



The Personal Vehicle and the Internet-Powered Mobility Future

thoughts by **Dan Sturges**
inspired by the **Renault Twizy** concept
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Yesterday the U.S. government loaned \$528.7 million to a new clean new car company with pretty-much an old idea.



Certainly when all the cars in this picture are clean-powered, we will not be travelling any better. It's time for comprehensive mobility solutions. Ones that substantially reduce the cost of personal mobility for consumers, reduce emissions, enhance traffic flow, and are something car drivers can easily switch to. Leveraging the digital revolution is how we will do it.



PROJECT FOR TRANSPORTATION REFORM

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Unfortunately many urban planners wishing to reduce the impacts of the car in their cities push things to the other extreme. They promote walking, bicycles, and fixed transit, that are all good options but inconvenient for many car drivers. Vehicle innovators have not been asked to be involved with urban Transportation Demand Management (TDM) efforts to date.

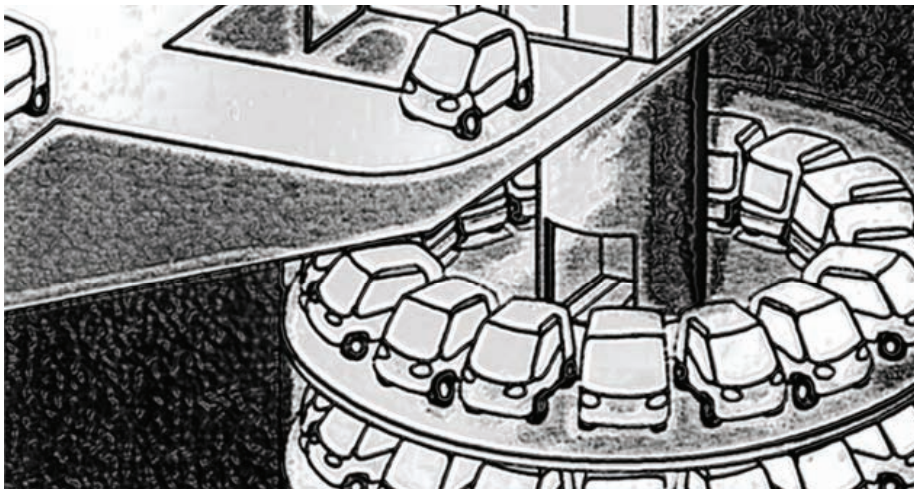


If we don't want someone driving alone through a city with 3 empty seats in their automobile, why do we go to the other end of the spectrum and ask people to ride a rudimentary bicycle? What about all the types of personal vehicles that could be made available in-between these two extremes?

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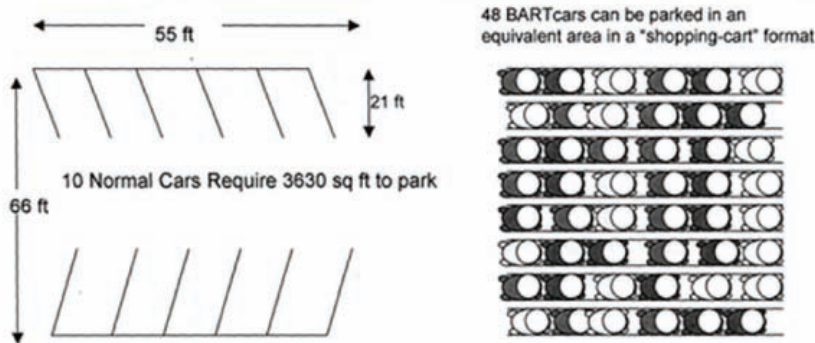


We have some great transit systems in our country, too bad the majority of people can't conveniently access them. Some studies suggest 80% of Americans can't get to or from transit conveniently. And a recent *Time Magazine* poll found 94% of American's think public transit is less convenient than taking a car.



So with information technologies enabling car-sharing (Zipcar) and new bikeshare services - why not offer small vehicles to consumers to access transit? Wouldn't funding Last Mile solutions help to reduce not just emissions, but costs for consumers and reduce traffic congestion as well? Isn't it the Internet Age already? Why not fund comprehensive mobility solutions with stimulus dollars?

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And since 70% of our trips are less than 5 miles, Personal Vehicles (PVs) to access transit also can save on parking space! Why not lease PVs to commuters to reach transit stations in the morning and offer transit users headed the other direction to "micro-rent" the same vehicles during the day?



And since car-sharing has struggled in suburban markets (where roughly 180 million Americans live), why not have the PV help users reach a carshare location not far away - in the evening or weekend, when they need "more" of a vehicle?

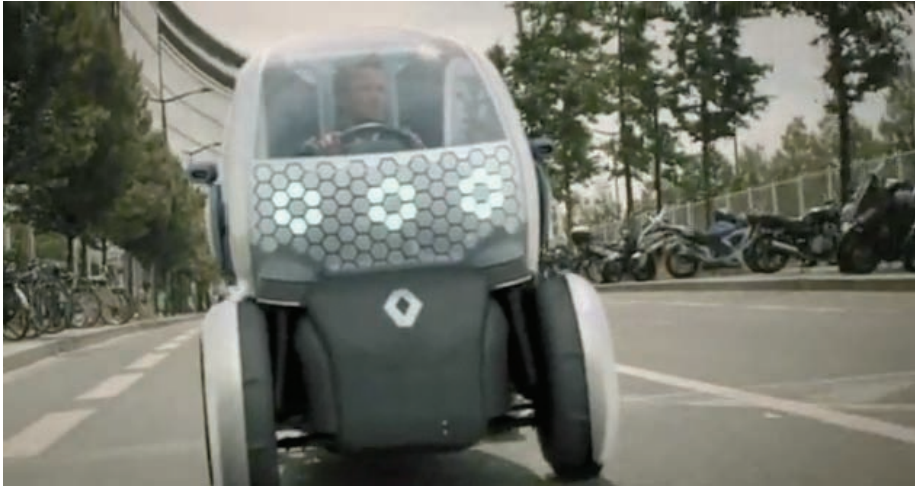
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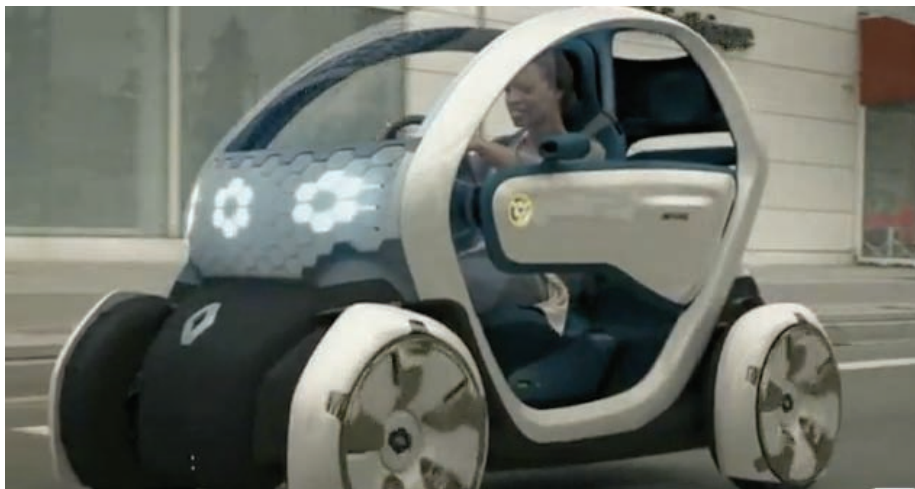
So rather spend all of America's new transportation investments on either this current large vehicle platform from a past era, or inconvenient non-car alternatives that aren't making enough of the difference, why not fund a right-sized mobility future?



To do this, product and vehicle innovators - at least the ones interested more in efficient transportation systems than one type of efficient car need to receive funding. (Above - the same number of people shown, with and without cars).

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The time is actually here for the Personal Vehicle. The time has come when we can divide personal transportation into LOCAL and FAR categories. As Zipcar heads to become a \$1B company, on-demand transportation can offer consumers right-sized and right-priced mobility -- that connects to meaningful regional urban mobility systems and offers seamless mobility on the other end of a transit trip or one-way carshare trip as well.



"Mobility Bundles" that features PVs coupled with public transit passes and carshare (Far Car™) services offer households an opportunity to shed a car and save \$5,000 or more each year, while offering a low-carbon, congestion-buster solution to regional governments.

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PVs (or Local Cars), don't have to cost much. The Tata Nano costs only \$2,500 to purchase in India today. Why would a PV need to cost even 30% of what a car that can drive accross the country costs? A PV can be owned, leased, or acquired through microrental services. Come off a train, plug-in your memory stick and watch the PV become dynamically customized to be "yours"...



The Nano proves inexpensive vehicles are possible. Even a PV costing twice what a Nano does would cost only \$5,000 new.

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Some PVs may have 40 or 50 mph top speeds. Some may be slower, some may be faster. The one thing in common is that the travel environments (paths, lanes, streets, and other corridors) will be addressed to enhance safety. Safety will not only be the responsibility of the vehicle's body design and construction.



Traffic calming in PV zones, use of new technologies to help accident avoidance, and other strategies to make streets safer for all light and local modes will benefit bikers and pedestrians as well.

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We can expect most PVs to be electric. Their small size allows them to use far less electricity than full-sized electric cars with 4 (or more) seats. This reduces the need for energy-generation capacity.



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In review, one potential PV Network user, Linda, now has transportation to the BART station on weekdays, having the PV nights and weekends. She would pay roughly \$150/mo and have no cost for gasoline.



George, who travelled to a meeting on BART, checks out a PV at the BART station for a 2 mile trip to a meeting. He microrents the PV for \$5/hour. George had been paying \$25/day (everyday) for owning a second car. His PV use is rarely over \$100/mo.

