

Project 2.2

Offsite Fabrication and Product and Process Innovation

RESEARCH PROGRAM 2: DEVELOPING INNOVATION AND SAFETY CULTURES

The goal of this project is to find ways to improve stakeholder confidence in off-site manufacturing (OSM) and its associated technologies, and to develop better supply-chain workflow processes to support increased technological adoption for OSM.

This project will tackle three complementary issues:

- 1 Stakeholder Confidence (Domestic Capacity): Australian industry indicates a lack of confidence in the promise of OSM solutions. To improve this confidence, this project will identify and track workflow intervention points that have the potential to deliver real resource savings. Creating prototype construction process models will provide support for OSM adoption.
- 2 Baseline Model of OSM Processes: Industry claims the principle requirement of an integrated OSM project is for everybody to be 'talking the same language'. Thus identifying As-Is construction processes can provide a base-line process model. This model can then frame guide-line processes such as design, procurement and build to deliver accurate documentation and construction processes.
- 3 Business Processes Management (BPM): Some parts of industry are beginning to understand the importance of Business Process Management. BPM is a tool to facilitate systematic planning, execution and control of business processes. To assist industry stakeholders to implement BPM, this project aims to build associated prototype workflows as the basis for To-Be OSM Business Process Models. Increased business process maturity awareness has the potential to increase OSM adoption.

Project partners Queensland Department of Public Works, Western Australia Department of Treasury and Finance, John Holland, SurePoint Australia Pty. Ltd. and PrefabNZ have all used OSM as a component of individual projects. They are working with Swinburne University of Technology and Queensland University of Technology to increase OSM domestic capacity to support government's infrastructure and commercial projects.

Project Outcomes

- Phase 1 Stakeholder Confidence (Domestic Capacity) The OSM stakeholders' confidence gap analysis, business process maturity and OSM infrastructure evaluation need to be carried out. This will provide a snapshot of the current OSM practices.
- Phase 2 Base-line Model of OSM Processes: As-Is OSM base-line processes are expected to provide a framework for infrastructure projects focused on design, procurement and build processes.
- Phase 3 Business Processes Management (BPM): The process outcome will be workable pro-type automated OSM Business Process Models (To-Be BPM) which will feature identified intervention points to increase OSM process efficiency leading to growth in domestic capacity.

Project Outputs for 2011

- The gap analysis and evaluation of OSM process maturity had been carried out in Adelaide and Perth. The results of the BPM review of two major hospitals and three infrastructure projects, indicates that the industry is currently not aware of business process maturity.
- An archetypical OSM base-line process model has been created to be utilised in the development for all stages in the OSM construction value chain.



Professor Russell Kenley
BBldg(QS)(Hons) PhD MAIB AAIQS
Swinburne University of Technology
P: +61 405 069 792
E: rkenley@swin.edu.au

