



CRC for Construction Innovation *Achieving value alignment in project delivery.* □ □

The Participants of the CRC for Construction Innovation have delegated authority to the CEO of the CRC to give Participants permission to publish material created by the CRC for Construction Innovation. This delegation is contained in Clause 30 of the Agreement for the Establishment and Operation of the Cooperative Research Centre for Construction Innovation. The CEO of the CRC for Construction Innovation gives permission to the Queensland University of Technology to publish the papers/publications provided in the collection in QUT ePrints provided that the publications are published in full. Icon.Net Pty Ltd retains copyright to the publications. Any other usage is prohibited without the express permission of the CEO of the CRC. The CRC warrants that Icon.Net Pty Ltd holds copyright to all papers/reports/publications produced by the CRC for Construction Innovation.

Achieving **Value Alignment** In **Project Delivery**

‘A study into best practice project delivery and the development of a suite of products, resources and services to help guide clients and project teams towards the best approach for specific projects.’

Industry Need?

Over the past quarter of a century numerous government and industry committees have drawn attention to the need to improve the delivery performance and approach of the construction industry. **Decision support resources are needed** to assist clients and their project teams with information, advice, and recommended actions for best practice project delivery. The availability of such resources may become the catalyst for changing the way in which the construction industry operates. **Today’s project delivery and systems** can be defined by **three distinct characteristics**:

- **How** the main activities to execute the project (broadly, design and construction) are sequenced. They may be discrete temporal stages, or they may overlap.
- **How** project participants carrying out the main activities are related in an organisational structure. That is, how roles and responsibilities of the parties involved in a project are defined.
- **How** the client will pay for services. For example, by a lump sum fee, or by a cost plus method.

Clients, in selecting a particular contract strategy are not always aware of the implications of the combinations of these characteristics on the project outcomes they are seeking to achieve. Most clients and other stakeholders only use one or two delivery methods and are usually strong advocates for the methods they are familiar with. **A more sophisticated industry** can deliver not just lower operating costs and business-oriented design, but more effective use of assets, financing, operating and maintenance of facilities to suit not only the owners’ needs but in doing so, meet the community’s needs as well. **In order to capitalise on the opportunities of the evolving national and global economies**, the construction industry needs to know how to improve project delivery processes to maximise the value that people can bring to a project. **Consequently**, this Construction Innovation Research Project undertook a study into best practice project delivery and the **development of...**

*“A **Decision Support Tool (DST)** with two interrelated dimensions to help guide owners and project teams in decisions towards the best approach for specific projects”*

Decision Support Tool (DST)

Comprising of two interrelated dimensions:

- 1) A user-friendly **Electronic Database**
- 2) A paper-based **Workbook**

Both aimed at making project delivery choices clearer by:

- *Providing clients specific advice matched to specific project priorities.*
- *Describing the decision path clients can follow from first idea, handover and to ongoing operation.*

1) DST – Electronic Database

The DST Electronic Database assists clients and industry professionals in:

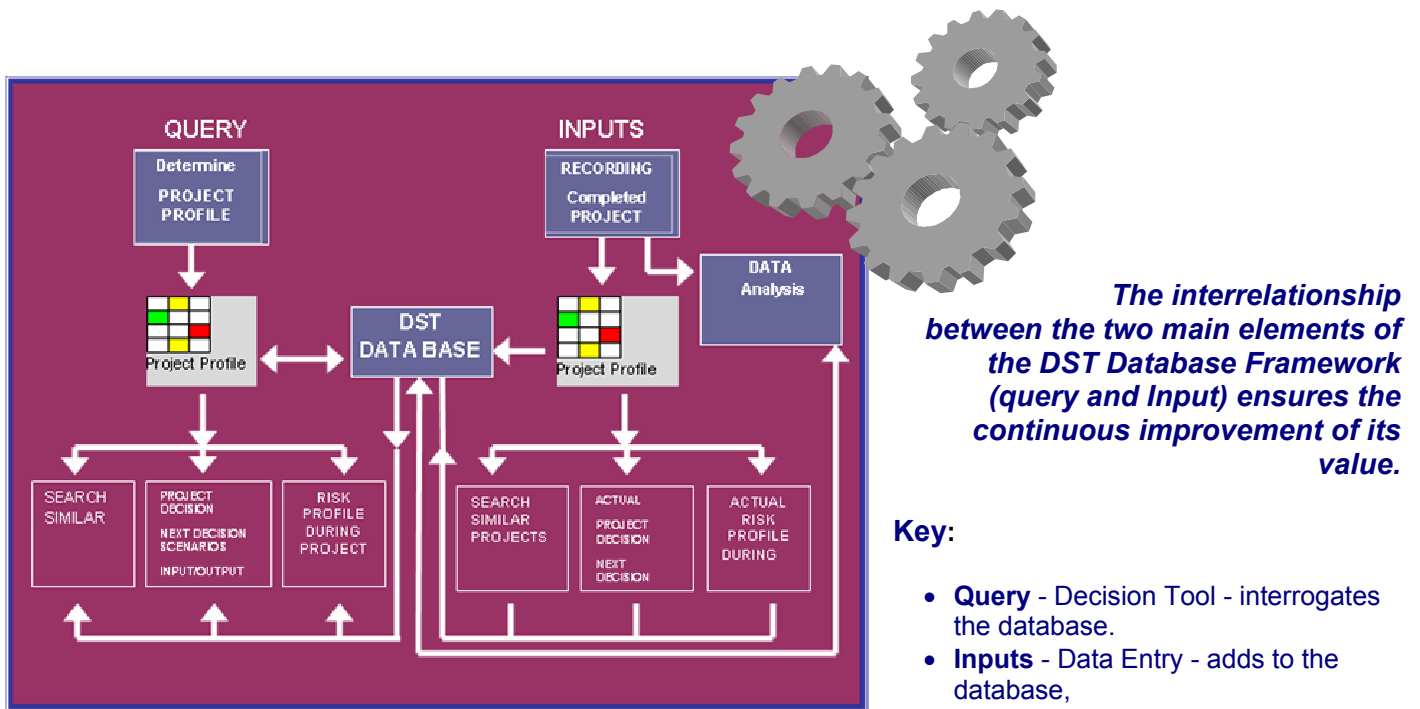
- **Decision making** and help apply practices to projects which will help achieve outstanding performance in terms of project objectives.
 - **Designing a delivery process** that takes account of their needs and objectives, the capability of the local construction industry and the specific physical, social and economic environment.
 - **Deciding on the costs and benefits** of actions by providing background information and advice.
 - **Enhancing the overall alignment of actions** that individual stakeholders decide to take and so may lead to innovative delivery processes matched to the needs of particular projects.
 - **Obtaining advice to determine the 'ideal fit'** between expectations, objectives and procurement strategy.

How Does the DST Electronic Database Work?

The basic functionality of the **DST** Electronic Database is determined by the entry of unique profiles of projects – i.e.: contains both qualitative and quantitative data of a wide range of civil and building case study projects and individual lessons learned - that clients and industry professionals can use to benchmark / compare their project against.

*“The **DST Electronic Database** guides clients to ask the right questions regarding expectations, and assist them in choosing a suitable delivery system, tailored to their project”*

DST Electronic Database Framework:



DST Electronic Database Output (Example)

When completing the “Project Profile” section for a project, the **DST Database** manipulates the responses to help create a “profile” of the project’s inherent difficulty – i.e.: a **unique “fingerprint”** as it were – in relation to the project’s:

- **Size**,
- **Complexity**,
- **Risk** identification / predictability, and
- **Objectives** it aims to achieve

It is important to note that the four key variables were chosen as a result of an extensive worldwide investigation aimed at determining a best solution – providing a unique profile which correlates well with the fundamental influences on project outcomes.

The profile of the project is:
 – a “unique identifier” for each project in the DST database
 – forms the mechanism by which the database is interpreted

Unique “Fingerprint” of Project.

The further to the right the shading in the cells of the profiling icon, the greater the need for alignment of the project’s objectives and processes.

2) DST - Workbook

Together with the **DST Electronic Database**, the **DST Workbook** assists clients and industry professionals in:

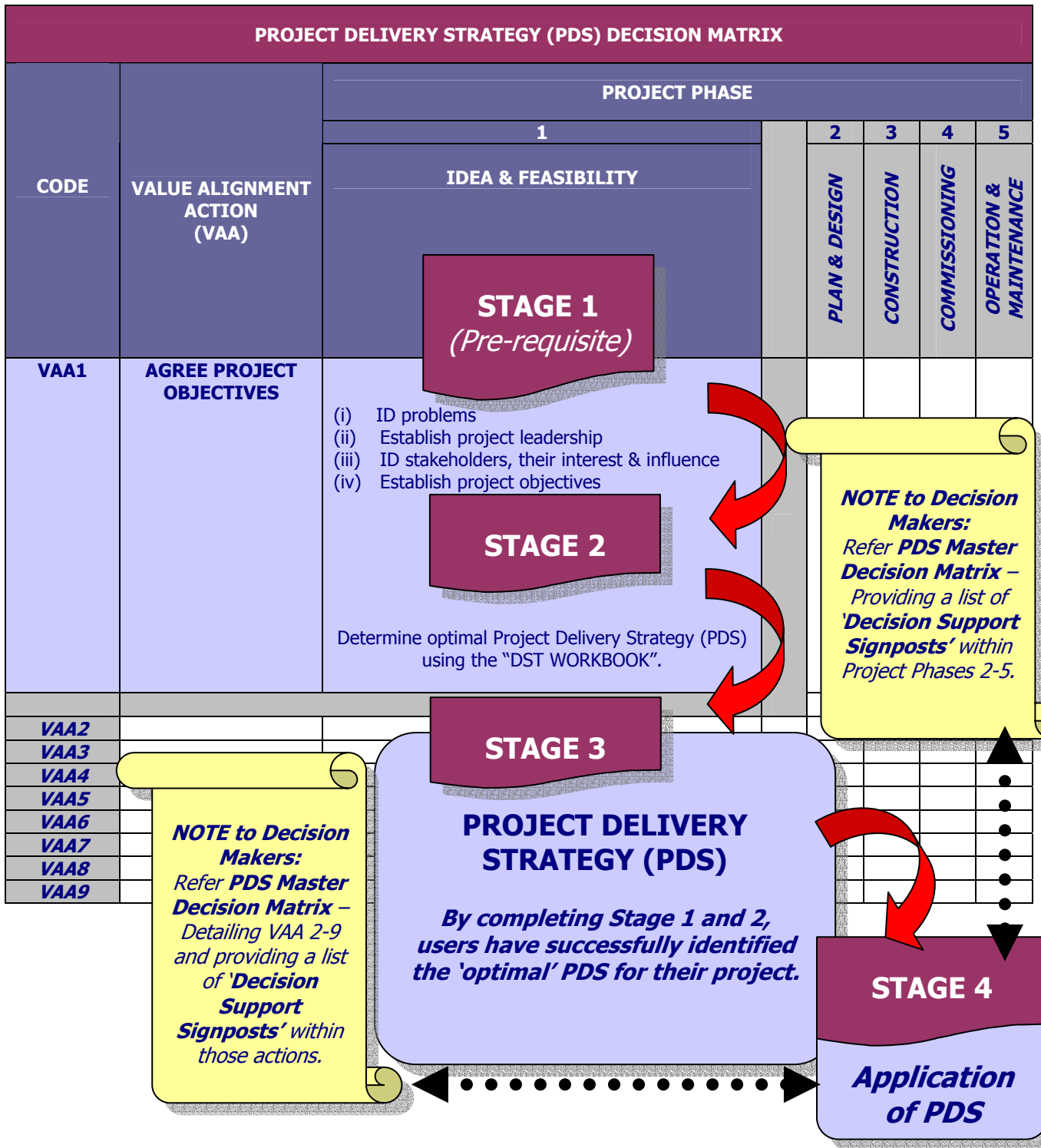
- **Making sense** of the complex array of today's procurement variables,
 - **Identify** how these variables would assist (or hinder) the achievement of project outcomes.
 - **Selecting a procurement route** most competent in attaining project goals - through systematic consideration of important decision variables.
 - **Better realising a project's objectives** - by developing the 'optimal' project delivery solution.
 - **Providing a foundation** on which supplementary project delivery decisions are made.

How to use the **DST Workbook**?

The **Project Delivery Strategy (PDS) Decision Matrix** provides the conceptual framework for this **DST Workbook**, where inputs and deliverables interact with other cells on both of its axes. This conceptual framework is translated into a series of continuous flow charts which describe nine key Value Alignment Actions (VAA1-VAA9) through the five generic phases of project development.

“By completing the DST Workbook...

Users can effectively identify and implement the 'optimal' Project Delivery Strategy (PDS) for any project”



NOTE:

The starting point of the DST Workbook is the first cell of the matrix, which calls on owners to 'Agree the Project Objectives' – by taking account of project stakeholders values and the need to improve 'industry norms' in the earliest phase of a project – i.e.: 'Idea and Feasibility'.

Who to contact for further information?

Project Leader: Professor Tony Sidwell
Phone: + 61 7 3864 4108
Fax: + 61 7 3864 7703
Email: t.sidwell@construction-innovation.info



“The ‘Value Alignment Process for Project Delivery’ research project (2001-003-C) is supported by a number of Australian industry; government; and university based project partners. The Value Alignment Project team is grateful for their support and expert advice.”

*The **Cooperative Research Centre (CRC)** for Construction Innovation is a national research, development and implementation centre focussed on the needs of the property, design, construction and facility management sectors.*

*Established in 2001 and headquartered at Queensland University of Technology as an unincorporated joint venture under the Australian Government’s Cooperative Research Program, **Construction Innovation** is developing key technologies, tools and management systems to improve the effectiveness of the construction industry.*

CRC for Construction Innovation

*9th Floor, L Block
QUT Gardens Point
2 George Street
Brisbane, Qld, 4000
Tel: + 61 7 3864 1393
Fax: +61 7 3864 9151*

*Email: enquiries@construction-innovation.info
Web: www.construction-innovation.info*