

Europe

iesel-powered trucks will be banished from built-up areas in the coming decades, if long-term proposals outlined by European Commission vice president and commissioner for transport Siim Kallas are implemented. The requirement to cut CO₂ emissions from transport by at least 60% by 2050 (against 1990 levels) means that 50% of conventionally-fuelled commercial vehicles will disappear from Europe's cities by 2030, says the commissioner, with complete elimination from urban areas 20 years later.

Addressing a symposium in Brussels, organised by Goodyear Dunlop to launch its new report on fuel efficiency, Kallas insisted the EU needs to play a lead role in creating a Europe-wide charging and refuelling infrastructure. The job, he said, is to provide environmentally-friendly alternative fuels under what he describes as the 'Clean Power for Transport' initiative.

"We need to break our almost complete dependence on oil to fuel our road transport system," he asserted. "Oil is likely to become scarcer in the years to come; demand remains strong; and markets are as volatile as ever. Just look at how little it takes to send oil prices shooting up, with events in countries such as Libya. Realistic alternatives need to be in place."

Shorter term, as well as training drivers to drive more economically – to cut the diesel trucks burn and the $\rm CO_2$ they pump out – other measures must include increased uptake of aerodynamic kits. To make that happen, Kallas wants the EU to review rules that curtail certain aids, such as so-called boattails that extend the rear of a trailer by up to 2m - so breaching truck and trailer length limits.

Boat-tails have the potential to reduce fuel consumption by 7.5% or even more, according to tests performed years ago by PART – the Platform for Aerodynamic Road Transport. A public-private alliance of vehicle manufacturers, operators and researchers, PART lists Dutch aerodynamics specialist Ephicas among its members, with TU Delft (Delft University of Technology) in the Netherlands acting as its secretariat.

The university ran an artic for a year with boattails of varying lengths – 1m, 1.5m, and 2m – at various angles; then for a year without boat-tails. The optimum length proved to be 2m. More recently, TNT Express tested an artic in the Netherlands fitted with a 1.5m boat-tail, dubbed EcoTail and designed



expects

Rules in the UK regulating transport operations are plentiful, but Steve Banner, reporting from Brussels, suggests that operators should turn a watchful eye to what's being hatched on the other side of the Channel

by Ephicas and ATDynamics of the USA. It cut fuel usage by 6%, but the Dutch government had to grant TNT special permission to run the truck over-length.

"Drag accounts for 40% of fuel consumption and a rear-mounted aerodynamic aid of 30cm is simply not long enough to have much effect," states Ephicas technical director Gandert van Raemdonck. That said, practical considerations mean that any boat-tail must be retractable, for truck or trailer loading and unloading through the rear doors, while also being robust enough to withstand accidental damage.

Long story

Something that is favoured by the EU is allowing longer, heavier truck and trailer combinations – so-called EuroCombi drawbars, potentially grossing up to 60 tonnes and 25.25m, and running on eight axles. At present, these are restricted to the roads of individual member states. That, plus deregulation of cabotage, would result in hauliers operating more efficiently, the argument runs, burning less fuel and emitting less CO₂.

A proposal to eliminate the remaining restrictions on cabotage will form part of a legislative package Kallas plans to present to the European Parliament and Council of Ministers in 2013.

Greater flexibility on overall length would certainly be welcomed by car transporter operators, according to Tom Antonissen, EU affairs manager at the Association of European Vehicle Logistics. "Some countries restrict us to 20.75m, while in others it's 18.75m," he observes. "As a consequence, drivers have to unload a couple of vehicles from their trucks when they go from the former to the latter, because it is illegal to cross the border of an EU member state at more than 18.75m."

Many of Kallas's ideas have already been set out in the EC's Transport White Paper, 'Roadmap to a Single European Transport Area', published in 2011. "Decarbonisation of transport is one of its major themes," he says, indicating that the road transport industry needs to play its part in helping the EU cut greenhouse gas emissions and energy usage by 20% come 2020.

For that reason, he is especially impressed by the EC-backed Green eMotion project, in which 42 partners from industry, the energy sector, electric vehicle manufacturers and municipalities, as well as

universities and research institutions, have developed a framework for electric vehicles. "Green eMotion will connect regional and national electro-mobility initiatives in countries such as Spain, Italy, Germany, Sweden, the Republic of Ireland and the UK," said Kallas, "building on the results and comparing different technological approaches to promote the best solution for Europe."

Watching your weight

One incentive the EC believes could be implemented EU-wide, and one already allowed in certain member states, is an alteration to gross weight restrictions that inhibit electric vehicle uptake. Currently, the weight of a battery pack can tip a van conventionally grossing at 3.5 tonnes over that key barrier – meaning car drivers need to pass a separate test, unless they enjoy grandfather rights. The EC is now considering introducing an EU-wide concession that means the licensing barrier for electric light commercials will be raised – possibly to 3.85 tonnes – to take account of the extra burden.

That said, the drive to cut CO_2 emissions seems a low or non-existent priority for many

The importance of correct truck tyre pressures was emphasised by Goodyear



Alternative routes

EU greenhouse gas reduction targets could be more easily achieved, if a third of road freight journeys of over 300km were shifted to rail or water by 2030, and over half by 2050, says transport commissioner Siim Kallas. However, he is not proposing to make such a switch compulsory. "Modal shift cannot be imposed by decrees, but such a vision may inspire us all," he observes.

At the same time he would like to ring-fence some or all of tax revenues derived from transport to fund development of an integrated, efficient EU-wide transport system. Such a move would undoubtedly run into objections from HM Treasury, which would not wish to be told how money raised from UK taxpayers should be spent.

Nor is Kallas's suggestion that diesel taxes should be harmonised, to create a level playing field across Europe, likely to be welcomed by Chancellor George Osborne. Hauliers might offer a round of applause, but the massive hit on UK tax returns would cause consternation in the coalition government.

Furthermore, given that the EU is in the grip of the worst financial crisis since 1945 – meaning economic growth is, at best, sluggish and member states' coffers are bare – it is difficult to see how many of these ideas can be funded. Certainly, the private sector is unlikely to wish to shoulder the burden.





Europe is keen to see the introduction of aero aids such as the 'boat tail' transport operators, if the Goodyear Dunlop report, 'Driving fleet fuel efficiency – the road to 2020', is anything to go by. It reveals that a staggering 30% of European fleets have no plans to do anything about anticipated EU CO₂ regulations.

This despite the fact that bringing down CO_2 also means cutting diesel bills – and that one in seven European hauliers believes they will go to the wall within the next eight years, unless drastic steps

are taken to improve fuel efficiency. Why? The report finds that 40% of hauliers do not have the funds to invest in cleaner trucks. More than 40% also reckon that commercial vehicles are unlikely to achieve efficiency savings of more than 10% between now and 2020. Also, one in five is unconvinced they will achieve any fuel savings at all.

Thus, more than a third of operators are looking to the EU to help them reduce fuel usage over the next 10 years, through investment incentives and promoting new technology. Goodyear Dunlop's answers are the introduction of a website dedicated to helping operators cut fuel expenditure, coupled with advocating compulsory tyre pressure monitoring systems on new heavy trucks, both to improve road safety and to eliminate fuel waste due to underpressure. The tyres giant would also like to see government incentives for operators investing in aerodynamic kits and/or purchasing tyres that match the A, B or C EU tyre label s grades for rolling resistance and wet grip.

But while such solutions may work for some operators, it remains to be seen whether the whole of Europe will be singing from the same hymn sheet when, or perhaps if, proposals see the cold light of day. \blacksquare

