Your connected car services

Our telematics technology

The future is exciting.
Ready?

vodafone
business

Enabling connected car services for the automotive, insurance and fleet industries

IoT connects objects, such as cars, buildings and machines to the internet, turning them into 'intelligent' assets that can communicate with people, applications and each other.

Vodafone Automotive focuses on one of the key IoT verticals and operates through two business units that offer state-of-the-art electronic systems and components together with a vehicle-centric telematics platform and related services. The company has 40 years of experience both at point of manufacture and after, delivering a complete end-to-end service or any part thereof.
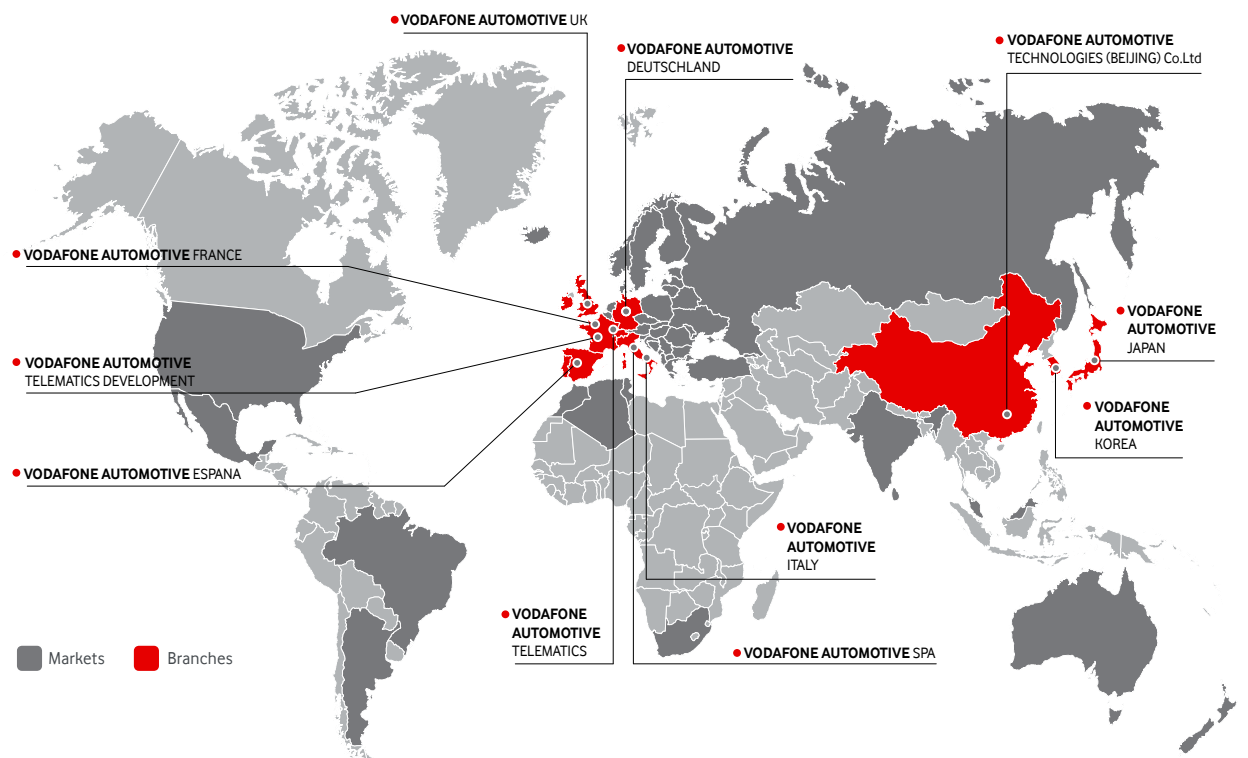
Vodafone Automotive Manufacturing is a Tier One partner to the main European and Asian car, truck and motorcycle manufacturers, including Aston Martin, Daimler, Denso, Ferrari, Ford, General Motors, Hyundai, Honda, Kia, Land Rover Group, Maserati, Mazda, Mitsubishi, Peugeot Citroën Group, Renault-Nissan Group, Subaru, Suzuki, Tesla, Toyota, Volkswagen Group, Volvo Group, Yamaha for which it develops bespoke solutions for both factory and aftermarket installation: antitheft, parking assistance and telematics systems.

Hardware design and testing — **Hardware production** — **Communications network** — **Telematics software platform** — **Secure Operating Centres**

International presence

Vodafone Automotive operates internationally through distributors, licensees and national service providers. It is represented by 40 partners around the globe. In Europe, Secure Operating Centres (SOC) assist customers in 45 countries. Vodafone Automotive provides telematics as well as non-connected products, such as alarms and parking sensors, with deploy engineering and manufacturing skills in Italy, South Korea and China.

The other company subsidiaries are focused on selling products and connected car services to the local market. Vodafone Automotive Varese is a 10,000 sqm area serving customers worldwide, with nearly 3 million systems produced last year. Each electronic device is automatically traceable via the Process Quality System (PQS).

Vodafone Automotive Manufacturing core competencies

From the beginning, Vodafone Automotive has positioned itself as a centre of technical excellence capable of identifying, developing, producing and offering its customers innovative solutions for the automotive sector.

We have full control from the engineering phase, the hardware-software-mechanical integrated development to vehicle application studies and simulations.

We focus on development programs in order to respond to the most severe automotive standards. All our devices are approved by the European, extra-European, North American and Asian certifying bodies (including insurance directives) and by country-specific authorities.

The company is regularly audited by vehicle manufacturers and successfully passed the following certification processes:

Manufacturer ratings

- UNI EN ISO 9001:2015 Italy and China
- IATF 16949:2016
- ISO 14001:2015
- Regularly audited by car makers

Automotive certifications

- Rated as "A" supplier by Porsche AG, Volkswagen Group
- Rated as Preferred Supplier by Tesla, Renault-Nissan
- Rated as QSB Plus Certified Supplier by GM in Dec. 2015, confirmed as BIQS Certified Supplier in Dec. 2018
- Rated as Qualified Supplier by Ferrari, Toyota, Volvo and Daimler

Vodafone Automotive in-house laboratory is equipped with test instruments and simulators to satisfy the requirements of vehicle manufacturers, insurance companies and legal requirements of the European Union and to support the design and development activities:

- Functional tests
- EMC evaluation
- Temperature shock
- Endurance and reliability tests
- Power consumption management
- Humidity

Choosing the right telematics solution

Today's telematic devices have become sophisticated enough to give drivers real-time feedback on their driving, report on mileage and fuel consumption, predict when repairs will be needed and map smart routes through traffic.

It's no surprise then that insurers, automotive companies and fleet managers are rushing to capitalise on the benefits of this technology. Consumer demands are also driving this shift, as millennials and Generation Z seek new, exciting and convenient automotive experiences.

IoT data enables businesses to be more competitive

Automotive is perhaps the most advanced industry in the use of data overall. Businesses say that:

82% of adopters in the automotive industry say they're using more IoT connections now than 12 months ago
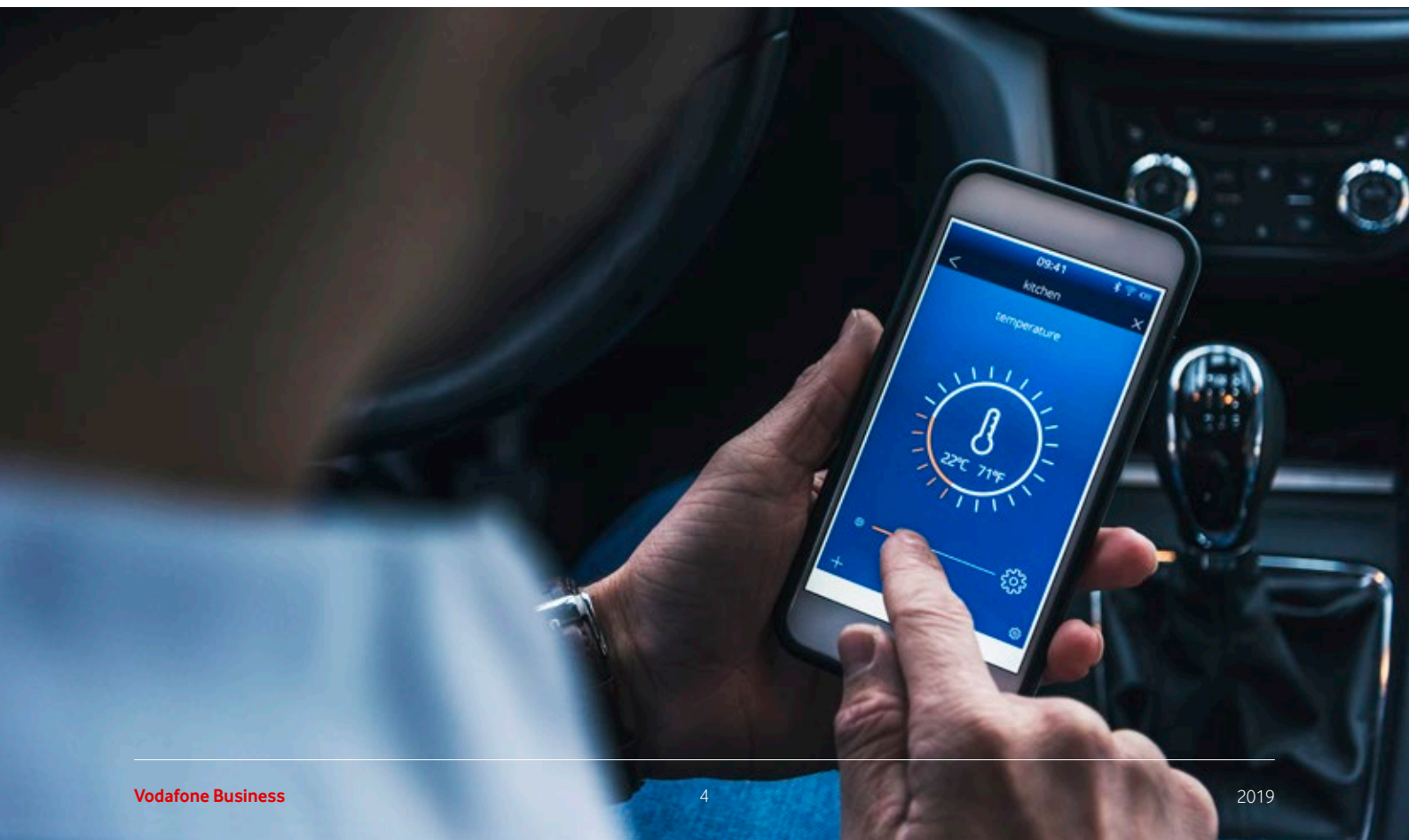
51% of adopters in the automotive industry say IoT has improved brand differentiation which compares to just 32% across all sectors

49% say IoT is used with analytics platforms to support decision-making

Source: Vodafone IoT Barometer 2018

Vodafone Automotive key services

Our diverse hardware portfolio allows to cover the needs of the automotive, insurance and fleet industries:

- **Theft management:**
  geo-localisation and recovery of stolen vehicles

- **Vehicle management and monitoring:**
  telematics hardwares which allow services for the monitoring and management of vehicles, like vehicle performance, mileage and reliability, maintenance planning. Especially suited for fleet customers

- **Usage Based Insurance:**
  devices for the supply of insurance services based on the real usage of the vehicle, in order to assess the real risk of the driver as well as reducing the operating costs

- **Safety:**
  products enabling assistance services in case of emergency – accident or breakdown

Industry	Functionality	Service category
Mounting options	Theft management	Security
	Crash alert / emergency call	Safety
	Breakdown and roadside assistance	Safety
	Mobile app	Management
Insurance	Accurate insurance premium	Driving behaviour
	Crash reconstruction	Driving behaviour
	Crash alert / emergency call	Safety
	Breakdown and roadside assistance	Safety
	Mobile app / web portal	Management
Fleet	Asset management	Management
	Support and maintenance	Management
	Theft management	Security
	Vehicle diagnostics	Management
	Driving style	Driving behaviour
	Crash alert / emergency call	Safety

Better services, deeper relationships

IoT applications of all kinds are having a noticeable impact on the employee and customer experience. As businesses increasingly look at building IoT into their products and services, certain sectors will naturally take the lead in revolutionising how they engage with their customers, among them automotive (through the connected car).

Crucially, these are ongoing services: periodic maintenance reminders, anti-theft tracking or OTA (over-the-air) updates. This is an opportunity to build a relationship with customers that previously disappeared the moment they drove off the forecourt.

Vodafone Automotive hardwares guarantee the full reliability of the data and enhance the driving experience

The new design approach of our telematics platform is a response to rapidly changing and growing market needs: vehicle manufacturers, public authorities and insurance companies have expressed their intention to use telematics to monitor green driving, improve road safety and offer tailored insurance policies. Just to name a few of the high number of applications that can be developed.

The reliability of the gathered data is a clear requirement: this depends on the quality of integration of the unit in the vehicle. This is where the core competences of Vodafone Automotive lie, thanks to the long-term partnership with vehicle manufacturers and the ability of its highly skilled engineers to follow the global telematics technology evolution and integrate it. To be an efficient gateway enabling a variety of value added services, totally open to different server infrastructures created for different needs, we have standardised our interfaces.

- Premium pricing
- Breakdown and roadside assistance
- Remote vehicle monitoring
- Asset management
- Emergency call
- Support and maintenance
- Theft management
- Vehicle diagnostics
- Crash reconstruction
- Crash alert management
- Driving behaviuor KPIs

Security and emergency

Total cost of ownership

SCD40

SCD40 is the latest high-performance telematics platform designed for the fleet and stolen vehicle recovery segments.

It is connected to Vodafone Automotive's telematics infrastructure, Global Data Service Platform (GDSP) SIM connectivity over the Vodafone network and Vodafone Automotive Secure Operating Centres (SOC) across 54 European countries, which makes SCD40 an ideal product to enable fleet management telematics services including:

- Driver profiling/scoring
- Crash reconstruction
- Emergency services
- Stolen vehicle recovery
- Diagnostics
- Fleet services

SCD40 comes with embedded high-performance GPS and GSM/GPRS antennas. It is suitable for multiple applications in the automotive domain and used in a number of different configurations.

Product data	
Nominal operating voltage (VDC)	12/24
Operating voltage range (VDC)	9 to 30
Control unit operating temperature (°C)	-40 to +85 (Back-up battery -20°/+70°)
Current consumption rate (mA) min. (with modem attached to GSM network) max. (GPRS transmission)	<5 <100
Control unit dimensions (mm)	80 x 60 x 25
Weight (g)	110
Waterproof rating	IP40
Origin	Italy
Warranty	24 months

Key features

- Compact design and small housing
- Embedded state-of-the-art GPS receiver and GSM/GPRS
- External (optional) GPS antenna for specific applications
- Embedded BTLE 2 ways communication enabling external service related modules
- Embedded 6D accelerometer for circuit sleep-to-wake-up use
- CAN (comfort) link for car data reading
- Optional external event recorder module for crash detection and analysis applications
- Optional emergency button
- Optional external relay to enable remote engine lock
- Optional external alarm
- Powerful backup battery that provides supply and enables circuit sleep-to-wake-up functionality in the event of sabotage of the vehicle battery

Benefits

- **Compliant:** Complies with and exceeds the requirements of the most stringent automotive and insurance industry standards (such as Thatcham/UK, SCM/Netherlands, Incert/Belgium, Pimot/Poland)
- **Simple:** Easy to fit inside the passenger compartment, wherever there is a clear view of the sky
- **Versatile:** Fits in a large variety of car makes, models and other vehicles
- **Up to date:** Remote update with OTAP
- **Driver recognition:** The function is available via
  - Smartphone through BTLE and a specific app
  - 2.4Hz RF proximity driver cards
- **Connected:** Connection via smartphone through BTLE for driver recognition
- **Data storage:** Plug-and-play event recorder is optional for insurance telematics applications

SCD50

SCD50 is the telematics platform designed for the fleet and insurance segments.

It is connected to Vodafone Automotive's telematics infrastructure, Global Data Service Platform (GDSP) SIM connectivity over the Vodafone network and Vodafone Automotive Secure Operating Centres (SOC) across 54 European countries, which makes SCD50 an ideal product to enable telematics services including:

- Driver profiling/scoring
- Crash detection and reconstruction
- Emergency services
- Stolen vehicle recovery
- Trip recording

SCD50 comes with embedded high-performance GPS and GSM/GPRS antennas. It is suitable for multiple applications in the automotive domain and used in a number of different configurations.

Product data	
Nominal operating voltage (VDC)	12
Operating voltage range (VDC)	9 to 16
Control unit operating temperature (°C)	-40 to +85 (Back-up battery -20°/+70°)
Current consumption rate (mA) min. (with modem attached to GSM network) max. (GPRS transmission)	<5 <100
Control unit dimensions (mm)	80 x 60 x 25
Weight (g)	110
Waterproof rating	IP40
Origin	Italy
Warranty	24 months

Key features

- Compact design and small housing
- Embedded 6D accelerometer for crash detection and analysis
- Internal event recorder module for crash detection and analysis applications
- Optional emergency button
- Optional external relay to enable remote engine lock
- Optional external, event recovery
- Backup battery (600mA/h NI-Mh) that provides supply and enables circuit sleep-to-wake-up functionality in the event of sabotage of the vehicle battery

Benefits

- **Compliant:** Complies with and exceeds the requirements of the most stringent automotive and insurance industry standards
- **Simple:** Easy to fit inside the passenger compartment, wherever there is a clear view of the sky
- **Up to date:** Remote update with OTAP without uninstalling the product
- **Prepared:** Equipped with Vodafone GDSP SIM chip soldered to mainboard
- **Data storage:** Plug-and-play external event recorder is optional for insurance telematics applications

WSD50 WL

WSD50 WL is a high-performance telematics platform designed for the user-based insurance segment.

The platform is connected to Vodafone Automotive's telematics infrastructure, Global Data Service Platform (GDSP) SIM connectivity over the Vodafone network and Vodafone Automotive Secure Operating Centres (SOC) across 54 European countries, which makes it an ideal product to protect vehicles from theft. Our offer also includes the following insurance services:

- Driver profiling/scoring
- Trip recording
- Crash reconstruction and detection
- Emergency services

WSD50 WL comes with embedded high-performance GPS and GSM/GPRS antennas. It is suitable for multiple applications in the automotive domain and used in a number of different configurations.

Product data	
Nominal operating voltage (VDC)	12
Operating voltage range (VDC)	8 to 16
Control unit operating temperature (°C)	-40 to +85 (Back-up battery -20°/+70°)
Current consumption rate (mA) min. (with modem attached to GSM network) max. (GPRS transmission)	<5 <100
Control unit dimensions (mm)	99 x 69 x 30
Weight (g)	110
Waterproof rating	IP40
Origin	Italy
Warranty	24 months

Key features

- Compact design and small housing
- Embedded state-of-the-art GPS receiver and GSM/GPRS
- Embedded 6D accelerometer for crash detection and analysis applications
- Backup battery (350mA/h NI-Mh) that provides supply and enables circuit sleep-to-wake-up functionality in the event of sabotage of the vehicle battery
- SOS – emergency button
- Bi-directional hands-free voice communication with volume adjustment function
- Bluetooth connectivity – possibility to use this product as a speakerphone
- Crown led around the SOS button lights for different functions

Benefits

- **Compliant:** Complies with and exceeds the requirements of the most stringent automotive and insurance industry standards
- **Simple:** Easy to fit inside the passenger compartment, wherever there is a clear view of the sky
- **Versatile:** Fits in a large variety of car makes, models and other vehicles
- **Up to date:** Remote update with OTAP without uninstalling the product
- **Driving data storage:** Guaranteed even if there is no network coverage

Battery Fitted Box

Battery Fitted Box is the latest high-performance self-installing telematics platform designed for the insurance segment.

It is connected to Vodafone Automotive's telematics infrastructure, Global Data Service Platform (GDSP) SIM connectivity over the Vodafone network and Vodafone Automotive Secure Operating Centres (SOC) across 54 European countries, which makes Battery Fitted Box an ideal product to enable telematics services including:

- Driver profiling/scoring
- Trip recording
- Crash reconstruction and detection
- Emergency services
- Stolen vehicle recovery
- Fraud prevention

The Battery Fitted Box comes with embedded high-performance GPS and GSM/GPRS antennas. It is suitable for multiple applications in the automotive domain and used in a number of different configurations.

Product data	
Nominal operating voltage (VDC)	12
Operating voltage range (VDC)	9 to 16
Control unit operating temperature (°C)	-40 to +85 (Back-up battery -20°/+70°)
Current consumption rate (mA) min. (with modem attached to GSM network) max. (GPRS transmission)	<5 <100
Control unit dimensions (mm)	90 x 47 x 15
Weight (g)	80
Waterproof rating	IP64
Origin	Italy
Warranty	24 months

Key features

- Compact design and small housing
- Embedded state-of-the-art GPS receiver and GSM/GPRS
- Embedded 6D accelerometer for crash detection and analysis applications
- Backup battery (400mA/h NI-Mh) that provides supply and enables circuit sleep-to-wake-up functionality in the event of sabotage of the vehicle battery

Benefits

- **Compliant:** Complies with and exceeds the requirements of the most stringent automotive and insurance industry standards (such as Thatcham/UK, SCM/Netherlands, Incert/Belgium, Pimot/Poland)
- **Simple:** Easy self-installing directly on top of the vehicle battery
- **Versatile:** Fits in a large variety of car makes, models and other vehicles
- **Up to date:** Remote update with OTAP without uninstalling the product
- **Driving data storage:** Guaranteed even if there is no network coverage
- **Prepared:** Equipped with Vodafone GDSP SIM chip soldered to the mainboard

Start your journey with Vodafone

Vodafone Automotive is uniquely positioned to help you to take advantage of our innovative products to differentiate your business from competition and to improve the customer experience.

To find out more about our telematics hardware solutions, please contact **sales@vodafoneautomotive.com** or visit **automotive.vodafone.com.**

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