

# INNOVATION BRIEFING 2017

AUTUMN 2017

**Fraikin**  
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## TOPICS COVERED:

- Challenges posed by the National Low Emissions framework
- Urban distribution and the Direct Vision Standard
- The impact of Brexit on the sector



## IT'S HAUL CHANGE

Following the success of Fraikin's inaugural Innovation Breakfast, the company hosted a second event – welcoming more than 30 customers and prospects to an exclusive briefing covering some of the biggest issues in the industry.

Former Commercial Motor Editor-In-Chief Brian Weatherley chaired the meeting at the Double Tree Hotel in Strathclyde, with invited speakers addressing the logistical and financial challenges posed by the National Low Emissions framework, changes to urban distribution and the potential impact Brexit will have on the transport sector.

Kicking off the event, Fraikin CEO Ed Cowell quoted his opposite number at General Motors, Mary Barra, who said: ***“The auto industry is poised for more change in the next five to 10 years than it has seen in the last 50.”***

Picking up on her remarks, he explained that companies like Fraikin are already dealing with lots of changes – and the move from offline to online, and from ownership to usership, is going to really shake-up traditional industry operations.

Cowell also believes that data, and how service providers use it, will be transformational over the next few years. He said: “In a world where data is king, a big issue facing fleets and fleet providers is who owns the data? And what are we allowed to do with the data we're collecting, and can we monetise it? There's no doubt – the people who are able to use key data to cost-optimize customer operations will be the ones who retain their customers and keep growing.”

Fraikin launched the first in its series of planned Innovation Breakfast events in May, and will continue to hold regular briefings across the UK to provide a forum for major topics of discussion.



Martin Flach

## ULTRA LOW EMISSION ZONES: NO CAUSE FOR PANIC

One of the biggest threats facing the UK commercial vehicle industry is that of government-driven plans for Ultra Low Emission Zones (ULEZ) to be rolled out in cities across the country.

For heavy trucks that fail to meet the Euro VI emissions standard, this would result in a Toxicity Charge of £100 each day one is driven into London, with other cities expected to follow suit.

Adding a sense of calm to the situation, Martin Flach, Alternative Fuels Director at Iveco, urged delegates "not to panic".

He said: "It's all manageable. The challenge is looking at how to plan fleet replacement cycles. Looking at a vehicle parc at the end of 2016, about 28 per cent were Euro VI. So with a normal replacement cycle in a flat market, we would expect that by the end of 2020, 61 per cent of the trucks will be Euro VI, and 39 per cent won't be.

"With 450,000 vehicles in the truck parc, the scale of the problem means there's potentially 175,000 vehicles that won't meet the requirements. They wouldn't be able to enter the clean air zones without payment."

### Residual values

Explaining how that will affect residual values, Flach added: "By 2020 those vehicles will effectively be worth nothing. But when you consider that by then a pre-Euro VI truck is going to be seven years old or more, the residual value impact is not going to be that significant. There will be quite a good demand for Euro VI trucks in the 2018 to 2020 period."

But what about the 175,000 trucks that won't meet Euro VI levels? At current production levels, that's around three-and-a-half years' worth of supply...

"Our message is: Don't all arrive on December 31st, 2020, and look to buy 175,000 trucks from us or our competitors because we won't be able to deliver. Planning ahead is key, because it's a manageable issue if you act now."



Low emission zones are being rolled out in cities across the country.

## IS DIESEL DEAD?

Another hot topic of discussion was the future of diesel, with IVECO's Flach insisting the fuel remains a key component of the road transport market – at least in the short term.

"Diesel has been a great fuel. We believe Euro VI diesel vehicles will carry on because they're very clean. In many cases, the exhaust emissions can be cleaner than what goes into the engine through the air filter.

"We've seen through real life results that Euro VI commercial vehicles are actually doing what the legislation wanted them to do. That hasn't always been the case with some cars, so trucks are doing a really good job.

"Diesel's been the main transport fuel since the 1930s. It has a high-energy density, wide infrastructure and nationwide availability. It's not going to change overnight and particularly for longer distance vehicles, we believe diesel will remain one of the key fuels for some time to come."

However, Flach admitted the continued popularity of diesel will come at a price: "We have to remember that diesel has got a high carbon content. European oil dependency is an issue, combustion produces particulates and it generates noise, not to mention the risk of ecological spills as happened in the Gulf of Mexico."

Offering his expert opinion to delegates, Flach said: "We predict diesel taxation is only going to get higher. We're not going to be encouraged to use diesel. We need alternatives. When I look at the alternatives, it's got to be as efficient as diesel – so cost of ownership, reliability, safety and payload are all key factors."



## ELECTRIC VS NATURAL GAS: WHICH ONE'S IN FRONT?

Martin Flach weighed up the pros and cons of the two main contenders to replace diesel engines – electric and natural gas. So, is there a clear front-runner at present?

He said: "Electrics can be quite effective in the urban environment, and offer good environmental performance. But when I start to look at longer distance, electrics aren't there. And I don't believe they're going to be there for some time.

"Plug-in hybrids look more encouraging, and they potentially open the boundaries to what you can use the vehicle for – not just an urban operation, but something doing a little bit more distance. Though the one we trust, that really ticks the boxes now, is natural gas. And by that I mean both compressed and liquid options, particularly when you're using biomethane.

"The other challenge on electrics is the cost. To give you an example of where we are currently, in very broad number's, it's about £60,000 for single-battery IVECO Daily, £80,000 for two-battery, and £100,000 for three-battery. I never thought I'd stand up in front of people and say you can buy Daily for £100,000!"

Flach outlined a case for London operators making a Daily Electric cost-neutral, with a two-battery Daily costing £80,000, but reducing to £64,000 with a 20% plugged-in van grant. Then he took off the comparative price of a diesel vehicle – say £20,000 – and a customer is left with £44,000. From this, remove the direct advantages of only paying for electricity, not diesel, and you save a further £4,000 annually, plus £3,000 in Congestion Charge payments. Over six years that totals a further £42,000 saving.

"Suddenly, you have virtually a cost-neutral situation – and that's without allowing for any residual value on the vehicle, or the PR value of turning your fleet electric," he said.



## PLANNING FOR DIRECT VISION LIKE 'PLAYING SQUASH IN THE OPEN AIR'

Uncertainty surrounding Transport for London's Direct Vision Standard (DVS) means it's too early to make buying decisions based on the scheme, Martin Flach told delegates at the briefing.

While he accepts blind spots must be addressed, the exact nature of modifications to make trucks over 12 tonnes safer for cyclists and pedestrians on the city's streets remain unclear.

He revealed: "I'd say in terms of buying policies, it's too early to start making decisions based on the London Direct Vision Standard, but keep your mind open.

"For us as manufacturers, it's a bit like trying to play squash in the open air, but you do it until somebody actually comes up with an idea. Vision Standards? Great – we all applaud it and I don't think there is anybody in this room who would disagree. So, the objective sentiments are exactly where we all want to be. But how do we respond with clarity until we know what the rules are and what we need to do?"

Using a star system, HGVs will be rated from zero (the lowest) to five – based on how much the driver can see directly through their cab windows. By 2020, trucks over 12 tonnes must have a star rating of one or more to be granted a permit to enter London.

Flach added: "The stars will come from forward visibility and side visibility. But the details are still not confirmed; it's still very much up in the air. But what is known is that to get good stars you've got to have a very low front windscreen, the passenger door has got to be largely glass and you need a very low-set cab.

"That tends to look like a bus or a low-entry refuse collection vehicle. And the reason we are a bit skeptical is that if Direct Vision was the answer, then buses would never actually hit cyclists or pedestrians. Unfortunately, they do, so buses are not immune to having issues. So, saying that Direct Vision is the answer and the panacea to everything is actually not the right approach."



Modifications that improve driver visibility will help an HGV's safety rating.

# BREXIT: CROSSING THE BORDER INTO THE UNKNOWN

Chris Yarsley, the Freight Transport Association's Policy Manager Midlands & UK Brexit, stepped up to the podium to help steer delegates through the murky waters of the UK's exit from the European Union.

Although the impact Brexit will have on trucks crossing the border is steeped in conjecture, Yarsley is piling pressure on the government and Brussels to form a concrete plan of action that will assist rather than impede overseas operations.

He said: "When UK companies initially cross the border, we need to maintain our access into the single market to enable the UK to keep trading. We are quite worried about what could be the situation in the absence of an agreed trading relationship in the future. And the dreaded word of permits pops up every now and again.

"Would an operator have to apply to the government for a pot of permits per year, to cross the border and trade within the EU? We don't know, it is a possibility, but we're very much against that. And that's the message we constantly tell the UK government.

"Once we become a third country, we are an external door to the EU, so will we then have things like customs controls, veterinary checks, health checks on food products, etc? The big point is what happens at Dover and Calais on Brexit day plus one? We're very supportive of the government's vision of an IT solution that will solve everything, but that needs to start to have some more meat on the bones when they're bringing in the new replacement for the customs declaration system. And we hope that will work, but government IT schemes haven't got the greatest record.

"What we are trying to avoid is tailbacks at the ports by the imposition of controls and checks at the port, by the port. Our major port in the UK can't really cope with any extra checks. And that's just the number of people. There's also the physical space. If you know Dover, the port is literally up against the cliff, so you can't physically expand unless you are going to dig your way into the chalk cliffs and under the castle.

"The clock is ticking, whether we like it or not. We're keeping up the pressure on the UK government, and on other people via our office in Brussels, and we hope that things do start to move on shortly."

## Q&A SESSION

The Innovation Breakfast was far more an interactive meeting of minds than a spectator event for those in attendance, with many guests asking challenging questions.

Martin Flach was quizzed on everything from his thoughts on electric and natural gas to fleet planning exercises for ULEZs.

Here are some of the key questions put to him:

**Ed Cowell, Fraikin CEO: Is there a difference between the servicing costs of an electric vehicle versus a natural gas vehicle?**

"An electric vehicle will be cheaper to service. And if I look 20 to 30 years ahead I would expect to see a very significant portion of commercial vehicles being electric, and not just for the urban environment. But today, the capital cost of the electric vehicle is just so high. The advantage with natural gas vehicles is that they cost only a little bit more, but the fuel is a lot cheaper than diesel. So, you can find a payback on running a gas vehicle, and you can do it now, and you can do it in big volume."

**Gary Clark, Actavo's Director of Fleet and Property: How much fuel storage would we require for a natural gas vehicle versus one running on diesel?**

"The factor here is energy density... The energy density of LNG is about 60 per cent that of CNG. So, in the same space on the vehicle, LNG will offer around 60 per cent of the range of diesel. A typical 6x2 diesel artic offers roughly 1,000 miles between fill-ups, so on an LNG tractor, I would expect to get something in the region of 500 to 600 miles. CNG only has about 20 to 25 per cent the energy density of diesel, which means CNG will lend itself either to longer wheelbase vehicles – rigids, for example – where you could put more tanks on physically, or to vehicles doing shorter distances."

**John MacKinnon, Group Transport Manager, Scotch Frost of Glasgow: We operate in the frozen, chilled and ambient sector and we're wondering how we can**



**get reefer systems to work efficiently with an alternative fuel vehicle?**

"There's no reason why you couldn't run the fridge on a gas engine. I'm not sure anybody's doing that at the moment, but they could be. You could also run the fridge electrically. The challenge then is loss of payload because you've got the batteries. There are lots of other alternatives, but it's all down to the compromise between the cost and the weight."

**Brian Weatherley, Chairperson: Can you describe the typical urban delivery vehicle down the line?**

"In the city, I see two scenarios. One will be the vehicle doing the door-to-door delivery, which is inevitably going to end up as something in the region of the 3.5-tonne van. The explosion of the dot com businesses, the Tescos, the Amazons etc, I don't see that slowing down. I think that will carry on. Those vehicles, hopefully, will get cleaner – and we'll be able to run some of those on gas or electric. I suspect artics will become a problem. We need to be able to deliver during the overnight period, but we need a quiet vehicle. That's not an issue. The challenge is to make the driver quiet!"

**Keith Atkins, Fraikin's Fleet Ops and Engineering Director: One of the biggest let downs for CNG/LNG is the current refuelling infrastructure. Will this change?**

"I meet with all of the natural gas fuel companies regularly. Pretty much any of them are happy to build a gas station for any fleet if the amounts of gas they will use meets the minimum criteria. So, typically on heavy commercial vehicles, if you've got about ten vehicles doing 100,000 miles a year each, that would use enough gas to enable somebody to put a gas station on your site."

Talk to a commercial vehicle expert at Fraikin

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