

**2016
EDITION**

**Report
contents**

The reference
report on
insurance
telematics

USAGE-BASED INSURANCE

Global Study



***Uberising
auto insurance***

ABOUT PTOLEMUS CONSULTING GROUP



*from Ptolemy, the Egyptian savant
who built the 1st map of the world
in the 2nd century*

PTOLEMUS is the first international strategy consulting firm specialised in the connected vehicle and the Internet of Things (IoT).

We help our clients apply strategic analysis to this fast-moving ecosystem, across all its industries (automotive, consumer electronics, insurance, mobile telecoms, etc.) and on an international basis.

PTOLEMUS, founded by Frederic Bruneteau, operates worldwide and is present in 6 countries: Belgium, France, Germany, Italy, the UK and the US.

PTOLEMUS has performed 35 consulting assignments related to insurance telematics.

For any enquiry, please send a message to contact@ptolemus.com

Our consulting services

Strategy definition

Vision creation, strategic positioning, business plan development, board coaching & support

Investment assistance

Strategic due diligence, market & technology assessment, M&A, post-acquisition plan

Procurement strategy

Specification of requirements & tender documents, launch of tenders, supplier negotiation & selection

Innovation management

Value proposition definition, product & services development, architecture design, assistance to launch

Business development

Partnership strategies, detection of opportunities, ecosystem-building, response to tenders

Implementation

Deployment plans, complex project & programme management, risk analysis & mitigation strategy

Our fields of expertise

Car infotainment & navigation

Connected services (Traffic information, fuel prices, speed cameras, weather, parking, points of interest, social networking), driver monitoring, maps, smartphone integration, smartphone-, PND- or embedded navigation,

Usage-based charging

Connected insurance, road charging / electronic tolling, fleet leasing & rental, car sharing, Car As A Service, etc.

Telematics & Intelligent Transport Systems

ADAS, connected vehicle, crowd-sourcing, fleet management, eCall, bCall, SVR, tracking, vehicle data analytics (OBD / CAN-bus), VRM, V2X, xFCD

Positioning / Location enablement

M2M & connectivity

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And follow our news feed on Twitter: **@PTOLEMUS**

THE AUTHORS OF THIS REPORT

Frederic Bruneteau, Managing Director, Brussels (HEC Paris, CEMS Cologne)



Mr. Bruneteau has accumulated nearly 20 years of experience including 17 years of experience of the mobility domain and 8 years of strategic and financial advisory for companies such as **Arthur D. Little, BNP Paribas, SFR Vodafone** and **TomTom**.

He has become one of the world's foremost experts in the field of telematics, quoted by numerous publications such as *The Economist* and *Reuters*. He has spoken at more than 20 international conferences on the subject.

Within PTOLEMUS, he has participated to 60 assignments related to connected vehicle services, including **30 strategy, product development & sourcing projects related to insurance telematics**.

- He assisted one of the world's largest **insurance groups** in designing its **telematics strategy & business plan across Europe**;
- **For one of the largest global car makers**, he defined the insurance telematics and fleet management **specifications of their future embedded device**,
- He defined the **5-year device roadmap** of a major insurance Telematics Service provider,
- He helped a **global automotive tier-1 supplier in defining its strategy** for the UBI market,
- He assisted a large insurance and data aggregation group in identifying the **future breakthroughs in the connected car value chain** and their impact on the auto insurance market.

Thomas Hallauer, Research Director, London (BA, International Business, Univ. of London)



Thomas Hallauer has gained 12 years of marketing experience in the domain of telematics and location-based services. He is an expert in new products and services notably in the telematics, motor insurance, electronic tolling and positioning industries.

Before PTOLEMUS, Thomas held management responsibilities with **Mobile Devices**, a leading provider of telematics technology platform and devices and with FC Business Intelligence (**Telematics Update**).

Thomas is the lead author of the [ETC Global Study](#), the most thorough review of the Electronic Toll Collection and Road Charging market published in May 2015.

Mr. Hallauer co-wrote this and the **2013 UBI Global Study** and interviewing dozens of companies such as AAA, Admiral, Ageas, Allianz, Liberty Mutual, Mapfre USA and Zurich; and telematics suppliers such as Danlaw, DriveFactor, Geotab, Himex, IMS, The Floow and Verizon Telematics.

For this report, he led the research on the UBI market in over **30 countries** and interviewed more than **120 players** in UBI.

Matthieu Noël, Senior Consultant, Paris (MS Automotive Engineering & Project Management, ESTACA, Paris and MS Marketing, HEC, Paris)



Matthieu Noël has gained 6 years of experience in the automotive industry covering technical, strategy, marketing and business development, including more than 4 years in consulting.

Mr Noël has performed more than 20 assignments in the automotive and telematics industries. He understands the business and strategic implications of new technologies in the mobility eco-system and can adapt quickly to new industries and situations.

He has gained strong expertise in telematics, particularly in Usage-based Insurance (UBI), fleet management (FMS) and vehicle OBD data analytics for numerous applications such as vehicle remote diagnostics, eco-driving and driving behaviour analysis. He also recently contributed to the publication of the **Insurance Telematics Global Study** and **Electronic Toll collection Global Study**. He also regularly speaks at conferences.

Before PTOLEMUS, Matthieu acquired consulting experiences with **7M Consulting**, a strategy consulting firm specialised in the automotive industry and with **Deloitte Consulting**, within the Industry Strategy & Operation branch.

For this report, Matthieu analysed the **OEM position** and **OBD opportunities for UBI** and conducted interviews with companies such as Allianz, AXA, PSA, Renault-Nissan, Volvo and OBD solution providers.

Alberto Lodieu, Senior Consultant, Paris (MBA, HEC Paris - BSc Industrial Engineering, Instituto Tecnológico y de Estudios Superiores de Monterrey)



Alberto has more than 5 years of experience in strategy and operations consulting. He has specialised in the financial services, transport and professional services industries in projects related to corporate and competitive strategy, operations excellence and business analytics.

Alberto participated in 15 projects to help organisations identify, define and implement the initiatives needed to achieve or preserve their leadership position.

Alberto is a native speaker in Spanish, fluent in English and intermediate in French and Italian.

Before joining PTOLEMUS, Alberto worked for Deloitte Consulting in their strategy and operations practice. He participated as a strategy and financial advisor in investment projects both in **France and Mexico**. He also helped a transport company define its strategy and evaluate the benefits of telematics.

For one of the world's largest insurance companies, Alberto recently performed:

- An analysis of UBI market opportunities in numerous Asian countries,
- A global analysis of smartphone UBI apps.

Alberto wrote the ADAS / autonomous vehicle section of this report.

Philippe Brousse, Business Analyst, Brussels (MSc Eng., ENSIMAG & MBA ESSEC, Paris)



Philippe has gained experience in strategy and market research for companies such as Altai Consulting, CGI Business Consulting and Safran Morpho.

He has performed multiple market research projects in the connected mobility domain such as:

- The assessment of the Benelux fleet telematics management market for a North American TSP,
- The evaluation of the European fleet telematics management market for a \$40 billion US hedge fund,
- The forecast of the European and North American UBI and fleet management markets for a smartphone Telematics Service Provider,
- The **bottom-up sizing of the global UBI market** for one of the largest TSPs,
- For a global insurance company, a **global analysis of smartphone apps** for UBI data collection and customer acquisition.

Philippe wrote the market sizing and smartphones sections of this report.

Justin Hamilton, Business Analyst, London (BA, Politics, Univ. of East Anglia and M.Litt. International Relations, Univ. of St Andrews)



Justin has more than 3 years of experience within the transportation, electronic tolling and road user charging markets, with a particular focus on national tolling projects and related policy development.

A native of the UK, Justin conducts quantitative and qualitative analysis of global trends and developments in electronic road pricing and intelligent transport solutions.

Before joining PTOLEMUS, Justin was editor of Road User Charging magazine and Head of Content for all road charging conferences and transport industry market research at Akabo Media.

His recent assignments include a comprehensive ranking of global ETC service providers, systems integrators and technology suppliers.

Sergio Tusa, Associate Partner, Milan (MBA ISIDA Palermo)



Sergio Tusa has gained 25 years of strategic and commercial experience, primarily in telematics, automotive and navigation. He has been the **CEO of Tele Atlas Italy** and Geonext, an LBS and fleet management provider.

He is expert at designing, launching and selling products and operations for international players such as **Magneti Marelli and Philips Car Systems**.

For example, he led **Geonext** and notably launched the first LBS and map service in Italy on Vodafone Live in 2002. He also launched its fleet management service for Hera, one of the largest energy and environment management groups in Italy.

For **Cobra Automotive**, Sergio designed a low cost Stolen Vehicle Recovery solution for Fiat's Blue&Me navigation platform. He also led the development of Volvo/Renault Trucks anti-theft platform.

For **Magneti Marelli**, Mr. Tusa launched its automotive grade insurance telematics black box and supported the launch of its first container tracking device.

He recently reviewed the strategy of a major European Telematics Service Provider in the fields of fleet management, stolen vehicle recovery and UBI. Since March, Sergio is also the President of the Italian association of Telematics Service Providers.

Hartmut Albers, Associate Partner, Mobility Services and Process Management, Hannover (DB and DeCeTe Transport and Logistics, Hamburg University)



Hartmut Albers has gained 30 years of experience in the mobility services, transport and logistics industries from firms such as **Deutsche Bahn, DKV, Duisburger Container Terminal, Hannover Public Transport and Schenker**.

He has gained **world-class expertise in connected services**, notably in RFID, e-ticketing, capacity and fleet management.

At **DKV Euro Service, Europe's largest provider of fuel cards for fleets**, Hartmut co-headed the creation of the business unit in charge of tax refund services for transportation fleets of Heavy Goods Vehicles.

Finally, Hartmut just performed two assignments in the field of telematics:

- For a \$140 billion hedge fund, he assessed the **European market for connected fleet services**,
- For a smartphone-based fleet telematics management supplier, he built 5-year **forecasts of the European and North American UBI markets**.

Maria-Grazia Verardi, Senior Expert, New York (MS Physics, University of Bologna)



Maria Grazia Verardi has gained over 15 years of experience in R&D, product design, hardware- and software development in the domain of telematics and IT.

She has gained **telematics expertise** from leading technology and service providers such as **Cobra Automotive** and **Cesar Satellite**.

Within Cobra, she led numerous projects for the automotive industry. She notably defined services/products for major **car makers** such as Audi, Nissan, Porsche, PSA, Renault and Volkswagen.

She has been actively involved in the CEN pan-European eCall working group, notably participating to the development of **eCall** requirements and associated standards. Ms. Verardi has also been involved in the development of telematic-related standards for ETSI and ISO.

Maria Grazia also managed the definition of services, the collection of business requirements and the implementation of trials for insurance companies such as **AXA, ABN Amro and Delta Lloyd**. She also managed the technical specifications of an insurer's PAYD telematics device addressed to the Russian market.

For **Cesar Satellite**, the leading Russian TSP, she performed the technical audit of its IT platform designed for telematics services management on both mobile units (MU) and stationary objects (SO). She also managed the technical specifications of an insurer's PAYD telematics device for the Russian market.

Finally, for **one of the global leaders of the UBI solution landscape**, she recently assessed the future evolution of the technology environment for its future device strategy and 5-year product roadmap.

OUR PARTNER OSBORNE CLARKE

The legal and regulatory assessments of the European market for UBI as well as the changes in data privacy regulations were authored in partnership with Osborne Clarke.

About Osborne Clarke

As one of Europe's leading technology law firms with a highly regarded automotive practice, we are well placed to advise clients at the cutting edge of automotive developments such as telematics.

Our in-depth industry experience means that we have a track record of helping businesses in the insurance telematics arena to resolve the key issues affecting them.

We have over 700 lawyers working across 15 offices in Belgium, France, Germany, Italy, Spain, Italy, the UK and North America. Our size and reach means we have the knowledge and resources to deliver. In the last 3 years, we have helped 5,000 clients in 70 jurisdictions.

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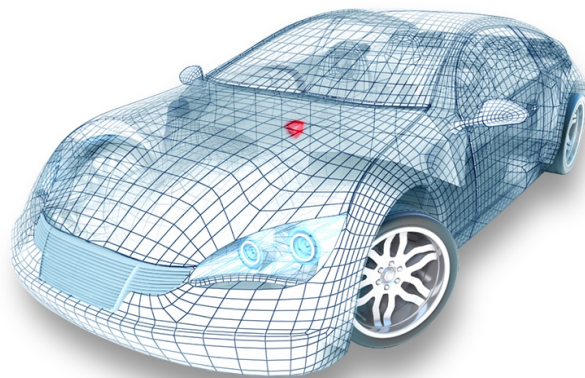


www.osborneclarke.com

OUR SINCERE THANKS

This report is the **most complete report ever written on the subject of telematics, worldwide: it counts more than 200,000 words and 420 figures!**

This richness is largely based on the willingness of the "ecosystem" to co-operate and give its time and knowledge for the benefit of the wider society and economy.



We would like to particularly thank

- Our 3 guest interviewees;
- The more than 200 industry executives we held discussions with - A list of the companies we interviewed is available below;
- The 28 companies that responded to our survey of telematics and analytics solutions;
- Our families for their patience and understanding.

FOREWORD

Our second report was a resounding success. More than 6,000 insurers and other ecosystem executives across the world read the UBI Global Study abstract!

The whole PTOLEMUS team is pleased to bring you a complete analysis of the changes that have come in the last two years.

As always, we want this study to remain **the reference report on the subject**. This is reflected in its size, which we have tried to curtail for practical reasons but is still 20% bigger than the 2013 edition.



Insurers from all lines of business are entering the era of Big Data and moving away from outdated underwriting practices.

The last 2 years have seen UBI reach a **new level of maturity**:

- Progressive has again doubled its number of UBI customers to 2.8 million,
- There are now 14 insurers/brokers with more than 100,000 telematics customers (again, twice as many as in 2013),
- Insurers are now launching telematics programmes in China, Thailand, New Zealand, Columbia or Slovenia,
- Following on from Desjardins' first UBI programme in 2013, there are now 10 UBI programmes in Canada,
- The European Parliament has finally ratified the eCall mandate, now slated to start in 2018. Third Party eCall services are expressly allowed to coexist and, we suspect, will form the majority of the offering by then,
- Since Autoline's first step in mobile UBI in Northern Ireland, we now count 13 UBI programmes using smartphones globally and at least 20 Try-Before-You-Buy apps, demonstrating that the smartphone is clearly making steps into the UBI device market,
- After Renova purchased Octo Telematics, Telematics Service Providers (TSPs) became hot property: Wunelli was acquired by Lexis Nexis, Masternaut by FleetCor, Cobra by Vodafone, Enigma by Viasat, DriveFactor by CCC, MyDrive by Generali... and the list goes on,
- Numerous vehicle makers including BMW, Daimler, Ford, GM and PSA have launched UBI programmes with insurers or brokers.

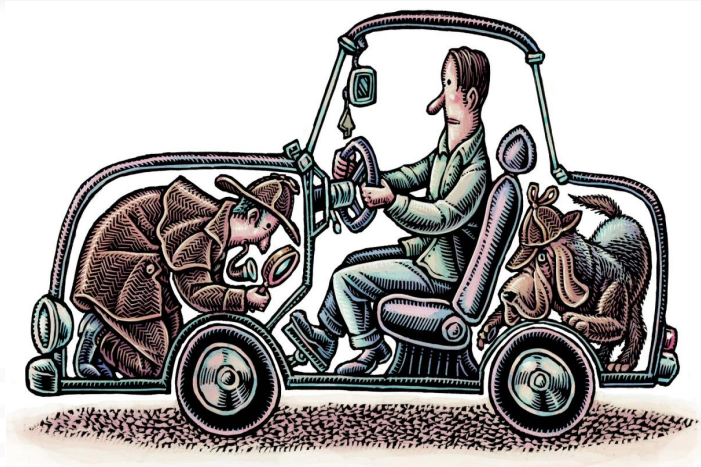
So it was certainly high time for an update!

In this study, we evaluate whether telematics will change the motor insurance market and **how profound the impact will be**.

We assess the present state of UBI globally and the challenges ahead.

We also identify problems and **propose solutions** to overcome them.

Last not but not least, we analyse the continuing evolution of the industry value chain and attempt to detect the winners and losers.



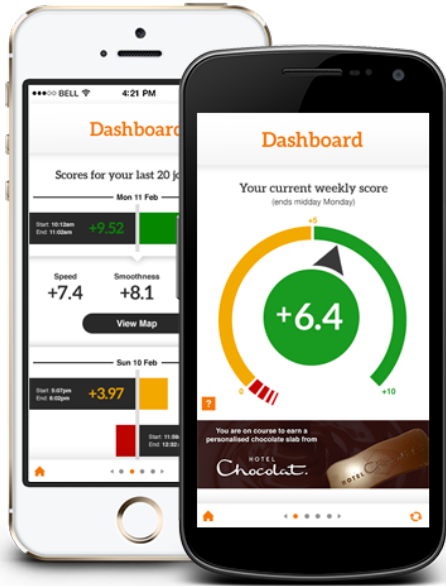
Haney, Lisa. NY Times. (2012).

This report will provide **insights to insurers' management teams**, notably CEOs, CMOs, CIOs, Business Unit Directors and Directors in charge of risk management and claims management.

It will also interest assistance providers, automotive manufacturers, their tier-1 and tier-2 suppliers, telematics service providers (TSPs) and technology providers (TTPs), mobile network operators (MNOs), regulators and governments.

Our investigation also brings **responses to the following questions**:

- What do insurers have to gain from giving away discounts to their most valuable customers?
- Is UBI a model all automobile insurers must follow and what are its driving factors?
- What are the key challenges to expect when building a UBI programme and what actions must be taken by each party to face them?
- How to increase customer acceptance for UBI depending on segments and geographies?
- How to choose from the various technology solutions available and what are the criteria to compare them against each other?
- Which are the best suppliers for each type of solution and commercial target?
- How will the industry value chain evolve based on the actions of the principal agents?
- What is the business case for the mass introduction of PAYD/PHYD insurance?
- What is the expected market size for these products and services in the next 5 years?
- What will be the impact of autonomous vehicles on the insurance industry and UBI?



To conduct what is the most comprehensive study ever written on insurance telematics, we have relied on:

- Interviews with 200 executives from all sides of the industry, from Allianz to Zurich,
- 7 years of primary research, including a survey of available technology solutions,
- Updating our motor insurer's business model for 6 markets, i.e. France, Germany, Italy, Russia, the UK and the US,
- Building a 15-year market model of all the primary and secondary markets by country and region in order to combine strategic and technology analysis with hard figures,
- A review of applicable patents worldwide and the legal frameworks in key markets,
- The insights from more than 35 consulting assignments in the field of insurance telematics.

This report provides a **"one-stop-shop" analysis** of this complex emerging market across all regions of the globe. In our view, it is an **important read** for all insurers because:

- Numerous auto insurance markets are facing structural losses due to heavy price competition and rising claims costs,
- Auto insurance will be affected directly and in the long-term by the advances in autonomous vehicle safety functions,
- This analysis will help insurers learn from pioneers, overcome challenges, better understand how to place the value proposition and make informed decisions,
- An examination of the present business models and value chain is needed to prepare the market for the next phase of growth,
- It compares the leading telematics and analytics solutions available to insurers.

It has been a pleasure for us to write this report. We hope that you will enjoy reading it. If your company plays a role in this business and has not been mentioned in our report, please let us know so that we can update it in the coming months. Please send your comments to insurance@ptolemus.com

Sincerely,

Frederic Bruneteau
Managing Director

FOOD FOR THOUGHT



Peter B Lewis, CIO,
Progressive Insurance, 1987

Our decisions and processes in risk pricing are to the maximum extent possible based on data rather than intuitive gut feeling. We do rely much more on the facts than on anecdotal experience.



Matthew Hunt
PSA Insurance UK

PSA uses an OBD dongle to offer UBI in the UK because of its installation simplicity but telematics insurer needs are different in every country, it's a real challenge for OEMs to deliver useful data to each of them.

Smart, connected products are changing how value is created for customers, how companies compete, and the boundaries of competition itself.

Michael Porter &
James Heppelmann

Telematics is a game changer for the insurance industry.



Walter Trevisano,
Generali

If cars are better -and they clearly are- drivers must be worse"... " a 3.5% rise in traffic alone doesn't seem enough to warrant the 14% rise in fatalities.



Warren Buffett
Berkshire Hathaway



Pascal Le Merle,
Renault

Renault is able to deliver more vehicle data to insurers than any aftermarket players.

"Today our experience is that more than 50% of the new business we write in Ontario is coming with UBI, meaning that people are open to sharing information."



Jean-François Blais
Intact Insurance

Lower telematic costs would enable us to reach more market segments and create a different offer to reach these segments.

Also, it could give us financial resources to invest in promotional campaigns that don't focus only on price.

Dino Paulon
Unipol

Hard braking means nothing without information about the type of car driven.

A UBI
service provider

Hard braking is a significant risk factor because it demonstrates the driver is tail gating.



Luis Pena
Carrot Spain

The tech is not enough, insurance companies have to redesign everything around telematics data.



Shailu Verma
HERE

We can now bring to insurers lane-level traffic speed information.

While the technology cost is continuously going down, the installation cost could even increase with the labour costs.



Ilan Ossin
Discovery Insure

We see from the experiments we have performed in Germany and the UK that the introduction of telematics can improve the economics of a fleet



Dr. Edgar Puls
HDI Gerling

Amaguiz' telematics platform must be able to collect from any OEM solution.



Julien Hue
Amaguiz

"Everything you have not done yourself, you assume it is easy!

The other day, a very smart Silicon Valley start-up CEO was telling me that if he had to design the device himself, it would delay his plan by 2 months!"



Aliya Valiullina
RSA Intouch

The box and the installation are one of the major hurdles in our business case.



Ralf Meyer
VÖV



Mike Carroll
Danlaw

We started with a 3-month pilot then tested our operational readiness. Our fears were proven to be wrong.

The advertising campaign we did on our new telematics programme is actually the most successful we've ever done.



Emmanuel Pierron
AXA Direct

We need FNOL to be able to contact drivers when they have an accident to assist them in filling the claims and send the vehicle in our partner repair network before the OEM.

Before we installed our Big Data system, it took us 2 months to validate an hypothesis across our dataset.

Now it takes 9 hours!

Using data to drive decisions has been at the core of what has made Progressive successful for a long time.



Dave Pratt
Progressive Insurance

We have given almost 500 million dollars in discounts back to our Snapshot customers since the beginning.

There are only 2 types of companies: those that have been hacked and those that will be.



Robert Mueller
FBI

The next step for TSPs?
Get a real pay / km tariff

Daniele Tortora
Octo Telematics



Chris Urmson
Google Self-Driving Car Project

The better the technology gets, the less reliable the driver is going to get.



Jörg von Fürstenwerth
GDV (Germany's insurance association)

Our industry is already working intensively on autonomous cars.

We are committed to binding inspection and testing procedures for automated vehicles. We want to promote Europe-wide standards for data formats and for data availability, which are necessary for autonomous driving.

Above all, should highly automated vehicle arrive, we will ensure accident victims are fully protected by their insurance.

Whilst we see autonomous vehicles as a massive step forward in terms of road safety, motor vehicle accidents will still happen.

We will need to be able to determine who or what was at fault - the driver or the car.



David Williams,
AXA UK



Non-autonomous cars will be like owning a horse: for sentimental reasons.



Nicolas Weng Kan
Google Compare

Our vision is that no one should be killed or seriously injured in a new Volvo by 2020.

When we come on with an autonomous vehicle, we want to make sure it is accessible and affordable to the masses.



Elon Musk
Tesla Motors

We are not becoming an auto insurer, nor an insurance agency.

Our expertise is understanding where the customers are and linking them back to the people who know how to service them.



Mark Fields
Ford CEO

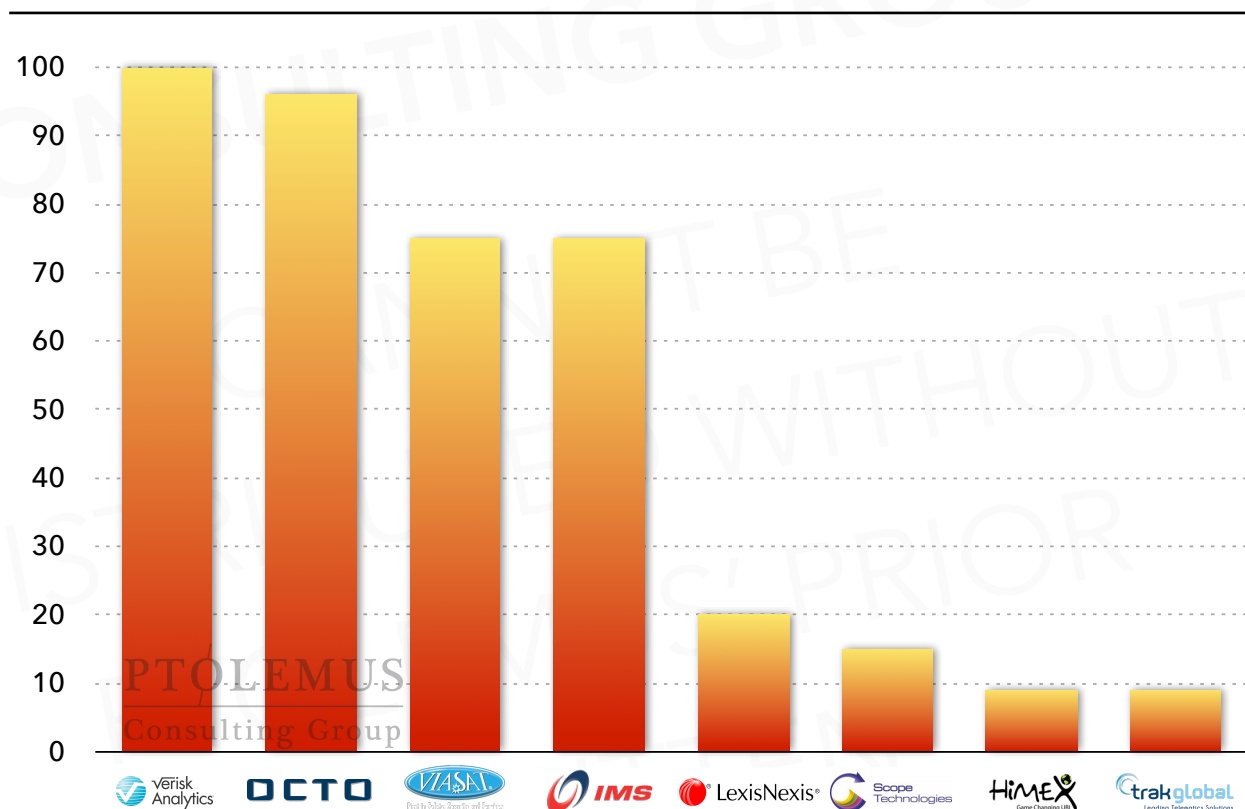
BIG (DRIVING) DATA

In our view, this chart summarises well why it is important for insurers to move early. The size of driving datasets will be one the key ingredients to obtain highly predictive risk models.

It also indicates that not all technologies and models lead to the same amount of data collected.

Last but not least, it shows how leading TSPs / analytics suppliers have accumulated as much data as large insurance companies in a few years.

Fig: 1.1 Size of telematics dataset collected (in Terabytes)



Source: PTOLEMUS Consulting Group, suppliers

Of course, all datasets are not equal and it is very clear that the larger databases are not necessarily the most predictive of risks.

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LIST OF COMPANIES INTERVIEWED AND MENTIONED IN THIS REPORT

As part of our research, we **held discussions with 205 organisations in 18 countries** including:

- 82 insurers and brokers,
- 45 Telematics Service Providers (TSPs),
- 21 Telematics Technology Providers (TTPs),
- 19 automotive Original Equipment Manufacturers (OEMs) and tier-1 suppliers,
- 8 Mobile Network Operators (MNOs),
- 9 analytics and data management suppliers,
- 5 financial investors.

We would like to **thank these organisations** for their precious contributions to this report. They are listed hereafter and will benefit from a discount on the [UBI Global Study](#).

We have also indicated the **431 companies mentioned** in this report.

Company name	Country	Sector	Discussion	Mentioned
AA	UK	Automobile club		✓
AAA Club Partners	USA	Automobile club	✓	✓
AAA Data	France	Data analytics	✓	✓
Accutek Ind.	USA	ODM		✓
Achmea	Netherlands	General insurance	✓	✓
Accenture	USA	Systems integrator	✓	✓
ACI	Italy	Automobile club		✓
ACT Concepts	France	TSP		✓
ACTA	France	Roadside assistance provider		✓
ADAC	Germany	Automobile club	✓	✓
Admiral France - L'Olivier	France	Motor insurance	✓	
Admiral Insurance Group	UK	General insurance	✓	✓
Ageas	Belgium	General insurance	✓	✓
Agero	USA	Automobile club / TSP	✓	✓
Agnik	USA	Data management	✓	✓
AI Insurance	UK	General insurance	✓	✓

Company name	Country	Sector	Discussion	Mentioned
AIG	UK	General insurance	✓	✓
Aioi Nissay Dowa Insurance	Worldwide	General insurance	✓	✓
Alcatel-Lucent	France	Telecom equipment vendor		✓
ALD Automotive	France	Leasing company	✓	✓
Allianz	Europe	General insurance	✓	✓
Allianz Global Assistance	Europe	RSA	✓	✓
Allstate Insurance	USA	General insurance	✓	✓
Alo@Assurances	France	Consumer insurance		✓
Alpine	Japan	In-car audio equipment		✓
Altea	Italy	TSP		✓
Altech Netstar	South Africa	TSP		✓
Altima Assurances	France	General insurance	✓	✓
Amadeus Capital Partners	UK	Private equity fund	✓	✓
Amaguiz (Groupama)	France	Consumer insurance	✓	✓
American Family	USA	General insurance	✓	✓
Amodo	Slovenia	TSP	✓	
ANIA	Italy	Insurance trade association		✓
ANWB	Netherlands	Automobile club		✓
AnyDATA Corporation	USA	TTP	✓	✓
Aplicom	Finland	TSP/TTP	✓	✓
Apple	USA	Consumer electronics vendor		✓
ARM Holdings	UK	Processor design vendor		✓
Arval	France	Leasing company	✓	✓
ASFA	France	Insurance trade association		✓
Assercar	France	Repair centres		✓
Assicurazioni Navale	Italy	General insurance		✓
Association of British Insurers	UK	General insurance	✓	✓
Assurland.com	France	Online comparison site		✓
Atmel	USA	Semi-conductors vendor		✓
Atos	France	IT integrator	✓	✓
ATrack Technology	Taiwan	TTP	✓	✓
Audatex	USA	Solutions provider		✓
Audi	Germany	Automotive OEM		✓
Audiovox	USA	TTP	✓	✓
AutoDirect Insurance	UK	Consumer insurance		✓
Autoline	UK	Broker	✓	✓
Autoliv	Europe	ADAS - MVCM		✓
Automatic	USA	Connected services provider	✓	✓
Automile	Sweden	Connected services provider	✓	✓
Autosaint (Fresh! Insurance)	UK	Broker	✓	✓

Company name	Country	Sector	Discussion	Mentioned
Aviva (formerly Norwich Union)	UK	General insurance	✓	✓
Axa Assistance	France	Roadside assistance provider	✓	
AXA Direct	Europe	General insurance	✓	✓
Axa Global P&C	Worldwide	General insurance	✓	✓
B&Q	UK	Restaurant chain		✓
Baloise Assurances	Switzerland	General insurance	✓	
Barnes & Noble	USA	Book distribution chain		✓
Baseline Telematics	Canada	TSP	✓	✓
BDI (Bundesbeauftragte für den Datenschutz und die Informationsfreiheit)	Germany	Data protection authority		✓
Best Buy	USA	Electronics retail chain		✓
BGL Group Ltd	UK	General insurance	✓	✓
Bird & Bird	France	Law firm	✓	
BlaBlaCar	UK	Car sharing firm	✓	✓
Blockbuster	USA	Video rental chain		✓
BluO Fund	Luxembourg	Private equity fund	✓	✓
BMW	Germany	Automotive OEM	✓	✓
BMW Financial Services		Automotive OEM		✓
BNP Paribas Cardif	Chile	General insurance	✓	
BNV Mobility	Europe	TSP	✓	
Bouygues Telecom	France	Mobile operator	✓	✓
British Airways	South Africa	Airlines		✓
BT Software & Research	USA	Telecommunications operator		✓
Budget Insurance	UK	Personal line insurance		✓
Bull	France	IT integrator		✓
CalAmp	Worldwide	TTP	✓	✓
Cambridge Mobile Telematics	USA	TTP	✓	
CANgo	Europe	TSP	✓	
Cap Gemini	France	IT integrator		✓
Carrot Insurance	UK	General insurance	✓	✓
CATAPULT	Europe	AV-OEM		✓
CCC (Drivefactor)	USA	Claims management	✓	
CDL	UK	Software provider	✓	
Cellocator (Pointer Telocation)	Israel	TTP / TSP	✓	✓
CEN (European Committee for Standardisation)	Belgium	Standardisation organisation		✓
Censio	USA	TSP	✓	✓
CertEurope	France	Trusted third party services		✓
Cesar Satellite	Russia	TSP	✓	✓

Company name	Country	Sector	Discussion	Mentioned
Cinterion	Germany	Connectivity module provider		✓
Cinven	UK	Private equity firm	✓	
CLAL Insurance	Israel	General insurance		✓
Clarion	Japan	In-car audio equipment		✓
CMA Claims	UK	Claims adjuster	✓	
CNIL (Commission Nationale de l'Information et des Libertés)	France	Data protection authority	✓	✓
Co-operative Insurance	UK	General insurance	✓	✓
Cobra Automotive Tech.	Italy	TSP / TTP	✓	✓
Cognizant	USA	Enterprise resource software	✓	✓
Compagnie Générale d'Automatisme (CGA HBS)	France	Engineering firm		✓
Comparethemarket.com	UK	Online comparison site		✓
Confused.com	UK	Online comparison site	✓	✓
Continental	France	Tier-1 supplier	✓	✓
Corona Direct	Belgium	Broker	✓	✓
Corporate Vehicle Observatory	France	Research institution	✓	
Covea Group	France	General insurance	✓	✓
Coverbox	UK	Consumer insurance	✓	✓
Coverhound	USA	General insurance	✓	✓
Coyote	Europe	TTP	✓	
Crédit Mutuel Arkea	France	Consumer insurance	✓	
cTrack (Digicore)	South Africa	TSP	✓	✓
Cybit Masternaut	UK	TSP	✓	✓
Daimler Fleetboard	Germany	TSP		✓
Daimler Insurance Services	Germany	OEM	✓	✓
Danlaw	USA	TTP	✓	✓
Dash	USA	Connected services provider	✓	✓
Data Tec Co Ltd	Japan	ODM		✓
Davis Instruments	USA	TTP	✓	✓
DBV Winterthur	Germany	General insurance		✓
Delphi	USA	Tier-1 supplier		✓
Denso	Germany	Tier-1 supplier	✓	✓
Department of Transportation	USA	Government		✓
Detector	Spain	TSP	✓	✓
Deutsche Telekom	Germany	MNO	✓	✓
Diamonds	UK	Insurance broker		✓
Direct Line Germany	Germany	Consumer insurance		✓
Discovery Insure	South Africa	Consumer insurance	✓	✓
Disruptive Capital Partners	UK	Private equity firm	✓	✓

Company name	Country	Sector	Discussion	Mentioned
Diva	UK	Insurance broker		✓
Dixon's	UK	Consumer electronics retail chain		✓
Drive Power	USA	Data management provider		✓
Drive Service	Italy	Repair & maintenance services	✓	✓
DriveCam	USA	TTP	✓	✓
DriveFactor	USA	General insurance	✓	✓
DriveProfiler	Global	TSP	✓	✓
Driveway Software	USA	TSP	✓	✓
Drust	France	Connected services provider	✓	✓
Earnix	USA	Data management provider	✓	✓
Easy Mile	Europe	AV-OEM		✓
Eliocity	France	TSP	✓	✓
Elmic Systems	USA	Embedded software		✓
Equity Red Star	UK	General insurance	✓	✓
ERTICO - ITS Europe	Belgium	Trade association	✓	✓
Euromaster	France	Installation network	✓	
Europcar	South Africa	Vehicle rental		✓
European Commission	Belgium	Government	✓	✓
European Court of Justice	Belgium	Government		✓
European Data Protection Supervisor (EDPS)	Belgium	Data protection authority	✓	✓
Exigen	USA	Insurance software provider		✓
F&I	USA	Magazine		✓
Farmers Insurance	USA	General insurance	✓	✓
Faurecia	France	Automotive supplier	✓	
Fédération Internationale de l'Automobile (FIA)	Belgium	Trade association	✓	
Fiat Chrysler Automobiles (FCA)	Italy	Automotive OEM		✓
Fiat UK	UK	Automotive OEM		✓
Financial Times	UK	Newspaper		✓
Fleet Logistics	UK	TSP		✓
Fleetmatics / Sagequest	USA	TSP		✓
Fleetminder	Australia	TSP	✓	
FMG	UK	TSP	✓	✓
FMSCA (Federal Motor Carrier Safety Administration)	USA	Government		✓
Focus	Germany	Magazine		✓
Foley & Lardner	USA	Law firm		✓
Ford	USA	Automotive OEM		✓
Fujitsu Ten	Japan	Automotive supplier		✓

Company name	Country	Sector	Discussion	Mentioned
Garmin	USA	Electronics supplier	✓	✓
GE Equipment Services	USA	Fleet management company		✓
General Motors	USA	Automotive OEM		✓
Generali France	France	General insurance	✓	✓
Generali Group	Italy	General insurance	✓	✓
Genertel (Generali Group)	Italy	Consumer insurance	✓	✓
Geotab	USA	TSP	✓	✓
GiriMotor	UK	Insurance broker		✓
GMAC Insurance	USA	Consumer insurance		✓
gocompare.com	UK	Financial services comparison website	✓	✓
Golo (Launch Tech)	China	Connected services provider	✓	✓
Good Technology	USA	Mobile handset vendor		✓
Google	USA	Search engine		✓
Greenroad Technologies	USA	TSP	✓	✓
Groupama	UK	General insurance	✓	✓
Grupo Nacional Provincial	Mexico	General insurance		✓
Hannover re	Worldwide	Re insurance	✓	
Harman	USA	Tier-1 supplier		✓
Hastings Direct	UK	General insurance	✓	✓
HDI Gerling	Global	General insurance	✓	
HERE (formerly Navteq)	Worldwide	Maps & LBS supplier	✓	✓
High Point Auto Insurance	USA	Personal line insurance		✓
Himex (Evogi Group)	USA	TSP	✓	✓
Hitachi	Japan	Conglomerate		✓
Hollard Insurance	South Africa	General insurance	✓	✓
Honda	Japan	Automotive OEM		✓
HopeRun Technology	USA	Software development	✓	
HUK-Coburg	Germany	General insurance		✓
Hyundai	South Korea	Automotive OEM		✓
IBM	USA	IT integrator	✓	✓
ID Macif	France	Consumer insurance		✓
IDM Trucking	USA	Transportation		✓
If Insurance	Sweden	Insurance	✓	
iGate	UK	Software development	✓	
iGo4	UK	General insurance	✓	
iKube	UK	Consumer insurance		✓
IMA	France	Roadside assistance provider	✓	✓
iMetrik Global	USA	TTP	✓	✓
IMS	Canada	TSP	✓	✓

Company name	Country	Sector	Discussion	Mentioned
Industrial Alliance	Canada	General insurance	✓	✓
ICO (Information Commissioner's Office)	UK	Data protection authority		✓
Infrasure	UK	TSP	✓	✓
ING	Netherlands	Consumer insurance	✓	
Ingenie	UK	Broker	✓	✓
Innosurance	Australia	Commercial insurance		✓
Insurance Europe	Belgium	Insurance trade association		✓
Insurethebox	UK	Consumer insurance	✓	✓
Intellimec IMS	Canada	TSP	✓	✓
Interactive Driving Systems	USA	Risk management solutions		✓
International Road Union	Switzerland	Trade association		✓
Intesa San Paolo Assicuri	Italy	General insurance		✓
Iron Mountain	UK	Storage services		✓
ISACA (Information Systems Audit & Control Association)	Worldwide	Trade association		✓
ITB Telematics Solutions	UK	TSP		✓
Iveco	Italy	Automotive OEM		✓
IVOX	USA	Risk management solutions	✓	✓
Ixonos	Finland	Software developer		✓
Jaguar Land Rover	Worldwide	OEM		✓
Jambit	Germany	IT integrator		✓
Jooycar	Chile	Connected services provider	✓	✓
KDDI	Japan	Mobile operator		✓
Kia Motors	South Korea	Automotive OEM		✓
KKR	UK	Private equity fund	✓	
KPN	Netherlands	Mobile operator	✓	✓
Kuantic	France	TTP		✓
Ladybird	UK	Insurance broker		✓
Launch Tech	China	TTP	✓	
Leaseplan	Netherlands	Leasing company	✓	✓
Lexis-Nexis	USA	Enterprise resource software	✓	✓
LG Electronics	South Korea	Consumer electronics vendor		✓
Liberty Mutual	USA	General insurance	✓	✓
LinkedIn	USA	Social networking		✓
LocX	USA	TSP	✓	✓
Lysanda	UK	TTP/TSP	✓	✓
MAAF Assurances	France	General insurance		✓
MACIF Assurances	France	General insurance	✓	✓
Magneti Marelli	Worldwide	Tier-1 supplier	✓	✓

Company name	Country	Sector	Discussion	Mentioned
MAIF Assurances	France	General insurance	✓	✓
Mapfre	Spain	General insurance	✓	✓
Mapfre US	US	General insurance	✓	
Markerstudy Group	UK	Consumer insurance	✓	✓
Market IP	Belgium	Software developer	✓	
Marks & Spencer	UK	Retail		✓
Marmalade Group	UK	General insurance	✓	✓
Masternaut	Europe	TSP	✓	✓
Matmut Assurances	France	General insurance		✓
Mercedes Benz	Germany	Automotive OEM		✓
Meta System	Italy	TTP	✓	✓
Michelin	France	Tyre manufacturer	✓	
Mitsubishi Electric	Japan	Conglomerate		✓
Mix Telematics	South Africa	TSP	✓	✓
Mobile Devices	France	TTP	✓	✓
Mobileye	Israel	TTP		✓
Modus	USA	TSP	✓	✓
Mojio	USA	Connected services provider	✓	✓
Money Super Market	UK	Comparison website	✓	✓
Montezemolo & Partners	Italy	Private equity fund	✓	✓
Moody's	USA	Rating agency		✓
MORE TH>N	UK	Consumer insurance	✓	✓
Motaquote	UK	Consumer insurance		✓
Movelo	Sweden	TTP, TSP	✓	✓
MyDrive Solutions	UK	TTP, TSP, Data management	✓	✓
Nationwide Insurance	USA	General insurance	✓	✓
Navteq / HERE	France	Map provider	✓	✓
navya	France	AV-OEM		✓
ND a Islandi Ehf	Island	n.a.		✓
NIS Glonass	Russia	Public-private partnership		✓
Nissan Europe	Europ	Automotive OEM	✓	✓
Nissan Motor Corporation	USA	Automotive OEM	✓	✓
No Nonsense Insurance	N. Ireland	General insurance	✓	
Nokia	Finland	Mobile phone vendor		✓
Norton Rose	UK	Law firm	✓	
Novacom Europe	Netherlands	TSP		✓
Novatel Wireless	Worldwide	TTP	✓	
NTT DoCoMo	Japan	Mobile operator	✓	✓
NXP	Netherlands	Chipset vendor	✓	✓
ÖAMTC	Austria	Automobile club		✓

Company name	Country	Sector	Discussion	Mentioned
OBD Experts	UK	Software developer	✓	✓
Octo Telematics	Italy	TSP	✓	✓
OECD	France	International organisation	✓	✓
Omnitracs	Netherlands	TSP	✓	✓
Oracle	USA	Software provider		✓
Orange	UK	Mobile operator		✓
Orange Business Services	France	Integrator / TSP	✓	✓
Orion Technology	Taiwan	TTP	✓	✓
ÖSA (Öffentlichen Versicherungen Sachsen-Anhalt)	Germany	General insurance	✓	✓
Osborne Clarke	Global	Law firm	✓	✓
Pacifica Assurances	France	General insurance		✓
Panasonic	Japan	In-car electronics		✓
PayGo Systems	Israel	TTP / TSP	✓	✓
Perr&Knight	USA	Actuarial consulting firm	✓	✓
PHS Datashred	UK	Business services		✓
Pioneer	Japan	In-car electronics		✓
Plymouth Rock	USA	General insurance	✓	✓
Polis Direct	Netherlands	Consumer insurance		✓
Privacy International	UK	Non-governmental organisation		✓
Progressive Insurance	USA	Consumer insurance	✓	✓
PSA Banque	France	Financial institution	✓	✓
PSA Peugeot Citroën	France	Automotive OEM	✓	✓
PTV	Europe	Software developer	✓	
Punch Telematix	Belgium	TSP		✓
QNX	Canada	Embedded software		✓
Quality Planning	USA	Insurance services		✓
Quanta	Brazil	TTP	✓	
RAC	UK	Automobile club	✓	✓
RACE	Spain	Automobile club		✓
RBS Insurance	UK	General insurance		✓
RCI	France	Leaser		✓
Real Insurance	Australia	Consumer insurance		✓
Reala Mutua	Italy	General insurance		✓
RealVNC	UK	Embedded software		✓
Redburn	UK	Brokerage firm	✓	
Redtail Telematics	UK	TSP	✓	✓
RelayRides	USA	Car sharing provider		✓
Renault	France	Automotive OEM	✓	✓
Renesas	USA	Semiconductors		✓

Company name	Country	Sector	Discussion	Mentioned
Risk Technology	UK	TSP	✓	✓
Robert Bosch	Germany	Tier-1 supplier		✓
Rosno (Allianz Group)	Russia	General insurance		✓
Royal & Sun Alliance	UK	General insurance		✓
Royal Exchange	Nigeria	General insurance	✓	
RS Fleet Installations	UK	Installation network	✓	✓
RSA	UK	General insurance	✓	✓
RSA Intouch	Russia	General insurance		✓
Safeco	USA	General insurance	✓	✓
SafeFleet	Europe	TSP	✓	
SageQuest	USA	TSP		✓
Samsung	South Korea	Consumer electronics vendor		✓
Sanford Bernstein	USA	Asset management	✓	
SAP AG	Germany	Enterprise resource software	✓	✓
Sara	Italy	General insurance		✓
SAS Institute	USA	Enterprise resource software	✓	✓
Scania	Sweden	Automotive OEM	✓	✓
Scope Technologies	Singapore	TSP/TTP	✓	✓
Seesam	Latvia	General insurance		✓
Sensomatix	Israel	Data management	✓	✓
SFEREN	France	General insurance		✓
Sheila's Wheels	UK	Insurance broker		✓
Sierra Wireless	Canada	Connectivity module provider	✓	✓
Sinocastel	China	TTP	✓	
SiRF (Qualcomm)	UK	Chipset vendor		✓
Sistran	LATAM	TSP	✓	✓
SmartDrive	USA	TTP		✓
Société Générale	France	Bank		✓
Sogessur	France	General insurance		✓
Solly Azar (Verspieren Group)	France	Insurance broker	✓	✓
Sompo Japan	Japan	General insurance	✓	✓
Sony Ericsson	Japan	Mobile phone vendor		✓
Sprint Nextel	USA	Mobile operator	✓	✓
SSP	USA	Data management	✓	✓
Standard & Poor's	France	Rating agency	✓	✓
State Farm Insurance	USA	General insurance	✓	✓
Stellar International	Ireland	n.a.		✓
Stok Nederland	Netherlands	TSP	✓	
Swiss Re	Switzerland	Reinsurance		✓
T-Matic	Poland	TSP	✓	✓

Company name	Country	Sector	Discussion	Mentioned
T-Mobile	Germany	Mobile operator		✓
Tag N Go	USA	TSP	✓	✓
Tapiola	Finland	General insurance	✓	✓
TCS	Switzerland	Automobile club		✓
Tech Mahindra Limited	India	Software developer	✓	
Telefonica digital	Spain	Mobile operator	✓	✓
Telefonica UK	UK	Mobile operator	✓	✓
Telekom Austria (TAG M2M)	Austria	Mobile operator	✓	✓
Telenav	USA	Navigation / MRM provider		✓
Telenor Connexion	UK	TSP	✓	
Teletrac	USA	TSP		✓
Telit Wireless Solutions	Italy	Connectivity module provider	✓	✓
Telogis	USA	TSP	✓	✓
Teradata Aster	USA	Data management systems	✓	
Test-Achats	Belgium	Consumer rights organisation		✓
Texa	Italy	TTP	✓	✓
Thatcham	UK	Certification company		✓
The AA	UK	Automobile club	✓	✓
The Carphone Warehouse	UK	Telecommunications retail		✓
The Co-operative Insurance	UK	General insurance	✓	✓
The Floop	UK	TSP	✓	✓
The Hartford	USA	General insurance	✓	✓
Thélem Assurances	France	General insurance		✓
Tiger Wheel & Tyre	South Africa	Tyre fitment centre		✓
Tokio Marine Risk Consulting	Japan	Risk consulting firm		✓
Toll Collect	Germany	Road charging provider		✓
TomTom Telematics	Netherlands	Consumer electronics vendor	✓	✓
Touring	Belgium	Automobile club	✓	✓
Towers Watson	USA	Actuarial consulting firm	✓	
Toyota	Belgium	Automotive OEM	✓	✓
Toyota Insurance	Japan	Insurer	✓	✓
Tracker	South Africa	TSP	✓	✓
Trafficmaster	UK	TSP	✓	✓
Trak Global	UK	TSP	✓	✓
Trakm8	UK	TTP		✓
Transics	Belgium	TSP	✓	✓
Transport Research Laboratory	UK	Research institution	✓	
Traqueur	France	TSP	✓	✓
Travelers Insurance	USA	General insurance	✓	✓

Company name	Country	Sector	Discussion	Mentioned
Trimble MRM	USA	TSP	✓	✓
TRL	UK	Automotive supplier		✓
uBlox	Switzerland	Chipset vendor		✓
UGF Group	Italy	General insurance		✓
Unipol	Italy	General insurance	✓	✓
Uniqa	Austria	General insurance	✓	✓
Uralsib Insurance	Russia	General insurance	✓	✓
US Bank	USA	Bank		✓
US Department of Transport	USA	Government	✓	✓
Valeo	France	Tier-1 supplier		✓
Vanguard plc	UK	Mobile phone retailer		✓
Vazhno	Russia	General insurance		✓
Vauxhall	UK	Automotive OEM		✓
Vector Capital	USA	Private equity firm		✓
VEDECOM	France	AV - Association		✓
Vehcon	USA	TSP	✓	
Verisk Insurance Solutions	USA	Software developer	✓	✓
Verizon Telematics (formerly Hughes Telematics)	USA	TSP	✓	✓
VHV	Germany	Insurance	✓	
Viasat	Italy	TSP	✓	✓
Vivium (P&V Group)	Belgium	General insurance	✓	✓
Vodafone Automotive	Europe	TSP	✓	✓
Volkswagen Financial Services	UK	Financial services		✓
Volkswagen Group	Germany	Automotive OEM		✓
Volvo Cars	Sweden	Automotive OEM	✓	✓
Volvo Trucks	Sweden	Automotive OEM		✓
Wunelli	UK	TSP	✓	✓
Xirgo Technologies	USA	TTP	✓	✓
Zubie	USA	Connected services provider	✓	✓
Zurich	Europe	Consumer insurance	✓	
Zurich Fleet Intelligence	UK	Commercial insurance	✓	✓

LIST OF COMPANIES PROFILED IN THIS REPORT

We have built **profiles of 69 major telematics providers in the world**. We would like to **thank these organisations** for their precious contribution.

	Technology providers (TTPs)	Service providers (TSPs)	Analytics providers	Connected car services provider
Global players	<ul style="list-style-type: none"> • CalAmp • Danlaw • Meta System • Mobile Devices • Novatel Wireless • Orion Technology • Queclink • Vodafone Automotive (Cobra) 	<ul style="list-style-type: none"> • Baseline Telematics • Cambridge Mobile Telematics • DriveFactor (CCC) • Driveway • Himex • IMS • Modus • Novatel Wireless (cTrack) • Octo Telematics • Scope Technologies • The Floow • Vodafone Automotive • Wunelli (LexisNexis) 	<ul style="list-style-type: none"> • Accenture • HERE • IBM • LexisNexis / Wunelli • Octo Telematics • The Floow 	
Europe	<ul style="list-style-type: none"> • Quartix • Redtail Telematics • Trak Global • Trakm8 	<ul style="list-style-type: none"> • Amodo • Arvento • Detector • Dolphin • FMG Support • Infrasure • Masternaut • Microlise • MyDrive Solutions • Moveo • RAC • Tantalum • TomTom Telematics • Trak Global • Viasat 	<ul style="list-style-type: none"> • SAS • Towers Watson 	<ul style="list-style-type: none"> • Automile • Drust
North America	<ul style="list-style-type: none"> • Xirgo Technologies 	<ul style="list-style-type: none"> • Agero • Censio • iMetrik • Omnitrac • Teletrac • Verizon Telematics 	<ul style="list-style-type: none"> • Cambridge Mobile Telematics • LexisNexis • Towers Watson • Verisk Analytics 	<ul style="list-style-type: none"> • Automatic • Dash • Mojio • Zubie
Other continents	<ul style="list-style-type: none"> • AnyDATA (Sierra Wireless) • ATrack • Chainway • Launch Tech 	<ul style="list-style-type: none"> • Cesar Satellite • Raxel Telematics 		<ul style="list-style-type: none"> • Golo (Launch Tech) • Jooycar

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