Leveraging Global Innovation Networks

Closing Report

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The collaboration between the Sustainable Built Environment National Research Centre and its industry, government and research partners adds significant value to the effectiveness and long-term sustainability of Australia’s built environment industry.

We thank our core members for their support:
The International Council for Research and Innovation in Building and Construction (CIB) is a global network for international exchange and cooperation in research and innovation in building and construction.

Task Group 85: R&D Investment and Impact, was established to create an international network of knowledge-exchange that would deliver new understandings about leveraging R&D investment in the construction industry.

This report summarises the collaborative work and achievements of TG85, 2011–2014.
The focus of TG85 was of significant importance at a national level in Australia, as demonstrated by complementary funding support from the Sustainable Built Environment National Research Centre and the Australian Research Council. At the international level this support was strengthened by the knowledge integration and in-depth industry analysis provided by our global Task Group network. The willingness of international participants to collaborate and share knowledge and experience through our bi-monthly WebEx meetings and annual face-to-face meetings was a hallmark of this Task Group and contributed in a significant way to the success of the group.

As the Coordinators of TG85, we were energised by the level of support and commitment received from our colleagues from across the globe. We have benefited greatly from this experience at both a personal and a professional level, and look forward to sustaining these relationships into the future.
In an increasingly globalised construction industry, creating stronger connections and sharing knowledge among industry researchers internationally can lead to improved economic, social and environmental outcomes.

The International Council for Research and Innovation in Building and Construction (CIB) supports initiatives to improve processes and performance in creating and managing the built environment. In 2011, the CIB established Task Group 85: R&D Investment and Impact, to create an international network of knowledge-exchange that would deliver new understandings about leveraging R&D investment in the construction industry. A key goal was to inform national policies and programs able to enhance R&D investment outcomes.

The TG85 network attracted 40 members from 19 countries, and delivered several important outcomes. An active forum was established to initiate collaboration among individuals, private firms, government agencies and research institutions. Funding from the Australian Research Council, via its Linkage Program (project LP110200256), leveraged initial SBEnc seed funding into a three-year program of work, which enabled a broadening and deepening of project objectives and outcomes. This further enabled the Australian team to engage internationally with TG85 members to produce a reference book as a concrete artefact of this collaboration: R&D Investment and Impact for the Global Construction Industry, published by Routledge in June 2014.
MILESTONES

2011
The formation of TG85 is announced at the SB11 World Sustainable Building Conference, Helsinki, Finland, 18–21 October. The founding membership comprises Prof. Keith Hampson, Prof. Aminah Robinson Fayek, Dr Judy Kraatz, Dr Karen Manley, Prof. Geoffrey Shen, Dr Ken Thomas, Prof. Francisco Branco, Dr Rodney Milford, Ms Ntebo Ngozwana, Dr Roine Leiringer, Dr Anna Kadefors.

2012
TG85 is developing case study material and analysis for inclusion in an industry-focused book and for academic reference. The group continues to build strategic individual and institutional relationships across the global network, such as with the Australian Built Environment Industry Innovation Council, Office of the Australian Chief Scientist, national research organisations and universities internationally.

2013
In May, Australia’s Chief Scientist launches TG85’s industry-focused publication Investing for Impact: Constructing a Better Built Environment, at the CIB World Building Congress in Brisbane, Australia.

“It is research and development that will create smarter construction operations, processes, techniques”

– Professor Ian Chubb AC, Chief Scientist of Australia

2013
Also at the World Building Congress, the CIB Programme Committee awards TG85 the commendation for “the most remarkable contributions to the CIB from amongst all the Commission and Theme Group Coordinators and Members”.

2014
In June, Routledge publishes the book R&D Investment and Impact in the Global Construction Industry, developed from research completed by members of TG85. At the core of the book lies the principle that investment in research and development drives a more productive and innovative construction industry that, in turn, leads to economic growth. It examines drivers and barriers to the delivery of R&D in industry, and includes case studies that were funded by the private and public sectors and translated successfully from research into practice or policy. It also describes how policy makers and industry leaders can better target future investment and maximise the impact of R&D. Importantly, it explains how industry, government and researchers can work to improve productivity while addressing the environmental and social needs of their communities.

The book is launched at the SB14 World Sustainable Building Conference in Barcelona, Spain, 28–30 October.

Beyond 2014
CIB will build on the work completed by TG85 and establish a new Task Group: Information Integration in Construction (ICON) to help create a more effective and reflective industry and deliver benefits to public and private asset owners. The new Task Group will focus on:
• efficient knowledge creation, preservation and integration across the life-cycle of constructed facilities
• relevant, reliable, interoperable and long-lasting data and information gathering and analysis
• monitoring and feedback from end-users into the different stages of design, construction and asset management of buildings and infrastructure.

This new Task Group will build on the legacy of the individual and institutional partnerships developed through TG85. Additional initiatives, including joint international research projects and publications, will also be pursued for mutual benefit.
Commencing in 2011 with just 11 members, global team membership grew to 40 members. Between 2011 and 2014, 17 meetings were conducted via Webex or face-to-face.

Initial planned outputs
- 2011: launch of the Task Group website
- 2013: publication of a CIB report with a description of R&D initiatives
- 2013: publication of a CIB report on R&D investment strategies.

Final achieved outputs
- 2013: several peer-reviewed conference papers and presentations by TG85 members, based on country reports, at the CIB World Building Congress, Brisbane, 5–9 May.

Growing International Collaborations
COLLABORATING INSTITUTIONS

Australia
Sustainable Built Environment National Research Centre (SBEnrc)
Curtin University
Queensland University of Technology
Griffith University

Brazil
University of São Paulo

Canada
University of Alberta
McMaster University
University of New Brunswick

Denmark
Danish Building Research Institute (SBi)

Finland
Aalto University
VTT Technical Research Centre of Finland
Built Environment Programme, Tekes

France
Scientific and Technical Centre for Building (Centre Scientifique et Technique du Bâtiment – CSTB)

Germany
Research Association for Steel Application

Hong Kong
The Hong Kong Polytechnic University
The University of Hong Kong

India
Tata Housing Development Company

Ireland
Waterford Institute of Technology

New Zealand
The University of Auckland
Unitec

People’s Republic of China
Tsinghua University

Portugal

University of Lisbon

South Africa
Construction Industry Development Board (CIDB)

Sweden
Chalmers University of Technology

Netherlands
University of Twente
Eindhoven University of Technology
HAN University of Applied Sciences

Norway
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For information about the book *R&D Investment and Impact in the Global Construction Industry*, and to order copies (20% discount code: DC365), visit www.routledge.com/9780415859134