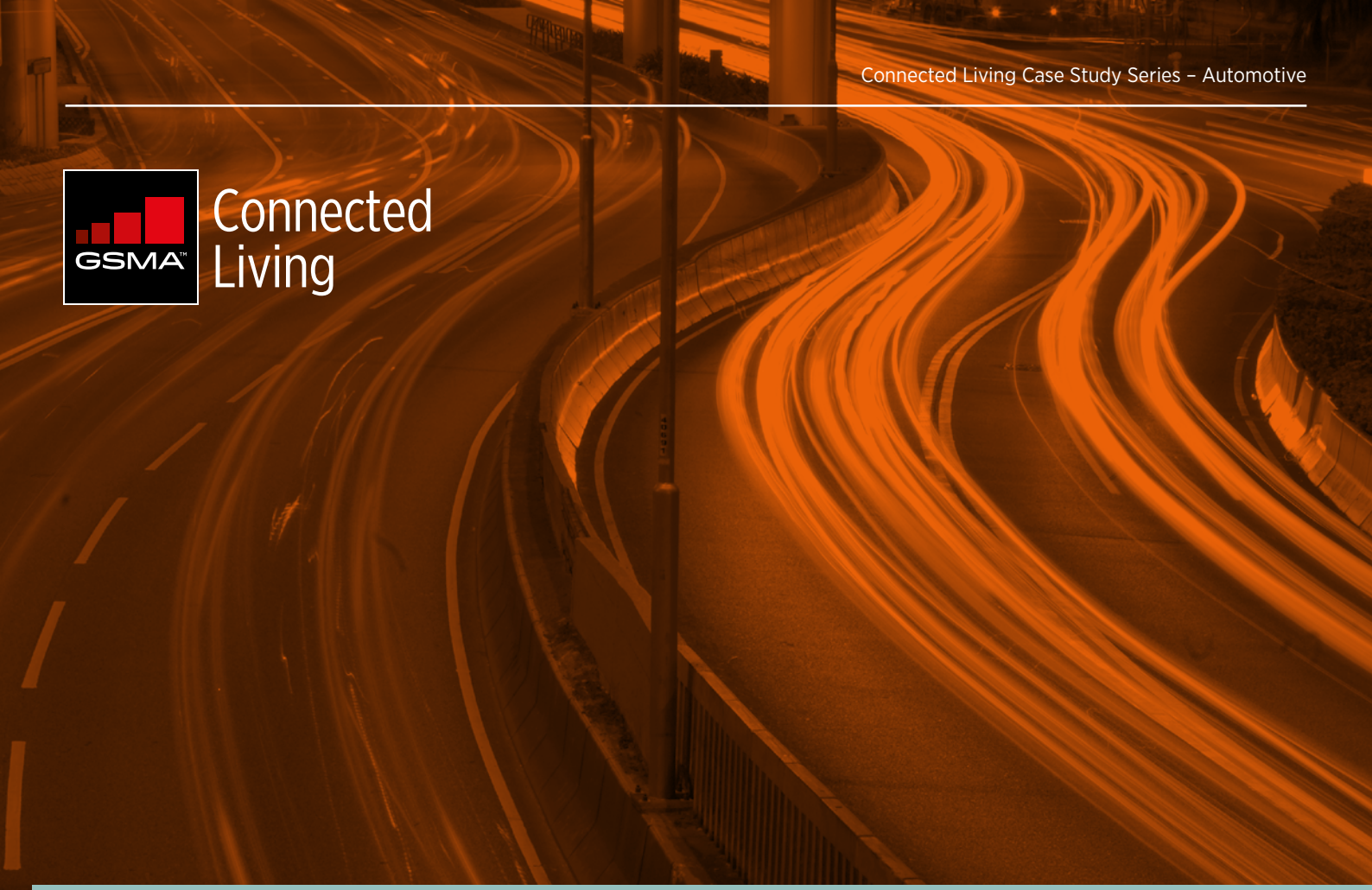


Connected Living

EE helps bring safer driving to the UK's roads

Summary

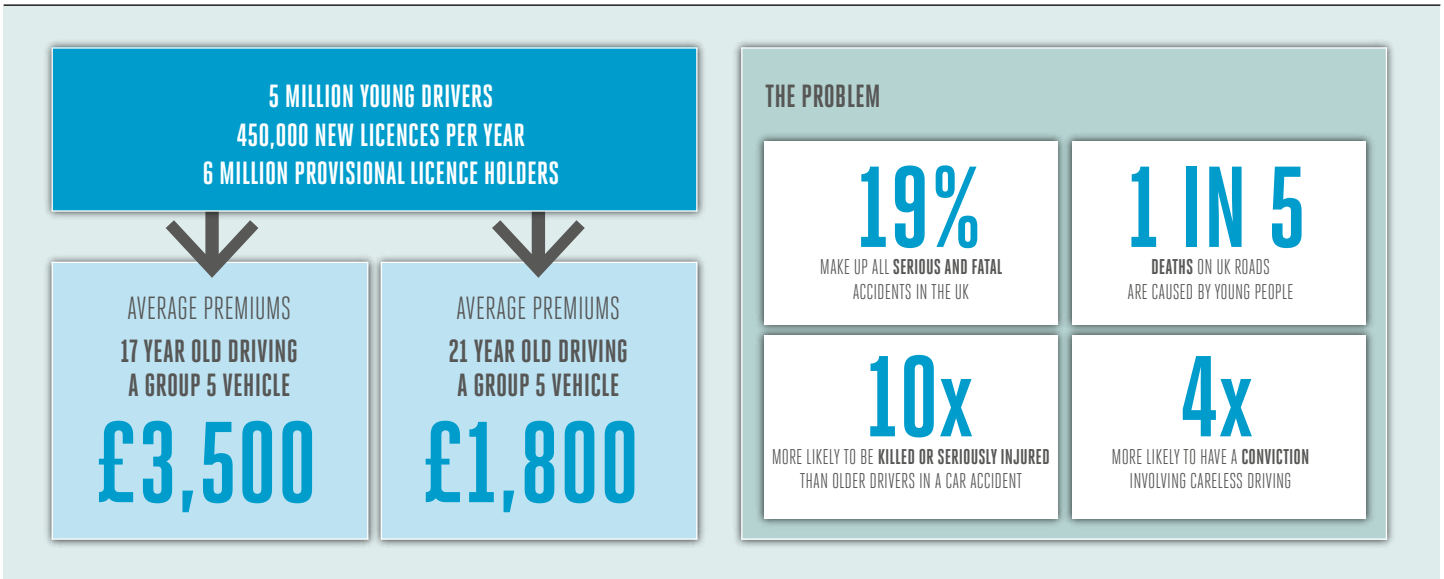
UK mobile operator EE is enabling insurance companies to provide drivers with a tailored policy that reflects their driving style and the miles they cover. Fitted inside the driver's vehicle, a telematics box uses EE's mobile network to transmit driving performance data back to the insurance company. Some of EE's partners using the technology say it can lead to a 40% drop in serious accidents among young drivers in their first six months on the road, enabling insurers to reduce premiums by an average of 30% for this customer segment.

Enabling tailor-made insurance

Today, most people pay insurance premiums based on their demographic profile, rather than the way they drive. For young people, this model can be very expensive. Insurers see young drivers between the ages of 17 and 21 as high risk (see Figure 1): The historic data collected by the insurance industry suggests they are ten times more likely to be in a serious or fatal accident than the average driver. As a result, insurers have tended to charge drivers in this age bracket extremely high insurance premiums to reflect the heightened risk of an accident.

But the falling cost of telematics technology is now allowing the insurance industry to offer individual drivers tailored premiums based on their performance rather than that of their demographic. A huge growth area, this so-called usage-based insurance harnesses mobile connectivity to gauge how far the driver travels, how fast they accelerate and whether they brake sharply. Individuals who travel relatively infrequently and drive carefully will pay lower premiums than those who spend a lot of time on the road and drive aggressively.

FIGURE 1: Insurers' statistics show young drivers can be high risk



Starting with young drivers and now moving into the general market, UK mobile operator EE is working with multiple insurance companies, including Insure The Box, Ingenie, Quartix, Redtail Telematics, Plextek and Wunelli, to offer consumers usage-based insurance policies. The EE Connect M2M platform provides the insurers with real time monitoring of devices, remote set up and update capabilities, and granular reporting of data. The platform is supported by EE service managers and a specialised M2M customer service team, which is available around-the-clock.

The insurance company typically supplies the driver with a black box or an on-board diagnostics device (which can be self installed) that contains a M2M SIM card, which enables a connection to EE's network. The black box also contains three other key elements: a GPS chip for position tracking, a motion sensor (or accelerometer) which is used to provide information about heavy braking or accidents, and computer software which controls the box and, in some cases, can analyse the captured information. The black box collects data on location, speed, braking, acceleration and cornering, enabling the insurer to analyse driving styles and reward safer driving. In addition to connectivity, EE offers its insurance partners a range of capabilities, including authentication, billing, charging and monitoring through the EE Connect M2M platform, which enables insurers to use the data to perform real-time performance analysis and provide alerts to customers.

Some insurers, such as Ingenie, provide customers with an app that gives frequent feedback on how they are driving and any discounts they are eligible for (see Figure 2). This feedback can encourage safer driving – Ingenie says that drivers who check the feedback are less likely to have a crash.

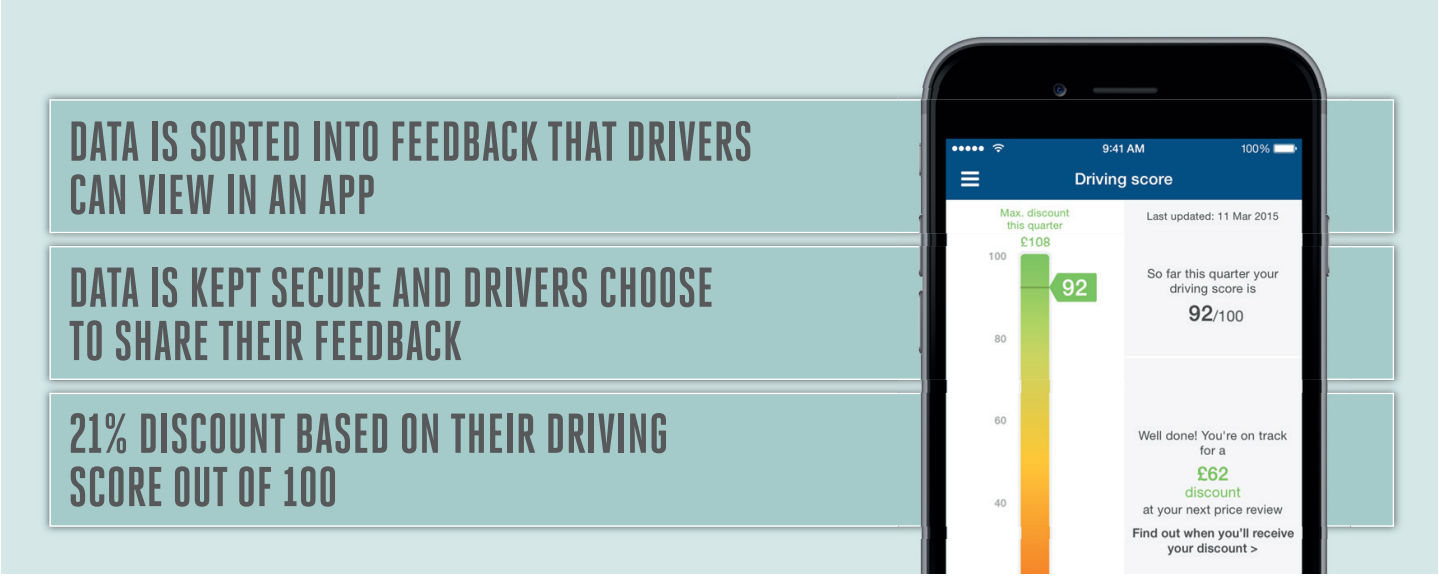
The black box can also be used to provide an automatic alert to the insurer if and when the car suffers a major impact. Moreover, the connectivity can be used to track the vehicle in case of theft.

Fewer accidents, lower premiums

As well as benefitting individual drivers, usage-based insurance could make the roads safer for society as a whole. The presence of the black box in the vehicle acts as an incentive to drive carefully. Some of EE's partners using the technology say it can lead to a 40% drop in serious accidents among young drivers in their first six months on the road, enabling insurance companies to reduce premiums by an average of 30% for this customer segment.

As well as reducing the likelihood of a claim and lowering their exposure to risk, the black box could also enable an insurer to collect valuable usage data that could be used to offer the customer additional products and services and forge a closer ongoing relationship with the driver.

FIGURE 2: Ingenie uses the telematics data to provide drivers with feedback



For many consumers, there is a compelling case to apply for usage-based insurance. A young driver who is willing to have a telematics black box fitted to their car could initially reduce their premium by 25%, which could take it down from £2,500 to below £2,000 per year, with further rewards for safe driving. Moreover, the insurer typically covers the cost of the box and installation.

Given the benefits for insurers and drivers alike, together with the falling cost of the hardware, usage-based insurance is growing in popularity. "We are seeing a 40% increase year-on-year in sales through our driver insurance partners," says Colin Shillito, Business Development Manager at EE. "We believe that the industry is moving towards a two tier car insurance - 'with telematics' and 'without'."

Enabling a better in-car experience

EE sees opportunities to use the driving data captured by the black box to provide consumers with further benefits, such as driving tips, data for managing expenses, advice on fuel savings, and alerts to friends and family. However, it notes that robust data privacy and security safeguards are critical to ensure that people are comfortable using such services. The GSMA has published a set of privacy principles and design guidance setting out best practice in this respect. If it is suitably anonymised, the data captured by telematics systems could also be used to bring benefits to the wider ecosystem, such as real-time updates on road conditions and traffic flow.

For EE, developing products and services for motorists is a central pillar of its M2M strategy. The operator already provides fleet management solutions to major enterprises and is in dialogue with a range of players in the automotive industry to use the growing potential of M2M connectivity to enable more information and entertainment services. The high bandwidth offered by 4G enables in-car entertainment services to be enriched with video applications, as well as in-vehicle Wi-Fi hotspots. Embedded SIM capability is being specified by automakers for new vehicles, which will simplify the connection of cars to the mobile network, and encourage the adoption and growth of usage based insurance policies. The GSMA has developed a common global specification for embedded SIM for M2M, which is now being deployed by mobile operators worldwide.

In future, mobile connectivity could also play a major part in enabling self-driving vehicles. "Fully autonomous cars will take time to adopt," explains Colin Shillito. "But already we see autonomous features appearing on mass market models and that require a level of connectivity and potentially a level of awareness of the environment (pedestrian and infrastructure) that is driving a complete rethink about network performance."

About EE

EE is the largest and most advanced digital communications company in Britain, delivering mobile and fixed communications services to consumers, businesses, government and the wholesale market. EE has approximately 13,000 full time employees and 580 retail stores, and serves more than 30 million customers across its mobile, fixed and wholesale businesses.

EE runs the UK's biggest, fastest and most reliable mobile network*, pioneering the UK's first superfast 4G mobile service in October 2012. EE's 4G coverage today reaches more than 80% of the UK population. EE's 2G coverage reaches 99% of the population while 3G reaches 98%. EE's superfast fibre broadband service covers 54% of the UK population, and ADSL broadband service covers 98.7% of the population.

In the last few years, EE has received extensive independent recognition including being ranked the UK's best overall network by RootMetrics®, Best network at the 2014 Mobile News Awards, Fastest Network at the 2013 uSwitch Awards, Best Network at the 2014 Mobile Choice Consumer Awards and What Mobile Awards 2013, Network Innovation at the 2013 Recombu awards and Best Network for Business at the 2013 Mobile Industry awards.

Below you'll find three sections covering Our Vision, Our Brands and Services and Our Team. If you have any further questions, don't hesitate to get in touch by finding us on Linkedin, tweeting us at twitter.com/ee, or dropping us a line at **ee.co.uk/contactus.**

About the Connected Living Programme

The GSMA's Connected Living programme focuses on enabling a world where consumers and businesses can benefit from rich new services across many different devices – securely connected to the Internet via ubiquitous mobile networks. For more information, visit the programme's website at **www.gsma.com/connectedliving.**

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