PTOLEMUS Consulting Group

OFF-ROAD COMMERCIAL FLEET TELEMATICS Global Study

FREE ABSTRACT

The reference report on commercial fleet telematics for on-road and off-road vehicles



Has the time come for vehicle OEMs to dominate fleet telematics?

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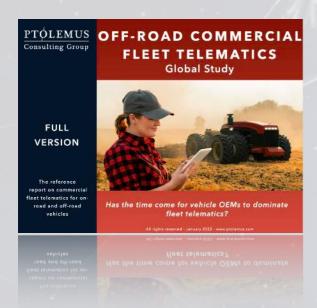
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Section 1: Introduction	4
1.1. Questions answered	5
1.2. Executive summary	6
1.3. Geographic segmentation	7
1.4. Selection criteria	
1.5. Methodology	
1.6. Companies interviewed	
1.7. Companies mentioned	
1.8. Glossary	
-	
1.9. Report authors	
1.10. About PTOLEMUS	19
Section 2: Introduction to off-road community fleet telematics	
	24
fleet telematics	24 25
fleet telematics. 2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics 2.1.2. Who provides fleet telematics services?	24 25 26 34
fleet telematics. 2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics 2.1.2. Who provides fleet telematics services?	24 25 26 34 35
fleet telematics. 2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics 2.1.2. Who provides fleet telematics services?	24 25 26 34 35
fleet telematics. 2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics 2.1.2. Who provides fleet telematics services?	24 25 26 34 35 50
fleet telematics. 2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics 2.1.2. Who provides fleet telematics services?	24 25 36 35 50 57
fleet telematics. 2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics. 2.1.2. Who provides fleet telematics services?	24 25 36 35 50 57 57
fleet telematics 2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics. 2.1.2. Who provides fleet telematics services?	24 25 34 35 50 57 65 65
fleet telematics 2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics. 2.1.2. Who provides fleet telematics services?	24 25 36 35 50 57 65 75 76
2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics. 2.1.2. Who provides fleet telematics services?	24 25 26 35 50 57 65 75 76 76 78
2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics 2.1.2. Who provides fleet telematics services?	24 25 26 35 50 57 65 75 76 76 78
2.1. What is off-road commercial fleet telematics. 2.1.1. Overview of off-road commercial fleet telematics. 2.1.2. Who provides fleet telematics services?	2425343550576575767879899113

2.2.2. The impact of COVID-19 on the industry	131
Section 3: Off-road fleet telematics market assessment	
3.1.The off-road fleet telematics market explained	137
3.1.1. The construction fleet segment	
3.1.2. The agricultural fleet segment	
3.1.3. The mining fleet segment	158
3.2. The off-road value chain and its major players	
3.3. The value propositions currently in the market	169
3.4. Off-road customer needs and demands	187
3.4.1. Current needs and demands	
3.4.2. Future needs and demands	
3.4.3. Regional variances	
3.5. Market forecast for off-road fleet telematics	222
Section 4: Conclusions	232
4.1. Global off-road market conclusions	233
4.2. Off-road commercial fleet telematics services forecast	237
Section 5: Off-road telematics service prov	
5.1. Off-road aftermarket TSP profiles	
5.2. Off-road OEM TSP profiles	

This is the most complete report on telematics solutions for commercial fleets of on-road and off-road vehicles



More than just market research.

A strategic analysis on the telematics business of commercial vehicle and heavy equipment fleets

- A 421-page analysis of the global commercial fleet telematics market based on:
 - 11 years of constant market surveillance
 - 26 interviews with key stakeholders
 - Nine months of desk research
- An in-depth introduction to the commercial fleet telematics market, with analyses into the telematics value chain, new technologies, benefits of telematics, and the Covid-19 impact
- A Total Cost of Ownership (TCO) analysis of off-road commercial vehicles
- Granular analysis of telematics in construction and agricultural industries that includes:
 - Cost structure, revenues and telematics needs of fleet operators
 - Supply and demand analysis of current telematics solutions

- Major players in the telematics value chain and their strengths
- An in-depth assessment of 29 companies supplying fleet telematics (18 TSPs and 11 OEMs) analysing:
 - Their telematics business and corporate strategy
 - Their value proposition, pricing model, target segments, positioning and partnerships
 - A benchmark and gap analysis of their solution
- 2020-2030 bottom-up market forecasts encompassing:
 - The number of vehicles in use for off-road fleet telematics
 - Subscriptions and revenues for the offroad telematics market, split by OEM and aftermarket
 - Regional projections for Europe,
 Americas, Asia Pacific, Africa and Middle
 East



The study answers the following key strategic questions on the commercial fleet telematics landscape

What is the strategy of major OEMs in telematics?

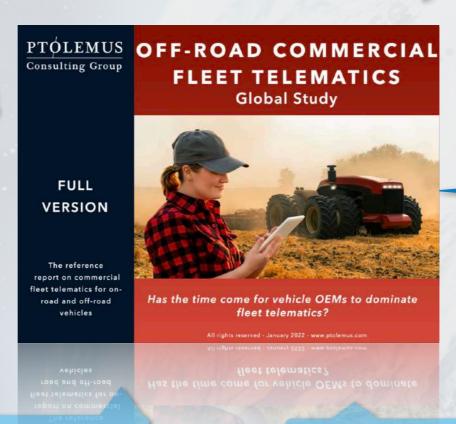
What are customers' expectations to a fleet telematics service provider?

How can telematics improve the TCO of commercial fleet vehicles?

What will be the role of aftermarket devices in the future off-road commercial fleet telematics market?

Will OEMs' telematics solutions challenge existing TSPs' business?

What will be the role of new and emerging players in the CFT* value chain?



What are the trends and drivers for off-road commercial fleet telematics growth between 2020 and 2030?

What is the impact of government legislation on the commercial telematics industry?

What will be the size of the offroad commercial fleet telematics market in 2030 by region?

In which country will CFT* grow the most by 2030?

Which suppliers are leading in the market?

The commercial fleet telematics market is growing, and OEMs will strengthen their position to the detriment of TSPs



Fleet telematics relies on various technologies to create, transmit, store, analyse and visualise vehicle data.

Technological progress in areas like vehicle connectivity, geolocation and electrification opens for a potential shift in who the dominant players in fleet telematics are.

Since the mid-90s, the industry has been heavily associated with the aftermarket, with countless players providing both hardware and service solutions to meet the needs of commercial fleets.

Old habits die hard...

In the off-road* segment, issues abound with respect to

data privacy and vehicle ownership rights in North America and Europe. However, big telematics growth drivers are the shortage of skilled operators, sub-optimal management of the vehicle TCO**, and the inefficient operation of equipment.

... but OEMs are responding

Technically, embedded
Telematics Service Provision
dominates the off-road
commercial fleet telematics
market. However this is very
commonly provided in the
guise of free-at-the-point-of-use
telematics that can be
packaged with new equipment
purchases, furthermore, with
the prevalence of embedded
connectivity, there is a reducing
demand on third-party
hardware and a move towards

aftermarket TSPs connecting directly with vehicle data feeds.

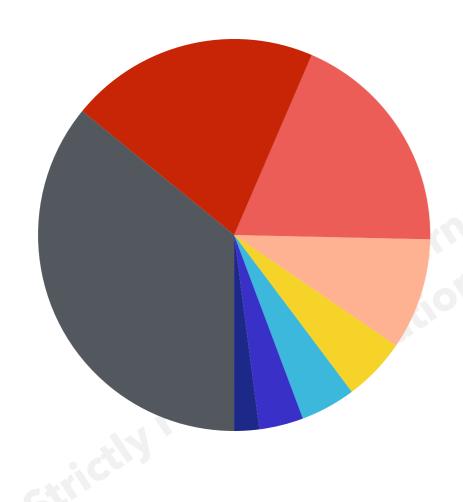
Nonetheless, there will always be a requirement for aftermarket service provision, either for older equipment or to assimilate new equipment into pre-existing fleets.

In either case, whilst PTOLEMUS expects connectivity to be increasingly controlled by OEMs, the overwhelming majority of revenue will be generated by the aftermarket, and will continue to be the case up to and beyond 2030.



XX% of the costs associated with operating agricultural equipment relate to X, Y and Z

Breakdown of the TCO per year for a 310 PTO Hp Tractor in the United States



- We have estimate based in the Un
- Per our estimation to depreciation
- affected by the

• Fuel comes in as Details available in the report

• Other variable consumables su implementation coming slides

TCO calculation hypothesis

Details available in the report



OEMs target visibility and productivity services for offroad telematics, but few provide productivity consulting

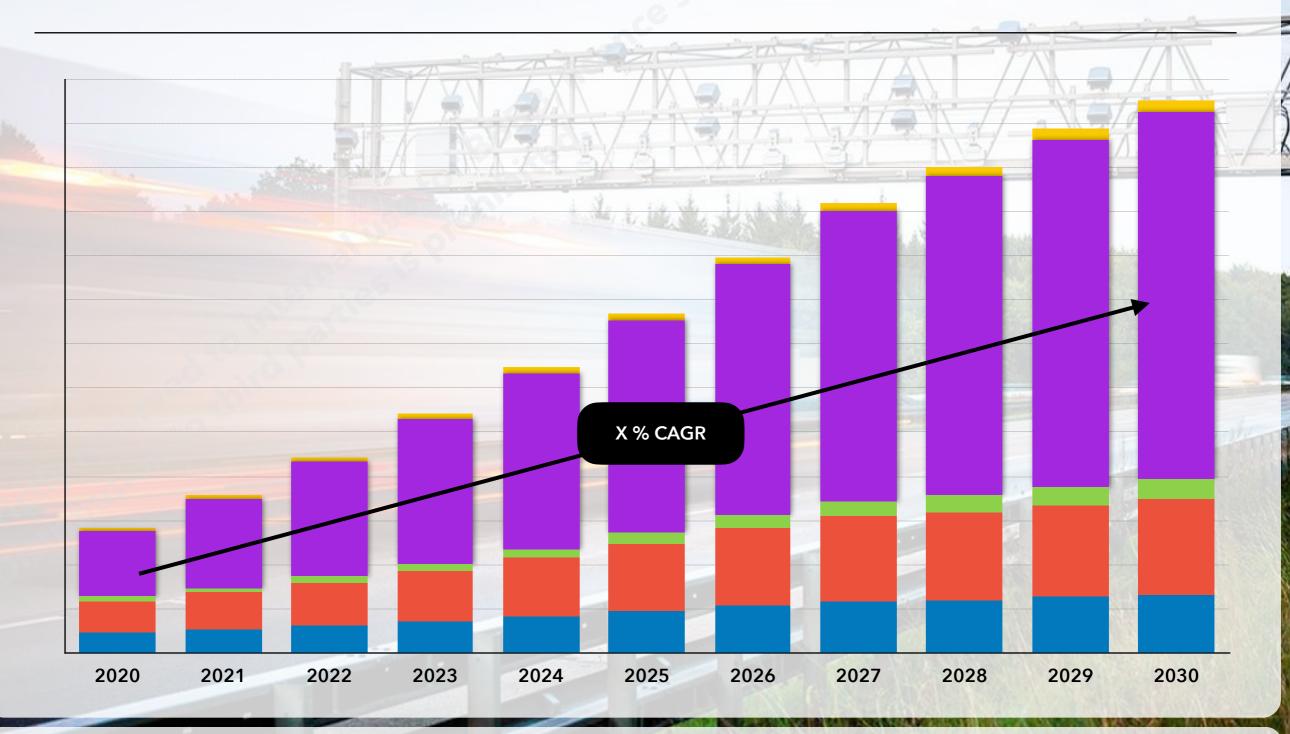
Availability of telematics services provided by OEMs

	Availability of telefilatics services provided by OLIVIS						
	Full services Planned/partial service	HITACHI ASCO DODSAN CATERPILLAR Vour Agriculture Company CHERPILLAR LINDUSTRIAL KOMATSU DE ES (1) 50 10 28 JOHN DEERE					
	Geofencing and routing						
oillity	Total fleet management						
Visibility	Third party integration						
	Fleet management software						
of use	High-speed connectivity						
of (Installation support						
Ease	Customer service						
	Maintenance reminders	Detailed and full comparison in the report					
cy	Productivity consulting						
Efficiency	Route guidance						
Eff	Productivity assessment						
& >	Predictive maintenance						
Productivity &	OTA maintenance updates						
onp	Predictive maintenance						
Pro	Remote diagnostics						





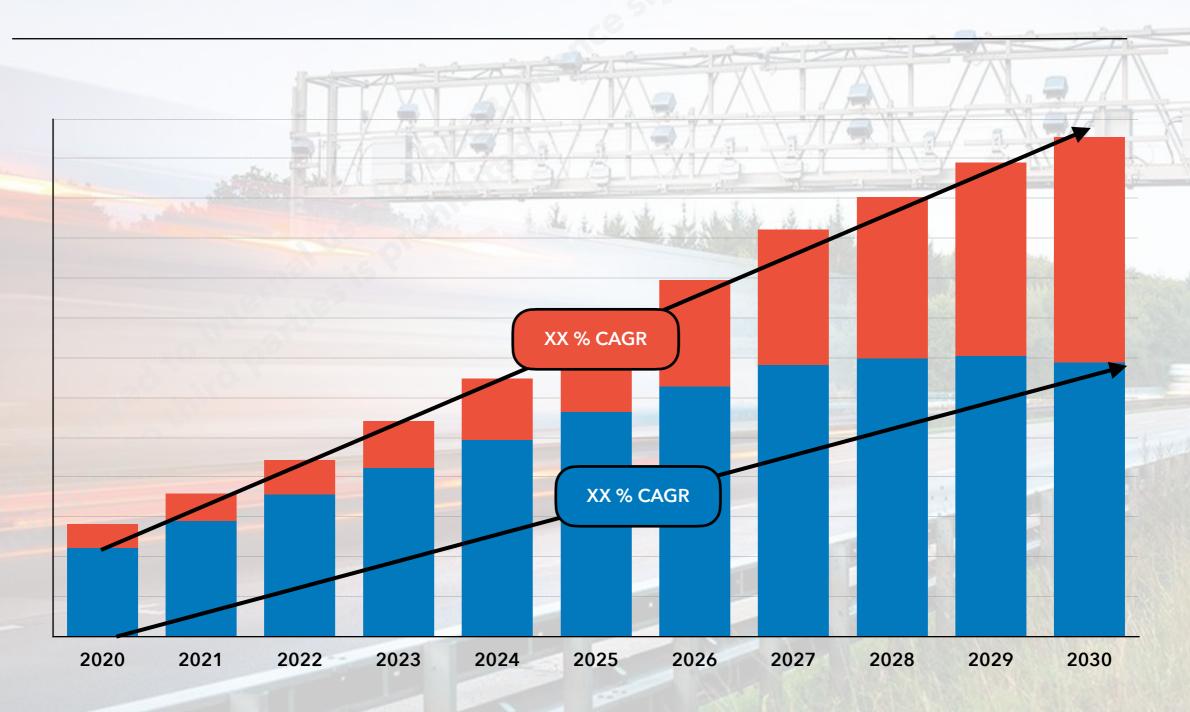
Global active subscriptions are forecast to grow at X % per annum, with Y % of subscriptions based in xx by 2030



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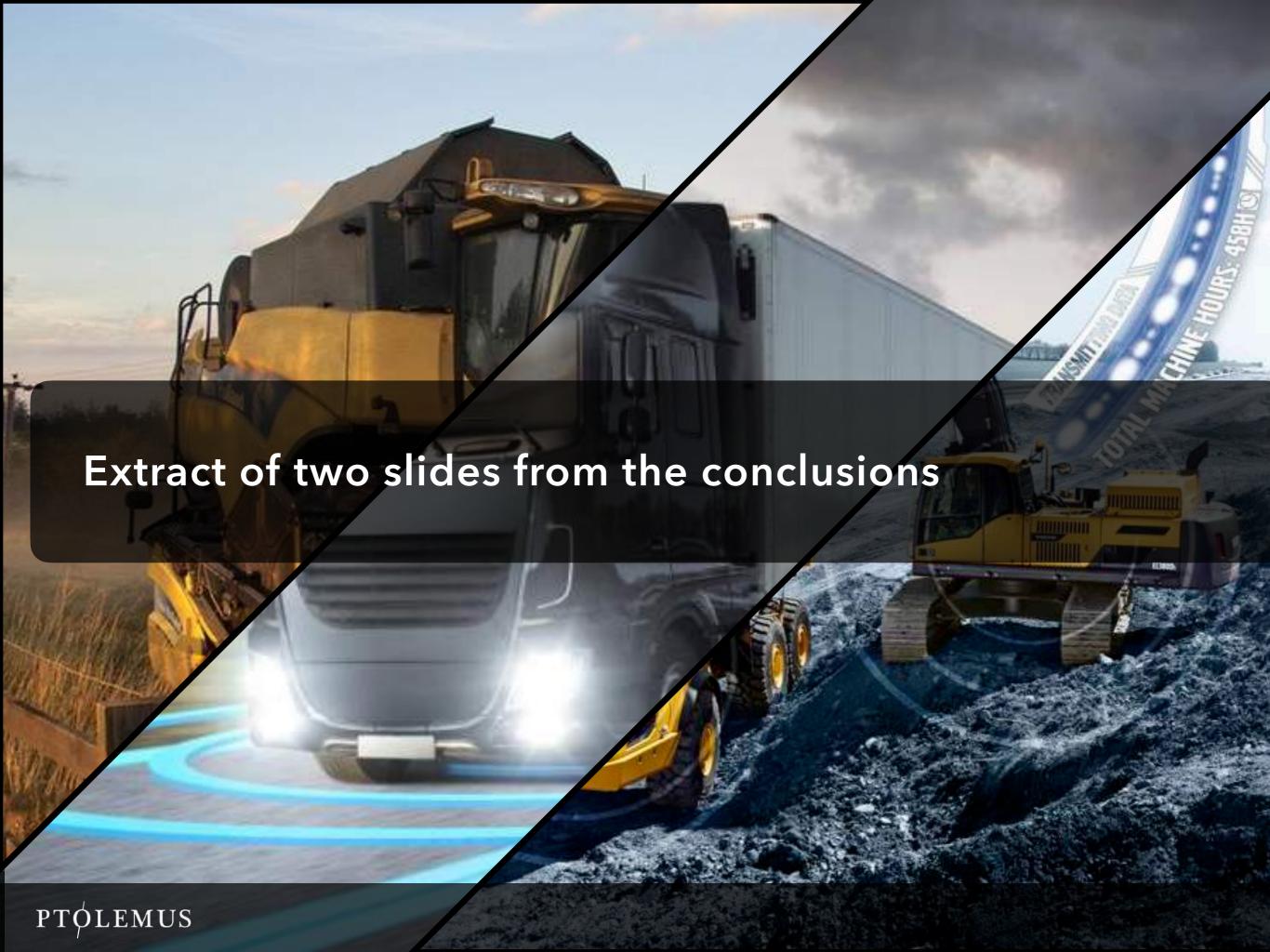
Source: PTOLEMUS

Embedded subscriptions will grow at X %, reducing global aftermarket subscriptions to X % by 2030



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Source: PTOLEMUS



TSPs are leveraging "open" communication standards to boost coverage of fleet operators' mixed vehicle fleets

- Off-road OEMs currently hold a dominant position in the off-road market, accounting for approximately % of all active telematics service subscriptions
- The advent of AEMP 2.0 has caused these OEM platforms to now open further, enabling improved mixed fleet service provisioning
- OEMs are predominantly leveraging turn-key TSP solutions to boost after-sales revenue in the form of parts and servicing
- However, PTOLEMUS
 predicts that the "opening up" of vehicle diagnostics, via
 communications standards
 such as AEMP2.0 which was
 introduced in 2020, will give
 the aftermarket an
 opportunity to grow its
 customer base by leveraging
 OEMs' telematics APIs

- PTOLEMUS forecasts that active subscriptions in the aftermarket segment (including those connected to OEM line-fitted devices) will grow at % annually through to 2030
- This will be due to more equipment coming into the off-road area, pre-connected, and capable of providing a wider array of data directly to TSPs' platforms in a more standardised format
- In addition, machine owners, particularly in the North American agriculture sector, are pushing back against OEMs, claiming the right to repair:
 - The Right to Repair (R2R)
 movement is being heavily
 contested in the United
 States between farmers and
 agricultural machinery
 manufacturers
 - End-users are demanding the legal right to choose how their machinery is repaired, without the invalidation of warranties or the denial of access to diagnostics data

- Furthermore, OEMs such as AGCO will increasingly move to a fully open model cooperating with as many TSP providers as possible to provide the best service/ customer experience possible for end-users
- As a result of the technical and political forces at play, the need for third-party hardware will be negated, impacting TSP revenues, and enabling TSPs to focus on software provision, leveraging direct data feeds and providing competitive mixed-fleet services to endusers
- The outcome is that aftermarket revenues will grow through to 2030, and be valued at € million
- The combined value of offroad telematics services from OEMs and aftermarket TSPs is estimated to be worth over
 € billion by 2030



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Source: PTOLEMUS 15

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About PTOLEMUS



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

Strategy consulting services

Strategy definition

M&A advisory

Innovation Business Project management

Business development

Market research services

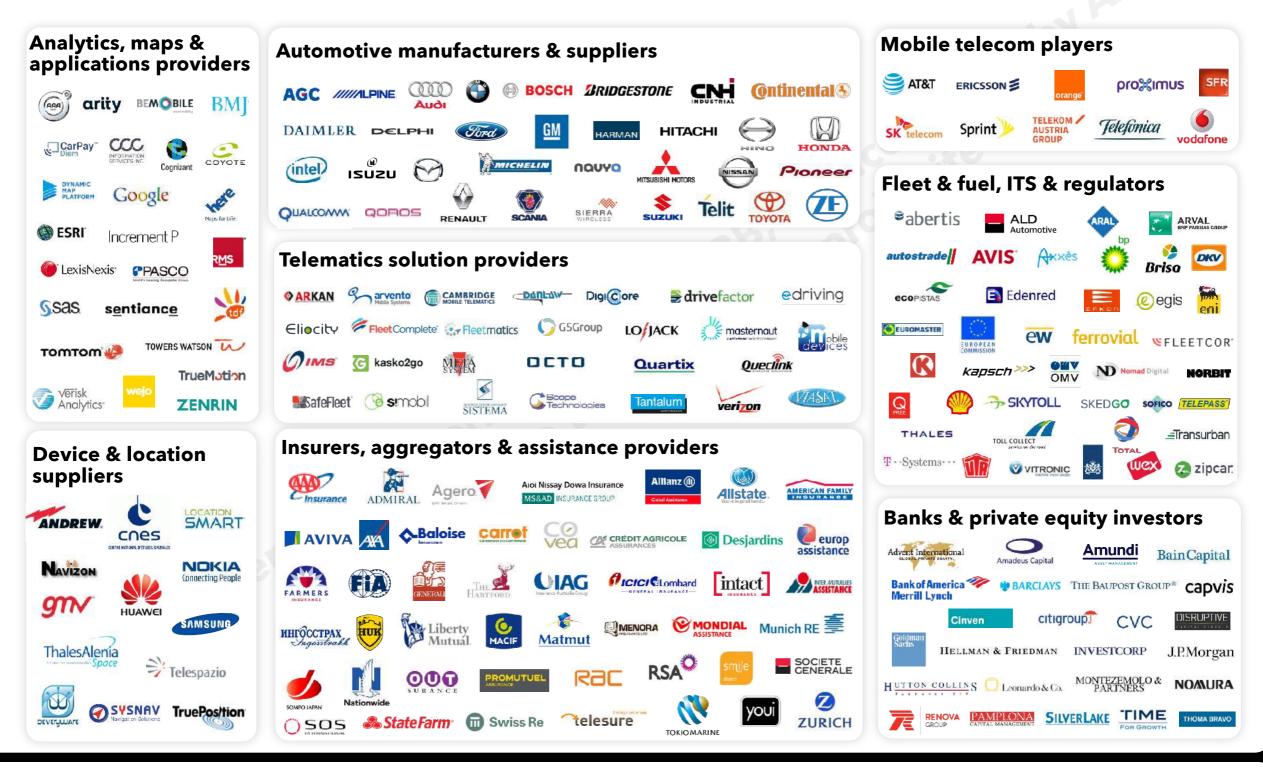
Off-the-shelf reports

Subscription market research

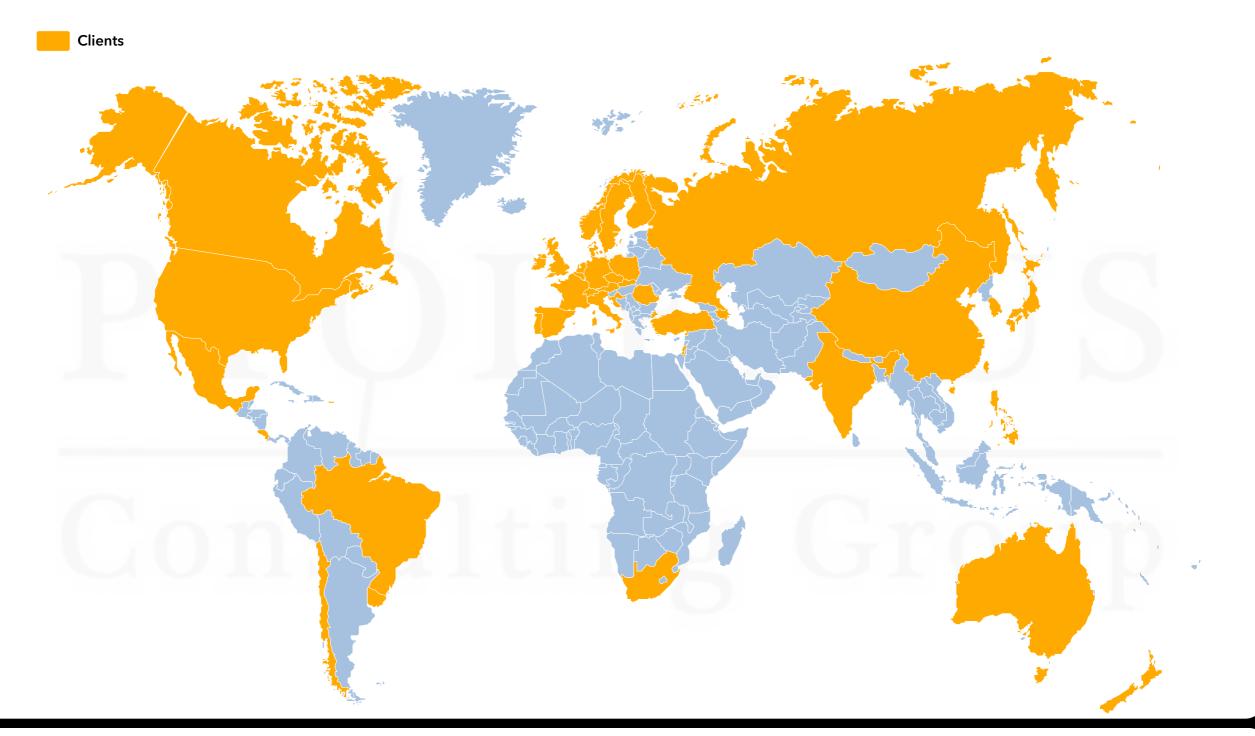
Fields of expertise

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 RUC	UBI / PAYD Vehicle rental Vehicle leasing Remote diagnostics xFCD Robo-taxis Shuttles
Vehicle data & analytics	Al CAN-bus Crowd-sourcing Data protection	Driver safety OBD Predictive analytics	
Vehicle automation	ADAS Autonomous cars	Autonomous trucks	
Enabling technologies	Positioning (GNSS / WiFi / cellular) M2M / connectivity	Smartphones Sensors	Telematics devices V2X

We serve over 300 clients across the mobility ecosystem



Our team of consultants, experts & analysts consisting of 16 nationalities helps our clients worldwide



PTOLEMUS can help your organisation define and achieve its fleet strategy in fast-moving times

Strategy definition

- Strategic plan
- Market entry assistance
- Data strategy and analysis
- Connected vehicle / telematics strategy
- Decarbonisation strategy
- Strategy orientation workshops

Innovation strategy

- Fleet services convergence strategy
- Telematics product definition
- Consent management
- Data analytics & monetisation strategy

Innovation delivery

- Proof of concept design & launch
- Architecture definition
- Project management

M&A advisory

- M&A strategy
- Commercial due diligence
- Technology due diligence
- Feasibility studies
- Fleet services market sizing
- Business case development
- Cost benefit analyses
- Post-merger integration

Procurement

- Definition of EV migration strategy
- Assistance with tenders
- Selection and sourcing of fleet telematics, software, data, platform, etc.

Business development

- Partnership strategy definition
- Assistance to tender response

Project management

- Assistance in management of decarbonisation plan
- Congestion charge project management



The study comes with a single, worldwide company licence



The reference report on commercial fleet telematics for on-road and off-road vehicles

	Report	ONLY	Market forecasts	FULL report &	
	Buy direct (Invoice)	Buy online (Visa or MasterCard)	(Available separately)	market forecasts	
Contents	 A 421-page analysis of the global commercial fleet telematics landscape based on: 11 years of constant market surveillance 26 interviews with key stakeholders Nine months of desk research Granular analysis of telematics in on-road, construction and agriculture, including: Cost structure, revenues and telematics needs of end-users Supply and demand analysis of current telematic solutions Major players in the telematics value chain and their strengths An in-depth assessment of 29 companies engaged in commercial fleet telematics 		 Excel file with outputs and charts 2020-2030 bottom-up market forecast encompassing: The number of vehicles in use for off-road fleet telematics Subscriptions and revenues for the off-road telematics market, split by OEM and aftermarket Regional projections for Europe, Americas, Asia Pacific, Africa and Middle East 	Includes all report and market forecast content as described	
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