

Why Lean

In recent years many construction related businesses are feeling the stress of an increasingly difficult commercial environment. Demand is variable, with unexpected swings between boom and bust, margins are as tight as ever and construction technology and IT is rapidly developing. Clients are demanding better quality and better service at lower prices.

Lean thinking based process improvement provides a path to risk reduction and sustainable improvement in business outcomes. This holds true for back office, design and construction operations. Lean construction focuses organisations on **increasing customer value while at the same time eliminating waste**.

If your answer to any of the following questions is yes, lean thinking has something to offer you!

- Do you want to further improve customer satisfaction?
- Do you want to see better collaboration between sub-contractors?
- Do you want to see fewer safety hazards on your projects?
- Do you want to see more reliable quality standards being achieved?
- Do you want to see more buildable designs?
- Do you want to see productivity on your projects improve?
- Do you want to see a reduction in documentation errors, less rework, less time lost?

Gains accrue because of more effective communication and better collaboration between the parties delivering the work, and a greater clarity about client needs and improved customer satisfaction both within the supply chain and for the ultimate client.

The potential of Lean practices in engineering and construction

The term lean was invented when the West was trying to understand the rapid economic ascendancy of Japanese manufacturing in the 1980's. Japanese enterprises could put products into western markets at a price below our cost of production. Today, in addition to deployment in manufacturing, petrochemical and mineral processing, lean business practices are being applied in public and private organisation in the service sector including health service delivery, government services, aerospace maintenance, rail carriage construction and refurbishment and banking to name a few.

Construction and engineering, because of the project focus in these sectors is one of the last sectors to adopt these practices. However even in construction and engineering there has been significant uptake in the US, UK, Germany, Denmark, Finland, Brazil, Chile and Peru.

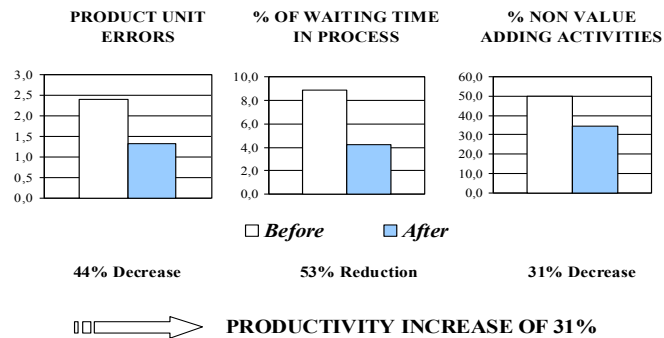
Lean is focused on three core values:

- Maximising value for the customer
- Eliminating waste (non value adding processes)
- Creating smooth and reliable work flow.

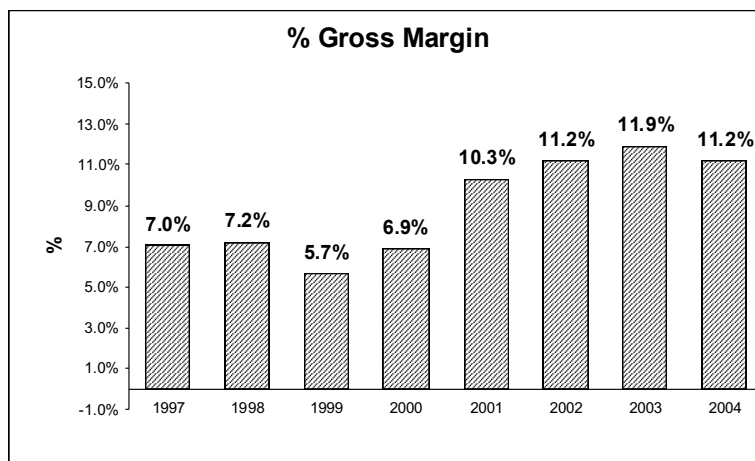
In construction project delivery, the achievement of these objectives relies on understanding three core ideas, these are that:

- construction is a collective enterprise which relies on true collaboration
- construction work is delivered through complex integrated supply chains and can only run smoothly with impeccable coordination, and
- construction is a production system and for it to operate efficiently it requires information and resources to flow smoothly and reliably.

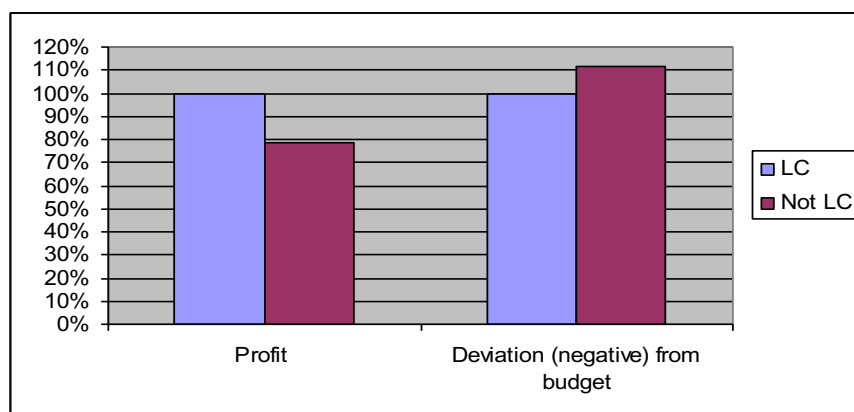
In the past 20 years, since the International Group for Lean Construction was formed, a growing body of published literature records the achievements of organisations deploying lean practices in their businesses. The following graphs speak for themselves.



Improvements in the design activities of Grana Y Montero in Peru



Danish global design company Niras reports a 50% improvement on the bottom line after 8 years of implementation.



M T Hojgaard, a major construction company in Denmark has named its lean processes TRIMBUILD and report improved commercial outcomes as shown on the above graph, as well as safety improvement.

Leading companies the world over are using the philosophy and principles of lean construction to improve their bottom line, and to improve customer satisfaction with their products and services.