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," sponsored by the Cooperative Research Centre for Construction Innovation (CRC CI), 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," he says: "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."

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 the ability to reach an 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," Tsoukas says.

Project Diagnostics assesses whether the critical success factors are on track for project success using a series of key performance indicators, 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 identified from a 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."

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

For more information contact john.tsoukas@arup.com.au