



The future of motor insurance

How car connectivity and ADAS
are impacting the market

A joint whitepaper by HERE and Swiss Re



Swiss Re

here

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Introduction

For the automotive industry, relatively little has changed over the past three decades – until now. New driver assistance technologies and connected services are ushering in a whole new world of motoring. In this new world, the driver hands over ever greater responsibility for his or her driving decisions to the vehicle. On the road today there are already cars with advanced driver assistance systems (ADAS) such as lane-keeping assist or emergency braking that are edging us closer to an autonomous future.

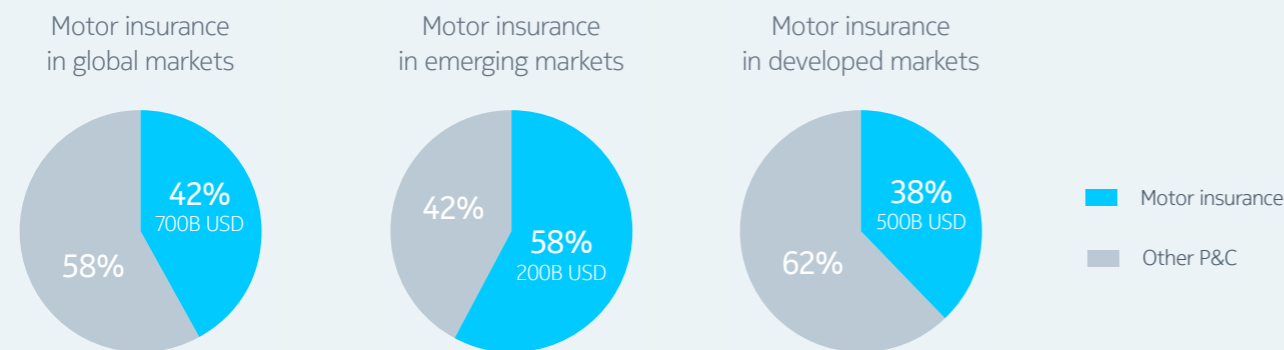
Our relationship with the car is changing, too. Car ownership is on the decline, particularly among urban millennials and other city dwellers, as people factor in the perceived high cost of car ownership as well as alternatives such as ride hailing and car sharing. Seemingly, the car is becoming but one node in a broader network of available transport options.

For both insurers and automakers, this upheaval in the automotive industry and broader mobility ecosystem presents both challenges and opportunities. In this whitepaper, HERE and Swiss Re have teamed up to take a look at how two important developments in particular – the growth of car connectivity and ADAS take-rate – could impact the market for and distribution of motor insurance. We focus on the potential implications of improved road safety and discuss how car connectivity could create a system of engagement around the car where the vehicle is not merely a means of getting from A to B but a conduit for new personalized services for car owners and mobility users alike, in turn creating new business opportunities for automakers and the insurance sector.

The motor insurance market today

Figure 1
Motor insurance business is the most important line of business globally

Motor insurance represents 42% of all non-life gross premium of total Property and Casualty insurance market

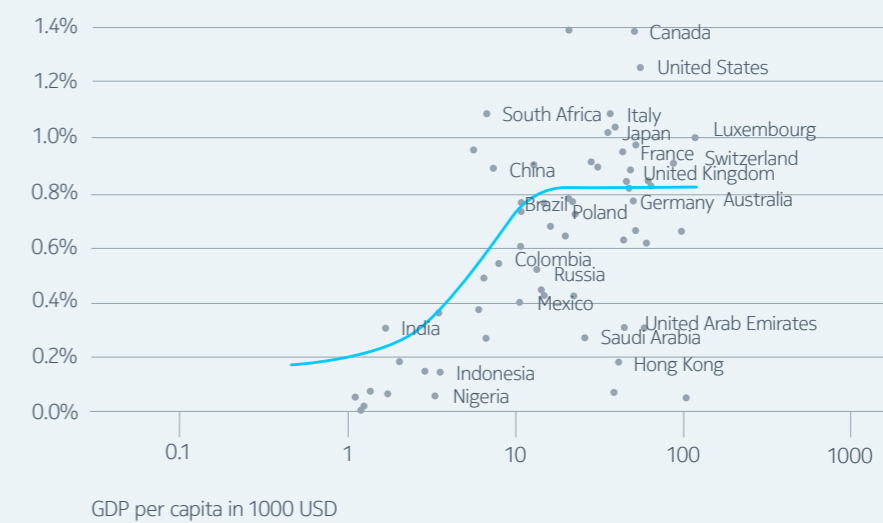


Growth in %	2015-2016E	2016E-2026E
World	3.5%	6.8%
Advanced markets	1.0%	4.1%
Emerging markets	14.0%	11.2%

Source: Swiss Re, 2015

Figure 2
Motor insurance penetration

Motor insurance penetration (premiums as a % of GDP)



Source: Swiss Re, 2015

The World Health Organization (WHO) estimates that road traffic accidents kill 1.2 million people every year, costing economies between 1%–3% of their gross national product¹. The cost derives from:

- Treatment for people injured and/or rendered disabled by accidents
- Reduced productivity of family members who work fewer hours to take care of the victims
- Replacing or repairing vehicles
- Costs of incident investigation
- Cost of road maintenance, such as road infrastructure repairs after serious accidents and the associated labor costs

Considering the above, the role of insurance is hard to ignore. Motor insurance premium growth has been diverging in advanced and developing markets over the last decade (Figure 1). While motor insurance has expanded rapidly in emerging markets, premium growth in the more mature advanced markets has stagnated. The outlook for advanced economies, however, is improving, and is expected to pick up in line with economic growth over the forecast horizon. Emerging markets, meanwhile, will slow slightly, but still outperform.

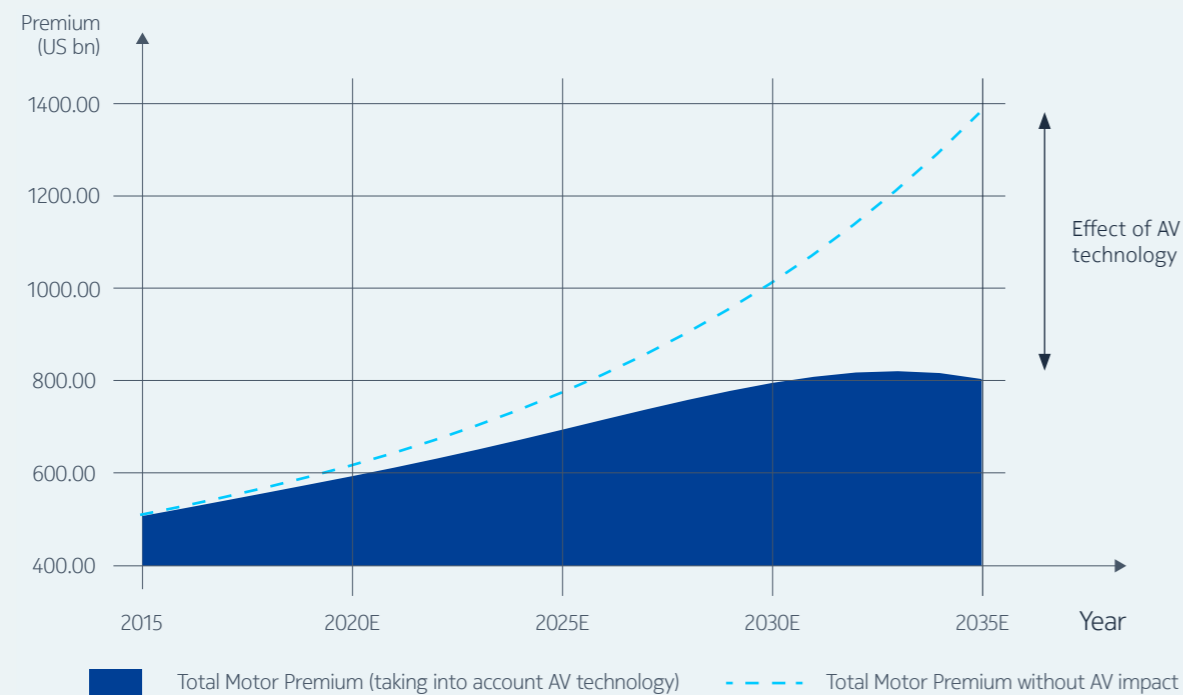
¹ Source: Global Status Report on Road Safety. World Health Organization, 2015

Motor insurance is highly correlated with the economic performance of countries (Figure 2). Although advanced economies are showing signs of recovery, motor insurance premiums will remain under pressure, not least from disruptive technologies, which drive changes in motor vehicle safety and impact both

loss frequency and severity at the same time. The impact on motor insurance will grow as cars evolve and move up in the level of technological automation, from limited and partial automation to highly and fully automated functionality.

The growth of car connectivity

Figure 3
Forecast of motor insurance premium, taking into account impact of technology (not taking into account inflation and assuming 100% ADAS adoption rate)



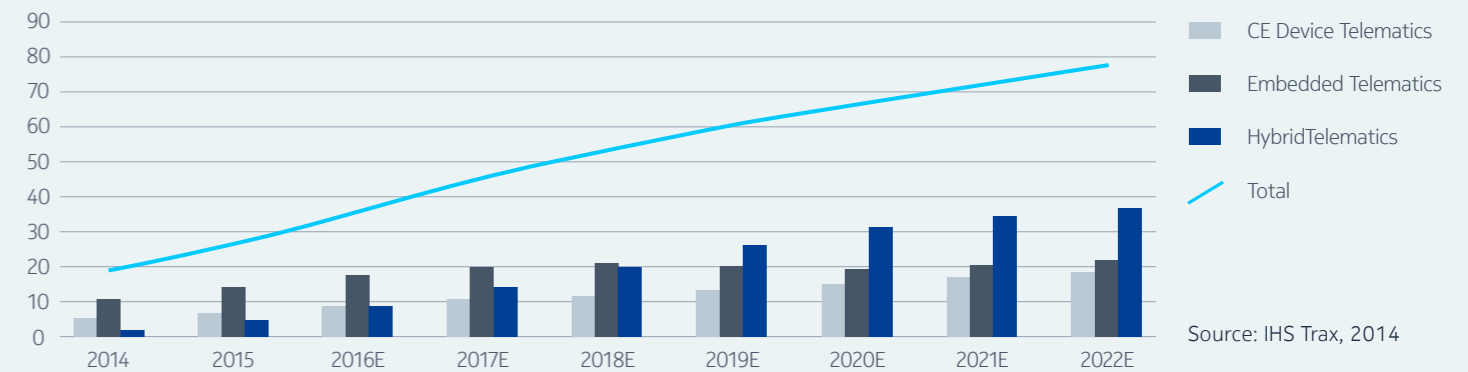
14 largest motor markets: Brazil, Canada, China, Egypt, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, UK, US

Source: Swiss Re, 2015

We have compiled a forecast of the market for motor insurance over the long term in the fourteen largest automobile markets, factoring in the anticipated impact of vehicle automation technology. As Figure 3 shows, premiums are expected to grow from USD 510 billion in 2015 to USD 616 billion in 2020, if vehicle automation technology would be held constant at 2015 levels and inflation effects were excluded. Taking into account technological development, in 2020 the

market would be worth an estimated USD 594 billion. This suggests that within a six-year period just over USD 20 billion would be trimmed from annual premiums as a result of increased road safety enabled by automated car technology. This reduction would be greater were it not for global car sales growth, mainly fueled by growth in emerging Asia, in China and India in particular, which will become the largest markets for motor insurance by 2025 in terms of volume.

Figure 4: Number of connected cars sold annually by connectivity type (Millions)



Source: IHS Trax, 2014

Even though cars have turned into complex computing environments, for the most part, they still remain unconnected. With car manufacturers now racing to equip their vehicles with connectivity options, that is changing. The 'connected car' is very much part of our vocabulary, but while the vast majority of the general public has heard about connected cars, in 2014 only 15% knew what they can actually do, according to a survey co-conducted by Nielsen and SBD².

Connectivity comes in two shapes: embedded and tethered. If embedded, the connectivity is enabled by a receiver unit built into the vehicle itself. Subscription models, similar to prepaid cards for mobile phone, are the typical business model offered by car manufacturers. If tethered, the car gets connected via a third-party system, such as smartphones or other consumer electronic devices. In this case, to access the Internet, the driver uses the data plan of the device.

Basic car connectivity, provided by mobile phones allows for connected services, such as real-time navigation or usage-based insurance. With embedded connectivity, it becomes possible for the vehicle to transmit data generated by its on-board sensors to the cloud, enabling for more sophisticated connected services, such as live contextual data from the cloud

to enhance ADAS functionality. In the long-term, cars will link to the Internet of Things (IoT), communicating with other vehicles (vehicle-to-vehicle, or V2V, communication) and to the surrounding infrastructure (vehicle-to-infrastructure, or V2I).

We expect that by 2020, more than two-thirds of cars sold worldwide will have some form of connectivity. The adoption of hybrid telematics solutions (which feature both embedded and Consumer Electronics Device tethered connectivity) will grow the fastest, with a compound annual growth rate (CAGR) of about 88%. The fast proliferation of hybrid telematics may partly be a consequence of drivers wanting to bring familiar smartphone interfaces into the car or simply a reluctance to use new or different interfaces.

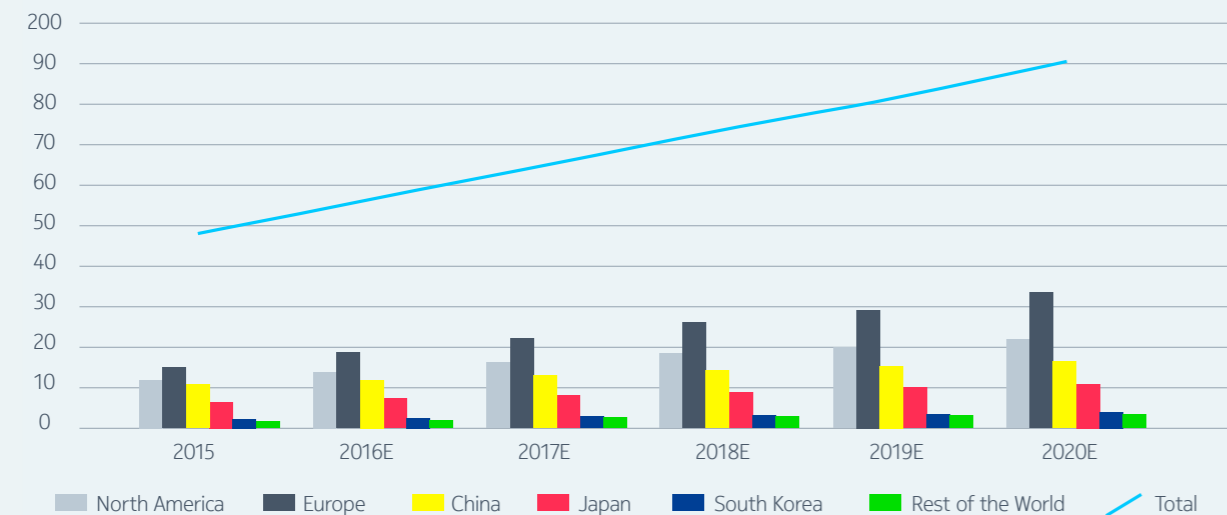
As shown in Figure 4, the number of cars with embedded and tethered connectivity will be growing with a CAGR of 20%.

By 2020, approximately 260 million connected cars will be on the roads worldwide. Since modern upscale cars are equipped with dozens of sophisticated sensors, there are vast streams of driver data that could be aggregated, processed, analyzed and harnessed for different purposes.

² Re-defining Success, SBD and Nielsen, Mobility Telematics Autonomous, Automotive Detroit, June 3/4, 2015

The growth of ADAS

Figure 5
ADAS units production by regions (M)



Source: IHS Trax, 2015

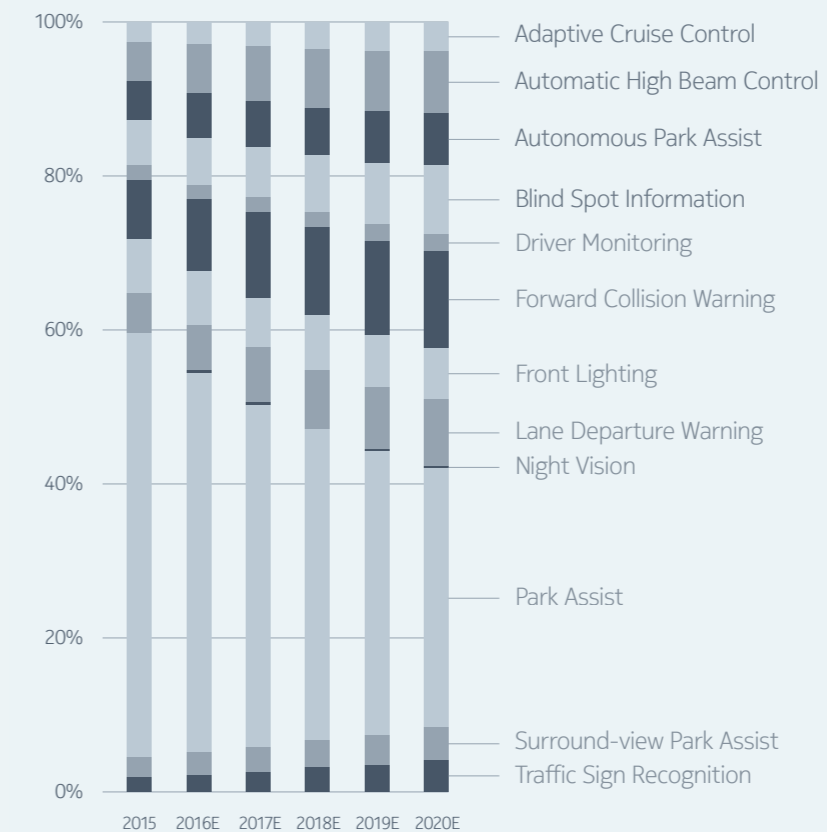
Compared to their older counterparts, modern cars are not only connected but also smart. One of the technologies underpinning this trend is Advanced Driver Assistance Systems (ADAS). ADAS are designed to automate and adapt vehicle systems, as well as increase road safety. The most common types of ADAS on the market are currently focused on collision avoidance, such as forward collision warning and blind spot information, as well as driver aids, such as park assist, adaptive cruise control and automatic high beam control. Car connectivity is expected to further enhance ADAS by enabling the delivery of real-time data to the driver. This has become known in the industry as 'connected ADAS', and is regarded as a key step on the path to highly automated and, ultimately, fully automated driving.

According to research company IHS, the number of vehicles manufactured annually will reach 105 million by 2020. However, the number of ADAS units produced in 2020 is expected to be significantly higher – approximately 180 million. These estimates assume that on average there will be 1.7 ADAS installed per car. However, the distribution of production will not be equal:

Figure 5 shows how the market is expected to evolve in the next four years.

- In 2020, North America, Europe, China and Japan are forecast to account for 92% of the global ADAS production and for 93% of the global ADAS revenue of USD 20.5 billion
- The rates of ADAS production growth are projected to be the highest in Europe and North America – with a CAGR of 22%

Figure 6
ADAS Application Production - Percentage of Total



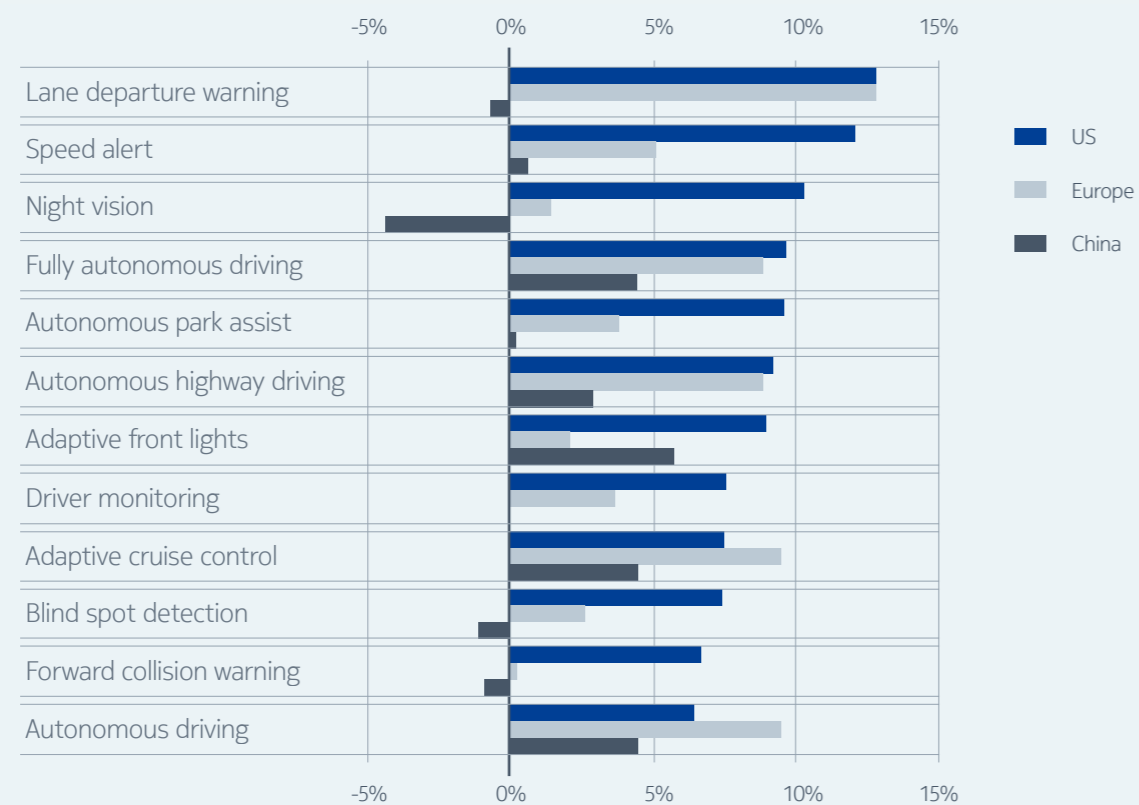
Overall, the market for ADAS could grow to more than \$20 Billion in 2020.

Source: IHS Trax, 2015

Park Assist remains the most popular type of ADAS (Figure 6). Its share of production, however, will diminish as other ADAS increase at a faster rate. These include lane departure warning, forward collision warning, and traffic sign recognition.

Consumer interest in car connectivity and ADAS

Figure 7
Raw year-over-year difference in consumer interest in purchasing each ADAS feature (2014-2015)



n=4400; USA, Western Europe, China

Source: Strategy Analytics, 2015

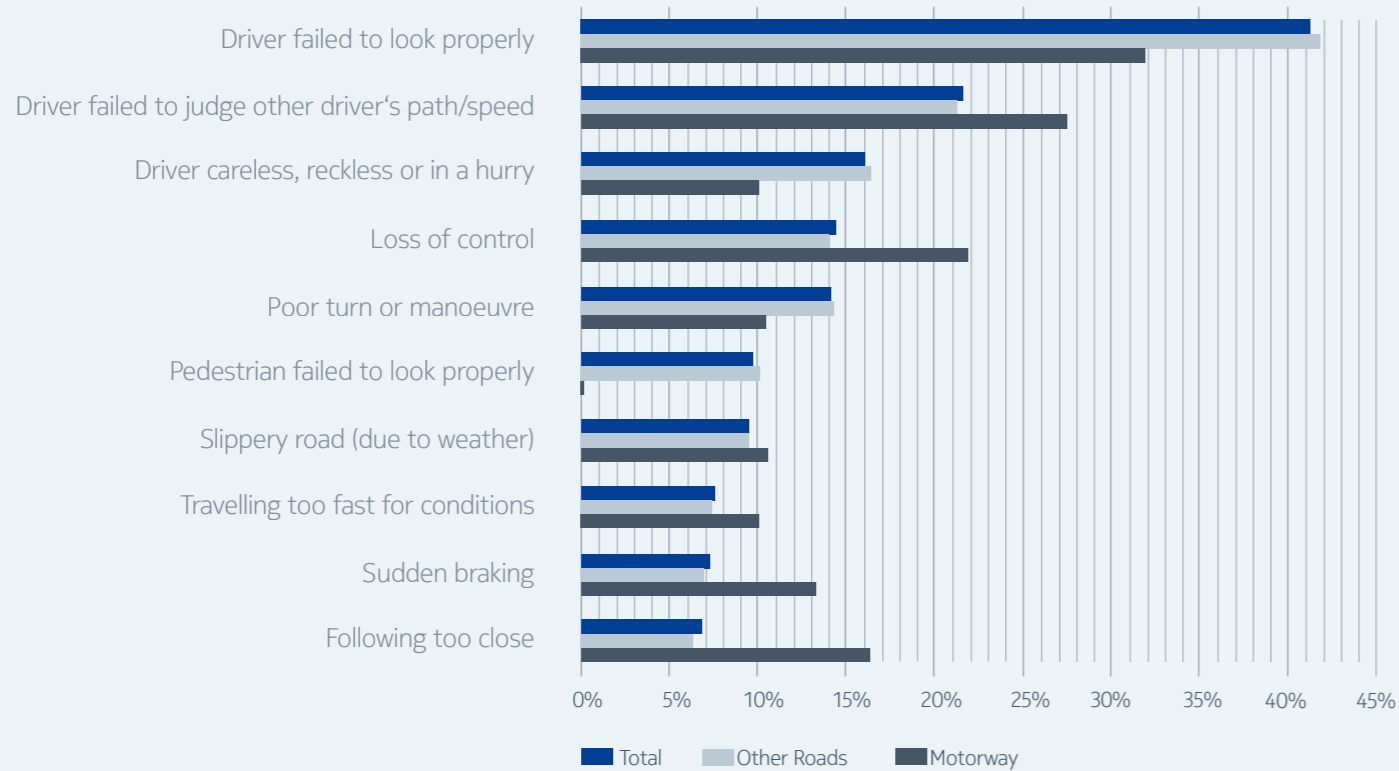
Case study: the implications of car connectivity and ADAS

Unsurprisingly, consumer interest in car connectivity is growing. McKinsey's Connected Car Consumer Survey 2015 found that "over the past year, the share of customers willing to switch their car brand for better connectivity has almost doubled from 20 percent in 2014 to 37 percent in 2015".

Interest in ADAS features is also on the rise. A 2015 consumer study which Strategy Analytics conducted revealed that in Europe, the U.S. and China the overall

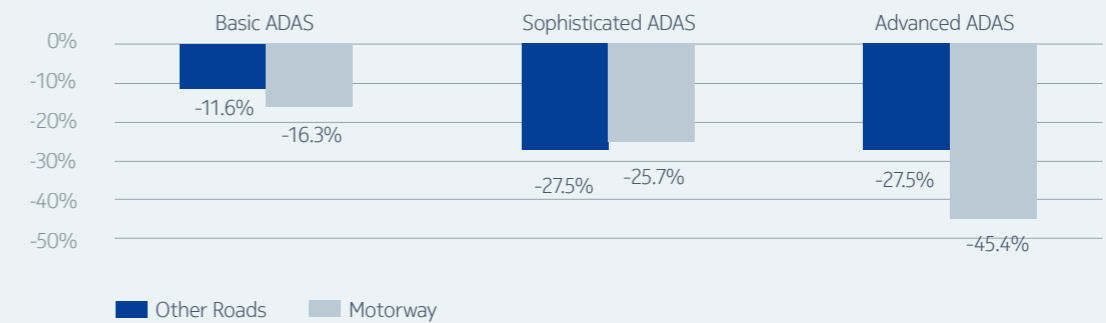
interest in ADAS features as well as the willingness to pay for them rose significantly from the previous year (see Figure 7). Blind spot detection and night vision were the top two features for which consumers are ready to pay. On the other hand, the willingness to pay for highly automated driving features remains relatively low. The reason for this may be that consumers are unfamiliar with the technology. We anticipate this would change as consumer awareness of ADAS benefits grows.

Figure 8
10 major contributory factors for road accidents, by road class (the percentages do not add up to 100% as an accident can have more than one contributory factor)³



Source: UK Department for Transport, 2013-2015

Figure 9
Accident reduction rate by selected features, assuming 100% adoption and usage rate for each feature in 2020



Source: Swiss Re, 2015

To better understand the extent to which car connectivity and ADAS might reduce the frequency of accidents, Swiss Re looked at statistics from the UK Department for Transport, which included insights into why and how traffic accidents happen. The ten ma-

major contributory factors for road accidents are shown in Figure 8. The driver's failure to look properly or to judge another person's path/speed are the most common cause of accidents on both urban roads and motorways.

³ The statistics only cover accidents that were reported to the police. Minor accidents, such as parking accidents, are not reflected in the statistics.

Our study analyzed each accident category and the potential impact of selected ADAS features on the frequency of accidents in these categories, differentiating between motorways and other roads.

The impact of the following technologies were estimated:

- Basic ADAS: including forward collision warning, blind-spot detection and lane-departure warning
- Sophisticated ADAS: lane keeping assistant, emergency braking assistant, night vision
- Advanced ADAS: highway pilot

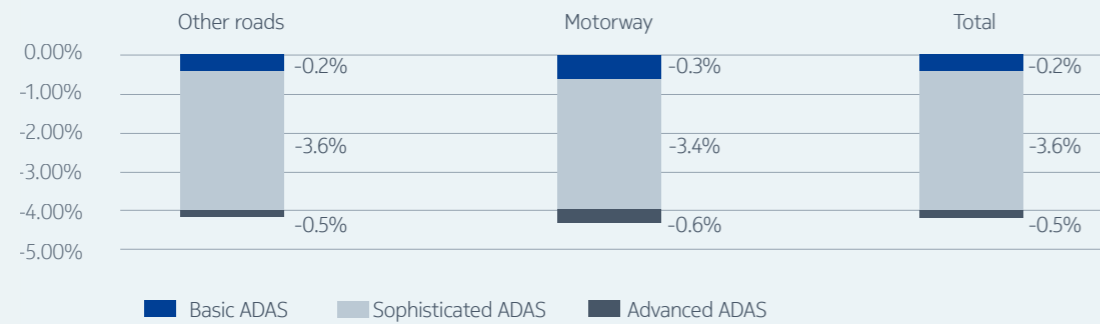
The results in Figure 9 show how many accidents could be reduced by driving a car equipped with either basic,

sophisticated or advanced ADAS features, assuming that they are fully utilized at all times possible:

- Basic ADAS would reduce accidents on motorways by 16.3% and by 11.6% on other roads
- Sophisticated ADAS would reduce accidents on motorways by 25.7% and on other roads by 27.5%
- Advanced ADAS would reduce accidents on motorways by 45.4% and on other roads by 27.5%

Based on these estimates, there would be a clear benefit from all levels of ADAS functionality - notably the potential to cut motorway accidents nearly by half using advanced ADAS.

Figure 10
2020 scenario for accident frequency reduction,
taking into account ADAS technology adoption rates



Source: Swiss Re, 2015

We developed a scenario for 2020 that takes into consideration different adoption rates for each feature (Figure 10). While it is assumed that the accident categories and frequencies will be similar as in 2009-2013, we estimated the adoption rates of each feature based on the data from Highway Loss Data Institute (HLDI)⁴.

By 2020, basic, sophisticated and advanced ADAS is expected to reduce accidents by 4.3%. The advanced ADAS (highway pilot) reduces accidents by just 0.2%, as the adoption rate is expected to still be rather low. If the accident reduction effects of car connectivity are also taken into account, the reduction rate would be approximately 6%.

This forecast is informed by historical data that reflects only accidents reported to the police. A significant share of vehicle accidents occur during parking or maneuvering, for which a police report often is not filed. Allianz estimated that 40% of vehicle accidents incurring physical loss or damage occur during parking or maneuvering⁵. Undoubtedly, ADAS features such as park assist or autonomous park

assist will help reduce this. Furthermore, connected car services, such as mobility management, will contribute to the reduction of accidents occurring during parking and maneuvering as well simply by virtue of reducing the amount of time drivers spend looking for a parking spot.

ADAS also plays a critical role in mitigating the severity of road traffic accidents. The utility of, for example, forward collision and lane-departure warning functionalities, for example, has been shown in an IIHS study on the Honda Accord to reduce the impact of collisions, leading to less severe injuries, lower repair costs and consequently lower insurance claims⁶.

⁴ Highway Loss Data Institute. 2014. Predicted availability of safety features on registered vehicles – an update. Loss Bulletin. Vol. 31, No. 15. Arlington, VA

⁵ https://www.allianz.com/en/press/news/commitment/community/150505_a-sudden-bang-when-parking.html/

⁶ <http://www.iihs.org/iihs/sr/statusreport/article/49/4/2>

Business opportunities for insurance arising from car connectivity and ADAS

It is conventional to think that the development of driverless cars will proceed in a linear fashion with automation progressively replacing human control. In all likelihood, progress will depend on both the success in developing core technical capabilities and on consumer comfort with new in-car automated driving features. While Capgemini's found that 65% of customers would let insurers monitor their driving behavior in exchange for lower premiums, there are also serious personal privacy issues surrounding driver data which could prompt additional regulatory and legal barriers⁷.

Despite recent breakthroughs and signs of increased take-up of telematics or usage-based insurance (UBI) policies the speed and scale of the impact of vehicle connectivity on the insurance sector remains uncertain. According to a survey by KPMG, the majority of personal and commercial auto insurers do not anticipate a significant change to the market for at least another decade⁸. While insurers recognize the IOT is an important factor in shaping their future prospects, at least a quarter of executives believe it is too early to say what the impact will be⁹.

Despite the uncertain outlook, doing nothing is not a viable option: insurers must take strategic decisions now about how to thrive in an era of data-driven insurance. Delays in adapting business models may leave insurers vulnerable to competition from new entrants

from adjacent industries and especially software-centric companies which have been honing their capabilities in big data processing and analytics. Furthermore, where disruptive innovations may have once taken many years to transform an industry, some researchers highlight that new digital capabilities have compressed the adjustment time considerably¹⁰.

The list of potential competitors is long, ranging from established and emerging software and IT companies to traditional auto (parts) manufacturers. Automakers may choose not to share the data they collect but rather use it to issue their own policies. KPMG's recent survey suggested that 58% of insurers believe that original equipment manufacturers (OEMs) will become a major distributor of vehicle insurance in the future, while close to 40% believe that established technology companies will also become direct sellers of insurance¹¹.

⁷ World Insurance Report, Capgemini, 2015

⁸ Automobile insurance in the era of autonomus vehicles, KPMG, June 2015.

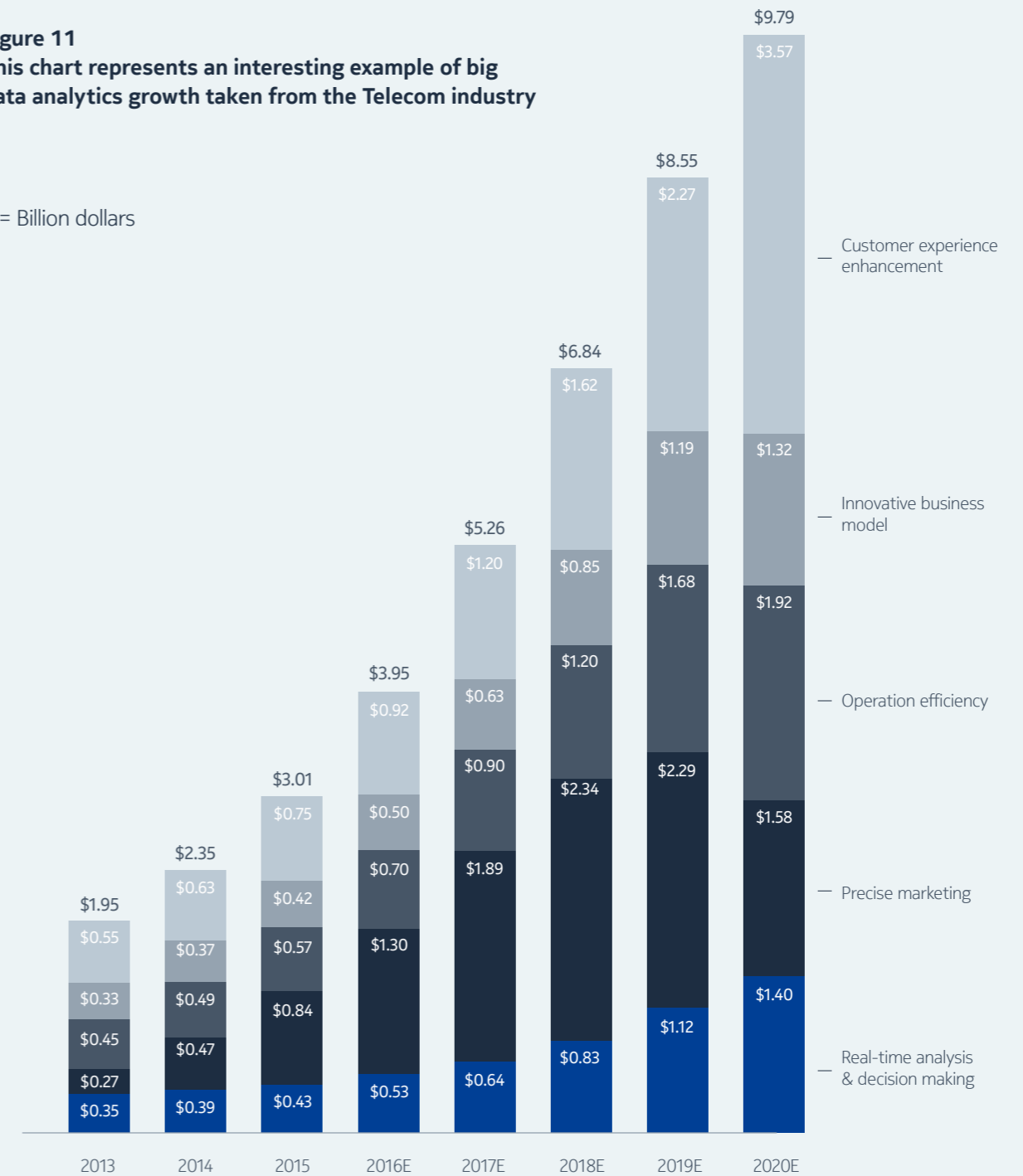
⁹ Are insurers ready for the Internet of Things?, Celent, October 2014.

¹⁰ Big Bang Disruption, Harvard Business Review, March 2013.

¹¹ Automobile insurance in the era of autonomus vehicles, KPMG, June 2015.

Figure 11
This chart represents an interesting example of big data analytics growth taken from the Telecom industry

\$ = Billion dollars



Source: Heavy Reading, 2013

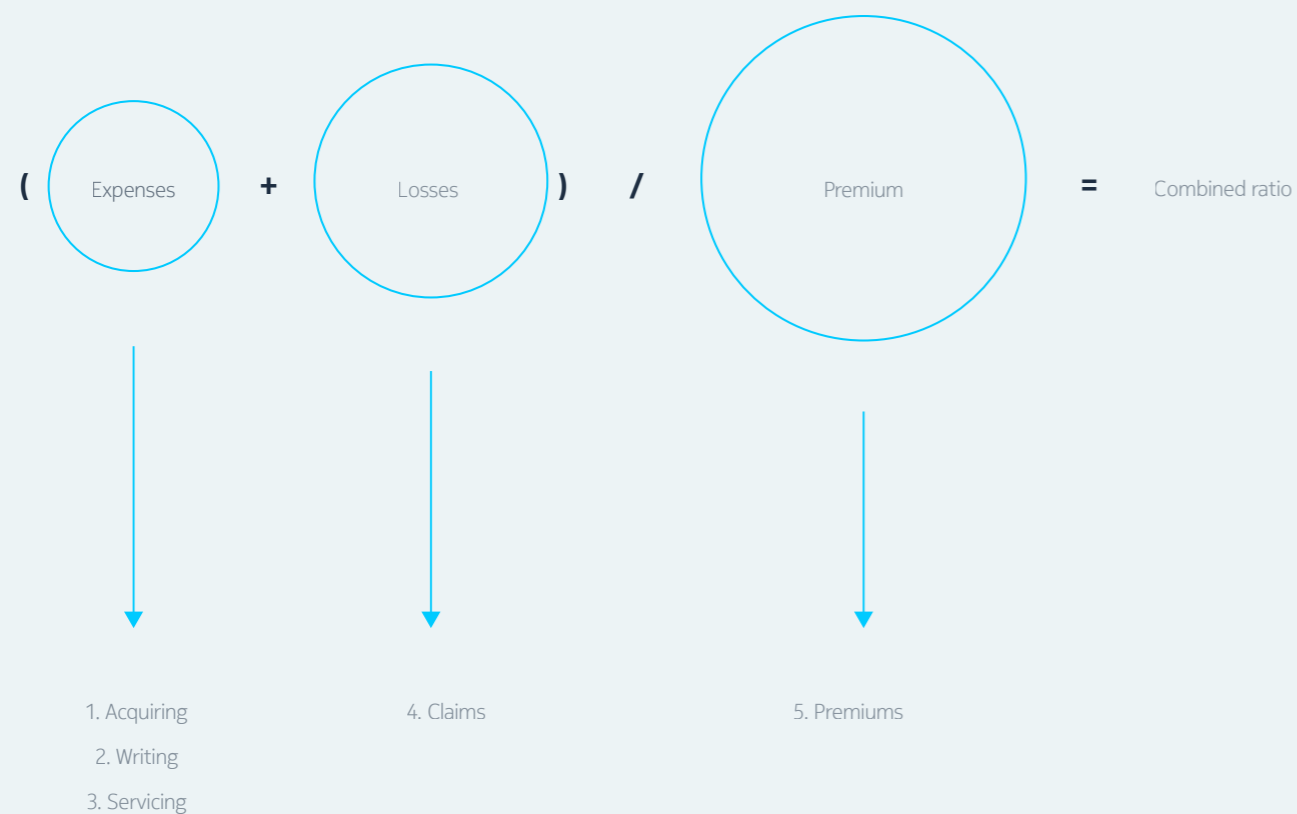
The biggest opportunity for insurers related to car connectivity is usage-based insurance (UBI). Products based on how often, where and how people drive enable insurers to price the risks more accurately, which can result in lower premiums for the insured taking less risk. The demand for insurance policies based on vehicle-based telematics has been growing and we expect the variety of policies available to increase.

The opportunity for insurers also extends beyond the vehicle. By combining vehicle data with information from other sources, such as smartphones or public transit systems, an insurer could build a more complete picture of a driver's usage of mobility services irrespective of the type of transportation they use. This paves the way for insurers to develop new types of policies that insure a user for their broader mobility and not just driving.

Figure 12

An insurer's combined ratio

The combined ratio is the sum of the expenses and the incurred losses (+loss adjustment expenses) divided by the premiums earned. It measures an insurer's profitability in its underwriting operations. A combined ratio < 100% indicates that an underwriting profit is generated, whereas a combined ratio > 100% suggests an underwriting loss, as the insurance company pays out more claims than it earns in premiums. However, even with a combined ratio >100%, an insurer can still make profit, as the combined ratio does not include investment returns.



Swiss Re, 2015

Figure 12 shows the components of an insurer's combined ratio. The impact of ADAS on these components is discussed in the following sections:

1. Acquiring

Increased car connectivity and the creation of a system of engagement around the car, opens new distribution channels for selling motor insurance or cross-selling different insurance products to the driver. By exploiting in-car telematics, insurers can learn more about their customers to identify potential opportunities to cross- and up-sell supplementary products and policy features. Furthermore, car manufacturers are becoming more interested in entering the insurance value chain and distributing insurance. They understand that being the hub that collects driver and vehicle data from embedded telematics devices in vehicles gives them an excellent position to distribute insurance or sell data to insurers¹². Some manufacturers are already equipping vehicles with telematics devices and partnering with insurers.

2. Writing

Connected cars generate vast quantities of data which can enable insurers to select and price risks more accurately.

3. Servicing

Car connectivity simplifies the servicing of insurance policies. By exploiting in-car telematics, insurers can offer additional services such as vehicle theft tracking, automated emergency calls, vehicle diagnostics, breakdown notification, fuel efficiency, safe driving tips and so on. These product features help an insurer to differentiate itself from other auto insurance providers and encourage customer loyalty in an increasingly commoditized market place. Taken together with the cost savings that new technology might bring, such as the reduced potential for fraud¹³ and more efficient claims handling, this can help support underwriting profitability even in the face of enhanced competition.

4. Claims

Car connectivity and the introduction of increasingly sophisticated driver-assist technologies and autonomous driving will lead to significantly improved road safety. Vehicle-to-vehicle (V2V) and

vehicle-to-infrastructure (V2I) data transmission will inform drivers of hazards and dangerous situations they would not normally notice, prompting them to take evasive action. According to a US Department of Transportation report, combined V2V and V2I systems potentially address about 81% of all-vehicle target crashes; 83% of all light-vehicle target crashes; and 72% of all heavy-truck target crashes annually¹⁴.

5. Premiums

As car connectivity and ADAS in principle lead to a reduction in expected losses for insurers, overall insurance premiums for drivers should decrease¹⁵. In a recent survey, 45% of insurance executives indicated that as driverless vehicles enter the marketplace they expect to reduce premiums on personal auto insurance¹⁶. However, in judging the impact of the transition towards highly automated vehicles insurers need to be alert to the potential for large unexpected losses that cannot be addressed simply by pooling risks over a large number of policyholders (and investing the associated premiums in available financial assets). Greater autonomy in motoring changes the nature of insured risks with the result that overall aggregate loss outcomes may not become any more predictable and may indeed become more variable.

¹² For example, Renault-Nissan in cooperation with the Flook Insurance Telematics scoring platform has started to sell insurance policies.

¹³ In 2014, fraudsters attempted to defraud UK insurer, Aviva, out of £20,000 by fabricating personal injury claims related to a motor accident. But on-board telematics devices showed that the car was in fact nowhere near the alleged location of the incident.

¹⁴ The US Department of Transportation claims V2V communications could prevent up to 76% of all driving collisions – see http://www.its.dot.gov/connected_vehicle/connected_vehicle_research.htm#sthash.uebqPpqL.dpuf

¹⁵ In theory, a risk-neutral insurer will set actuarially fair premiums equal to the expected losses associated with the insurance contract.

¹⁶ Automobile insurance in the era of autonomous vehicles, KPMG, June 2015.

Context-aware Vehicle Behavior Analytics (VBA)

A moving car generates a vast amount of data, yet the potential value of this data has not been fully leveraged. Whether captured by embedded vehicle systems or smartphones, most telematics or usage-based insurance programs are fairly rudimentary, allowing for the analysis of a limited array of data such as time, driving speeds and the amount of hard braking during an accident.

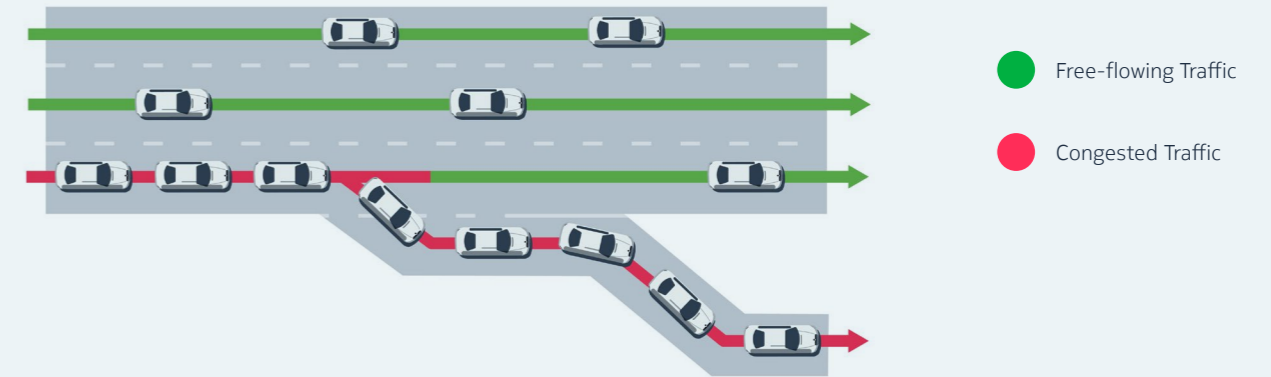
Understanding driver behavior in the real world

Usage-based insurance programs could benefit from much deeper data analysis. It is possible to obtain greater understanding and insight into vehicle when vehicle data is examined and understood alongside other data, such as location information and driver behavior. By utilizing a combination of different datasets, insurers could find previously hidden or non-obvious patterns and insights. With this, we enter the realm of context-aware Vehicle Behavior Analytics (VBA).

VBA offers opportunities for new underwriting models that evaluate individual driving behavior in the context of other drivers. This can be done in various ways. For example, as a provider of navigation and traffic services, HERE every day collects data from billions of

probe data points from large populations of vehicles, which it then processes on its map. The result is a large database of data points precisely assigned to different roadways, enabling HERE to understand better how the broader population drives on almost any road. This data is used to create comparative analytics population models. A given driver's data is then matched to the same roadway sections and normalized against this population model to create a 'driver score' for each roadway section.

Figure 13
An illustration of Split Lane Traffic, a new feature in HERE's traffic product



Source: HERE, 2015

When seeking the context for a vehicle's behavior, it is also useful to be able to examine what traffic conditions were like on the road at a particular point in time. This comparison with actual traffic conditions allows us to understand the context in which a driver was traveling. For instance, a driver may have been traveling at 60 Km/h in a 50 Km/h zone, but if the majority of the traffic around him or her was also moving at the same speed this driver might have been behaving in the most appropriate and responsible manner. Similarly, by fusing data on driver behavior with weather data, it could be determined that, while a driver was driving the speed limit, his speed was inappropriate given heavy rain had reduced visibility and increased the risk of his tires slipping.

Figure 13 offers an illustration of the granularity possible when you are able to layer driver data on a detailed model of the road that includes lane information. Current commercially available real-time traffic products provide only the harmonic weighted average speed of all roads, but the reality often is that traffic moves at different speeds in individual lanes, particularly at major junctions and road splits. The additional data precision enabled by features such as Split Lane Traffic gives insurers increased confidence in their risk calculations.

Other data and technology-driven insurance models

Insurers can also utilize databases of driver behavior to offer a data-driven policy without having access to data specifically taken from the customer's car. Using its database of vehicle accident data, HERE is also able to allocate a 'safety score' to each roadway to reflect the estimated likelihood of an accident per given number of vehicles. With this, HERE is identifying roadways where accidents are more likely than average – data that can then be used to better assess the risk of a driver's typical routes, for example, to and from his or her place of work.

As more vehicles get connected, there are more opportunities for insurers and automakers to analyze individual driving behavior in the context of other drivers and other data not just retroactively, but in near real-time. Car connectivity enables them to establish regular touch points with drivers by using VBA as an early warning alert system that can also better predict new risks. An insurer could potentially issue targeted notifications directly to a customer's dashboard to advise them, for example, that they should change to winter tires a little earlier than usual due to an anticipated cold snap.

Possibilities for automakers

For automakers specifically, being potentially able to offer data-driven insurance at the point of sale enables them to broaden their portfolios of financial services and reposition themselves along the insurance value chain, as well as delivering value-added services to support their brand differentiation. Managing UBI subscriptions in-house will grant automakers a chance to keep in touch with customers, improving their customer relationship management programs. Drivers' positive experiences with automakers as insurers will also affect the consumer preference towards a particular car brand. And finally, a direct access to customers and their cars would create huge databases for delivering personalized recommendations.

Contextual data as the next frontier for insurers

Motor insurance is on the cusp of a transformation as new technologies such as telematics pave the way to safer roads and enable insurers to pursue data-driven business models. Notwithstanding the emergence of new risks around data and software security within the car, we expect that the growth of car connectivity and ADAS in the long run will reduce the overall risk and accidents. This will in turn reduce the need for personal line motor insurance while increasing the importance of product liability covers.

The big opportunity for insurers lies in harnessing data from vehicles and other sources to more accurately price the risks of insuring drivers. How rapidly data-driven models can be deployed of course depends on our ability to capture, process and harness data. Today, data for the most part exists in siloes. However, efforts are underway to change this fragmented picture. As a first critical step, the automotive industry is already working to agree on a standard way for vehicle sensor data to be transmitted to the cloud for aggrega-

tion and analysis. This will enable the entire industry to benefit from the processing of data at scale to create more accurate and precise traffic services and road hazard warning systems. UBI and its offshoot VBA will meanwhile enable insurers to tap into this rich pool of data to entirely rethink their existing risk calculation processes.

Currently, insurers have different approaches in tackling the transition towards the fully self-driving car. Much effort is being expended in order to understand how liability and policies will change. Some are moving faster than others in building the capabilities needed to assess the automated features in vehicles and to develop data-driven approaches to risk calculation.

Going forward, differentiation and embedding new technologies will become key for insurers to prosper amid this change. Clearly, UBI and, increasingly, VBA will provide opportunities for insurers to harness the power of driver data in order to offer more personalized, customer-centric products to drivers. At the same time, insurers must also prepare for a world where vehicle ownership is becoming less important for some. As myriad of changing mobility options become available, insurers must consider how they might insure someone not just for use of a vehicle but for all risks associated with their mobility.

About us



HERE, the location cloud company, enables rich, real-time location applications and experiences for consumers, vehicles, enterprises and governments. Backed by a consortium consisting of AUDI AG, BMW Group and Daimler AG, HERE believes that location technology will play a critical role in making our roads safer, reducing traffic congestion, and improving the quality of life of people living in cities. To learn more about HERE, including its work in the areas of connected and automated driving, visit <http://360.here.com>.

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With a background that spans automotive and telecommunications, Bernd is exploring ways we can connect our vehicles and road networks to enable new kinds of services for consumers, enterprises and cities. These include automated driving, advanced traffic management and more efficient business logistics. Bernd is also supporting the work of HERE in the emerging area of analytics of vehicle data, which is harnessing location cloud technology to develop data-driven business models in telematics.

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Andrea works in the newly set up Automotive Solutions team within Swiss Re’s Casualty division. The team explores re/insurance business opportunities around telematics and self-driving cars. Swiss Re aims to be a thought leader on this topic and wants to help its clients navigate the challenging environment by offering innovative solutions in this area.

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About HERE

HERE, the location cloud company, enables rich, real-time location applications and experiences for consumers, vehicles, enterprises and governments. Backed by a consortium consisting of AUDI AG, BMW Group and Daimler AG, HERE believes that location technology will play a critical role in making our roads safer, reducing traffic congestion, and improving the quality of life of people living in cities. To learn more about HERE, including its work in the areas of connected and automated driving, visit <http://360.here.com>.

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