On track!

Retailers using rail freight to make cost and carbon savings
The twin challenges of reducing the environmental impact of transport while delivering the nation's essential goods and services has been embraced by the retail sector through a wide range of initiatives and investments. Widely considered leaders in logistics innovation and supply chain management, the retail sector has recently embarked on a major expansion of its use of rail to capture the efficiency and environmental benefits it offers.

This study arose from a meeting jointly convened by the Department for Transport (DfT) and the Freight Transport Association (FTA) in 2011 to explore the possibilities for increasing rail freight traffic from UK retailers. It was agreed we would document what was already being achieved.

In the course of compiling the study, a number of opportunities and challenges for increasing rail traffic still further have been identified. These will be developed with our partners in the rail freight industry to turn the undoubted desire to transfer even more traffic to rail into a reality.

Both DfT and FTA will continue to encourage resolution of these issues. We recognise the leadership role played by retail logistics in transport and the example they set for UK business, illustrating that rail freight can be a viable and reliable solution for even the most demanding of customers.

We look forward to keeping this process …

On track!

Mike Penning MP
Under Secretary of State for Transport

Stewart Oades
President, Freight Transport Association
Recent successes in retailers’ use of rail freight demonstrate its viability for logistics and environmental savings

On track presents the progress and aspirations of eight retailers in their use of rail freight services to move their products around the country as part of their national distribution operations.

The study shows that a significant and growing volume of goods sold in high street stores and supermarkets are being regularly moved by rail and retailers are reaping major efficiency and environmental benefits by doing so.

The major UK retailers are by repute some of the most demanding logistics customers in the world, insisting on high levels of punctuality and reliability, infallible service and, of course, a keen price from all their logistics providers.

On track’s interviews with the business managers responsible for managing these flows explain retailers’ motivations and commercial objectives for using rail, and their first-hand experiences of working with logistics providers, train operating companies and Network Rail.

The interviews also reveal a clear wish for retailers to move more by rail in the future. The challenges and issues identified by each company together create a customer’s agenda for the future direction of rail freight that FTA will use to influence policy development and investment priorities with government and the industry in the coming months through its Rail Freight Council.

On track charts the rail services that are being used as of autumn 2011. The messages are clear: rail freight can cut it even in the most demanding of logistics environments; service levels provided by train operators consistently achieve those expected of other transport modes; and the potential exists for further services in the future if certain conditions can be met.

In the meantime, spare capacity frequently exists on services that could readily be used by ‘spot’ buyers wanting to gain experience of rail freight’s capabilities and environmental benefits. For those inspired by the progress being made in the retail sector and wanting to know more, the new Mode Shift Centre described on the final page of On track is the place to start.

James Hookham
MD FTA
Tesco has transferred the most freight from road to rail of any retailer as part of its UK sustainability plan. Its rail activity includes primary movements, bringing product into its central distribution centres (DCs), and secondary movements which takes product out to regional DCs. Primary legs bring slow-moving groceries from Tilbury to Daventry and from Widnes to Thurrock.

Working with Stobart Rail, Tesco has recently reintroduced a service bringing fresh produce from Valencia into the UK.

Tesco is expanding its secondary rail movements. A new train started in October 2011 running from Daventry to Thurrock, with projected savings of 3,600 tonnes of CO2 a year. It carries 34 containers, six days a week.

This will be followed by a train from Daventry to Magor in Wales. In Q1 2012, two further trains, Mossend to Widnes and Daventry to Teesport, will be introduced. The new trains will take 18.7m miles off the road and cut CO2 emissions by 16,000 tonnes.

These join the established Daventry to Mossend route which carries 32 loads each way, six days a week; and the Mossend to Inverness trains which take 20 loads each way, six days a week.

Joe Carthy, Tesco’s distribution group environmental manager, says: “The challenge for us is finding sufficient volume from suppliers in the correct region to back fill trains to Daventry.” Tesco manages to save money as well as emissions on its rail freight.

“Rail freight is part of our ongoing commitment to be a zero carbon business by 2050. It is the most sustainable way of transporting goods across the country.”

Nigel Jones
Tesco UK Logistics Director

What we’ve achieved.*
● 110,000 HGV journeys a year saved
● 41 million road miles saved
● 39,000 tonnes CO2 saved

* on Tesco’s existing and planned secondary rail services

To do more we need:
● Faster processing for new rail paths
● More frequent services to encourage other retailers
● The potential to expand train capacity as needed
Morrisons moves store-picked pallets of general merchandise and groceries from Northampton to Bellshill through rail logistics service provider The Russell Group. This would normally require 10 HGVs on a 700-mile round-trip. Morrisons procures rail movements one way, representing a substantial saving in cost, fossil fuels and CO₂.

In addition, inbound stock pallets and loads, which can vary greatly in volume, are made up of ambient, non-food goods brought in from suppliers all over the world to southern ports, and also merged into consolidated loads at Morrisons’ Northampton depot.

Morrisons continues to explore options for expanding its multimodal logistics. It has trialled running a rail service from Trafford Park to Glasgow; and from Coatbridge directly into an Inverness store. However, it believes the rail freight industry needs to offer greater flexibility. The 10-hour night-time journey to Glasgow costs Morrisons 24 hours’ lead time on products, as opposed to a six-hour road journey with no fixed timetable. This could be avoided by the availability of an early-morning train departure from Manchester.

“We need train services that can cut across passenger timetables,” says Ross Eggleton, head of national transport for Morrisons. Morrisons continues to explore the possibilities of collaborative working with commercial partners who could share capacity. “We are also offering capacity on return legs to our Scottish suppliers,” says Eggleton.

Environmental benefits and cost savings go hand in hand. If we had the right opportunity, we would move more product off road and on to rail without hesitation,”

Ross Eggleton
Head of National Transport
Morrisons plc

What we’ve achieved:
- 1,560 HGV journeys a year saved
- 72,000 road miles saved
- 58 tonnes of CO₂ saved

To do more we need:
- Train availability every eight hours, not every 12, to fit product lead times and store requirements more closely
- Temperature controlled containers which support product lead times
- New developments: more lines, more railheads
- Trains out of port which can carry destuffed and reloaded containers
Waitrose was looking for a way to cut its costs and CO2 emissions on long-haul trips from its most northern distribution centre in Leicestershire to Scottish stores when approached by multimodal logistics firm WH Malcolm. It has minimised both costs and its carbon footprint by taking space in a WH Malcolm train, which also carries John Lewis product (at certain times of the year), running 300 miles up the west coast from Daventry and into Edinburgh. WH Malcolm provides an end-to-end service, with initial and final-mile journeys by road.

“Train journeys require volume so we can achieve sufficient ambient volume by a multi-drop delivery to two Edinburgh stores at Morningside and Comely Bank,” says Julie Thornhill, manager, distribution operational strategy. “Our HGVs are compartmentalised for frozen and chilled as well as ambient, which allows us to consolidate loads. If a cost-effective, compartmentalised, temperature-controlled rail wagon was designed, we would certainly use it.”

Product is picked in the morning for 3pm collection from its Bardon depot and then trunked overnight by train for delivery into Edinburgh in the early morning. “That fits with the standard schedule we use on road,” says Thornhill.

Waitrose says the Scottish run is cost-neutral because it recovers its de-kit – cages, bread dollies etc – by road. However, use of rail still saves 0.4 tonnes of CO2 per trip. Thornhill, a member of the IGD Sustainable Logistics Group, is currently contributing to the Cornwall and Plymouth feasibility study into supermarket rail freight traffic.

> I can see the environmental benefits of rail and intuitively I want to do more. But what’s offered by the rail freight industry needs to fit our business requirements better

Julie Thornhill
Manager, Distribution Operational Strategy, Waitrose

What we’ve achieved:
- 260 HGV journeys a year saved
- 156,000 road miles saved
- 0.15% of total Waitrose transport CO2 a year saved

To do more we need:
- Rail freight needs to fit more closely to the business requirements and schedules of retail
- Multi-temperature train wagons. Frozen food, in particular, can be shipped in bulk and with long lead times
Marks & Spencer’s commitment to rail freight stems from Plan A, its ambitious environmental strategy. It has committed to make its logistics carbon neutral by 2012. M&S asked logistics suppliers DHL Supply Chain to produce innovative solutions to improve the efficiency of its product movements. All M&S stores receive daily food deliveries, and its garments also need to be delivered on hangers and in store-ready condition.

DHL switched 25 HGV loads to rail from the Midlands to Scotland each week. Sales information comes directly into the DCs from store, rail capacity is booked and products are shipped to the nearest RDC within 24 hours.

John Forester, DHL operations director for the M&S account, says rail clients need to negotiate hard on cost. “It takes perseverance to find a company with the right availability for the price to be favourable,” he says. “WH Malcolm had product coming out of Scotland already so it was a win-win.”

Hanging garments, which require specialist equipment for transport by road, had never been transported by rail before. DHL had to turn a standard rail container into a racked wardrobe within minutes, with kit which could be easily disassembled and removed at the other end. “We spent time and money developing a fast, cost-effective solution – and we’ve now patented it,” says Forester. “We’ve since won many awards for this innovation.”

The rail freight venture has paid off within one year. DHL and M&S are investigating other rail routes to and from the south-east of England. M&S is also building a national distribution centre (NDC) at Castle Donnington with its own railhead.

“Rail distribution saves time, costs less and, crucially, as we move towards our ambitious Plan A commitments, cuts carbon emissions from our transport operations.”

Richard Kirk
Head of GM Logistics
Marks & Spencer

What we’ve achieved:
● 1,200 HGV loads a year saved
● 655,000 road miles a year saved
● 800 tonnes of CO₂ saved

To do more we need:
● More flexible timetables for train departures
● More government grants or support to make rail cheaper or cost-neutral to road
● More rail freight terminals
What we've achieved:
- 4,200 HGV journeys a year saved
- 1.6 million road miles saved
- 1,500 tonnes of CO₂ saved

To do more we need:
- More freight terminals and more routes
- The ability to pool multi-retailer and manufacturer volumes via a forum led by a trade association or neutral party
- Increased visibility of true cost base of rail movements
- Clear and consistently applied measure of the environmental benefit vs road

Sainsbury’s

Sainsbury’s use of rail is unusual in that it focuses on bringing northern product south, the opposite of most major retail flows. It first identified a potential environmental benefit to running loads of Scottish water by rail to the Midlands and southern distribution centres in 2004. This initial rail freight contract saved 3,000 road journeys a year.

The company has since expanded its rail freight commitment to give a more responsive service to the needs of customers. In 2007, when Gloucestershire flooded, Sainsbury’s supplied significant amounts of bottled water for stricken residents. The supply chain was distinctly strained by demand, however, as the source of the water was 300 miles away.

During 2009/10 Sainsbury’s decided to move its primary stockholding of Scottish water from Glasgow to Northampton to enable swifter response to customer demand.

“We do save money, slightly, by using rail to bring the water south, as we can use a multi-user service on a one-way basis. Cost is only one element though,” says Simon Polmear, strategic transport development manager. “Rail gives distinct environmental benefits and, in this case, it allows us to offer a better service.”

Short distances between depots and store are challenging for rail. However, Polmear says: “Our use of rail is constantly under review and we are always looking for opportunities to collaborate.”

“Rail clearly delivers significant environmental benefits and it has the potential to offer cost savings. We aim to exploit it as much as possible.”

Simon Polmear
Strategic Transport Development Manager
Sainsbury’s
Asda sends product from Daventry to Scotland by rail. It ships up to 20 containers on a train run by logistics provider WH Malcolm, seven days a week. The groceries are unloaded at Grangemouth and 10 loads a day are then sent onto stores in Aberdeen.

Asda has a strong environmental track record in logistics, but also keeps a careful eye on comparative spend. “The main Daventry to Scotland service is cost effective, and the Aberdeen run is cost-neutral,” says Chris Hall, national transport manager.

Some of its other long trunks, such as Teesport to Dartford, may become viable in time. “If we maximised our long distance trucking legs on rail, it would still account for only 5% of our total distribution miles,” says Hall. “We aim for the most efficient solution across all our logistics, and that could still be an important contribution.”

Ambient deliveries are time-sensitive, so trains need to arrive in the morning. “We can generally fill over 50% of a train, so we rely on the 3PLs and rail freight companies to generate the rest of the rail freight activity. The service is generally very good. We have had very few service issues in the last few years,” he says.

Asda’s in-bound logistics also make considerable use of rail. Goods are picked up off short sea services and delivered to RDCs. This includes 520 containers a year from Felixstowe to Birmingham and Manchester; 1,560 containers from Southampton to Cleveland; and 520 from Southampton to Birmingham and Manchester.

Any journey over 350 miles, if you have depots close to the railhead at either end, can stack up financially for rail

Chris Hall
National Transport Manager
Asda

What we’ve achieved:
● 10,300 HGV movements a year saved
● 5.54m road miles a year saved
● 5,300 tonnes of CO2 a year saved

To do more we need:
● More effort to bring potential rail users together to generate loads
● More timely and versatile services
● Reduced cost of rail services to make it more competitive against road
The Co-operative

The Co-operative Group is looking to expand its rail freight network and reduce the number of HGV loads on the road after completing a successful pilot.

It has completed a trial daily rail service, which launched in January 2010 and carried produce between Daventry, close to The Co-operative’s national distribution centre at Coventry, and a rail freight terminal at Mossend, near its depot at Cumbernauld, in Scotland.

The trial, operated by freight carrier WH Malcolm, moved ten containers and around 500 roll cages of ambient grocery stock between the two sites every week. During this time more than 35,000 cages travelled north by rail, with empties and primary goods going south. Following the successful trial The Co-operative Group is now reviewing opportunities to use rail freight at its regional distribution centre in Andover, which launched in June, and also its planned new depots in Avonmouth and North Midlands, which are scheduled to open in 2012.

Mark Leonard, regional head of logistics for The Co-operative Food Supply Chain Logistics, says: “The rail freight trial has created a blueprint that we are looking to potentially adopt at some of our other distribution depots. It has ensured efficient deliveries to Scotland, while at the same time significantly reducing our carbon footprint.”

It is estimated that the switch from road to rail on the Daventry to Newhouse route could save as many as eight HGVs making return journeys each day, saving more than 1.3 million road miles each year.

What we’ve achieved:
- 520 HGV journeys a year saved
- 335,000 road miles a year saved
- 318 tonnes of CO2 a year saved

To do more we need:
- Greater availability of weekend services, particularly Saturday evening
B&Q’s imported product presently has three points of entry to the UK: Felixstowe, Southampton and Thamesport. These loads, composed of varied items from power tools to leisure furniture, are destined initially for regional consolidation centres in Swindon, Worksop and Doncaster.

There are rail links from all three ports of entry and, despite the slightly higher cost of rail to road, B&Q puts 30% of these containers on the train, totalling approximately 100 containers a week. It is looking to increase this level purely for environmental reasons. Its rail services are organised by Maersk Line. B&Q runs a road fleet comprising 246 tractor units, 653 curtainsided trailers and 161 refrigerated units and so, like most retailers, its rail movements are a very small proportion of the whole. However, it is committed to looking for opportunities to use rail wherever possible.

“There are challenges to overcome in expanding our use of rail but our overarching theme is to reduce our CO₂ output,” says Michelle Thomas, logistics services manager.

“So far the service levels on rail are good. We haven’t been let down yet”

Michelle Thomas
Logistics Services Manager
B&Q

What we’ve achieved:
- 10,000 HGV journeys a year saved
- 3,000,000 road miles saved
- 4,237 tonnes of CO₂ saved

To do more we need:
- The challenge is for rail to be viable on outward bound legs between DCs and stores, where lead times are very short.
The case studies reported in this survey show that rail freight can play an effective and reliable role in supply chain operations in the most demanding of environments. The Mode Shift Centre, managed by FTA, provides a one-stop-shop for businesses looking to emulate these achievements and evaluate the opportunities and benefits that rail freight could provide for them.

Intermodal rail freight services are managed and provided through a series of commercial relationships between logistics providers, freight train operators and Network Rail. The Department for Transport continues to support some flows through capital and revenue grant funding, with separate provision made by the Scottish government.

The occasional complexity of these arrangements should not deter serious efforts to exploit the commercial and environmental benefits that rail freight offers.

The Mode Shift Centre demystifies rail freight for potential users and supplies reliable and accurate information for logistics managers wanting to answer the question: ‘What can rail freight do for us?’ Staffed by experts with a wide network of industry and government contacts and information sources, the Mode Shift Centre can equip prospective users with a working knowledge of current rail freight flows and spare capacity, identify terminal locations and capabilities, service and equipment providers, and potential contractors and operators.

The Mode Shift Centre can also advise on the use of short-sea and coastal shipping services and inland waterway transport in conjunction with Freight by Water, the UK’s representative body for waterborne transport, also managed by FTA.

To contact the Mode Shift Centre email: enquiries@modeshiftcentre.org.uk or visit the website: www.modeshiftcentre.org.uk