

SMART DRIVING CARS

<http://smartdrivingcar.com/NHTSA-PublicMeeting-040916>

Saturday, April 9, 2016



Automated Vehicle Operational Guidance Public Meeting

April 8, "At this meeting, NHTSA sought input on planned operational guidelines for the safe deployment of automated vehicles (AV). Of high importance to the agency is information on the roadway scenarios and operational environments that highly automated vehicles will need to address, and the associated design and evaluation processes and methods needed to ensure that AV systems are able to detect and appropriately react to these scenarios" [Read more](#) *Hmmm...[Watch testimony](#) , especially: [testimony of Dr. Jerome Lutin](#). Alain*



GTC 2016 Opening Keynote with Jen-Hsun Huang, CEO of NVIDIA

Apr 6, "NVIDIA CEO Jen-Hsun Huang shows a demo of a self-driving car platform, called DaveNet, that uses deep learning to teach a car how to drive, at the GPU Technology Conference. He announces the world's first autonomous car race, Roborace, using NVIDIA DRIVE PX to power self-driving race cars." [Watch Video](#) *Hmmm... 2 hours but well worth watching, especially about 1:49:00 and 2:00:00 (although I have some minor reservations, of course I do.) Alain*



Elon Musk visits Mobileye in Israel

D. Ben-Gedalyahu Mar 29, "...The system Mobileye is developing for Tesla is the first of its kind in the world, and it combines several advanced technologies that enable the vehicle to identify its environment, avoid obstacles, and move without driver intervention. Among the technologies are a system called DNN (digital neural network), which enables the vehicle to "learn" by gathering data on the move, and even to identify different kinds of road surface; free-space, which enables the automatic vehicle's systems to identify areas without defined objects such as hard shoulders of roads, sidewalks, and so on, and avoid collisions and deviations from the road; a "holistic path prediction", which enables a vehicle to select the correct path - on an open road, for example - even when there are no visual hints in the environment; and a sign identification system that can identify over 1,000 signs and road markings in use around the world..."
[Read more](#) *Hmmm... Of course. Alain*



Tesla Motors Inc (TSLA) Developing Next-Gen Autopilot With Team Of Chipmakers

P. Arruda, Apr 8, ".During 4QFY15 earnings call, when Morgan Stanley's Adam Jonas asked if Tesla is designing its own silicon, Mr. Musk refused to comment. This leaves open the possibility that the company could eventually develop its own chip...." [Read more](#)
Hmmm... Of course!! Alain



Tesla already lowering Model 3 expectations for two key features

Y. Heisler, Apr 8, "Following last week's unveiling of the Model 3, Tesla is riding pretty high right now. And with good reason: The company managed to convince more than 325,000 buyers to put down \$1,000 for a car that they likely won't receive until 2018 at the earliest. Of course, the big question mark hovering over the company now is whether or not they can actually handle that level of

production...

In another example, the first incarnation of the Model 3 webpage said that the car will feature “Autopilot Safety Features.” Now it simply reads that the Model 3 will come with “Autopilot Hardware”, seemingly implying that users will have to pay extra to get Autopilot safety features turned on.. "[Read more](#) *Hmmm... By 2018 the AutoPilot safety features will be so inexpensive, this won't be the issue. Alain!!*



[Volvo Cars plans to launch China's most advanced autonomous driving experiment](#)

Press Release, Apr 7, "Volvo Cars, the premium car maker, plans to launch China's most advanced autonomous driving experiment in which local drivers will test autonomous driving cars on public roads in everyday driving conditions.

Volvo expects the experiment to involve up to 100 cars and will in coming months begin negotiations with interested cities in China to see which is able to provide the necessary permissions, regulations and infrastructure to allow the experiment to go ahead.... "[Read more](#) *Hmmm... Of course!! Alain*



[South Australia approves on-road driverless car trials](#)

A. Barbaschow, Mar 31, "The South Australian government has on Thursday approved on-road trials of driverless cars on the state's roads...."South Australia is now positioned to become a key player in this emerging industry and by leading the charge, we are opening up countless new opportunities for our businesses and our economy."... "[Read more](#) *Hmmm... The more the merrier. Alain*



[American Cities Are Nowhere Near Ready for Self-Driving Cars](#)

E. Adams, Apr 6, "...“We’re looking at the broader urban effects—and urban opportunities—of this technology,” says Illinois Tech architect Marshall Brown, one of the team members in the Chicago school’s Driverless Cities Project. “It’s in the news a lot, but nobody’s been discussing what it will actually do to cities.” Just six percent of long-range transportation plans in major US cities are factoring the impact of autonomous cars, according to a report released in the fall by the National League of Cities. That’s a bad sign. “Even though driverless cars may be shoehorned to fit the traditional urban environment in the short term, it won’t be a long-term solution for maximizing potential benefits,” says Lili Du, an assistant professor of transportation engineering at Illinois Tech.... "[Read more](#) *Hmmm... Look at the National League of Cities Report on City of the Future Alain*



[Dutch business community welcomes truck platoons](#)

Press Release, Apr 6, "Today minister Schultz van Haegen (Infrastructure and the Environment) welcomed six columns of trucks at Maasvlakte II, which had driven from a number of European cities to Rotterdam over the past several days....This is good news for traffic flows and speeds up deliveries. Truck platooning can realise up to ten per cent fuel savings. As well as reducing CO2 emissions, this can also mean a significant savings for businesses... " [Read more](#) *Hmmm... I still don't get it. Even though those 6 trucks were going to the same place, intending to arrive at the same time, because they came from 6 different locations, the likelihood that they were traveling in the same direction, on the same stretch of road, at about the same time, such that they could platoon for more than a photo-op is: slim2none. Of course, if all trucks had this capability the likelihood would improve to above slim. But, even then, enough to mean "a significant savings for businesses"??? Seems like a heroic definition of "significant". I still contend that pushing platooning at such an early stage when we haven't even begun to promote and to capture the benefits of the underlying intelligent cruise control. (... let alone un-intelligent cruise control. I'm not aware that there is even one road sign anywhere in the world along any highway that encourages the use of cruise control. Someone please correct me here if I'm wrong.) Unfortunately platooning is the "Great White Hope" of the V2V community. All it is going to do now is freak out average drivers before they've had a chance to get accustomed to their own Level2/Level3 driving. Today's infinitesimal benefits don't come close to overshadowing the potential negative perceptions. Once the intelligent automated driving functions are proven and substantial adoption begins, platooning can begin to have a hope of generating net benefits. At that time its addition will be technologically and economically trivial. Today it is a substantive liability. Alain*



[China's Companies Poised to Take Leap in Developing a Driverless Car](#)

J. Markoff, Apr 3, "...But enormous traffic jams in China's largest cities can make driving a less-than-romantic experience. Why not let a machine built with artificial intelligence inside do the work for you?..." [Read more](#) *Hmmm... Not the best article. I should up my standards. Alain*

Some other thoughts that deserve your attention

 [Start-Stop Technology Is Spreading \(Like It or Not\)](#)

E. Taub, Apr 7. "... The system saves fuel and reduces emissions by cutting the engine when the car comes to a full stop and restarting when the foot is taken off the brake. One of the first things Dr. Tao does after starting the engine: He turns off the feature. The problem, Dr. Tao says, is that the stopping and restarting is rather intrusive. "You actually feel it restarting," he said. "In terrible stop-and-go traffic this thing comes on and off constantly. In 20 minutes you can have 50 stop-and-start cycles. It can drive you totally insane."

Mercedes defends its technology, known as ECO Start/Stop, calling it "one of the most seamless systems," according to Christian Bokich, a company spokesman. "Customers with any concerns always have the option of defeating the system each time they enter and start the vehicle." ...

For the technology to work for consumers, the experience needs to be seamless, manufacturers say. "Restarts must be fast, smooth, with no noise and little vibration," said Ulrich Muehleisen,... " [Read more](#) *Hmmm... If the system MUST BE..., why is it put into cars when it isn't and if it is, don't include the turn off mechanism that allows the Drs of this world to so self important. (However, if you often experience 50 start-stop cycles in 20 minutes you should be turning off the problems that got you there.) Alain*

 [SpaceX Just Stuck a Historic Landing. So What Now?](#)

N. Stockton, Apr 8, "TODAY IN SPACE history, a rocket went to space. No big. But then it came back down and landed on a [drone barge in the middle of the ocean](#)."

The rocket was a Falcon 9, built by SpaceX, Elon Musk's commercial spaceflight company. On its own, the retropropulsion landing is a major technological accomplishment. But it means even more as a step toward reliably getting humans off of Earth—maybe even permanently. "In order for us to really open up access to space," Musk said in a press conference shortly after the landing, "we need to achieve full and rapid reusability." ...

But the challenges will continue even once SpaceX nails reusability of the Falcon 9. SpaceX's other rocket, the Falcon Heavy, is designed to deliver spacecraft to high, geosynchronous orbit. That means simultaneously landing three separate boosters coming down way hotter, and faster. "The thing about high velocity landings is not just the wind, but the heat," Musk said. "Peak heating grows as the cube of velocity, so your rockets really want to melt."...[Read more](#) *Hmmm... See video. and this one. This is really impressive!! Alain*

 [Friend or foe... or both?](#)

Y. Gautam, Jan 2016, "...There is synergy between AV and CV - CV brings additional and incremental benefits to AVs...." [Read more](#) *Hmmm... Nice concise way to put it. Alain*

[On the More Technical Side](#)

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

Recompiled Old News & Smiles:

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



[THE MOST ADVANCED SELF-DRIVING CARS YOU CAN BUY TODAY](#)

J. Bablansky. Apr 2016, "From Acura to Volvo, more and more car companies are getting into the game of self-driving tech, and it's now easier -- and more affordable -- than ever to buy a car that basically drives itself..." [Read more](#). *Hmmm... They are rated 1 through 6 and Tesla is 6 and the S-class is 5, I guess higher is better, but then why is Subaru 1 and Infinity is listed when the tech costs \$8,700???* *Half-baked!* Alain

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

Calendar of Upcoming Events:



<http://www.autonomoustrucksevent.com/agenda-mc>

Workshop on Automated Vehicle Policy and Regulation:

[A State Perspective](#)

The National Transportation Center, University of Maryland

May 18, 2016

[Preliminary Program](#)

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