

ECR Sustainable Transport Project

Case Studies

Introduction

This document of case studies supports the ECR Europe Sustainable Transport Project Road Map, and should be read in conjunction with the Road Map and its maturity levels. The Road Map can be downloaded from www.ecrnet.org

Case Studies

To indicate the ways in which others have overcome some of the challenges whilst moving through the maturity levels of the road map, we have compiled a number of case studies from our own experience. The case studies provide inspiration to organisations that are seeking to deliver sustainable transport. These case studies come from practitioners in the FMCG supply chain arena on the project team. We recognise that each organisation is individual and will need to deal with issues in their own way. Through the case studies we seek to indicate a way forward, and provide inspiration to your organisation to take up the challenge and make a difference to deliver fewer, friendlier miles now!

Usage

This document is designed as a source of reference. It is at individual companies discretion whether to adopt these suggestions or not. Companies may consider it prudent to seek legal advice before adopting or taking any actions.

The case studies have been provided by members of the project team with the aim to help other organisations find ways to move towards delivering sustainable transport. The material in this document does not offer any recommendation of the approach that should be taken by an organisation in developing their own sustainable transport activities. No guarantees of performance or savings realised are made or implied.

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Title	<i>Increased Trailer Fill Optimisation By Limiting Number Of Unit Of Delivery (UOD) In The Supply Chain</i>
Roadmap Focus Area	<i>Efficient Load Fill</i>
Description	Reduction of UOD's in the supply chain from over 10 to just two UOD's at Boots UK Ltd
What was the issue	
<p>In the Boots supply chain over a number of years there have been various UOD's that have been utilised to serve stores from DC's, from central warehouses and from other warehouses across the UK.</p> <p>The impacts of the various UOD's have been:</p> <ul style="list-style-type: none"> - Poor trailer fill due to having to manage mixed sizes of UOD's leading to poor space utilisation and poor forecasting of trailer fill. - Shortages at times for certain UOD's leading to the operations using whatever UOD was available with issues for stores and for transport - Difficulty in cleaning and maintaining the various UOD's - Complexity in the operation in having to manage various UOD's 	
What we did	
<p>Due to a new automated central warehouse being opened in Nottingham an opportunity had arisen to challenge the way that we managed our UOD's, to simplify the operation and to also build in additional security features by use of the new UOD's within the supply chain.</p> <p>We have already designed, procured manufactured a new SSC crate and are currently using this in the operation in a number of different warehouses. This UOD will be the standard crate that we will pick into for all stores by September 2009. In addition to this for more bulky products we are in the design phase of producing a new roll cage for the supply chain. Again this roll cage will be the only UOD that we send bulky products, promotional stock and show material from to stores.</p> <p>The crates go out to stores on a dolly. The dolly and the roll cage have the same footprint and provide maximum utilisation on the back of our trailer fleet. The software that we have assists in the best trailer utilisation, as it will fill out a trailer whenever it can.</p> <p>The key companies involved in this have been GeorgUtz who are the manufacturers of the SSC crate and Witron who have supplied us with the automation system. We have yet to assign the contract for the manufacture of a roll cage.</p>	

What we achieved

Although the roll-out of this crate is not due to be completed until Sept 2009 across the entire supply chain we have seen some significant benefits in making the operation easier to manage due to no shortages of UOD's and ease of sorting these crates in the returns logistics loop. Trailer fill will be better utilised when we have new software installed from Jan 2009, when we start using the new roll cage from Jan '09 and as we move more inventory into our central warehouse.

Further Information

Further information can be provided by:

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Title	<i>Truck load configuration @ Energizer</i>
Roadmap Focus Area	<i>Efficient Load Fill</i>
Description	<p>Optimisation of truck loading by combining 2 business units in the same trucks to local warehouses in Europe, resulting in 20% fewer trucks shipped.</p> <p>“Saving 647,000 road km through combining and optimising transport”</p>
What was the issue	
<p>Trucks were only loaded with a maximum of 33 Euro pallets (only loading on the floor).</p> <p>Our 2 business units (blades & batteries) were shipped separately.</p> <p>A lot of air was carried (pallet height between 1.20m and 1.80m)</p>	
What we did	
<ul style="list-style-type: none"> - Analysed databases of shipments (frequency, weight, pallets size) - Calculated theoretical loading factor into trucks - Validated with our affiliates to get some combined replenishment stock orders - Evaluated the potential cost & CO² savings - Reduced the height of blade pallets to stack on battery pallets to fit into trucks - Tested some optimized truck loading with our third party provider, also involved logistics partners at destination - Investigated best truck size 	
What we achieved	
<ul style="list-style-type: none"> - 20% fewer trucks on the roads for the same volumes replenished, resulting in 355,000 tons CO² saved - 647,000 km saved due to long distance destinations (between 800 and 2600 KMs / destination) - Cost savings estimated at 300,000 € per year <p>This project allowed Energizer to move from level 1 to level 4 on the Efficient Load Fill maturity matrix of the ECR Europe Sustainable Transport Road Map.</p>	

Title	<i>Save a tour of the world in three months by Collaborative Loading Optimisation between Colgate Palmolive and Carrefour in Italy</i>
Roadmap Focus Area	<i>Efficient Load Fill / Efficient Deliveries</i>
Description	Saving 36,500 Km in 3 months (Q1 2008 vs Q1 2007) by supply chain collaboration, using POS data, co-managed inventory (CMI) and terms and conditions (T&C).
What was the issue	
<p>The replenishment of the retailer distribution centre (DC) was based solely on the CMI order process without optimisation of the truck load.</p>	
What we did	
<p>Using POS data it was possible to determine the demand cycle of the 43 stores supplied from the retailer DC and to optimise the weekly replenishment from the Colgate-Palmolive DC. Using weekly KPI's the flow into the CMI Depots for which no POS data was used was also optimised.</p> <p>By using transparent logistics T&C the truck load was maximized in terms of full pallets and full layers, thus increasing dramatically the average number of pallets/truck (from 11.9 to 17.4).</p> <p>Comparing Q1 2008 vs. Q1 2007 the number of deliveries decreased from 336 to 188, and the number of trucks decreased from 305 to 171, thus resulting in an overall saving of 36,500 km.</p>	
What we achieved	
<p>The new process allowed us to obtain three major results:</p> <ul style="list-style-type: none"> ▪ Transport sustainability saving of 36,500 km in three months (equal to a tour of the world) ▪ Significant improvement in customer service with case fill increase by 1.6 points and rated among the best in class by the retailer ▪ Inventory reduction of 0.6 days 	

Title	<i>Nestlé Germany - Efficient Load Fill</i>
Road Map Focus Area	<i>Efficient Load Fill</i>
Description	Over 100 truck loads saved with specialised trucks improving the load fill.

What was the issue

Transport of high-volume products with less than 100 kilogram of weight per pallet lead to poorly utilised truck capacity.
 The same problem occurred with the big-packs transport for raw materials where the 500 kilogram sacks covered only the floor.
 The same problem also existed for picked pallets running from the distribution centres to the cross docking stations.

What we did

We found, for all three problems a solution that helped to reduce the number of trucks used.

For the picked pallets, and the big packs we used double floor trucks. This enabled us to carry a minimum of 66 picked pallets to the cross-docking stations per truck. Trucks with double layers had to be dedicated to the lanes which had equipment capable of handling the second layer.

For the high volume products we use high volume trucks and load the product with only one ground pallet. This enables us to carry on one footprint, three instead of two pallets. Repalletisation costs in the receiving warehouse then have to be calculated out against transport savings



What we achieved

Over 1000 truck loads a year could be avoided by increasing the vehicle fill with adapted truck technology.

Title	<i>Product Service Area Assignment in PepsiCo</i>
Road Map Focus Area	<i>Efficient Load Fill</i>
Description	“Saving 1,500,000 road km and 1,200 CO ² Tons through product allocation”
What we found	
<p>PepsiCo analysed the opportunity to reduce the total amount of km in each market, in order to optimise the total logistics cost.</p> <p>2 main initiatives were defined:</p> <ul style="list-style-type: none"> - Product Service Area - Maximise FTL (Full Truck Load) 	
What we did	
<p>PepsiCo defined the Product/Service Area Assignment Process.</p> <p>This process is done by each market 4 times every year, taking into consideration the potential seasonal impact.</p> <p>In this process, PepsiCo takes into consideration, for each market, the total industrial sites, and decides how to supply, in each market, the demand from the least distance to origin using FTL (taking also in to consideration, technological restrictions from manufacturing sites).</p>	
What we achieved	
<p>Reduce the total amount of km (approx 1,500,000 km per market unit).</p> <p>Reduce the total amount of CO² emission (approx 1,200 CO² tons per market unit).</p>	

Title	<i>Iso containers @ Carrefour</i>
Roadmap Focus Area	<i>Efficient Load Fill – Transit Units</i>
Description	Optimising load fill with iso containers for fish or frozen goods distribution
What was the issue	
<p>Fish and frozen goods distribution is very specific:</p> <ul style="list-style-type: none"> - extremely tense flow and hygiene constraints for fish - strong temperature constraints for frozen goods <p>Each of these flows was therefore traditionally managed via dedicated routes, each truck delivering too many stores with relatively low volumes (a few pallets only per store).</p> <p>Consequences :</p> <ul style="list-style-type: none"> - bad load fill - long routes (too many stores for each truck) - high risk for the delivery plan due to possible delay on the inbound side for the fish 	
What we did	
<p>We looked for a way to integrate those products into the much bigger dry or fresh food flows, and request support from our packaging suppliers.</p>	
What we achieved	
<p>We selected 2 types of iso-containers which allow us to integrate frozen goods or fish transport with other product categories</p> <ul style="list-style-type: none"> - respecting the temperature and hygiene constraints - eliminating the specific dedicated routes - improving the load fill of the other routes - reducing the global number of deliveries to the store <p>This project helped Carrefour move from level 2 to level 3 on the Efficient Load Fill focus area of the ECR Europe Sustainable Transport Road Map.</p>	

**Armoire Iso «
Surgelés »**



Armoire Iso « Marée »



Title	<i>Transport optimisation between ASDA and Cadbury</i>
Roadmap Focus Area	<i>Efficient Deliveries</i>
Description	Maximising backhauling and implementing friendlier miles
What was the issue	
<p>Cadbury and ASDA were working separately to optimise their own transport routings, Asda was passing Cadbury's depot when delivering to its stores which are in close proximity of Cadbury's warehouses. The opportunity was to fill the trucks on the return journey. This represents an opportunity of 4500 legs per year to transfer into backhauling.</p>	
What we did	
<p>We initiated a kick off meeting to review the full opportunity per warehouse in order to commence full backhauling between both partners.</p> <p>To date a former backhaul lane has been re-initiated, three others are due to start mid 2008, and six additional lines are being analysed.</p> <p>In addition whilst reviewing the full spectrum of the sustainable transport roadmap we are investigating the opportunity for depot sharing in case of extra space to meet spot requirements.</p>	
What we achieved	
<p>The former backhaul line has been reintroduced</p> <p>A working group has is established to deliver the opportunity for 4500 legs to be transferred into backhauling.</p> <p>Asda and Cadbury senior management teams are now involved and are commencing a regular series of strategic review meetings to improve the collaboration and the processes between the two organisations.</p>	

Title	<i>Sharing Transport at Boots</i>
Roadmap Focus Area	<i>Efficient deliveries - Sharing Transport</i>
Description	Saving 75,000 miles through sharing transport
What was the issue	
<p>An increase in high cubic volume orders from a current backhauled supplier had resulted in increased trailer requirements to collect. All available backhaul lanes were utilised leaving only an expensive and environmentally unfriendly option of using external haulage.</p>	
What we did	
<p>Reviewed with 3PL and DHL to explore other options with their other customers. Boots ideally wanted to work with a local business to minimise the extra mileage.</p> <p>Two options were available - Imperial Tobacco and British Gypsum.</p> <p>Delivery routes and empty returning legs were investigated to find the most cost effective and efficient solution without jeopardising service to the supplier.</p> <p>Criteria to be reviewed were cost, mileage and availability.</p> <p>Imperial Tobacco worked out as the most favourable option and are based next to the Boots site.</p>	
What we achieved	
<p>Key benefits are 75,000 miles, as well as 92 tonnes CO² saved per annum, plus financial benefits for both Boots and Imperial Tobacco.</p> <p>Improved open discussions with 3PL which will open up more avenues and options for future collaboration initiatives.</p> <p>Boots was able to move from level 2 to 3 on the focus area "Sharing Transport" in the ECR Europe Sustainable Transport Road Map.</p>	

Title	<i>Sharing Transport @ ASDA</i>
Road Map Focus Area	<i>Efficient Deliveries</i>
Description	Maximising internal transport efficiency
What was the issue	
<p>Depot network focussing independently on transport efficiency initiatives. This will have included additional supplier backhaul, but very little additional integration. Significant own fleet empty running to be mitigated</p>	
What we did	
<p>In 2007, we changed the way of working and accounting to ensure we drive the right behaviours to reduce our empty running. Within 'Open Market Trunking', all our sites now have the ability to positively influence their cost and carbon performance through integration with partner distribution centres (DC) or with external carriers.</p> <p>Monthly reviews were implemented with newly appointed 'Transport Efficiency Managers' to fully review all trunking lanes & initiate store front haul activity between sites. All agreed actions were minuted and followed up by the central team to ensure compliance and cut-through. Internal re-charges at marginal cost were introduced to ensure a fair process for all.</p> <p>Initial Carrier integration was also covered at these monthly reviews. A generic 'Service Level Agreement' was introduced to all new Carriers to ensure all aspects of service were covered, with appropriate levels of review planned in.</p>	
What we achieved	
<p>Through 2007, we reduced our empty miles by 1.1 million and operating costs by £1.5m.</p> <p>The integration of over 30 Carriers in the last 12 months has strengthened our position to further reduce empty miles.</p> <p>This process has reinforced the site responsibility to maximise efficiency and reduce miles.</p>	

Title	<i>New flow – Beverages ICA Sweden</i>
Roadmap Focus Area	<i>Efficient Deliveries</i>
Description	Combine direct distributed beverages with ICA wholesale distribution and save 20% CO² on beverage distribution.
What was the issue	
Beverages were traditionally distributed to ICA directly to the outlets by the suppliers. Including this distribution into the existing ICA system would mean an increase of 11%.	
What we did	
The beverage distribution was moved into the ICA distribution and planning system.	
What we achieved	
Drops of dry goods to 1450 stores were increased from 3200 to 4000 a week leading to improved service level. By consolidating the direct distributed beverages with wholesale distribution higher load fill was achieved, which lead to lower costs. Higher load fill improved delivery efficiency and resulted in a 20% CO ² saving on the beverage distribution through ICA. Road Map: Efficient Deliveries/Share and collaborate “ level 3”	
Further Information	
www.ica.se	

Title	<i>ASDA Wal Mart Organising for Sustainability</i>
Roadmap Focus Area	<i>People</i>
Description	A project control structure up to Exec Board level to track milestone delivery on sustainable transport
What was the issue	
<p>By the end of 2007, we had a significant volume of sustainable transport actions underway along with a wide range of other sustainability initiatives across store and distribution centre (DC) design, packaging and energy use. The challenge with such a volume of change is to ensure that delivery stays on track.</p> <p>Sustainability is an Executive level priority within ASDA with a reporting requirement upwards into Wal Mart so accurate and timely visibility of progress is fundamental for such a high profile area of change for the business.</p>	
What we did	
<p>Sustainability was added to the list of “Step Change” projects for 2008 with sustainable transport being a key part of this.</p> <p>This means that for sustainable transport we had to produce a detailed project plan showing deliverables, timelines and milestones for us to be held accountable for.</p> <p>A monthly project control group of sponsors and accountable leaders meets to track progress against these milestones, review any blockages or resource requirements and grade the project red, amber or green.</p> <p>This project grading then goes up to the monthly Exec Change Steering Committee where the CEO and Exec Board review the delivery status of each project.</p>	
What we achieved	
<p>A real feeling of accountability and purpose around the delivery of the sustainable transport milestones brought about by the formality and scrutiny of the process and the knowledge that this progress is being checked and appreciated at Exec Board level within the business.</p> <p>A reinforcement of the importance of sustainability in general and sustainable transport in particular within the ASDA Wal mart organisation through its classification as a “Step Change” project.</p> <p>An ability to get real cut through for any road blocks we encountered due to the high profile project governance.</p>	

Title	<i>Economy at ASDA</i>
Roadmap Focus Area	<i>People & Technology</i>
Description	Ongoing MPG (miles per gallon) improvements
What was the issue	
<p>Year on year network fuel efficiency performance was flat lining, with no specific focus on improvements.</p> <p>Driver training was not concentrated on fuel efficient driving and fleet providers were not engaged to support any improvement process.</p>	
What we did	
<p>We have implemented a number of process mechanisms that provide the focus to improve efficiency:</p> <p><u>On-Site Fuel Management (Tri-Scan)</u> Best practice document was circulated to all sites to ensure a consistent method of managing bunkered fuel stocks and all transport managers were trained.</p> <p><u>Performance Tracking</u> Asda rolled out a new KPI measure to track weekly MPG performance by site, by region and by truck type.</p> <p><u>Best Practice</u> Following workshops with Transport Managers, a list of 'Top-Tips' for maximising MPG have been circulated. These include engine idle time focus, MPG by truck type, agency driver fuel awareness, driver performance, air kits and tyre pressure.</p> <p><u>Canbus</u> This was a capital investment to give best ever management information on vehicle and driver MPG performance. Vehicle telematics have been able to provide information on various aspects of engine and driver style performance to enable our sites to focus their attentions</p> <p><u>Driver Training</u> Dedicated resource to enable new approach to driver training. A safe and fuel efficient driving style is a key module to drive success.</p> <p><u>Fleet Specification</u> The business case for new fleet procurement is heavily influenced by fuel performance of various manufacturers. Asda has also decided to specify all its new fleet with an automatic gearbox. This has proven to improve average fuel efficiency by 3%.</p>	
What we achieved	
<p>2.7% MPG improvement through 2007 and a target of 4% improvement through 2008. Reduced CO² output by 3,600 tonnes in 2007.</p>	

Title	<i>Boots UK Ltd – Roll out of Double Deck Trailers (DDT) for Primary Distribution.</i>
Roadmap Focus Area	<i>Technology – Vehicle Capacity</i>
Description	The replacement of the Single Deck fleet of trailers with Fixed Deck Double Deck trailers and loading infrastructure to save road KMs, CO² outputs, fuel used and overall trunking costs
What was the issue	
<p>The current fleet of single deck trailers has come to the end of its useful working life so the opportunity has arisen to review delivery methods to Boots distribution centres (DCs). The migration to a Double Deck trailer fleet (DDT) alternative enables the business to reduce costs through the reduction in required trailer movements due to greater trailer capacity. Running a small existing fleet of DDTs with moving decks had proved that whilst the DDT concept was correct the trailer design and loading methods were not optimal for the business needs going forward.</p> <p>Issues to be addressed were that of ease of loading, load stability, trailer damage, trailer maintenance costs, trailer unavailability time, turnaround times on docks, cultural acceptance by warehouse operations.</p>	
What we did	
<p>For the roll out of the new fleet all permutations of DDT designs were viewed and considered both from a warehouse and transport operation perspective (given that the learnings from our experiences on the first phase of DDT roll out were that most issues stemmed from warehouse operations and impacted transport. i.e. poor loading, damage).</p> <p>Consideration was given to overall cube fill, floor fill, ease of loading, load safety, running costs and stability on the road.</p> <p>Following all of the considerations the selected configuration of DDT was a fixed deck option utilising a scissor lift platform infrastructure at DCs to load and unload. This selection provided a trailer that had a lower overall height and weight (increased stability), no internal moving parts or complex technology on board (lower maintenance costs – reduced trailer unavailability), an easier system of loading (improved operational acceptance), and an overall more robust trailer with a longer in service life (lower whole life costs).</p> <p>An infrastructure had to be designed to complement the existing aged network of DCs and work with the yard constraints they posed. Working closely with Transdek, Boots was able to have a creative solution of load platforms and docking stations that could meet the tight turning circles whilst being transportable to fit the new CDC network sites when they open in Q4 2009.</p> <p>Boots DCs do not possess extensive marshalling areas within their dock areas; therefore, due to loading with a lift, the DC has to ensure maximum lift availability. This has led to the necessary works with the DCs to ensure that their picking and loading processes and schedules upstream are optimised and fully aligned with the scheduled trailer arrival and departure times.</p>	

A detailed project plan has been pulled together that optimises the roll-out of the DDTs and lifts to maximise the journey reductions and costs, including cash flows.

What we achieved

We have achieved a robust plan that delivers a saving in journeys on the core trunking schedule of 27 journeys per day this leads to a reduction of 3.5 million KMs per annum, representing an overall KMs reduction of 25% and reduction of 2,646 tonnes of CO² from vehicle exhaust emissions.

Further Information

Transdek – lifting decks and infrastructure works – <http://www.transdek.com/>
Lawrence David - trailer design – <http://www.ldfinance.co.uk/>

Title	<i>ECR Denmark - European Modular Concept – Longer and Heavier Vehicle (LHV) Combinations.</i>
Roadmap Focus Area	<i>Technology</i>
Description	Some facts and arguments for extending the use of LHV into more countries in Europe. Proven savings and advantages for sustainability
What was the issue	
<p>Since long lorries with a total length of maximum 25.25m have smoothly operated in Sweden and Finland with obvious advantages for the environment and traffic. Experiments will now be carried out in Denmark to review the feasibility of this approach and other countries are considering the opportunity.</p>	
What we did	
<p>Collected facts on the issue and found present arguments for including LHV as an option for transport in all of Europe.</p>	
What we achieved	
<p>Through sharing knowledge of best practice we have influenced authorities to allow experimentation of the concepts within Denmark.</p> <p>In terms of the Road Map it is an opportunity within “Technology/Vehicle Capacity”.</p>	
Further Information	
<p>For more information http://www.internationaltransportforum.org/</p>	

Title	<i>Vehicle Capacity @ ASDA</i>
Roadmap Focus Area	<i>Technology</i>
Description	Saving 7.5 million miles per year on inter depot trunk activity
What was the issue	
<p>Although a number of our 2,500 inter depot trunk journeys are made efficient through either one-way trips or round-trip incorporating backhaul, there were a significant number of journeys that were being run on a round trip basis with high levels & consistent empty running.</p>	
What we did	
<p>A full lane review across all our trunking operations.</p> <p>To ensure consistency and quality, each of our trunking sites was reviewed on its own to ensure complete focus. This review encapsulated a number of key areas including total volume by lane by day, delivery frequency, product presentation and gross weight.</p> <p>We also had to review the ability of sites to load/off-load double-deck trailers and work on training documents to ensure all relevant colleagues were fully briefed.</p> <p>We have a number of different applications that demand different trailer configurations. Various trailer designs and specifications were discussed and agreed through a number of workshops involving the operators and trailer builders.</p> <p>Business cases were prepared that proved the overall costs and benefits, but also included the additional cost of the trailers and the additional cost to alter dock doors.</p> <p>All sites were fully trained on the trailer applications before the new fleet was deployed.</p>	
What we achieved	
<p>Over the last 3 years we have introduced double-deck trailers to all of our trunking locations. We now operate a total of 90 of these trailer types out of 8 distribution centres.</p> <p>From our base position in 2005, we now save over 7 million miles per year and over 9,000 tons of CO² through use of this trailer type.</p>	

Title	<i>Emons Cargo - Maximising vehicle capacity utilisation by means of double deck transportation</i>
Roadmap Focus Area	<i>Technology – Vehicle Capacity</i>
Description	Achieved a 10% reduction in fuel consumption and a 40% saving in CO² emissions by creating a double deck trailer based on innovative vehicle technology
What was the issue	
<p>As the density of products carried in road transport was and still is declining, and there has been a constant reduction of (transport) packaging, capacity utilisation of trucks is dropping, both from a weight and a volume standpoint. Some of the drivers behind this development are the use of lighter weight materials, moving customer order decoupling points further upstream in the supply chain, packaging cost reduction programmes and ‘retail/shelf ready packaging’. Whilst costs for warehousing (surface and handling), inventory carrying (interest and obsolescence), and packaging declined, the cost for transport increased, as trucks could and can no longer be filled to maximum capacity.</p>	
What we did	
<p>Emons Cargo conceived a new type of double deck trailer based on an extremely low ground clearance and individual wheel suspension (without rear axles!), and called this new development the ‘2WIN Trailer’.</p> <p>This 2WIN trailer has two fixed and solid decks with an available height of 1.80m each, offering a total capacity of 55 Euro pallets, whilst standard trailers can carry only 33 Euro pallets. Consequently an increase of 67% in pallet capacity was achieved. To make the trailer fully self supporting, it has been equipped with a hydraulic tail lift and an electric pallet truck.</p> <p>Whilst carriers normally use specialist equipment types only for specific projects and / or long term contracts, Emons Cargo decided to build up a large fleet of 2WIN trailers (150 units today) and offer them in the regular international European full truck load business, based on single trips. This strategy makes this vehicle type available for a wider scope of transport movements.</p> 	

What we achieved

The consequence of the low ground clearance is a significantly improved aerodynamic shape, compared to standard trailers. The improvement is due to the elimination of drag between tractor and trailer, and particularly under the trailer. The more aerodynamic shape leads to a 10% improvement in fuel consumption.

With a total fleet of 150 units 2WIN Trailers, Emons Cargo saves a total of 16 million road kilometres per year.

Consequently the emission of 13,000 tons of CO² is avoided, equalling 4 times the volume of the new Wembley stadium.

Further Information

Suggested reading:

“Opportunities for Consolidating Volume-Constrained Loads in Double-Deck and High-Cube Vehicles” by Professor Alan McKinnon and James Campbell, Heriot Watt University, Edinburgh (Scotland)

“Focus on Double Decks”, Freight Best Practice, Department of Transport (UK)

Title	<i>ASDA Wal Mart Network Design</i>
Roadmap Focus Area	<i>Network Design</i>
Description	A project to re align our products and distribution centres (DC's) based on velocity to reduce transport miles
What was the issue	
<p>Up to the end of 2004, our DC network for ambient food consisted of three tiers:</p> <ul style="list-style-type: none"> 1 x NDC – National slow velocity 3 x SAC – North, Midlands and South mid velocity 5 x RDC – Regional high velocity <p>The result was an average stem mileage from DC to store of over 150 miles for the SAC network and 120 miles for the RDC network and a very complex product routing outcome where DC's crossed over each others delivery patches.</p>	
What we did	
<p>We realigned our products and DC's into a simplified two tier network:</p> <ul style="list-style-type: none"> 1 x NDC – National slow velocity 8 x RDC – Regional high velocity <p>This involved modelling individual SKU characteristics to achieve the optimal routing in line with DC capacity and rolling that up to a vendor level to produce a revised routing for inbound.</p> <p>Then engaging and negotiating with vendors, project managing the migration of SKU's between DC's and, where necessary, re engineering DC's for their new role.</p> <p>We also, where required, supported vendors with transport or upstream consolidation solutions to enable them to deliver to multiple DC's with smaller shipments without a resultant increase in miles run.</p>	
What we achieved	
<p>The project took a year to land with the first full year benefit delivered in 2006.</p> <p>We reduced our transport miles by 20 million a year for the full year in 2006 compared to the base in 2004 with a linked reduction in fuel burned and carbon and particulate emissions.</p>	

Title	<i>Network Design Nestlé Germany</i>
Roadmap Focus Area	<i>Network Design</i>
Description	Over 1000 truck loads redesigned into round trips
What was the issue	
<p>Raw and packing materials were coming to our factories with the help of a large number of service providers. The trucks were unloading and leaving the factory. Other service providers were sending their trucks empty to the factory in order to pick up finished goods. This increased the complexity of the docking and yard management and consequently resources seemed to be wasted</p>	
What we did	
<p>We analysed the transport lanes from our suppliers into our factories. Together with the suppliers we were able to find more efficient service providers by creating round trips. The same trucks are now bringing raw materials into our factories and are leaving with finished goods produced in the factories.</p>	
What we achieved	
<p>We created round trips which were more efficient, we avoided empty truck miles and we reduced the complexity in the factory by reducing the number of truck movements.</p>	

Title	<i>Re-combination of Belgian Distribution for 2 divisions of Sara Lee</i>
Roadmap Focus Area	<i>Network Design</i>
Description	Saving 5.6 million pallet road kilometres through sharing national distribution for coffee and tea (C&T) and household and body care (H&BC) products
What we found	
<p>Over 10 years ago Sara Lee's H&BC distributions for Netherlands and Belgium were joined in one regional distribution centre (DC) in the Netherlands mainly for utilising synergies of common product-portfolios.</p> <p>In a benchmark exercise it was found due to the low volume and drop size of Belgian distribution of H&BC products and the relatively low level of commonality it was decided to combine it with C&T products at the Belgian 3PL Schenker.</p>	
What we did	
<p>To relocate Schenker needed to adapt their warehouse to be capable of storing hazardous goods as in the portfolio of H&BC. Additionally Schenker obtained the appropriate licenses from the Belgian authorities.</p> <p>Sara Lee had already conducted a European wide investigation reviewing under what conditions 3PL's could store and ship C&T and H&BC products together. This was laid out in a protocol.</p> <p>Sara Lee Belgium had to set-up their SC organisation and systems for support out of the Belgium office and ensure proper communication with Schenker, and more importantly, to enable synchronised deliveries to Belgian customers.</p> <p>H&BC and C&T Belgium were successfully joined on September 1st 2007.</p>	
What we achieved	
<p>The RDC in the NL was located on average some 250km further from Belgian customers than the DC used for C&T in Belgium. Furthermore the main supply for Belgium is from the south of Europe also adding to the saving.</p> <p>C&T Belgium has a much larger drop size than H&BC so H&BC saw a dramatic cut in their warehousing and distribution budget; over 50% was achieved.</p>	
Further Information	
<p>As the Belgian DC has many more FMCG suppliers than customers the saving in reducing road kilometres is far greater than can be seen for Sara Lee alone.</p>	

Title	<i>Returnable Crates and Pallets – Svenska Retursystem</i>
Road Map Focus Area	<i>Network Design, Efficient Load Fill</i>
Description	Throughout the Industry in a competitive and neutral system supply returnable crates and pallets (RTP's).
What was the issue	
<p>Swedish producers and retailers traditionally work together on re-cycling of packaging etc. The whole FMCG industry saw a need for standardised returnable crates and pallets. The advantages envisaged were: cost effectiveness, easier handling - automation, reduction in environmental impact and simplified in-store merchandising.</p> <p>It was important to make it available to all possible participants in a neutral and cost effective way.</p>	
What we did	
<p>A non profit, equally owned, company was established by the involved industry associations.</p> <p>The set up is a system which operates a nationwide pool of standardised RTP's at present primarily for meat, cheese and fruit & vegetables.</p> <p>It includes four washing plants – located for minimum mileage.</p>	
What we achieved	
<p>Since the start in 2001 the number of “trips” has shown a constant increase to almost 100 million in 2007.</p> <p>Its success is based on its achievement of cost effectiveness and effective handling.</p> <p>The environmental advantages are:</p> <ul style="list-style-type: none"> - One way cartons eliminated the equivalent to 288,000 trees! - Standardized sizes optimise load fill - Working environment improvement <p>The system is now operating smoothly and fully developed for other products and international expansion.</p> <p>Assessment in Road Map terms shows that it contains elements of best practise both in terms of Efficient Load Fill and Network Design</p>	
Further Information	
<p>www.retursystem.se or Tryggwe Göransson tryggwe.goransson@retursystem.se</p>	

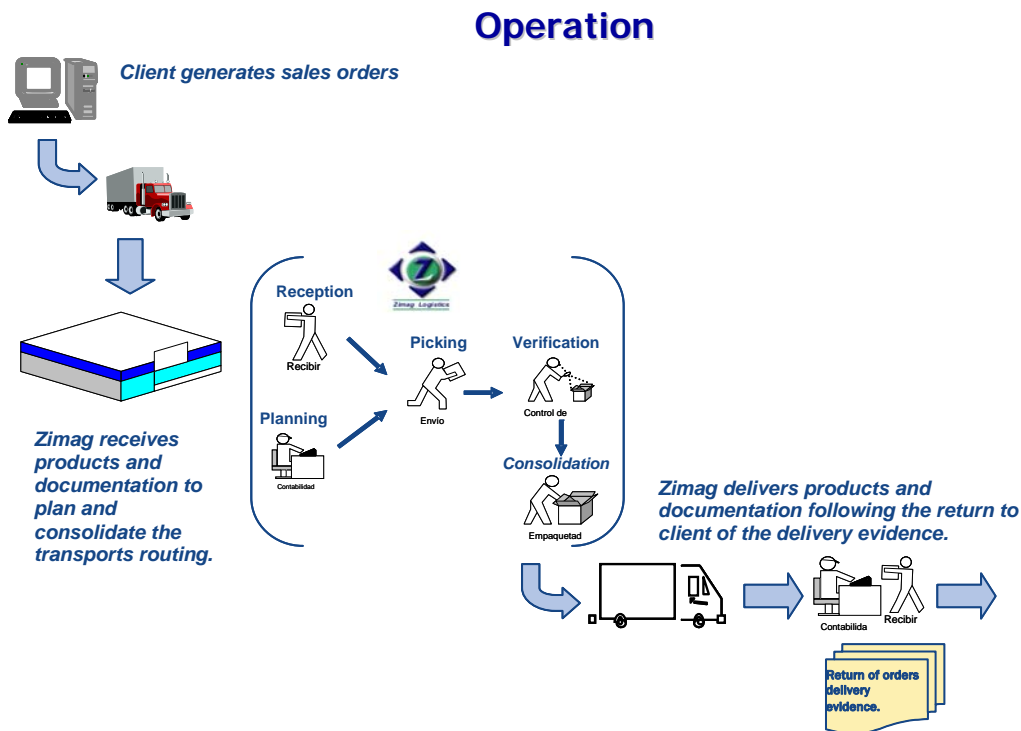
Title	<i>Multishare in Practise – Frode Laursen</i>
Roadmap Focus Area	<i>Network Design; Efficient Load Fill & Efficient Deliveries</i>
Description	Frode Laursen, Logistics Solution Provider has considerable experience with multishare warehousing and transport in Nordic regions. Proven improvements in costs, service levels and sustainability
What was the issue	
<p>Nordic is, relative to population, a large geographical area.</p> <p>A large share of FMCG is imported from other parts of Europe where factories supplying many countries are situated.</p> <p>The four markets (Sweden, Finland, Norway and Denmark) show different consumer and trade patterns – leading to many SKU’s and high demand for repacking etc.</p> <p>This combined with a need for high service levels lead to smaller order sizes for the individual product and supplier.</p>	
What we did	
<p>Frode Laursen experienced the demand for solving the cost inefficiencies in this evolving trend in supply chain development starting in the 1990’s.</p> <p>The concept is simple:</p> <ul style="list-style-type: none"> - Consolidate goods - full loads – from more suppliers in one warehouse - Do it upstream for repacking etc. closer to final destination - Distribute full loads of combined orders to retailer warehouses or supermarkets <p>At present 300,000 sq m in several locations in the Nordic area each servicing 3-12 suppliers within one system (layout and IT.)</p>	
What we achieved	
<p>Cost, service and sustainability(CO²) improvements achieved by:</p> <ul style="list-style-type: none"> - Full loads from the factory to optimal distribution point – the multishare warehouse - Maximum vehicle utilisation by repacking closer to the end customer - More frequent deliveries with shorter response time and better planning by retailer DC - Scale and know how result in constant improvements such as: night distribution, drop trailers and planning in and out distribution <p>Assessment in Road Map terms shows best practise in “Network Design / Sustainability by Design”, “Efficient Deliveries/Share and collaborate” and “Efficient Load Fill/Load Planning”.</p>	
Further Information	
<p>www.frode-laursen.com e-mail: forkontor@frode-laursen.com</p>	

Title	<i>ISSSTE Project</i>
Roadmap Focus Area	<i>Network Design, Efficient Load Fill, Efficient Deliveries</i>
Description	Use of a common consolidation platform to generate sufficient synergies within Zimag (logistics provider) and ISSSTE (Governmental Supermarket) to enable economical supply to inaccessible areas and low volume stores
What was the issue	
<p>ISSSTE is a government run supermarket focused on reaching / helping low income population areas in Mexico. Most of their stores are located in very hard to access locations; they don't have a centralized consolidation warehouse like other supermarket chains and distribution is based on direct delivery to store.</p> <p>Basic economics dictates that low volume clients should be rationalised. Eliminating low volume, direct deliveries would help to restore profitability. Senior management felt it would be necessary to cut direct distribution to this client and others not reaching a minimum purchase volume by year. As a consequence these clients would be forced to buy directly from wholesalers thus affecting their margin.</p> <p>Given that ISSSTE is a low income store this would have strongly affected their cost and prices to consumers. Senior management asked the logistics community to investigate ways to assure cost effective and direct distribution to ISSSTE.</p>	
What we did	
<p>In collaboration with the Council of Supply Chain Management Professionals « CSCMP », – Mexico and Logistic Mexican Top Management Group, Bacardi is developing with Zimag (third party Logistics provider) a grand central distributor platform for ISSSTE.</p> <p>Given that most consumer packaged goods companies face the same challenge, companies such as Colgate, Bacardi, Nestle, Unilever and Jumex have joined together in a multi industry effort. The first phase will include only 32 stores.</p> <p>In a 2nd phase companies like P&G, Kelloggs, Kraft, Del Fuerte and Conagra have indicated their willingness to join and to covering the full range of stores.</p> <p>Under this model Zimag is responsible for co-ordinating common delivery times and securing any necessary extensions to avoid supply rupture or backlogs for its clients. In return, ISSSTE has agreed to give preferential slot times and extended reception times.</p> <p>Bacardi is given a certain shipping schedule (calendar) to deliver to Zimag's central distribution centre (DC). Following that, Bacardi sends a consolidated full load for all ISSSTEs orders, irrespective of the final destination. From there, Zimag consolidates products and creates the documentation to plan and assemble the transport routing by region, cross docks and stores.</p> <p>Zimag is accountable for returning proof of delivery to Bacardi and with this return they are allowed to present billing and payment terms.</p>	

What we achieved

- Important logistics and distribution costs reduction
- Maintained continuity of supply to small stores
- Reduced environmental impact through consolidated deliveries
- Admin reduction without affecting high volume clients
- Increased efficiency for customer - clients receive full load orders (improved fill rate) by consolidating diverse products from different suppliers
- Good partnership; preferential delivery dates and extended receiving times given
- Time decrease for “proof of deliveries” returns

Further Information



SPECIAL CONTRACT TERMS

- One year renewable contract (no investments needed) which can be terminated at any time
- Paying terms; 45 days after receiving return of evidences (proof of deliveries)
- Zimag's 3rd party insurance

Title	<i>European Central Coffee Terminal (ECCT) at Sara Lee</i>
Road Map Focus Area	<i>Network Design, Transport Modes</i>
Description	Re-routing of sea-containers from coffee country origins to the European coffee factories of Sara Lee saving >20 million road kilometres
What we found	
<p>This optimisation was to reduce the complexity, and eliminate waste, in the supply of Green Coffee to the 10 main roasting facilities in Europe reaching from south at Barcelona, Spain to the north; Kolding, Denmark and west at Grimbergen, Belgium to east at Sulaszewo, Poland. All these factories had their own container stocks close to the factory and their own main ports. In total Green Coffee entered in 12 different ports.</p>	
What we did	
<p>A network study was performed and as a consequence a tender was launched at the end of 2006 to reduce the number of stocking points and main ports. The main objective was to find a much more centralised network from the coffee origins in South America, Africa and Asia that was as economically viable, and provided the service levels as the original set-up. The tender team knew that overland distances would increase, so the necessary effort was made to convert as much transport from road to intermodal (rail, barge, short-sea and road).</p>	
What we achieved	
<p>Between June and December 2007 all factories have gone through the re-routing and have established annually a reduction of at least 20 million kilometres or over 2500 ton CO² with a 20% reduction of cost.</p> <p>This reduction came mainly from utilising the empty-return container depots throughout Europe more effectively. Shipping lines were tackled by both Sara Lee and their partners to enable more depots closer to our factories.</p> <p>Establishing additional contacts with peer companies, that could re-utilise the empty containers, paid off. The best example was Sara Lee's Joure facility where before the project, containers were returned empty to Rotterdam, after the project they are mainly used by a dairy company, based in the same province, for their export purposes. The difference is some 200km saving for over 1000 containers a year to which both companies see the same 'green' effect.</p> <p>The quest for finding more of these opportunities has continued along with opportunities to overcome pollution and congestion in locations such as the factories in Utrecht (NL) and Andrézieux (France). In France the local transport company is investigating rail connection from Lyon to St-Etienne to save 2 times 73km per container (full and empty back) by road. In Utrecht in April 2008 the team will enter into a feasibility study to re-use the old quay for loading / unloading containers straight in and out of the factory, an effort the city council is very supportive of.</p>	

Title	<i>Collaborative study to improve transport sustainability between Colgate Palmolive Italy and COOP Italia</i>
Roadmap Focus Area	<i>Network Design, Sharing Transport</i>
Description	Based on experience gained through independent projects, COOP Italia and Colgate Palmolive have agreed to start a collaborative study to improve transport sustainability in Italy
What was the issue	
<p>COOP Italia is the # 1 retail customer for Colgate Palmolive in Italy.</p> <p>During recent supply chain collaborative meetings the two companies discussed transport sustainability projects they undertook independently and agreed to go for a joint study to model the optimisation of the network.</p>	
What we did	
<p>The results of the independent projects were shared and visits are being made to analyse in-depth mutual experiences.</p> <p>A consultant will be selected to combine sensitive data and analyse the best methodology to optimise the flow of finished goods from the Colgate Palmolive distribution centres (DC's) into the COOP Italia stores.</p> <p>The aim is to identify the key drivers of optimisation, set KPI's and pilot the model. Based on results the model will then be extended to the entire network</p>	
What we achieved	
<p>The current achievement is the agreement to collaborate on this project.</p> <p>Both companies have discovered a common interest and have openly discussed their own experiences and objectives in the area of transport sustainability.</p> <p>The project is open to additional players who can add value to the results of this collaboration on the Italian market</p>	
Further Information	
<p>Chiara Bellocchi CS & Logistics Director Colgate Palmolive Italy, chiara_bellocchi@colpal.com</p> <p>Giuseppe Cuffaro COOP Italia Supply Chain Director, giuseppe.cuffaro@coopitalia.coop.it</p>	

Title	<i>Transport Modes at ASDA</i>
Roadmap Focus Area	<i>Transport Modes</i>
Description	Further reducing road miles through modal switch from road to rail
What was the issue	
<ul style="list-style-type: none"> • Carbon and empty miles challenges on our fresh in-bound supply • Significant volume travelling from ports in the south east of England and travelling into our northern UK distribution centres • A large proportion of the return loads are empty. 	
What we did	
<p>Working with our produce provider, we were able to fully review all in-bound transport lanes to understand any opportunity of looking for either one-way carriers, or potential rail opportunities.</p> <p>Having identified a possible lane for modal switch (Tilbury - Normanton), we contacted a number of rail operators to understand their ability to cover that activity. Discussions and negotiations concluded having discussed volume, frequency and lead time requirements. Agreement was made with the chosen provider and the service commenced within 4 weeks.</p>	
What we achieved	
<p>We achieved a saving of over 120,000 road miles through converting from road to rail. It also resulted in a small commercial benefit compared to the fully costed road trip.</p>	

Title	<i>Modal switch Nestlé Germany</i>
Roadmap Focus Area	<i>Transport Modes</i>
Description	Over 3000 full truck loads on alternative transport modes per year
What was the issue	
<p>Not all logistic locations have direct access to train stations or waterways, so the transport seemed restricted to truck traffic. In peak seasons trucks had to wait before unloading or loading took place. Staffing levels in the warehouse had to be adapted to peak season demands during the year and during the day.</p>	
What we did	
<p>It was possible to use alternative transport modes in the combinations from truck, and train or boat. Trucks are only used to cover the last miles from the port or train station and the long distances are covered by alternative modes.</p> <p>The use of swap bodies, containers and wagons on these transport modes enabled us to separate the loading procedure from the physical departure of the vehicles and levelled out the demand for people.</p>	
What we achieved	
<p>We found a solution to make the work in our warehouses more efficient, and to move loads away from trucks to more sustainable transport options like barges or trains.</p>	

Title	<i>River Transport @ Carrefour</i>
Road Map Focus Area	<i>Transport Modes- Modal Switch</i>
Description	Using river transport instead of road for the import flows from Le Havre
What was the issue	
<p>20,000 TEUS per year are imported in France from Asia via the sea ports of Le Havre and Fos.</p> <p>We experienced difficulties for the transport of these containers from the ports to the distribution centres (DCs):</p> <ul style="list-style-type: none"> - Very high transport cost - Lack of reliability of the carriers on these saturated lanes - Incompatibility with the sustainable development policy of the Carrefour Group 	
What we did	
<p>We tendered the river operators, who proved competitive, and booked regular capacity on their ships.</p>	
What we achieved	
<p>Carrefour now carries 40% of their containers via river, to the river ports closest to the DCs.</p> <p>The last kilometres are operated by a noria of trucks (shuttles).</p> <p>More than 4000 trucks have therefore been taken off the road every year, with the following benefits :</p> <ul style="list-style-type: none"> - 7% savings on transport cost - 200 tons of CO² saved - transport anomalies and delays reduced from 5% to 1% 	

Title	<i>Flexiwaggon Train Solution -ICA</i>
Roadmap Focus Area	<i>Transport Modes</i>
Description	Road to rail without terminal – part of ICA’s strive to decrease CO ² by 30% by 2020
What was the issue	
<p>The retailer ICA today distributes a major part of its goods using lorries.</p> <p>The challenge was to use railway on the longer transport legs without reducing service levels.</p> <p>Could limitations from lack of railway terminals and passenger train priority be eliminated?</p>	
What we did	
<p>A “FlexiWaggon” is under development.</p> <p>It’s an advanced railway wagon.</p> <p>It can load/unload a lorry in 10 minutes by the driver alone.</p> <p>A side loading system makes it possible to load from both sides and simultaneously more wagons.</p> <p>It is being developed to run at 160 km/h also making it suitable for most passenger trains.</p>	
What we achieved	
<p>When the new wagon is in operation in ICA it would firstly replace 20% of 400 deliveries per day.</p> <p>The longer term target is that it should cover transport between warehouses and where possible the transport to stores.</p> <p>It is being developed for use of all interested parties.</p> <p>In the Road Map it’s “ Modal Switch /Transport Mode”. Facilitates best practise.</p>	
Further Information	
<p>http://www.flexiwaggon.se www.ica.se</p>	

Title	<i>V&S Group - Multimodal Transport</i>
Roadmap Focus Area	<i>Transport modes</i>
Description	How V&S Group use combinations of boat, rail and land transport – to achieve a 70% CO² saving per case
What was the issue	
<p>V&S Group has long practised an environmental policy in all areas of its business. In logistics this has meant:</p> <ul style="list-style-type: none"> - always consider alternatives to road transport - virtually all cross border transport is multi-modal - acceptance of slightly longer lead times 	
What we did	
<p>The wine supply chain consists of import from many countries all over the world. The bulk product is bottled in different places in Europe.</p> <p>Considerable effort has been spent in searching, finding and negotiating sustainable solutions which also met the demand for business needs in terms of reliability, costs and quality insurance.</p>	
What we achieved	
<p>The general work with a multimodal supply chain has definitely proven that with extra effort in preparation and planning it is possible to reduce road transport often with additional cost advantages.</p> <p>The example used in this case study is of transport from Svendborg, Demark to Stockholm, Sweden which generated 70% lower CO² emissions than pure road transport.</p> <p>We assess that the V&S Group on the Sustainability Roadmap - Transport Modes/Modal Switch - scores almost the highest level 4 – which we, however, see as a moving target!</p>	
Further Information	
<p>For further information pls. contact: Rolf Hagström – Process Devl. Manager logistics, V&S. e-mail: rolf.hagstrom@vsigroup.com</p>	

Title	<i>Colgate Palmolive Europe and P&O Ferrymaster improved sustainability by increased use of Intermodal</i>
Roadmap Focus Area	<i>Transport Mode – Modal Switch</i>
Description	Switching from truck to intermodal between the Anzio Plant (Italy) to Castleford (UK) has enabled Colgate to save 518 tons CO² per year
What was the issue	
<p>The use of intermodal transport is part of the transport strategy of Colgate Palmolive Europe. Since 2003 P&O Ferrymaster has been the preferred partner in this activity and has developed a reliable network in intermodal capabilities.</p> <p>The two companies are working together to identify routes with reliable intermodal services and are trying to extend the use of this more environmentally friendly mode over the next 5 years.</p> <p>In 2007, Colgate Palmolive shipped more than 1700 loads, using P&O Ferrymaster intermodal.</p> <p>The route from the Anzio plant in Italy to Castleford in the UK is the best example of this collaboration.</p>	
What we did	
<p>By moving the traffic from road to intermodal Colgate is saving 518 tons of CO² per year. The calculation is based on the following assumptions:</p> <ul style="list-style-type: none"> ▪ Distance Anzio - Castleford = 1708 Km ▪ Emission Factor Rail/Road = 55% less CO² generation ▪ Total emission by truck = 1585 kg/trip ▪ Total emission by intermodal (rail + truck to/from terminal) = 835 kg/trip 	
What we achieved	
<p>Colgate Palmolive has approximately 690 loads per year from Anzio to Castleford, thus making a saving of 518 tons CO² per annum</p>	
Further Information	
<p>For information please refer to Mr Leonardo Longo at Colgate Palmolive Europe.</p>	

Title	<i>LKW Walter - Short Sea Solution for a big PET Preform producer in Spain</i>
Roadmap Focus Area	<i>Transport Mode – Modal Switch</i>
Description	Saving 1,200,000 km by switching from road to a short sea solution – modal switch
What was the issue	
<ul style="list-style-type: none"> • Lack of loading capacities in 2006 • Tight loading schedule / production plans – no deviations could be accepted • Strict loading windows, from the production lane to the truck • Just in time deliveries • Wish of the company to reduce CO² emissions • Avoid traffic jams / delays due to the traffic 	
What we did	
<p><u>Scope of the project:</u> Switch 1,000 shipments from north-eastern Spain to southern Italy (Rome) per year from road to an intermodal solution.</p> <p><u>How we did it:</u> Main goals described above (what was the issue) were discussed in an open way with the customer. Several possibilities (train / short sea) were discussed. Important factors, such as transit time, made short sea the most interesting one in this case.</p> <p><u>Companies which participated:</u> PET Preform producer, LKW Walter, two truckers (a Spanish and an Italian one) and the ferry company Grimaldi.</p> <p><u>Key Success factors:</u> 100% commitment of the general management of the companies involved, step by step implementation in three phases, correction of deviations when gaining experience (“learning by doing”).</p>	
What we achieved	
<p>We saved 1,211 km per shipment (1523 km on the road vs 312 km short sea/trucking), globally over 1,200,000 km less/year (1,000 shipments / year).</p> <p>We clearly made progress in all the areas of the sustainable transport road map, with “Modal Switch” obviously the most successful area, moving from level 3 to level 4. Route Planning progressed from level 2 to level 4 as well. Organisation evolved from level 3 to level 4.</p>	
Further Information	
<p>This project is part of a global one our company is driving</p> <ul style="list-style-type: none"> - 11 % of our business is already intermodal - Our intermodal share in the company grew by 35 % in 2007 - 2,592,772,000 ton-km with intermodal solutions 	

Title	<i>Move to Short Sea Mode and Double-Stacking pattern from Italy (Rome area) to Spain (Madrid area) for Colgate Palmolive</i>
Road Map Focus Area	<i>Transport Modes</i>
Description	Annual 850,000 km saved by switching from road to short sea solution and double stacking pallets

What was the issue

- Lack of loading capacities between Rome into Madrid areas
- Product stack ability and need to use double-deck trailers (very limited capacity and flexibility)
- Frequent blockage of transportation roads (strikes, accidents, etc.)
- Required an alternative transportation mode to improve sustainability and reduce CO² emission
- Required shorter transit time

What we did

Scope of the project :

- Reduction of 200 shipments per year from road to a short sea solution between southern Italy (Rome) and northeast Spain (Madrid)
- Review product stack ability to eliminate need of double-deck trailers
- No change in transit time

How we did it :

- We investigated alternative solutions with specialised carriers operating short sea from southern Italy (Rome) to Barcelona and then transporting by road to our distribution centre in the Madrid area.
- This option was initially a back up to double-deck until we conducted trial shipments to measure the performance both in terms of transit times reliability and load quality
- We reviewed our stack ability configuration for the product shipped and made them suitable for double stacking

Companies which participated:

- Transitalia

Key Success factors:

- Commercial interest and commitment of the general management of the carrier involved
- Carrier organisation and capability to synchronise all operations together
- Transit times reliability
- Willing to cooperate to improve the load optimisation
- Review of our stack ability factors to improve them and eliminate reason for double deck solution

What we achieved

We reduced up to 200 shipments/year and we saved 1375 km per shipment (1997 km on the road vs 623 km by short-sea and road), globally over 850,000 km less /year.

Further Information

This project is part of our company's sustainability strategy.

We have already achieved the following:

- 11 % of our business is already intermodal
- Our intermodal share in the company grew by 35 % in 2007 ton km with intermodal solutions

Title	<i>Installing Transwide at Santiga, Sara Lee's European Centre of Excellence for Household and Bodycare (H&BC) products</i>
Road Map Focus Area	<i>Information Sharing, Efficient Deliveries</i>
Description	Avoiding accumulation of trucks, and thus waiting time for carriers, at this large manufacturing site for loading/unloading
What we found	
<p>Organising trucks to load or unload at this facility, about 50-60 different carriers every year, created a lot of communication to schedule and man the docking stations. In many cases trucks either arrived 'suddenly' all at once or just late or early where either:</p> <ul style="list-style-type: none"> • the carrier had to wait for the goods to be loaded (due to unavailability of manpower or the entire load not being yet manufactured) OR • manned docking stations were idle <p>thus causing relatively low productivity for the fork lift drivers (# pallets / hour) and carriers to wait sometimes extensively</p>	
What we did	
<p>Transwide offered Sara Lee a web based tool (TwSlot) where carriers can be called-of with (by the site) and in turn they can book a slot from the schedule the manufacturing site keeps updated on the internet.</p> <p>Carriers, by phone, and site people (the planning & scheduling department) were trained by Transwide on this simple tool. Most international carriers already had received training elsewhere to serve sites that had implemented onto this tool.</p> <p>The Sara Lee site was the first location for Transwide to be implemented in Spain (2006).</p>	
What we achieved	
<ul style="list-style-type: none"> • Reduction of >75% of waiting time for carriers at loading /unloading ➔ better turnaround of trucks to enable better equipment utilisation for carriers ➔ 20% higher productivity of forklift drivers • Less miscommunication • Further roll out of Transwide to other SL manufacturing sites and national distribution centres based on this success story • Real-time insight for European Demand Planning whether loads have been picked up (and delivered at Twslot joined DC's) • Co-developed KPI sets for web enabled use of carrier performance 	
Further Information	
<p>www.transwide.com</p>	

Title	<i>Measuring the savings of CO2 emissions, litres of fuel and vehicle kilometres within the French FMCG sector</i>
Roadmap Focus Area	<i>Measurement</i>
Description	<p>Approach that enables French manufacturers and retailers to:-</p> <ul style="list-style-type: none"> • find partners in order to reduce the impact of road transport on the environment • evaluate and choose the best solution • communicate to citizens and government bodies the savings realised in terms of CO², litres of gasoline and vehicle kilometres
What was the issue	
<p>Although the ECR best practices have been available for 3 years to optimise road transport and truck fulfilment, the French manufacturers and retailers met difficulties in identifying partners to implement multipick, multidrops and multiplayer CMI, and to assess the benefits of these best practices on the environment.</p> <p>ECR France’s manufacturers and retailers have positively reacted to environmental pressure and researched solutions to optimise the supplying of consumers. Given that FMCG transport flows represent 20 to 25% of goods freight, this proactive action has positively influenced the government “Grenelle de l’environnement” and European forums.</p>	
What we did	
<p>ECR France with the collaboration of the companies that are members of the working group “transport optimisation and sustainable development” including AUCHAN, BARILLA, BEIERSDORF, CADBURY, CARREFOUR, COGESAL MIKO, COLGATE PALMOLIVE, CORA, FLEURY MICHON, FM Logistic, FROMAGERIES BEL, GEFCO, GEMEY MAYBELLINE GARNIER, GEORGIA PACIFIC, HENKEL, KELLOGG'S, KRAFT FOODS France, KUEHNE & NAGEL, LACTALIS, LESIEUR, LU France, MASTERFOODS, MERALLIANCE, METRO, ND LOGISTICS, NESTLE France, PANZANI, PERNOD, RECKITT BENCKISER, SARA LEE C&T, SCA HYGIENE PRODUCT, SOPARIND BONGRAIN, SYSTEME U, TFE, UNILEVER have developed a new webpage which provides manufacturers and retailers the opportunity to:</p> <ul style="list-style-type: none"> • Identify partners to optimise transport with, as a result of the ECR transport mapping (310 manufacturers and retailers DC & 54 companies listed) • Assess and choose the better solutions thanks to ecosimulators • Promote the actions put in place with the Green Dashboard of the FMCG industry 	
What we achieved	

The commitment of manufacturers and retailers of the French FMCG industry in sustainable development is monitored in the Green Dashboard. Since the 1st January 2007 the savings in CO₂, vehicle km and litres of gasoline have been realised by the implementation of transport optimisation best practices.

The following savings have been made:



Organisations that have contributed to these savings:

AUCHAN, CADBURY, CARREFOUR SPC, CARREFOUR HM, CASINO, CORA, MATCH, SARA LEE, SYSTEME U

Further Information

Please visit the website www.ecr-france.org section "optimisation du transport et développement durable" or contact Géraldine FOUQUE or Olivier LABASSE at ECR France ecr.france@wanadoo.fr for further information