



CASE STUDY

A CLEAR VIEW TO OPTIMIZATION

OVERVIEW

A global healthcare manufacturer was shipping custom surgical packs exclusively as airfreight, from USA to Sydney, Australia. Shipments moved via airfreight several times per week, largely because the order fulfillment process was loosely governed. The manufacturer needed to improve their competitive position in the market, focused on improving efficiencies in their supply chain and reducing supply chain costs.



OPPORTUNITY

The company had been using airfreight as the exclusive transport mode because each surgical pack was customized according to the requirements of each individual surgeon. A recent increase in competition had put downward pressure on prices, and the company needed to reduce their supply chain cost without endangering sales or putting the safety & security of the product at risk.

SOLUTION

Supply Chain Solutions developed a Transport Flow Optimization model to support the customer's decision process. The customer's data was cleansed, transformed and displayed to create a baseline model of the existing airfreight supply chain in order to compare and contrast the alternative supply chain scenarios. During our collaboration process with the customer to discuss existing processes and known constraints, an early-on benefit was the realization that transport lead-time could actually be increased without risking sales, security or product safety. The customer was willing to make certain changes to their purchase order procedure in order to enable their origin location to implement more efficient stock planning and pick/pack processes in order to operationalize a longer transport lead-time.

With this agreement in place, the Supply Chain Solutions team was able to build several mutually exclusive alternate transportation models for the customer to evaluate and determine operational feasibility. In addition to evaluating the models on the basis of cost and service time, the customer was able to understand the impact each scenario would have on their carbon footprint, proportionate to the increase in the volume ratio that was shipped as air-sea compared to air only.

After reviewing the results, two scenarios became favored:

- 1) A complete mode shift to ocean freight
- 2) A hybrid 'air-sea' logistics solution

RESULTS

The customer converted 100% of their airfreight volume to the hybrid solution, reducing their international freight spend by 44%. Although lead-time was increased as compared to their airfreight only baseline model, the hybrid 'air-sea' lead-time was 35% faster than an exclusive ocean freight solution. The customer also reduced their carbon footprint 8% when compared to the baseline. Most importantly, because operational procedures could be improved upon to enable this conversion, the customer was able to maintain the high level of quality and customization their customers expected while reducing the cost and carbon of their supply chain.

