

Frank Beckmann: So let's begin our exploration of the future of mobility with a man who makes it all happen as the Global Automotive Leader at Deloitte, Joe Vitale. We have been talking a lot at CES about automotive as it has become a big part of the process and we are...I have been describing it since I have been in Las Vegas as a Sea-change sought of like when Henry Ford got rid of the horse and buggy and bought the assembly line into fusion for Americans a century ago. We are witnessing that right now and you are in the middle of it.

Joe Vitale: Yeah it's kind of interesting - life used to be simple. You go to the four or five major auto shows whether it's Frankfurt; Shanghai; LA; Detroit; Tokyo; and you kind of covered it. That's where all the executive go, all the lunches where. So if you went to those, you pretty much will have met with all the companies and the CEOs and gotten the wind of all the changes that are going on. Today, you have to be everywhere so you have to be at CES, so I'm proud to say that this is my tenth consecutive year of coming to CES. So when I started coming to CES, automotive wasn't even spoken. Yeah you had the rare executive that come out and gave a key note speech.

Frank Beckmann: Well do you remember when they had the jeep a couple of years ago with all the cameras on top on the roof and on the fenders and everything.

Joe Vitale: Oh yeah. But now it has turned out to be an automotive electronics show and it's really good to see that automotive, Detroit and the bridge between Silicon Valley and Detroit has becoming really, really strong. I am pretty exciting about it.

Frank Beckmann: Now because Deloitte is so involved in acting as a consultant to the auto industry, the OEMs and the suppliers. What are you telling them these days, what is the message for them?

Joe Vitale: So the primary message is that; first it starts what the consumers want; what do they need; what is the desire and what are they expecting. And what problems are they trying to solve? Secondly, this whole notation for many, many years I had conversations with CEOs from around the world and we get into a debate about whether or not consumers want to forego ownership for access. Now we don't debate that anymore, now the big debate is how we actually make this happen. They see the value, this is two trillion dollar business, if you just look at automotive; five trillion when you look at transportation; and this is going to be distributive in a way that we have not seen another industry being distributed. And the question becomes how do we actually create capabilities; technologies; and business models to capture that? And it's only one way to do it. And that is by working together, collaborating across a vast ecosystem, with governments; with high technology companies, and with competitors. We don't need to have fifteen different versions of autonomous vehicles software, it just won't work. What we need is standards and collaboration to make the technology work, and the business models and the brands is where value would be created.

Frank Beckmann: It is interesting to bring up software and the battle there because that is where competition comes in too. People want to bet each other to create a better mouse trap, if you will.

Joe Vitale: Yeah and if you think about this we have seamless and inflections movement of goods in people inside and around cities. The only thing is you have to do it in a multi mobile way. You have to connect all the different modes of transportation and all the data so that it becomes seamless for the consumer, and seamless for the package delivery

companies. In order to do that, you have to integrate all these vast systems and modes of transportation. The only way it can be done is by having a platform around the transportation operating system that links all of these capabilities, solutions and data so that this can be done. How is that going to be done by one company? It won't be.

Frank Beckmann: Joe, consumers are, in the end, going to make choices of their own though, right? I mean, as you said they won't be just one to choose from. What sorts of decisions are they going to have in front of them, what sorts of different possibilities are they going to be considering before they make the choices for purchase between Ford; General Motors; Chrysler; foreign auto makers, you name them.

Joe Vitale: Great question. We just completed a global consumer study, we have been doing this for seven years. We look at various things that are preferences towards brands; they're preferences towards advance technology; preferences towards safety; autonomous vehicles; in car technology; performance, etc. If you just look at the data points, it doesn't tell a picture but if you look at the trends over a seven or eight year period, some very clear things, one is they want convenience and they want safety. They want affordable transportation, and they are going to seek out those companies that they trust. So one of the questions that we ask, for example, is who do you trust in providing an autonomous vehicle? Do you trust traditional automotive company or do you trust a technology company and it is really about 50/50. What we find in Germany and Japan is they tend to trust the automotive OEMs more so because it's a big part their economies. In advanced countries, they trust technology companies and in the US it is about 50/50.

Frank Beckmann: Joe Vitale the global automotive leader at Deloitte. We have talked a little bit about how consumers are going to be making choices, my question for you now because you have been studying this for so long... Joe, can you believe how quickly it's happening?

Joe Vitale: It is happen so fast so I just remember seven or eight years ago we all thought that electric field groups are coming; adoption of electric vehicles are going to happen overnight, it did not happen. But that is going to happen now, technology for...better technology costs have decreased by two thirds. Consumers want and desire, especially Gen-Y, Gen-Y majority of Gen-Y, would prefer to have all things being equal; a hybrid or an electric vehicle. What we are finding though is two things, one is their desire for safety is first and foremost the main majority. They want a safe vehicle, in fact, we kind of joke around that especially a Gen-Y person, they want to be protected from themselves because they know they are doing stupid things when they are in the car, and they expect the vehicle and the government to provide that protection. But all kidding aside, the safety is paramount. But also what's interesting is they do not view autonomous vehicles as safe. which is really interesting because the biggest benefit of autonomous vehicles will be that it will reduce the number of deaths; number of accidents but they do not view it as safe and it is about 50/50 in terms of those that see themselves driving safe. The real thing they want is convenience and they see convenience happening through car and ride sharing, car hailing like Ubers and Lyfts, and they are not willing to pay for technology. In fact, in 2014 there was about a 50% reduction in what they were willing to pay for in a new technology.

Frank Beckmann: What are you foreseeing in terms of costs? Is the price of the automobile going to go that much higher?

Joe Vitale: Well it's going to be give and take. So there are certainly things that are going to drive cost down. When we get to autonomous vehicles, where we take a significant weight out of the vehicles, they call that metal. It will make electric vehicles and the size of the battery must smaller; that reduces cost. The technology will become ubiquitous, so once you create the software it could be put out around the world; it could be out to many different vehicles at a very, very low cost. So the initial cost is going to be high just like it has been with batteries but we are going to see this expenditure curves of cost going down which is very unique to the auto industry. Although the auto industry is doing a phenomenal job in terms of if you look at the amount of content; the amount of technology; the amount of safety and conveniences that are offered in a vehicle and the performance, and what the cost is we did a tremendous but it's done in an incremental way. But in current technology, the cost is going to come down in an exponential way, the same way it has in high tech companies.

Frank Beckmann: You have imagined this, you studied it. What is the timetable for what we are going to see? Take me through it if you can?

Joe Vitale: I wish I had the crystal ball but I don't. If you think about it there are eighty-four million units in operation today.

Frank Beckmann: Pretty exciting stuff.

Joe Vitale: Extraordinarily exciting. If you can't get excited about the auto industry, and by the way, for many, many years I've been working in automotive for about thirty years. My first job as a young engineer was working in automotive; working on the assembly line and the amount of change it is occurring in the past five years and the amount of excitement that is occurring in the industry is just phenomenal. The amount of new people that are interested, I mean you know we just did our future mobility summit at CES and it has been standing room only. Fifty people deep waiting to get into it, to hear the discussion about what the automotive executives; high technology executives; government officials; regulators are talking about; bringing the future mobility to life and I'm thrilled.

Frank Beckmann: Great being out here with you. The next time we gather for one of these, I got a hunch we are going to be talking flying cars. You just wait. You won't need those four million miles on Delta anymore

Joe Vitale: Personal mobility devices.

Frank Beckmann: Thanks Joe, great stuff.

Joe Vitale: Thanks Frank.

Frank Beckmann: Frank Beckmann here and we are talking the future of mobility.