

## Cool Vendors in Automotive, 2009

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Emerging vendors can help the automotive industry to accelerate the development and implementation of innovations. Alternative powertrain technology and connected services aim to create an expanded value proposition for automobiles. Ownership and location-based services will deliver better customer experiences.

### Key Findings

- Emerging technology companies, such as Adura Systems, leverage their expertise in control unit design and software to provide improved energy management solutions for mass transportation and commercial electric or plug-in hybrid vehicles.
- Consumers are keeping their existing vehicles longer; therefore, automotive ownership services, such as DriverSide, are becoming more relevant. The company offers consumers a one-stop destination for their service, parts and knowledge needs, and connects vehicle owners with businesses or other users.
- The automotive aftermarket is beginning to catch up with the new-vehicle segment regarding in-vehicle technologies and the connected car. Emerging companies, such as Telemetria, provide in-dash products that service and content providers can leverage to extend their offerings to existing vehicle owners.
- Community-centric, location-based services, such as Waze, offer new ways for drivers to join forces in establishing dynamic road and traffic incident statistics. Companies can leverage consumers' GPS-equipped smartphones to offer targeted, real-time information services.

### Recommendations

Automakers, suppliers and service providers:

- Leverage emerging suppliers for advancements in electric powertrain technology. Traditional suppliers have significant R&D and manufacturing capabilities, but many innovations for electric vehicles and the required infrastructure will come from new companies that have specific expertise in a particular technology area and that are not limited by existing operational business needs (for example, large fixed costs).
- Intensify efforts targeted at delivering high-value customer experiences during the post-sale phase, during a recession. Partnering with companies like DriverSide can complement your existing online marketing and campaign initiatives and provide cross-sell opportunities.
- Expand your in-vehicle technology offerings to the automotive aftermarket, which is significantly larger than the new vehicle segment. Collaborate with emerging in-dash

product manufacturers, such as Telemetria, to reach new customers and leverage economies of scale for new service innovations.

- Develop new location-based offerings that leverage information collected by a driver or customer network like Waze provides. For example, Waze's information can be used to enable intelligent routing services when incorporated into a calendaring application.

## ANALYSIS

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*This research does not constitute an exhaustive list of vendors in any given technology area, but rather, is designed to highlight interesting, new and innovative vendors, products and services. Gartner disclaims all warranties, express or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.*

### What You Need to Know

Innovations will be critical for the automotive industry to overcome the recession and create new value propositions for vehicle buyers and owners. Many of these innovations will be aimed at the vehicle itself, including new electric and hybrid powertrain technologies, such as Adura Systems' intelligent system and control solution, and Telemetria's aftermarket products designed to connect the vehicle to the Internet. Other innovations will aim at providing a better driving experience by leveraging user communities to predict road conditions, as in Waze's case, or by providing targeted ownership information as provided by DriverSide.

**Adura Systems**, Menlo Park, California, USA (<http://adurasystems.com>)

*Analysis by Thilo Koslowski*

**Why Cool:** Adura provides new electric series hybrid system platforms that promise to deliver an unprecedented 100 miles of pure electric range for heavy-duty transit buses. Adura specifically targets bus and truck manufacturers (light-, medium- and heavy-duty applications). The company's Electric Series Hybrid powertrain offering is built on proprietary, chemistry-agnostic energy storage system and proprietary electronics and software. Adura's software manages and controls all aspects of the powertrain, including the driver interface, the electric motor, energy storage system, the power delivery system and the onboard generator. With its emission-free 100-mile electric range, the company's powertrain reduces emissions to near zero, and, as a result, should meet U.S. 2017 and Euro VI emission standards — even when using the onboard generator. Adura's intelligent system and control solution (SYSCON) can automatically create self-diagnosis reports that can be reviewed by vehicle owners, maintenance staff or Adura to identify potential issues (this reduces maintenance cycles to about 8,000 hours, thus lowering maintenance costs). The company has an agreement with the Chinese Automotive Technology and Research Center (CATARC) to partner and introduce Adura's technology in the Chinese market. The company only offers its complete powertrain technology and does not sell individual units of intellectual property. The company does, however, sell battery packs to interested companies.

**Challenges:** The development, testing and mass production of full electric and/or electric plug-in hybrid powertrain solutions requires significant investments that may be difficult to attain in today's challenging economy. New government grants and development programs provide potential options, if private or institutionalized investments are insufficient. Ideally, Adura will find partners in the automotive industry that are in need of electric powertrain technology, especially regarding software for system control and energy management. The lack of recharging-station infrastructure is a relatively minor problem for Adura, because the company primarily targets fleets that have predetermined routes and energy needs (for example, fleet vehicles that can be charged at private charging stations overnight).

**Who Should Care:** Technology and business executives at vehicle manufacturers, automotive suppliers, delivery organizations, energy and utilities companies, and public transportation offices should evaluate Adura's offerings. Adura's technologies can help companies develop and deploy

fuel-efficient mass-transportation solutions, to reduce maintenance expenditures and to meet future emission requirements.

**DriverSide**, San Francisco, California, USA ([www.driverside.com](http://www.driverside.com))

*Analysis by Thilo Koslowski*

**Why Cool:** DriverSide is the first one-stop, third-party automotive online portal focused on addressing consumers' post-sale ownership needs by linking them to automotive businesses (aftermarket and service retailers) and other consumers. The company offers vehicle owners comprehensive maintenance advice, including parts and service information and appraisal services (for example, residual values), as well as a communication, knowledge sharing and marketplace platforms. DriverSide's service is free, and the company generates revenue from advertising, lead generation (for example, referrals of parts request leads to online retailers) and user analysis and segmentation (for example, by developing ownership profiles regarding car ownership, age, condition or whether cars are leased or owned). DriverSide provides online "garages" for registered consumers and also offers cobranded versions of these garages to client organizations that can use them to retain their own customers.

Existing online car ownership services are typically offered by vehicle manufacturers, but lack a strong value proposition for customers because of limited functionality (that is, no integration into third-party part retailers) and single-brand focus (households often own multiple vehicles from different manufacturers). Other automotive Web sites, such as Edmunds.com or eBayMotors.com, typically focus their services on advice during the presale and sale phases to help consumers research and find the right new or used vehicle. However, they offer limited functionality in addressing consumers' post-sale needs. By specifically focusing on the ownership phase, DriverSide is aiming to fill a gap in addressing consumers' automotive needs and to offer businesses the opportunity to interact with a targeted audience. This represents a growing business opportunity as recent trends show that consumers are keeping their existing vehicles longer than before. According to R.L. Polk & Co., through mid-2008, the median age of cars in operation rose to 9.4 years, up from highs of 9.2 years in 2007 and 2006.

**Challenges:** DriverSide's success will depend on the company's ability to quickly grow its user base by providing repeated relevance regarding vehicle ownership needs for a broad group of consumer segments (for example, the enthusiast or the average owner). At the same time, DriverSide must avoid the risk of diluting the company's core value proposition by branching out into the presale and sale phases of the automobile-buying process, which is already addressed by other established companies (for example, Kelly Blue Book, AutoTrader and eBay). DriverSide's ability to provide long-term user value will also depend on the company's ability to identify new technology and business partners (for example, dealers and new vehicle lead service providers) that can provide innovative value propositions. For example, ownership services must integrate with emerging telematics services and vehicle ICT to expand the consumer experience to the connected vehicle and portable devices.

**Who Should Care:** Marketing and business development executives at automotive manufacturers, dealership groups, TSPs and online automotive retailers can benefit from DriverSide's focus on connecting with vehicle owners during the ownership phase for targeted marketing and campaign management as well as cross-sell opportunities.

**Telemetria Technology**, San Jose, California, USA (<http://telemetriatelephony.com>)

*Analysis by Thilo Koslowski*

**Why Cool:** Telemetria designs highly configurable in-vehicle connectivity products for the automotive aftermarket. The company's in-dash products use the latest advances in processor

and broadband communication technologies (for example, Intel's Atom processor, WiMAX and 3G) to provide a versatile platform for a wide variety of included (for example, "infotainment," productivity and location-based services) or customized user functions (for example, specific asset management-focused applications). Telemetria's target markets include passenger cars, fleet management, car rentals and the military.

The company's first product, called "DashTop," is a fully customizable in-dash PC that offers a variety of built-in safety, navigation, Internet connectivity, portable device-integration and hands-free-operation capabilities, among other features. DashTop is based on an open architecture that can support a variety of Microsoft or Linux-based applications that users can integrate, if required. The flexibility of Telemetria's technology approach makes the company's products ideal solutions for customers wanting to bring connectivity solutions to their vehicles. Telemetria's offerings can also be a potential alternative to embedded vehicle ICT solutions offered by vehicle manufacturers and traditional automotive suppliers. Telemetria's solution may also be of interest to manufacturers that want to offer a vehicle ICT solution to existing customers who own vehicles that can't be retrofitted with the manufacturer's current, factory-fit product (for example, an OnStar aftermarket solution for owners of older GM vehicles).

**Challenges:** Telemetria's current expertise lies in designing and developing connectivity products for in-vehicle applications. To maximize its value proposition and ensure long-term success, Telemetria must shift its efforts from building a wide variety of functionalities in-house to developing an ecosystem of content and service providers that can leverage its solutions' flexible architecture approach. This will require innovative business models (for example, revenue sharing and location-based marketing) and a solid understanding of the emerging vehicle ICT value chain. Furthermore, competition from traditional aftermarket audio and infotainment device manufacturers (for example, Blaupunkt, Clarion and Pioneer) in the area of in-vehicle connectivity solutions will likely increase in the short term. To overcome the competitors' sales channel and consumer brand advantages, Telemetria will need to develop unique distribution and positioning strategies or partner to achieve them.

**Who Should Care:** Technology, engineering and business executives at automotive manufacturers, suppliers, TSPs and content providers can benefit from Telemetria's in-dash connectivity solutions to expand their vehicle ICT offerings to the automotive aftermarket — an underserved market segment with significant potential.

**Waze**, Raanana, Israel (<http://waze.com>)

*Analysis by Thilo Koslowski*

**Why Cool:** Waze provides an innovative way of collecting and sharing driving-related information without the use of traditional map data provided by companies such as Navteq or TeleAtlas. Waze is a free driver-network-generated live map and real-time road intelligence service that provides users with information on what lies ahead (for example, traffic congestion), what to avoid (for example, the police may be enforcing speed limits) and what the quickest route is at any given moment. The community-based service includes constantly updated road maps that are collected automatically by users who have the Waze application installed on their GPS-equipped mobile phones. Using proprietary algorithms, the company analyzes the driver-collected map data to determine specific road characteristics, such as traffic flow and available street choices (for example, are drivers driving into an intersection or parking lot). Drivers manually report (by using a simple icon-based interface) and update others on what's happening along their route, including accidents, weather hazards or sales promotions (for example, inexpensive gasoline), and so on. Based on the accuracy and frequency of the provided information, Waze users receive specific status on the driver network, which can be seen by the other network members. Waze also allows for feature personalization and can learn preferences over time. In Israel, the company's driver network includes about 50,000 members.

Waze may eventually invite third-party developers to offer additional applications for Waze users and offer a widget solution for Web sites that want to incorporate the company's real-time traffic information. Although Waze hasn't publicly announced its revenue model, the company's plans likely include advertising, referral services or charging for access to its driving data (for example, in case the popularity of Waze dramatically increases, Web portals such as Yahoo may feel the need to offer the service to its customers even though they are not active participants in Waze's driver network).

**Challenges:** Waze's success will depend on the ability of its algorithms to create the map data and to accurately identify and report the various types of road incidents. In order to ensure basic reliability levels for its data, the company will need to get a certain number of drivers in a given area to sign up for the service. Waze estimates that, with a given number of users, it would take approximately six months to create a driver-generated map of San Francisco. The fact that the service is free of charge combined with the community-based value proposition will likely attract sufficient smartphone users to establish local Waze networks. However, market entry barriers for other companies that may already have large user communities with smartphone access are relatively low (for example, mobile phone manufacturers, such as Nokia; personal navigation device manufacturers, such as TomTom; innovative map data providers, such as AutoNavi; and navigation service providers, such as TeleNav).

**Who Should Care:** Business development and technology executives at consumer electronics and mobile phone manufacturers, location-based services companies, vehicle manufacturers, and TSPs should consider Waze's offering as an innovative and fresh way to provide real-time road intelligence to their end customers. Enabling a driver-network community can, for example, provide cross-sell opportunities.

## **RECOMMENDED READING**

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"Predicts 2009: The Auto Industry's Hope for Sustainable Growth Requires New Focus"

"Customer Centricity Will Transform Auto Companies Into Relationship-Driven Solution Providers"

"Key Issues and Research Agenda for the Automotive Industry, 2H08"

"Hype Cycle for Automotive Demand Chain and Supply Chain Technologies, 2008"

"Hype Cycle for Vehicle-Centric Information and Communication Technologies (Vehicle ICT), 2008"

"Agility, Innovation and IT-Enabled Transformation Ensure the Auto Industry's Survival"

"From Enlightenment to Mainstream: The Resurgence and Transformation of Telematics"

"Key Issues and Research Agenda for the Automotive Industry, 2H08"

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