

The quest for Telematics 4.0

Creating sustainable value
propositions supporting
car-web integration



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In-car connectivity: huge potential remains untapped

Providing in-car connectivity is going to be essential for every carmaker, but the industry is still looking for viable business models.

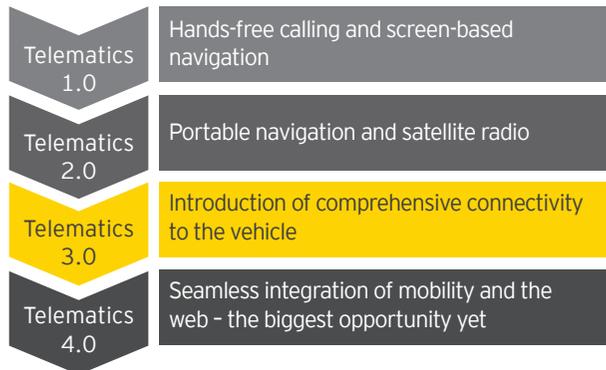
The global telematics market is poised to grow exponentially in the future, with approximately 104 million new cars expected to have some form of connectivity by 2025:

- ▶ Penetration of global integrated telematics to touch 88% for new cars by 2025, while that of tethered telematics to flatten around 28%
- ▶ Penetration of integrated telematics to be driven by growing importance of smartphones and regulations for driver safety
- ▶ US to continue its lead with sales of approximately 16 million new cars with embedded telematics by 2025
- ▶ EU, Japan and BRIC nations present huge potential, primarily due to upcoming regulations

Ernst & Young's Global Automotive, Telecom and Insurance Centers have developed this telematics blueprint with the aim of:

- ▶ Defining the telematics ecosystem and its components, including market needs, services, infrastructure and stakeholders
- ▶ Identifying commercially viable business strategies and the associated risks, rewards and considerations for stakeholders
- ▶ Evaluating the position and future role of the automotive, telecom and insurance sectors in this emerging ecosystem
- ▶ Analyzing differences in telematics strategies across the ecosystem through business model case studies

Evolution of automotive telematics



Source: *2025 Every Car Connected: Forecasting the Growth and Opportunity* study, by SBD and GSMA, published in 2012

“Soon you will not be able to make money anymore with cars that don’t integrate customers’ smartphones.”

– CEO, premium global carmaker

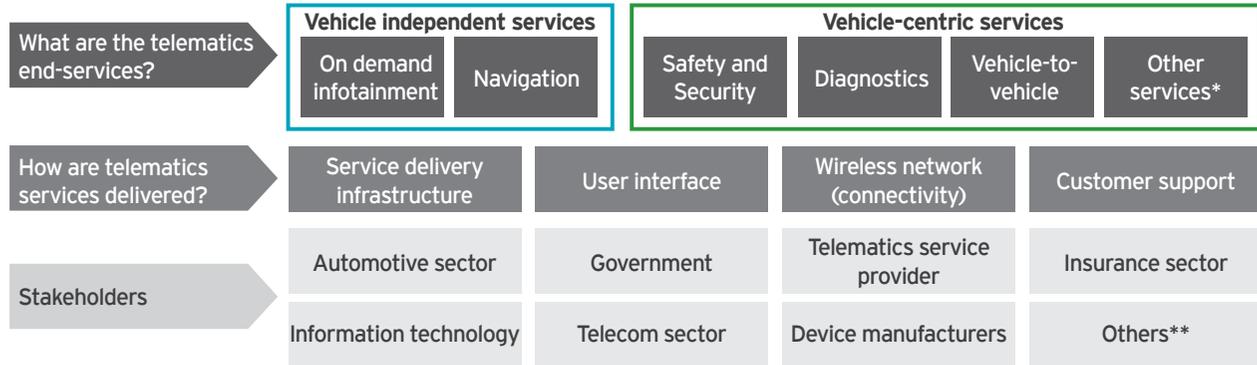
“When we look at the car, we see another smartphone.”

– President, global telecommunications company

The evolving telematics ecosystem

Effective delivery of connectivity-based services will require seamless integration of infrastructure by various stakeholders.

The telematics ecosystem can be divided into three layers: services for end users (both vehicle-independent and vehicle-centric), the infrastructure enabling delivery of those services and the stakeholders who manage them.



*Other services include usage-based insurance, fleet management and payment (tolling, parking).

** Others include business process outsourcing (BPO) and roadside assistance providers.

Packaging end-customer services

- ▶ **Bundled basics** are safety and security services that will be required by law or the market, such as emergency call services, stolen vehicle tracking and basic navigation services. While their cost will be built into the vehicle's price, stakeholders—particularly carmakers and dealerships—will have to generate returns through operational efficiencies and by cultivating a closer connection with the customer. There are short-term opportunities to generate subscription revenues, however only until regulations standardize the installation of basic blackboxes for safety and security services.
- ▶ **Pay-per-use and “freemium” services** are navigation, entertainment or similar applications that are mostly supported by advertising or paid for with each use, somewhat like a pay-as-you-go mobile phone data plan. In this case, the limited revenues may be shared between the carmakers, content providers and telecom operators.
- ▶ **Premium subscription services** are applications that car owners are willing to pay for on a contractual basis, such as access to integrated mobility solutions and in-car occupant health services. In this context, the carmaker may own a significant proportion of the cost and subscription revenue stream. Similarly, telecom operators can charge end customers on the basis of type and quality of connectivity opted by them.

Key strategies in the quest for Telematics 4.0

As in most emerging sectors, the boundaries of telematics will be quite fluid at first, then gradually harden. As the market matures, companies unsuccessful at forging strong partnerships with carmakers and other major players will have an increasingly difficult time staying in the space.

Telematics business strategy variants

Stakeholders to continuously evolve the business strategies in order to gain ownership of the end customers

		Risk	Reward
<p>1 Infrastructure and content partners</p>	<p>Providers who deliver the hardware, communications and content to create a strong telematics connection:</p> <ul style="list-style-type: none"> Stakeholders: content providers, telecom operators and automotive suppliers 		
<p>2 Proprietary navigation and infotainment</p>	<p>Providers who offer specific vehicle-independent services that are delivered through either bolt-on appliances or download:</p> <ul style="list-style-type: none"> End services: vehicle-independent services Device connectivity: tethered solution End customers: offers services to both aftermarket and carmakers Stakeholders: portable navigation/infotainment device manufacturers, telematics platform service provider and automotive suppliers 		
<p>3 Carmaker-branded connectivity</p>	<p>Providers who offer content, communications, maintenance diagnostics and CRM service, probably through a browser-like interface:</p> <ul style="list-style-type: none"> End services: both vehicle-independent and vehicle-centric services Device connectivity: embedded and integrated solution End customers: offers services to carmakers who then brand the solution as their own Stakeholders: carmakers in partnership with white label telematics platform service provider and telecom operators 		
<p>4 Branded aftermarket connectivity</p>	<p>Providers who offer similar services for the aftermarket, somewhat lighter on diagnostics, and include insurance telematics:</p> <ul style="list-style-type: none"> End services: both vehicle-independent and vehicle-centric services Device connectivity: embedded and tethered solution End customers: offers services to the vehicle aftermarket Stakeholders: insurance providers, telematics platform service provider and automotive suppliers 		



Next move for carmakers, dealers and automotive suppliers

No single player holds a dominant position in the telematics market yet, and we believe no one will ever own it alone. The development of most of these services will force every major player to work outside its core competency.

Carmakers	<p>Carmakers have a unique opportunity to build a new way to interact with their customer base and could find in telematics a new tool to expand the brand experience. However, the carmakers:</p> <ul style="list-style-type: none">▶ Need to improve their own data management skills to analyze data and maintain control of information that will be generated▶ Might not be able to keep up with technology updates and related costs if they take over too much design and technology control, while bundling modularized systems of their own into the vehicle▶ Need to consider potential future services, such as insurance, that can help expand their touch points with the customers
Dealers	<p>Dealers will enjoy an unprecedented opportunity to understand their customers better and to interact with them on an ongoing basis. However, the dealers:</p> <ul style="list-style-type: none">▶ Lack experience with communications and content▶ Need to have stronger links with carmakers before they can make productive use of this data
Automotive suppliers	<p>Automotive suppliers will have a huge opportunity in human-machine interface (HMI) development, in part because of their ability to organize a network of partners to present a broad menu of telematics services to the carmakers. However, the automotive suppliers:</p> <ul style="list-style-type: none">▶ Don't yet know which services regulators will require▶ Face engineering challenges: How do we future-proof the platform? What kind of interface will work best? How much information can be put on a heads-up screen without distracting the driver?

Next move for telecom operators, motor insurers and mobility integrators

Instead of competition, the journey to Telematics 4.0 will be more about cooperation – about how the stakeholders learn to work together to develop an integrated offering that not only takes the car online but turns telematics services into a way to gain a share of mobility beyond the car.

Telecom operators

Telecom operators will have an opportunity to claim the only hours in the day still largely out of reach of broadband. This creates additional usage of their networks and more revenue. However, they need to:

- ▶ Work out a wide variety of bandwidth and billing challenges, particularly in delivering a seamless mobility experience
- ▶ Deliver pricing plans that prevent cannibalization of existing customer smartphone usage but do not require customers to miss out on the utility of any existing SIMs and plans
- ▶ Find a way to resist being relegated to the commodity status of a “dumb pipe” by creating organizations that focus on automotive as a key sector segment

Motor insurers and brokers

Telematics makes insurance tangible to the customer in an entirely new way, increasing the potential for better risk management and more consumer touch points. Motor insurers and brokers will gain access to richer individual and collective (descriptive) data than the sector has ever known. However, they need to:

- ▶ Create a product that is designed to meet the customer’s emotional and logical needs
- ▶ Learn how to manage a vast mobile data network
- ▶ Develop strong affinity partnerships with carmakers or other major car brands
- ▶ Re-engineer their current pricing structures and develop strategies that are more attuned to customers’ needs and affordability

Mobility integrators

Mobility integrators will enable the integration of private cars, shared cars and other modes of transportation into a seamless transportation network. However, they need to:

- ▶ Learn how to manage and interpret enormous quantities of car data
- ▶ Integrate data feeds from other stakeholders such as public transport operators, car sharing companies and parking authorities

Considerations for key stakeholders

	Carmakers	Telecom operators	Motor insurers
Service offerings	<ul style="list-style-type: none"> ▶ Integrate telematics offering with mobility solutions to support intelligent transportation solutions ▶ Build the cost of diagnostics and security services into the price of the new car, while subscription model to be followed in aftermarket ▶ Focus on vehicle data as well as integration of data in the environment ▶ Leverage other revenue streams such as location-based advertisements ▶ Integrate payment services within the vehicle (while ensuring data security) ▶ Build telematics systems with enough capacity and performance to handle software upgrades 	<ul style="list-style-type: none"> ▶ Offer 4G/LTE connectivity to offer high bandwidth services such as internet-gaming, videoconferencing, etc. for passengers ▶ Provide flexible data plans such as shared data plans or split billing services ▶ Focus on network security for vehicle-related data ▶ Telematics service platform to offer end services either directly to the customers or in collaboration with carmakers ▶ Leverage data collection/mining capabilities to support carmakers 	<ul style="list-style-type: none"> ▶ Develop an internal IT system to leverage telematics-based insurance data ▶ Create attractive aftermarket proposition to drive uptake in car parc ▶ Offer specialized products for fleets aimed at reducing the total cost of ownership
Collaboration and partnerships	<ul style="list-style-type: none"> ▶ Partner with automotive suppliers to build open and scalable (HMI) ▶ Collaborate with aftermarket channels for optimal utilization of vehicle data ▶ Outsource non-core services such as billing and subscription management 	<ul style="list-style-type: none"> ▶ Partner with carmakers to offer customer support services such as subscription management and charging and billing services ▶ Partner with various sector stakeholders to launch services in the aftermarket 	<ul style="list-style-type: none"> ▶ Collaborate with carmakers to offer usage-based insurance (UBI) based on integrated connectivity solution

This is the executive summary of a detailed analysis conducted by Ernst and Young's Global Automotive, Telecom and Insurance Centers. Please contact our sector professionals for more in-depth information.

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ED: None

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