

<http://smartdrivingcar.com/UltraPODS-012816>

**Thursday, January 28, 2016**



**London's first driverless cars revealed**

The consortium behind the trial has decided to adapt electric passenger shuttles that are currently in service at Heathrow Airport for use in Greenwich. Unlike the Heathrow pods, they will not need dedicated tracks.

The Greenwich trial is one of four in the UK to test driverless technology and public reaction to it..."This vehicle has millions of miles under its belt and now we have to take it outside of the track and modify it for use on pavements," he added. The so-called UltraPODs currently in service at Heathrow carry passengers between the car park and Terminal 5. In the five years they have been in use, they have carried 1.5 million passengers and traveled three million kilometers (1.8 million miles)..." [Read more](#) *Hmmm...Wow!! ... PRT evolving to be autonomousTaxis! Wow!!! :-)* *Alain*



**Apple's 'Project Titan' at**

**crossroads, team in hiring freeze, source says**

S. Oliver "Apple has placed a hiring freeze on the team responsible for the company's nascent automotive ambitions after executives became unhappy with the project's direction and progress, AppleInsider has learned....The change was precipitated by a post-holiday progress review conducted by Apple design chief Jony Ive, according to a previously reliable source with knowledge of the team's activities. Ive is said to have "expressed his displeasure" with the group's headway... [Read more](#) *Hmmm...Is this only part of the bad news @ Apple: see next...also "[Apple just registered the 'Apple.Car' web address](#)"* *Alain*

THE WALL STREET JOURNAL.

WSJ

## [Apple iPhone Sales Grow at Slowest Rate Ever](#)

D. Wakabayashi, Jan 26. "Apple Inc. said iPhone sales grew at the slowest pace since its introduction in 2007 and forecast that revenue in the current quarter will decline for the first time in 13 years, signaling an end to its recent period of hypergrowth....Apple shares have fallen 16% since the end of October, closing Tuesday at \$99.99... The slowdown in iPhone sales, which account for roughly two-thirds of Apple's revenue, raises questions about Apple's growth. Sales of the iPad have been declining for two years, and sales of Mac computers, a recent area of strength, fell in the most recent quarter.... [Read more](#) *Hmmm...when it rains, it pours. The watch isn't going to save this, they'd better get some productivity out of the 1,000 still working on the car. Alain*

EE|Times

## [Mobileye, Nvidia \(and Others\) Spar over Cars](#)

J. Yoshida, Jan 11. "The field of autonomous driving technologies revealed its substantial expansion at this year's International Consumer Electronics Show (CES).

In the autonomous driving chip segment alone, aside from incumbents such as Nvidia, Mobileye, NXP and Texas Instruments, a host of new players — Ceva, an IP vendor, Intel and Qualcomm — are now also breaching the market. Car OEMs are welcoming these newcomers, observed Egil Juliussen, director of research, infotainment & ADAS at IHS Automotive, during CES. "The field has suddenly gotten a lot more crowded...

But it still remains unclear — to most of them — where all these technologies will eventually end up in autonomous car designs, let alone who will be the winners and losers in this battle..Nvidia with its "deep learning" pitch..."

[Read more](#) *Hmmm...Love....Deep Learning! Alain*



### CES 2016 Presentation

Jan 6, ""Sensing and Beyond: Towards Full Autonomous Driving", Presentation by Prof. Amnon Shashua, Co-Founder, Chairman and CTO, MobilEye" [See video](#)  
*Hmmm...Worth watching. Alain*



### CES 2016 Presentation

Jan 4, ""Accelerating the Race to Self-Driving Cars", Presentation by Jen-Hsun Huang, Co-Founder & CEO NVIDIA" [See video](#) *Hmmm...Worth watching. See also*  
["NVIDIA's Deep Learning Car Computer Selected by Volvo on Journey Toward a Crash-Free Future"](#) *Alain*



### Driverless bus trial in Netherlands is

#### first on public roads

Jan 25, An electric, driverless shuttle bus has taken to Dutch public roads on Thursday, rolling six passengers along a 200m stretch of road in the first trial of its kind worldwide.

The WePod, one of a fleet to be rolled out in coming years, took a few people on a short journey back and forth along the side of a lake in the central Dutch agricultural town of Wageningen. I think we're going to see it within five years. That doesn't mean 100 percent penetration; that just means market availability. But I actually think we're going to see it within five years." [Read more](#) [See video](#)  
*Hmmm...A start, but "of its kind" is the key limiter in the phrase "first trial of its kind worldwide" :-)* *Alain*

## **The Detroit News** [Ford testing driverless cars in snow](#)

M. Martinez, Jan 11, "...It's one thing for a car to drive itself in perfect weather," Jim McBride, Ford technical leader for autonomous vehicles, said in a statement. "It's quite another to do so when the car's sensors can't see the road because it's covered in snow. Weather isn't perfect, and that's why we're testing autonomous vehicles in wintry conditions — for the roughly 70 percent of U.S. residents who live in snowy regions."... [Read more](#) *Hmmm...Of course. Alain*

## **Newsweek** [DRIVERLESS CARS AND THE FUTURE OF PARKING](#)

C. Thompson, Jan 24 "...The deep irony is that cities rarely require developers to construct enough affordable housing, but they pass strict laws making sure vehicles can be adequately housed. "We don't force [developers] to build the right number of bedrooms for people! We just force them to build the right number of bedrooms for cars," says Jeffrey Tumlin, ..." [Read more](#) *Hmmm...Parking as we know it today has a bleak future. For example: Airport Authorities must already be seeing the beginning of the end of those golden eggs. Alain*

## **Out-Law.com** [Insurers' profiling will change as autonomous vehicles hit the road, says expert Allianz, Zurich and AXA unite to regulate UK driverless car insurance](#)

P. Manson, Jan 28 "The shift from customer to car profiling is one of the likely outcomes of the shift to autonomous driving, a shift which could be just a few years away...This means that the sophistication, reliability and security of driverless car systems will become the most important considerations as autonomous driving takes off...." [Read more](#) *Hmmm...Of course. In fact this should be taking place today with ADAS. Alain*



## [State looking to redevelop former Willow Run plant into testing site for autonomous vehicles](#)

T. Perkins, Jan 19 "The state of Michigan is planning to purchase and redevelop the 332-acre former [General Motors Willow Run Powertrain plant](#) into a testing site for autonomous vehicles.

Gov. Rick Snyder made the announcement during his State of the State address Tuesday night. Ypsilanti Township Supervisor Brenda Stumbo also announced the plans Tuesday night during the Ypsilanti Township Board of Trustees' regular meeting..." [Read more](#) *Hmmmm...Gov. Snyder must not have presidential aspirations affording him time to re-purpose under performing assets and promote activities that can bring jobs to Michigan. Alain*

## **Windsor** [Windsor wants to become test site for self-driving vehicles](#)

Jan 22 "...Bringing self-driving vehicle testing to cities like Windsor, Ont. will take a concerted effort from all levels of government, say city officials.

Windsor is one of the latest Canadian cities vying to become a site for autonomous vehicle testing. Partnering with the region's university and colleges, the city is making a pitch to Ford of Canada in a letter expected to be sent out next week..." [Read more](#) *Hmmmm...Everybody want to do this. Alain*

## Some other thoughts that deserve your attention



### [Uber, Lyft put pressure on taxi companies Uber Is Making Sure Those Bad Driver Ratings Are Correct](#)

K Rogers, Jan 26 "...On Tuesday, San Francisco's largest taxi operator, Yellow Cab Cooperative, is scheduled to have its first bankruptcy hearing after the company filed for Chapter 11 protection Friday. The operator has been struggling with declining ridership and increased competition from the two big for-hire driver start-ups...At the core of the bankruptcy were pending lawsuits and a recent verdict of \$8 million in court, Kaplan said. The company was not covered as it was "self-insured",..." [Read more](#) *Hmmmm...Bankruptcy as a "self-insurance" strategy? I guess it really wasn't "self insured". Alain*

### **BuzzFeed****NEWS** [Uber Is Making Sure Those Bad Driver Ratings Are Correct State looking to redevelop former Willow Run plant into testing site for autonomous vehicles](#)

J. Bhulyan, Jan 26 "For months, Uber has been using smartphone sensors to monitor its Houston drivers' movements in an effort to verify rider feedback. [The pilot program](#), which has been underway since November, relies on the GPS, accelerometers, and gyrometers built into today's smartphones to monitor a vehicle's speed as well as how often it stops and starts. Uber says the program is a means of verifying the accuracy of poor ratings and complaints..." [Read more](#) *Hmmmm...Of course. Alain*

## On the More Technical Side

<http://orfe.princeton.edu/~alaink/SmartDrivingCars/Papers/>



**National  
Transportation  
Safety Board**

### The Use of Forward Collision Avoidance

#### Systems to Prevent and Mitigate Rear-End Crashes

Special Investigation Report NTSB/SIR-15/01 PB2015-104098 , May 2015, "... P6: Ultimately, the NTSB's investigation found that currently available forward collision avoidance technologies for passenger and commercial vehicles still show clear benefits that could reduce rear-end crash fatalities. However, more must be done to speed up deployment of these technologies in all vehicle types. As a result of these findings, the NTSB makes six new recommendations in this report in the following areas: ...

p19: Con-way. Con-way performed an internal study to determine the extent to which a suite of safety technologies (forward CAS with AEB, ESC, and lane departure warning) installed on the truck-tractors in its fleet reduced the frequency of various types of crashes. This study collected data over a 30-month period on approximately 12,600 truck-tractors. Researchers compared the crash rate and frequency of engagement in risky driving behavior, such as driving at an unsafe speed, in truck-tractors equipped with the suite of safety systems to those truck-tractors without such systems. The results were uniformly positive: drivers operating truck-tractors equipped with the safety systems exhibited a decreased crash rate for different types of crashes, as well as a decline in risky driving behavior. For example, there was a 71 percent reduction in rear-end collisions and a 63 percent decline in unsafe following behaviors (see figure 4)...." [Read more](#) *Hmmmm...Very important Conclusions and Recommendations starting on Page 36 and very important compilations in the Appendices. A must read front to back. Alain*



## [The Use of Forward Collision Avoidance Systems to Prevent and Mitigate Rear-End Crashes](#)

Jan 2016, "...analyzed one day of hypothetical aTaxi trips (total of 11,481,856 aTaxi vehicle trips serving 30,111,032 person trips) in NJ that were created based on US Census data, and other data sources that describe the types of people traveling in NJ and the number and types of trips they take on a "typical weekday". ...." [Read more](#) *Hmmmm...Amazing the extent of the spatial non-symmetry introduced and vehicle management challenges introduced by a spectrum of vehicles. A work/analysis in progress. Alain*



Insurance Institute for  
Highway Safety

## [Effectiveness of Forward Collision Warning Systems with and without Autonomous Emergency Braking in Reducing Police-Reported Crash Rates](#)

J. Cicchino, Jan 2016 "Objective: To evaluate the effectiveness of forward collision warning (FCW) and autonomous emergency braking (AEB) in reducing front-to-rear crashes and injuries. Methods: Poisson regression was used to compare rates of police-reported crash involvements per insured vehicle year in 27 U.S. states during 2010-2014 between passenger vehicle models with FCW alone or with AEB and the same models where the optional systems were not purchased, controlling for other collision avoidance systems on the vehicle and other factors affecting crash risk. Results: FCW alone and FCW with AEB reduced rear-end striking crash involvement rates by **23% and 39%**, respectively. FCW with AEB reduced rates of rear-end striking crash involvements with injuries by 42% and rates of rear-end striking crash involvements with third-party injuries by 44%, but reductions with FCW alone



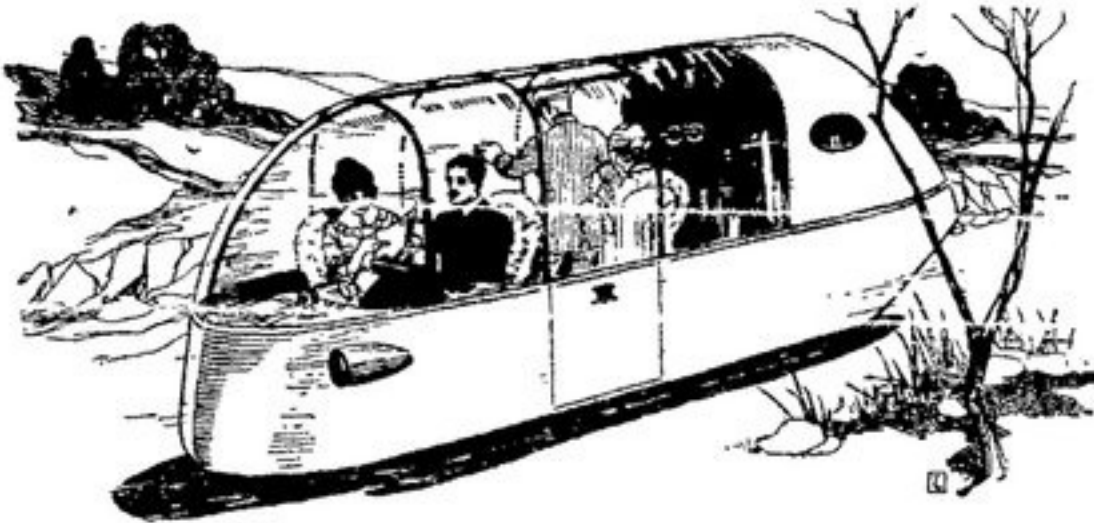
were not statistically significant (6% and 4%, respectively). Additionally, FCW alone and with AEB reduced involvement rates in all crashes by 12% and 6%, respectively; multi-vehicle crashes by 11% and 5%, respectively; injury crashes by 15% and 2%, respectively; and third-party injury crashes by 6% and 9%, respectively. Of these, only reductions in all, multi-vehicle, and injury crashes for FCW alone were significant.... [Read more](#) *Hmmmm...Evidence continues to mount as to the safety effectiveness of automation. Another **must read**. Summary presentation in "[CRASHES AVOIDED](#)". Alain*

## Recompiled Old News & Smiles:

The  
New York  
Times

### [Driving Sideways](#)

A. Arieff, July 23, 2013, "The driverless car, like other utopian pursuits, seems always to be just out of reach.



"The New Car Will Be All Glass-Enclosed and Controlled Entirely by a Set of Push Buttons. It Will Have No Clutch, Gears or Transmission, Will Sit Low, Have Small Clearance and Punctureless Tires."

[Read more](#) *Hmmmm...Still worth reading again. Alain*



## [A New Player Is](#)

### [Entering The Driverless Car Race](#)

J. Chew, Jan 26, "The online search company is talking to city authorities in China, and has designs on launching autonomous cars in 10 Chinese cities within three years, reported [Bloomberg](#). .." [Read more \(Bloomberg\)](#) *Hmmmm..The reason to look at the Fortune is the [Ralph Nader'55 video](#). The good news is that he is only skeptical about autonomous cars and hasn't tagged them as "[unsafe@ any speed](#)" :-). Alain*

Half-baked stuff that probably doesn't deserve your time:



### [ITS America applauds US DOT decision to accelerate automated and connected vehicle projects](#)

Jan 15, "The Intelligent Transportation Society of America's (ITS America) President and CEO Regina Hopper has applauded the announcement by US Transportation Secretary Anthony Foxx that the Obama Administration has proposed US\$4 billion over 10 years for **automated and connected** vehicle pilot projects that accelerate vehicle safety technologies. ..." [Read more](#) *Hmmmm...At least the announcement has had the positive impact of having ITS America change its rhetoric by revering to all of this as "**automated and connected**.." and possibly begin to pay some respect to **automation**. Unfortunately, if you do "read more" you'll find that Hopper and ITS International doesn't really get it because they see Foxx's announcement as a means to have the public sector deploy V2V and V2I and test connected corridors... a sure way for Washington to remain totally irrelevant and clueless. Hopefully, some/most/all of the \$4B will be focused on advancing automation of individual vehicles rather wasted on a fundamentally flawed V2V vision; else, just don't do anything. Alain*



Computer Business Review

## [Allianz, Zurich and AXA unite to regulate UK driverless car insurance](#)

J. Lima, Jan 19 "As the UK takes a leading role in the autonomous and driverless car race, some of the largest insurance companies in the country have come together to tackle the changes needed to ensure cars are safe and comply with regulations.

In total, 11 companies have entered into a joint venture to represent the insurance industry while the central government makes its decisions on how to deploy driverless car technology on British roads.

The alliance, led by the Association of British Insurers (ABI) and Thatcham Research (TR), has been formed to consider issues relating to automated driving on UK roads, particularly concerning insurance and liability....." [Read more](#)  
*Hmmm...UK insurance companies are "uniting" to regulate themselves in the UK!? Now that's "a great country!" Alain*



## [Savari Fuels Up With \\$8 Million to Propel Self-Driving Cars](#)

Jan 27, "Dozens of start-ups are working on automating vehicles—military equipment, farm equipment and the biggest prize of all, cars. But cars won't be driving themselves unless certain key technologies are in place.

One of them is the ability for cars to communicate with their surroundings and with each other as they drive themselves down the road..." [Read more](#)  
*Hmmmm...Simply NOT TRUE! Alain*

C'mon Man! (These folks didn't get/read the memo)

# Japan Bullet

Ces 2016 : Toyota Demoes

Autonomous Driving Using Deep Learning

Jan 8, "...No meaning is given to sensor data or output information in advance. On the other hand, when the vehicle crashes into an obstacle, a penalty is given for reinforcement learning. As the vehicle keeps learning,.."

[Read more](#)

*Hmmmm...reinforced learning through crashing!?!?! You've got to be kidding!  
What will we do if we outlaw the [corporal punishment](#) of Deep Learning Cars? Will they learn???. C'mon Man! Alain*