PANASONIC: LOGISTICS INDUSTRY FORUM

Fleet management – what role will technology play in risk management?

THINKTANK SCIENCE MUSEUM, BIRMINGHAM

Contents

Preface

Our latest Logistics Industry Forum took place at the Thinktank Science Museum in Birmingham.

We featured three speakers providing perspectives from legislation, end-user and insurance standpoints. This was followed by a question-and-answer panel session. Afterwards attendees were given demonstrations of Panasonic's Mobile Management Suite and of the PanaVision telematics and video capture system. They were also able to explore the exhibits within the museum.

Organisations represented at the forum

- DHL
- TTC Group Limited
- Jaguar Land Rover
- TNT Express UK
- Visiontrack
- Nestle

Executive summary

Professionals from across the logistics industry came together to hear insight from a panel of three speakers. This was followed by an open-floor discussion. The proceedings were opened and closed by Gary Byrne, Head of Logistics Business Development, Panasonic System Solutions Europe.

The main topic under discussion was 'Fleet management – what role will technology play in risk management?'

The speakers were:

James Tillyer,
FORS Manager at the Chartered Institute of Logistics and Transport (CILT)

Justin Laney,
General Manager – Fleet, John Lewis Partnership

Jason Vallint,
Fleet Safety Strategist for Europe, AIG

Speaker one

The opening presentation was given by **James Tillyer, Manager of FORS (Fleet Operator Recognition Scheme) at the Chartered Institute of Logistics and Transport (CILT)**.

James began by outlining the twin roles of FORS: first, to maintain the governance of the scheme with the industry, working groups, government bodies and other stakeholders; and second, to maintain the standards the scheme represents and ensure they are in line with need.

He then reviewed current fleet management legislation, and noted that every part of it related in some way to safety – and that future legislation is likely to be no different, especially as far as telematics systems and fleet management software are concerned. Developments in this area are leading to greater cost-effectiveness and greater choice, and hence to greater adoption. What's more, as it grows in maturity, more technology is now being installed at the manufacturing stage, James noted, rather than being retrofitted.

The need for fatigue monitoring is likely to grow and so will the need to be further integrated into telematics technology. Manufacturers will also need to be mindful of the extent to which each development could potentially increase driver distraction – and they'll need to, to ensure systems are robust against data theft and even against hijacking for criminal or terrorist ends.

James then turned to the prospect of automated vehicles. He pointed out how much interaction there is between drivers, vehicles and other road users and raised the question of how driverless vehicles would cope with the many variants in any given road situation. During the transition to full automation the role of the person in the cab would evolve: he or she would cease to be a driver and might instead be termed a 'road pilot,' with the need for different skills. This may attract young people to the role.

There would of course be implications for fleet management, and there may also need to be restrictions on routes or on times of day when driverless vehicles were permitted on roads – or both.

In conclusion, James said that the good news is that the Fleet Operator Recognition Scheme (FORS) will help fleet managers continue to meet standards as they evolve, providing them with tools and guidance to improve performance and management. FORS will be raising awareness of fuel consumption and driver performance, creating a system that enables operators to monitor these and related issues such as CO_2 emissions.

FORS, is creating a single standard for all fleet operators – and that standard would continue to change in line with industry and technological developments to ensure there will be continuously improving best practice.

Speaker two

Our next speaker was **Justin Laney, General Manager – Fleet at the John Lewis Partnership**. Justin's presentation considered risk management from an end-user perspective.

Justin set the scene by telling the audience that the John Lewis Partnership (JLP) has 3,200 commercial vehicles and 1500 cars and that, as might be expected, the biggest risk in this fleet was in van deliveries – for instance, of Waitrose online shopping. Current systems record incidents and also measure driving styles, and enable analysis and reports that are fed to senior management in recognition of the importance of this issue.

Fleet risk management software also enables Justin and his team to drill down to assess individual drivers, who need to have an acceptable risk quota to stay on the road. Drivers receive information on their performance via multiple technological platforms as part of a training, development and review process that enables them to have favourable pay reviews or to develop their careers – for instance, by working towards licences to drive larger vehicles. Checks and balances in the process that are consistent across the country ensure drivers understand the implications of any incidents and of their overall performance.

Justin then looked ahead, and described the steps between conventional driver-only vehicle control and fully automated driving. For example, assisted driving already enables drivers to take their hands or feet from the controls, while conditional automation means they can take their eyes off the road too until the vehicle alerts them by effectively saying, "I don't understand this situation and I need you to take over." He demonstrated the possibilities by showing a Tesla

car in action, with someone in the driving seat but taking no action on the entire journey.

Various automated driving technologies were then described. They included automatic emergency braking systems; assistance with city turns, lane changing and traffic jams; traffic sign recognition; automatic lateral collision avoidance; and assistance in case of medical emergencies, where the vehicle detects a problem with the driver, takes control of the vehicle, stops it in a safe place and alerts the emergency services. Closed-course autonomy was a feature that appeared in the Tesla video Justin showed earlier: whereas the car could go off and park itself once the driver had alighted, a truck could take itself to a bay in a depot, uncouple its trailer and perhaps pick up another with no human intervention, enabling the driver to start his or her rest break sooner.

Justin concluded by looking at timescales. To say that there would be mass market introduction of automated cars by 2025 might be pessimistic, he said – but even if it were sooner, it is likely that trucks would come later. This is partly because of a backlog at the suppliers and partly because the risk imperative for cars is greater: after all, they carry people rather than goods.

It's a welcome development. Automation will happen when it's shown to be consistently safer than human driving. It will normalise driving standards – and from the perspective of a major retailer such as the John Lewis Partnership, it will mean even more resources can be focussed on all-important customer service.

Speaker three

Our final speaker was **Jason Vallint, Fleet Safety Strategist for Europe at AIG**. His presentation assessed the insurance implications of technology developments on the road.

AIG looks at insurance issues from a global perspective, and Jason started by making international comparisons. The UK's roads are among the safest in the world: the USA is four times worse, and China and India are worse still. Fatalities are highest in low-income countries, but even in middle-income nations the figures are increasing. This, Jason said, seems to be because while car ownership is increasing there has been no corresponding adjustment in attitude or behaviour. For people aged 15-29 worldwide, road accidents are the biggest cause of death.

Driving for work is the world's third riskiest job. Only deep-sea fishing and coal mining rank higher.

By reducing the need for people to drive, he continued, technology can mitigate these risks. But at the same time technology shifts liability and can complicate things. For example, while fleet operators may currently know the regulations that apply to themselves and to their main suppliers, they will probably know less about those that apply to telemetry and Internet of Things (IoT) suppliers – and there are vast numbers of such providers.

It's how you harness and use the information that technology can give you that makes the difference. A Big Data project AIG is conducting with IBM is a case in point. For instance, striking parked vehicles is a big cause of claims. Knowing this and having access to granular detail can open up several lines of investigation. Was the driver likely to have been distracted? Was the time of day a factor? Was poor routing to blame?

The faster insurers can process the data behind such incidents, the faster claims can be assessed and the better the insurance company can defend the claim on behalf of its client. Upheld claims can affect a logistics company's creditworthiness – and if that happens and drivers are unable to pay to refuel, vehicles are effectively taken off the road and the entire business is put in jeopardy.

Jason then turned to the implications of connected autonomous vehicles (CAVs). Preparedness for the advent of this technology varies globally: for example, the UK exhibits high readiness in regulatory terms but relatively low levels of investment, whereas the USA exhibits opposite trends.

Is the technology proving itself? Some operators are demonstrating their vehicles can on average go 1200 miles between calls for any driver intervention. In logistics terms, interoperability of technologies within and between multi-branded fleets will be key.

In Jason's estimation, CAVs will start to become more visible in 2018 but it will be 20 years before the technology reaches truly industrial scales.

Jason closed by returning to the changes in liability that technology could bring about. For example, he said, IoT safety sensors could actually increase risk if they were insecure and hence open to malicious intrusion. AIG is itself making substantial investments in this area.

Panel discussion

During the morning's presentations the audience was invited to submit questions. These were then addressed by the speakers in a panel discussion facilitated by Kirsty Adams, editor of SHD Logistics magazine. The speakers were joined for this discussion by John Hardy, European Sales & Marketing Director, Panasonic Systems & Solutions Europe.

Contributions were also made from the floor.

What will the city of the future look like?

Justin Laney: With increasing environmental awareness, I think we're going to see more zero emission vehicles, as well as quiet trucks making deliveries at night.

John Hardy: A lot of the technology is going to be built into the city itself. For instance, a smart town called Fujisawa in Japan was completed in 2014. It has over 4000 smart homes interacting online for the provision of various services. Logistics can plug into this kind of infrastructure.

Justin Laney: Yes. For instance, smart homes – and smart depots too – could themselves decide to recharge vehicles at cheaper times of day.

Jason Vallint: AIG is working with IBM on a 'safer roads' initiative in Atlanta, Georgia. But technology is going to change behaviour in other ways too. For example, I think in future, people will be less likely to own their own vehicles.

Justin Laney: But for a while to come, many people will still want the certainty of access to a vehicle. That said, though, it's a generational thing. Even right now, my daughter has no interest in owning a car. She sees it as a burden and a cost. She uses services like Uber instead. And in time, as electric vehicles become the norm, an owned car is going to be harder for some people to charge – especially if they live, say, in a flat. Whereas a CAV that doesn't have a private owner will be able to go off and find its own charging point.

John Hardy: There is a political push towards electric vehicles in the fleet market as well as in cars – but the infra-structure hasn't caught up with the policy. The UK power grid simply isn't ready to support that kind of demand.

Jason Vallint: There's the possibility of smart highways too. Think of all the infrastructure a road system represents. It could be developed. People are looking at thermal technologies that could charge vehicles via the road surface as they travel along it. And roads could perform self-diagnosis, perhaps defrosting and even repairing themselves.

Panel discussion continued

Justin Laney: The Department for Transport is envisaging a completely electric future, with heavy trucks being powered by overhead cables – but that would be prohibitively expensive. I think it's more likely we'll see heavy trucks powered by new synthetic fuels.

Comment from the floor: Public transport infrastructure needs to improve too. Uber is successful because it's filling the gap.

Comment from the floor: We've been talking about smart cities. They're going to be smart enough to advise people on the best transport method in terms of place, infrastructure, time of day, local traffic and public transport status and so on.

How will technology reduce transport costs and insurance costs?

Jason Vallint: Insurance cover is going to rise because of the changes to the Ogden regulation. To offset this the need to manage risk will have to increase, so the insurer will need to work with the insured to improve overall levels of best practice. This will include assessing fleet management systems: the potential of a system to reduce risk will have to become a key criterion. All of which means there's going to need to be greater management buy-in.

Justin Laney: Technology can help to reduce overall transport costs by shortening miles travelled, cutting emissions and decreasing energy consumption per vehicle. And low-carbon fuels can be low-cost, too.

Will technology help companies share available capacity – for example, so as to avoid empty returns?

Justin Laney: There's an academic initiative exploring ways to tackle this. Cambridge University's Engineering Department and Heriott-Watt University are part of it. I'd encourage people to get involved.

James Tillyer: Yes. Truck sharing of this kind is a way off, I think, but it could become viable.

John Hardy: Fleet ownership is expensive, but right now it's necessary. But Uber's success in the taxi market shows another model is possible. We could imagine a scenario where the vehicle manufacturers themselves retain ownership, lease them out to users and manage the supply and charging. This could happen with fleets too. It could be good business for them.

Jason Vallint: Yes. And you could turn that argument around, and see drivers operating on an Uber-like basis as owner-drivers.

Is there technology to monitor fuel usage?

Justin Laney: Telematics systems can handle this very adequately these days.

Do we understand millennials? For instance, are their attitudes to technology and change being assessed via focus groups?

James Tillyer: The Novus Trust is doing just this. It's a work placement scheme putting graduates in touch with supply chain employers. But to encourage more people into logistics, I think we also need to engage with even younger people – say 12- or 13-year-olds. And not just as drivers either: as we all know, logistics extends much further than this. And with increasingly automated vehicles, driving is going to be less significant in any case. We should consider selling the proposition of 'piloting a vehicle' rather than 'being a driver.' It's not just about changing the language. There will be a real difference, because piloting an automated truck is going to require a much broader skill-set.

Justin Laney: Yes. Perhaps even younger, say at primary level. And we have our own graduate scheme at John Lewis Partnership.

Jason Vallint: It's important to understand millennials from an insurance perspective, because they're a high-risk group. There was a Europcar project that rented vehicles to younger people at good rates and that monitored their driving styles with their knowledge as part of the deal. It was a big success: vehicle damage was significantly reduced as a result.

Panel discussion continued

What will be the first fully automated vehicle on UK roads? Will it be a trucker or a home delivery vehicle?

Justin Laney: I think it will be a trucker. Home delivery vehicles will need drivers for some time yet. The dynamics are different.

Will drivers feel technology is becoming too intrusive?

James Tillyer: They might already. In time, though, I think it's going to be less of a problem – not just because they'll get used to the technology, but because there will be less of it demanding their interaction as automation increases.

Justin Laney: That's right. Drivers have to contend with a lot. In the past they had a pair of wing mirrors. Now they probably have at least six, plus cameras, satnavs and other monitors of various kinds. We need to make things smarter rather than add to it all.

Jason Vallint: Yes, we do need to declutter. Too many driver alerts can lead to information overload. Distractions could be reduced by channelling more through a single point, such as a cloud-enabled smartphone.

Do we have any driver feedback regarding current technology?

Comment from the floor: Our own experience has been mixed. Surprisingly, older drivers seem to embrace it more readily. They seem to find it more useful.

Comment from the floor: We find our drivers are more wary of in-vehicle monitors than they are of external devices – speed cameras, for instance. There's some suspicion of the Big Brother in the cab. But as the technology develops and they grow to feel it's actually helping them, they'll embrace it.

Which make the best contribution to safety – telematics or cameras?

John Hardy: Each plays its role. Telematics monitors behaviour; cameras monitor risk.

Jason Vallint: Within a year or so I don't think we'll be making this distinction. They'll all be part of the same system.

Will we or should we see changes in attitudes to the use of hands-free phones? I believe Nestlé no longer allows its drivers to make or receive calls.

James Tillyer: Professional drivers shouldn't be using anything while the vehicle is in motion. But the temptation is of course there – and not just for the drivers either, but for others who want to communicate with them. And of course, phone calls for logistics drivers are going to be more of a challenge than for other road users: they'll probably be listening to detailed instructions while monitoring all the mirrors and monitors and dashboard information and so on that Justin mentioned just now.

Justin Laney: We have a guideline policy of our own. And as James says, it applies not just to our drivers.

Jason Vallint: As we saw in the figures I quoted in my presentation, hands-free phone conversations are top of the risk list, and companies could and perhaps even should impose rules from top to bottom in their organisations, starting with their senior executives. Even though hands-free calls are within the law in the UK it's still possible to be sued because being distracted by one can demonstrate a lack of duty of care – and that, of course, could be a big problem for logistics companies. People may not think a hands-free call is a problem, but it is. You can even test yourself by asking yourself this question: how much do I remember of my journey during my most recent phone call?

Are companies better off moving to driverless vehicles to reduce their costs?

Jason Vallint: In terms of insurance, it's still too early to say. At AIG we're already insuring driverless vehicles around the world and at similar premiums to normal cars – but that's because as yet we have no historical data on which to base our calculations. And of course, any claims will subject to a number of variables. Any one case could involve the vehicle manufacturer, the logistics company, the driver, various device manufacturers, apps developers or Internet of Things providers. In short, it's not always going to be a straightforward motor insurance issue – it could be a product liability issue.

Panel discussion continued

Why has Norway seen a recent drop in road fatalities?

Jason Vallint: It simply a question of sample size. Norway has a small population, so the difference of just a few accidents can significantly change the percentages.

What technologies do you feel could be put in place to improve fleet management that is currently not on the market?

Jason Vallint: Autonomous vehicles… legislation pending.

Justin Laney: The use of machine learning combined with integrated data. Managers are at risk of having too much data and not enough management information - they need an automated system that just presents them with the things they need to know about.

James Tillyer: There should be more use of live vehicle monitoring in terms of defects; not just fuel performance. The technology is already there, but it's comparatively expensive so the cost needs to come down.

Conclusion

The overall topic for this lively discussion was the role technology will play in risk management. A number of key themes emerged, but the one that perhaps gained most attention was the prospect of automated vehicles and the implications they will have for the logistics industry and for life in general. It was generally agreed that between now and the day when fully automated driving arrives there will be a period of transition, and that the technology, the industry and drivers will need to be flexible during this period. The risk implications of this transition phase are hard to gauge: while automation offers a long-term promise to make roads safer, technology may also create more immediate challenges such as information overload for drivers.

The panel discussion pursued this theme but extended its scope. We heard about the smart city and road infrastructures in which automated logistics vehicles could soon be operating, and about the effect such changes might have on the industry's business model.

We discussed the need to attract younger generations into the logistics industry and the role emerging technology may play in this. There were interesting contributions from the floor giving feedback from drivers on current technology implementations – and the panel discussed the risks implicit in one of the most common current in-vehicle technologies in the shape of hands-free telephony. It may not be prohibited in the UK by law, but every speaker agreed it was inadvisable.

It was treat to hear the perspectives of speakers drawn from different areas of the sector, and we are grateful to them and also to Kirsty Adams of SHD Logistics magazine for chairing the panel discussion. We're looking forward to continuing these discussions. Please feel free to get in-contact if you would like to know more about the work that we, Panasonic Business, are doing in this area.

John Hardy,
European Sales & Marketing Director,
Panasonic Systems & Solutions Europe

To learn more visit:
business.panasonic.com/solutions

Follow the conversation
@Panasonic Business Europe

Panasonic

BUSINESS