Alliance Bernstein 2022 38th Annual Strategic Decisions Conference

Ford Motor Company Fireside Chat

June 1, 2022

Participants

Jim Farley, President and Chief Executive Officer, Ford Motor Company

Toni Sacconaghi, Analyst, Bernstein Research

Presentation

Toni Sacconaghi:

Toni Sacconaghi, Bernstein's IT Hardware and Electric Vehicles Analyst. And I'm super happy to have Ford CEO Jim Farley join us today. I think his participating in a conference where we don't have coverage of his company is just one more testament to Jim's open-mindedness and willingness to pursue new avenues and to pursue change. For those of you who don't know Jim, he's been in the auto industry his whole career. He was at Toyota and Lexus before joining Ford in 2007. He became CEO in October of 2020. And has laid out an ambitious change agenda for the company, including dividing Ford into Model e and Blue and setting a goal of 50% EVs by 2030 and spending $50 billion on EVs by 2026. We're going to just do a three or four minute video to start, and then Jim and I are going to have a Q&A. Thanks for joining us, and Jim, thanks for being here.

[Video Plays]

Toni Sacconaghi:

Great, just as an administrative issue, there is Pigeonhole technology. So if you have questions, the way to submit them is via Pigeonhole. So Jim, I want to keep this kind of a strategic conversation. So maybe we can just start with the auto industry. Historically, about a 90 million unit market; globally, obviously a little weaker the last couple of years. If we really look out like 10 years, plus, is this market ultimately growing? Is it a bigger market or, with autonomous driving and electric vehicles potentially having longer lifespans, it's a market that will actually contract in size. How do you think about that?

Jim Farley:

Well, the TAM is going to change a lot, so it's hard to handicap the specific revenue. We're already seeing with the move to, I would say digital products, not just EVs that the winners are completely different than the winners in the ICE world. I'm not just talking about Tesla, but I do think the vehicle sales hard to say it won't be that 90 to a 100 that we normally see. But I think again, shared mobility revenue will grow a lot. These vehicles are too expensive for most people. Number two, and no one's ever made a vehicle that was optimized for cost of ownership. We've always developed vehicles for

individual owners. Second of all, we have the software TAM. We think that moving goods and moving people enormous revenue pools that we haven't optimized. So I would characterize it as: I still believe that there'll be 90 to a 100 million units sold. There'll be geographically distributed very differently than today, but the biggest change is going to be the revenue mix is going to change. Much less capital, more revenue around software services and shared mobility.

Toni Sacconaghi:

Okay. I will come back and pick up on that. If we think, again at the industry structure level, there are probably at least six credible new entrants. If the market would tell you that in the EV space, you have Tesla, then you have five other EV companies with a market cap above $20 billion. So the market is saying there're at least six credible new entrants, at least for now.

So you have a market that's increasingly competitive and probably increasingly global with three relatively successful, at this stage, Chinese EV makers. So is the industry 10 years from now more competitive and more fragmented, or is there an inevitable consolidation that happens, or do you expect there to be a shakeout among either the traditional ICE OEMs and the new EV makers? How do we think about that? Because, and I want to get into sort of the shifting profit pools in a second, but structurally, you sort of go, okay, I have a market that's maybe not growing in terms of units. I have more competition that feels like an increasingly tough market. So how do you see the structure in terms of number of players, consolidation, [crosstalk]?

Jim Farley:

No doubt about it. We're going to see very large consolidation and big changes. I just have my list here, I would say new EV companies probably will get simpler and Chinese will become more important.

Toni Sacconaghi:

Jim, if I could interject, what do you mean by simpler on the new EV companies?

Jim Farley:

The portfolio of consolidate. I just don't see the addressable market that these companies are going after being big enough to justify the capital that they're spending or the valuations. However, I feel almost the opposite in China. The China EV makers, if you look at a $25,000 bill material for an EV in China, it's probably the best in the world. And I think they're incredibly undervalued and they haven't had, or shown, any interest in exporting other than Norway. So to me, there's a shakeout coming, and I feel like that shakeout is going to favor many of the Chinese new players.

The old OEMs absolutely will get consolidated. There'll be some big winners. Some people that transition, some won't. Many of the small players cannot afford to make this transition. Many of them are not investing in embedded software and electric architectures, which is the heart of this transition. It's not motors and gearbox, it's gateway modules and software that controls the vehicle. The old suppliers will consolidate. And the new suppliers will emerge. A number of new suppliers that I don't think are fully valued today. Like Mobileye, many, many, many new ones. And then the dealers, which is one of the largest valuations. Many of them are private. So we don't see the kind of capital markets value them, but their business will change a lot. And there'll be a lot of winners and losers and, I believe consolidation. So if you look at that all, I feel like there's going to be more consolidation ahead of us, but it will be in pockets.

Toni Sacconaghi:

Right. And will that be initiated? So will the consolidation, ultimately, be the result of mergers or do you actually expect people to fall out of this market? So, do you see consolidation? Do you see active cross border consolidation, particularly with Chinese companies going forward?

Jim Farley:

Yeah. I mean, look what Geely did with Volvo. I think all of the above, it depends on the category, so to speak, but at the OEM and vehicle manufacturer-creation side all of that could happen, I believe. And we've seen it already happen in the ICE world. It's going to just accelerate, I believe. And with capital tightening, there are new constraints that will make the new players better, but some of them won't be able to fulfill their ambition because they can't raise capital. And so they'll look for partnerships and other ways to raise capital. This is going to be a very interesting time in the next three or four years as capital gets constrained. And I believe it'll be the best thing for some of these EV startups. They will be forced to solve top problems like Tesla did with those constraints.

Toni Sacconaghi:

Right. And do you think, ultimately, the nature of this consolidation will be more from a JV perspective or do you actually anticipate there to be mergers of equals and outright acquisitions in the space.

Jim Farley:

Again... [crosstalk]

Toni Sacconaghi:

You could argue even pre EV [crosstalk].

Jim Farley:

Yes.

Toni Sacconaghi:

The auto industry was a pretty tough industry.

Jim Farley:

Sure. Look at Atlantis [crosstalk]

Toni Sacconaghi:

[inaudible] Look what Atlantis just did, so -

Jim Farley:

Yeah. And I think the new winners, we don't talk enough in our industry about the product execution and the customer experience and the winners and losers in that space. We tend to think of companies and allocating capital. As we get into the third and fourth inning, it's going to be all around the customer experience and dictating the winners and losers. When I handicap that I absolutely feel like there'll be both, probably more acquisitions than JVs.

Jim Farley:

Partnerships are hard. We've been in business for 118 years. We probably have one partnership that worked really well: Ford Otosan in Turkey. These are really super hard things to do. And often they come down to the leader, the character of the leaders. And if those characters, those leaders, change or they retire or leave, the whole thing could fall apart. So I wouldn't rely on that.

Toni Sacconaghi:

Okay. So you talked about kind of the shifting dynamics of revenue composition going forward.

Toni Sacconaghi:

And so maybe you can talk a little bit about profit pools for autos and how those change and do they grow because against this backdrop, you know, part of me sees an opportunity for incremental profit pools. On the other hand, part of me thinks there's always been a hyper-competitive industry.

Jim Farley:

Yeah.

Toni Sacconaghi:

There's even more competition now.

Jim Farley:

Sure.

Toni Sacconaghi:

The Chinese are more involved.

Jim Farley:

Yeah.

Toni Sacconaghi:

And to some degree is the consumer just going to win, right? You know, I've wondered, yeah, Tesla is trying to charge $12,000 for full self-driving. But 15 years from now, a lot of people will have full self-driving. Won't that be like airbags?

Jim Farley:

Sooner than that.

Toni Sacconaghi:

You can charge for airbags when they first came out. So how do you think about profit pools, Jim?

Jim Farley:

Well, I believe, like I said in the video, I think this is the biggest, most exciting kind of land grab of revenue in our industry since the Model T. I really believe that. And the reason is because, think about it -- we used to use our phones to make a call and then the embedded systems got put in place and the

sensor set, and all that software allowed those devices to not be used just for calls. That's about to happen in our industry. When I see the pricing power for ADAS, not just at Tesla, but all of us have incredible... it feels like that's the first shippable software that we could send to a car that customers are really willing to pay a lot of money for. When I was at Toyota and I sold my Prius, that HOV sticker was worth $5,000. That only saved me five minutes a day on my commute.

If we can get people to fall asleep in their car, give them 45 minutes back on their commute, they can go to work 45 minutes later, they can go home 45 minutes earlier. It won't be $5000. It'll be tens of thousands of dollars. And so we're about to change the ride, just like Apple and all the smartphone companies changed the call. And I believe when that happens, when you can ship a lot of software to the car and you have great sensors, really change that experience and be a lot more productive, there will be a large revenue expansion. That's number one. Number two, the largest fleet of operators today in the U.S. are Lyft and Uber drivers. There's 1.3 million of them as we speak. They're larger than all the rental companies combined. And no one has ever built a product for them. And no one has ever built an optimized product for them with an optimized low cost of operation, low insurance.

And that will definitely be an EV and that will definitely have very high ADAS content. And that will bring more mobility to many people who are stuck today. Older people, single moms who are working for their kids. There'll be disabled people. There'll be a lot more people able to move. We have to sort through the traffic issues in big cities and with that kind of mobility solution. So you don't have to own a car. And I believe that move to a per mile concept or model will also unlock a lot of new revenue. But I believe both of those will completely remix the winners and losers.

Toni Sacconaghi:

So on the incremental software content, isn't there a risk that ultimately the competitive nature of the industry starts to price that away, right? Just like airbags were priced away. You know, when I was a kid, I think you were, we were discussing we both grew up Montreal, at least part of the time, we had manual windows and they would get frozen. And my father would always say, well, we're not going to buy the electric windows because they got stuck. Well, he was too cheap to pay the $300. But all that has been given back to the consumer, right? And so I understand the utility that ADAS can provide someone, but how do we know that the industry is going to allow that profit to be captured by the industry? That the Chinese or the low cost producer is not, you know, even, I think self-parking was, you know, backup cameras were several thousand dollar options. They're now becoming increasingly standard. Blind spot indicators, increasingly standard. What makes the stickiness of incremental pricing better in the future against the construct of a more competitive industry?

Jim Farley:

That's a great question. I look at our Pro business. We're 50% of all light-duty commercial vehicles in the United States. Our second competitor is not even half our size. We're the number one brand in Europe. We're the number one brand in many markets from Australia, New Zealand, South Africa, number one in ambulances in Russia. Number one, I can go on and on. We do commercial vehicles. Transit is the number one van. F-series is the number one pickup. Ranger is the number two pickup in its class. And so when I think that's the first place we are seeing the answer to your question, which is for commercial B2B customers. And we set up Ford Pro not to make anything. There's no factories in Ford Pro all they do is they distribute commercial vehicles and they make all their money on services. The first company to do it, and the first inning of it is very clearly answering your question.

People are willing to pay for an integrated system of telematics, fleet management, energy management charging for electric commercial vehicles, prognostics and predictive failure. Because

when these vehicles go down, that plumber, electrician, police, ambulance, lose their revenue, can't do their job. And it is amazing to me to see how quickly the customers have moved from the vehicle attributes to the software. And the most important stickiness is the integration. If you just come with an off-the-shelf ADAS system that you bought from Mobileye or NVIDIA, it ain't going to be pretty. If you're able to do that inside the company and have a long term advantage. Like you expand the, you expand the ODD faster than other people. So you can do RAIN before anyone else does RAIN. Or yes, you can absolutely have a sustainable advantage. But it requires a lot of internal knowhow and a very integrated approach. If you're just buying stuff from Tier 1 autos and throwing it on your vehicles, no, it will be exactly like you described.

Toni Sacconaghi:

And do you think that's... And I get that on the commercial side, that makes a lot of sense.

Jim Farley:

Even on the retail side.

Toni Sacconaghi:

You think that's extendable?

Jim Farley:

We lost the battle on content 10 years ago without knowing it. Navigation, movies, music. We had no rights to that. I told my team, stop it, stop writing navigation systems and buying maps. Let's just go to Google or Apple, make it easy for customers. I believe that ADAS, and all the future software we ship to the car, a lot of it will fall into that category. By the way, we can make a lot of people's lives better. IOT connection, precondition your house, have the garage open without pushing a button and all those magical things that should happen in your car that don't happen today are going to make people's lives better. But I don't think most of that is chargeable. I think what we're seeing is very specific things are chargeable and you better have a very integrated, directed software, customer-facing software plus physical experience that will differentiate you in a long-lasting way or else it will be a commodity.

Toni Sacconaghi:

Right.

Jim Farley:

I absolutely believe that.

Toni Sacconaghi:

Now you also mentioned this notion of an Uber vehicle or fleet vehicle.

Jim Farley:

Yes.

Toni Sacconaghi:

Is there a targeted timeframe for such an offering from Ford and how do we think about that?

Jim Farley:

Yeah, I mean, I don't want to give too much away, but you know, we're the biggest commercial customer. That's a commercial vehicle. You know, when I was at Toyota, I used to look at Ford's Crown Victoria and Town Car business, and kind of chuckle. You know, in the end though, they were kind of the first 737s of our industry. They got all recreated in garages with taxi companies, you know, refreshed. The airframe stayed the same. And they were the first model of this new shared mobility. And it's very clear that no one... Prius is not a good vehicle, coming from Toyota. It's not a good vehicle for shared mobility. It's a low cost of ownership when it comes to fuel and maybe the insurance resales good because it's a Toyota, but it doesn't have high ADAS content so the insurance is high. It's an internal combustion vehicle. If you use the vehicle 70, 80% of the day, the EV economics are much better, but it has to be designed in a completely different way.

So I believe there will be... our industry is definitely heading to a huge price war. You're going to start to see democratized EVs. Tesla's talking about $25,000 retail price, so the bill of material is probably around $18,000. You'll see that it's already happening in China, half of all the EVs in the world are sold in China. And the most popular one is the Wuling $8,000 van. So it's going to happen, but I believe that the answer will not be the lowest bill of material. It will be something that we offer, someone offers by the mile, by the week, by the day, by the weekend. And it will be optimized, not for purchase price because that won't matter if you rent it. It'll be optimized for the total ownership cost. When we solve for that, the product and the software experience is totally different than a Prius.

Toni Sacconaghi:

Got it. So you talked about the cost of EVs and I wanted to spend a little bit of time discussing that. So what do you think is the -- and I'll give you my answer after...

Jim Farley:

Okay, good. Yeah, please.

Toni Sacconaghi:

But what do you think is the current cost premium for an EV powertrain versus a traditional ICE powertrain? And how does that change over time? So where do you think we're at now?

Jim Farley:

This is probably one of the most, this is what's an epiphany for me as a leader at Ford. Like if Tom Brady was 199th draft pick, I was like 400th in terms of being the CEO of Ford. Right? So I feel like, you know, I feel like when that second quarter last year profit came out for Tesla and they showed like a $15,000 premium, it totally changed my world. It was an epiphany. It was like the angel song of like, oh my God, we can make more money on these than our ICE. Forget about the cost switching. We know it's a better product, except for maybe the range. So the cost between an Edge with a really efficient EcoBoost engine, 10-speed transmission, and a Mach-E, they're almost the same product in terms of category. The Mach-E is a much better product.

And the cost premium is $25-27,000. Now that's not just the battery, the battery is about $18,000. Then you have an onboard charger, that's expensive, $3000. And then you have a lot of other EV components. That's a first generation product. That's what you'll see from Volkswagen and many other companies that are getting in the EV game.

What you have to understand is that the second-generation product is going to be nothing like the Mach-E in terms of cost. And the drivers are really important. And I think that this is the magic of Tesla, because they were capital constrained. They didn't have the money. They did things that we are too lazy to do. So the drivers for, not only getting out that $25,000, but totally reversing it are these kind of items.

The first is the distribution model. We think our distribution model today is about $2,000 per unit, more expensive than Tesla. About a third of that is inventory. We have all this inventory sitting around in dealers, in transit, got to get rid of all that. Public advertising, another third. Spend $500-600 a vehicle on public advertising. Get rid of all of it.

The last third, well, I don't want to, I can double click on any of these. The next one is battery chemistry. Today we're using NCM cells. They have very high cobalt and nickel content. LFP, which is a predominant chemistry in our global business now, just making its way to the U.S. That has almost no nickel in it and very little cobalt, almost no cobalt. It substitutes iron and phosphate, they're much cheaper, more abundant, And that battery chemistry is 20% less. That's like $2000, but the biggest lever is going to be the way we design the vehicle for radical simplification of the labor content. Half the fixtures, half the workstations, half the welds, 20% less fasteners. We design it because it's such a simple product, to radically change the manufacturability, take the content out and labor, and optimize the engineering, the vehicle for the smallest possible battery for the competitive range. And this is where the auto companies are very uncompetitive. This is like Apollo 13, we've got to get back from the moon. Every watt, every amp matters. Just on a full-sized truck, an optimized full-size truck for aero, versus let's say a Lightning, is 75 miles in range. That's $3,000 in battery [costs].

So we have to come... the aerodynamicists and other brake systems that are more expensive, but recapture more efficiently, the reengineering for the vehicle to minimize the size of the battery, since it's so expensive, is going to be a game changer for these second generation products. There are other opportunities like the ADAS revenue.

If you put a fully updateable vehicle in electric architecture, you're going to get some revenue, software revenue you don't get. The labor saves about $2,000. It's not a lot, but if you add all those together, it easily offsets. Plus the run rate of the battery getting cheaper, with the offset of the raw materials getting more expensive, it's more than $25, 000, and it's all of those things. And that's why this is really hard because a company like Ford has to do it all. And I have no idea how any of them could do it if they don't have a dedicated team. All the way through plus measuring the profit.

Toni Sacconaghi:

Right. So the electric powertrain, it sounds like will come down some, but that's a big not $27,000, right? So you're basically saying we've got to clean sheet the whole vehicle.

Jim Farley:

We do.

Toni Sacconaghi:

Because it's not all going to come out... Powertrain's not going to get to parity for a long time.

Jim Farley:

No. And the big differentiator is going to be software. The most important thing, if I was watching our industry, the most important question you should be asking us, "Tell me about your electrical embedded

system. Tell me how you can ship more software to your car than your competitor." That's as important as how efficient we engineer the vehicle for the battery.

Toni Sacconaghi:

Right. To you... so there's some element of price. There's some element of vehicle redesign, and there's some element of having a less expensive EV powertrain in part because of...

Jim Farley:

LFP, yeah.

Toni Sacconaghi:

LFP, in part because you're going to design the cars to be more streamlined. In part, because you'll have better energy density over time, etc., etc. That feels challenging. Feels like.....feels like a lot of things to work on simultaneously. How are the Chinese getting to those $25,000 price points that you allude to? LFP is part of it, but it's maybe 20% cheaper on a 60 kilowatt hour battery. It's maybe a couple thousand bucks, tops. So, it's not just LFP. How are the Chinese doing... Labor's, I don't know, $2000-$4000 in a car. How are the Chinese ultimately getting to reasonable price points ahead of where most traditional ICE vehicles are struggling with? What's the bridge there?

Jim Farley:

Well, I think LFP is a big advantage. It's not a small advantage. It's a very significant advantage for them. All the IP is there. The chemistry has very low thermal risk. There's a lot of ways to judge a battery. And there's a lot of advantage for LFP beyond just its cost. But they have gotten their heads around this second generation thinking around how to design the vehicle for manufacturability and for a small battery. The mileage in China is not nearly as long as the U.S. or Western Europe. People drive much shorter distances there, so they don't have to have as big a battery. But the elegance of their engineering is something that I'm very taken with. It seems like there are many more companies than in the West.

The other oddity there, which I can't handicap is that their digital ecosystem, which winds up being the most important part of the car is totally different than ours. So the software you're going to ship to the car is totally different and it's not shareable globally. It's cordoned off. And those customers are much more advanced on their digital experience than the West. So I don't know how the software piece will figure out, but I don't think they have the same pressure on economics that we do. A lot of the companies are state run, they're based on employment levels, their motivation is to hire a lot of people, and they have different motivations than companies like Ford. And by the way, you said it's a lot. Yeah, it's a lot, but it's a lot better than two years ago when we didn't even know. Now we know. Now it's down to execution.

Toni Sacconaghi:

And how about if we think about the cost challenges relative to an EV player, right? So people often ask me, "Tesla's got 30% gross margins, mass market car maker has 20% gross margins. How do you square that circle?" And part of me says, "Okay, well, I think there are a number of things. One is direct distribution, which might be like four, five points."

Jim Farley:

$2000-3000.

Toni Sacconaghi:

Which is...

Jim Farley:

A big deal.

Toni Sacconaghi:

... a big differential. One, which I don't know if you'd take out of OPEX or COGS, is they don't advertise at all.

Jim Farley:

That's correct.

Toni Sacconaghi:

It's probably like 3-4 [inaudible].

Jim Farley:

I told you that, yep. I agree. Yep.

Toni Sacconaghi:

Which you mentioned, but even on the holistic car perspective. And so how does Model E as a company compete with that going forward? You still probably have to do advertising. You probably still have to do... I get that you'll try and emulate-

Jim Farley:

I'm not convinced of that.

Toni Sacconaghi:

... on the dealer side. So how-

Jim Farley:

I launched Scion. I'm not convinced we need public advertising for Model e, if we do our job. We haven't needed it for Lightning, haven't needed it for E-Transit. Don't need it for commercial vehicles. Mustang Mach-E, we advertised, we took the ads out, because we've been sold out for two years. Now, it's early days. It's first inning, second inning maybe, but I'm not convinced we need public advertising. Well, see, our model's messed up. We spend $600 or $700 on a vehicle to promote it, and we spend nothing post warranty on the customer experience. And the problem is on a parts business, which historically has been very profitable, we only get maybe 10% or 20% of the customers come back to us. It'd be much better if we tried to develop an ecosystem where 100% came back, and we gave them experiences, and that's our marketing. You buy Ford Model e and after a year we're going to give you a complete detail of the vehicle, check all your software's up to date. You get a complete birthday for your vehicle. We

should be doing stuff like that instead of doing Super Bowl ads. If you see a company doing ... If you ever see Ford Motor Company doing a Super Bowl ad on our electric vehicle, sell the stock.

Toni Sacconaghi:

And there were quite a few of those [inaudible].

Jim Farley:

Yeah, I know. Because that says that the model isn't really changing. See, the model should be you build a simple vehicle. That Plaid Model S is a Lamborghini. You don't need to have an upper body engineering. I can make a Mach-E feel like a Raptor without engineering a new body. So these electric vehicles give you the chance to radically simplify your upper body engineering, which Tesla got after the S and the X. They're like, "Why are we making it so complicated? We don't make any money on these vehicles. The tier ones are making all the money." They got it.

So, I think how we compete with them, pick our segments really carefully. I believe that the company should go after customers that it knows and serves naturally. For whatever damn reason, I don't know, Ford gets up in the morning and it does commercial vehicles better than anyone other globe. I have no idea what's in the water. I was in charge of the Tundra at Toyota, I couldn't compete against F-Series. The company just does it really well. Company does Mustang, Bronco really naturally. So stick in your swim lanes, serve customers you like, you know really well, and then innovate on their behalf in ways they don't even know, like Pro Power Onboard. Everyone else is designing electric vehicle. No, no, no. It's a portable energy source. You can bring it to the job site, power your house. It's not just a zero emission powertrain; it can power your house. We get that insight because we know the full size pickup truck customer. We know that they carry generators, have tools that they have to power. A lot of the startups don't know that. So, be focused on your customers that you do really naturally well, radically simplify your top hats. We should not have nine top hats for the two and three row crossover customers. That's wasting a lot of money.

We got to break the paradigm, put the pressure on the differentiation, be gearbox and motors and software and experience. And then I think we have to do all the things I mentioned just to catch up. All that can be done if you have talent, which we never talk about in the industry, but it's the one thing I obsess about. It took me six months to recruit Doug Field from Apple, and he did it all in Tesla, embedded electric architecture, all of it. The talent, getting the best talent, even if they make 10 times what I do, is so important to make this transition. But I believe there's a way for us, but I don't think we're going to try to beat Tesla at a Model Y.

Toni Sacconaghi:

How does distribution factor into this? You have a dealer network. Again, we estimate that's part of the reason why Tesla has superior profitability. It captures the profits of the middle person.

Jim Farley:

Yeah.

Toni Sacconaghi:

How does the dealer network at Ford evolve over time? And is it different for Mach-E than it is for Blue, and with...

Jim Farley:

Yeah...

Toni Sacconaghi:

How many dealers do you have in 15 years?

Jim Farley:

I don't know exactly, but I think we'll have multiple tiers of dealers. The dealers will be more specialized. Has anyone here gone and seen Tesla in Norway? You should get on a plane and go to Norway if you follow Tesla. They have Tesla dealerships.

So, I believe if you look at the Net Promoter Score for Tesla, it is extremely high for the first several years of ownership. But when it gets to the second group, the third, fourth, fifth year, or the second owner, it drops below us. If you have a fender bender, a hole in your windshield, you get a dent, your door doesn't close right, you don't really understand the latest software update. You're left on your own. That's why they had to do what they've done in Norway, where the UIO is so big.

I believe for retail, we have to... It's kind of like what happened between Amazon and Target. Target could have gone away, but they didn't. They bolted on an e-commerce platform and then they use their physical store to add groceries, and make returns much easier than Amazon. They use their expertise as a physical retailer to their advantage, but they modernize the e-commerce piece, so it would be really easy to do business with them. It's exactly what we have to do on the retail side. We got to go to non-negotiated price, we got to go to 100% online. The vehicle, there's no inventory, goes directly to the customer, 100% remote pickup and delivery. But then we have this opportunity to use our physical presence to outperform them.

I believe some Mach-E and Lightning customers would love to have a Mustang for the weekend. Maybe they want a Super Duty. I could do that. They can't do that unless they rent a Ford. So I believe on the retail side, we can do things post warranty and remix the marketing spend to have a better experience. And I think our dealers can do it, but the standards are going to be brutal. They're going to be very different than today. We're working with our dealers as we speak through this.

The second thing is commercial. It's funny. The dealers wind up being our strongest thing. I think commercial, I think of John Deere, I think of Caterpillar, I think of JCB. When you think about our commercial business as being software and physical services, you just go look at those companies and where they make money, autonomy, prognostics, physical repair of the vehicle before it goes down, telematics, intelligent planting, our version is fleet management. Those dealers need to be physical.

We're lucky, we have the biggest physical presence in Western Europe, in the U.S. of any brand for repairing 24/7 a broken or damaged Ford van or truck. The startups will not be able to create that physical network. You can't do a remote pickup [inaudible].

Toni Sacconaghi:

We have about seven more minutes left, so I'm going to enter sort of the lightning round portion of this. One of the, I think, the biggest challenges, I think, that Ford has is you have this Model e business, which you're hoping to scale to two million units by 2026, call it three million by 2030. Invariably, that will cannibalize from your Blue business. Right? And so, if we said, even if Ford were to grow during that period, we may have EVs going from zero to three million and we could have ICE vehicles going from six million to 3.5 million, let's say, right? Which is vehicles going down 300,000 to 500,000 per year in that division. How do you manage that company and ultimately improve profitability in that company when

you have a top line that will fall by design dramatically, right? How do you not get swallowed up by the legacy and fixed costs associated with that organization?

Jim Farley:

Great. Well, the first step is you cannot ask everyone to do everything. You have to say, "Blue team, you're the cash cow." You heard in the video. Our job is to fund the future and we're going to have passion brands. We're not going to have commodity products like Edges and Escapes be Mustangs and Broncos and good stuff, and especially vehicles that don't suit themselves for BEVs. It turns out this commercial truck thing is a real advantage for us because they make really... If you're a Super Duty customer towing 10,000 pounds in Montana, or in the North Slope of Alaska in the energy business, an electric vehicle is an awful solution. The batteries are too heavy. Until we get to hydrogen fuel cell...

So a lot of... We've shrunk wrapped our ICE business around segments that are often kind of self-selected out of EV and the real passion brands. I'm going to allow the team to invest in those passion brands, because we're in the emotional business. We have to get really good at restructuring. We're going to have to maybe have the suppliers do more engineering. We're going to have to do a lot of things we haven't done. We're going to have to get after our structural cost in a way we never have, and we're going to have to be really good at that.

We're going to have to be radical about our quality, and I need a team focused on that. Not focused on doing it all, but just go run that business, make more money and radically simplify it and restructure it and get good at restructuring. By the way, Ford is really good at restructuring because we've been losing market share in North America for 20 years where I used to work at Toyota. On the EV business, you got to make sure that you don't just have electric digital versions of your ICE products. To have top end engineering much less, like Tesla has shown us, you have to approach the creation of the product through a conquest methodology. You design the product so they are actually incredibly painfully advanced. You overinvest in electric architecture and embedded system, the way they look, the digital experience inside of them. It's probably not going to be comfortable for our current customers who buy an Explorer.

In a kind of weird way, it's kind of too bad that Lightning winds up being our most successful vehicle today because it feels so derivative from the F-Series. It's not our only truck and the other trucks won't look anything like it. So I think there's a mix, but setting up a compensation talent that are specialized... And I've spent a lot of time talking to PE firms, a lot of companies, GE, that have done this, try to learn how do you do this successfully. I don't know, but it seems like it's been done many times.

Toni Sacconaghi:

Just on the sort of next couple of years, you talked about how expensive sort of gen one EV vehicles are relative to ICE.

Jim Farley:

Yes.

Toni Sacconaghi:

The Lightning obviously has a big range of price points, like $40,000 to $100,000 basically, but there have been increased input costs.

Jim Farley:

Sure.

Toni Sacconaghi:

How tough are those margins going to be for EVs in the next couple of years? How committed are you to kind of keeping price as reasonable as possible to drive volume? Just expectation-wise, how should investors be thinking about profitability of EVs initially, because there's a trade-off, right? You could try and say, "Well, we want to keep margins a little better in the near term and boost prices."

On the other hand, you want to establish yourself, particularly in the truck space probably, as an early leader once you get through your backlog. How bad will margins be just to set investor expectations? How do we think about kind of where average price points might be for Lightning? Are you comfortable having losses while you drive EV volume, or are there lines in the sand there?

Jim Farley:

Well, the great thing about Ford versus a lot of our competitors is you will all know because, as of January and April, we're going to report our EV business and you'll see it all.

So I would say first generation products, we need to get to contribution positive margins. Second generation products, we need to get A+ margins. That's four years away. Right now, we're in the final engineering or the real heart of our engineering for our advanced electric architecture, fully updateable vehicle, as well as the second generation, the next group of models that would be built in completely modern facilities with radically lower labor, distributed differently. All things we talked about, smaller batteries due to [inaudible] and a lot of other optimization, all the first generation of those first several will be out by 2026. What investors should expect for is, hey, Farley and the team are working really hard to get to positive contribution margin. We've already found $2,000 of cost of the Mach-E, and we just launched a year or two ago. We're finding a lot of cost, but we didn't really engineer them the right way and we haven't distributed them in the right way.

So it's going to take a little while, but I'm putting pressure on myself to get to making money on these vehicles. It's going to be an upfront investment. I'm focused on contribution costs and margins. Are you getting more from the customer than the whole thing costs? Then, the second cycle of the product, which, again, we're like in the midst of right now, by ‘26... We picked '26 for a good reason. That's the next cycle product. We didn't do it just because it's four years away.

Okay, that's when they all come out, that's when all the plants are done. That's when we have all the raw materials lined up and all the battery JVs are scaling. To me, we better be at 8%. In fact in several vehicles, we better be a lot better than 8%.

Toni Sacconaghi:

Final question. When you think about that 10% EBIT margin target by '26, are you more confident about your ability to hit 8% in EVs or the rest of the business, including Blue, to be at higher margins? What worries you more in terms of the bigger challenge? They're both significant challenges as we've discussed.

Jim Farley:

I mean pick the challenge ... I think there's a lot of executional risk in all those steps that I talked about. I feel so much better than even six months ago because I know exactly what we have to do, so it's down to execution and, therefore, we get back to talent. I don't know if I'd handicap it right now. I think it's

too early. I think we haven't seen the intense competition that you keep pushing on. I don't think we've seen that yet. So, I don't know if we know what revenues are going to be in either one of those businesses. You could easily make the argument that many companies under invest in their ICE business for vehicles that are not really suited for BEVs, like Super Duty. We're dominant in Super Duty, 50% market share. Even if one of those under invest you can make the argument, could be pretty good. I don't know.

I guess I look at it like '26, I can control what's going to go happen in '26. I think there's an equal number of executional risks on both sides. I wouldn't handicap it right now. The one that's most exciting for me is the shared mobility. I entered the business, I started at Toyota because I really believed in democratizing cost of moving. I really believe that most people can no longer afford these vehicles. Even if there is a plethora of $25,000 vehicles from China or whoever, it's not going to be good enough for them, they're going to want a great experience.

I believe, maybe to end the conversation that way, I believe there's a second cycle of competitors we have not seen yet, like the technology companies, that could wait for autonomy, for a big shift in technology and jump into the transportation business. The biggest TAM I can see is moving goods. The moving goods TAM in North America is 10 times the addressable market of moving people. When you add up all the cars sold, all the dealer revenue for the car, like all of it, and then you look at the TAM of moving goods is 10 times as big.

I believe that we have not seen the next cycle of shared competitors who will approach that when autonomy becomes democratized, and they will use their very powerful consumer brands to integrate into their digital experience already. We will have a whole new wave of competition and, of anything, that's what keeps me up at night. How do I compete with them?

Toni Sacconaghi:

Awesome. Well, Jim, I appreciate your enthusiasm and your candor. It's a pleasure having you at the SDC. I hope we'll have you in the future. Thanks again.

Jim Farley:

Sure, thank you.