

Technology Management

Quarterly newsletter of the Centre for Technology Management (CTM)

February 2010

Royal opening of the IfM

The Alan Reece building – the IfM’s new home on the university’s West Cambridge site – was formally opened by the Chancellor of the University, HRH the Duke of Edinburgh on 19 November 2009.

Also present for the ceremony were Dr Alan Reece, the principle benefactor and founder of Pearson Engineering, and the Vice-Chancellor, Professor Alison Richard.

All aspects of the work of the IfM were presented, including student projects and outreach activities. Prince Philip has had a close association with the Engineering Department over more than 50 years, and he took a particular interest in the range of research carried out in the Institute. In addition to a tour of the new building with its laboratories and workshop space, displays of each research centre’s projects were reviewed. In discussion and commenting on the contribution to business development of an engineering and technology based approach, the Duke observed how this was a useful complement to the traditional business school.



Over 400 people, including guests and alumni, were present for the ceremonial unveiling of the plaque – which was achieved with a great flourish by an experienced unveiler!

Dr Elizabeth Garnsey retires – partially!



We were sorry to say goodbye (at least for the Christmas holiday) to our colleague Dr Elizabeth Garnsey, who retired from teaching at the end of 2009. Elizabeth has been a mainstay of the Manufacturing and Management Division of Engineering for more than 25 years. She has published widely on technology enterprise, the growth of

firms and clusters, and been a key member of the Centre for Technology Management since its inception. Fortunately her legacy lives on, (Dr Tim Minshall was one of her PhD students) and Elizabeth will continue to supervise her current PhD students. This will bring her back into the IfM from time to time and we hope to continue to interest her in our various projects – such experience is too valuable to lose.

In the spirit of keeping us all on our toes, Elizabeth’s farewell speech revealed a hitherto (to some anyway) unknown talent for comedy and impersonation, and should she get bored in retirement, a new career in stand-up comedy awaits her!

Strategic roadmapping and technology intelligence executive course in Milan

In collaboration with Milena Motta of the Italian partner Strategie & Innovazione, Rob Phaal and Letizia Mortara from CTM ran a two day - executive course on strategic roadmapping and technology intelligence in Milan.



The event was hosted at the Grand Hotel Doria, in the business centre of the city where 20 delegates from companies including Reckitt and Benkiser, Whirlpool, GVS, Sealed Air, Leitwind, ITT industries, Barilla and FAAC met for the two days training course.

At the event, the Italian translation of the Technology Intelligence guidebook published by Strategie & Innoavzione was presented for the first time. This event was well received and a repeat will be held in May.

2010 CTM Symposium – Confronting global challenges: leadership, innovation, technology

This year's Technology Management Symposium will be held on 16 and 17 September in the Moller Centre, Cambridge.



The theme focuses on how technology and innovation management can lay the foundation for a better future. Challenges in the field of renewable energy sources, healthcare and mobility will be explored, and the critical role of leadership, both in research and practice, with the help of our expert contributors. Early booking is advised. See: www.ifm.eng.cam.ac.uk/ctm/symposium16/

CTM's Tim Minshall represented Cambridge University at the inaugural meeting of the Global Venture Lab Network coordinated by the University of California at Berkeley.

The Global Venture Lab is an alliance of academic institutions sharing common research and educational programs that are likely to lead to new industry and economic growth. The goal of the GVL network is to share best practices to foster innovation and entrepreneurship in a university environment, with the intent to help create new companies and new industries.

The initial meeting was a chance for members to meet, share ideas and discuss opportunities for collaboration. Of particular interest to CTM is the opportunity to make links with organisations running novel education programmes around technology entrepreneurship and engineering leadership, and to develop its research activities around open innovation. More information on the Global Venture Lab Network can be found at: <http://cet.berkeley.edu/global-venture-lab-network>.

Innovation and technology management teaching goes tropical

Ifm has been supporting the University of Trinidad and Tobago for a number of years in the development and delivery of a postgraduate Masters programme similar to our Industrial Systems Manufacturing and Management (ISMM) MPhil programme.



For the last two years members of CTM have delivered a 2 week long Technology and Innovation Management Module for our ISMM programme. Following its great success there was a request to design and deliver a similar style module, with a greater emphasis on innovation, for the programme in Trinidad.

So in December Rick Mitchell and Judith Shawcross travelled to Trinidad to deliver Week 1 of the module,

focusing on Innovation and New Product Introduction. The following week David Probert and Tim Minshall went out to deliver the second part of the course, on Technology Management and Strategic Technology Management.



The module was a resounding success, described by one student as a "beautiful course".

The students fully engaged with the range of activities which included protecting an egg with paper in a 4m drop test (one out of four was successful), to simulating a new product introduction using Lego, to Roadmapping and researching aspects of innovation in more detail. It was a pleasure to teach this group of students and to have the opportunity to see a few of the beautiful sights Trinidad has to offer.

Recent list of publications

TAO, L., Probert, D.R. and Phaal, R.(2010), 'Towards an integrated framework for managing the process of innovation, R&D Management, 40, 1, 19-30.

Ford, S., Garnsey, E.W. and Probert, D.R.P. (2010) 'Evolving corporate entrepreneurship strategy: technology incubation at Philips', R&D Management, 40, 1, 81-90.

Mortara, L., J. Hughes, R. Pallant, F. Livesey and D. Probert (2009). Proposed classification scheme for direct writing technologies. Rapid Prototyping Journal 15(4): 299-309

Does your company work with emerging new technologies?

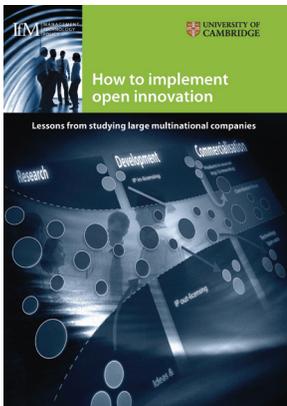
CTM researchers are seeking companies to trial a new approach they are developing to support those working with new technologies. The 'organisational scan' is a half-day workshop involving key company members from different functional areas. It aims to develop a common understanding of the existing situation as well as future options, and generates a prioritised action plan for the future.

The approach has been developed as part of the Emerging Industries: Managing Creation and Transitions Project. Innovative technologies stimulate the emergence of new applications, business models and industries. This project

uses mapping techniques to identify the enablers and barriers that occur at different stages in industrial emergence. It aims to draw lessons from past examples and develop guidelines for organisations seeking to create and capture value from technology-based industries.

Further details of each of the initial tools developed from the project can be found at <http://www.ifm.eng.cam.ac.uk/imrc/eip/transitions.html>. CTM is actively seeking opportunities to work with companies that have identified a challenge or issue relating to technology-based emergence. To find out more contact Michèle Routley (mjr88@cam.ac.uk).

Event on implementing open innovation



Following the interest originated by the IfM's Open Innovation report, the research team are planning to hold OI implementation days for industrialists on 21 and 22 April. The event will be held at the IfM's new premises on the university's West Cambridge site and will be discussing the issues emerging when companies decide to adopt an OI approach, with a particular

focus on cultural change. To register your interest please e-mail ifm-events@eng.cam.ac.uk. To find out more about the OI project or download a copy of the report see: www.ifm.eng.cam.ac.uk/ctm/teg/openinnovation.html

New CTM people



We would like to welcome Monica Cui Huang who is an Associate Professor of the School of Public Management in Zhejiang University, China. She also is an acting dean of the Research Center of Public Policy. She will be with us till the end of the year, carrying out research related to the application of technology roadmapping in energy policy making, particularly wind energy in China.



We would like also to welcome back Rani Dang who is here as a visiting student until April 2010 with Dr Elizabeth Garnsey. Her research is conducted in partnership with the Secured Communicating Solutions (SCS) Competitive Pole (Pôle SCS), SMEs Department, where she is involved in several projects aiming at paving the way for dynamic collaborations between players in the cluster (large companies, researchers and small to medium size businesses), and at evaluating the integration of SMEs into the competitive clusters and the collaborative innovation projects they promote.

Technology acquisition and protection

In an expanding open innovation landscape, identifying and acquiring key technologies and intellectual property has become a major issue as firms attempt to improve the products and services they offer their customers. CTM recently launched a new project to investigate the acquisition and protection of early-stage technologies and one of its first workshops was held at IfM on 22 October 2009. The workshop saw 13 individuals come together to discuss the problems they face during the process of technology acquisition.

Following an introduction to the project from Simon Ford, Rick Mitchell provided a case study of laser acquisition at Domino, with group break-out discussions the focus of the afternoon. In these discussions we learned that the importance of the technology to the core business was central to the decision whether to acquire an early stage technology; that the past experience of the firm was a key determinant in selecting the type of acquisition routes ("stay with what we know"), and that identifying what was missing when integrating a technology acquisition into the firm was crucial.

The aim of the project is to develop practitioner guidelines. In the next few months we will be conducting interviews to develop case studies and we are interested in hearing from those that might be willing to engage in this process. To get involved with this project or for further information please contact:

Dr Simon Ford sjf39@cam.ac.uk or Dr Letizia Mortara lm367@cam.ac.uk

Technology management research at Cambridge

- Strategic technology management
- R&D project selection
- Software sourcing in manufacturing
- Enhancing creativity in new product development
- New product introduction collaboration
- Technology management: a process approach
- Technology selection
- Technology evolution in hi-tech firms
- Innovation management in hi-tech firms
- Emergence of technology based industry
- Technology scanning and intelligence
- Technology acquisition
- Technology protection
- Strategic make-or-buy
- Industrial make-or-buy decisions
- Sustainability and technology insertion
- Technology valuation
- Technology foresight

Diary www.ifm.eng.cam.ac.uk/events

March

Wednesday 10	<i>Strategic Roadmapping</i>	One-day workshop, IfM Cambridge
Thursday 11	<i>Technology Intelligence</i>	One-day workshop, IfM Cambridge

April

Wednesday 21	<i>Open Innovation</i>	One-day workshop, IfM Cambridge
Thursday 22	<i>Open Innovation</i>	One-day workshop, IfM Cambridge

June

Wednesday 16 - Thursday 17	<i>Strategic Roadmapping</i>	Two-day course, IfM Cambridge
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September

Thursday 16 - Friday 17	<i>Technology Management Symposium</i>	Two-day conference, Moller Centre Cambridge
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October

Wednesday 13	<i>Strategic Roadmapping</i>	One-day workshop, IfM Cambridge
Thursday 14	<i>Technology Intelligence</i>	One-day workshop, IfM Cambridge

Contact us

Centre for Technology Management
Institute for Manufacturing
Department of Engineering
17 Charles Babbage Road
Cambridge
CB3 0FS UK

Tel: +44 (0)1223 766141
Fax: +44 (0)1223 464217
ctm-enquiries@eng.cam.ac.uk
www.ifm.eng.cam.ac.uk/ctm