

SPECIAL REPORT: MOTORING

Motorists want to be ‘connected’

People look for mobile online communication from new cars, writes **William Wadsworth**

The car industry is evolving faster than ever, thanks to huge leaps in electronics. Automotive experts describe this change as “the digitisation of mobility”, and it was the main theme of the Frankfurt Motor Show, which closes on Sunday.

The annual show focuses on cars and commercial vehicles in alternate years, and is the biggest automotive event in the world, with more than 1,100 exhibitors from 39 countries, 219 world premieres, and about 900,000 visitors in 230,000 square metres, or about 33 football pitches’ worth of space.

The Frankfurt show reminds the car world that its automotive industry is investing €16 billion (HK\$140 billion) to €18 billion in connected and automated driving over the next three to four years. IT is being integrated into the new cars “at a rapid pace”, according to Matthias Wissmann, president of the German Association of the Automotive Industry (VDA).

“Today, one car in four that is bought new is already ‘connected’, and in a few years the figure will be three out of four,” he says. “In future, people buying a new car will also want it to be a mobile online communication platform.”

One of the stars of the show is Porsche’s Mission E concept, which embodies the power of digitised mobility. It looks like a 911, packs 600hp, and reaffirms the new sexiness of quietly sophisticated plug-in motoring. Who needs the throb of old-fashioned pistons when this four-door, four-seater Porsche can reach 100km/h in less than 3.5 seconds, and make you look cool and in control in a blink?

A Mission E driver only has to look at one of five key console dials, and activate its menu with a steering-wheel button, thanks to advances in eye-tracking technology and its link to organic light-emitting diode instrumentation.

A camera in the rear-view mirror can recognise the driver’s mood, show it as an emoticon

on the console, and then save route or speed data that can be shared via social media.

The Mission E also puts side mirrors in the past with “virtual exterior mirrors”, cameras in the front wings that relay images to the lower corners of the windscreen. The concept is also fitted with a digital key; Porsche Torque Vectoring to each wheel; and with two permanently-excited synchronous motors such as those used in this-year’s Le Mans one-two-winning Porsche 919 hybrid.

The 800-volt Porsche Turbo Charging system promises a 500km range and 80 per cent of battery capacity “in around 15 minutes – a record time for electric vehicles”, the marque says. This means the Mission E joins the BMW i8 in luxury plug-in leader Tesla’s rear-view mirror.

Audi’s also there, with an e-tron quattro concept, which is due in production in 2018. It produces 800Nm of torque; a range of 500km; and reaches 100km/h in 4.6 seconds, topping



German Chancellor Angela Merkel (centre), Hesse State Premier Volker Bouffier (left) and Porsche CEO Matthias Müller with the Porsche Mission E concept car at the Frankfurt Motor Show. Photo: Reuters



Visitors flock to BMW's exhibition stand in Frankfurt. Photo: EPA

at 206km/h. It charges in “around 50 minutes”, and its solar roof powers the drive system battery, the four rings adds.

Mercedes-Benz “Concept IAA” (Intelligent Aerodynamic Automobile) four-door coupé even moves its front and rear segments to improve its aerodynamics, the marque says.

The show has brought new nonchalance at the wheel. Hyundai’s five-litre V8 Vision G Coupe leads a new waving technology with its “Remote Wheel”, an ergonomically designed semisphere haptic touchpad in its centre console that “offers intuitive touch and gesture interaction, and responds to a simple wave of the hand”.

The new BMW 7-Series also has gesture-control, pinch and zoom, and console-swipe facilities. Its Display Key enables owners in Europe to park their vehicles remotely. Maserati’s latest Quattroporte and Ghibli flaunt new blind spot alerts, and a rear-cross-path function that helps reversing drivers spot oncoming cars.

The marque’s Siri Personal Assistant allows Quattroporte and Ghibli users to make voice commands on iPhone, iPad and iPod Touch.

Supercars are sleeker. The W12 Bugatti Vision Gran Turismo promises Le Mans sprints at over 400km/h, while Lamborghini’s 6.5-litre, V12 Aventador LP 750-4 Superveloce

Roadster (HK\$8.48 million) does 100km/h in 2.9 seconds, topping at more than 350km/h.

Other supercars rev their engines, and raise their roofs. Lamborghini’s 5.2-litre V10 Huracán LP 610-4 Spyder vrooms to 100km/h in 3.4 seconds, tops at 324km/h, and its roof deploys in 17 seconds.

Ferrari’s 488 Spider’s roof is three seconds faster, and the convertible’s 3.9-litre, 670hp V8 hits 100km/h in three seconds.

Rolls-Royce says its new Dawn’s roof operates “in almost complete silence” in just over 20 seconds. “It is safe to say that the new Rolls-Royce Dawn is the quietest open-top car ever made,” the marque says, adding it is “the sexiest Rolls-Royce” ever built.

Mercedes-Benz says its new S-Class convertible is “the world’s most comfortable”, with a roof that stows in 20 seconds. The 455hp 4,663cc V8 S 500 Cabrio’s nine-speed automatic transmission also produces 700Nm of torque from 1,800rpm. The all-wheel-drive Mercedes-AMG S 63 4MATIC Cabriolet reaches 100km/h in 3.9 seconds.

Porsche launched its 911 Carrera with innovative turbo 370hp and 420hp engines, an advanced chassis, and a new infotainment system.

Saloons are more stylish, especially the swish Alfa Romeo Giulia, Jaguar’s new XF and BMW’s 3 Series. Renault launched the fourth-generation Mégane as Honda showed its

Bentley seeks spot at SUV top table

Another highlight of the Frankfurt Motor Show is the new luxury SUVs. Bentley unveiled its first model in this category, the W12 Bentayga, saying it is “the most exclusive SUV in the world”.

Infiniti’s Q30 active compact is described as a “new type of premium vehicle for a new type of consumer” seeking “intuitive technologies”. The Q30’s sculpted exterior and asymmetric cabin design “are unmistakably Infiniti”, according to president Roland Krueger. “This vehicle is a vital part of our strategy to be a top-tier global manufacturer of premium cars.”

Jaguar’s F-PACE performance crossover promises a torque-on-demand All-Wheel Drive system, suspension system, and the latest electric power assisted steering. The five-seat performance crossover looks like a Jaguar in lightweight aluminium, and its supercharged 380PS, 3.0-litre V6 petrol version can hit 100km/h in

5.5 seconds. Its InControl Touch Pro is the world’s most advanced infotainment system, the 80-year-old marque adds.

Mercedes-Benz showed the GLC 250 d 4MATIC mid-size SUV, while Land Rover unveiled the Discovery Sport HSE Dynamic Lux with new technologies such as All Terrain Progress Control, Active Driveline and Adaptive Dynamics.

Volkswagen presented the second-generation Tiguan SUV that’s more fuel-efficient, roomier, and 50kg lighter.

BMW presented the new X1 small SUV; Citroen offered the Cactus convertible concept; and Mazda unveiled its Koeur crossover, beside Ford’s new Edge.

KIA presented its Sportage; SsangYong its Tivoli; and Lexus its RX SUV. Nissan unveiled the sporty Gripz Concept, while Hyundai introduced its new i20 Active and New Santa Fe crossover and SUV models.

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latest HR-V and Jazz models. The MINI Clubman wooed the hip, and Smart’s new and strengthened 2.69m fortwo cabrio stood out with the option of hard, canvas or convertible tops that open in 12 seconds.

Volkswagen presented the 2016 Golf Cabriolet with a sportier exterior, and Toyota’s fourth-generation Prius looked sleeker, as expected. These days, tech is sexier than vroom.

Dawn of a new Rolls-Royce



On September 8, a few days before the open-top Rolls-Royce Dawn debuted at the Frankfurt Motor Show, the marque held its first online global media launch for a new model. The event featured a live Q&A between CEO Torsten Müller-Ötvös and journalists from around the world. The Dawn, described as the ‘sexiest Rolls-Royce ever built’, is the fourth model in the brand’s line-up, joining the Phantom, Ghost and Wraith. Photo: AFP

Chinese firms aim to become driving force for telematics

Mark Andrews

One of the most important international concepts unveiled at the Shanghai Auto Show earlier this year wasn’t a car, but a pair of glasses. Mini’s Augmented Vision Concept is a Google Glass-type system which integrates the driver’s in-car environment with the outside world, providing assistance with blind spots or guiding a driver from parking to their destination.

According to analyst IHS, 62.5 per cent of passenger vehicles sold in China by 2020 will feature some sort of similar telematics system. With China being the world’s largest car market, this presents a huge opportunity that a number of companies are trying to seize.

For most people, the term “telematics” is unfamiliar, but the basic concepts have been around for a while. The first example was General Motors’ OnStar system, launched in the US in 1995. Over the years more functions have been added, but at its heart is a GPS positioning system and a voice-call function to get directions or summon assistance in an emergency.

Telematics can come in three forms: embedded, such as OnStar; consumer electronics, which are after-market solutions; or a hybrid which uses the car’s infotainment system

linked to a mobile phone for more services.

David Zhang, an independent automotive industry analyst consultant, estimates there are around 2,000 companies involved in the Chinese telematics ecosystem and that there are around 100 original equipment manufacturers (OEM) and after-market companies launching their own systems.

“The 2015 Shanghai Auto Show had an incredibly large number of connected car concepts and production models on display, particularly by Chinese automakers,” says Celina Li, automotive technology senior analyst for IHS. “Part of the impetus has come from the Chinese government – in March, Premier Li Keqiang announced the Internet Plus Initiative. This essentially aims to integrate mobile internet, cloud computing, big data and the internet of things with modern manufacturing such as automotive. Internet Plus Automotive equals connected cars.”

In his book *China’s Disruptors*, Edward Tse talks about the ability of Chinese companies to “triple jump” into areas where they have no real competence but see an opportunity, in contrast to Western companies that concentrate on their core



The Mini Augmented Vision Concept was unveiled at this year’s Shanghai Auto Show. Photo: Bloomberg

competencies. For example, car producer Qoros recognised that people tend to lose their link to the connected world when they get into a car, and addressed this by developing the Qoros Cloud.

“China could be the world’s biggest driving force behind the adoption of connected cars, since China has central planning and government mandate,” Li says.

For much of the world, the connected car involves Apple CarPlay, Android Auto or MirrorLink, which provide an

interface to connect the car’s infotainment system with a driver’s smartphone. But due to Google’s problems with the Chinese government, Android Auto is a non-starter in the market.

Chinese internet giant Baidu last year announced its own product for the market, CarLife. Zhang believes it is similar to the foreign competitors, as “with all of them the main function is to link a smartphone to the car”.

Baidu claims it has an advantage in the key areas of

mapping, voice recognition and service quality in China. CarPlay and Android Auto are ultimately linked to their own operating systems, something that does not inhibit CarLife.

“CarLife is compatible with both iOS and Android, covering over 95 per cent of smartphones, while Android Auto, CarPlay and MirrorLink all have restrictions in compatibility. It incorporates different car networking services that are tailored to Chinese car owners and have outplayed other players,” says Whitney

Yan, Baidu’s international communications manager.

September 5 saw the launch of the new Hyundai Tucson, which is the first car on the market to integrate CarLife. Baidu is cooperating with nine global OEMs, including Audi and Mercedes, meaning that further launches are imminent. Hyundai also showcased a connected in-car entertainment simulator at the Frankfurt Motor Show.

LeTV, China’s equivalent of Netflix, is going one step further. It has already unveiled a telematics system using its own Android-based LeUI operating system, which will be integrated into future models of BAIC cars. Now it is looking to create its own electric, smart and connected car.

However, a number of Chinese producers are choosing to go with international competitors for telematics solutions. SAIC Motor has the third-most-popular embedded telematics system in China after OnStar and Toyota’s G-Book. InkaNet, provided by SAIC in their MG and Roewe brand cars, is now using MirrorLink to connect the driver’s smartphone with the infotainment system. Similarly, Geely has just announced a partnership with Apple’s CarPlay to bring the system to all future models, starting with a new SUV set to go on sale early next year.

Both Geely and SAIC are car exporters, so it doesn’t make sense for them to integrate different systems for different markets around the world.

“Baidu CarLife is a new product launched at the end of last year, so it’s impossible for a global automaker to integrate CarLife into a global car,” Zhang says.

But Baidu is agreeable about the situation. “At the current stage, our key focus is the Chinese market and serving Chinese users,” Yan says.

The big challenge for Chinese developers is to avoid re-creating the mainland’s internet landscape, where globally popular websites have been banned and replaced by a Chinese clone that is not used anywhere else. Zhang points to the market for car navigation systems, which was affected by foreign companies not being allowed to map in the mainland.

The partly protected telematics market in China – with one of the major players, Android, being excluded – is undoubtedly a good environment in which local companies can grow. However, what Chinese companies are producing differs little from foreign competitors, so the question remains as to whether they can genuinely innovate and produce a system that a global OEM will want to put into a car.