Around the Task Groups and Working Commissions
TG71 - Research and Innovation Transfer

Introducing the new Task Group

The CIB Programme Committee established a new Task Group: TG71 on Research and Innovation Transfer, with Prof. Andrew Baldwin as its Coordinator. A short description of the Task Group and a brief introduction of its Coordinator follows.

Background

Industry now accepts that innovation is imperative for financial growth and increased profits. The innovation process may be viewed as: the creation of ideas, the development, (usually requiring investment), of those ideas into usable products and processes; and the application of the developed ideas. To be sustained the process needs contributions from various stakeholders: the academic research community, research institutions; companies, industry organisations and funding agencies in the public and private sectors.

In all industries the difficulty of successful ongoing innovating is recognised. Innovations frequently stumble or fail as they are introduced; products of research programmes often fail to transfer to industry; innovations that emerge from individual projects cannot be assured to transfer to other projects and subsequently throughout the industry. There is no single model for success. It is evident that Innovation needs a range of diffusion mechanisms and processes at corporate and industry level.

Traditional models of innovation have focused on product innovation in a manufacturing environment. It is now realised that it is also necessary to consider process innovation and innovation from the perspective of the service industry organisation. Recent studies on innovation have identified that innovative organisations 'systematically use old ideas as the raw materials for one idea after the other. This necessitates the need for knowledge and innovation brokering: capturing good ideas, keeping ideas alive, imagining new uses for old ideas and putting promising concepts to test. Whilst some organisations, (e.g. medical, auto and aero industries) may be capable of establishing their own ‘Innovation Factories’, the structure of the construction industry with its myriad of small and medium sized organisations, necessitates a different approach.

Research and innovation transfer has been the basis of CIB’s vision and mission since its inception. The output from the CIB Task Groups and Working Commissions is continually disseminated both within the research community and outside of the community to research and business organisations worldwide. In the past CIB has conducted an international review of public policies for innovation in construction, (Manseau and Seaden, 2001.) It is timely for CIB to re-visit this topic.

Scope and Objectives

The Task Group will re-visit studies of research and innovation transfer and update the construction research community on current thinking. It will recognise the important role that industry makes through innovations that emanate on construction projects. It will identify new models for research and innovation diffusion between the research community and industry and will examine the interaction between business organisations and the academic community and the mechanisms for effective dissemination.

The Task Group will canvass all existing CIB Tasks Groups and Working Commissions to identify their current thinking and work closely with those such TG58 Clients and Innovation, where the focus of the group activity is primarily on innovation.

The Task Group will have the following specific objectives:

- To review recent changes in public policies with respect to innovation in construction.
- To consider recent models for effective innovation in product and service industries including the role and importance of ‘innovation brokers’. This will include, but not be limited to, a review of successful mechanisms for
collaboration between industry and academia, and the role of industry organisations.

- To survey the views of leading construction organisations as to their current thinking with respect to identifying and developing innovations and innovative thinking.

Conference and Book

The Task Group will comprise annual workshop meetings; a major seminar/conference, (autumn 2009), and a publication.

Meeting Schedule

The provisional schedule of Task Group Meetings is as follows:

- **2008** Task Group Meeting, October, Helsinki, Finland.
- **2009** Task Group Meeting, April/May Singapore or Shanghai (provisional)
- **2009** Conference, October, Loughborough, UK
- **2010** Task Group Meeting, in conjunction with the CIB World Building Congress, May, Manchester, UK
- **2010** Task Group Meeting, October, Pennsylvania, USA

Additional Information

For additional information about the CIB TG71 please contact the Coordinator: Andrew Baldwin a.n.baldwin@lboro.ac.uk.

You also can find more information on the activities of CIB TG71 at www.cibworld.nl - section Databases - database Commissions - type TG71 in the search field Commission number.

Introducing TG71 Coordinator

Prof. Andrew N. Baldwin

Current Position

Professor of Construction Management, Department of Civil and Building Engineering Loughborough University

Experience

- **02/73 - 02/74** Site Engineer, Costain Civil Engineering Ltd
- **02/74 - 06/75** Designer/Draughtsman, E.J. Cooke & Co. Ltd (Structural Engineers)
- **07/75 - 08/76** Planning Engineer - Thames Barrier Project, Rendel, Palmer and Tritton, (Consulting Engineers)
- **01/78 - 03/79** Planning Engineer, Howard-Doris Ltd., (Off-shore Engineering Contractors)
- **03/79 - 09/82** Research Assistant Loughborough University
- **03/82 - 09/82** Self employed consultant
- **09/82 - 06/86** Managing Director, CAMIC Ltd (Suppliers of computer systems for construction management purposes)
- **06/86 - 08/87** Principal Consultant, PCL Computer Services Ltd.
- **10/87 - 05/89** Senior Systems Analyst, Trafalgar House, Building and Civil Engineering Holdings Ltd.
- **05/89 - 07/95** Lecturer in Construction Management, Department of Civil Engineering, Loughborough University
- **08/95 - 10/98** Senior Lecturer in Construction Management, Department of Civil and Building Engineering, Loughborough University
- **11/98 - 03/03** Head of Department, Department of Civil and Building Engineering, Loughborough University, UK Appointed Personal Chair in Construction Management Systems 2000
- **03/03 - 06/05** Head of Department, Chair Professor, Department of Building and Real Estate, The Hong Kong Polytechnic University
- **07/03 - 06/05** Associate Dean, Faculty of Construction and Land Use, The Hong Kong Polytechnic University
- **07/05 - 08/07** Dean, Faculty of Construction and Land Use, and Chair Professor, The Hong Kong Polytechnic University
- **10/07 -** Professor of Construction Management, Department of Civil and Building Engineering, Loughborough University

Academic, Professional and Technical Qualifications

- **1973** BSc (Hons) Civil Engineering, City University London
- **1977** MSc Construction Management, Loughborough University of Technology
- **1982** PhD Loughborough University of Technology
Recent Major Research Projects

- Developing Protocols for Planning in a Virtual Prototyping Environment.
- Reinventing the Hong Kong Construction Industry for Sustainable Development.
- Agent-Based Virtual Simulation Environment for Construction Processes.
- Repair, Maintenance and Sustainability of Ageing Residential Building Stock in Hong Kong.
- Design for Waste Minimization by Modeling and Optimization.
- ICCI - Innovation co-ordination, transfer and deployment through networked co-operation in the Construction Industry.

Publications

Andrew published total of 41 published academic journal papers and 60 refereed conference papers. Other publications include: 8 other conference contributions; 6 books authored; 6 chapters in books; 9 journal papers in professional journals; and 4 official reports.

Examples of recent publications include the following books:
- “Design Chains; a handbook for integrated collaborative design”
- "Estimating and Tendering for Civil Engineering Works"
- "International Bid Preparation"
- "International Bidding Case Study"
- "Simulating The Procurement Process"

And examples of published research reports are:
- "An Analysis of the State of Hong Kong’s Buildings”.
- “Study of the Integrated Rail-Property Development Model in Hong Kong”
- “Solutions Implementation of Healthy Buildings in Hong Kong”
- "Measuring the benefits of IT innovation"