PATENT FILE

Future mobility

Christoph Moeller navigates the IP twists and turns on the road towards autonomous driving

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Autonomous driving (AD) is on everyone's lips when it comes to the next big thing in the automotive industry, especially as it is nowadays regularly featured in the daily press. Self-driving cars are certainly the most fascinating and for some the scariest of all future mobility applications, but it is probably the one that relies most on core technologies, some of which have been available for a long time. When it comes to disruption in the automotive sector, connectivity is just as important for AD as artificial intelligence. And ultimately, AD is just the enabling technology for new mobility offerings, like mobility as a service and autonomous taxis.

Of those core technologies, one that has been advancing for a long time, without direct connection to the automotive industry, is mobile connectivity and mobile communication. But with the advent of autonomous driving applications, connected vehicles being able to communicate with the outside world, be it with a backend server to access the latest traffic and road data or with other vehicles in its vicinity to coordinate traffic or to warn other participants, have become indispensable. At the same time, connectivity is not considered the core competence of the automotive industry, which historically was not known to be very focused on IP litigation. Organisations such as the European Council for Automotive R&D (EUCAR) exist, where 15 European car manufacturers, including BMW, Daimler, VW and Volvo, participate in a wide range of collaborative EU R&D programmes to "facilitate and coordinate pre-competitive research and development projects". But with the rise in connectivity, other players enter the stage, which are historically not known for their reluctance when it comes to using IP rights. All of which leads to the question of the future role of IP in this segment.

For many in the industry, autonomous vehicles are essentially smartphones on wheels, and there is a fear that a similar situation will arise as during the so-called 'smartphone wars' in the past, in which everyone was working against and fighting each other instead of concentrating on collaboration. First lawsuits are already pending, with semiconductor maker Broadcom suing original equipment manufacturers (OEMs) in both the US and Germany. At a recent automotive IP conference in which the author participated, there was a prevailing view that tension will increase, and that IP will play an increasingly important role in the future.

IP was developed as an instrument to grant exclusivity to only one party. But in an environment where we are all on the same road and where human lives are at stake, interoperability and standardisation is key. The field of mobile communication has been working with standard essential patents (SEP) for quite some time now. These SEPs are available to all participants under fair, reasonable and non-discriminatory (FRAND). The rationale is sound, yet still does not lead to smooth licensing negotiations, whereby the negotiating parties often accuse each other of abuse of the procedure. The uncertainty currently besetting the industry is based on the image of a historically peaceful technological field colliding with one where IP disputes are on the daily agenda.

Help to solve this dilemma is already at an early stage; prevention of dispute-driven confrontation comes from different directions. First, the European Commission has released a communication Setting out the EU approach to SEPs and providing some guidance on setting out "key principles that foster a balanced, smooth and predictable framework for SEPs". The Commission's underlying rationale is that, "There is no one-size-fit-all solution on what FRAND is: what can be considered fair and reasonable can differ from sector to sector and over time. Efficiency considerations, reasonable licence fee expectations on both sides, the facilitation of the uptake by implementers to promote wide diffusion of the standard should be taken into account". Putting it in a nutshell: FRAND-licensing is highly industry specific and, in any case, continuously evolving, and the expectation to the participants is such that they support progress.

But even the long-established automotive players are looking at the situation from a new perspective and recognise the need to organise, and to standardise technology in order to achieve interoperability and market penetration. For this, OEMs either found or join organisations that support the development of FRAND licensing. One such organisation is the Fair Standards Alliance with members such as BMW and Daimler, but also Apple, among others from the telecom, IT and automotive industries. And although not very specific, EUCAR's internal agreements provide for access rights to be distributed among members on fair and reasonable terms. Finally, the licensor side seems to have evolved as well, with companies like Avanci targeting the connected car sector and offering licences for a "flat-fee licence cost will be tied to the value that the technology provides to the connected device".

While a different, more sensible approach can be noticed in the diverse area of future mobility, it remains to be seen whether lessons from the past can be used to minimise future conflicts. In any case, the automotive industry has a decisive advantage over the smartphone industry, namely that from the joint, non-adverse approach that has been practised for a long time, everyone knows what it means to work together.

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