

## Telematics Trendline

Following the Growth of Automotive Telematics

By Derek Kaufman, C3 Network, Inc.

*Telematics Trendline* is a series of monthly articles by Derek Kaufman, C3 Network, Inc., designed to inform AAIA members about the trends in telematics applications for both the retail automotive and commercial trucking industries. For the full November article, or for more of the series, click [here](#).

This month:

- SARTRE
- 3D Maps

### SARTRE

“If you are lonely when you are alone, then you are in bad company.” Jean-Paul Sartre

Don't think about the quote for too long – you'll bruise something. And anyway, that's not the Sartre we are talking about here.

The SARTRE we are introducing is a novel concept taking form in Europe that suggests the combination of telematics and human expertise may be the best solution to affordable traffic control. SARTRE is an acronym for **Safe Road Transportation for the Environment** (we know – it's a stretch). It connects a “train” of cars equipped with navigation systems, transmitters and receivers to a lead vehicle driven by a professional driver who is familiar with the route. Active control allows the cars to follow each other closely which compacts traffic and creates drafting efficiencies resulting in improved fuel economy. The use of a professional driver allows the train to work without the need for embedded road systems or other high cost control systems.

SARTRE envisions six to eight vehicle trains that allow drivers to connect and disengage as their destination dictates. Enter the highway and connect to the train. As your exit appears, simply take over control of your vehicle again and exit the highway. The other vehicles close the gap and the train continues on.

The participating companies of the SARTRE program expect to have active testing in process by 2011 with a four objectives targeted:

1. To define “platooning” strategies that will allow road-trains to operate on public highways without changes to the road and roadside infrastructure.
2. To develop autonomous control and other technology to test platooning in real world conditions.
3. To demonstrate how the use of platoons can lead to environmental, safety and congestion improvements.
4. To illustrate how new business models can be formed to encourage the use of platoons with benefits to both lead vehicle operators and to platoon subscribers.

SARTRE is part-funded by the European Commission under the Framework 7 program

and is being led by Ricardo UK Ltd. Participating companies include Idiada and Robotiker-Tecnalia of Spain, Institut für Kraftfahrwesen Aachen (IKA) of Germany, and SP Technical Research Institute of Sweden, Volvo Car Corporation and Volvo Technology of Sweden.

Check out the concept on YouTube at <http://www.youtube.com/watch?v=JINXzIVroPY>

### **3D Maps**

It is commonplace today to pull up a Google Map on your iPhone and switch to satellite mode to get a good view of actual buildings and a GPS dot to show your location. But there is a lot of work being done to move 3D mapping to the next level of accuracy and reality so we thought we would list some interesting links to show you some work in process.

In a past edition we talked about the Android phone and Google's open sourced Android Development Challenge. To see it in action, check out a YouTube video showing a map program in the making [http://www.youtube.com/watch?v=i\\_UakyVVhCM](http://www.youtube.com/watch?v=i_UakyVVhCM) We like this video on a number of levels. First, you have two German guys walking around Osaka, Japan doing work for the Google folks in California. We like the "we are the world" feel of that. Second, you see the power of a challenge. Do they stand to make a lot of money doing this? Maybe, maybe not. But the point is, they are up for the game and the attraction is the open source nature of Android itself.

Check out some other 3D mappers. Go to [www.upnext.com](http://www.upnext.com) to see a group of just four people who are redefining what "local search" means. The UpNext approach combines sophisticated 3D mapping with a Java back end to allow users to click on buildings to see what is inside them. They have 170,000 locations mapped in New York City alone.

The folks at 3D Laser Mapping ([www.3dlasermapping.com](http://www.3dlasermapping.com)) have developed a system called Street Mapper 360 which allows them to capture exacting 360 degree detail while traveling at normal highway speeds. The system was recently used by the UK's Ordnance Survey to map the entire seaside resort town of Bournemouth using 700 million individual points of light to very accurately measure the locations of the town's terrain and structures. The result is a 3D map of amazing accuracy. Check out the story at <http://tinyurl.com/yjywbqk> The Ordnance Survey folks have been making maps since 1746 and they are still developing the leading edge.

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