

DISTRIBUTION SYSTEMS IN THE RETAIL SECTOR

The nature of the retail sector, based on trade and distribution, makes it dependent on transport. Retailers source their products and raw materials both locally and globally. Sometimes goods travel thousands of kilometres, sometimes just a few, to reach the shops. Fresh food and other similar goods need quick and smooth transport systems; non-perishable items can be transported over a longer time, but they still need an efficient and reliable supply chain.

The size and the geographical spread of retailers' business require the use of different means of transport in various regions of the world. At the same time, sustainable and efficient transport has become a major focus in the retail and fast moving consumer goods industry in recent years. The increasing momentum around climate change, resource scarcity, sustainability and pollution, as well as on more specific issues related to transport such as congestion and increasing prices, brings to light critical challenges that the retail sector will face in the coming years.

Retailers cooperate and discuss solutions with their suppliers and service providers in order to enhance transport efficiency and to reduce the impact of their transport operations on the environment. Despite these efforts, sometimes it is difficult to combine cost-efficient solutions and environmentally sound ones. For example, current practices intended to reduce the supply chain costs and ensure availability at all times (i.e. low inventory, smaller and more frequent deliveries, cross-docking, different pallet heights) have an impact on truck fill, on the number of journeys and, ultimately, on emissions.

However, inefficiency is often caused by elements beyond the control of the retail sector: external burdens linked to insufficient infrastructure, lack of coordination amongst Member States and the need for technological development. Retailers increasingly invest in technologies and initiatives aimed at a more efficient supply chain given the external circumstances. For companies, the greening of logistics not only has an environmental dimension, but is also a question of efficiency. Indeed, logistics are estimated to account for 10-15% of the final cost of finished products and businesses are increasingly seeking to cut costs, for instance, by reducing fuel consumption and time spent in transit.

Intermodality

To respond to the challenges they are facing, both in terms of environmental and economical aspects, retailers are engaging in a number of solutions such as intermodal transport, which is the combined use of road, rail, waterways and air. In its attempt to satisfy retailers' priority of trying to better meet customers' needs, intermodal transport ideally makes the distribution chain more effective, utilising at best what each mode can offer in terms of performance.

However, the full deployment of intermodal transport is hindered by difficulties linked to a lack of harmonisation within different countries and different operators. Whether intermodal transport is used or not can also depend on whether the operations are managed by the retailer or by a contractor. In the latter case, it becomes more difficult for the retailers to control the logistics operations.

Although retailers are trying to increasingly use intermodal transport, distribution operations are often managed mainly via one transport mode. The majority of freight transport is carried out by road as this is the most flexible mode. In many regions there is simply a lack of railways and especially waterways.

Road

Road transport is the most used transport mode (including the distribution chain) and also the mode that emits most greenhouse gases. Transport by road ensures easy access to cities and flexibility to delivery schedules. The "last mile" in city centres needs to be carried out by road.

However there is scope for improvement in the use of road transport for the retail sector. Lorries also contribute to road congestion and greenhouse gas emissions with around a quarter of total emissions from

road transport. Vans represent a further 8% of road transport CO₂ emissions. Retailers have set up and are increasing the number of measures to reduce the impact of their lorries on the environment through technological improvements (i.e. aerodynamic and clean vehicles, efficient load fill...) and logistics strategies (i.e. pooling, backhauling...). Concerning the transport of perishable goods, innovative refrigerating systems (i.e. natural refrigerants) also effectively contribute to the reduction of GHG emissions.

Rail

Rail transport has shown itself to be energy efficient and environmentally-friendly compared to other ways of transport. In 2006, in EU-27, rail represented 10% of goods transport but has grown on average only 1.15% per year since 1995¹.

Rail has the potential to be an attractive means of freight transport. Several retailers use rail transport for non-perishable goods like furniture and textiles and for standard trips (e.g. between ports and warehouses). However, the current de facto monopolies of most railway operators combined with the lack of efficient rail infrastructure for freight and reliable interoperability across Europe make it difficult for the commerce sector to use rail on a regular basis. Furthermore, in certain countries and on certain stretches, the cost of rail transport has increased. The lack of high quality terminals ensuring a cost effective shift between the modes is also an important element.

Waterways and short sea shipping

Europe has over 39,000 kilometres of canals and rivers which link together hundreds of key towns and areas of industrial concentration. Despite this dense network, there remains a massive amount of unexploited capacity on the waterways. Freight transport by inland waterways accounts for only 7% of total inland transport in the EU. However, in some regions, such as the Benelux, northern France and the Ruhr area, inland waterway transport can reach 43%.

Inland waterway transport is commonly used as a carrier for bulk commodities over long distances. Inland waterways transport has many advantages for non-food products such as textiles (e.g. navigation can often take place 24/7, low number of accidents, and low fuel consumption per ton-kilometre and low CO₂ emissions). Inland waterway container ships can take from 200 to 470 containers on board.

The main issue for the retail sector is that the competitiveness of inland waterways strongly depends on the costs of transshipment in addition to pre-haulage and post-haulage, which often account for more than 50% of all transport costs in the transport supply chain. Furthermore, waterways are only useable where a system of levelling exists.

Today, using ports as distribution hubs is still attractive for retailers because in most of the cases their locations are close to cities, which facilitates a rapid distribution to stores. The current trend of moving ports outside cities may make the use of water transport less appealing in terms of time/cost efficiency.

Due to the impact of climate change, the accessibility of some waterways is limited during some seasons. Drought and overflows represent barriers to the regular use of waterways.

Air

Air transport is not widely used in the retail sector. However, some conditions make its use necessary or environmentally advantageous. In fact, sometimes late deliveries can only be redressed with air transport, which shortens the time of distribution compared to other modes of transport (i.e. sea). In most cases, air transport is not cost efficient and its impact on the environment is higher than for other modes of transport. However, for some perishable goods, such as the importation of tropical fruits use of air freight is necessary. In addition if one considers the entire life cycle of some products, sometimes transport by air freight has a lower impact on the environment than the alternative (i.e. the importation of flowers from Africa by air freight has a lower impact on CO₂ emissions than the production of flowers in heated greenhouses).

THE LEGAL FRAMEWORK

Europe

The European Commission acknowledges that the increase of the volumes in freight transport, the globalisation of the trade of goods and the increasing demand from growing populations could entail related increases in the environmental impact of transport, costs linked to congestion, labour shortages and to the dependency on fossil fuels unless appropriate policy responses are taken. Increased traffic leads to infrastructure constraints for all modes, and – as demonstrated above – often alternatives to road do not exist today. The challenge for the retail sector is therefore to make logistics more energy and cost efficient while reducing freight transport's environmental impact.

The mid-term review of the 2001 White Paper 'European transport policy for 2010: time to decide'² stresses the key role of freight transport logistics in ensuring sustainable and competitive mobility in Europe. It is one of the drivers of European competitiveness and thus a prime contributor to the renewed Lisbon agenda on growth and jobs, especially important as businesses emerge from the current recession.

The European Commission's Marco Polo II funding programme has a budget of €450 million for the period 2007-2013 for intermodal transport projects which support a shift away from road freight transport³.

In 2007, the European Commission adopted a Freight Transport Logistics Action Plan, as part of a package of measures including proposals concerning logistics, a rail network giving priority to freight and European ports, as well as two documents on the barrier-free European maritime transport area and the motorways of the sea. The Action Plan suggests a range of actions in priority areas such as electronic information on freight, training and quality indicators, simplification of processes, vehicle sizes and loading units, urban transport and long-distance corridors. The European Commission will present a Communication to the Council and Parliament late 2010 on the Action Plan's progress and this will take full account of any transport CO₂ limitations emanating from the COP15 in Copenhagen, in December 2009.

In parallel to these initiatives, the European Commission launched a call to industry and interested parties for the identification of obstacles to the efficient provision of logistics services, the so-called 'bottleneck exercise' which became an on-going process, and reported bottlenecks are being addressed in a collaborative effort with industry. However, because of the diversity of issues discussed, few common solutions to the bottlenecks have been found.

Other legislation tries to improve the efficiency of distribution practices such as the use of intermodal transport (i.e. Directive 92/106/EC), or the efficient use of the available capacity in Directive 96/53/EC which enables the use of the European Modular System⁴ in Sweden and Finland, while allowing for trials in other Member States.

In this context, the concept of co-modality requires a search for optimal efficiency in all transport modes and it was for this reason that the Logistics Action Plan, which identifies a range of activities to improve the performance of the logistics industry while stimulating an evolution towards co-modality and greener operations, includes a review of the legislation governing heavy commercial vehicles as established within Directive 96/53/EC.

With the revision of the Eurovignette Directive, the European Commission aims to use pricing to incite an effective use of capacity and to promote sustainable transport. Calculations by the retail sector indicate that the proposed charge would not automatically improve the environmental performance but would rather increase transport costs⁵. On the other hand, some experiences, especially in transit countries in central Europe, have shown that congestion charging can contribute to emission reduction, renewal of the fleet with cleaner vehicles and improvements in road freight efficiency.

The Renewable Energy Directive and Fuel Quality Directive were formally adopted in 2009 and represents a step forward towards a consistent promotion of fuels to reduce GHG emissions for the transport sector. Improving the efficiency of vehicles and reducing the GHG intensity of fuels used are a solid part of the plans of the European Union towards the 2020 commitment and retailers, sometimes anticipating legislation, are positively responding to the stimulus⁶ increasing their use of alternative traction methods in the distribution operations.

The European Commission is also considering what action is desirable to reduce GHG emissions from Heavy Duty Vehicles as well as an appropriate framework for reducing GHG emissions from Maritime transport.

Local

As most retail activities, in particular for smaller businesses, take place in city centres, it is of vital importance that decision makers ensure focus on solutions to make "last mile" delivery more efficient. Alternatives to "last mile" road transport must be available in order to make the switch to other transport modes and to promote

² http://ec.europa.eu/transport/strategies/doc/2001_white_paper/lb_com_2001_0370_en.pdf

³ For information on the Marco Polo programme see: http://ec.europa.eu/transport/marcopolo/home/home_en.htm and http://europa.eu/legislation_summaries/environment/tackling_climate_change/l24465_en.htm

⁴ http://www.modularsystem.eu/en/european_modular_system.htm

⁵ See EuroCommerce position paper on the Eurovignette proposal:

<http://www.eurocommerce.be/doc.aspx?doc=Environment/finalEuroCommercePositionPaperRevisionEurovignetteDirective.doc>

⁶ See ERRT Declaration on Energy: <http://www.ertt.org/uploads/MediaRoom/documents/080310%20Energy%20Declaration.doc>

⁷ http://www.piek.org/engels/home_eng.htm

⁸ See E-business w@tch report 'ICT and e-business impact in the Transport and Logistics Services Industry, no. 05/2008.

co-modality in the supply chain.

However, the “last mile” remains the prerogative of road transport and, considering its local dimension, transport operators need to respect local legislation regulating access to cities. Any sort of harmonisation on the regulation of this segment seems hard to reach. However, there are good practices that are worth mentioning such as the PIEK project⁷ in the Netherlands, which allows night time delivery under the respect of peak noise levels. In fact, more flexibility in time delivery can be one of the solutions to traffic congestion and for effective “last mile” operations.

The last segment of the distribution chain, the delivery to customers, can sometimes be intensive in terms of energy use and GHG emissions. This depends directly on the format of the retail premises (i.e. usually customers reach hypermarkets by car, with a significant impact on the environment considering the high number of people who reach those shops everyday). However, the question of provision of low-emissions transport for customers to reach retail locations will be addressed at the Retail Forum meeting in October 2011: ‘Transport mix and company mobility’.

OPPORTUNITIES AND BARRIERS

Opportunities

Meeting customers’ needs today means that retailers have to offer a full range of products every day acting responsibly and efficiently. Optimised logistic processes can contribute to accomplish all these tasks and therefore can bring to competitive advantages. There are some initiatives that both big and small retailers undertake, but significant improvements very often need cooperation along the supply chain, with producers, service providers and sometimes competitors.

The move towards efficiency in distribution systems can be translated in a push towards innovation for companies from which the entire retail sector and all stakeholders implicated in the supply chain can benefit. The use of information and communication technologies (ICT) increases efficiency of logistics operations and reduces its environmental impact⁸. ICTs’ enabling solutions are ‘already out there’, but their potential is not yet fully exploited.

Green technology will also bring benefits to retailers and to the whole supply chain. An example of efficient applications of new technologies is represented by electric vehicles. With the trend moving towards tougher legislation on noise pollution and CO₂ emissions, operators need to find alternative solutions. The low noise level associated with electric vehicle technology enables night-time deliveries in urban areas, which in turn translates to reduced congestion during the day, lower CO₂ emissions (depending on how the electricity is generated) and less costs for retailers / consumers.

Barriers

Congestion - Congestion is the main concern for road transport operators and can exacerbate other related problems such as environmental/noise pollution and costs that the distribution chain seeks to address. Major solutions are pricing measures, attractive transport networks, measures aiming at traffic fluidity (i.e. traffic lights to be coordinated in “green waves”), and intelligent guidance systems. Actions should be taken to ensure that consistent measures are taken by focusing on the complete picture and not only on single problems.

In addition to congestion, the ‘last mile’ segment of the distribution systems implies other problems such as the authorisation to access urban areas. Often operators need special authorizations from local governments and need to show their compliance with local environmental standards.

Rail transport - Rail transport allows goods to travel long distances avoiding problems such as road congestion. However, in contrast with road transport, in which vehicles are more autonomous, a set of factors apply when trains enter into foreign territory, such as different gauges and standards. These elements make cross-border rail operations very complex, time consuming and costly. For example, a rail company needs at least 12 different permissions, issued by different authorities, before operating across borders between Sweden and Germany. The trends in the use of rail transport show that it cannot become a main means of transport unless structural improvements are applied to the whole network.

Rail transport has great potential, but in practice, it is only a viable alternative for a few companies. It is also clear that political priority is given to passenger rail transport rather than freight. The needs of freight transport users are not being considered on an equal footing.

Lower CO₂ intensity fuels - the EU is looking with growing interest at other clean alternatives to fossil fuels and included new targets for their use up to 2020. Biofuels, LPG, electricity represent valid alternatives to

traditional fuels but their commercial availability and infrastructure still need important improvements. Furthermore, the legislative framework is not yet homogeneous across different Member States and investments in new technology/fuels are hampered by uncertainty in what is considered more sustainable transport. Analyses are complex and the debate can quickly change, together with the investors' confidence in the renewable market.

Customs clearance - Burdens for an efficient distribution chain are not only linked to infrastructures and technology, but they are also bureaucratic. For instance, the distribution of imports from outside the EU would be eased via a single authorization. This would allow that a container could be sent from the receiving harbour in Europe directly into a distribution centre (DC) serving the respective retail country where the merchandise is already allocated for the suppliers. The container would only have to be opened and unloaded in the DC whilst customs clearance process is centrally arranged without implementing or engaging an additional import department in the final receiving retail country. A single authorisation would help achieve CO₂ savings because of a significant reduction of emissions due to saved transport mileage.

Product information - National label requirements and extra product descriptions or need to translate all information into national language trigger additional handling and logistical efforts regarding the separation and specific treatment of merchandise for different EU countries. Merchandise has to be logistically separated and re-labelled to continue to final destination. It would be helpful if national requirements would be minimized as far as absolutely necessary in areas which are not key to customer safety or customer product information.

CONCLUSIONS

Key challenges

- **Combine environmental targets with practical objectives.**
- **Respond to consumer needs in the most cost-effective and environmentally friendly way.**
- **Harmonise local infrastructure and logistics standards (i.e. rail and loading units).**
- **Maximise the contribution from all of stakeholders involved in the distribution chain, always in the respect of competition and of Internal Market rules.**

What can retailers do now?

The commerce sector strives to use the cleanest vehicles, modern computer scheduling and route planning systems. This maximises vehicle 'fill' whilst minimising the total mileage travelled and the number of vehicles and journeys required. The route planning systems use the motorway and trunk road networks wherever possible thus encouraging greater fuel efficiency and reducing disturbance in residential areas. Similarly, global positioning systems enable vehicle movements to be tracked and routes to be effectively managed, saving fuel and reducing congestion while maintaining flexibility. Some retailers also implement logistics traceability computer tools that trace products from the supplier to the warehouse and from the warehouse to the store.

The commerce sector also cooperates with suppliers to use the same vehicles for transport upstream and downstream. Retailers are also investing resources in a number of initiatives aimed at reducing the impact of the distribution chain on the environment, such as:

- reducing empty miles, distance travelled and the frequency of deliveries, by organising the orders (adapting the frequency of pick-ups at suppliers to the stores' actual needs)
- optimising truck occupancy rate in transport trips
- improving packaging solutions - packing flat and filling space
- backhauling and pooling
- procuring aerodynamic and better performing trucks for their fleet

What can retailers do in the future?

- Retailers can continue to work together with all stakeholders involved in the distribution chain for technology development and efficiency in their operations as they already have in the ECR Sustainable Transport project. A better collaboration between retailers and manufacturers would allow proactive load planning and optimisation of vehicle fill.
- Vehicle development is also an important element for an effective distribution system. This includes the research of opportunities to use flexible capacity vehicles and clean energy sources for transport. Concerning road freight for instance, the cooperation with logistics contractors as well as vehicle producers is important in order to put on the roads more environment friendly trucks.
- A holistic view of the supply chain needs to be taken, with a focus on combining system efficiency and sustainability.

What can policy-makers do in the future?

- *Harmonisation*: Ensure a holistic approach which recognises the need to combine efficiency and sustainability.
- *Intermodality*: promotion of the co-operation between modes of transport, in particular between rail and roads as well as the recognition of the need of all modes of transport. Investigate the possible use of fiscal incentives for investment in equipment and facilities in connection with terminals and other loading points for combined transport.
- *Rail*: Ensure effective liberalisation of railways in Europe; strive for cost-efficient, reliable, and quality rail freight service.
- *Clean energies*: Promote the development of lower GHG fuels.
- *Vehicle standards*: Further action to reduce environmental impacts of vehicle operations, including vehicle aerodynamics
- *PPP*: Promote public-private partnerships to improve and find creative solutions for urban transport policies, involving all stakeholders and avoiding unnecessary restrictive rules concerning the last mile.
- *Information*: a better knowledge of transport chains, loads, weights etc is needed. The EU needs better statistics to better choose the right instruments. Local authorities should – together with the relevant associations - promote the transfer of knowledge and good practices to SMEs.
- *Green Public Procurement*: Promote more fuel efficient vehicles for own lorries/trucks and public transport services.

What can others do?

- Vehicle producers should seek different and innovative technologies that reduce noise and emissions and improve the energy efficiency of trucks.
- Railway providers should cooperate to overcome the barriers to transborder rail transport and should involve their users (i.e. manufacturers and retailers) in this process.
- The interaction with suppliers and transport service providers would certainly enhance the effectiveness of distribution systems. Fora and web based platforms can represent useful tools for retailers and their commercial partners to cooperate and achieve efficiency in the distribution chain. Although similar initiatives are already in place, longer term cooperation would help responding to this need.



Examples of good practices

Intermodality

- **METRO Group** has implemented a new concept for transporting goods between Duisburg harbour and the central warehouse: Instead of using freight vehicles, all goods with destination Unna or Kamen are now transported from Duisburg inland harbour by rail. Consequently, 9,500 freight vehicle loads a year are transported via these tracks. Use of the Ostwestfalen-Express on this well-developed railway line provides greater flexibility than freight vehicle transport: Increasingly congested streets and motorway networks had lead to increased waiting times and additional costs for the company. Non-perishable import goods from Asia have been transported from Rotterdam to Duisburg via inland water vessel since 1995. The combination of ship and rail transport allows more containers to be transported in less time. This also reduces unloading costs for the METRO Group. Another positive result: Logistics' CO₂ emissions, which account for approximately 20% of METRO Group's impact on climate, will also be reduced.
http://www.metrogroup.de/servlet/PB/menu/1183290_I2_ePRJ-METRODE-MAINPAGE/index.html
- **Castorama (Kingfisher)** France's logistics centre in Chartres, near Paris, is connected to the railway network and has been located close to two river ports in order to reduce reliance on road haulage. The use of rail and shipping alternatives help to save the equivalent of around 500 truckloads per month.
- Having identified a possible lane for modal switch (Tilbury – Normanton, UK), **ASDA/Wal*Mart** contacted a number of rail operators to understand their ability to cover that activity. Volume, frequency and lead time requirements were discussed. As a result, the savings achieved were over 120,000 road miles through conversion of road - rail. The project also resulted in a small commercial benefit.

Efficient road transport

- **ASDA/Wal*Mart** realised that there were a significant number of journeys that were being run on a round trip basis with high levels & consistent empty running. A full lane review across all ASDA trunking operations was run. To ensure consistency & quality, each of ASDA trunking sites was reviewed on its own to ensure complete focus. This review encapsulated a number of key area's including: total volume by lane & by day; delivery frequency; product presentation; gross weight; ability of sites to load/off-load DD trailers & work on training documents to ensure all relevant colleagues were fully briefed. Various trailer designs & specifications were discussed & agreed through a number of workshops involving the operators & trailer builders. Business cases were prepared that proved the overall cost benefits, but also included the additional cost of the trailers & the additional cost to alter dock doors. All sites were fully trained on the trailer applications before the new fleet was deployed.
- **B&Q UK**, Kingfisher's largest operating company, has purchased new cages to enable more efficient vehicle loading. Following a successful trial of double deck trailers in 2008 (which carry more products per trip), the company iCs extending their use (so far, 60 double deck trailers have been introduced and an additional 120 are planned by the end of the year. There are around 800 trailers in total). Dual use trailers are also used for transporting horticultural plants (which require heated compartments) alongside other products.
- **Carrefour** looked at how to integrate the transport of fish and frozen goods. Carrefour selected 2 types of iso-containers allowing integration of frozen goods or fish transport with other product categories
 - 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
 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.

- **IKEA**

- KPIs now applying to the whole supply chain
- Revision of lead times to be able to increase filling rates
- Development of one way handling material- paper pallets, loading ledge etc...
- Flat pack furniture and increase focus on increasing density per m³

- **REWE Group**

- Planning optimal routes: Data processing systems are used to identify the shortest routes and avoid empty journeys.
- Making better use of cargo space: Lorries are already filled to 90% of capacity. In order to make better use of the available cargo space, the stores are increasingly being supplied with pallets instead of rolling containers.
- Using efficient technology: The company fleet is continually being improved with the addition of low-emission Lorries that have the latest engine technology, fully automatic transmissions, low-rolling resistance tyres and improved aerodynamics.
- Limiting speed: Limiting maximum speed from 87 to 82 km/h conserves fuel by up to 5 per cent per vehicle.
- Shifting from the road to the railway: Shifting the transport of goods going from the main warehouse in Wiener Neudorf to Salzburg, Tyrol and Vorarlberg from the road (with lorries) to the railway saves around 2.5 million kilometres of driving, 860,000 litres of fuel and about 3,000 tonnes of CO₂ emissions each year.
- Training drivers: Each year the employees are trained to be more aware and think ahead when they drive and to use the modern technologies on board in an optimal way. This reduces fuel consumption by an average of 2 to 5 per cent, which also reduces CO₂ emissions.

- **Marks & Spencer** was the first company in the world to use revolutionary teardrop trucks. The lightweight trailer can carry up to 16% more load – equivalent to 10,560 extra pairs of knickers - than a standard trailer. Its aerodynamic shape also delivers a 10% fuel saving. M&S' 141 Teardrop trailers reduce its carbon footprint by 840 tonnes every year.

http://corporate.marksandspencer.com/investors/press_releases/company/12092007_MSCutsCarbonWithTeardropTrailers

- **METRO Group:** The Metro-internal service company MGL has developed a distribution system which is called "Procurement logistics" almost ten years ago. MGL is taking over the responsibility for the pick up of the goods dedicated to METRO sales divisions at the suppliers and is processing these goods directly into the particular stores. The supply of the stores usually takes place within 24 hours after the pick up. An interim storage of the transported goods does not occur. At the same time the stock keeping within the stores and with it the connected stock holding costs could be reduced. In addition the number of ramp contacts in the stores decline which also leads to further cost reductions for the sales divisions. Beside the commercial success the MGL concept shows a positive ecological balance. This aim can be obtained by dramatically fewer kilometres per freight ton, nearly fully utilised trucks, minimization of empty runs and drastically reduced detention times.

Fuel efficiency - CO₂ emissions

Marks & Spencer Electric vans

<http://www.mylocalvanhire.co.uk/vanblog/archives/548>

Marks & Spencer Electric trucks

<http://www.guardian.co.uk/environment/2007/feb/03/travelsenvironmentalimpact.business>

ASDA Fleet specification

The new fleet procurement is heavily influenced by fuel performance of various manufacturers. ASDA also decided to equip the new fleet with an automatic gearbox. This has improved average fuel efficiency by 3%.

IKEA Project with Preem

Project together with the Swedish refiner Preem. Two filling stations at Älmhult & Torsvik DC's providing diesel blended with 30% bio fuel.

IKEA CO₂ emission goal & action plan

All carriers must provide IKEA with a goal and action plan on how they aim to reduce their CO₂ emissions. This raises awareness and actually reduces emissions. Vehicles less than 3.5 ton must follow a CO₂ reduction plan outlined by IKEA, pushing for the adoption of alternative fuels/technology.

METRO Group: Almost 200 own vehicles in Germany shall comply with EURO 5 Standard. At the end of 2008 already 40% of Metro's vehicles did (see sustainability report 2008).

Congestion

Municipality of Vicenza (Italy): In 2005 the municipality of Vicenza (Italy) started a review process of the urban distribution system. The VELOCE project benefited from European, national and local funding. The service, managed by Vicenza Logistic center srl, of which 55% is owned by the municipality, takes place in the urban area of Vicenza, over 0,37 sq km. The DC is 1,5 Km far from the city centre. Operators can load off their goods in the DC where they are stored for 12/24 hours before being delivered to their final destinations by a fleet of ecological trucks. The loading procedures and the trucks are monitored by an interacting system connected to the different operators. This system allows managing in the most effective way all the steps of the deliveries, also through verification in real time on the Internet.

Retailer-manufacturer platforms

ECR Europe is a joint European retailer-manufacturer platform working to make supply chains more efficient and provide better consumer value. ECR Europe's initiative on sustainable transport delivered a sustainable transport roadmap which describes best practices to make transport operations more sustainable. It also features a set of company case studies illustrating the various best practices described in the roadmap.

http://www.ecrnet.org/05-projects/05-projects-sustainable-roadmap_a.html

Public-private partnerships

Climate TransAct is a project aimed to harmonize current public private sustainable transport programmes and to develop a common European approach to improve the energy and environmental performance of freight transport. The programme will be based on best practices developed in several European countries, the USA (EPA SmartWay) and Japan (Green Distribution Partnerships). Current tools, best practices, guidelines developed by public and private organizations could be evaluated, promoted and integrated in this common platform. The objective of Climate TransAct is to create a common, not for profit, public private platform in 2010 and to start the first phase of the programme late 2010 or in the beginning of 2011. Present participants in this new coalition include public authorities and the industry represented by transport companies, shippers, European and national associations.

<http://www.climatetransact.eu/>

Transport Refrigeration

The efficiency of distribution systems in the retail sector goes farther than merely the mode of transport and technology used. In fact some retailers have also invested in the development of technologies that are fitted in the respective mode of transport used to transport goods. Such technologies include for example next generation transport refrigeration systems whose deployment may encompass a significant impact in reducing the carbon footprint associated with the process of goods distribution.

UNEP, Alternatives to HCFCs for new equipment and applications

http://www.uneptie.org/Ozonaction/topics/hcfc_alternatives.htm

IAA: Commercial vehicles, also turning "green"

<http://www.r744.com/articles/2008-09-26-iaa-commercial-vehicles-also-turning-green.php>