

# FACT SHEET



## Data Envelopment Analysis:

### *Tool to Facilitate Best Practice*

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#### **Introduction**

As social and business relationships become more and more defined in terms of contractual obligations, the definition and measurement of performance becomes critical. It is very easy to fall into the trap of defining performance as a wish-list of **Key Performance Indicators (KPIs)** with only a cursory review of their inherent trade-offs. Performance is a complex, multi-faceted activity where day to day trade-offs are inevitable. It seems important that a contract is not designed to bias the day-to-day decisions/ behaviour to achieve a desired outcome, e.g., minimise costs for Public transport or prisons at the cost of certain other desired 'performance standards'.

By structuring the set of inputs of business or social units against the set of desirable outputs it is possible to arrive at a greater understanding of what is possible and of how indicators are interrelated so that service contracts are managed for the most desirable outcome. DEA is one such tool that facilitates this understanding process.

#### **Fundamentals of Data Envelopment Analysis (DEA)**

**DEA** is a method for comparing the **relative efficiencies** (on a standard scale) of a set of similar (but not identical) operating units within, for instance:

- Hospitals
- City (or Shire) Councils
- Schools
- Banks

Thus, DEA is a form of (multi-dimensional) **benchmarking** and, as with all benchmarking, the methodology is linked to concepts of **Best Practice**, ie firstly identify the best performing units, next investigate the reasons for their superiority and finally spread 'the good news'.

#### **What We Are and What We Offer**

The *Data Envelopment Analysis Consortium* is a group of experienced Operations Research practitioners set up to further the use of this powerful analysis within the Melbourne business community.

Four members of the group are members of NORCA Consulting:

- Dudley Foster
- Harry Gielewski
- Paul Lochert
- Kaye Marion

The other members are affiliated to La Trobe universities

- Greg O'Brien who is *Dean of Law and Management* at La Trobe University
- Lifan Wu also from the *Faculty of Law and Management* at La Trobe University