TRENDS IN TRANSPORT

Telecoms and automated/ connected vehicles

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WHEN DOES A CAR BECOME A PHONE? EV FEATURE DEVELOPMENT AND THE TELECOMMUNICATIONS REGULATIONS

It's only a matter of time before car manufacturers are caught by telecoms regulation, as the tech in electric cars become more sophisticated.

There has been a series of initiatives to encourage us all to switch to electric vehicles (EVs) in place of the traditional internal combustion engine. This follows the UK's legally binding commitment to reach net zero carbon emissions by 2050. From banning the sale of internal combustion engine vehicles in the UK by 2030, and making available £500m in the Automotive Transformation Fund, the race is on to put in place the necessary infrastructure required to charge EVs and to entice the consumer into purchasing an EV.

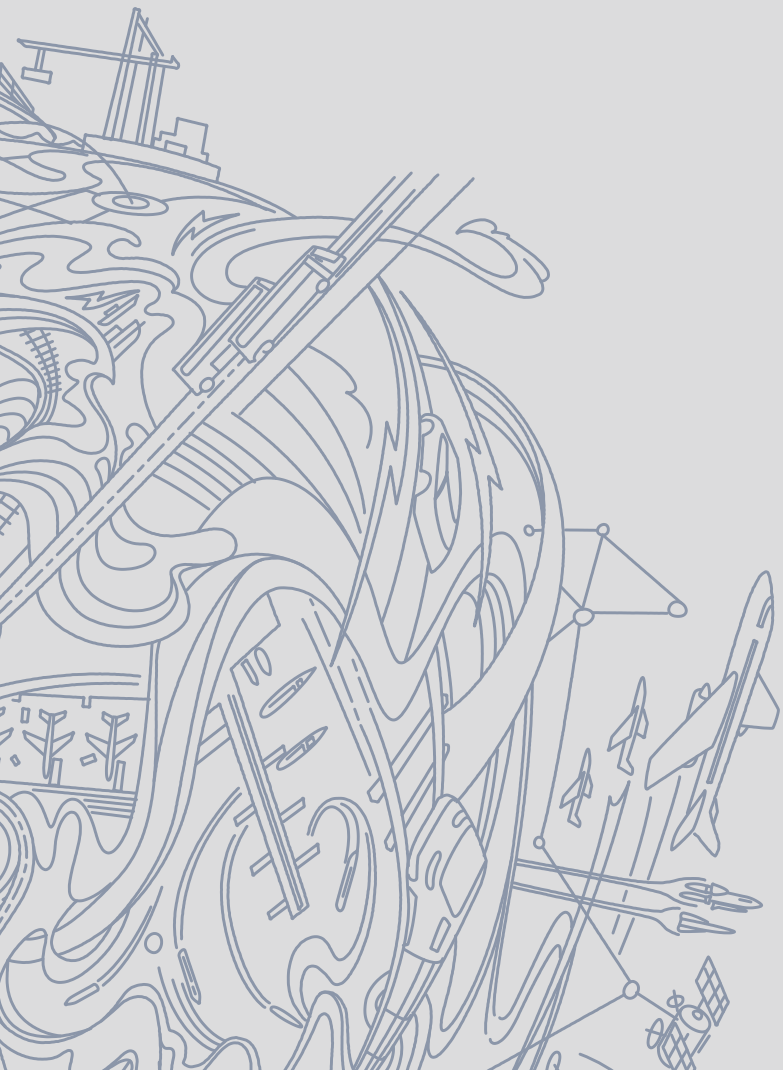
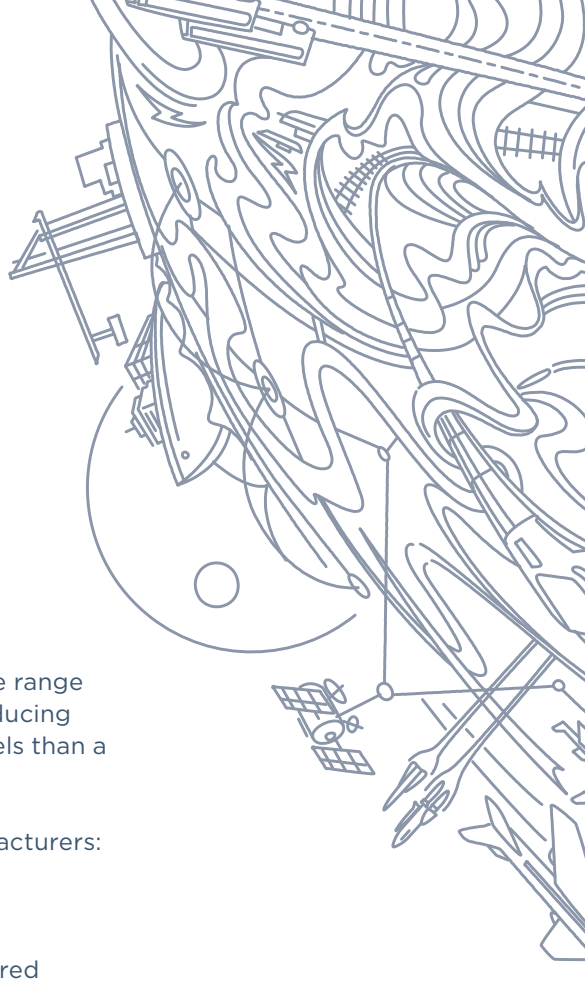


Illustration: Helping agreements take flight by Nic Mac



NEW TECH OFFERINGS

As well advancements in EV battery technologies – increasing the range of an EV on a single charge - manufacturers are continually introducing new features that make EVs more like a computer device on wheels than a simple means of transport.

Look at the potential tech offerings being promised by EV manufacturers:

- voice command and control features
- smart charging where EVs know the amount of charging required for batteries and the distance covered since the last charge, allowing analytics on battery performance
- smart key apps allowing your phone to control access to the EV with unique driver profiles for each user (from preferred radio station, to seat positioning, and speed restrictions)
- EVs that automatically book charging bays
- EVs can communicate to traffic lights and roadside cameras to work out the fastest route and find alternative routes in traffic which are not the same as everyone else's 'plan B' route to truly disperse traffic congestion
- autonomous cars will communicate with each other to help identify their position on the road in respect of each other.

These all require huge amounts of data to be passed between the vehicle and the "cloud" and in some cases the inclusion of a SIM card within the vehicle. The result is EVs becoming connected vehicles. The critical nature of this data exchange - and the potential liabilities if things go wrong - means car manufacturers are unlikely to subcontract cloud operation to third parties. In fact, owning the data and managing the data exchange is a huge potential revenue stream for vehicle manufacturers.

SHIFT FROM CAR MAKERS TO TECH COMPANIES

Challengers like Tesla, who pride themselves on the technological offering of their EVs, have led automotive manufacturers to recognise that to survive they must shift towards becoming technology companies. In January 2020, VW CEO Herbert Deiss professed that:

"We are valued like an automobile company, while Tesla is valued like a tech company,"..."Indeed, as vehicles pivot to electric drivetrains over internal combustion engines, the emphasis also pivots away from engineering prowess to software development."

In November of the same year, Deiss warned the group needed to accelerate becoming a technology company to avoid being the next Nokia.

But this isn't a one-way-street – tech companies are making the move to become car manufacturers. Back in 2014, Apple set up a new division under the control of the former Ford executive Steve Zadesky and former chief executive of Mercedes-Benz's research and development Johann Jungwirt with the purpose of developing its own Apple-branded EV. Apple recruited hard from Tesla, Ford and battery cell manufacturer, A123 Systems.

TELECOMS REGULATION

This transformation of a vehicle manufacturer to a data company could end up meaning car manufacturers' operations are governed by telecommunications (telecoms) and data regulation.

Telecoms regulation will apply as soon as features offered by EVs result in the manufacturer being considered:

- a virtual mobile network operator; or
- a telecoms reseller providing bespoke services (even though they do not own a network themselves).

In the UK, such regulation takes the form of the Communications Act 2003 and the Electronic Communications and Wireless Telegraphy (Amendment) (European Electronic Communications Code and EU Exit) Regulations 2020. In the EU the equivalent regulation is the European Electronic Communications Code 2018/1972.

Vehicle manufacturers could be considered electronic communications service (ECS) providers, depending on the features offered in EVs. An ECS is a service with the principal feature of conveying signals over an electronic communications network[1] but which is not a content service (a service that involves supplying material or involves exercising editorial control over content)[2]. It includes internet access services, interpersonal communications services (being communications that can be likened to telephone calls or texts, where this is not simply ancillary to another service such as computer games e.g. "voice over internet protocol" – a service increasingly available in cars) and transmission services used for the provision of machine-to-machine services and for broadcasting.

Whilst ECS providers do not have to apply for a specific licence, they must comply with the "General Conditions" set out in the Communications Act 2003 which are governed in the UK by Ofcom[3]. Each General Condition states what type of entity it is intended to apply to, so if an EV manufacturer introduces new features to the car, they may need to review all of the General Conditions to identify which ones apply. Part C of the General Conditions (focussing on consumer protection) are the most likely to be relevant to EVs as features develop.

In addition to the General Conditions, Ofcom may set specific conditions on an ECS provider. One reason for applying a special condition is where an ECS provider enjoys a special or exclusive right in relation to the provision of particular non-communication services. This could well capture an EV manufacturer who provides brand-specific services to users of its EVs. Again, this would have to be assessed on a case by case basis given the nature of features being introduced.

If EV manufacturers ever decided to go all the way and set up their own satellite networks to aid the services provided to EVs (or even the automation of vehicles), this would require:

- a specific licence under the Wireless Telegraphy Act 2006 (s. 8) unless the government elects to exempt the use of satellites for EV communications; and
- an application to the International Telecommunication Union for orbital slots as well as operating licences in all jurisdictions into which services are provided.

[1] Communications Act section 32(2)

[2] Communications Act section 32(7)

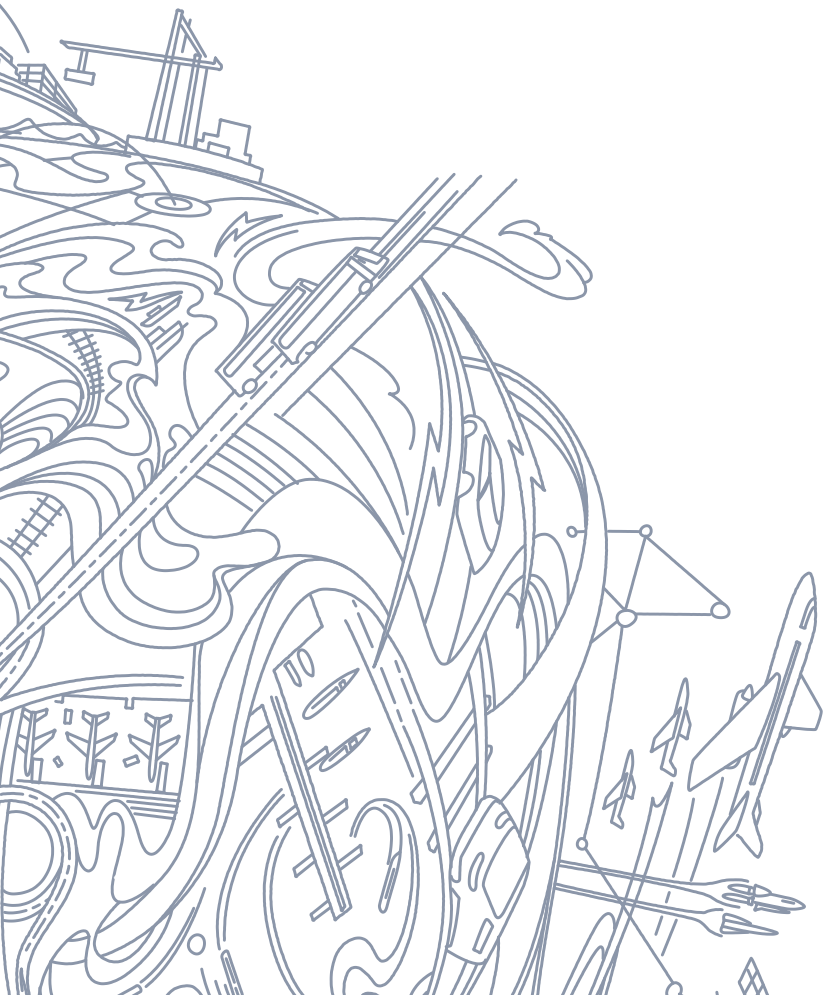
[3] Communications Act section 46(2)(a)

LOOKING FORWARD

The more advance the feature offering in EVs becomes, the more EV manufacturers will need to navigate the application of telecoms regulation. For a period of time we expect EV manufacturers to take steps to structure services in a way that avoids their application. But with the acceptance that in order to thrive EV manufacturers must become technology companies, it may only be a matter of time before the automotive industry sees a seismic shift in appetite to take on the telecoms regulation in a bid to offer the most attractive EV user experience.

CONTACTS

Our work supporting VW in their global alliance with Ford Motor Company and other clients in the EV space means we are well placed to discuss how telecoms and data regulations may impact technology developments in your sector. If you would like a conversation on this, please do contact:



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