IfM

UNIVERSITY OF CAMBRIDGE
Department of Engineering

2018 Strategic Technology & Innovation Management Programme

Speed of Innovation/Innovation Velocity

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Industrial / managerial need addressed

Better understanding of the concept of 'innovation velocity' would help managers assess how quickly an emerging technology is likely to be implemented and commercialised in their industrial setting and organisation.

Expected deliverables

- A set of parameters that could be used to assess the expected development and implementation of emerging technologies
- A conference paper and a journal paper

Engagement opportunities

Reviews of literature and practice will be presented to STIM companies as they become available for comment and improvement. In addition, STIM companies will be asked to volunteer for interviews and to take part in both STIM based and open discussions.

Approach

The aim is to develop more understanding of the concept of innovation velocity i.e. how quickly an emerging technology could be implemented and commercialised by taking the following steps:

- Carrying out a literature review on velocity taking an emerging technology perspective
- Reviewing innovation readiness levels research
- Investigating Albright-Keppel research on Product Drivers and Experience Curve Forecasts
- Exploring and integrating previous IfM research, including:
    - Historic roadmaps on technology development (EPSRC Emerging Industries Programme, Phaal et al 2012)
    - Force field analysis - enablers and barriers - for emerging technology adoption (Routley et al 2010)
    - Criteria for early stage technology development (Mitchell, STIM 2014)
    - Assessing risk and establishing viability of new technologies (Maine & Ashby 2002)
    - Technology Intelligence and Additive Manufacturing work (Mortara et al 2002-16).