



# Connecting to your future digital business models

## Today's vehicles are changing tomorrow's business.

The rate of technological change sweeping the automotive industry has been phenomenal and is still increasing – impacting your business models as we know them today.

Previously, a vehicle would come into a workshop and the 'repair process' would start, either to conduct a scheduled service or to conduct a diagnosis of a vehicle fault that resulted in the replacement of a part to get the vehicle back on the road.

One of the most fundamental changes to our industry is created by the ability to now communicate with the vehicle remotely. With the mandatory fitment of eCall emergency call systems that introduce the basis for remote 'telematics' communication with the vehicle, together with automated systems and ultimately, autonomous vehicles, it is forecast that almost every new car and truck will have telematics capabilities within the next 5 years. The potential is therefore both the existing car park based on wireless transmission of the car data via 'plug-in OBD dongles', and the newly type approved cars using direct telematics systems embedded in the car.

This will change the way that the 'repair process' is conducted, and with it, a change to today's Aftermarket business models. Instead of waiting for a vehicle to come into the workshop, the ability to remotely monitor the vehicle and predict the service and parts requirements before it comes into a workshop creates **THE** competitive advantage.

However, to be competitive, these new 'remote services' require some of the Applications to be embedded directly in the vehicle to allow not only the direct real-time access to the ve-

hicle data needed to run some of the more 'data hungry and time critical' applications like 'prognostics', but also to ensure that these predictive services can be offered directly to the vehicle driver via the in-vehicle display (the new 'shop window' for remote services) when these new services are needed.

## Why remote access is needed

With the increasing magnitude of 'connected cars', this remote access is increasingly important to the independent automotive aftermarket. Not only will remote access support better ways to do what is done today in the workshop and further increase the parts delivery efficiency; it will also allow the development of new services e.g. the precise monitoring of components and driver patterns (with the driver's consent) which enables bespoke service offers to both consumers and to corporate customers to match their business requirements of a given repair network, insurance or fleet management philosophy.

Clearly, the data generated by the vehicle whilst it is being driven (technically known as 'machine generated data') is not only able to help analyse the vehicle's correct functionality, but is valuable for other 'digital trading' services with other service providers, such as technical information providers, diagnostic companies, breakdown organisations and many others. This is the new digital economy and creates a whole new opportunity for new business models for the Aftermarket. The car will become the "Convenience Centre" for its owner and innovative links between the use of the car and its drivers' lifestyle choices' will create entirely new business models based on an individual's mobility requirements.

## Legally yours?

Many people believe that the vehicle driver owns the data, but current legal doctrine in the EU is that this 'machine generated data' simply exists – a little like the temperature of the air – it is a value, but no one owns it. Equally, if it is used to provide a service and the car data can be linked to a real person, then the service provider must of course ensure the correct use, storage and handling of any data which could be considered 'personal data' to comply with the regulatory requirements.

The fact that the sensor- and machine-generated in-vehicle data are not owned by anybody does not prevent that factu-





ally somebody makes these data captive – and this is where the problem starts. Vehicle manufacturers have designed their in-vehicle telematics systems in a closed manner, granting themselves timely and privileged access to the vehicle data. Also, they have the ability to be in direct contact with the driver – the dashboard becoming the new shop window for these new services. Now, the repair process starts in the vehicle with the diagnostics and predictive capabilities being shifted into the vehicle. Vehicle repair has ‘gone digital’ and most critically introduces the vehicle manufacturer as a significant and privileged competitor in the Aftermarket. It is a fundamental question of whoever controls access to the vehicle, its data and resources (with the subsequent ability to both monitor the vehicle and what parts may be required), and the communication with the driver, will control the market.

### **What are vehicle manufacturers offering?**

Whereas vehicle manufacturers themselves benefit from their own fully-fledged in-vehicle telematics systems, some of them have started offering a separate system for other service providers. This is the so-called ‘Extended Vehicle’ concept where vehicle data is sent first to the vehicle manufacturer’s own server and is only then made available to 3rd party service providers. Extended Vehicle has now been renamed the “NEVADA Concept”, but it is no more competitive since the only access to the data by this so called “neutral” server is still through the “Extended Vehicle” back end.

Today we have an independent access to the vehicle and its data via the standardised OBD connector, which establishes the basic principle of direct access to the vehicle to support independent entrepreneurship. However, with the increasing introduction of closed in-vehicle telematics systems, this means that we as independent market operators would become dependent on our competitors! We would have to rely on the vehicle manufacturers’ servers, where we would then only have access to a (restricted) set of data defined by the vehicle manufacturer, limiting innovation and the services that we can offer. Furthermore, the Extended Vehicle provides vehicle manufacturers with the fundamental ability to monitor and profile our companies’ servicing activities – getting insights into our business patterns.

### **First examples of ‘Extended Vehicle’: Publicity meets reality check!**

The first practical checks of an Extended Vehicle model ‘going live’ showed just how much the advertisement of “fair sharing of data” and the reality differed. The quality of data being offered is poor: from the several thousand data points available today to e.g. diagnostic test equipment manufacturers, only some eighty ‘information’ (i.e. often not data) points are made available via the Extended Vehicle server. A big proportion of the information is of a nature that is already available to the driver when they are in or around the vehicle (e.g. is the door closed?), or is displayed via the dashboard. The information proved to be very limited in comparison to the data that is really needed to create competing automotive aftermarket services.

Even if this information being offered via Extended Vehicle was considered useful for independent service providers, the registration process is very burdensome: To get some information a service provider has to describe his business model (including the data needed and to be released following the driver’s consent) to the vehicle manufacturer and to confirm his customer’s details! It clearly shows that Extended Vehicle has serious deficiencies and that it is not a workable solution for the Aftermarket.

Also, hooking to 3rd party B2B marketplaces (i.e. also so-called ‘neutral servers’) behind the vehicle manufacturer’s server does not remedy the basic system errors, which provide limited benefits to the Aftermarket, whilst introducing additional costs, latencies and contractual conditions.

### **What does the independent aftermarket suggest?**

A wide range of European Aftermarket sector associations, together with the European insurance industry, leasing and rental sector companies, have been advocating the creation of an interoperable, secure and standardised in-vehicle telematics platform (OTP), as also suggested by the European Parliament. This provides the ability to develop independent applications that, most importantly, can be implemented safely and securely, but in particular directly into the vehicle, whilst also being able to display these services to the vehicle driver. Based on





such a direct communication possibility with YOUR customer, he can then simply authorise the implementation of offered service applications by selecting and reviewing them on the in-vehicle display and pressing the 'yes' icon to confirm his consent.

### What are the perspectives for this OTP?

Thanks to the work of the European associations such as FIGIEFA and its partners, there is an increasing understanding within the European institutions "that something needs to be done" in relation to access to car data. The European Commission created a forum at the end of 2014 to evaluate how to address the remote access to 'the vehicle, its data and resources' and explored how the mandate from the eCall legislation for an 'OTP' could be implemented.

An external consultancy called TRL subsequently assessed various possible technical solutions forwarded by the forum stakeholders. The TRL Report concluded in the summer of 2017 that although the Extended Vehicle concept provided the quickest and lowest cost solution, it was the worst solution in relation to fulfilling the forum's agreed five guiding principles and in particular, 'undistorted competition'. Conversely, the OTP was the only solution that fulfilled all five of these agreed guiding principles. The TRL Report also emphasised that not only the technical solutions to address security, safety and privacy already exist, but that the benefits provided by this on-board application platform significantly outweighed the costs of implementation. Moreover, it mentioned that such a platform could be legally elaborated within 5 years, as the first examples of on-board application platforms already exist with some vehicle manufacturers (e.g. Toyota, GM and JLR), but they are not yet standardised or open to competing independent service providers.

### Where next?

The whole subject of access to the vehicle, its data and resources is a multi-faceted and dynamic situation, both technically and politically.

Today we have a direct access to the vehicle and its data via the standardised OBD connector, which establishes the basic principle of 'direct access to the vehicle and its data'. However, the basis of being able to access the necessary data through the OBD port is under severe threat of closure by vehicle manufac-

turers, as only emissions-related data is mandated by existing legislation. The introduction of higher levels of vehicle safety and security are also likely to introduce the requirement to use an electronic certificate procedure to enable access to the vehicle and its data. This is already a requirement for some new vehicle models coming into the market.

FIGIEFA and its partner organisations are active in Brussels to obtain an independent and legislatively supported process to define and control the use of certificates, but there is a very real danger that the Aftermarket would still be denied 'fair and undistorted' access to the vehicle, its data and functions unless there is legislative control of this certification process.



### The way forward

For an interim period, we will have to rely on the communication with the vehicle via the OBD connector and on bridging solutions, e.g. third party B2B marketplaces, such as the NEVADA concept. However, if the independent aftermarket still wanted to have an independent future where it can innovate and compete on an equal footing, then there is no way around legislation. Also, bilateral talks for more than one year between vehicle manufacturers and first equipment suppliers (have not to our understanding) resulted in any major advances in terms of the release of data by vehicle manufacturers.

The solution must be based on robust and detailed legislation that defines the ability for a safe, secure and direct access to the vehicle and its data and functions via an on-board application platform. Only this solution over the mid to longer term can truly support the independent Aftermarket with the ability to implement its in-vehicle applications that can directly access



in-vehicle networks, data and resources, but work on this solution needs to start as soon as possible, as new vehicle technologies and services continue to evolve at an even faster pace.

The focus should only be on legislation that will provide the basis for this solution to be implemented and accessed – there is no point in trying to legally fix ‘interim’ solutions – this would just waste time and only be a distraction from focusing on the required solution of the on-board application platform.

Given this background to the developing challenge of remotely accessing the vehicle, FIGIEFA has been increasingly active in promoting its new ‘Direct Access – Driving progress’ campaign ([www.direct-access.eu](http://www.direct-access.eu)), aimed at ensuring that undistorted competition can continue in the new digital services era. FIGIEFA are actively working to achieve the solution that emanated from the eCall legislation proposing an in-vehicle ‘Interoperable, standardised, secure and open-access’ platform – and that has now been supported by the TRL report.



**Neil Pattemore**  
Technical Director at Figiefa



**Therefore, for your own future business models, we invite you to support FIGIEFA’s efforts and campaigning to decision-makers, both directly with your local legislators and through your support of ADI and FIGIEFA at the European level.**

**We need fair digitalisation chances for our industry.**

That means access to the fresh and full data in the vehicle, so that we can continue to offer competitive and innovative services.



**Sylvia Gotzen**  
Chief Executive Officer at FIGIEFA

