•

RetailWeek SUPPLY CHAIN



Delivery dash

Retailers ready to do battle over on-demand delivery

- In-cab communications New technology to control retailers' logistics operations
- Destination distribution Super ports and rail projects redrawing the logistics map





Contents



5 Supply chain news

A round-up of the latest supply chain stories making the headlines

10 Need for speed

Is on-demand delivery the new major battleground in fulfilment?

14 Wheels of change

Technology advances to help retailers control their distribution fleets

17 Location, location

Super ports and rail projects reshaping the UK logistics industry

RetailWeek SUPPLY CHAIN

Commercial Editor Laura Heywood

Deputy Commercial Editor Katie Barker

Commercial Production Editor
Tracey Gardner

Commercial Sub-editor

Abigail O'Sullivan

Contributors Lindsay Clark, Mark Faithfull, Dan Harder, Nick Hughes, Simon Jack

Art Director Paul Aarons
Commercial Director Rachel Martin

Commercial Director Rachel Martin (020 3033 2868)

Senior Account Manager Jenni Edwards (020 3033 2968)

Managing Director, Retail Tracey Davies

© Retail Week

All material is strictly copyright and all rights were reserved. Reproduction in whole or in part without the written permission of Retail Week is strictly forbidden. The greatest care has been taken to ensure the accuracy of information in this magazine at the time of going to press, but we accept no responsibility for omissions or errors. The views expressed in the magazine are not necessarily those of Retail Week.

Retail Week Supply Chain is printed by Headley Brothers Ltd.

RetailWeek CONNECT

Supply chain investment a 2016 priority for retailers



Writing from NRF's Big Show in New York, it's reassuring to hear "supply chain" uttered time and time again by retailers in response to questions about the most pressing investment priorities for 2016.

The urgency for supply chain investment is perhaps best summed up by Ray Aldis, Holland & Barrett's director of projects, who told me at the show: "The biggest opportunity is in supply chain and omnichannel. Of course, everyone at

NRF beats the same drum, but they beat it because it's true.

"Consumer expectation is changing pace and it's very difficult to keep up. Customers shop the brand – they don't consciously think they are moving through the channels."

Or consider the view of John Lewis IT director Paul Coby, who believes to scale a business for an omnichannel future, retailers need "standardised, simplified foundational systems". "Raunchy back-end stuff really matters, at John Lewis we're re-engineering the whole supply chain," he told *Retail Week* at NRF.

A frictionless shopping experience for customers is the ultimate goal for so many of the UK's leading retailers, and to achieve that obsessing about supply chains is absolutely vital. That's why in this supplement we have chosen to focus on one of the most critical areas to get right – multichannel fulfilment. As one vendor shared with me at NRF: "Order fulfilment isn't done well by retailers – it's the biggest barrier to success."

So who's doing it well and what can you learn from them? On page 10 we look at how Amazon and Argos are raising the stakes of multichannel fulfilment by rolling out hyper-convenient and super fast delivery to the mass market.

As consumers become ever more vocal in their demands for instant gratification, *Retail Week* asks whether on-demand delivery could be the next major battleground, and reveals what the supply chain industry can learn from the US. There, UberRush – a full-scale delivery service that lets shops send products on-demand – is already a reality, and 66% of US consumers say they are more likely to order from a company offering expedited delivery.

Also in this supplement is the latest supply chain news making headlines (page 5); how retailers can benefit from the latest advances in transport management IT systems (page 14); and ways a shake-up of the UK's infrastructure will optimise the transport of products into and around the UK (page 17). We hope it's both informative and valuable.

Laura Heywood, Commercial Editor









Industry snapshot

Get up to date with the breaking UK supply chain news making headlines in recent months

TECHNOLOGY

Retailers join forces with Mastercard and Samsung to create self-replenishing fridge

The dream of a self-replenishing fridge has become a reality after two US retailers joined forces with Mastercard and Samsung to launch a new app.

In an example of the next step-change in

grocery supply chain integration, shoppers can order groceries through the Groceries by Mastercard app, which comes pre-loaded in Samsung's new Family Hub fridge, to be delivered direct to their door.

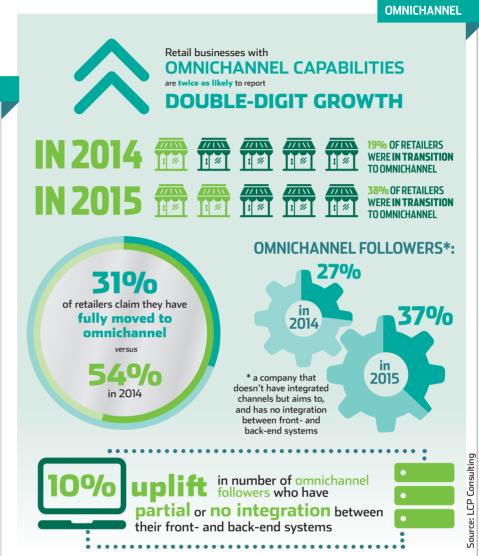
Shoppers load the app with selected items from online grocer FreshDirect and supermarket cooperative ShopRite, and those items are then added to their basket as

they run out. A final shopping list is approved by the customer with a 4-digit pin and items are delivered directly by the retailers.

Mastercard plans to add new retailers to the app through its partnership with MyWebGrocer, which provides ecommerce solutions to more than 100 food retailers around the world.

"In a world where every device – from the phone to the refrigerator – is connected to the internet, the ways in which consumers interact and transact with their favourite brands are changing," said MasterCard Labs chief commercial officer Betty DeVita.

"We're developing compelling, safe and seamless commerce experiences for consumers across channels and devices as we continue to eliminate the boundaries between how we shop and how we pay."



New report reveals retailers slower than predicted to transition to omnichannel

A new study has found achieving full omnichannel transformation takes longer and is more complex than retailers first thought.

Retailers have underestimated how hard it is to fully transition to omnichannel, according to a new report.

The report, published in November 2015 by supply chain consultancy LCP Consulting, reveals twice as many retailers compared with this time last year maintain they are still in the process of transforming to become fully omnichannel businesses.

Omnichannel retailers that have a fully integrated front and back end and an integrated organisational structure are twice as likely to

deliver double-digit growth, the report found.

LCP interviewed more than 100 leading retailers in the UK and the US for the report, in addition to a number of senior retail executives from leading European retailers.

● Join *Retail Week* and our partner LCP Consulting at a networking Think Tank breakfast on February 23 at The Groucho Club, London. This exclusive c-suite, director-level event will explore ways to adjust to the demands of digital commerce and the empowered customer by making the transition to omnichannel. If you're a supply chain director or multichannel director, please register your interest by emailing rosie.birchenough@Emap.com.











Warehousing openings and deals

- Amazon has signed a deal for a new site at Knowsley Industrial Estate in Liverpool. The Venus 110 site, which has yet to be completed, will comprise 100,000 sq ft of warehouse space along with 10,000 sq ft of two-storey offices. It follows Amazon's deal to take a 10-year lease on a 170,000 sq ft unit at Lancashire Business Park.
- Online fashion retailer **Boohoo** has consolidated its Burnley base with the acquisition of a new warehouse at the Heasandford Industrial Estate in the town. Boohoo has paid £1.7m for the 113,000 sq ft facility, which is located next to its existing warehouse.
- Yodel has opened three new 'super' service centres as it continues to strengthen its delivery estate. The sites in Livingston, Southwark and Waltham Cross became operational in the run-up to Christmas. Yodel said the locations were chosen for their proximity to major motorways and town centres.
- Contract logistics company **Bibby Distribution** is set to open a new 268,000 sq ft depot in G Park near Wakefield. The site is scheduled to open this quarter and will act as a distribution hub for a number of Bibby's customers.

News in brief



- The Entertainer has agreed a 10-year extension to its contract with logistics company XPO to manage its storage and distribution operations. The agreement includes the management of the toy retailer's new distribution centre in Banbury, which at two-and-a-half-times the size of The Entertainer's previous warehouse, represents the retailer's biggest single investment to date.
- Labour MPs are to ask Prime
 Minister David Cameron to launch a
 cross-departmental investigation into
 controversial retailer Sports Direct. The
 parliamentary pressure follows allegations
 that Sports Direct is effectively paying
 thousands of staff below the minimum
 wage and that some are too frightened
 to take time off work when, for instance,
 their children are ill. Temporary workers
 at Sports Direct's Shirebrook warehouse

are mostly hired through agencies, which technically employ them.

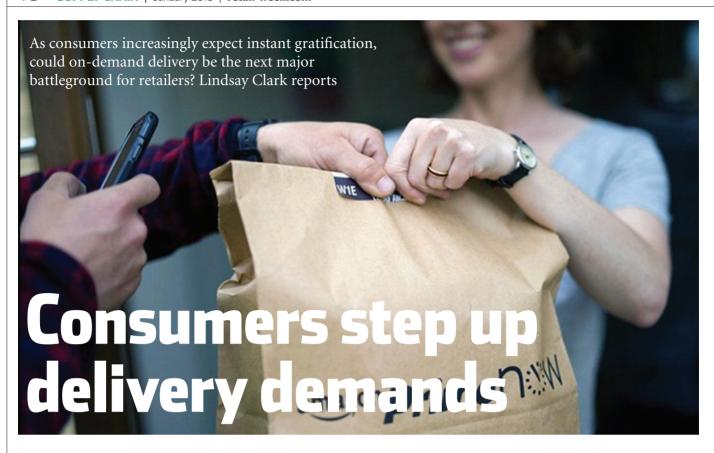
- River Island has launched a 'click and don't collect' option for click-and-collect shoppers who can no longer pick up their order. The solution, which is run in partnership with delivery firm Shutl, launched ahead of Christmas and gives customers who are unable to find the time to collect an online order from store the option to have their package delivered to them within 90 minutes or at a time of their choice. Use of the service costs customers £4.95.
- Amazon is reported to be in talks to lease 20 Boeing Co 767 jets as part of its plans to launch an air-delivery service. A report in a US newspaper suggested that the retailer is seeking to avoid delays from third-party carriers and could also use the jets to deliver on behalf of other companies.











hen Homer Simpson was told a giant deep-fat fryer could cook a whole buffalo in 40 seconds, he replied: "Forty seconds? I want it now!"

Bovine fast-food aside, the cartoon character's demands will ring true with many retailers grappling with the challenges of home delivery. Trends in the US offer clues as to where expectations are heading.

There, Uber has launched a service called UberRush, which promises on-demand deliveries from stores to consumers within certain cities, exploiting its existing transport network (see box, facing page).

According to consultancy Accenture's *The Next Generation of Commerce* study, 66% of the 2,000 US consumers surveyed say they would order from a company offering faster delivery than a competitor, while 64% of consumers say they would pay a premium for faster delivery, and 39% say they would pay more for same-day delivery.



Argos is the only national sameday offer in the market and this is feasible because it is able to use stores as fulfilment centres Stuart Higgins, LCP This side of the pond, Amazon launched same-day delivery in the UK in 2014 and last year it launched one-hour delivery. Both services are available to Amazon Prime customers with restrictions in terms of geography and product category.

British retailers are not to be outdone. In October 2015, Argos launched a same-day delivery service nationwide via its Fast Track offer, available in four time slots throughout the day until 10pm for a flat fee of £3.95. Customers must order by 6pm to ensure delivery on the same day.

The history of Argos' business model and the design of its infrastructure provide insight into the challenges that lie ahead for other UK retailers trying to replicate on-demand and same-day delivery offers, says Stuart Higgins, retail partner with LCP Consulting, a supply chain consultancy that works with companies including Argos, Fatface and John Lewis.

ARGOS' ADVANTAGE

Same-day delivery requires retailers to hold stock in close proximity to the customer in order to minimise travel times, limiting the offer to areas around fulfilment centres. Using a national parcel carrier is not an option because they use regional, overnight sortation hubs that are not designed for same-day. Even Amazon, which has invested heavily in its own logistics capability, restricts the SKUs and geographies available to same-day customers.

"Argos is interesting because it is the only national same-day offer in the market and this is only made feasible because it is able to use its stores as fulfilment centres," Higgins says. "From this point of view, Argos has an advantage over other retailers. Within its operating model, stores are more akin to miniwarehouses, rather than retail showrooms. Because of this, it is able to maintain the nearperfect store stock file accuracy needed to successfully fulfil online sales from store stock."

He continues: "In general, retail store stock file accuracy is not sufficient to be able to guarantee the stock is available to fulfil an online order. Added to that, there is an everpresent risk that if store stock is allocated to fulfil an online order, a customer may have picked up the item in their basket before a store colleague can pick it for the online customer.

"There are all sorts of complexities associated with trying to do home delivery and pick it from store stock. Argos can take an order and aim to fulfil it from store stock with assurance. This opens up the opportunity to use the store as a fulfilment centre for same-day delivery. It is a fantastic disruptive leap Argos has taken, and one that other retailers will struggle to emulate for a number of years."

Given Sainsbury's interest in buying Argos owner Home Retail Group, that advantage has not gone unnoticed. Commentators believe Sainsbury's move is a direct attempt to help the supermarket compete more effectively with Amazon.

Until retailers can get better stock control close to the customer, they will be limited to offering same-day deliveries around fulfilment











order from a company offering faster

delivery than a competitor

SOURCE: ACCENTURE'S THE NEXT

centres and flexing the offer in terms of price and availability to make sure they do not overburden their distribution systems with short notice volume that is very difficult and expensive to pick, Higgins explains.

Meanwhile, improving stock accuracy in store, and allowing on-demand fulfilment, is easier said than done, says James Tilley, retail and supply chain director at KPMG. "There is a significant challenge in stock integrity needed to fulfil online orders," he says.

Tilley believes the problem has arisen because the necessary investment has been squeezed out between the capital outlay for physical stores and spending on the web frontend, warehouses and distribution needed for ecommerce.

"It is fair to say investment in IT in retail 10 years ago was very low. Now, most of the big retailers are making dramatic IT investments, to the tune of £100m," he says.

Much of this is aimed at developing an accurate, universal view of stock throughout the organisation, and in the supply chain and distribution networks.

ENSURING ACCURACY

As ecommerce developed, according to Tilley different data was used to describe products depending on the context, so information in the supply chain, marketing, online sales, warehouses and in store might not match up. To serve customers with on-demand deliveries from store stock, retailers need to create comprehensive and coherent 'product material master data', Tilley says, such as product information including images, videos, web-copy and item attributes.

All this data needs to be maintained and used in accordance with strict rules if a customer is to buy an item online and have it delivered from a store, he says.

While large retailers struggle with the complexities of fulfilling same-day deliveries, smaller retailers can be at an advantage.

Michael Weedon, deputy chief executive of the British Independent Retailers Association, says the introduction of services such as UberRUSH could mean the capital requirement to put together an attractive home delivery proposition is dramatically reduced. There is less of a need to invest in large warehouses and distribution systems, he explains.

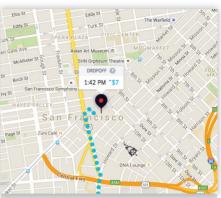
"Quite small retailers are doing well by spreading risk by operating through several online marketplaces, such as

Amazon and eBay, as well as their own websites and stores," Weedon says. "With the internet, you can create a massive network, with property and capital costs no longer a significant part of the equation."

Uber is not alone it attempting to create new approaches

for same-day and on-demand delivery. Shutl, owned by online marketplace eBay, offers deliveries through local courier networks in 90 minutes or less within urban areas. Its online platform accesses the availability and location of retail stock, as well as the proximity of couriers. If it's possible, the customer will be given the option at checkout of having the item delivered within 90 minutes.

Jason Tavaria, Shutl chief operating officer, says the service is used when speed can be



Coming to a screen near you...

Just as with the latest blockbuster, etail trends are released Stateside before shoppers get a glimpse of them in the UK.

In June last year, Amazon introduced one-hour delivery on more than 10,000 items to Prime Members in selected London postcodes using a dedicated app, having first launched the service in New York in December 2014.

Now UK retailers are eying further developments in the US, where online taxi network Uber has begun to offer on-demand fulfilment to small retailers. Dubbed UberRUSH, the service was piloted in New York during 2015 and officially launched there and in San Francisco and Chicago in October.

The service started as an option on the Uber app, but launched as an online dashboard to which retailers can login and control the service. The technology has been integrated with six of the most popular ecommerce platforms, such as Shopify, and consumers see on-demand delivery as an option when they check out.

"The feedback from retailers has been great," says Sarah Maxwell, spokeswoman for UberRUSH. "It allows small companies the ability to compete on home delivery without investing in infrastructure or signing courier contracts."

Maxwell says larger retailers are also using the service as an on-demand add-on to existing deliveries, or to help them deal with peak periods. Although Uber does not guarantee service levels, most drivers can turn up to the retailer in around 10 minutes. Both retailer and customer are able to track deliveries in the same way taxis can be tracked in the Uber app.

Although Uber has not announced plans to launch UberRUSH in the UK, neither has it ruled it out. Other Uber services, such as UberPool car-sharing, launched in the US before arriving in the UK.

















important. For example, Superdrug uses it for getting pharmaceuticals quickly to patients who find it difficult to get out and about.

But it is also an add-on service retailers are finding appealing, he says. River Island customers get a text message or email when a click-and-collect order arrives in store, offering them the option to have it delivered, via Shutl, to home or work within 90 minutes.

Doug Gardner, River Island chief information officer, says sometimes customers are unable to collect items from store, due to a change of plan or unforeseen circumstances. "In order to avoid simply refunding the customer, we found the solution offered by Shutl a highly effective one in terms of customer convenience and saving sales."

ECONOMY DELIVERY TOP CHOICE

While the challenges of same-day and on-demand delivery remain significant, retailers need to maintain some perspective. Expedited delivery is a tiny fraction of the market.

Research from IMRG shows that in October 2015 economy deliveries, with no assurance of lead time or time of day, made up 45% of UK deliveries; international deliveries were 24% and next-day deliveries, including the majority of click-and-collect services, were 27%. Same-day deliveries made up just 0.04%, according to the aggregated data across 220 retailers sending around 6 million parcels each month.

Some retailers are even demonstrating that rapid delivery services are not essential in order to succeed. Home furnishings etailer Made.com

Snapshot of UK same-day deliveries

Tesco started trialling same-day grocery home deliveries in 2013 and offers the click-andcollect service in selected locations

amazon.co.uk^{*}

Amazon offers same-day and one-hour home delivers to customer in London, Birmingham and Newcastle.

Adsa does not offer same-day home delivery but offers a same-day click-and-collect service at all of its 614 stores.

Sainsbury's

Sainsbury's does not offer same-day home delivery or click-and-collect.



Argos offers same-day home delivery and click-and-collect nationwide within four time slots up to 10pm. The latest order time for home delivery is 6pm.

ocado

The online supermarket

Ocado does not offer same-day delivery, only next day.

says it makes high-end, original design accessible to consumers at affordable prices by only making what is ordered and cutting out agents and importers. "While the trade-off is longer delivery lead times, the sales growth we've seen is testament that consumers see the benefit," says Annabel Kilner, UK country manager.

Nonetheless, where Amazon goes, consumer expectations will follow. Larger retailers striving to offer similar rapid delivery services will have to tackle the challenges of stock accuracy to fulfil from local stores. Meanwhile, small retailers can take advantage of internetenabled delivery services from companies such as Uber and Shutl. At the same time, Made. com shows that there will always be products consumers deem worth the wait.

















important. For example, Superdrug uses it for getting pharmaceuticals quickly to patients who find it difficult to get out and about.

But it is also an add-on service retailers are finding appealing, he says. River Island customers get a text message or email when a click-and-collect order arrives in store, offering them the option to have it delivered, via Shutl, to home or work within 90 minutes.

Doug Gardner, River Island chief information officer, says sometimes customers are unable to collect items from store, due to a change of plan or unforeseen circumstances. "In order to avoid simply refunding the customer, we found the solution offered by Shutl a highly effective one in terms of customer convenience and saving sales."

ECONOMY DELIVERY TOP CHOICE

While the challenges of same-day and on-demand delivery remain significant, retailers need to maintain some perspective. Expedited delivery is a tiny fraction of the market.

Research from IMRG shows that in October 2015 economy deliveries, with no assurance of lead time or time of day, made up 45% of UK deliveries; international deliveries were 24% and next-day deliveries, including the majority of click-and-collect services, were 27%. Same-day deliveries made up just 0.04%, according to the aggregated data across 220 retailers sending around 6 million parcels each month.

Some retailers are even demonstrating that rapid delivery services are not essential in order to succeed. Home furnishings etailer Made.com

Snapshot of UK same-day deliveries

Tesco started trialling same-day grocery home deliveries in 2013 and offers the click-andcollect service in selected locations

amazon.co.uk^{*}

Amazon offers same-day and one-hour home delivers to customer in London, Birmingham and Newcastle.

Adsa does not offer same-day home delivery but offers a same-day click-and-collect service at all of its 614 stores.

Sainsbury's

Sainsbury's does not offer same-day home delivery or click-and-collect.



Argos offers same-day home delivery and click-and-collect nationwide within four time slots up to 10pm. The latest order time for home delivery is 6pm.

ocado

The online supermarket

Ocado does not offer same-day delivery, only next day.

says it makes high-end, original design accessible to consumers at affordable prices by only making what is ordered and cutting out agents and importers. "While the trade-off is longer delivery lead times, the sales growth we've seen is testament that consumers see the benefit," says Annabel Kilner, UK country manager.

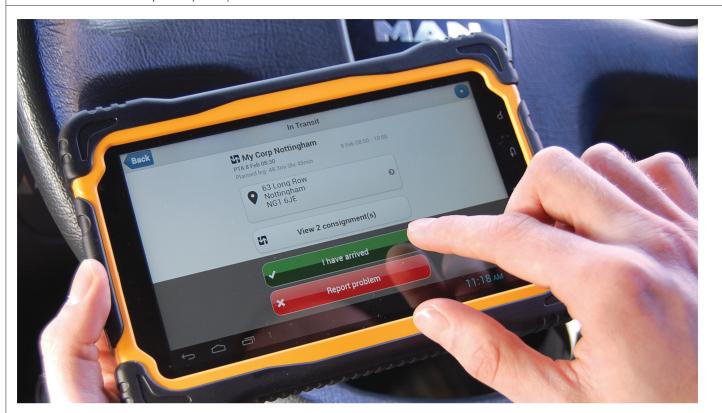
Nonetheless, where Amazon goes, consumer expectations will follow. Larger retailers striving to offer similar rapid delivery services will have to tackle the challenges of stock accuracy to fulfil from local stores. Meanwhile, small retailers can take advantage of internetenabled delivery services from companies such as Uber and Shutl. At the same time, Made. com shows that there will always be products consumers deem worth the wait.











IT innovations reshaping the retail supply chain

Supply chain technology continues to develop apace. Simon Jack explores its potential to control key areas of retailers' logistics operations

new generation of in-cab mobile devices, which can be used for a variety of purposes, is offering retailers the chance to control their distribution fleets much more effectively.

Specially-adapted Android and iOS-based tablets and phones are increasingly being utilised for managing areas such as telematics, navigation, CCTV recording, communications between the warehouse and driver, proof of delivery and vehicle safety checks.

But while parcel carriers have led the way in this area, retailers are now waking up to the possibilities as well.

Stephen Watson, director of product at telematics firm Microlise, says that in the past many retailers found they could not make the argument stack up for in-cab communications, which relied on heavier, brick-shaped handheld computers. "Previously the hardware was expensive and in some cases justifying the business case was difficult. The emergence of iOS and Android devices lit a fire," he says.

In December, Morrisons revealed it had fitted telematics into 545 delivery vehicles. The system measures drivers' performance and reduces fuel consumption, but the in-cab device is also used for two-way messaging, supervising vehicle checks and, in future, will provide guided routes for drivers to follow.

There are countless uses for such technology, according to Andrew Hutson, product director at telematics firm Isotrak. These can include asking the driver whether they are feeling fit and well, asking them to carry out visual checks by walking around the vehicle, informing them of what jobs they are doing and providing them with routes. As the day progresses the system can update them about any new developments. "It can be used to guide the driver through their day safely and efficiently," he says.

HOME DELIVERY HELP

Having real-time information about schedules is particularly important for home deliveries. B&Q has installed a telematics system from Microlise on 185 vehicles that, as well as reducing fuel consumption, can monitor the status of deliveries against a schedule in realtime as each journey unfolds and take action if things are not going to plan.

Chris Blogg, B&Q's store delivery network manager, explains: "This will enable us to make significant savings while improving the precision with which we can track our home delivery vehicles."

B&O is also linking forward-facing cameras to the system, which can analyse what was happening 30 seconds before and after any incident, and can download tachograph data to ensure it is compliant with driver hours regulations.

The ability to plan back-hauling loads (vehicles that pick up goods on their return journeys) is one of the most important benefits of improved communications with the cab, according to Liam McElroy, managing director of retail at Wincanton.

The company has created a software product called Winsight to provide visibility of where vehicles are, which can be used on behalf of clients such as Screwfix.

"It gives you a real-time view of where the











driver is and where the possible collections are," he says.

Emile Naus, technical director of logistics consultancy LCP Consulting, believes that another significant advantage is improved management of temporary drivers and sub-contractors, who can be provided with a device or told to download certain apps, which will guide their operations. "If you have the ability to do that it creates a lot of flexibility during the peaks," he says.

As well as improving technology out on the road, advances are being made in routeing and scheduling software to plan and control vehicle movements.

Often retailers with regular patterns of delivery produce fixed schedules which are updated or re-planned every few weeks or months. This is the approach taken by Pets At Home for its in-house fleet of 40 trucks and 100 trailers. The company uses software from Paragon Software Systems to produce a new schedule for store deliveries every six to eight weeks which is then fine-tuned during that period.

"We use Paragon to produce a base plan but our own scheduling team then take it from there," Pets At Home head of distribution Terry Siddle explains.

In grocery retailing, however, there are much more complex patterns and users will update their schedules daily and sometimes readjust them further during the day.

Such software is constantly being enhanced and Paragon – which has a client list that includes Asda, Harrods, Sainsbury's, John Lewis, Tesco and Morrisons – has introduced a route control system that provides new routes if restrictions, such as the HGV-restricted zones specified by the London Lorry Control

Scheme, are identified. A calendar of events, including major sporting occasions, can be added into the system, which uses a selection of smart maps that can take into account street-level information down to minor residential streets to provide accurate timings.

Paragon managing director William Salter comments: "There is a lot of pressure on retailers operating in urban areas and our clients wanted something to enable them to avoid particular routes at certain times and avoid falling foul of the regulations."

Paul Dawsey, a director at Mapmechanics, which produces the Truckstops routeing and scheduling system, believes that retailers and their logistics providers can save large amounts of management time spent creating transport plans. "It can minimise the number of vehicles required to achieve the same workload, while saving miles and fuel costs," he says.

Maximising efficiency of distribution centres

As well as helping to manage transport, IT systems are being used to make distribution centres operate more efficiently.

Sometimes this is possible using an integrated business management system that also manages other functions. This is the case at Jigsaw, which uses Microsoft Dynamics across its business. The system will allocate the initial amount of stock for new lines which is then picked by warehouse operatives using hand-held terminals connected to the system and delivered on the company's in-house fleet.

Jigsaw group business systems and IT director Paul Owers explains: "It controls everything through to despatch and sale of the product. Picking and replenishment is one module of it."

However, many firms use standalone warehouse management systems. Pets At Home completed installation of a new system from supply chain software firm JDA at its distribution sites in Northampton and Stoke last year.

The basic functions of putting away incoming stock and picking store orders are in place, but head of distribution Terry Siddle says extra processes that will improve interaction with suppliers and finetune store deliveries will follow, including arranging store deliveries so that they are easier to unpack.

"We are starting a two to three year development journey that will allow us to ship more cases at less cost," he says. "It should help us to optimise space and operate a condensed amount of stock from the same distribution centre footprint."

Using data to optimise supply chain management

Geographic Information Systems (GIS), which capture and analyse large amounts of data, have the potential to greatly improve management of retailers' supply chains, according to Simon Weaver, analytics programme manager at GIS firm Esri UK.

He believes such systems could be used in both inbound and outbound distribution – for example taking into account a range of factors, such as the size and weight of loads and potential emissions, to decide on the correct mode of transport.

It is also possible to plan for geo-political and environmental factors. "You can analyse risks and

look at where future problems might be, allowing you to examine contingency plans and alternative routes," he says.

Real-time data about traffic and the weather can be used to judge journey times and geo-fences – which sound alarms if vehicles are in the wrong place or their journey time is falling behind – can alert companies to any problems on a particular day and identify where regular delays are occurring.

"The right information can then be provided for the key decision-makers. GIS is very effective in focusing on what the individual needs," Weaver says.







•

The new ports of call

UK infrastructure is set for huge changes, with super ports in London, Teesside and Merseyside, plus Crossrail, HS2 and Crossrail 2 potentially redrawing the logistics map across the country. Mark Faithfull reports

igures from this Christmas underline the shift from store to online sales and with it the pressing need to be able to distribute product around the country quicker, more economically and in a more ecologically sustainable manner.

A raft of infrastructure changes are in the pipeline or being delivered, from air to sea and road to rail. While the rail projects in particular are principally about people rather than products, they will release much-needed freight capacity, provide economic regeneration and help support the burgeoning ports expansion under way in the Southeast, Northwest and Northeast of the country.

The key for Britain – especially in an age of widespread importation of merchandise from around the world – is to be able to connect the dots, enabling retailers to receive, distribute and deliver effectively.

"London Gateway has been open a couple of years but I think we're still maybe 10 or 15 years off seeing its real impact," says Neil Ashworth, chief executive of Collect+. "Being able to bring in the largest ships was vital for the UK and being able to do that in a location so close to London and the Southeast, which have become so economically strong, is massively important for retailers."

He believes London Gateway can also rival the mega-ports of Rotterdam and Hamburg as a Western European hub, while PD Ports' Teesport and Peel Group's development at Liverpool and along the Manchester Ship Canal will provide strong regional links.

"Consider a retailer such as Marks & Spencer, which only began sourcing globally comparatively recently," says Ashworth. "Now the synchronisation between the ports, rail and road is a huge issue and it's the execution and integration of those transport links which is really key to making this all work."

One such example is Verdion's Doncaster iPort, which includes an adjacent but independent rail freight interchange, avail-



AIR

Opportunities for regional airports

Airport expansion has been focused on the ongoing debate over a third runway at Heathrow – which, thanks to the huge logistics parks in West London, notably Sergo's massive logistics and industrial scheme, dominates air cargo in the UK. However, beyond London the growing influence of ports also adds opportunities for

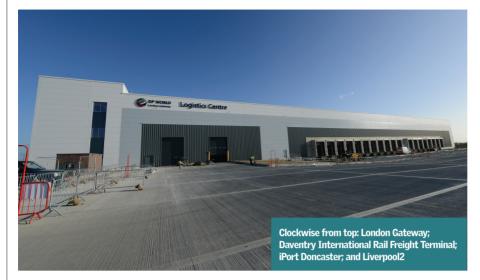
nearby regional airports such as Southend (owned by logistics specialist Stobart Group), Liverpool (Peel Group), Manchester, Durham and Sheffield/Doncaster (both Peel Group). These are likely to be developed as part of a multi-modal offer providing air, sea and land communications around the UK and beyond.







RAIL









able to tenants and non-tenants alike. The interchange should be complete by the end of this year or early 2017, while construction of the first two speculative distribution centres will begin this spring and the first build-to-suit structures will commence in the summer.

Verdion chairman and chief executive Mike Hughes is an advocate of such interchanges and was part of a group that lobbied government to make development easier. "The original rail



yards sit in town centres and are small, because that was what was needed," he says. "Now these interchanges need to be on the edges of large cities, and inevitably that means green belt, so the various departments need to be together so that they can be built."

Hughes notes the upgrading of rail services at Felixstowe and London Gateway as examples of the growing importance of rail, but specifically where it integrates with road transport. "It's important to stress that, although we have 6 million sq ft of development land at iPort, the rail interchange is not a Cinderella project, it's intrinsic to the business plan," he says.

ALL ABOARD

Grocery retailers in particular have been quick to embrace rail. Sainsbury's opened a 1 million sq ft distribution centre at Daventry International rail freight terminal last year, specifically for its non-food lines. The Co-operative Group diverted more than 35,000 tonnes of goods to rail last year.

However, while Colliers director of industrial and logistics Steve Mitchell welcomes the growing role of rail, he says: "The grocery

Passenger initiatives herald additional freight capacity

HS2 (High Speed 2) will link London, Birmingham, Leeds and Manchester and be the second high-speed rail line in Britain. The line is being built in a 'Y' configuration in two phases, with construction work on the first phase set to begin in 2017, reaching Birmingham by 2026, Crewe by 2027 and completed in 2033. A number of other cities will be linked by edge-of-town stations and slower lines.

While HS2 is principally a passenger initiative, it will ease capacity on the East and West Coast lines, providing greater opportunities for freight. A number of ports and iPort in Doncaster have made rail a core part of their network offer and are encouraging retailers to service their distribution through port-to-rail links.

Crossrail is a 73-mile railway line under construction in London and its environs. It is expected to be in full operation in 2019, with a new east-west route across London. Crossrail's aim is to provide a high-frequency passenger service that will link parts of the Home Counties with the capital. Again, the main benefit should be to relieve rail capacity and help reduce road congestion. A second line – Crossrail 2 – is also being proposed.

retailers have been ahead of the curve. For a lot of retailers rail is a 'nice to have', not a 'must have."

He sees the government's commitment to road buildings as similarly vital, while noting that this programme and the proposals for HS2 et al must be seen in a "wider context", beyond simple logistics. "These schemes will create employment, regenerate areas and improve affluence and that all means more demand," he says. "We have come out of a period of inertia and this is a very exciting time now, which should be good news for logistics demand as a whole."

While that certainly appears true, LCP Consulting technical director Emile Naus also says that the reshaping of logistics networks reflects changing consumer demand and new operating paradigms. The traditional structure – largely based around having a central distribution centre in the Midlands – is becoming increasingly ineffective he believes, predicting instead a multi-modal, distributed model emerging.

"To start with, the concentration of logistics centres in the Midlands creates its own problems, not least in employing good people," he says. "Even within retailers there is staff





cannibalisation, plus the difficulty in securing property in the right locations."

With imports increasing and the Southeast as the affluent consumer focal point, Naus points out that product could come into Felixstowe or Southampton, be transported to the Midlands, only for it then to be trucked back to stores in southern England. "A model is emerging whereby having two or three distribution centres close to ports, picking up good rail points and potentially regional airports, is much more efficient."

He says this is why the more recently developed ports – notably London Gateway, Teesport and Liverpool – have been so eager to embrace rail as it "balances the flow", but Naus also warns that using rail freight comes with its own challenges.

"Rail only works if you have full loads there and back, not one way," he says. "It's why the Tesco Daventry-to-Scotland service has worked so well. And we can see others, such as Marks & Spencer, Asda, Sainsbury's and Co-operative developing their distributed systems."

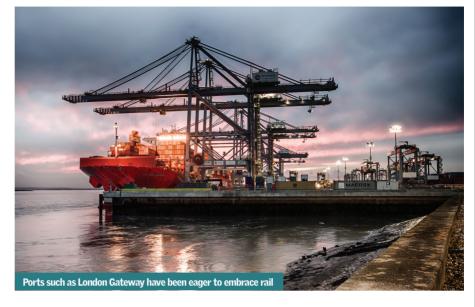
Of the two highest profile projects in the UK, DP World London Gateway currently has two deep sea berths but will add a third in the second half of this year. At the same time the logistics park is being developed in partnership with operations specialists and retailers.

The first building opened last May – the DP World London Gateway Logistics Centre – which is operated by Import Services on behalf of a number of clients including Mothercare, John Lewis and Argos.

In October a joint 316,000 sq ft facility was opened with Prologis and the company is preparing another part of the site for five smaller units. In addition, UPS has commenced work on a £120m, 350,000 sq ft parcel delivery centre which will service the UK and Western Europe.

"DP World London Gateway is in a fantastic location, just 10 miles from the M25, and combining world-class deep sea shipping options with on-site logistics services," says Simon Moore, chief executive of DP World London Gateway. "On New Year's Day, UASC Al Muraykh called at London Gateway with a

The Co-operative Group diverted **35,000 tonnes** of goods to rail last year



world record load of 18,601 containers, bringing products to the UK from the Far East. As more and more of the world's largest ships call here, more retailers are benefiting from the service and location."

He adds: "Our investment, and investments like the one from UPS, ensure retailers are able to get their goods in front of consumers faster and more efficiently."

Similarly, the upcoming Liverpool2 is "the enabler" says Peel Ports Group land and property director Andy Martin, who expects the deep sea port to be operational this spring after commissioning and safety checks are completed. The new terminal – which will enable Liverpool to receive 95% of the largest container vessels from the global fleet compared with just 10% now – will then link to a series of inland ports along the Manchester Ship Canal.

"Liverpool2 is all about getting the incoming product much closer to the market and consumer," he says. "Liverpool is the most central deep sea port in the UK and by working with our partners, our Cargo 200 initiative should see 200 million road and rail miles eliminated by 2020.

"This will be secured by bringing cargo much closer to the market, thereby reducing inland transportation. Liverpool2 will allow us to deliver ocean freight closer to destinations in the North and minimise the inland journey needed for export cargoes to access global markets. We have the ability to utilise the Port

> of Liverpool's established rail connections and to trans-ship to Port Salford, Port Warrington, Port Cheshire and Port Wirral."

> The 280,000 sq ft Port Salford development, occupied by Culina Logistics, is the first development for the Peel

Group and joint venture partner Macquarie. Positioned next to the Manchester Ship Canal, M60 and M62 motorways, Port Salford is the UK's first tri-modal inland port facility and distribution park accessible by road, rail and short-sea shipping. In addition, Peel Logistics has also submitted plans for a 175,000 sq ft speculative development at Liverpool International Business Park.

Naus believes the future is about flexibility, with multi-modal locations providing retailers with far more options. "There is a lot of value in that sort of flexibility for retailers," he says. "For retailers, the investment now is not simply about property, it's about the huge amount of technology and plant that is being installed in these facilities and staff availability. These are big decisions."

ROAD

Driver shortage blights improvements

In December 2014 a £15bn road building plan was approved, which will cover 100 new projects, 84 of which will be new roads. More than 1,300 new lane miles will be added on motorways and trunk roads.

Schemes include improvements to the A303 passing Stonehenge, the northern-most A1, the M62 Manchester to Leeds link, links to Liverpool2, the A27 near Brighton, the A47 and connections to the A11 in Norfolk and the M42 between Birmingham and the airport. However, the logistics industry is facing an additional challenge because of a severe shortage of long-distance lorry drivers.

The Freight Transport Association estimates there is a driver shortage of 60,000 for large goods vehicles.







cannibalisation, plus the difficulty in securing property in the right locations."

With imports increasing and the Southeast as the affluent consumer focal point, Naus points out that product could come into Felixstowe or Southampton, be transported to the Midlands, only for it then to be trucked back to stores in southern England. "A model is emerging whereby having two or three distribution centres close to ports, picking up good rail points and potentially regional airports, is much more efficient."

He says this is why the more recently developed ports – notably London Gateway, Teesport and Liverpool – have been so eager to embrace rail as it "balances the flow", but Naus also warns that using rail freight comes with its own challenges.

"Rail only works if you have full loads there and back, not one way," he says. "It's why the Tesco Daventry-to-Scotland service has worked so well. And we can see others, such as Marks & Spencer, Asda, Sainsbury's and Co-operative developing their distributed systems."

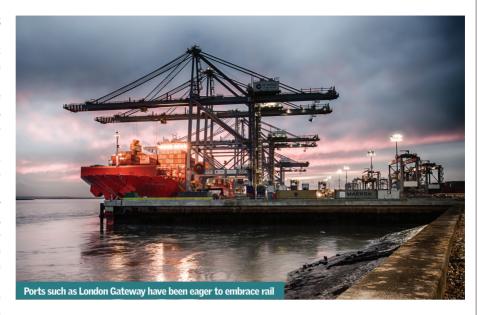
Of the two highest profile projects in the UK, DP World London Gateway currently has two deep sea berths but will add a third in the second half of this year. At the same time the logistics park is being developed in partnership with operations specialists and retailers.

The first building opened last May – the DP World London Gateway Logistics Centre – which is operated by Import Services on behalf of a number of clients including Mothercare, John Lewis and Argos.

In October a joint 316,000 sq ft facility was opened with Prologis and the company is preparing another part of the site for five smaller units. In addition, UPS has commenced work on a £120m, 350,000 sq ft parcel delivery centre which will service the UK and Western Europe.

"DP World London Gateway is in a fantastic location, just 10 miles from the M25, and combining world-class deep sea shipping options with on-site logistics services," says Simon Moore, chief executive of DP World London Gateway. "On New Year's Day, UASC Al Muraykh called at London Gateway with a

In December 2014 a **£15bn** road building plan was approved



world record load of 18,601 containers, bringing products to the UK from the Far East. As more and more of the world's largest ships call here, more retailers are benefiting from the service and location."

He adds: "Our investment, and investments like the one from UPS, ensure retailers are able to get their goods in front of consumers faster and more efficiently."

Similarly, the upcoming Liverpool2 is "the enabler" says Peel Ports Group land and property director Andy Martin, who expects the deep sea port to be operational this spring after commissioning and safety checks are completed. The new terminal – which will enable Liverpool to receive 95% of the largest container vessels from the global fleet compared with just 10% now – will then link to a series of inland ports along the Manchester Ship Canal.

"Liverpool2 is all about getting the incoming product much closer to the market and consumer," he says. "Liverpool is the most central deep sea port in the UK and by working with our partners, our Cargo 200 initiative should see 200 million road and rail miles eliminated by 2020.

"This will be secured by bringing cargo much closer to the market, thereby reducing inland transportation. Liverpool2 will allow us to deliver ocean freight closer to destinations in the North and minimise the inland journey needed for export cargoes to access global markets. We have the ability to utilise the Port

> of Liverpool's established rail connections and to trans-ship to Port Salford, Port Warrington, Port Cheshire and Port Wirral."

> The 280,000 sq ft Port Salford development, occupied by Culina Logistics, is the first development for the Peel

Group and joint venture partner Macquarie. Positioned next to the Manchester Ship Canal, M60 and M62 motorways, Port Salford is the UK's first tri-modal inland port facility and distribution park accessible by road, rail and short-sea shipping. In addition, Peel Logistics has also submitted plans for a 175,000 sq ft speculative development at Liverpool International Business Park.

Naus believes the future is about flexibility, with multi-modal locations providing retailers with far more options. "There is a lot of value in that sort of flexibility for retailers," he says. "For retailers, the investment now is not simply about property, it's about the huge amount of technology and plant that is being installed in these facilities and staff availability. These are big decisions."

ROAD

Driver shortage blights improvements

In December 2014 a £15bn road building plan was approved, which will cover 100 new projects, 84 of which will be new roads. More than 1,300 new lane miles will be added on motorways and trunk roads.

Schemes include improvements to the A303 passing Stonehenge, the northern-most A1, the M62 Manchester to Leeds link, links to Liverpool2, the A27 near Brighton, the A47 and connections to the A11 in Norfolk and the M42 between Birmingham and the airport. However, the logistics industry is facing an additional challenge because of a severe shortage of long-distance lorry drivers.

The Freight Transport Association estimates there is a driver shortage of 60,000 for large goods vehicles.



