

UBI Global Study 4th Edition

CONNECTED AUTO INSURANCE

ABSTRACT

The updated
reference report on
UBI and digital
insurance



***Will connected cars dominate the
auto insurance industry?***

A comprehensive report on the global usage-based insurance industry for personal line insurance



More than just market research.

A strategic analysis of the connected auto insurance business and the global usage-based insurance market

- **730-pages of analysis** of the connected auto insurance industry including, strategies, use-cases and geographies, based on:
 - 11 years of constant market surveillance
 - 26 interviews with key stakeholders
 - 6 months of desk research
- Strategy analysis and assessment of the **4 key routes** OEMs have to enter the connected insurance market
- Analysis of the strategies and apps of **26 insurance companies and TSPs** worldwide
- **Profiles of the 15 countries and regions** leading the global connected auto insurance industry:
- **An analysis of the** usage-based insurance value chain, including technologies, benefits, and Covid-19 impact
- **Analysis of the current status of the global UBI industry** that includes:
 - Digital brokers role in the insurance value chain
 - OEM's future role in the insurance value chain
 - VDH's future role in the insurance value chain
 - Opportunities for insurers
- **An in-depth assessment of 26 companies engaged in UBI (14 TSPs and 12 insurers) analysing:**
 - Value proposition
 - Market share
 - Key UBI programme examples
- **2020-2030 bottom-up market forecast encompassing:**
 - Active policies
 - Technology splits
 - Revenues by technology
 - Distribution model, and
 - region/country

The study will answer the following key strategic questions on the connected auto insurance landscape

What is the strategy of major OEMs in insurance telematics?

Why should insurers adopt insurance telematics?

What are the trends and drivers for usage-based insurance growth between 2020 - 2030?

What will be the role of aftermarket devices in the future usage-based insurance?

Will OEM telematic solutions challenge existing insurer's business?

What will be the role of the emerging insurtech players in the UBI value chain?

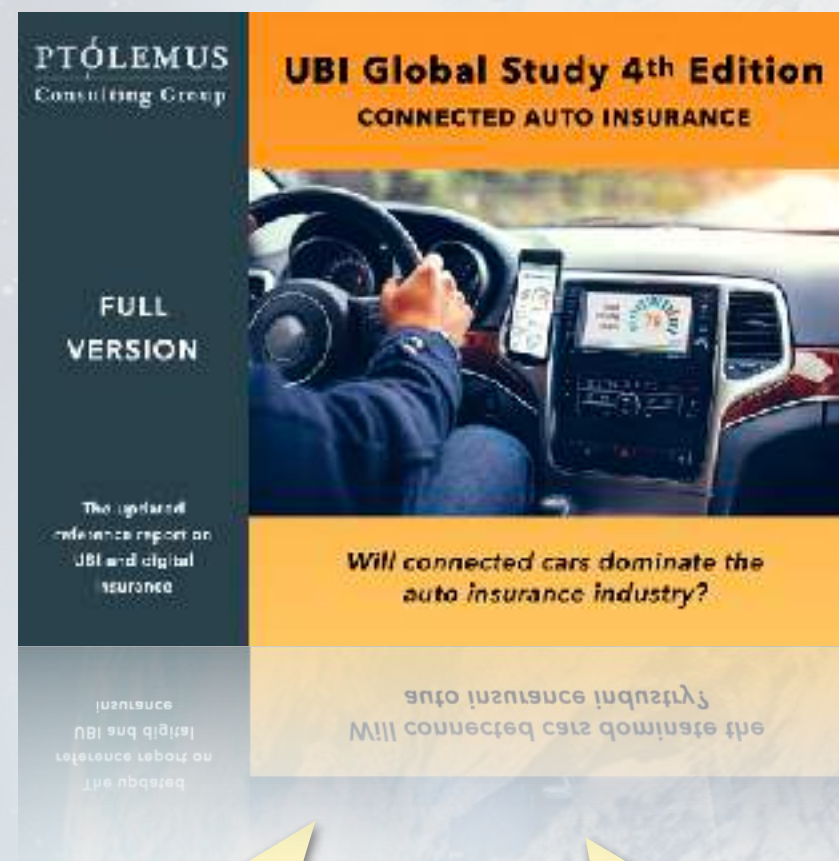
In which country will UBI grow the most by 2030?

Which TSPs are leading in the UBI market?

What has been the impact of COVID-19 on insurance telematics industry?

What will be the size of the usage-based insurance market in 2030 by region?

What will be the predominant technology used to collect insurance telematics data by 2030?



The report is the result of 9 months of work by a team of 8 consultants and analysts with 7 nationalities (1/2)



Frederic Bruneteau
Managing Director, Brussels

The **founder** of PTOLEMUS, Frederic has accumulated **25 years of experience of the mobility and transport domains** and 15 years of strategic and financial advisory.

He has become **one of the world's foremost experts of connected insurance** and is interviewed on the subject by publications such as the *Financial Times*, *Forbes*, the *Wall Street Journal* and *The Economist*. He has also spoken at over 40 conferences on the subject.

He has led over 160 consulting assignments including 70 related to UBI, helping many world leaders define and implement their strategy including:

- **Insurers** such as Admiral, Aioi Nissay Dowa Insurance, AXA, Baloise, Crédit Agricole Assurances, Generali, HUK Coburg, Liberty Mutual, Macif, Matmut, Nationwide, Société Générale Insurance, etc.
- **Analytics / telematics suppliers** such as Alfa Evolution, Danlaw, DriveFactor, LexisNexis, MUNIC, Octo Telematics, Pioneer, Sentiance and Vodafone Automotive.

Frederic also leveraged his experience of leading & reviewing 15 reports including the **UBI Global Study** and the **Fleet Insurance Telematics Global Study** to review this study.



Andrew Jackson
Research Director, London

With a career in market research spanning 12 years, **Andrew has over 8 years of experience working in the automotive and mobility domains**.

He has delivered **advisory services, custom projects, data and insights for some of the biggest names in mobility** e.g. BCA, Continental, CNH Industrial, Delphi, Johnson Controls, Hyundai, LeasePlan, Mannheim, Mercedes Benz, Mobis, PSA, SEAT, Tenneco, Volkswagen and Zego Insurance.

Over the years, he has been sought to share his opinion via a variety of publications such as the *Financial Times*, the *Wall Street Journal*

and *Automotive Industries*, *AMonline*, *Fleetworld* and *Fleet News* as well as a variety of national newspapers. He is also interviewed on global automotive events by Bloomberg, CNBC and Reuters.

Andrew is a **Certified Member of the Market Research Society (CMRS)**. Andrew is also a qualified Change Management Practitioner, a Certified Scrum Product Owner and Agile Business Analyst.

Andrew directed the design, research, analysis and forecast. Plus, he wrote several sections and entirely reviewed this report.



Alberto Lodieu
Senior Manager, Paris

Alberto has 11 years of experience in strategy and operations consulting.

He has specialised in the mobility, insurance and assistance industries in projects related to corporate and competitive strategy, operations excellence and business analytics.

He has **participated in over 30 assignments** helping clients such as Abertis, **AGC Automotive**, **AXA Partners**, CNES, the French space

agency, **CVC Capital Partners**, **Danlaw**, DMP, Deloitte, **Europ Assistance**, the European Commission, **Gruppo Banorte**, Ferrovial, **HUK Coburg**, **Liberty Mutual Insurance**, **Société Générale Insurance**, **Silver Lake**, Telespazio, Transurban, **wejo** and **ZirconTech**.

Alberto helped review, research and write this report.



Damien Orsoni
Business Analyst, Paris

After graduating from Kedge Business School and the University of Groningen in 2019, Damien completed his MSc in Management at Milan's Bocconi University in 2021.

During his studies, he worked at S2M-Group, an IT consulting firm based in Barcelona, where he participated in projects with major financial institutions, insurance companies and telecom operators located in France. His area of focus was Client Communication Management.

Damien took up the role of VP of Cuora Consulting, a strategy consulting association offering pro-bono consultancy services to international NGOs and social start-ups. There, he had the chance to work with Ecosteer, a data ownership platform enabling companies in the augmented mobility industry to monetise their IoT investments by involving their customers into the data value chain.

Damien contributed to the research, analysis and writing of this report.

The report is the result of 9 months of work by a team of 8 consultants and analysts with 7 nationalities (2/2)



Nina Neubauer
Business Analyst, Brussels

An urban planning and transportation engineering graduate, Nina has developed expertise in **Autonomous Vehicles (AVs), Electronic Toll Collection, Smart Cities and connected cars** by assisting companies such as AXA Partners, Bain Capital, Advent International, Baumar Project, Intrado, Telepass and Vodasun Energie.

She has completed several research projects related to **traffic management** and **engineering** for the AVL Motor Test Center AB in Gothenburg and within the TU Munich.

For a global roadside assistance operator, she helped define their **connected car service strategy** and built a **forecast of 7 connected car services markets** in Europe.

For a private equity firm, Nina analysed the **European electronic tolling market**.

She has built our **2020-2030 global automotive market forecasts** and contributed to our **Connected Vehicle Payments Global Study**.

Nina helped build the market forecasts for this report.



Spardha Taneja,
Senior Business Analyst, Brussels

Spardha has gained 3 years of experience in the automotive and insurance sector. She has specialised in usage-based charging and Big Data analytics, gaining experience from companies such as Abertis, **AXA, AXA Partners, Capvis, Danlaw, HUK Coburg, Hitachi, Mobivia, Octo Telematics and wejo**.

She formulated a search engine marketing strategy to increase the visibility of Wayscra's (part of **Mobivia** group) web site on search engine result page based on

process mapping of non-financial KPIs in the electric bicycle market.

Spardha has been conducting research on the global insurance telematics market for PTOLEMUS UBI market quarterly dashboard for 2 years. She has developed a specific expertise of smartphone-enabled Usage-Based-Insurance, by analysing 16 technology service providers and 15+ UBI apps for our Mobile Insurance Global Study.

Spardha led the research, analysis and writing of this report.



Hosung Suh
Business Analyst, Brussels

Hosung obtained his Bachelor's degree in Economic History at Erasmus University Rotterdam in June 2018, and went on to complete an MSc in Strategy and International Business at Nova School of Business and Economics in 2020.

Amid the course of his studies, he worked on projects that fed his curiosity to explore and learn different roles and different industries. He spent some time as a Sales Analyst for the beer segment

in Belgium and also worked at Henkel as Brand Manager in Germany.

Furthermore, he broadened his experience by completing a consulting project at Europ Assistance in Portugal where he improved the products and operations within the roadside assistance branch, while exploring and learning about the future of mobility and usage-based insurance market.

Hosung contributed to the research, analysis and writing of this report.



Filippo Frezet
Business Analyst, Brussels

Filippo has gained experience in **mobility, insurance and emergency services**, helping clients such as Advent International, Bain Capital, the European Commission, SkyToll, wejo and Zego Insurance.

He has contributed to several consulting and research projects e.g.

- **For the European Commission, he analysed the impact** of mandating a combination of positioning technologies on mobile phones for emergency applications (E112)
- **Helped a European ITS company defining its expansion and M&A strategy**

• **For a leading private equity fund, he conducted the due diligence** of a leading electronic tolling service provider

• **He participated in the research and writing of PTOLEMUS' Vehicle Data Market Global Study**, the first in-depth analysis of car data hubs worldwide, analysing companies such as Caruso, LexisNexis, Otonomo, Verisk and wejo,

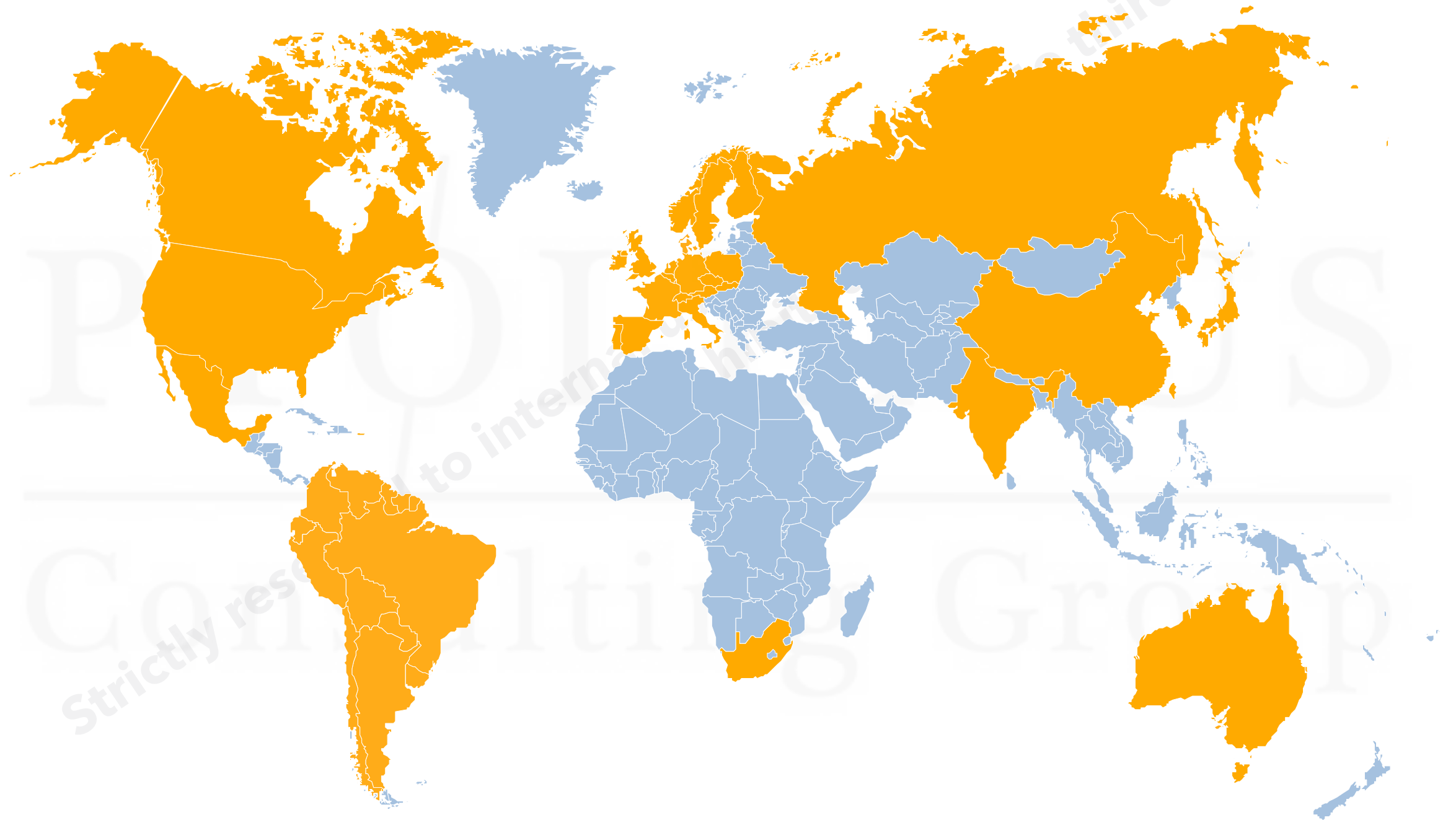
• He also led the work for our **Gig Economy Motor Insurance European Study**.

Filippo contributed to the research, analysis and writing of this report.

Connected Auto Insurance Global Study 2021 - Table of contents

Section 1: Introduction.....5		
1.1. Report authors.....6		
1.2. Executive summary.....8		
1.3. Feature interviews.....10		
1.4. Glossary.....26		
1.5. About PTOLEMUS Consulting Group.....28		
Section 2: Status of the global connected auto insurance market.36		
2.1. An introduction to connected auto insurance.....37		
2.2. The current telematics value chain.....81		
2.3. The impact of COVID-19.....104		
Section 3: How will data be collected in the future.....113		
3.1. Why is connectivity important for insurance.....114		
3.2. What devices are available to collect data.....122		
3.3. What data is available to the insurance industry.....155		
3.4. How is this data typically managed.....164		
3.5. How will data be collected in the future.....205		
Section 4: Why insurers should adopt connected insurance.....211		
4.1. Engage with customers.....214		
4.1.1. Driving benefits and value proposition.....		
4.1.2. Scoring.....		
4.1.3. Gamification.....		
4.2. Improve revenues with digitalisation.....250		
4.2.1. Better claims resolution.....		
4.2.2. Offer additional VAS		
4.2.3. Selection of less risky drivers		
Section 5: How the industry will be disrupted.....296		
5.1. Digital brokers role in the insurance value chain.....297		
5.2. OEM's future role in the insurance value chain.....308		
5.3. VDH's future role in the insurance value chain.....359		
5.4. Opportunities for insurers.....370		
Section 6: Forecasting the market to 2030.....394		
6.1. Geographic forecast.....399		
6.1.1. Asia Pacific.....		
6.1.2. Africa.....		
6.1.3. Europe.....		
6.1.4. Latin America.....		
6.1.5. North America.....		
6.2. Technology forecast.....431		
6.2.1. Black boxes.....		
6.2.2. CLAs.....		
6.2.3. Line-fitted devices.....		
6.2.4. OBDs.....		
6.2.5. Smartphones.....		
6.3. TSP revenue forecast.....444		
Section 7: Conclusions.....447		
Section 8: Region & country profiles...465		
8.1. Europe.....466		
8.1.1. Benelux.....		
8.1.2. France.....		
8.1.3. Germany.....		
8.1.4. Italy.....		
8.1.5. Nordics.....		
8.1.6. Spain.....		
8.1.7. United Kingdom.....		
8.1.8. Rest of Europe.....		
8.2. North America.....524		
8.2.1. Canada.....		
8.2.2. USA.....		
8.3. Latin America.....539		
8.3.1. Latin America.....		
8.4. Asia Pacific.....546		
8.4.1. China.....		
8.4.2. India.....		
8.4.3. Rest of APAC.....		
8.5. Africa.....566		
8.5.1. South Africa.....		
Section 9: Top 26 company profiles....574		
9.1. Telematics service providers.....575		
9.1.1. Arity.....		
9.1.2. Cambridge Mobile Telematics.....		
9.1.3. Dolphin Technologies.....		
9.1.4. DriveQuant.....		
9.1.5. The Floow.....		
9.1.6. IMS.....		
9.1.7. JOOYCAR.....		
9.1.8. Motion-S.....		
9.1.9. Octo Telematics.....		
9.1.10. Scope Technologies.....		
9.1.11. Telematics Technologies....		
9.1.12. TrueMotion.....		
9.1.13. UnipolTech (AlfaEvolution)..		
9.1.14. Vodafone Automotive.....		
9.2. Insurance companies.....659		
9.2.1. Admiral.....		
9.2.2. Allianz.....		
9.2.3. By Miles.....		
9.2.4. Discovery Insurance.....		
9.2.5. Generali.....		
9.2.6. HUK-Coburg.....		
9.2.7. Intact Insurance.....		
9.2.8. Metromile.....		
9.2.9. Progressive.....		
9.2.10. Root Insurance.....		
9.2.11. StateFarm.....		
9.2.12. UnipolSai.....		

The report covers the top 15 countries and regions that are most active in connected auto insurance



Connected Auto Insurance Global Study 2021 - Glossary

3G	Third generation mobile networks (also called UMTS)	FNOL	First Notification Of Loss
4G	Fourth generation of cellular wireless standards (also called LTE)	GIS	Geographic Information System
5G	Fifth generation of cellular wireless standards	GNSS	Global Navigation Satellite System
ADAS	Advanced Driver Assistance System	GPS	Global Positioning System
API	Application Programming Interface	HGV	Heavy Goods Vehicle
bCall	Breakdown call, i.e. a call-based roadside assistance service	ITS	Intelligent Transport Systems
BOM	Bill of Material	IVR	Interactive Voice Response system
CAAS	Car As A Service	IPR	Intellectual Property
CAN-bus	Controller Area Network (One of the car's network)	KPI	Key Performance Indicator
CASCO	Casualty and Collision (equivalent to comprehensive insurance)	LBA	Location-Based Advertising
CEN	The European committee of standardisation	LBM	Location-Based Marketing (e.g. promotional coupons)
CLA	Cigarette Lighter Adaptor	LCV	Light Commercial Vehicle
CPM	Cost Per Thousand	LTE	Long Term Evolution, aka 4G mobile networks
CRM	Customer relationship management	M2M	Machine to Machine
CONTRAN	Conselho Nacional de Trânsito (National Traffic Council; Brazil)	MBI	Mileage-based insurance
CTR	Click Through Rate	MEMS	Micro-Electro-Mechanical System
DAB	Digital Audio Broadcasting	MNO	Mobile Network Operators
DAB+	Approximately twice as efficient as DAB	MTBF	Mean Time Between Failure
DMB	Digital Multimedia Broadcasting	MTPL	Motor Third Party Liability
DQ	Driver Quotient	MVR	Motor Vehicle Records
DSRC	Dedicated Short Range Communications	NCTS	National Computerised Transit System
DTC	Diagnostic Trouble Code	NFC	Near Field Communication
DVB-T	Digital Video Broadcasting – Terrestrial	OBD	On-Board Diagnostics
eCall	Emergency call, the pan-European assistance system that is now integrated in all new EU car models	OBU	On-Board (telematics) Unit
EC	European Commission	OEM	Original Equipment Manufacturer
ECU	Electronic Control Unit	OS	Operating System
EDR	Electronic Data Recorder	OSM	Open Street Map
EES	Egis EasyTrip	OTA	Over The Air
EETS	European Electronic Toll Service	PAYD	Pay As You Drive insurance
eFNOL	Electronic First Notification Of Loss	PC	Passenger Cars
EOBD-II	European On Board Diagnostics	P&C	Property & Casualty insurance (incl. auto & home insurance)
EOBR	Electronic On Board Recorder	PCB	Printed Circuit Board
EV	Electric Vehicle	PHYD	Pay How You Drive insurance
FCD	Floating Car Data		
FMD	Floating Mobile Data		
FMS	Fleet Management System		

Connected Auto Insurance Global Study 2021 - Glossary

PID	Parameter ID
PIP	Personal Injury Insurance
PND	Portable Navigation Device
POI	Point Of Interest
POS	Point Of Sales
PPC	Price Per Click
PSAP	Public Service Answering Point
QoS	Quality of Service
RFID	Radio-Frequency IDentification
RHYD	Reward How you Drive (discount is replaced with a non-monetary reward)
SAAS	Software As A Service
SVR	Stolen Vehicle Recovery
SVT	Stolen Vehicle Tracking
TBYB	Try before you buy insurance schemes (generally using an app to monitor driving risk before underwriting)
TCO	Total Cost of Ownership
TISA	Traveller Information Services Association, in charge of standardising traffic information services
TMC	Traffic Message Channel, a technology for delivering traffic and travel information to drivers (sometimes also called Alert-C)
TMS	Transport Management System
TPS eCall	Third-Party Service eCall, connected to a private assistance provider (e.g. IMA for PSA or AllianzOrtungs for BMW))
TSP	Telematics Service Provider
TTP	Telematics Technology Provider
UBI	Usage-Based Insurance
V2V	Vehicle to Vehicle
VAS	Value Added Services
VMS	Variable Message Signs, displaying traffic information on key motorways
VIN	Vehicle Identification Number
VPN	Virtual Private Network
WAN	Wide Area Network (typically the cellular network)
WLAN	Wireless Local Area Network (typically a WiFi network)

PTOLEMUS Consulting Group

About PTOLEMUS Consulting Group

The first strategy consulting & research firm entirely focused on augmented mobility & automation

Strategy consulting services



Market research services



Fields of expertise

Mobility services	Car pooling Car sharing MAAS	Micro-mobility Ride hailing Shared mobility	Smart parking Tax refund
Vehicle services	bCall eCall FMS SVT / SVR	Tracking VRM In-car Wi-Fi Parking	Navigation Speed cameras Traffic information
New energies	BEV EV charging Fuel cards	Fuel cells Hydrogen	PHEV Vehicle-to-grid
Usage-based charging	Car As A Service Electronic Toll Collection	Mobility-as-a-Service Road charging	UBI / PAYD Vehicle rental Vehicle leasing
Vehicle data & analytics	AI CAN-bus Crowd-sourcing Data protection	Driving behaviour OBD Predictive analytics	Remote diagnostics xFCD
Vehicle automation	ADAS Autonomous cars	Autonomous trucks	Robo-taxis Shuttles
Enabling technologies	Positioning (GNSS / WiFi / cellular) M2M / connectivity	Smartphones Sensors	Telematics devices V2X

Our clients come from across the mobility ecosystem

Analytics, maps & applications providers



Automotive manufacturers & suppliers



Telematics solution providers



Insurers, aggregators & assistance providers



Mobile telecom players



Fleet & fuel, ITS & regulators



Banks & private equity investors



170 consulting assignments to help our clients define their strategy ...



Defined strategic positioning in insurance telematics value chain



Evaluated UBI market opportunities in Europe, Asia and Latin America



Defined the strategy & business plan of its telematics programme



Helped the company's Board understand the impact of telematics

Insurance group



Defined the scoring & pricing of its PHYD programme

European insurer



Helped the company its EU market entry strategy

Fleet telematics service provider



Appraised future telematics technology & market trends and their impacts



Helped our client define its mobile UBI strategy

Global insurance group



Helped evaluate European OBD market opportunities in FMS, UBI and roadside assistance

Major telematics device vendor



Evaluated the market potential of insurance telematics in Europe



Helped the company define its strategy towards OEMs

Major insurance data provider



Defined its European connected insurance market entry strategy

Consumer electronics group

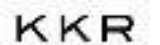
... perform market sizing, due diligence & business planning projects...



Conducted the commercial due diligence of Octo Telematics



Assisted in the review of the global insurance telematics market



Helped the client define the strategy & business case of its new telematics business

Automotive tier-1 supplier



Performed a global review of the insurance telematics market



Performed the vendor due diligence of Cobra Automotive prior to its acquisition by Vodafone



Led technology due diligence of Lytx, a US video-based fleet Telematics Service Provider



Evaluated the analytics solution of a global insurance TSP

Private equity fund



Evaluated the impact of telematics on claims losses

French insurance company



Evaluated the EU market for smartphone-based fleet management



Built insurance telematics business plan in 5 EU countries



Led commercial due diligence of ITmobile, a Belgian fleet TSP



Conducted a global review and forecast of the Usage-Based Insurance market



... and help them deliver their strategy



Defined & implemented its partnership strategy in the connected vehicle ecosystem



Assisted in sourcing a driving behaviour database across Europe

Global tier-1 automotive supplier



Helped the company build its driver behaviour scoring solution

Telematics Service Provider



Helped the technical team identify valuable OBD data for its future telematics diagnostics offering

Roadside assistance operator



Evaluated the technical & safety characteristics of a telematics solution using an OBD dongle

Mid-sized insurance group



Evaluated the solution of an Irish fleet Telematics Service Provider

Strategic investor



Helped the OEM leverage its data for its insurance telematics strategy



Sourced a large scale driving database to build a global auto insurance risk score

Insurance scoring company



Evaluated the technical solution of a CAN-bus telematics solution provider

Tyre maker



Defined the telematics platform specifications on analytics & driver coaching

Consumer electronics player



Assisted in sourcing an OBD dongle for mass deployment in China

Major connected platform provider



Evaluated the security of the solution of a green driving service provider

Major financial group

We have helped insurance and assistance companies in over 10 countries



PTOLEMUS can help both insurers, OEMs and their suppliers achieve their connected insurance objectives

- **Strategy definition**

- Market entry assistance
- Data strategy and analysis
- End-to-end UBI programme definition
- Mobile insurance strategy development
- VAS strategy
- Data monetisation strategy
- e-FNOL strategy

- **Investment assistance**

- Strategic review
- Commercial due diligence
- Market forecasting

- **Innovation management**

- Insurance policy definition
- Integration with fleet telematics
- Telematics pricing strategy
- Reward strategy
- Value added services (VAS) strategy
- Loss reduction plan

- **Procurement**

- Identification of relevant suppliers
- Selection of telematics technology & suppliers

- **Business development**

- Partnership strategy definition
- Partnership strategy implementation

- **Deployment**

- Data privacy strategy
- Analytics, scoring and pricing strategy
- Specifications of telematics-enabled products
- Design & deployment of telematics platform

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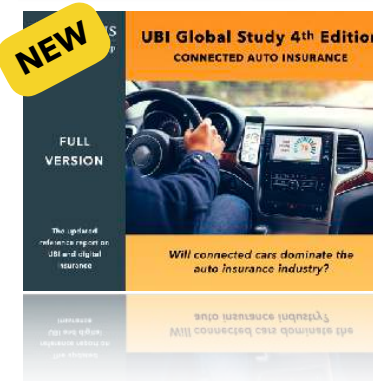
AUTONOMOUS DRIVING



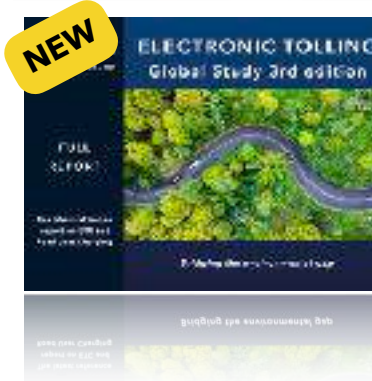
CONNECTED CAR



DIGITAL INSURANCE



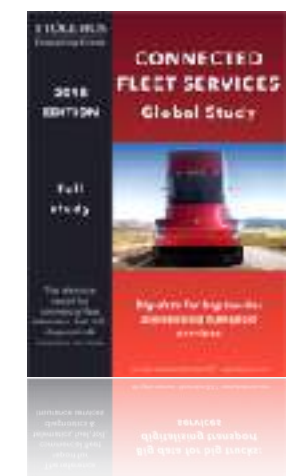
ELECTRONIC TOLLING



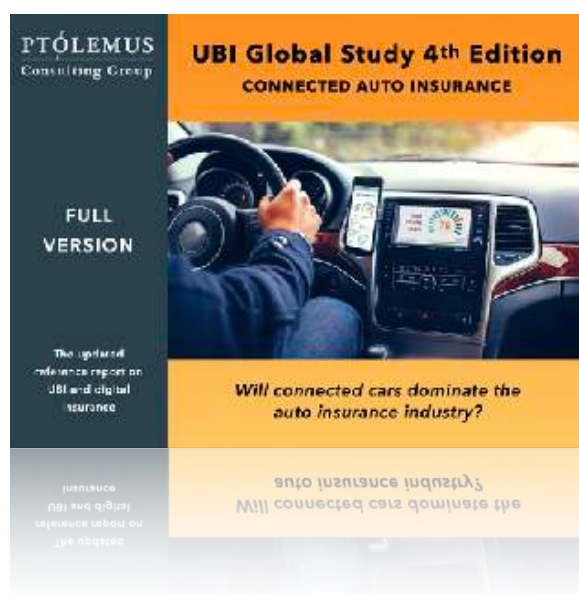
MOBILITY



FLEET MANAGEMENT



The study comes with a single, worldwide company licence



The global reference report on UBI and Connected Auto Insurance

	Report ONLY		Additional market forecast	FULL Report & market forecast
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Contents	<ul style="list-style-type: none"> • 730-pages of analysis of the connected auto insurance industry including, strategies, use-cases and geographies • Strategy analysis and assessment of the 4 key routes OEMs have to enter the connected insurance market • Analysis of the strategies and apps of 26 insurance companies and TSPs worldwide • Profiles of the 15 countries and regions leading the global connected auto insurance industry 		<ul style="list-style-type: none"> • Excel file with outputs and charts • Global Forecasts from 2020 to 2030 • Includes, technology splits, revenues by technology, distribution model and region/country, and active policies 	Includes all report and market forecast content as described
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contact@ptolemus.com
www.ptolemus.com
@PTOLEMUS

For more information, please contact:
Andrew Jackson
Research Director
ajackson@ptolemus.com
+44 7930 053 727