



## WHY DOES IN-VEHICLE-INFOTAINMENT MATTER TO THE

# AUTOMOTIVE INDUSTRY

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### **EXECUTIVE SUMMARY**

• New generation of car buyers want more connected car features and the automotive industry is adapting to meet this demand.

• In-Vehicle-Infotainment offers valuable real estate to enable new value-added mobile services – yet, the automotive industry is in danger of losing out to the internet giants.

• The rise of Electric Vehicles (EV) and Automated Vehicles (AV) offers a foundation for the automotive industry to realign its offering to capitalise on exciting new opportunities and recurring revenue business models.

• The untapped potential of video and rear seat entertainment services is set to explode as the needs of millennial drivers and increase in ride sharing impacts the market.

• An attractive initial approach is to provide a substantial app store so that car users can use their existing subscriptions to access the 3rd party content services they love and cherish.

• With technology present in over 1.5 billion consumer electronic devices and tens of millions of cars, ACCESS is perfectly positioned to help the global automotive industry develop innovative new services for today that are ready for tomorrow.

# The automotive sector has a 150-year history with its production lines having manufactured over 2 billion vehicles – and it's still going strong.

However, times are changing as this global industry realigns itself to a new, always connected, consumercentric digital era.

But of course, it's an industry that has always anticipated change to find new ways to make the most of advances in technology. Commentators increasingly describe the modern car as a "computer with wheels" and use this as a reason to expect new market entrants from Silicon Valley to take car leadership away from the incumbent automobile manufacturers and Original Equipment Manufacturers (OEMs). We believe that's an extrapolation too far.

With the average car having over a million lines of code, OEMs are already making "computers with wheels". It's the job of the OEMs and their sub-system suppliers to make sure that car passengers and drivers get the best experience possible from the next generation of digitally driven and connected cars.

Major shifts such as the rise of autonomous vehicles are looming. Yet, in the here and now, the industry is dealing with major challenges that, if handled successfully, will define the respective fortunes of each car brand.

#### **Emerging trends**

The first trend is a perennial issue that has vexed automotive industry executives from day one – how to convince car buyers to pick their product versus a rival brand? With most new cars purchased by 25-35-year



olds', this internet savvy generation are demanding more features and related services from car makers. The situation is getting more complex as urbanisation prompts millennials to <u>own less cars per household</u>; instead turning to pay-as-you-drive models and ride-sharing in which the rear seat experience is far more important.

This leads to another trend, as automobile manufacturers vie to build closer relationships with consumers that go beyond the dealer network. The rise of ride-sharing services such as Uber was confirmed when its stock market capitalisation overtook that of Ford several years ago. The automotive industry is aware that on-demand transportation and related services offer a highly lucrative business opportunity that they are well placed to capitalise upon. This car transportation as-a-service model is not new, but the key to tapping into this market is based on accruing data and building brands; an area where the automotive industry is lagging behind the firms born in the internet era.

Another key shift has come from the Chinese market. China is the largest manufacturer of cars and yet at the same time, is well behind the G7 countries in terms of per capita car ownership – so there's plenty of potential growth. Venture capitalists have also invested billions in Chinese EV companies, although according to the research company <u>PitchBook</u>, VC investment has dropped by 90% within the 12 months from mid-2018 to mid-2019.



The trend that heralds the greatest impact is of course autonomy. For infotainment this really changes everything. Front seat legal issues over consuming video will change, making video consumption the no. 1 incar entertainment medium. As ever, the industry will also need to ensure that current and future generation of vehicles meet all the requirements for safety, security, entertainment and connectivity that are vital to serving both consumers and businesses.



#### Learning from the digital revolution

Alongside these challenges, the world outside automotive can offer some valuable insights. Mobile connectivity has revolutionised almost every societal interaction and at its core are software apps and the cloud.

The automotive industry should note Nokia and RIM's failure to respond to rapid shifts in consumer demand and their reluctance to move away from their respective Symbian and Blackberry platforms at a time when Apple had transformed the market with the launch of the iPhone. The modern automobile is increasingly a software driven experience. As <u>BMW board member</u>, <u>Pieter Nota</u>, <u>highlights</u>: "Increasingly, people want to bring their digital lives, their digital systems, into the car with them." Embracing this shift represents a major opportunity – but standing still will allow competitors to transform tomorrow's automotive market.

#### The connected age

This shift is most evident in the In-Vehicle-Infotainment (IVI) platforms that are increasingly acting as the connection point between car manufacturer, consumers and additional services. The modern generation of IVI provides anything from connected entertainment and audio offerings, to navigation, booking and payment services. In the future, IVI will offer an interface for additional services such as streaming video and location-based advertising. The opportunity is broad and increasingly global from Netflix to Youku Tudou; consumers want localised content with flexibility to change as markets evolve.

Catering to the connected consumer is not a goal that can be achieved in isolation. OEMs will need to work with telecommunication service providers to build data plans to cater for differing levels of content access. Additionally, new content and data models in which certain services are already included in the cost of the car could be interesting and popular in some markets.

Consumers travelling within cars offers valuable real estate and a potential battleground, as Silicon Valley brands such as Apple and Google vie to convince automotive brands to let them into the vehicle. However, if the smartphone market is anything to go by; the internet giants driven either by advertising revenue or a walled-garden user experience may not prove the best ally for car brands keen to strengthen and ultimately monetise their customer relationships.

#### Video and rear seat entertainment

The potential for new video-based services is a massive and untapped opportunity for the automotive industry. The rise is happening now, ahead of the arrival of AV. It's happening at a time when demand for minivans/sport utility vehicles (SUV) is increasing in tandem with growing use of ridesharing designed vehicles that need to differentiate services for the rear seat passenger. For the automotive industry, delivering upon the video opportunity requires navigating complexities such as managing content deals, securing access and balancing between the rival Internet giants and media companies keen to reach the 286 million connected passenger cars that are expected to be added globally during the 2019 - 2025 period (2019 <u>Counterpoint Research</u>).

As we enter this inflection point of the automotive industry, we believe that successfully designing cars for three and six years out will be an incredible challenge. This is why we are reducing the content access challenge by functioning as a one-stop shop for OEMs, by acquiring content rights for TV, VOD, audio, games and apps for global usage. By enabling OEMs to focus on the service with a single point of contact for multiple markets, it is our belief that we are bringing a unique offering to the market.



#### **Future Insight**

Within this complex landscape, ACCESS, an industry leader which has deployed its technology in over 1.5 billion devices, including over 30 million cars worldwide, offers an informative series of guides on how the automotive industry can benefit from innovative IVI platforms. This series provides guidance on solving the many IVI challenges the automotive industry faces today and explains how to become better placed to meet short and longer-term strategic goals. This multi-part guide covers key areas, including:

- Enabling the car industry to embrace the next generation IVI and how it impacts the buying decision.
- The importance of in-vehicle connectivity for delivering content and services for the modern consumer.
- The evolution of entertainment including next-generation radio, video and interactive options.
- A deeper look at the potential of video within the automotive landscape and how it can be harnessed to provide a compelling differentiator and value add.
- An overview of the potential service delivery models with a focus on simplifying implementation of next generation infotainment and futureproofing system to ensure longevity in a highly adaptive landscape.

• How the automotive industry can successfully partner with key brands such as Apple, Disney, Google, Hulu, Netflix, Spotify, Tencent and other leaders across multiple types of relevant services delivery models.

The series also offers deep insight into how the visionary car manufacturers are creating breakthrough new services using ACCESS Twine<sup>™</sup> for Car, along with guidance on critical considerations such as security, privacy, technical integration and emerging standards. Perhaps the most important message for OEMs and Tier-1s is that if the industry does not embrace next generation IVI, someone else will – with dire consequences for today's market leaders.

#### ENABLING THE CAR INDUSTRY TO EMBRACE NEXT GENERATION IVI



ACCESS Twine™ for Car will enable video content in vehicles, it will focus on RSE and BYOD; HMI for control and front seat playback when EV charging.



We will see more sophisticated HMI involvement and higher usage of autonomous vehicles. The user experience will be customised, with content specifically created for the car. The growing app ecosystem will be open to third parties, while 5G will help propel the use of video on-the-go.



ACCESS Twine™ for Car will enable all services, ranging from audio to a full living room experience in autonomous cars. Key features for video will include content specifically created for each journey and car user. New business models will enable video playback on several screens, providing 'surround video' as part of a truly immersive user experience.

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