

Moderator: We are very pleased to have with us Marcy Klevorn Ford Motor Company, she's the Executive Vice President and President of Mobility. So Ford Mobility, it includes a few different groups, IT, Data and Analytics, the Mobility LLC, which was created for services. But I think, sort of to the outside, it's a little bit of an eclectic group and sort of a little bit undefined, if you will. So maybe you could just help us better understand a little bit about the group, why it was brought together, what it is that you do on a day-to-day basis and what the goals here really are.

Marcy: That's a great question. And actually, when Jim Hackett asked me to take the job, it was really his idea to bring some of these groups together. And let me explain why it's a huge advantage for us.

When you think about what Ford Smart Mobility is doing, it's creating products that are based in software and data. So if you think about our IT team and our Global Data Insights and Analytics team, they're really the manufacturing plant that will bring these products to life. So it's been a real gift to have the FSM LLC, the Analytics team and IT all together in one team. We can move resources around and actually we're organizing and have started that process for over a year now, like a software company. So we're organized by product team, based on customers and products.

In addition to those teams over time we've added in a team from Product Development which is focused on vehicle connectivity, led by Don Butler. And we've also added in our Ford Pass team and our Lincoln Way team from Marketing. So that really gives us everything in the Mobility segment. And by the way, AVs is included in the Mobility segment, under our control, to create these products and services.

Moderator: So that's sort of very helpful. I mean I guess maybe who's the real – if we think about it a little bit – who's the customer here? Is it your existing customers, the people that buy Ford vehicles? We were having some discussions earlier today about maybe sort of a need to be multimodal and just thinking about moving people from one – point A to point B via a variety of different methodologies. And to Ford's credit, and I wrote this in a note I think earlier this week is, there's been a lot of hype now about bike sharing and scooters. And you guys have actually been talking about that for a while. So how do you think about the customer and the services needed?

Marcy: Well, if I start very simply put, you could think of the customer as kind of in two buckets. One bucket would be the customers that buy our vehicles now, whether they be fleet customers or customers that personally own vehicles. So one set of services that we're working on is services to enhance their experiences. So if you think about our fleet customers, we are launching -- actually in a few weeks we'll be announcing two products one is a data services tool. It's an API-based service

that will be used by large fleet customers that use services like Verizon to get fleet data.

The second product we're announcing under the fleet business is a fleet information tool. And that will be used by small to medium fleets. Our initial focus is for Police fleets. And we've got a lot of activity going on there.

As far as customers who personally own our vehicles, we're providing services through our Ford Pass app on the channel we've already created, to enhance their ownership experience. We'll be making some announcements on that later on. And that includes our Lincoln Way app as well.

But a lot of this is going to all happen in cities. And when you get down to it, that's where all the activity takes place. So these relationships with cities are so important. And so we've got a micro transit, a couple of micro transit businesses built on our transit product line. One is Chariot, a ride-sharing business that we bought. And then a Nonemergency Medical Transport Business called GoRide. And that has gone from pilot to revenue making in less than a year. And so we're very excited about that. And then obviously we're working to think about these businesses in the pre-AV world and how they will transition to the AV world. And then continuing to work with cities on things that improve congestion, etcetera there too.

Moderator: So if you think about the convergence of autonomous and sort of on-demand or transportation-as-a-service, and you talked about your work with cities, I mean it would strike me that every city is going to have sort of different needs. So how do you think about the work you do, the work that Ford's doing with Argo in terms of trying to attack some of these different needs? Because at least initially you could say, it's not sort of like a one-size-fits-all type model.

Marcy: No, that's exactly right. And so a couple comments around that. So we've been doing work, I think as most of you know, in Miami and we've been using that as a great learning and we're going to be expanding to other cities soon. But we've got the AV group down there really learning how to operate in the pre-AV to AV world. And the learnings have been immense. And so things like how merchants and customers will interact with an AV vehicle. Features that should be added to a vehicle. Do you need a keypad outside the vehicle. And also, what kind of mapping is important. So getting right in there in the cities and learning and working with the cities and to your point, each city will be different, is really important.

Also we're in about 23 cities in the US, and we are in London and we've announced MOUs with three cities in India – Hyderabad, Indur and Mumbai. And that's exactly to your point, that all these cities will have different challenges and the learning will be immense. And it will be based on our transportation mobility cloud,

that will be the platform we use to collect data and help improve flow and provide services.

Moderator: So there's obviously some big news from your friends in Michigan today. [yeah] I guess what I'm just wondering, one of the read-throughs you could say is that scaling this or executing sort of the dream is going to require significant capital. How do you think about that in terms of bringing some of the stuff you just talked about to large-scale commercial deployment?

Marcy: So we're very focused on scaling the businesses I just talked about, both Chariot, our micro transit business, the Transportation Mobility Cloud. One of our biggest strengths, frankly, is our balance sheet. So we are very confident about having the funding that we need to continue to make – and to progress and scale these businesses. When we set up the Argo arrangement, it was done in a way so we could be very flexible about how we create value from these businesses. And so because of the strength in our balance sheet and the flexibility of that arrangement, we can be very thoughtful about how we make choices like that.

Moderator: Shifting gears a little bit, you talk about some of these on-demand services and just one of the other things we talked a lot about today is sort of just broader connectivity. It seems like there's a lot of data that's going to sort of come off of these vehicles, like not only vehicle data, but also consumer data. So I wanted to get you to talk a little bit here on the side about security and stuff, but like how do you think about that data; what are sort of potential uses of it, ownership, security, privacy; maybe just broadly how you think about that stuff?

Marcy: Well, we've got a huge focus on security, cybersecurity. We've got a great team there. And so while I obviously won't share details for obvious reasons on that, we're super confident in our abilities there. On the privacy side, our position is the data really belongs to the customer. We're stewards of the data. And so we don't do things without permission and we do things in a way that if we accept data, we create value back to those customers. And I've given some examples already on that.

The Transportation Mobility Cloud comes into play here too because that's a way where we will bring the data onboard in a safe and secure way and allow others to access it and use it with the permission of the customers. So we take that very seriously and in this role I get to talk to a lot of different people, individual customers, cities, mayors, transportation commissioners, etcetera. And one thing that's very clear. The Ford logo to them means trust, it means integrity, it means family, it means trust. And so that is another piece of the puzzle when you talk about security and privacy.

Moderator: And if you think about monetization of that data, I mean is it – and again, if they sort of give permission and its sort of anonymized or whatnot, is it selling it back to cities? Is it selling it to sort of third parties who might want to know a little bit more about the customers? How do you think about that? And can you lay out any sort of timeline or sort of path towards monetization?

Marcy: So let me start with the Ford Commercial Solutions work I already mentioned with fleet. Within a few weeks we will be announcing the two products that I talked about and it is monetizing data from fleet vehicles. Both the large customers that I mentioned working with the partner like a Verizon and then the small to mediums, working individually with those fleet customers. So already we're launching those businesses today.

If you think about the Nonemergency Medical Transport Business, the GoRide business, it's using data in a different kind of way to get customers to medical appointments on time. And so we've announced a partnership with Beaumont Hospitals in the Detroit area, one of the largest hospitals there. We're in 200 of their facilities to do just that. So we have to collect data, do routing, handle payments, things like that to get those customers to appointments on time.

The Nonemergency Medical Transport Business is very interesting. It's a growing business, because of the demographics. And also it's a group that is vastly underserved and it builds on our micro transit products. We get vehicle prognostic data today that we use on our traditional business as well, to help our parts businesses. And then as I mentioned, we're going to continue to build out subscription services to our Ford Pass and Lincoln Way customers that buy our vehicles and we'll be using data there to provide a variety of services to enhance their ownership experiences.

From a city perspective, it's largely around working with the cities to collect data and then provide that data back to them in a meaningful way that they can use to make choices within the city.

Moderator: So you already have some experience with on-demand services, you mentioned Chariot and some others. And as we think about the evolution of that and then eventually the sort of convergence with autonomous, I mean how do you think about the business model there? Will it be transaction based? Will it be subscription based? Will it be advertising based? I mean are you sort of indifferent and open to all or do you have any views on how that evolves?

Marcy: In autonomy?

Moderator: Yeah, as sort of on-demand becomes more autonomous, yeah.

Marcy: So it could be in a variety of ways. So what we're looking at now – so let me just maybe talk a minute about some changes we've made in the Ford Smart Mobility team. We've made some changes and announced new organization in late January, early February. And we made some acquisitions as well. So we bought a company called Autonomic and the CEO was a gentleman by the name of Sunny Madra, who is kind of serial entrepreneur. One of his probably more famous propositions was Tinder. But he's had quite a few others as well. So he's now leading the group called Ford X or Ford Accelerator. That's the group we're going to use to evaluate on-demand solutions like you're referencing and decide if they have a great opportunity to be commercialized and be revenue producing and fit in with our values, etcetera. And that's what they're good at.

And let me just say a word about that. The auto industry, because it's so capital intensive, we're probably not used to having to incubate a business model or product, assessing it quickly and deciding it should be killed or not. I tease Sunny that he's kind of my paid assassin, because that's what you have to do. And you've got to do it with just a small amount of money, just like a startup would do. And I really wanted to bring outside thinking to do that. And so we'll be assessing businesses like that.

If something passes the Ford Accelerator test, it will move on to the next group which is the Mobility Business Group. That group is the team right now that is running all the businesses that are generating revenue today. If it needs to scale, it'll go there. And that group is really focused on P&L. Then we have another team that's focused on marketing and another team that's building out the platforms and the solutions. So that's how we're organized today and we've made some acquisitions to obviously beef that up.

Moderator: So one of the things Jim, when he took over, he obviously talked about the fitness of the company, but he also – maybe the subtext was there needs to be a little bit of a cultural change within Ford. And I think where you sit, I think it's interesting and I want to get your perspective, because as we see it you have – and it's not just Silicon Valley, but let's call it the Silicon Valley sort of attitude and sort of the innovation. Sort of trying to mesh with the more overall sort of industrial type Ford model. And you've made some acquisitions, so you've seen some of this integration. I mean what are the challenges; what are the risks; what are the opportunities?

Marcy: It's a really great question and I'm smiling because I just read an article actually written about our team, a *Harvard Business Plan Review* article, and it said don't let the mother ship kill the pirate ship. So I'm the pirate ship in this case. And it really made me smile because it is a tightrope walk that you're walking to gain the value from being associated like Ford and all the scale, and obviously the great vehicles we have to build these services on. But then making sure we're moving

fast, using the smallest amount of resource possible to test out ideas and move on and move quickly.

And about two years ago we invested in a company called Pivotal Software Company. It just went public, by the way, so we got some financial rewards from that as well. But we knew then this was going to be a software business. So we started then building out software labs, building up our software capability and then moving on to invest and acquire Autonomic. And we also bought a company – at the same time we bought Autonomic -- called TransLoc. It's a company that already sold micro transit and orchestration solutions to cities and had relationships with many cities. And we picked up the sales force and the products from them. So really building this out piece by piece to create the ecosystem that will be the solutions going forward. This won't be a one-dimensional solution to solve these challenges. And that's why we're kind of building out an ecosystem.

Moderator: Maybe if we talk a little bit more, less about sort of the on-demand and sort of the services, but more about the vehicles you sell today. I think one of the other things Jim, it's sort of his – I think it was in September when he sort of held the meeting and talked about, I think it was – correct me on the year, but it was sometime around the end of the decade where pretty much every vehicle in North America is going to have sort of connectivity. I think it seems like there is like an interim step when maybe that is sort of a differentiating feature. But eventually it's sort of table stakes. Like you have to have that, everyone's going to have that. So as it becomes sort of table stakes, like what are some things you're thinking about to be able to sort of differentiate off of once you have that sort of connected vehicles?

Marcy: So one of the things I think that differentiates Ford is thinking about things from a human-centered perspective. When Jim Hackett had Ford Smart Mobility, he started a group called Greenfield Labs. It's located here in Palo Alto. And it really partnered with the company called IDEO to focus on human-centered design. And I talked about some of the learnings from the Miami work we're doing, what the AV team is doing, and it really is learning about how humans interact with AVs, how business will be transacted differently, putting the human at the center of everything. While others may be thinking about how AVs eliminate the human, we're thinking about how to adapt the human to the new world and focus on those human experiences. So that's number one.

And number two I already touched on, which is trust. And I think Ford really, in the conversations that I've had certainly, brings that element of trust and a separation from others from that perspective. And then lastly and I've mentioned it already, is the Transportation Mobility Cloud. So the partnerships and experiences and we're inviting other OEMs, and Autonomic is talking to them about joining, to bring together partnerships and really create a virtuous circle within that.

And what I mean is, if you're a partner that wants to create revenue by working with automotive, the more vehicles, the more attractive it is to you. So the more vehicles we get on the TMC, the more partners will want to join and the more partners that join, the more OEMs will want to join and really creating that virtuous circle. Because again, we believe the future is open.

Moderator: So you mentioned the TMC, the transportation mobility cloud, a couple times now and I think you're developing that with...

Marcy: Autonomic.

Moderator: Autonomic, yeah. Can you talk a little bit about sort of the build-out there? What efforts(?) are you bringing, what are they bringing and you've also decided to make it open and which is interesting. But what's sort of been the initial – you've given some examples, but maybe you could just talk more about sort of some of the conversations you're having in terms of interest from cities or other partners.

Marcy: Sure. So if you think of it in a way – well, we invested in Autonomic -- maybe let me start there – about a year and a half ago to build this out. Because we saw we needed it for ourselves. And first and foremost what it does, it provides the commodity-like functions that are needed to build out in these solutions or applications. So an example might be security, identity. And then there's commodity-like functions, to your point, about connectivity that are needed to pull data off the vehicle. So instead of building those each time you want to build a solution or an application, you put those together in a cloud, and therefore, you can focus your precious resource just on the differentiated components.

Right now our Nonemergency Medical Transport Group is in Ford Commercial Solutions that I'm talking about, all leverage the Transportation Mobility Cloud today. So those vehicles are already on there and operating today leveraging these commodity-like functions that I mentioned.

And then we thought well, if we're doing it for ourselves, all the other OEMs are facing these challenges too. There's the commodity-like functions that have to be built out, why do them again and again and again? And because the challenges are great and they're better solved in an ecosystem and the more vehicles you get on here, the more it will attract other partners that want to do commercial deals with those that have vehicles, we could trade an ecosystem that allows each OEM to provide their own value-add services on here, but leverage the cost-saving opportunity to leverage the commodity-like functions, and then attract more partners so that we all benefit.

And from a city perspective – and another point about the partners too – if you're a partner that wants to do business with the OEMs, and each of us have our own

interfaces to connect in and get the vehicle data or to connect into the customers, you'd have to build those interfaces differently with each OEM. This is allowing partners an opportunity to do it once and get access to a bigger number of vehicles. So trying to create that win for the partners as well.

From a city perspective, a place where everybody is congregating to have their data and solutions together, obviously is a huge win for them too and solves some of their integration issues that they don't usually have the resources to handle. If you think about it, AWS was born the same way. Amazon built it initially for their own purposes, just like we did, so their developers would have an environment to quickly develop. We did the same thing and that dawned on us that oh, there could be a broader use here for the greater good and then we win too because more people are attracted to the platform. And so it was a very similar evolution.

Moderator: Great. So you've mentioned, and we could see sort of, you formed a lot of different partnerships, but you've also sort of made some acquisitions and then there's yet sort of further capabilities it looks like your sort of building in-house. I think from where you sit within the organization, you probably see – you have a good view of what can be done internally versus what might need to be either partnered with or bought. How do you – like what's the sort of framework for deciding which of the three routes to go? Try to do it yourself, partner or just go out and sort of acquire?

Marcy: That's a great question because in the all the flurry of activity that's going on, you have to stay focused on making those decisions the right way and not get caught up in too much hype. And so number one, we've announced a lot of partnerships in the AV space, Dominos, Postmates are examples. And each one is a different kind of learning. So number one, what can you learn and who do you need to partner with to learn things that you can't learn on your own.

Number two, doing an honest assessment of your in-house capabilities and do you have the competencies and the ability to work at the speeds you need to. If the answer is yes, and it also provides differentiated functionality, then you're good in-house. If it's commodity-like functionality and / or you need to move at a different speed than you're able to, then a partnership or an acquisition is the best way forward. And so that's kind of how we're assessing it. What are our gaps, what can we bring unique value to bear. What's commodity like and then over time you have to manage that. So today's differentiated functions could be tomorrow's commodities. And you have to be smart about managing that or else your costs get out of control.

Moderator: As you talk to about – to some of these different agents, if you will, about the solutions, whether it's sort of a micro trends solution or a commercial solution, a city solution, how important is electrification of the vehicle to those different constituents?

Marcy: I think, again, it depends. And some cities are very focused on – and it depends even around the globe, obviously in Europe there's a different focus than maybe here in the US. So I think the key is to having choices. So we don't believe that one propulsion choice is the answer for everybody, but to have choices that make the best of the opportunity you can.

Moderator: Anything in the audience?

Q: [inaudible]

Moderator: The question from the audience was how many carmakers do you think will be in existence in 2050?

Marcy: Well, I don't have a great answer for that. If I had a crystal ball maybe, I could answer. But I think it will – there's been a couple articles, in fact, I just read one this week on that topic. And I think it will be those that can do some of the things that we've talked about here today. Which is thinking about the fact that it will take an ecosystem of capability to play and you really have to learn and get your hands dirty. And I think those that don't, it will be more of a struggle. And that's why we're putting ourselves out there, trying a lot of different things, creating a lot of partnerships and also doing a lot of investing. And I think there's obviously different paths you can take and everyone's choosing their own path. But I think the main thing is making sure you have your eyes wide open, thinking about the possibilities for the future and trying things and learning; and also to my point about my paid assassin that I hired, being very focused on killing stuff that doesn't create value and moving on. And those that don't, might not be here.

Moderator: Anything else from the audience? You talked about learning from a lot of these initiatives. So you mentioned Chariot or you have GoRide, you have some of the other – the Dominos and Postmate stuff. I mean can you talk about A, maybe an example of what you've learned from each of those and then B, what's sort of the next steps for the expansion of Chariot, GoRide or some of the other commercial opportunities?

Marcy: Sure. Let's start with the learnings. I touched on a few already. So with Dominos it was interesting to see how people came out to get their pizza and interacted with the vehicle. So just learning a lot about even how they approached the vehicle; what features might need to be added to the outside of the vehicle; and is our traditional view of what a vehicle is today fit for purpose for tomorrow? So a lot of learnings there.

I mentioned in Miami mapping how the merchants and the customers interact and again, more information about how the vehicles might need to be built differently

all come into play there. And with Postmates obviously the moving goods, which we think will be a big way that the AVs get commercialized in the future. So a lot of learnings there and obviously a lot more to come there.

As far as Chariot, what we're focused on now there is taking it more B2B and focusing on enterprise customers. We have over 40 enterprise customers today, including Lipton, Austin, Facebook in Seattle and more to grow. And then focusing on adding services, partnering with our Greenfield Labs group, that are meaningful to enterprise customers. And for the Nonemergency Medical Transport Business or GoRide, it's very interesting. Our phone is ringing off the hook on that one. It is a greatly underserved market.

And it's very interesting. The market today, those customers – the business is actually getting people to medical appointments on time. The healthcare industry loses a lot of money every time a person is late or misses an appointment, like a dialysis appointment. And so the industry standard for getting people to those appointments on time runs in the 50 to 60%. We're hitting about 95% through some of the software capabilities that I mentioned. But also there's a human-centric piece. For some of those people, that's their only human interaction for the day is getting on that van and being taken to their medical appointment. So that piece of it was really, really important. It really brings together technology, a great vehicle and the human-center and trust aspect that I mentioned, into a single solution. So you can expect to see more of that.

Moderator: We had sort of a 2050 question earlier, I'll be a little bit more vague because I don't know what the right year is; but as we think about how all these sort of progress and as they sort of each individually scale, like what percent of sort of total Ford revenues do you think can be sort of more of these mobility of services versus selling traditional vehicles?

Marcy: We haven't named a percent yet, but what we do know is that the margin on those kind of services will be more in line with the tech company kind of software margins. So we're really excited about that. And also, just the ability to change and pivot obviously is a lot faster with these services and products than it is in a traditional automotive space. And how you can learn, throw something away, make a change and move on to the next business, incubate the next business and managing a lifecycle of those businesses will move much faster and be much easier, and therefore, probably be very lucrative.

Moderator: As we wrap up here, just wanted to get your views on A, when we really think we'll see robo taxis start getting out there in limited situations and then on a little bit larger scale. And then B, what year you think I might be able to have a highly-advanced autonomous vehicle in my garage.

Marcy: Everyone's favorite questions. So we're very committed to getting a fully autonomous solution out in 2021, as we've said. And no change from that. And we believe the first uses will be commercial, so moving goods, ride handling, those kinds of things. For you in your garage, we're thinking maybe more mid-decade.

Moderator: Perfect. Well, thank you so much Marcy, really...

Marcy: It's a pleasure.

Moderator: ... real insightful, glad you could make it out today.

Marcy: Exciting time to be in auto.

Moderator: Yeah.

Marcy: Thank you.

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