Why sustainable building technology start-ups fail

Robert Ellis, Research Associate, School of Applied Sciences, Cranfield University, UK

Background

The domestic and business sectors are responsible for >60% of UK greenhouse gas emissions, much of which can be attributed to the buildings we live our lives in. Therefore, nurturing radical innovation in the building sector and transforming this into market ready technologies is of paramount importance in the quest to combat global anthropogenic climate change. Since being seconded to the Centre for Sustainable Engineering 2 years ago, as part of my PhD research project, I have been involved with a wide range of building technologies. The most notable feature of this experience has been the frequency of companies with excellent environmental technologies, which have been unable to achieve significant market penetration due to a variety of common barriers and challenges. This has driven me to shape my research towards looking for business solutions to these re-occurring challenges. Knowledge Brokering is the most promising avenue that I have discovered with which to do this. I would very much like the opportunity to present my current thinking on the subject with your alumni and explore ways in which this research may be practically applied. I look forward to sharing this research with you and envisage the paper to appear as follows.

Abstract

This paper presents an overview of the challenges facing sustainable building technology start-ups and then suggests a business model that can overcome many of these challenges. The common features of sustainable building technologies are outlined and their critical importance to the sustainability agenda explored. This provides a theoretical framework with which to explore the barriers that they must overcome and the risks that they must navigate, to successfully innovate and succeed commercially. These features are surmised from an extensive literature search and semi-structured interviews undertaken as part of a doctoral thesis. Knowledge brokering is then suggested as a potential new business model that can overcome these challenges to support and accelerate the rapid commercialisation of sustainable building technologies. Thereby, strengthening the flow of innovation to the marketplace; using a combination of short-term partnerships and multidisciplinary long-term collaborations.