

PTOLEMUS Consulting Group

PTOLEMUS in a nutshell

Strategies for Mobile Companies



July 2017 - Confidential

Presentation of PTOLEMUS' services to SGI

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PTOLEMUS in a nutshell

2

References in telematics

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PTOLEMUS in a nutshell

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References in telematics

The consulting & research firm for the connected world

Consulting services

Strategy
definition

Investment
assistance

Procurement
strategy

Innovation
management

Business
development

Deployment

Market research services



Fields of expertise

Mobility services

Car pooling
Car sharing
Smart parking

Multimodal
mobility
Ride hailing

Road side
assistance
Tax refund

Vehicle services & telematics

bCall
eCall
FMS
SVT / SVR

Tracking
VRM
In-car Wi-Fi
Fuel cards

Parking
Navigation
Speed cameras
Traffic information

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

Enabling technologies

Positioning (GNSS
/ WiFi / cellular)

M2M /
connectivity
Smartphones

Telematic devices
V2X

Clients across the mobility ecosystem...

Analytics providers



Automotive manufacturers & suppliers



Mobile telecom operators



Applications providers



Telematics solution providers



Fleet & fuel, ITS & regulators



Device / location suppliers



Insurers, aggregators & assistance providers



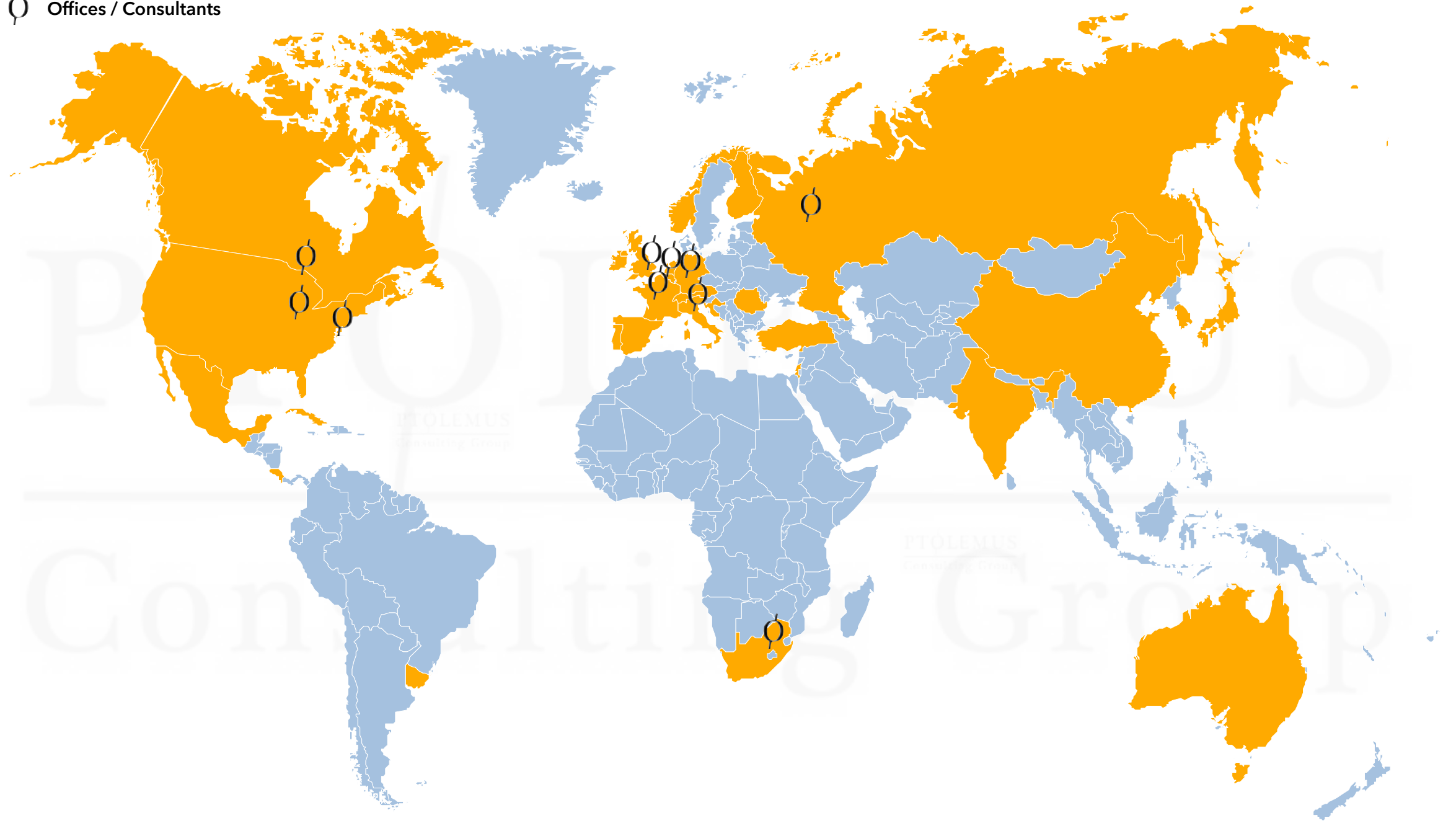
Banks & private equity investors



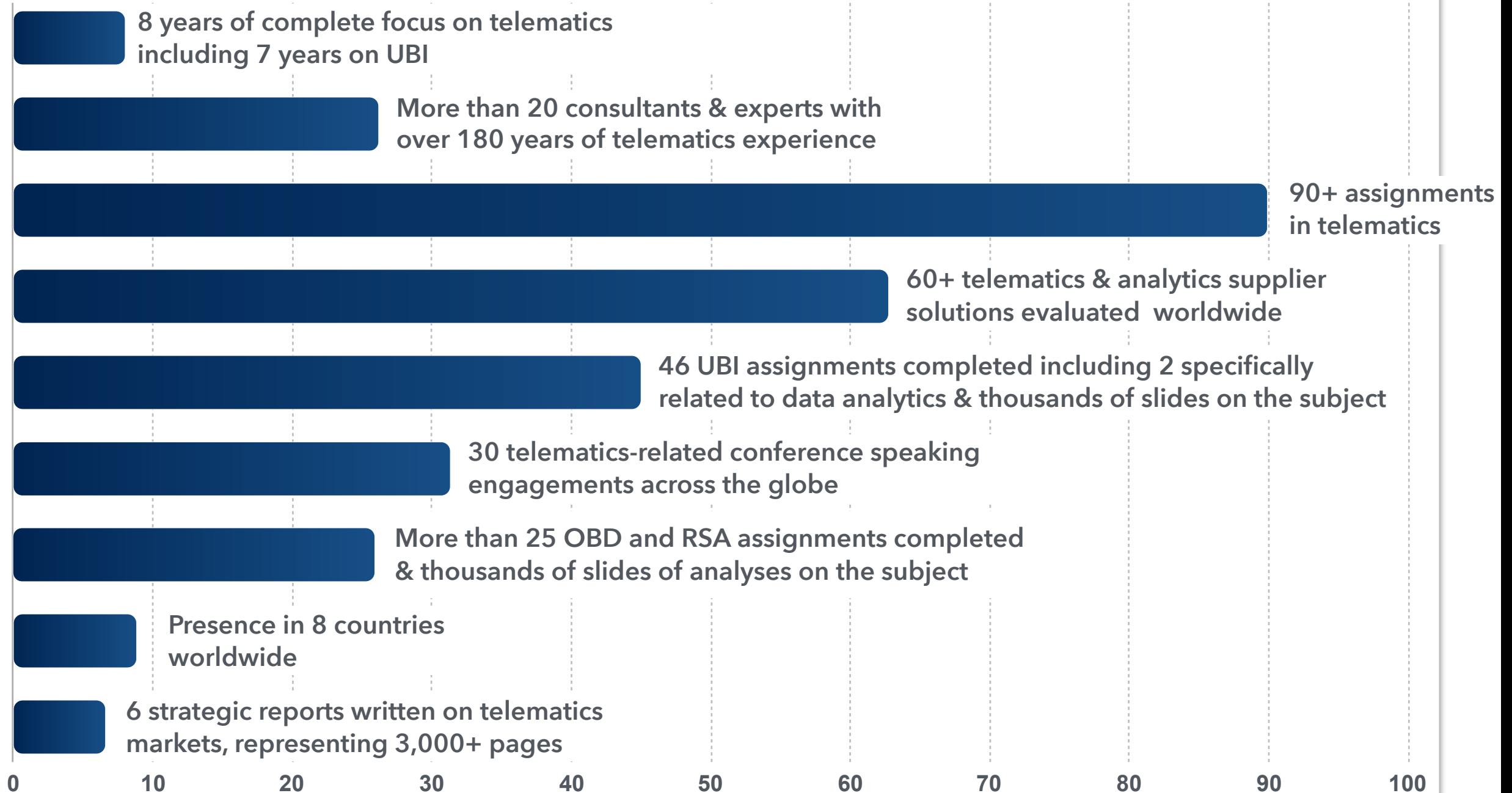
... and from around the globe

Clients

Offices / Consultants



PTOLEMUS brings an extensive experience especially in telematics insurance and roadside assistance industries



Nearly 100 strategy consulting assignments to help our clients define their connected services strategies...



Evaluated UBI market opportunities in Europe, Asia and Latin America

Mid-sized insurance group



Defined its future vehicle connected services global strategy

Global roadside assistance group



Defining strategic positioning in insurance telematics value chain

Global tier-1 automotive supplier



Evaluated the market potential of insurance telematics in Europe



Defined, built & implemented its new strategy in connected fleet vehicle services market

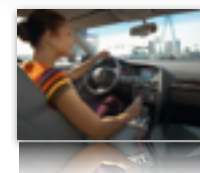
Major motorway operator



Helped the company define its connected services strategy



Defined strategy & business plan of its telematics business



Defined a telematics platform provider's B2B2C strategy



Helped European executive team understand the challenges & opportunities brought by UBI

Mid-sized insurance group



Helped define the insurance and fleet management specification of its eCall on-board unit

Global automotive OEM



Defined connected vehicle strategy to monetise driving behaviour & diagnostics data

Data aggregator



Developed 5-year insurance telematics device strategy & roadmap

Insurance Telematic Service Provider



For TomTom, developed its 3-year global roadmap on content & services



Defined and implemented LIVE services strategy for in-car navigation



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



Conducted the commercial due diligence of Octo Telematics



Led the technology due diligence of Arvento, the leading Turkish fleet management service provider

INVESTCORP



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

Cinven



Assisted in the acquisition of Tracker UK, a supplier of SVR, FMS & UBI solutions



Performed the commercial due diligence of a leading telematics service provider worldwide

Private equity firm



Led commercial due diligence of Wunelli, a UK data management service provider



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



Assisted in evaluating the opportunity of investing into Octo Telematics

HELLMAN & FRIEDMAN



Conducted the vendor due diligence of VTraffic, a leading traffic information provider



Assisted in the strategic & technology evaluation of an Irish fleet Telematics Service Provider



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

INTEK GROUP



Assisted in the review of the global insurance telematics market

KKR



Performed a global review of the telematics insurance market

SILVERLAKE



Evaluated the business plan of Cobra Automotive

HUTTON COLLINS PARTNERS LLP

... and help them deliver their strategy



Assisted the creation of a telematics insurance programme, including scoring and pricing scheme

Major European insurance group



Built and implemented the product strategy of a British Telematics Solution provider



Defined & implemented its partnership strategy in the connected vehicle ecosystem

Major motorway operator



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

Mid-sized insurance group



For its fleet, evaluated the benefits of telematics and scheduling solutions



Assisted in sourcing an OBD dongle for mass deployment in China

Major telematics service provider



Evaluated the solution of an Irish fleet Telematics Service Provider

Strategic investor



Assisted in sourcing a driving behaviour database across Europe

Global tier-1 automotive supplier



Assisted in identifying relevant vehicle data available from the OBD for roadside assistance

Global roadside assistance group



Assisted in identifying all building blocks of its telematics solution and sourcing them

Global roadside assistance group



Designed a digital roadside assistant solution using OBD dongles & car data

Global roadside assistance group



Built the predictive maintenance solution leveraging vehicle's OBD data and contextual data

Global roadside assistance group



Assisted in developing its usage-based charging telematics business



For the leading Russian TSP, performed the technical audit of its IT platform



PTOLEMUS brings unparalleled depth of knowledge in connected and autonomous vehicle services



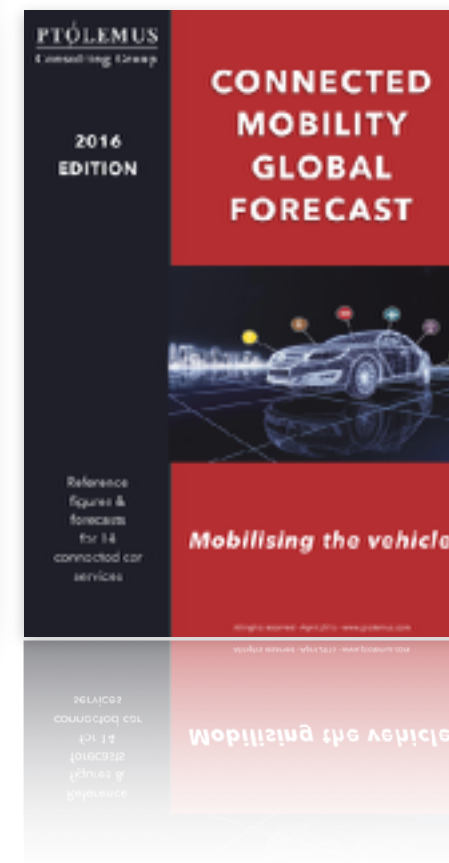
The reference report on the subject, quoted by The Economist, the Financial Times and the Wall Street Journal



The most comprehensive research on insurance analytics



The most thorough analysis of ADAS and AVs



Referenced figures and forecasts for 14 connected car services



The reference on electronic road charging

PTOLEMUS has published its third UBI report revealing how UBI will become mainstream and 'uberise' the auto insurance



The reference report on the subject, quoted by The Economist, the Financial Times and the Wall Street Journal

- **1,300 pages of analysis using:**
 - 286 interviews in 28 countries
 - 5 years of research performed by 6 consultants in 4 countries
 - Insights from 30 consulting projects
 - 350+ figures (charts, tables, etc.)
- **42 case studies** including Allianz, AllState, Carrot Insurance, Vodafone Auto, Ingenie, OnStar- Progressive, Discovery Insure, Liberty Mutual, Octo Telematics, Renault-Amaguiz, State Farm, Unipol, Zurich
- **A handbook of 60 suppliers' solutions** including our own evaluation and rankings of TSPs, TTPs and analytics providers
- **30 insurance markets profiled**
- **2020 & 2030 market forecasts**
 - Canada, US, Latin America, Europe, Russia, South Africa, India, Chinese and Japan
 - Personal line / commercial line
 - Aftermarket / OEM
- **Analyses of the disruptive forces at play**
 - ADAS and autonomous vehicles
 - eCall & ERA Glonass mandates
 - The rise of smartphone apps
 - Big Data & analytics
- Targeted **recommendations** to insurers, regulators, TSP, OEMs and operators

We also just published the most comprehensive analysis of the connected insurance analytics market and solutions



- Analysis of the pricing and data management policies of the **27 largest UBI programmes** including :
 - Admiral, Allianz, Allstate, American Family, AXA, Generali, Desjardins, Direct Line Group, State Farm, The Hartford, UnipolSai, Uniqa and Zurich
- Based on **40 in-depth interviews** with Telematics Service Providers (TSPs), analytics providers and insurers
- **5 interviews transcribed:** Nationwide, Insurethebox, LexisNexis Wunelli, Octo Telematics and The Floow
- Illustrated by case studies from companies using advance analytics such as: Progressive, Generali, Insure the box and many more
- Profile and review of **10 advanced analytics suppliers** active in UBI
 - Accenture, Cambridge Mobile Telematics, Cognizant, HERE, IBM, IMS, SAS, Verisk Analytics and Willis Towers Watson
- Findings and recommendations **validated by 150 academic papers** and journals
- All that in a **340+ page document with over 150 graphs and tables**
- Resulting in **20 best practices** including recommendations on how to record and process driving data, score drivers and interact with them.

We also issue a quarterly dashboard of the UBI market



- **100-page barometer of the global UBI industry**
 - Covers 360 companies
 - Issued on a quarterly basis
 - 230 charts, tables & figures
- **A global dashboard covering**
 - Mature markets: US, Canada, France, Germany, Italy, Spain, UK
 - Emerging markets: APAC, Australia, Benelux, China, Latin America, other European markets
- **Leverages both public information and primary research**
 - A large set of public information collected from conferences, desk research, etc.
 - Supplemented and validated by primary research & data (Interviews, supplier questionnaires, own market forecasts, etc.)
- **Brings all key market news**
- **Estimates UBI volumes and sales for all main players**
 - Insurance companies
 - TSPs
 - Technology providers
- **Deciphers the key market trends**
 - UBI penetration
 - Number of programmes
 - Mix by business model (PAYD, PHYD, TBYP, etc.)
 - Market share of all main insurers, TSPs and device makers
 - Technology mix (Black boxes, OBD, apps, etc.)
 - Business line mix
 - Segment mix (Young drivers, mature drivers, etc.)
 - Channel mix aftermarket / OEM

The Autonomous Vehicle Global Study quantifies the impact of ADAS & AVs on safety and on the ecosystem



- **600+ pages of research using:**
 - 60 interviews in 8 countries
 - 12 months of research performed by 10 consultants
 - A uniquely precise and complete methodology
 - over 200 figures (charts, tables, etc.)
- Assessment of the **key factors affecting the start, the acceleration speed and the penetration** of the different level of automation from today to 2030
 - Overview of the regulatory background, applicable regulation, evolution and trends globally
 - Complete analysis of the technology building blocks including suppliers and cost analysis
 - A global quantitative analysis of the mobility market and its role in delivering driverless cars
- **27 ADAS explained** and their impact on claims analysed
- **21 OEMs and technology providers** analysed and their AV strategy compared
- **A qualitative & quantitative evaluation of the impacts of automation on**
 - Safety
 - Personal data protection
 - Connected services
 - The automotive industry
 - The risk sector
- **2015-2030 bottom-up ADAS & AV market forecasts**
 - Global forecast over 18 markets
 - ADAS and AV **penetration forecast by level and car segment**
 - Forecast on crash volumes and severity, claims costs and insurance premiums

THE AUTONOMOUS CLUB

PTOLEMUS
Consulting Group

The European think tank on connected
& automated vehicles

LYSIOS
PUBLIC AFFAIRS

- The Autonomous Club (TAC) is an **open, non-profit association** of corporate members to inform and brainstorm on strategic issues around the connected and autonomous vehicle
- **TAC aims to:**
 - Encourage a convergent political approach
 - Help stakeholders from different sectors speak to each other and build constructive relationships
 - Offer a privileged link with institutional stakeholders in a more informal setting
 - Discuss issues in depth and openly within the confidentiality of the Club
 - Providing clear conclusions/final statements
- The club meets every other month, generally in **Brussels**

Key areas the Club will be focusing on:

- European regulations affecting the autonomous vehicle market
- Control over and access to connected & automated vehicle data
- Economics of CAV's related services
- Customers' acceptance & public level of interest
- The impact of automated vehicles on urban mobility
- Forthcoming European research projects identification
- Business, technical and privacy issues
- Requirements on roads infrastructure

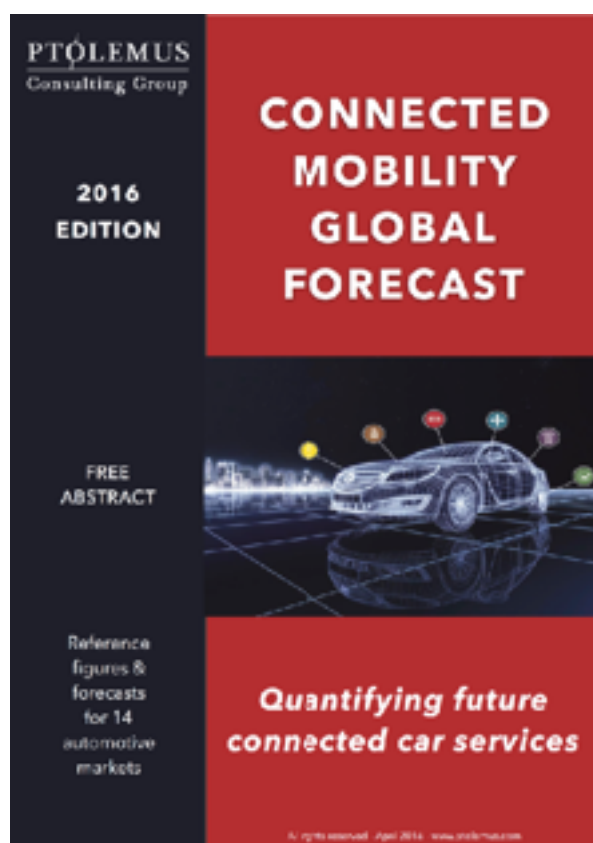
Institutions represented as of today

- | | | |
|---------------------------------|-----------------------|-----------------------|
| • Allianz | • EIT Digital | • Pioneer Europe |
| • Athlon Car Lease | • European Commission | • Renault-Nissan |
| • Axa Insurance | • Leaseurope | • STIB |
| • Baloise | • Octo Telematics | • Swiss Re |
| • Dutch Association of Insurers | • Osborne Clarke | • VAB & KBC Insurance |

The Connected Mobility Forecast examines how connectivity is revolutionising 14 car services



It brings the most comprehensive analysis of connected mobility markets ever published



**Referenced figures
and forecasts for 14
connected car
services**

220-page analysis of 14 mobility markets

- The future evolution of the complete connected mobility sector analysed
- 75 charts encapsulating the essence of the mobility market evolution
- 18 countries and areas covered

14 analyses of mobility services worldwide including

- Delivery, service and business models
- Devices & technologies used
- The value chain for each service
- Regulatory and competitive environment
- All major current and future market trends in each market
- 650 stakeholders mentioned
- All key mergers & acquisitions
- Connectivity uptake in each region
- Key volume & revenue drivers

Global, regional and country-wide volume & revenue forecasts

- Bottom-up forecasts of 14 connected services and their underlying markets
- Revenues generated for both Mobility Service Providers (MSPs) and their Connected Solutions Providers (CSPs)
- Number of connected cars by service measured and forecast across 18 global markets along with service penetration rates

4,200-line market forecast output data sheet including:

- The total addressable market in volume and value seen from the MSP and the CSP perspective
- The total underlying volumes and revenues by country
- The volume and revenue bottom-up forecasts for MSPs and CSPs
- The split between OEM and aftermarket volumes & revenues

PTOLEMUS has published the most comprehensive report on road user charging / electronic tolling



More than a report, a real strategic market analysis

- **650-page analysis of the global electronic tolling landscape based on:**
 - 120 interviews in 12 countries
 - 230 figures and charts
 - 3 years of hands-on experience advising key players in the ecosystem
- **A comparative assessment of all tolling technologies, models and trends**
 - ANPR, DSRC, Infrared, GNSS, RFID & WAVE technologies & business models compared
 - Evolution path from toll gates, ETC to MLFF
 - The new trends: big car data, mobile tolling, mobility pricing and sustainable mobility
- **An in-depth review of ETC markets worldwide**
 - 35 countries in Europe, America, Asia & Africa profiled and analysed
 - 14 case studies including ATI, AutoPass, BroBizz, Ecotaxe, e-way, Hu-Go, LKW Maut, PrePass, Via Verde, etc.
- **A decryption of regulatory evolutions**
 - Bill 810, eCall, EETS, ERA Glonass, REETS, Resolution 005 AGEPAR
 - 43 standards & all major patents listed: 6C, ARTEFATO, CEN, ETSI, ISO, etc.
- **A detailed analysis of all major players' strategies & solutions**
 - Their development strategies in the new value chain compared
- 23 company profiles, from Atlantia to Xerox
- 35 tolling markets compared
- **Toll operator market models**
 - Toll connected services opportunity analysis
 - Markets' readiness for connected services
 - Integration with 11 VAS and 5 connected services
- **2010-25 bottom-up market forecasts**
 - Estimates of the number of devices sold, vehicles subscribed by technology & vehicle type
 - **36 countries covered** in Europe, North America, South Africa, India, China, Japan, Korea and South East Asia

A growing recognition

They mention PTOLEMUS



Presentation of PTOLEMUS' services to SGI

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PTOLEMUS in a nutshell

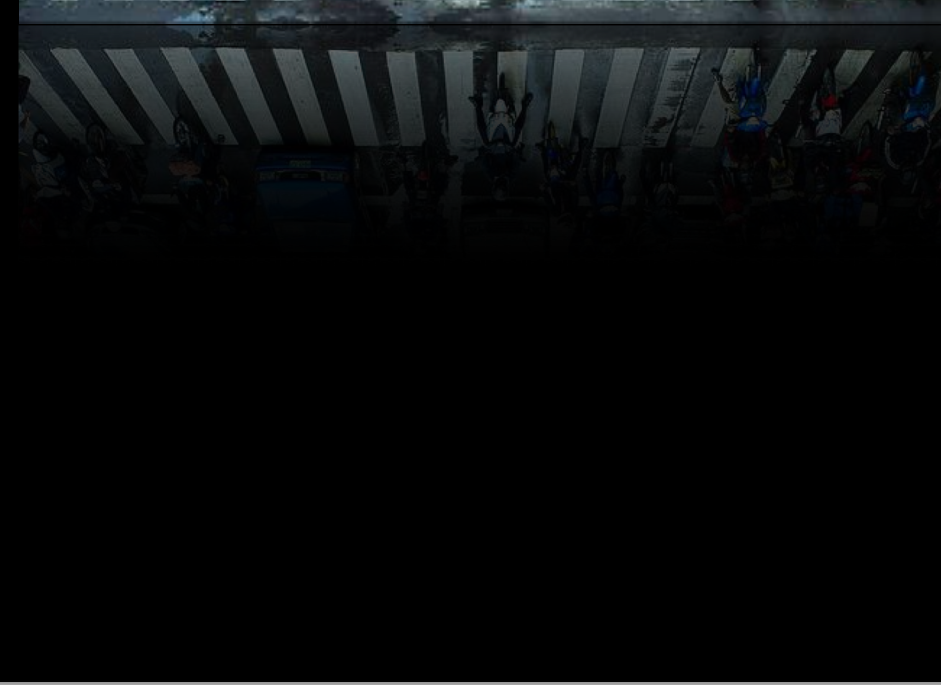
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References in telematics

For Liberty Mutual, evaluated UBI opportunities in Europe, Asia & South America

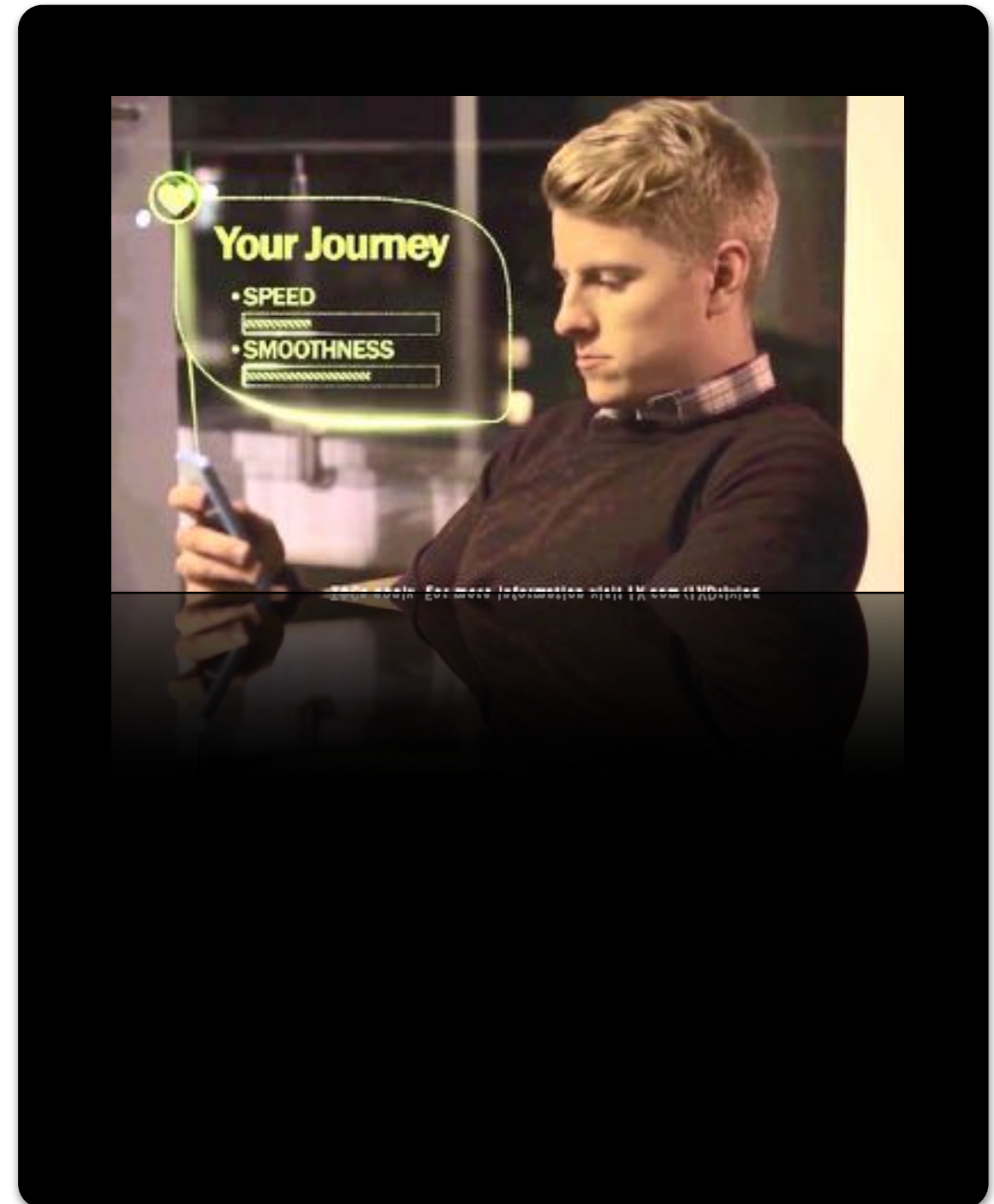


- This global insurer, with a global footprint, was looking to identify **business opportunities generated by telematics in numerous markets** and prioritise them
- Within 4 months, PTOLEMUS investigated 19 insurance markets including China, India and Russia
 - The analysis included 8 Asian, 6 European and 5 South American markets
 - For each market, we evaluated **regulatory and market conditions** and detected existing insurer or other telematics activities
 - We provided a clear assessment of these countries' readiness to UBI and helped our client **prioritise their global deployment roadmap**
 - Finally we advised them on **possible avenues to initiate telematics programmes** in each market



Helped a mid-sized insurance group define & implement its telematics go-to-market plan in 2 countries

- Initially organised a **pan-European seminar on telematics** for its management team
- Then helped define the **company's telematics programme** and **value proposition** in one market
- Finally helped another country launch its **complete go-to-market approach**
- Identified the main **market imbalances** and **opportunities for usage-based pricing**
- Analysed its existing **customer database of premiums and claims**
- Set up a 2-day workshop with its telematics programme team to define its **go-to-market strategy**



Assisted a major European insurer to create a successful telematics programme, including scoring and pricing scheme

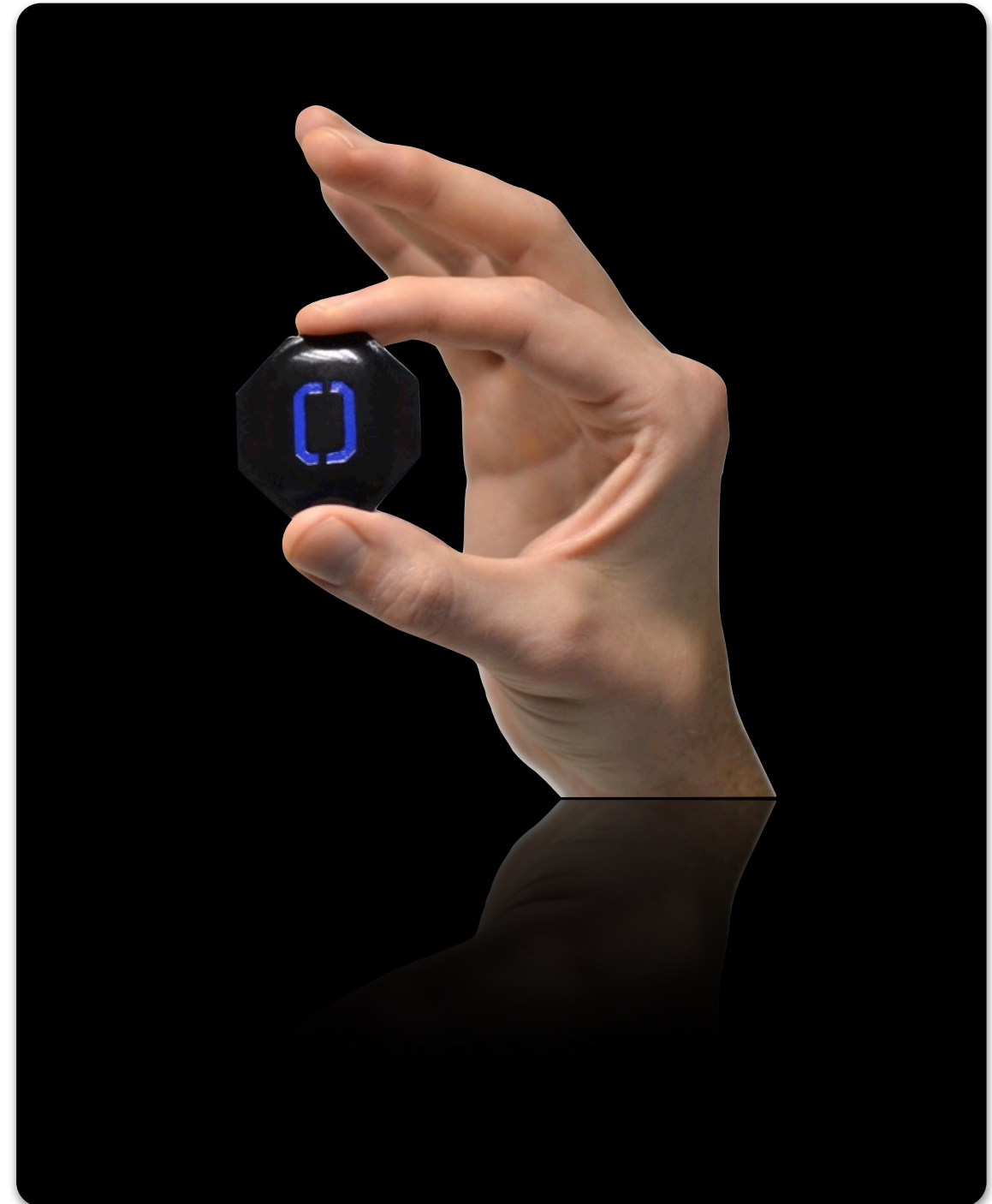
- Our client wished to develop a telematics insurance offer, including the **scoring and pricing** scheme
- PTOLEMUS assisted them to:
 - Identified market opportunities by **analysing imbalances between pricing and driving behaviour**
 - Analyse **risk reduction strategies used by leading auto insurers** for different segments of the population
 - Defined the optimal discounting scheme (level, monetary/reward-based, etc.) and deployment strategy
 - Provide recommendations to design a **best in class data collection** and cleaning method
 - **Selected the most relevant scoring parameters** based on their effectiveness to reduce claims
 - **Calibrated the score to pricing scheme**



For Octo Telematics, defined its 5-year insurance telematics device strategy & roadmap



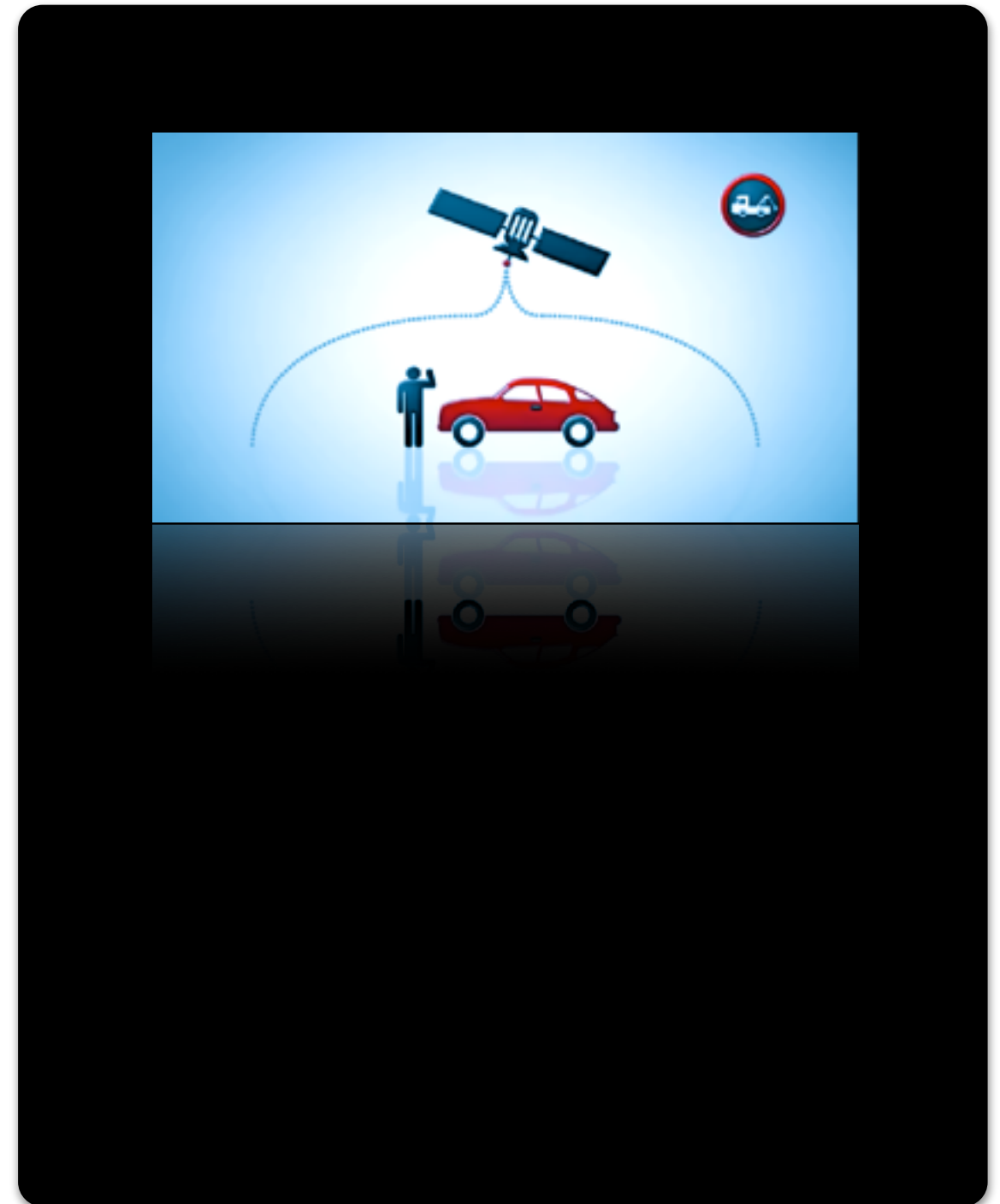
- As part of its strategic planning exercise, **Octo Telematics** has asked PTOLEMUS to help **design its 5-year device strategy & roadmap**, focusing on
 - The insurance sector
 - The Italian, UK, French, German, Italian, Spanish and US markets
- Within 4 months, we conducted intensive market analysis and notably delivered the following outputs:
 - Identification of the impact of changes of the **technology & market environment** on market needs and devices
 - Evaluation of the **impact of competition**
 - Forecasts on the **evolution of device prices**
 - Predictions of the **evolution of UBI device form factors**
 - Interview of **9 direct competitors of Octo**
 - Interview of **12 device makers**
 - Interview of **8 insurers**
 - An analysis of the future significant **changes in the vehicle market** in the next 3-5 years such as
 - The emergence of ADAS leading to a decrease of severe claims in the coming years
 - The growing penetration of connectivity in new models and the emergence of broadband will push OEMs to provide UBI together with other services



For 2 private equity firms, assessed the strategic position of Octo Telematics



- These 2 private equity firms were looking to **acquire Octo Telematics**, the leading provider of insurance telematics solutions worldwide
- In 2 weeks, we conducted a **pan-European review of the PAYD insurance and PAYD solutions markets**
- We assessed the **trends affecting the nascent PAYD market in Europe**, thanks to a detailed investigation of commercial trials / launches and interviews with leading insurers
- Evaluated the **validity of the company's business plan** and proposed revised assumptions for a number of key inputs
- **We recommended the investment**, based on the company's differentiated product and strategic lead



Appraised future telematics technology & market trends and their impacts for Admiral



- Our client, one of the **largest motor insurer in the UK**, asked PTOLEMUS to understand the **future technology & developments within telematics** and appraise **impacts on motor insurance market** and this group's activities
- To help them anticipate the road ahead, PTOLEMUS has **evaluated future leading technologies, position of OEMs and Tier-1 players, role of aggregators, TSPs and MNOs and potential regulation changes**
- We performed this analysis based on our previous **deep experience, accumulated intellectual capital** and **intensive desk research**
- We have presented our results and recommendations during a **workshop with the company's management team**



Assisted MICHELIN in defining its strategic positioning in the insurance telematics value chain



- Our client, one of the world's largest automotive suppliers, asked PTOLEMUS to **evaluate the UBI market opportunity** and assist them in defining their **strategic positioning**
- To assess the market potential, PTOLEMUS performed **deep interviews with a dozen insurance companies** in Europe and America
- We were able to **assess the appetite of these insurers for the potential features that could be introduced by Michelin**
- We identified and appraised **4 distinct strategic positioning scenarios** and recommended one
- The company is **currently on a path to implement our recommendations**



For a Toyota and MS&AD, defined the strategy and business plan of their telematics business

Aioi Nissay Dowa Insurance Europe

MS&AD INSURANCE GROUP

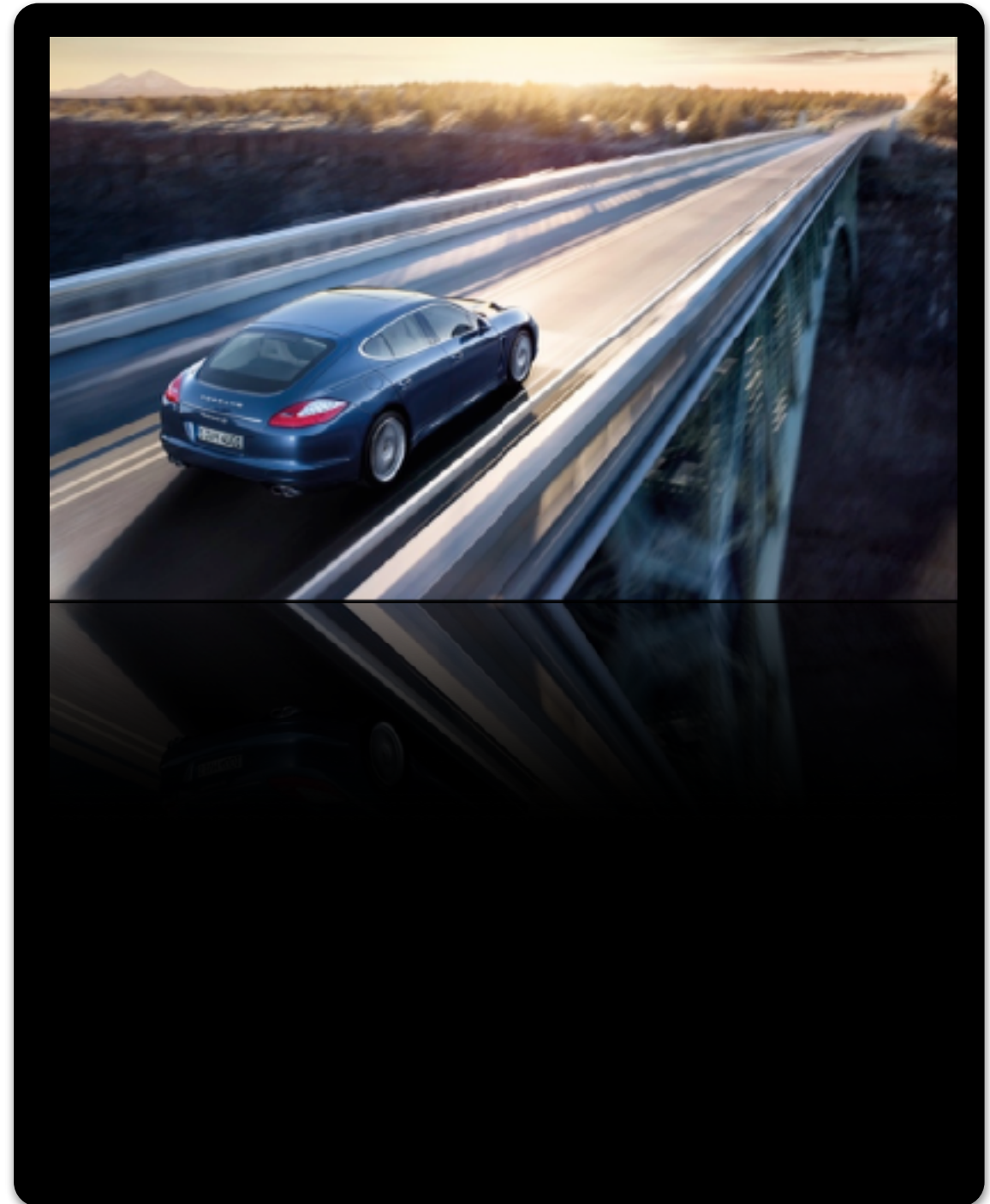


- This **captive insurance entity** of Toyota had decided to **pursue the opportunity** created by the **implementation of eCall in Europe**
- It was also **willing to use telematics to propel its insurance business**
- It asked PTOLEMUS to define its **insurance telematics strategy** for both its OEM and aftermarket customers
- PTOLEMUS' remit extended to all European countries and covered the building of the **associated 10-year business plan, validated by their actuarial team**
- Within 4 months, we designed a **comprehensive strategy** that leveraged the OEM's position and made it distinct from other underwriters



Defined the connected vehicle services global strategy for a one of the largest roadside assistance groups in the world

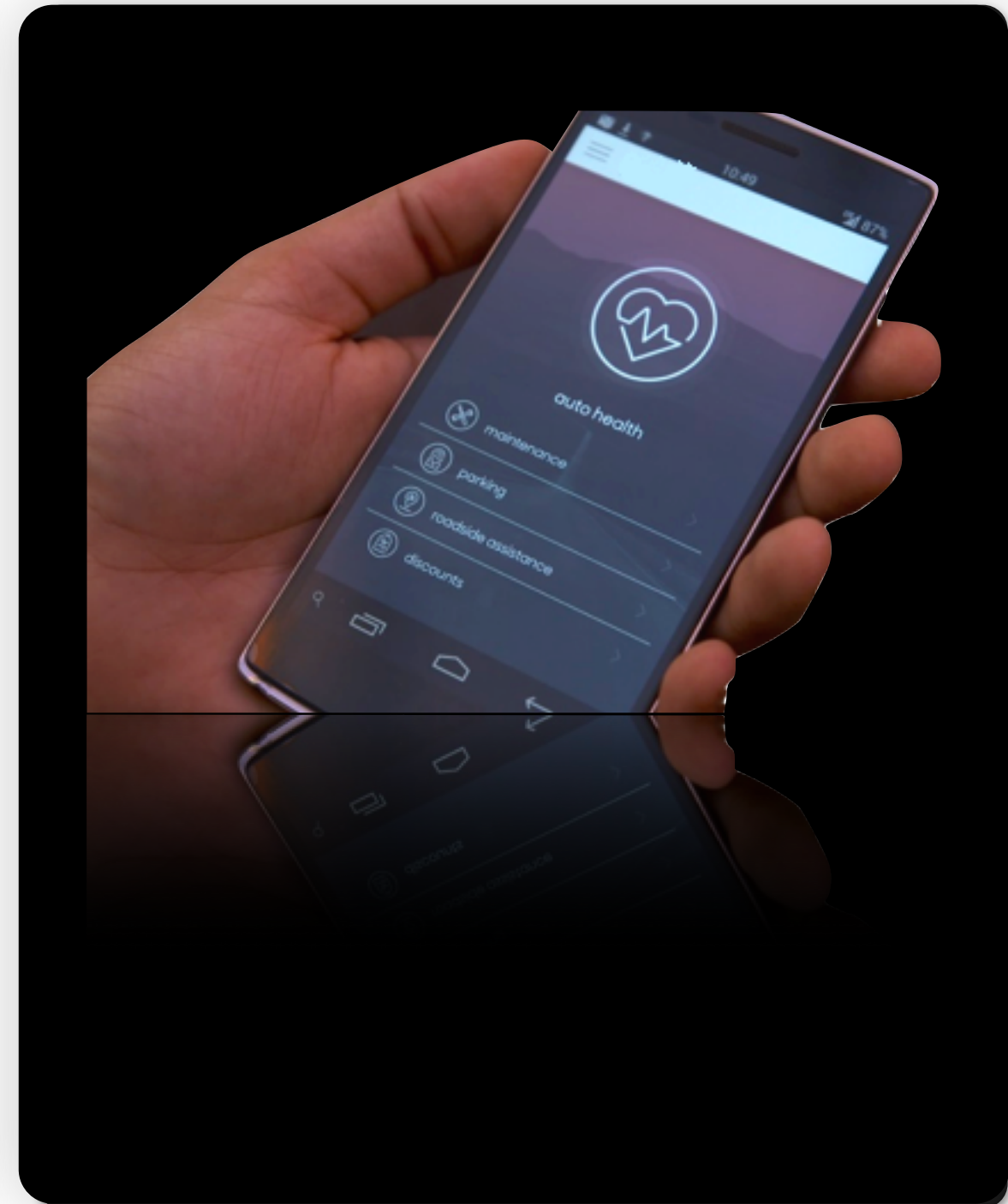
- In order to define the company's best approach to connected vehicle services, PTOLEMUS performed a detailed analysis of the **market size and major trends for all key connected vehicle services** in the selected geographies
- Once the most attractive services were selected, we built the global **value proposition and minimum viable product for each segment targeted**
- Based on the company resources and current abilities, we identified the **strategic actions** that the company should undertake to better build its **telematics capabilities**
- Finally we built a **high level action plan for the next 5 years** that considers all major risks and mitigation actions



Designed Allianz Global Assistance's future telematics solution for preventive maintenance

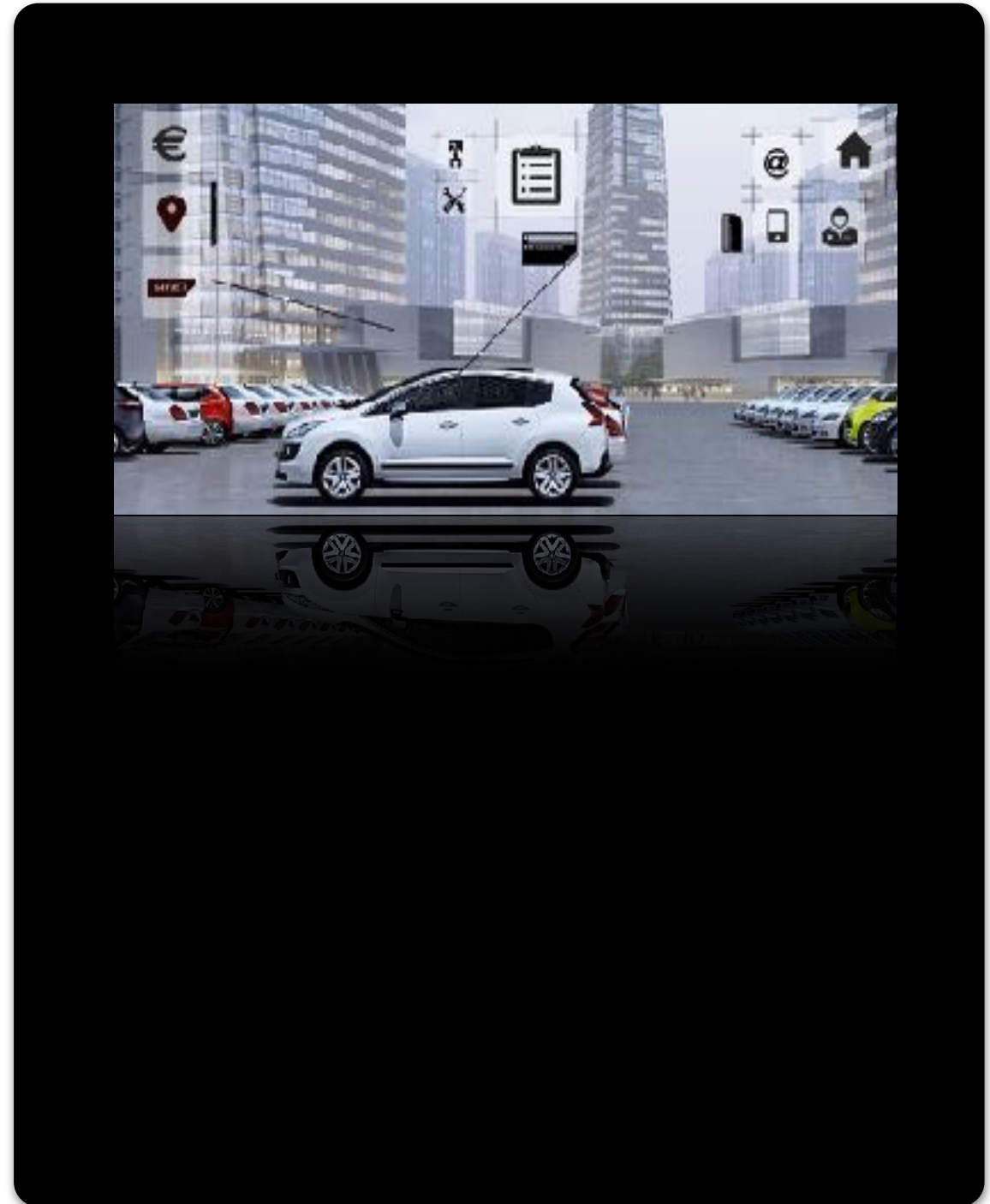


- Our client wished to develop a **telematics solution to prevent potential breakdowns & assist drivers** in their vehicle maintenance
- PTOLEMUS helped them
 - Understand the potential benefits to AGA, its partners and drivers which may be obtained by **analysing OBD data**
 - Identify **relevant & valuable Diagnostics Trouble Codes** available on EOBD
 - Identify the most relevant **use cases** and build related **user stories & story boards**
 - Optimise the **roadside assistance process**
 - Define the **end-to-end telematics solution specifications** including user requirements, business logics, smartphone application interface and roadside assistance processes
 - Determine **the minimum technical requirement to be met by the OBD dongle**
- PTOLEMUS leveraged its **unique expertise in telematics and vehicle diagnostics technologies**



Helped a vehicle data provider define its connected car strategy & business plan

- This established vehicle data provider was looking to **diversify by leveraging telematics & OBD data**
- It asked PTOLEMUS to help it leverage its existing databases on the **connected vehicle market** and define its **strategy & business plan**
- We identified all **key potential market applications** that would benefit from the combination of their **datasets** and **connected vehicle datasets**
- We jointly clustered these applications and **prioritised them into a number of market opportunities**
- We then jointly selected two of them and built a high level **business model** and **PoC** for each of them



Conducted the due diligence of Cobra Automotive, one of the world's largest telematic technology & service providers

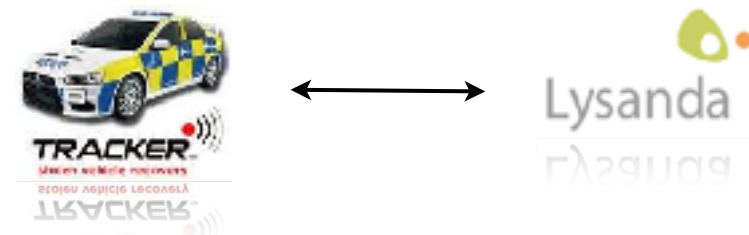
- In the context of a refinancing, the company wanted to provide an objective and expert judgment on its situation to both potential investors and lenders
- It asked us to help them **evaluate the position and the potential of its telematic group**, so as to assess the robustness of its business plan and cash flow forecasts
- Within 3 months, we led a **deep investigation of the company's technology, products, strategy, management and business plan**
- We interviewed almost 20 key managers, partners and customers of the company and appraised the company's business plan and recommended a **re-focusing of the company's organisation & strategy**
- Our report was used by our client, the company, its existing & other banks



Assisted a private equity firm in the merger of two SVR / FMS telematics service providers

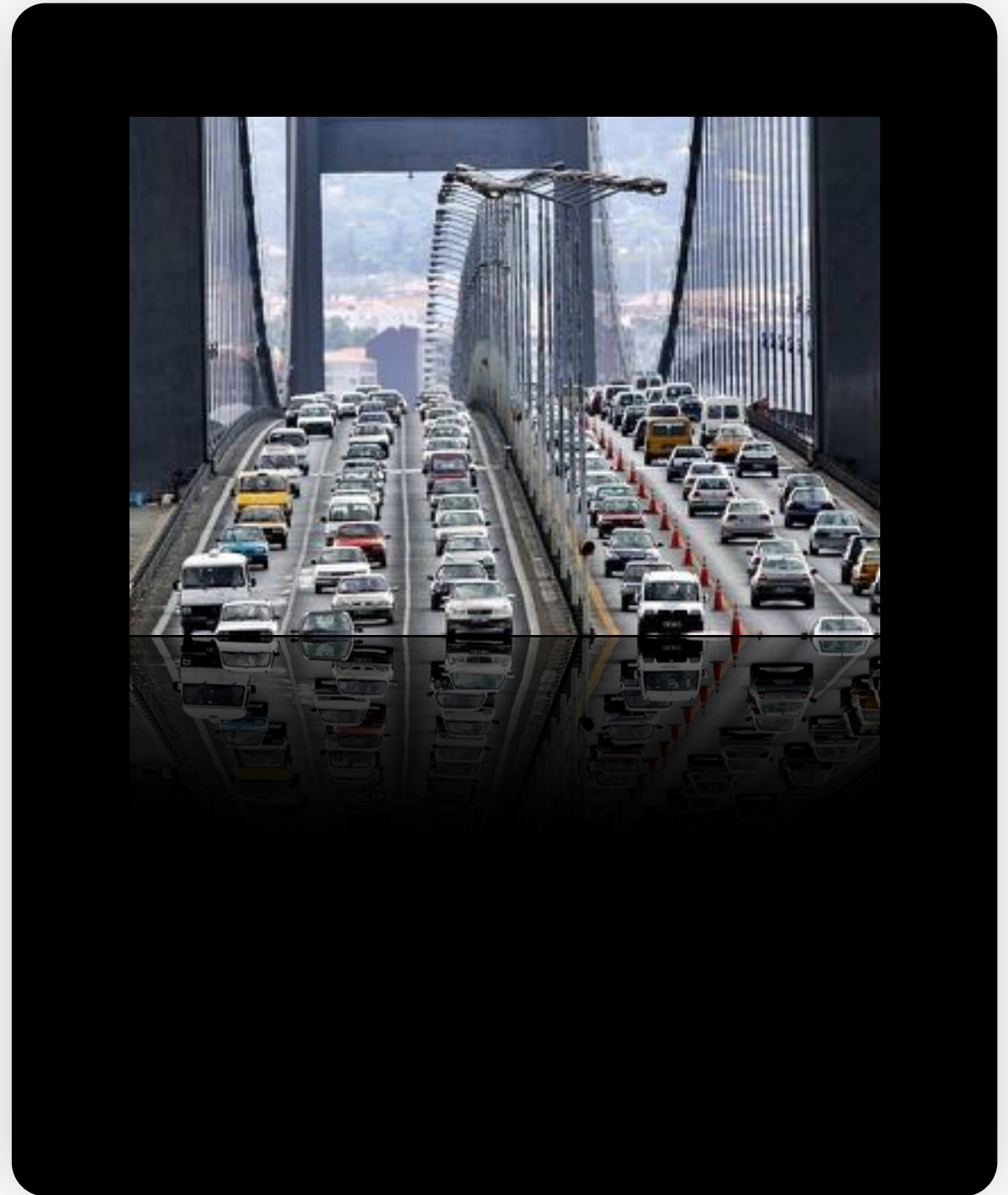


- **Disruptive Capital Partners**, a UK-based private equity firm, was considering acquiring **Tracker**, a leading TSP to merge them with **Lysanda**, a vehicle monitoring service provider and list them on the London stock market
- It requested PTOLEMUS to **evaluate the market opportunity and competitive position of the combined entity, named Tantalum**
- In 3 weeks, PTOLEMUS performed an assessment of each company, interviewed the management of each entity and evaluated the potential synergies between the 3 companies
- Our report was used by Disruptive in their **acquisition process** and in the **IPO prospectus**



For Investcorp, evaluated the solution of Arvento, the largest Turkish fleet telematics service provider

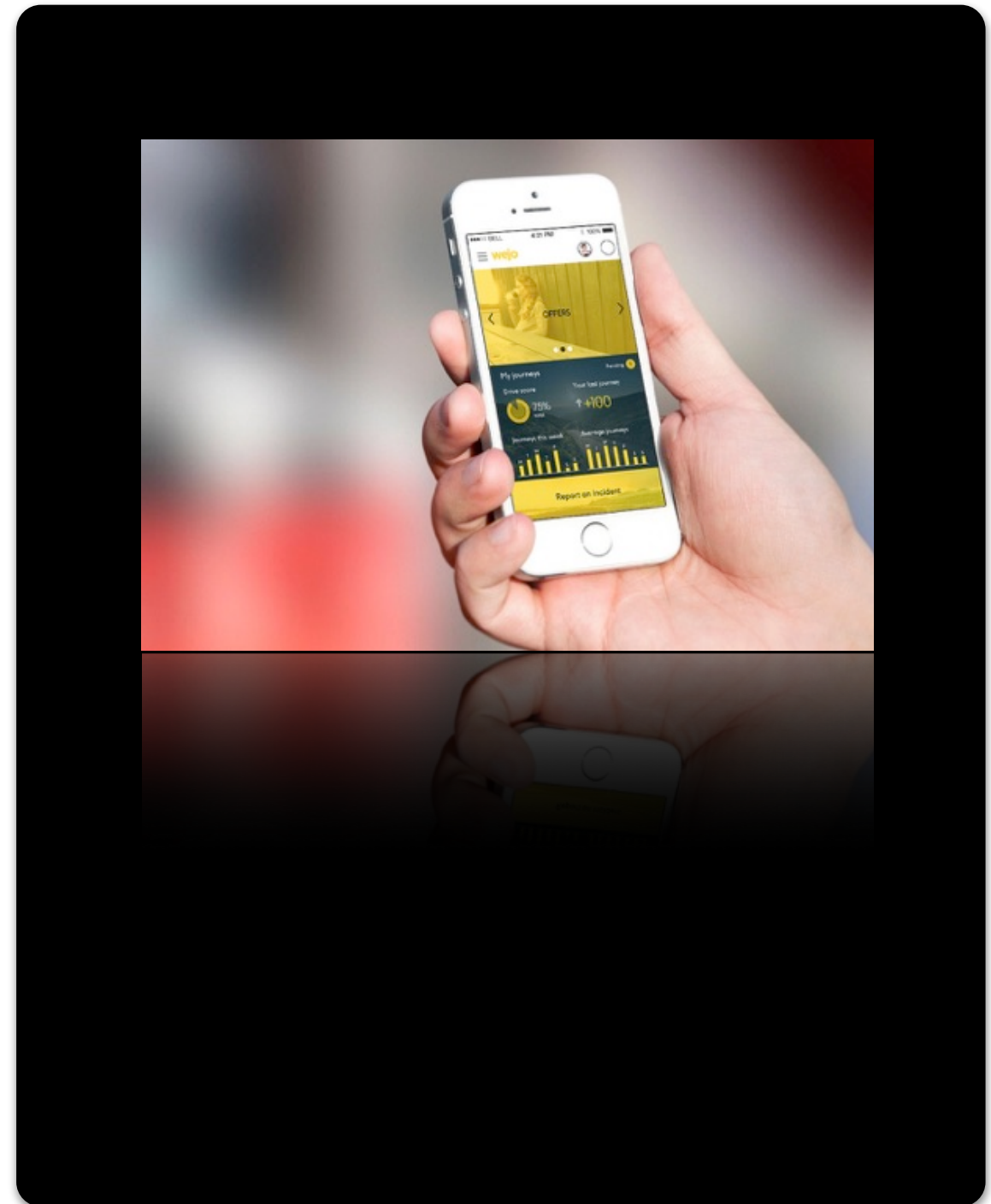
- Investcorp, a major US private equity fund was contemplating the acquisition of Arvento, the largest fleet Telematics Service Provider
- They asked PTOLEMUS to **assess the solution and technology architecture of the company**
- Within a month, we performed a complete appraisal of the TSP's solution, its underlying technology, its competitive situation, its business model and its management
- We finally provided a **clear recommendation to our client**



For Wejo, evaluated the size of the European smartphone-enabled fleet telematics market

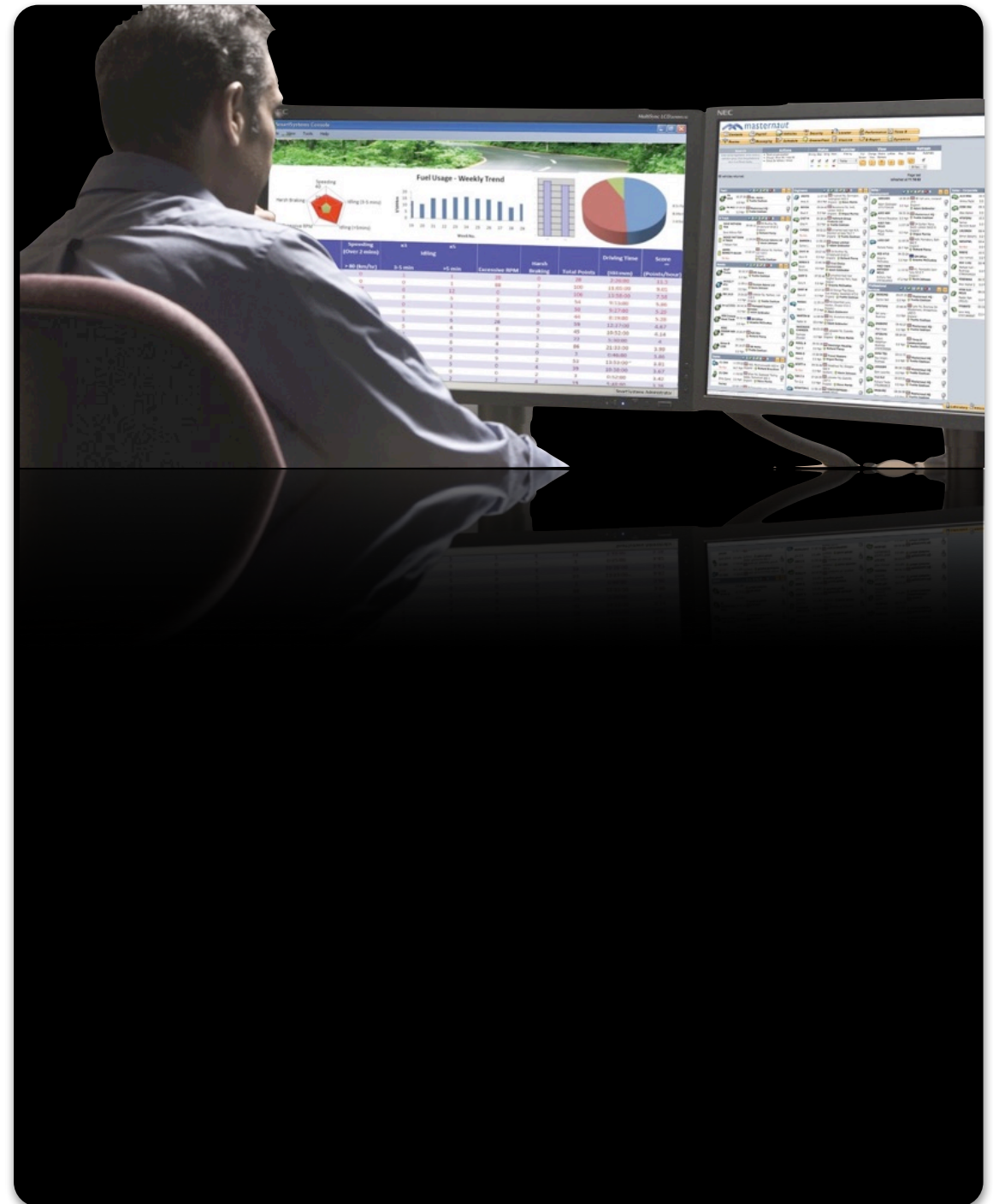
wejo

- This start-up Telematics Service Provider was looking to **raise funds from global investors**
- It asked PTOLEMUS to contribute to its investment file by providing it with an **analysis of the smartphone-enabled fleet telematics market in the EU**
- Within a few weeks, we
 - Evaluated the challenges of implemented smartphone-based solutions
 - Identified which fleets could be interested in a smartphone-based solutions
 - Estimated the addressable market and build unit and revenue forecasts of the future market for smartphone fleet telematics



Helped a \$40 billion investment fund evaluate the European fleet telematics market

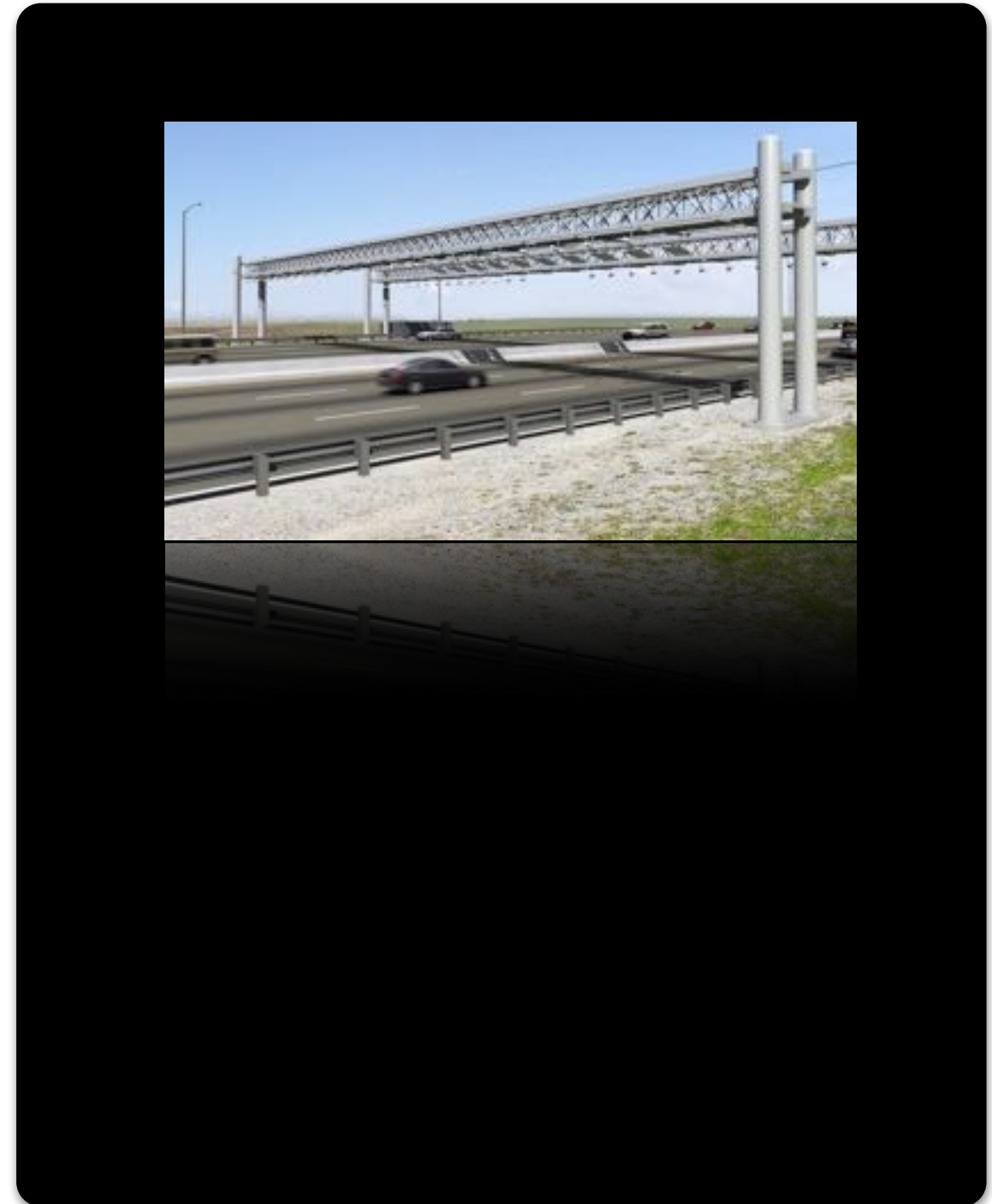
- This major US hedge fund was evaluating an investment opportunity
- It asked PTOLEMUS to help it evaluate the fleet telematics market in 16 EU countries
- Within 2 months, our consulting team
 - Evaluated the needs and purchasing patterns of vehicle fleets
 - Evaluated the competitive landscape
 - Benchmarked units prices for more than 10 suppliers
 - Analysed the evolution of market prices by segment
 - Estimated the market size in each of these countries and for each vehicle segment
 - Built 2015-20 market forecasts by country and by vehicle type



For EGIS, defined its strategic positioning in the field of connected vehicle services



- This **European operator of road & motorway infrastructure and services** was willing to expand its service business by **leveraging the connected vehicle opportunity**
- The company requested PTOLEMUS to **analyse the attractiveness of most connected services markets** and to recommend an optimal positioning for them
- Within 4 months, we **analysed 26 consumer- and business services** within the car sharing, fleet management, financing & leasing, insurance, roadside assistance and tolling services markets
- PTOLEMUS recommended to its client a **unique positioning** that built on its leading position in the field of electronic tolling services and defined its **pricing & go-to-market**
- We also **suggested ideal partners and acquisition targets** for the company to execute this strategy



Assisted a major tier-1 automotive supplier in sourcing a driving behaviour database

- This tier-1 supplier needed to obtain a **large driving behaviour database** to develop its own service but wanted to preserve the confidential status of this plan
- PTOLEMUS identified and contacted several potential data providers in Europe and held **close discussions with one Telematics Service Provider (TSP)**
- We evaluated the **quality of this database based on a sample of vehicles**
- We successfully negotiated the terms of a **data licensing agreement for 10,000 vehicles**
- The analysis of this data resulted in a **tool that was demonstrated to the Group's CEO** and led to a **multi-year telematic programme**



Defined Mobile Devices' worldwide strategy for the connected car



- Mobile Devices has been providing a **telematic software** and **hardware platform** to fleet management companies (e.g. TrafficMaster) for nearly 10 years
- The company asked PTOLEMUS to define their **strategy towards the consumer in-car market**
- We evaluated the attractiveness of several telematics markets, including their competitive environment and estimated the size of the **market for in-car connected devices**
- Eventually, we advocated a revamp of the **company's product for the B2B2C market** and a **focus on 3 large opportunities**
- We also introduced the company to 3 mobile operators
- The company asked us to assist them in exploring these opportunities



For Qualcomm, conducted a pan-European survey of the European PAYD / PHYD insurance market



- Qualcomm Enterprise Services is the **world's largest provider of fleet management services**
- It asked PTOLEMUS to investigate the **market potential of the insurance vertical for its services**
- We identified **15 target insurance groups** in Belgium, France, Italy, the Netherlands and Spain
- We approached the relevant motor management level executives and obtained meetings to **assess their UBI progress and needs**
- Defined **lessons to be learned** to improve Qualcomm's UBI system offering
- Our work also generated several **commercial leads** for Qualcomm



For Location Smart, evaluated the EU & Japanese markets for location-based emergency services



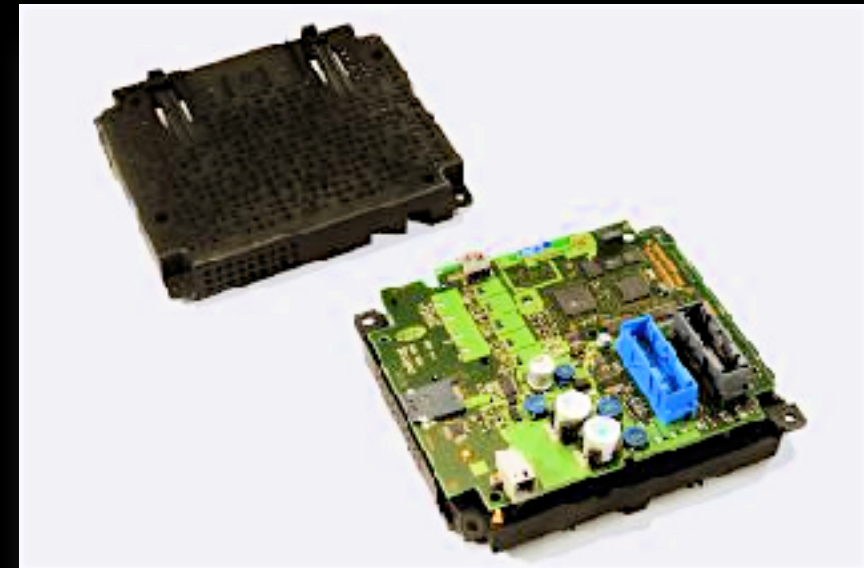
- TechnoCom is the leading provider of **911 emergency services** quality monitoring solutions in North America
- We evaluated the market opportunity for handset-based (**E112**) and vehicle-based (**eCall**) emergency services in Europe
 - **Within 4 weeks, conducted 20 interviews of all stakeholders**, from the European Commission to automotive OEMs and mobile operators
 - Reviewed in depth **EU regulatory landscape**, changes in the organisation of PSAPs* and evaluated likely speed and magnitude of a potential take-off
- We provided **clear recommendations** and obtained agreement to set up **follow-up meetings with over 10 partners / customers**



Assisted Magneti Marelli in developing its usage-based charging telematics business



- Managed different telematic businesses both in service provision and in hardware
- Supported the management in **starting-up the business** and setting-up the logistics platform to supply the **insurance telematics business**
- As a result, achieved the **successful launch of an automotive grade black box**
- Negotiated the **contract with Octo Telematics**, notably its technical, logistical and business terms
- Supported the adaptation process of the first supply to Octo Telematics
- Supported the **initial business model for Autostrade**



For TomTom, defined and implemented LIVE services strategy for in-car navigation



- For TomTom, led product management team to write **specifications for connected services** (incl. HD Traffic, Safety Alerts, Fuel Prices and Local Search)
- Managed software device- and server-side development of these services
- Supervised **negotiation of contracts with content partners** (Google, etc.)
- Defined packaging and pricing of end-user offering (LIVE Services bundle)
- **Defined and delivered launch plan in 5 countries**
- Wired rated the product 8/10
- One year later, at IFA, most of TomTom competitors (Garmin, Navigon, Medion) announced similar products



PTOLEMUS Consulting Group

Strategies for Mobile Companies



Brussels - Boston - Chicago - Düsseldorf
London - Milan - New York - Moscow
Paris - Pretoria - Toronto
contact@ptolemus.com
www.ptolemus.com
@PTOLEMUS

Matthieu Noël
Manager
mnoel@ptolemus.com
+33 6 13 34 70 56