

AUSSIE CURE FOR SICK PROJECTS

An Australian team is developing world-first technology to provide a rapid cure for under-performing construction projects.

The development of the tool, "*Project Diagnostics*", was sponsored by the Cooperative Research Centre for Construction Innovation (CRC CI). Project Diagnostics is set to revolutionise the field of project management, helping to assist troubled projects before they become disasters.

The new software tool identifies specific areas of poor project health, pinpoints the root causes and suggests remedies.

Project Director John Tsoukas, of global engineering firm Arup, says *Project Diagnostics* serves as an advanced warning system which is specially tailored for construction projects that are failing to meet their goals.

"There are five basic questions you could ask of any worried Client or project manager: Is your project going off the rails? Do you want to know why? Do you want to know what to do about it? Do you want to save the business case? Do you want to avoid bad publicity?

"If the answer to any of these questions is yes, then they may need *Project Diagnostics*."

Mr Tsoukas says the toolkit is based on the critical success factors which most influence the success of a project. These are: cost, time, safety, quality, environment, stakeholder value and relationships.

"The value of this approach is that it gives the Client, project manager or other parties the ability to quickly reach a sound understanding of the current status of a project — through a series of comparisons with recognised industry norms — and then be in a position to take remedial action if required," Mr Tsoukas says.

"Another advantage of the *Project Diagnostics* software tool is the cost. The fee for using the service is insignificant compared with the costs of a failing project," he adds.

"The financial fallout from unhappy stakeholders and bad publicity alone, is enough to encourage any Client or project manager to consider this tool essential."

Project Diagnostics assesses whether the critical success factors are on track for project success using a series of key performance indicators. These were chosen because they are easily measured, independent, sensitive, and have broad application across the various project phases, procurement methods, project sizes and levels of complexity. The indicators have been tested for robustness using Australian and international case studies in the construction sector.

Once a critical success factor is found to be under-performing, the root causes are identified using the further assessment of numerous contributing factors. These have been identified from an extensive worldwide literature review and consultation with many parties on active construction projects.

Correct and timely identification of these contributing factors allows the project manager or consultant to develop effective, focused remedies. The *Project Diagnostics* model is cyclic and repeats the investigation until all the identified problems have been ironed out. This enables the Client or project manager to achieve a continuous improvement in project 'health' and delivery, Mr Tsoukas says.

"This is a unique and powerful three-in-one toolkit," says CRC for *Construction Innovation* Chief Executive Officer Professor Keith Hampson. "It enables an industry consultant to assess the construction project's condition, pinpoint why it may not be performing to expectations and recommend remedial measures for returning it to good health."

"It applies to a wide range of procurement methods and all project phases."

The technology was developed by a CRC Construction Innovation team led by global engineering firm Arup, and includes Queensland University of Technology, CSIRO, John Holland Constructions and the Queensland Departments of Public Works and Main Roads.

Project Diagnostics is currently in the final stage of development. During 2005, it will undergo further testing and refinement using live construction projects from Australia and overseas. An international market analysis for *Project Diagnostics* has been completed with the assistance of Arup in Australasia, New York, London and Hong Kong and it is clear that Australian and international construction industries are keen for *Project Diagnostics* to be ready for use.

The *Project Diagnostics* service is planned to be released and available to the construction industry in Australia and internationally in the first half of 2006.

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