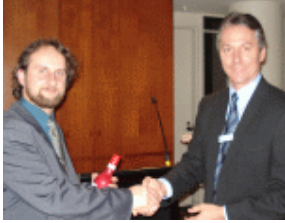


LAA LTD DINNER MEETING – MARCH 14 2007



*Dr Simon Dunstall and
LAA Ltd Vice President
Brad Harrison.*

At the breakfast meeting in Sydney on March 14, guest speaker Dr Simon Dunstall, Stream Leader, CSIRO - Adaptive Supply Networks discussed Harmonising operations, infrastructure and supply network performance.

In introducing his topic Simon spoke about the CSIRO's role in researching supply chain issues. To date the CSIRO has completed supply chain studies in the areas of major steel production, wine production, dairy network and coal export arenas. There are others they are about to embark on.

The studies are often driven at the request of industry presented with a specific question or problem. The CSIRO then works with the industry group or company to flesh out and uncover core issues and key data. These core issues and data are studied and developed into partnership solutions. Simon presented 5 case studies where studies have been completed and solutions have been developed for industry partners.

In the Steel industry -Coil for export - the question being, for a transport and warehousing system bringing steel from mills to berths, which warehouses should we upgrade and or extend if we want to grow export volumes and can we build operations – management software that will optimally manage the coil movements.

The second case study focussed on the planning of grape intake for wine, i.e. how do we co-ordinate grape harvests, grape transport and front line winery operations in a way which protects grape value and the commercial viability of supply chain participants?

The third case study looked at the optimal product mix for a dairy network, i.e. which products to make annually, and when to make them, in 8 interconnected dairies.

And the last case study focussed on a major coal terminal asking the question what equipment does the coal terminal need to install so that the supply chain participant can show greater volumes of coal. How can we best apportion terminal operating time to the competing owner/customer? And how does variability in the performance of one party affect the performance of the other parties in the supply chain?

In each of these cases the company was aware of the core issue but was either unable to satisfactorily address it or was yet to fully recognise how critical it is.

Key data was developed – without this no amount of optimisation power or managerial skill can properly compensate. So statistics are used to provide or repair the data. After studying the data solutions are developed in partnership with the company.

What these studies show is that there is an increasing complexity of markets and competition and that the trend to collaborate and adapt will not pass. Increasing complexity will further strain manual systems ability to optimally co-ordinate activities and deploy the right assets at the right time. Greater criticality will surround the interaction between push and pull, distributed and centralised control, and continuous discrete operations. There will be little room for unresolved conflict between network participants' business drives and needs: partners will wither if not nurtured.

With regard to technology optimisation oriented transport management systems are readily available. ERP vendors are starting to create domain specific applications that are driven by high quality data and use optimisation technology. The enabling technology for the broad adoption of science-based logistic/ supply – chain solutions is sufficiently mature. Given the vision and a quality information system, organisations and networks can start transforming now. Supply chain performance will continue to be a key influence in the health of the national economy. R & D organisation must increase the accessibility and adoptability of high impact/ high value logistics and supply chain developments. In the logistic and supply chain context, optimisation and simulation generate new solutions for complex problems.

Adaptive supply networks are orientated towards complex markets, collaborative business relationships and high quality decisions making about operations and assets. Recurrent operational decisions making which greatly influences network performance = a need for resolutions built around the mathematical and computation sciences.

In an adaptive supply network, organisations achieve decision harmony by optimally co-ordinating activities and deploying right assets at the right time.