

# Testing triangulation

*Triangulation: an agreement that enables a container unpacked from an importer to be handed directly over to an exporter for re-packing, without the container being transported empty to an empty container park.*

In September 2006, the Victorian Government provided Murray Goulburn Co-operative with a \$75,000 grant to assist in identifying ways to transfer containers more efficiently between the Port of Melbourne, importers, exporters and container parks.

The trial tested whether triangulation, which is currently used in some cases within the Port of Melbourne supply chain, could be applied more widely to improve overall efficiency.

## The role of empty container parks

Empty container parks provide an important service to shipping lines in the import/export supply chain.

- Consolidate import container returns to one or more contracted locations, to facilitate stock control and reporting regimes to their international principals.
- Detailed inspection and examination on the container carried out by fully qualified Institute of International Container Lessors inspector to:
  - > maintain it to internationally accepted standards (Institute of International Container Lessors)
  - > check for damage, for both insurance and cost recovery purposes
  - > determine suitability of reuse for an export booking.
- Facilitate hand-over of containers to an exporter's nominated carrier:
  - > against an export release number issued by the shipping lines, or
  - > for the transfer of the container to the port for empty repositioning to an overseas port for repair and/or reuse.

The practice of triangulation bypasses these important functions and accountabilities. For risk mitigation purposes, alternative arrangements must be put in place.

## Testing triangulation with Murray Goulburn Co-operative

The Victorian Government sought to test if it was feasible to construct a triangulation relationship between existing exporters and third party logistics operators.

If this could be successfully achieved, the concept could be more widely promoted as a means of:

- reducing truck movements and attributable road congestion related to the return of import containers and collection of export containers
- reducing supply chain costs, green house gas emissions and other known transport related impacts
- shortening empty container cycle times and empty container inventory costs through the Port of Melbourne
- reducing the pressure of container storage shortfalls anticipated at empty container parks through their continued decline against an increasing container trade growth
- generating greater collaboration between stakeholders in the Port of Melbourne supply chain.

One of Victoria's largest export container users - Murray Goulburn Co-operative - was invited to participate in the project, along with their contracted transport operator, Patrick Port Services.

The aim of the project was to leverage off Patrick Port Services' broad import customer base, fleet size and established relationships with shipping lines to redirect import empty container returns directly to Murray Goulburn Co-operative's site for export packing.



## Key findings

- **Container cleanliness could not be met by direct delivery from importers, resulting in additional cost to Murray Goulburn Co-operative**
- **Empty container parks play a critical role in the import/export supply chain**

Murray Goulburn Co-operative's specifications require that their product is only packed into containers of a food grade standard. Triangulation bypassed the empty container park's critical functions of surveying, repairing, cleaning and classifying containers according to Australian Quarantine and Inspection Service standards so they are fit to carry food product.

Without this step, the number of containers returned direct from importers that were suitable to carry its product was less than 25 per cent. This rate could be raised to nearly 30 per cent if Murray Goulburn Co-operative provided container cleaning at their premises at their own cost.

This failure rate resulted in Murray Goulburn Co-operative bearing additional cost to transfer rejected containers back to empty container parks for treatment.

Murray Goulburn Co-operative determined that unless a better resourced empty container park-type facility was developed on their site, their ability to transform the desired level of import containers to suitable export food grade containers could not be achieved. It was not pursued, as it was deemed uneconomical to duplicate existing empty container park facilities available in and around the Port of Melbourne.

## Success factors for triangulation

Bypassing the empty container park process to achieve a direct interchange from importer to exporter was proven to be problematic. Evidence would suggest that success is strongly reliant on a number of core factors being in existence:

- That the importer and exporter are the same party. This at some level negates the risk related to any liability regarding damage being sustained to the import or export product, as the cargo owner has deemed the container to be in good order and condition. It also implies an existing relationship with the shipping line to enable communication regarding container location, status and reuse to occur.
- That the importer and exporter are in the same geographic region, if reducing truck traffic is one of the aims.
- That the export container to be packed is of a general condition classification, and not a food grade quality or other higher standard requiring special empty container park treatment. The Murray Goulburn Co-operative case study strongly reinforced this fact.
- That the exporter or third party logistics operator can provide the required level of container inspection, repair or cleaning.
- That the shipping line is involved in the establishment and ongoing facilitation of the process. Unless this occurs shipping companies will apply a charge for the late return of empty import containers and negate any benefits to the importer.
- That some basic container movement reporting is available to the shipping lines for their stock management responsibilities. Lost containers will ultimately be charged back to the importer or their carrier and result in a reduction of containers available for export reuse, so knowledge of the containers whereabouts is crucial to the process.
- That the container has sustained no apparent damage that might limit its immediate reuse or impact on its structural integrity. The best place for a container which appears to have sustained damage is in an empty container park, where it can be properly assessed for damage and structural integrity.

## Where to now for triangulation

This trial demonstrates that there is no single method or model for managing container movement that can be applied to improve efficiency across the board. Triangulation may work in certain circumstances and industry should consider its application in this context.

Analysis of individual supply chains can result in significant efficiency improvements. Industry is encouraged to review its business processes to identify changes and new arrangements with stakeholders that will streamline freight movement and deliver time and cost-saving benefits.