

## Tiding through Volatile Times for Mobility Ecosystem Players

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**Deeshraf Elias:** The past decade has seen the mobility sector undergo rapid change and transformation towards a more sustainable and efficient paradigm. However, the outbreak of the coronavirus has thrown a spanner in the works. Both the demand and supply side disruptions have resulted in mobility ecosystem players scrambling to improve the operational and financial impacts while minimising the impact on workers. What does this mean for the future of mobility? Today, we attempt to navigate through the uncertainty of a post-coronavirus future of mobility.

Welcome to the inaugural episode of our Future of Mobility series. Bringing you the top voices of the sector, decision-makers, innovators and shapers. Pushing the envelope on future ideas of transportation and beyond. I'm your host, Deeshraf, and today we are honoured to have Klaus Entenmann and Scott Corwin,

joining us remotely. Klaus is the Senior Advisor at Deloitte for the global Future of Mobility and has over forty years of experience in the auto finance and mobility industry. Klaus also transformed the captive finance organisation of a major German automotive OEM from a classic autobank to an integrated financial and mobility services provider. Joining us today as well, we have Scott, who is the Managing Director of Strategy and Business Transformation at Deloitte consulting. He is also Deloitte's global leader for the Future of Mobility practice. Klaus and Scott, a very warm welcome to the podcast!

I would like to first start of with the big picture. Over the last ten years or so, we've seen the convergence of emerging technologies and new demographic trends that have resulted in tremendous change in the mobility ecosystem. Now, with the COVID-19 pandemic, we've seen the mobility sector getting affected severely



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and paradigms shift rapidly on both the demand and supply sides. Could each of you share how these developments will affect the future of mobility in the new decade?

**Klaus Entenmann:** With COVID-19, I think our system of values will also be tested. In the area of safety of employees and the safety of customers. Especially when you think about new forms of mobility. Also, traditional forms of mobility such as public transportation. How do we ensure that in the future we have a public transportation system that is safe and gives people the opportunity to travel without challenges? We do see a lot of challenges ahead of us. But, on the other side also a lot of opportunities coming out of such a pandemic, like using new technologies. On the one side, we are scared. On the other side, we see opportunities going forward.

**Deeshraf Elias:** Scott, building on top of what Klaus just mentioned, I wanted to hear from you as well. What are your outlooks regarding the future of mobility in the post-coronavirus times?

**Scott Corwin:** Thank you very much for inviting us to join you today. Klaus and I have been having this dialogue for a long time and we're delighted to be able to do this together with our colleagues and friends in Singapore.

It's really interesting. I'd like to take a step backwards for a minute and just create some context. I think we're at a really interesting moment, and if you think about what has happened over the last decade, we have seen an incredible amount of innovation that has challenged traditional industry structures and dynamics. You think about the global automotive industry, you think about fixed route transportation systems. We've seen the sort of rapid rise of shared mobility in the form of on-demand shuttle buses, ride-

hailing companies, bike-sharing and scooter companies. We've seen pretty significant advances in autonomous technologies, in the movement of goods, in the movement of people. And, there's been an incredible infusion of capital that is undergirded that. The innovators and the visionaries that have been leading that, have not been really focused on "how do I incrementally adapt the existing sort of transportation system?" but, "how do I profoundly change it". I think that the moment we're at right now seemed like it was on a pathway. It seemed almost like the tectonic plates undergirding transportation were shifting, and we would reach a new fault line if you were in the future.

I think the question is. Will that continue? Will it slow down? Will it take a different pathway? Where is it all headed? And what's interesting is that, to Klaus's point on the consumption patterns, people have been voting with their feet and opting for these new forms in various ways and it's been disruptive to some of the traditional players. On the other side, the traditional players have been adapting their systems to this.

So the multi-trillion dollar question from me, which we will not answer in this session or probably for some time, is will we have very significant government funding to create a lifeline to the airlines, to the shipping industry, to the automotive industry to mass transit, to keep employees employed and productive and to keep the systems running? Or will we begin to invest some of that money into where the future wants to take us? Which offers an incredible promise of a kind of faster, safer, cleaner, cheaper, more inclusive, more accessible mobility. And we, at Deloitte, have been at the forefront of pushing this movement of trying to see the adoption of some of the positive opportunities here, and I guess we



continue to hope that that will continue to happen. There's some really big questions about what the pathway looks like forwards. I just thought it's important upfront for me to set that context.

**Deeshraf Elias:** Do both of you foresee the COVID-19 pandemic having a long lasting impact on the transformation of current mobility models? Or do you think that the impact will only be short-lived?

**Scott Corwin:** Well, the comments I just made are a prelude to that. I didn't really talk about the COVID-19 impact. The firm has actually done some really interesting work on scenarios. Where we're trying to posit what could be the futures that emerge. One is the severity of the pandemic and then the second is around "will countries try to respond individually or more collaboratively?" You can see a range of scenarios from "this may pass relatively quickly, maybe the things that you're seeing in Singapore or in China or things in Korea are starting to open up again." Maybe that is the pathway. Hopefully, we don't see a second

wave of the pandemic. Could it be that, in fact, we have a pretty severe second wave and it impacts the recovery.

I don't think any of us really knows what the recovery is, and the severity of the pandemic. It's a one-two punch right? One is, horribly, tragically, lots of people are being taken ill and passing away. The second is, we've never shut down a global economy to the level that we're doing right now. And the length of time where that goes on will have an effect on if it is a V-curve recovery, a U-curve, a trough? What does it look like? I think that the answer to that question has profound implications for what it means for what the form of mobility is on the other side. Klaus lived through the 2009 Global Financial Crisis, as did I. Klaus, maybe you want to reflect on that in your perspective.

**Klaus Entenmann:**

First of all, I think what we also need to see, and what will come now, even if we would have an effect that the band will be lifted soon. What would it mean and getting out of the pandemic right now? What would it mean for us and the

people? We will get used to wearing masks for several months, I assume. I do not know it right now, I think the measures will be that people will work and get used to working outside wearing masks, which is quite normal right now in the Asian countries and it's a precautionary measure. People are getting used to having more distance and this will have certain impacts because people will behave differently. Though I think if we look at the people, customers, employees, employers need to make sure that people can work in factories and in offices again with bigger distances. From an organisational perspective, this will create a lot of impacts which I think is necessary. It's also a big challenge for the different companies as well. If you look at the industries, especially the auto industries and getting out of this, right now, most of the companies are in cost cutting and saving mode, which is essential. Because they have to protect their cash position in order to make sure that they can get through this crisis, and this crisis is bigger than the financial crisis that was seen in 2009.

**Deeshraf Elias:** The COVID-19 situation, as I've mentioned earlier, has seen companies in the mobility ecosystems suffering from changing demand patterns and disturbance in global supply chain. This is especially true of automotive companies who are usually dependent on highly fragmented and globalized supply chains. What areas do you think companies in the mobility ecosystem should focus on in order to tide through these trying times.

**Klaus Entenmann:** There's learnings out of China. You see a lot of changes and opportunities. What we can clearly see, is that the digital arena, digital services and digital processes will be the winner of this pandemic. Just out of this experience alone, from the companies we have in China, they have



changed their processes to going 100% digital. They were able to create processes together with the licencing offices in Beijing and other cities to register cars, 100% digital.

So, you can get into business mode again, but you need to invest. What I want to say is, on the one side, what you need as an automotive industry and other industry reserve and make sure your cash position is safe. On the other side, you need to continue to invest and now, especially so, in the auto industry as well. You need to look from the outside, in. From your customers' perspective, and how to make sure that customers are getting back or how do you get them back to dealerships, how are you integrating digital processes to make this happen, and the whole finance process. I think there are other opportunities and examples where you can really, if you continue to invest in the right services, you can grow the business again and you can make sure that your position is even better.

The other thing is when you look at supply chain, extremely important for the auto industry, you need to make sure that the supply chain stays in existence. That means you need to perhaps, think about new cooperation, new consolidation in the industry. The auto industry needs to be prepared to take over the one or the other supply company just to make sure the supply is continuing.

The other part is the future that Scott just mentioned. We have been on a very aggressive pace from the mobility industry getting into autonomous services. The mobility industry is cutting back there as well. The auto industry is cutting back, so we will see a setback in certain things and a slowdown in certain processes as well. I hope that we can overcome this, and get back to a mode where we are able to continue to invest in new services and new opportunities. Looking at mobility overall, I think there will be a lot of changes in the mobility services provider and new opportunities. Just looking at the scooters and bikes alone, they will see a comeback. So, I think it's a very different picture and we have to see who is able to really generate the best out of this.

**Deeshraf Elias:** Scott, I wanted to build on top of what Klaus just mentioned. You've recently collaborated on a World Economic Forum paper for the transformation of passenger and goods mobility. In it, you mentioned that support must be coordinated between public and private sector leaders to accelerate the transformation of existing mobility models. What role do you think the public sector should play to best support and orchestrate the mobility ecosystem to respond to the impact of COVID-19?

**Scott Corwin:** The background to the work, the study we just released with the World Economic Forum, on activating seamless

integrated mobility has been the product of a 3-year effort with the forum. And this past year we decided to take a look at ten cities that we thought were leading cities in terms of activating seamless integrated mobility and we came away with a set of observations. They're very different cities by the way. Singapore was one, L.A. was another, Lisbon, London, Tel Aviv, Tokyo and Detroit, Ann Arbor, and Windsor. The reason we did this, is that all of these cities, and cities around the globe, and regions, have been really thinking about how do they adopt these innovations in mobility. But at the same time they're confronting the challenge of rising population growth, more densely populated environments, insufficient capital to modernise infrastructure and their transportation systems, a shift in tax revenues away from personal car usage and ownership, as well as the sustainability impacts, in terms of climate. And so, we thought it would be helpful to kind of highlight what insights you could get from the cities.

What we found is that they were really repositioned things, sort of "A or B". When in fact, they're really false choices though on the public vs private question you're asking. Should this be led by the public sector or should it be led by the private sector? When in fact, that's really a false choice. The public sector needs to set a vision and to work on the values of "we're a community" and say "this is what we want to prioritize". So if it's about accessibility and inclusivity. How do we create open access? How do we create greater inclusion? With the private players, investing their capital in innovation, they're looking for markets and you need to give them incentives and they'll naturally go where there's dense population or where they can get scale in utilization of their services.

So, the trick is how do you find a balance between them. We saw in some cities with very tight upfront regulation that stipulates exactly how these services should function. In other cities, almost let a thousand flowers bloom and let them get going and then regulate those experiences. What we're talking about is how do you sort of orchestrate or be a conductor across all these different modes that are public and private.

The other big question that exists is, there're sort of three or four other design choices that I think are pretty interesting. One is, do you optimise a journey of an individual or do you optimise the movement of 3 million people in a city, or 8 million in a city, and try to find a way to affect a better outcome. I think when you think about COVID-19 and the impact of COVID-19, the question is how do we get these stakeholders to continue to work together to affect better outcomes.

The population in cities are not likely to decline anytime soon, but if people are fearful, not about just physical safety, but their own safety, in terms of viruses and germs, then they're not going to want to use crowded shared forms of mobility. They may not even want to use bike-sharing, where someone's hands have been on the handlebars or scooters. So, are we going to create and take advantage of new technologies on sanitizing these things, like having people wear disposable gloves? I mean there are new patterns and behaviours that are going to come around. Certainly getting people on the demand side to use active forms of mobility. Outdoors in the fresh air is a much healthier way to go. And you see the air quality that's improving around the globe today because of less cars out there.

So, the question is, how do we kind of address the natural fears that people have or are they going back to private-owned cars because

they control their environments and they can manage them with all of the negative externalities, particularly in crowded urban areas that exists. So, I think the study was intended to just kind of give a set of ideas for cities and regions around the globe, and hope that it catalyses the movements towards a much more orchestrated, seamless, integrated mobility system in cities, and I think we will see that for sure.

**Deeshraf Elias:** Klaus, I wanted to expand on what Scott just mentioned. What strategic advice would you give mobility business leaders who are looking to change their operating models and diversify in order to ensure business continuity? Will we start seeing organisations forging new operating models? Or will we see shifts in the portfolios of services?

**Klaus Entenmann:** Invest in digital services for your customers, for your dealers, and make sure that you combine this with the system of financing overall, to have a fully-fledged customer service business. To make sure that the sales and the financing processes are working. Continue to invest in digital products and services, and continue in the so-called connected shared electric and also autonomous future. I think it's tied, it's right now difficult to continue all the investments but the key parts need to continue.

**Scott Corwin:** I think what's really interesting is, I helped one of the OEMs put their viability plan together in 2009 and essentially, the playbook, Klaus can correct me on this, was to cut a lot of fixed structural costs to lower the break-evens. So that you could be profitable at lower volumes. And what we've hit in the last couple of years is probably peak volumes in the automotive industry. For sure, in

Western Europe and the United States, it's a replacement market, the growth is in Asia and fundamental economics of those value chains have shifted. If we move exactly where Klaus is suggesting the future is, which is one around, shared and autonomous, the world will need fewer actual physical units of cars to move more people.

So, those economic shifts, which mean that the manufacturers and the value chains have to, over some period of time, or maybe sooner, really develop service-based models. Where the metric is more, miles travelled or trips provided for number of passengers than it is, a number of units sold.

In parallel, I do think we have to think about sustainability and environmental impacts just like the hygiene matters we're talking about, or sanitization. These impose additional operating costs that have to get built into these models and the question is, for how long will passengers and consumers be willing to pay the incremental upcharge or cost, for instance. They can't just be absorbed by the manufacture or the operator and lower profit margins which are already pretty evasive there. I just think it's important to add that consideration to the really good points that Klaus has just mentioned.

**Deeshraf Elias:** As we all know it, COVID-19 is fundamentally, a people-based crisis. Human capital is an integral part of company. No less, in the mobility sector whereby a significant percentage of jobs cannot be performed remotely. What could companies in the mobility sector do in your opinion, to protect its people and boost morale? What are your thoughts on this Klaus?



**Klaus Entenmann:** Looking at bus drivers, looking at taxi drivers, looking at the ride-hailing drivers who have a difficult job, not only based on what's happening now, if you look at the challenge of income and low revenue, it's more a question of safety and health and the how to deal with this. And mobility service provider companies, they need to make sure that their people are protected as much as possible. I just read an article about a bus driver in Detroit killed by the virus and that therefore proves that you need to have systems that protect and close the front door, have maxi glass. You also have to say, as a bus company, perhaps, no tickets anymore and continue the service because the people come first. It's the key part, and then you have to see what can you do with sanitization and just make sure that employees are protected and have the space.

**Scott Corwin:** This Future of Work question was a big question before the pandemic. What we're seeing is the rise of automation and literally millions of people who were employed in the industries around transportation and mobility and logically if you're older and you're a truck driver or in some of these jobs that might be automated, there is a natural resistance for that to happen.

What we've seen in this pandemic is, "boy, wouldn't we have wished that we had sort of autonomous enabled trucks for supply chains so that.." I mean there were reports that owner-occupied truck drivers did not want to go to the West Coast on the early points of the outbreaks, understandably, because they would go out there with an empty load. They would only have a partial load, because keep in mind, the pandemic hit China a while ago in the East and therefore ships coming in weren't as full. The economics weren't so attractive with the risks of potentially catching the virus

and imagine now, in terms of delivery of medical supplies, the hospitals, if we had drone technologies that were advanced.

So, we're seeing the power of what this technology could do. The potential of it, in the middle of this, and in particular in very specific cases, we kind of wished we were more advanced but inevitably, we're going to have a transition of the workforce. The hard part of this, and our team has spent a lot of time exploring this, is we don't really know what the jobs of the future would be. We have a very good handle on the jobs we're going to lose, and the impact that it might be and that it's real, and we can't displace, millions of Uber drivers that, this is the earning and living that puts them on the edge of the middle class. And for their families this are important gateway, rising aspirations.

I think we cannot talk about the future of mobility if we don't really figure out what is the transition of the workforce. Now, you throw in the pandemic and the germ part of this and we have to create safe environments that are above and beyond anything we ever had before. And it's got to be factored in and we have to be prepared for the next. One of the things that hopefully, is one of the takeaways from this, is preparation. So that we never get caught where we all got caught.

**Deeshraf Elias:** Scott, you brought up an interesting point. While the pandemic has significant impact on business operations, it also presents an opportunity for companies to solidify their positions in the market and improve their services. How then, can organisations use this downtime to develop a competitive advantage down the line on their path to recovery post COVID-19? Will we start seeing technology roadmaps being accelerated?

**Scott Corwin:** The first thing you're going to see, is that the major players or incumbents that exists today are going to try to stabilize the situation. And that's the responsibility of management, they have to do that, that's the responsibility to the shareholders and it's also the responsibility of governments to keep the economy moving and keep people employed.

And so, there will be massive infusions of public funding, to at least, create that kind of lifeline. The question is do we reinvent along the way? Do we, in fact, from a societal perspective say, "You know what? What existed in the past or some sort of going back there is understandable". Naturally, the question is can we also imagine a future where we begin to accelerate the adoption of some of these innovations, not all technological, it's actually a mind set, it's governments, it's regulatory, it's coming up with new ways to monetize the value that's being created and it is about how do we build ecosystems for players that have not naturally come together and build movements around this.

This all happened probably, at a community-by-community or by city-by-city level. I don't think that it will be national and I'm not sure if it'll ever be global. I think we'll see incredible examples and so, out of every crisis, reinvention has occurred. That was true in the 2009 Global Financial Crisis, which I lived through, as did many others in New York when 9/11 happened. It happened in so many other sort of events. So, I am optimistic actually, that if we can get through the near term, the longer term could be quite promising and just look at what we're doing right now. We're talking to you via Zoom and you're recording this. We've all done these sort of electronic means of working. That may mean that there is less travel face-to-face and yet, there is still a lot of connectivity and a lot



of person-to-person contact. So new modes of working are for sure, going to come.

**Deeshraf Elias:** To wrap things up, as we shift from response to recovery do you foresee economic activity in the mobility sector rebounding swiftly to pre-outbreak levels?

**Scott Corwin:** The unknown for me is, what happens to the billions of dollars of investments that has happened over the last several years in innovation. Does the early stage VC funding slow down a bit where you know, is this the equivalent of the "dutch tulip bulb burst" in terms of valuations for a number of these kind of start-ups. There's a sort of frothy nature of optimism around a new change. Will there be a kind of a new sober reality on monetization of these businesses and the timeframes? Do the time horizons change where people were willing to invest on a longer term, because they saw such an incredible pay-off when you think about the IPOs of some of the big mobility companies in the last couple of years?

On the other hand, I think you do see places that are very leading edge and your home in Singapore is certainly, one of them. Where they've thought about all of this from a sustainability lens, have thought about it from a quality of life lens, have thought about it from a system of systems lens and have really attacked this on multiple fronts. It's hard for me to imagine the government funding drying up and a country like Singapore isn't going to continue to push or that the movement to electrification, in some countries like you've seen in parts of China, where the movement to advance digitization a little bit, Klaus just talked about. So it may be that the historic "centres" of this innovation may really profoundly shift, and it may be that it's in the East and some of that may be that the ability of government to enact things can happen a little easier than in traditional, messier democracies. I think it will continue. I think it may slow down a bit, it may take a very different form. Once things stabilize, the near term's all going to be about resuscitation and stabilisation and quite frankly, as it ought to be. The question is what happens a couple of years out, where they will get to some sort of stable environment and then, what does that sort of inflection build?

**Deeshraf Elias:** Klaus, expanding on what I just asked earlier. What strategies do you have to share with mobility ecosystem players who are starting to resume pre-outbreak activities?



**Klaus Entenmann:** You always have to think in two-dimensions. One is mobility of people and the other thing is mobility of goods, and mobility of goods means that we have a system in place and the infrastructure where we get the material and the goods we need to have and that's also tested right now. Mobility is part of freedom. Everybody wants to have mobility. It is the possibility to go to places, to go to other places. I think therefore, people want to be mobile. People need, for certain instances, in a lot of cases, need to be mobile to get to work, to get to their work places. That's clear, but on the other side, mobility and the possibility to travel, that's something which is important. It's

freedom, but also we have to recognize that this does not come for free or so easily anymore. So we have to think about sustainability and we have to think about how to make this happen.

**Scott Corwin:** I just want to build on one point that Klaus made, which is, mobility is freedom. There's a really interesting study that came out of MIT, that demonstrated that people who have access to physical mobility, digital access to networks that their household, wealth-wise, is great. So if we want to rebuild our economies, we actually have to make mobility much more inclusive and accessible broadly. And you're absolutely right that we're moving

to a world where we're expecting goods to go from one end of the value chain to the other in nanoseconds, and we need to do all of that in a sustainable way.

So you're going to see a parallel. The decarbonisation of transportation and the question is how do we affect this transition? It could be abrupt, it could be led by market forces, it could be led by natural forces, it could be led by any number of things. What I hope comes out of this, is that we're able to take a step back and really reflect and think about it collectively. Where do we want this to end? What is the North Star and how do we bring a really massive diverse set of stakeholders together to create that future of mobility? The good news is there is no shortage of dialogue going on about this. We see it in all corners of the world, so I fully expect there to be a very robust exchange on these topics and hopefully we'll move forward.

**Deeshraf Elias:** Well, that has certainly been an insightful session! Thank you so much Klaus and Scott for joining us on today's podcast and that's it for today's episode of our Future of Mobility series. If you want to comment on this podcast or the topics covered, you can send us an email at [seapodcast@deloitte.com](mailto:seapodcast@deloitte.com) Also, don't forget to subscribe to our podcast to get the latest episodes – we are available on Apple Podcast, Google Podcast, Spotify, Soundcloud and Stitcher. I am Deeshraf, and until next time.