discusses the research that was undertaken as part of a project initiated by a Knowledge Transfer Partnership (KTP) between London South Bank University (LSBU) and the design consultancy. The aim of the project was to integrate sustainable design tools and methods into the consultancy's design process to facilitate the efficient development of commercially successful, sustainable products in order to grow the business and that of their clients. The list of clients is diverse and includes companies that have employed the services of design consultancies in the past and companies who are utilising professional design services for the first time; the businesses range in size from entrepreneurial sole traders to large-scale manufacturers with established global brands and consequently each design project is unique. It is intended that other businesses benefit from the key findings of this project as discussed in this paper.

The first and major part of this paper uniquely describes the process, activity and experience of attempting to fully integrate sustainable design into a product design consultancy's design process. This process differs from that of manufacturers' in-house design teams because the range of projects undertaken by consultancies is broader than that of manufacturers. Furthermore, consultancies often provide bespoke services to clients, which can take place at any stage of the product development process, making it difficult to find a sustainable design tool or service that would be applicable and useful in each instance.

It can be argued that embedding sustainability within new businesses is easier than embedding it in to established businesses. This is partly due to the fact that embedding this process in established businesses requires significant change. In the case of product design consultancies change must be made by senior management and the design team: while senior management need to ensure that the business is ready to make the change and to support and drive the change, the design team must have the appropriate knowledge, processes and tools to facilitate sustainable product design. The paper discusses this and other challenges and barriers to embedding sustainable design within the product design process.

The research also highlights that the diverse nature of industrial and product design consulting can act as a barrier to the uptake and use of sustainable design techniques and processes. Furthermore, the full integration of these processes into all tasks undertaken by a consultancy requires long-term planning and change. This paper acknowledges and documents these experiences and barriers and proposes steps and solutions to overcome these issues.

The latter part of the paper considers the relationship between academia and business and concludes with an overview of the various benefits deriving from this particular project.

## Keywords

Industrial design, product design, sustainable product design, eco-design