Being mobile… Remember what that was all about?

So many issues car makers, Tesla included, have left UNsolved.

High time somebody did. Car needs a Reformat.

Think of it this way: 'Ukrainian Developer Built a $19.3 Billion App — Because Silicon Valley Was Too Ignorant to Do It' (click). I came with the proposal for an electric **app**(liance) on wheels, because the auto industry is simply unable to think outside the (car)box and Silicon Valley is too much into wishful engineering to realize that the transportation mode still matters.

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Personal & On-Demand Mobility constitute the largest consumer market in the world.

Still so much to do, gain, make better and... save.

In comes **Elon Musk**. Focused on battery-powered, full-size cars, facilitated by an eager stock market climate, **TESLA** became the world's most valuable car maker. Quite an accomplishment.
But also food for thought regarding what can be next?

Zero-emission propulsion, that's ONE challenge Tesla tackled. EIGHT more to go.

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Think of the potential of a new vehicle that addresses all.

HOW?

In short, by reducing vehicle footprint and mass.

Without jeopardizing safety or comfort, avoiding the dreaded 'small car' stigma.

People don't particularly favor small cars for all sorts of reasons. So, make sure to bring something else.

Ask yourself: when the car has an electric motor and all sorts of electronic controls, why hasn't it gotten to the next stage: the car as a **lean, clean, green appliance-on-wheels**? Electric cars still look like automakers (Tesla included) merely swapped the ICE for an electric motor. ***Below: how a Next-Gen EV could be like.***

Nobody thinks of a Harley Davidson as a 'small vehicle'. Nor is the semi three-wheeler you see below a 'small car'. It doesn't look like one, doesn't work like one.

The lower the vehicle mass and drag, the fewer batteries are needed, the more affordable they are without governments issuing billions in EV tax credits. Hydrogen an option too. Since more people will shun away from using public transport because of the **Corona** pandemic, it is important to use road infrastructure more efficiently, to avoid getting gridlocked.

What's more: at the moment, countries assess which industries and sectors have a chance to survive, which ones not. If it's Green, and will actually save us money, the better. **The EU just sharpened up its Climate goals** (click)

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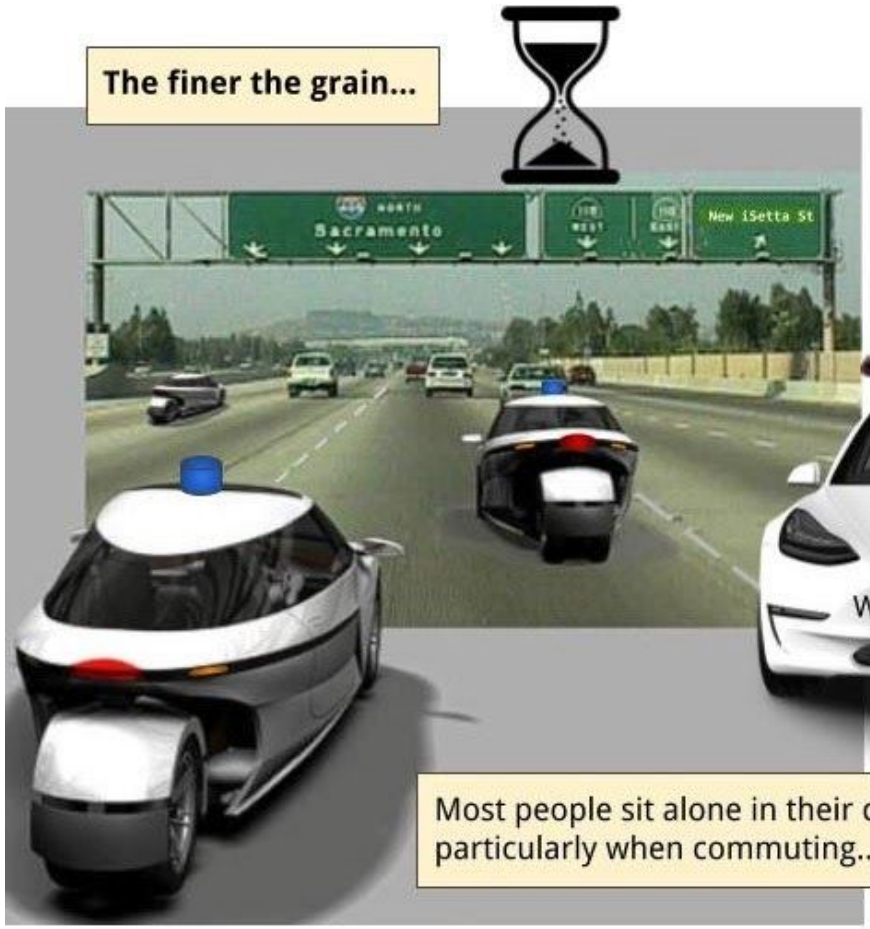
Transit is basically a matter of reshuffling Mass - Energy - Space - Time



Left: the *'shrink-to-fit-demand'* vehicle which is able to split-lane use freeway lanes (in a bricklayer formation). Will be a lot easier than expecting autonomous cars to drive close to each other front to back.

Below: the **Tesla Model 3** is wider than the driver is tall. Which is like lying stretched out across a freeway lane, inching sideways. Not the smartest way to utilize costly infrastructure.

Battery pack weighs 478 kg or 1054 lbs. That's 5-6 times as much as the driver weighs.

It weighs 3700 lb - the weight of having around 20 people onboard, moving back and forth with each trip, without ever dropping one off. A big waste of precious resources (space, materials, energy, time) since the average car trip consists of 1.1 person, average Uber trip of 1.2 passenger.

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Combining Sleekness and NCAP Safety - a better basis for Autonomous Drive

Below: ñDesign is not just what it looks like and feels like. Design is how it works.ò - Steve Jobs

Think of a 6* NCAP rating.
Whole new levels of passenger as well as pedestrian safety and optimal autonomous readiness

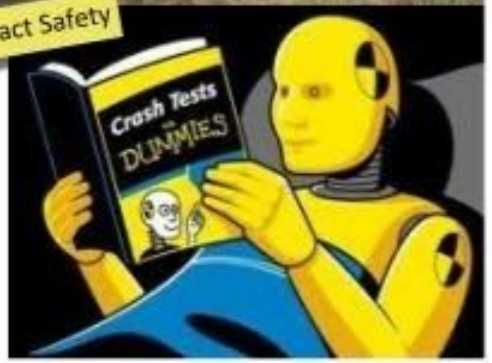
Side Impact safety

Driver is seated curbside for much better view of pedestrians and cyclists

Passenger heads cannot collide

Frontal Impact Offset Collision (MPDB)

Rear Impact Safety



UK driver obviously seated on the left side of the vehicle

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Combining lightweight, structural rigidity and safety

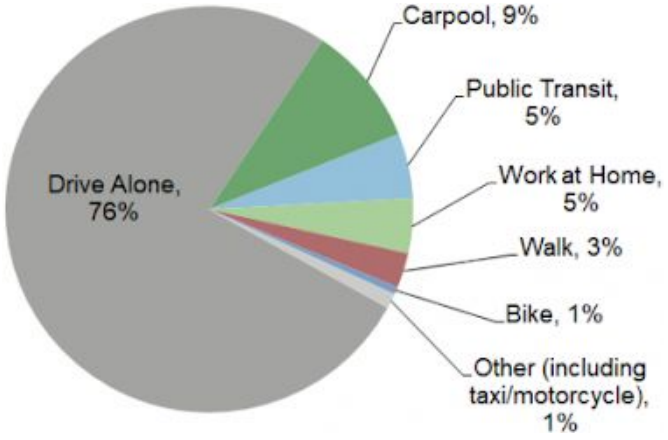
'Sleek' doesn't work with the typical box-type, rectangular platformed car. You end up with a geriatric-looking 2+2 box on wheels. **A pod-like shape and triangle platform is inherently stronger** and more torsion-resistant. Which contributes to lightweighting and better passenger safety. Below: the more a pedestrian's body hinges on impact, the greater the distance the upper torso travels, the higher the speed with which the pedestrian's head will hit the car, the more serious the injuries.

IIHS Insurance Institute for Highway Safety attributed the steep 81% rise in the number of pedestrians killed in SUV-involved accidents over 2008-18 to "SUVs have higher front ends and the design is much more vertical". There's a trend to reclaim urban space on the car, SUVs in particular.

Cab-forward design and the driver seated curbside ensure good visibility to both sides of the road, particularly with respect to children crossing in front of the vehicle. An airbag which deploys where hood and windscreen meet would further soften the impact.

Elon Musk already referred to Teslas as basically electric appliances. Unusually **high margins** are made on Models 3 and Y. Smart For Three may take production methods further: 'appliance-on-wheels 2.0' like, C2C, 3D printing, modular, etc.

When vehicle autonomy hasn't happened yet to the car, the car better move towards the AV technology. New technology tends to influence product format anyway. Ergo: instead of putting AV hard- and software in conventional cars as add-ons, reformat the car first to have it benefit optimally from AV technology. A driverless vehicle can be like an oversized **360° vision motorcycle helmet (click)**
Autonomous outside the city, manual steer for fun? There's a good reason for this...



http://css.umich.edu/factsheets/personal-transportation-factsheet

The sleeker the vehicle, the more road space there is to enjoy. Motorcyclists know what I am talking about. Since the semi three-wheeler you see depicted here combines a rather narrow front track with a long wheelbase (for comfort), it will need to display a 'bit' of lean whilst taking (high-speed) bends to balance lateral forces, despite a low CoG. This will bring new levels of Fahrvergnügen. Slight co-steering rear-wheels is also an option.

Car equivalent of the smartphone (click) - 'in-house' or conceived by an outsider?

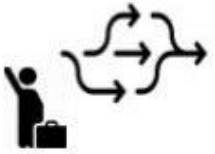
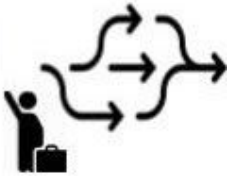
FOR WHOM. Global car sales (pre-Corona) were around 75 million each year. Annually committing **1 out of every 900** prospective car buyers suffices to have a viable production. Early-adopters, two-car households, singles, couples, one-child families, urbanites, greenies, techies, ride-hail providers together constitute a much larger group.

Public Transport is costly (low farebox recovery ratio), ride-hailers like UBER are losing billions.

They both could do with a new vehicle. Sneak-thru-traffic capability will improve response and transit times. Fewer batteries needed; faster charging times. That makes it a great, just-in-time vehicle for delivering small parcels as well.

The average ride-hail trip consists of 1.2 passenger (<click).

Deploy only one 5-7 seater on maybe twenty 3-seaters constitutes major savings, particularly in autonomous mode. I don't see big buses or vans drive themselves any time soon; having a separate lane doesn't count. Below: PT buses are great during the daily commute. Outside rush hours they are so inefficient.

Autonomous?	Vehicle	Total Weight	Battery Weight	Number of Passengers	Vehicle weight per passenger	Battery weight per passenger	Range	Overhead Flexibility
No	 BYD K9 electric bus	18,000 kg	2,000 kg	31			200 km	
				31 passengers on-board:	580 kg	65 kg		
				10 passengers on-board:	1,800 kg	200 kg		
				5 passengers on-board:	3,600 kg	400 kg		
iffy	 Tesla Model X	2,350 kg	600 kg	5			500 km	
				5 passengers on-board:	470 kg	120 kg		
				3 passengers on-board:	780 kg	200 kg		
				With **1** person on-board:	2,350 kg	600 kg		
YES	 Smart For Three	800 kg	200 kg	3			300 km	
				3 passengers on-board:	270 kg	70 kg		
				With **1** person on-board:	800 kg	200 kg		

click>

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