

A DECISION MAKING FRAMEWORK FOR PLANNING AND IMPLEMENTING COLLABORATIVE WORKING

Mark Shelbourn¹, Dino Bouchlaghem¹, Chimay Anumba¹ and Patricia Carrillo¹

¹ Dept. of Civil & Building Engineering, Loughborough University, Ashby Road, Loughborough, LE11 3TU, UK, Phone +44 (0) 1509 228745, FAX +44 (0) 1509 223945, m.a.shelbourn@lboro.ac.uk
n.m.bouchlaghem@lboro.ac.uk; c.j.anumba@lboro.ac.uk; p.m.carrillo@lboro.ac.uk

ABSTRACT

The new millennium has seen widespread recognition that the construction industry must embrace new ways of working if it is to remain competitive and meet the needs of its ever demanding clients. Inherent within this agenda is a move towards collaborative working (Latham and Egan) and its associated field: concurrent engineering. Collaborative working is essential if design and construction teams are to address the entire lifecycle of the construction product and take account of not only primary functionality but also productivity, buildability, serviceability and even recyclability.

Project collaboration and collaborative working are commonly used in construction projects, however, it has been argued that perhaps they are not being used to their full potential – with substantial room for improvement – and in the correct context. The issues of where, how, and why should one work collaboratively are continuously being asked by construction professionals who are unfamiliar with collaborative working. This is particularly true of those small and medium sized enterprises (SMEs) towards the lower end of the supply chain. Having simple and efficient (shared) processes to share with these SMEs would help them to engage in the collaborative working revolution. However, there must be clear and visible benefits to entice them into working collaboratively on projects with the larger organisations in the industry.

Much of the recent work on collaborative working has focused on the delivery of technological solutions with a focus on Web-based systems (e.g. extranets), Computer Aided Design/Drafting (modelling and visualisation), and knowledge management technologies and systems. However, it is now recognised by many researchers and leading industrialists that good collaboration does not result from the implementation of information systems alone. The implementers of collaborative technology also need to address the impacts on the organisational and people issues associated with such implementations. Conversely, approaches that exclusively focus on organisational and cultural issues will not reap the benefits derived from the use of IT, especially in the context of distributed teams.

Work currently being undertaken at Loughborough University aims to bring together the

benefits provided by the technology, with the organisational, and its people issues to provide a decision making framework and supportive tools to enable high level strategic answers to be determined to the where?, how? and why? questions of whether to work collaboratively on construction projects. This paper reports on the work carried out as part of a project on the Planning and Implementing of Effective Collaboration in Construction (PIECC) project. It summarises current literature, describes the method for gaining the construction industries needs and requirements for such a framework – primarily using the questionnaire and semi-structured interview approach. It will also introduce the prototype developed in the first iteration of the frameworks' development stage and concludes with a discussion of some of the findings to date.

Keywords: Effective Collaboration, Construction, Decision making framework, People