

Thinking OUTSIDE THE BOX

Conference delegates heard from UPS director of sustainability Peter Harris, who described how the parcel delivery business deals with environmental pressures. Steve Banner reports

With its distinctive chocolate-coloured vans a familiar sight on the streets of major cities, parcel firm UPS has to be one of the best-known brands in the world.

"We're in the small package business," says Peter Harris, UPS's director of sustainability, Europe, and a director of the Low Carbon Vehicle Partnership. "If it travels in a box, then it's probably moved by us."

UPS services no fewer than 10.5 million customers globally every day, and does so with 120,000 vehicles. So the potential environmental impact of its road fleet is substantial and something that has to be effectively managed.

The question Harris is asking, however, is whether logistics can be sustainable in the real world; a world which insists that items are always delivered on time and to the correct destination.

"There's no doubt that transport represents Europe's biggest greenhouse gas challenge, or that diesel is under pressure – and with some justification, frankly – particularly in an urban context," he observes. Tabloid headlines such as 'Dirty diesel kills 50,000' clearly do not help its case.

"Business as usual is no longer good enough, so far as diesel is concerned,

and companies are being pressurised to switch to alternative sources of power," he says. Restrictions on the type of vehicles fleets can acquire and where they can be used look set to get tougher with the imminent advent of London's ultra low emission zone – a zone which London mayor Sadiq Khan intends to expand.

"He's aiming to set up zero-emission zones by the middle of the next decade," Harris adds.

So the transport industry has a choice. "Do we fight it, or do we say 'there's a way through this and one that we can turn to our commercial advantage?'" he asks. In his view, the latter is the better course, and one that is achievable.

Harris says that there are two strands towards achieving greater sustainability – improving efficiency and introducing alternative fuels. Improving efficiency could, for example, mean taking steps to cut fuel consumption, thereby reducing harmful exhaust emissions. "It will never be enough on its own though," Harris says.

"It will keep your carbon footprint where it is, but it won't do any more than that," he adds.

Not that UPS is neglecting efficiency improvements, he stresses. One way it is achieving them is through ORION – On Road Integrated Optimisation and Navigation – which uses

sophisticated algorithms to work out the most efficient way for its drivers to make deliveries during the course of a working day.

ALTERNATIVE FUELS

If you want to go beyond simply maintaining the status quo, however, then you have to look at alternative fuels. By doing so you are meeting the requirements of key corporate customers who are looking to partner with suppliers wedded to sustainable logistics, he says – and government is prepared to support fleets willing to make the switch.

UPS is certainly open to change, says Harris, who spent the first 20 years of his career in fleet engineering; and changes are being implemented. "Twenty-five per cent of all our vehicles will be powered by alternative fuels by 2020, and 40% of all our ground transport will use alternative fuels by 2025," he says. "Twenty-five per cent of the electricity we use will be from renewable sources come 2025 and by 2025 our greenhouse gas emissions will be down by 12%.

"We've now got 9,100 vehicles that run on alternative fuels, and we bought 1,190 in 2017," Harris reports. "We've spent \$750m (£577m) on alternative fuels and filling stations since 2009."

So, which alternative fuels should a fleet opt for? Harris says that from UPS's perspective it depends on whether a vehicle is covering up to 100km a day on collection and delivery work, or clocking up over 100km daily on longer runs.

In the former case, depending on the distance,



FACT

Of UPS's 120,000-strong global delivery fleet, 9,100 vehicles run on alternative fuels. It is targeted to operate 30,000 by 2025



"Companies are being pressurised to switch to alternative fuels"

Peter Harris

Running electric delivery vehicles requires the depot they are based in to have the necessary infrastructure. UPS has set up a suitably equipped depot in Camden covering north and central London, but introducing battery-powered parcel vans has not been problem-free, he admits. When UPS first went electric, the products did not always have sufficient range for some applications, there wasn't always sufficient choice and there were some early failures. Nor did all the manufacturers last the course; Modec being a prime example.

"We acquired 20 Modecs and we've still got seven of them," he says. "It wasn't a bad truck, but it was probably a bit ahead of its time."

Subsequently, UPS has worked with two partners that have converted mid-life (that is, seven-year-old) Mercedes-based diesel vans to battery power. "The project more or less washes its face," Harris says.

Latterly it has been working with Arrival on the development of an electric parcels van which should meet UPS's needs (pictured, left). The Oxfordshire-based company has supplied a small number of battery-driven light commercials to Royal Mail.

"I think we are moving to a point where electric vehicles will compete with diesel on an equal footing in urban areas," Harris says.

It used to be the case that if UPS tried to recharge ten electric vans at one location, then it simply ran out of power. "So we had to have a grid upgrade, which was an expensive and inflexible process," he recalls. In recent times it has gone for grid reinforcement instead. "We've formed a consortium involving us, London's Cross River Partnership, and UK Power Networks Services," he says. "It's involved developing a smart grid which times and spreads the recharging of vehicles throughout the night."

The initiative has had a major impact on the Camden operation. "We can now recharge 170 vans without the need for any more grid reinforcement," he says. "What's more, we've got an energy storage unit at Camden which we can fill with the old batteries we take off our vehicles."

So is introducing a sustainable logistics programme possible? "It is, but it's not easy and it takes time and money," he replies. "But get it right we must; and remember that it can be an engine of growth, not a cost drag." ■

the solution may involve delivering packages on foot, by tricycle or on an electrically assisted bicycle rather than in a vehicle. If a vehicle has to be deployed, however, then it is likely to be battery-powered.

How about 100km-plus trips? "We've bought some of Elon Musk's electric tractor units, but my money is on renewable natural gas," he replies. Ideally it should be renewable liquefied natural gas (LNG) so that the truck can achieve the necessary range, but renewable LNG is not always available.

UPS is relying on bicycle logistics in downtown Hamburg, Germany, Harris reports. Delivering by bicycle in a city centre has the advantage that the rider can get much closer to the customer's premises than a driver in a van, he says. UPS can put all the packages in a container, leave it somewhere convenient – an underground car park, say – and the riders can spend all day delivering the contents. "We're experimenting with this approach in London," says Harris. "We could potentially use it to handle 5% to 10% of our urban business."