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# Ford Motor Co. (F)

Wolfe Research Global Auto Industry Conference

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## MANAGEMENT DISCUSSION SECTION

Rod Lache

*Analyst, Wolfe Research LLC*

Okay. We're good. All right. Our last presentation of the day. I'm very excited to be welcoming Ford Motor Company. Ford, as all of you know, is now one-and-a-half years into what's been described as a redesign of the company's business model and that involves a major reassessment of what regions the company is going to be pursuing, it involves a rethinking of the company's cost structure. They've suggested that there could be as much as \$25 billion of cumulative cost savings by 2022. About half of which is expected to come from purchasing.

As head of both product development and purchasing, Hau Thai-Tang is at the center of many of the changes that are taking place at this company. So, we're thrilled to have him with us here. And with that very short introduction, it's my pleasure to introduce Hau Thai-Tang, Executive Vice President of Product Development and Purchasing. Hau?

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Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

Thank you, Rod. Good afternoon, everyone. I really appreciate the opportunity to be here and thanks for your interest in Ford. It's a pretty exciting time for us on the heels of the Auto Show and we really have a fantastic story that we want to share with you about the product transformation that's happening in the U.S. market, our largest and most profitable market. In fact, over the next 24 months, we'll be changing over 75% of our product showroom here in North America and that transition is well underway.

So, what I really want to do today is focus on products. That's my area of expertise. And you guys are very familiar with our creating value roadmap framework and it talks a little bit about our beliefs, our aspiration, and then some of the strategic choices that we're making. What I want to really draw your attention to is the winning portfolio.

And what I'd like to do is, talk about the products that we've just launched over the past 12 months and share with you some proof points and how well they're doing in the marketplace. Specifically, in contrast to the products they've replaced. I think this is the best indicator that I can give you to help you gain confidence in our winning portfolio on some of the strategic choices that we're making.

As I go through this, I also want to provide you with a little bit more of the rationale around some of the decisions we're making around where to play. And then more importantly, talk to you about how we plan to win. And again, we believe that giving you tangible proof points is the best proxy to help illustrate this.

Okay. So, why don't we go ahead and we'll get started. Everything we do at Ford starts by looking outwards. We're focused on the customers, trying to really understand consumer sentiments, their unmet needs, how does that translate into purchase decisions, and then obviously, what does that mean for demand pulls and segmentation shifts?

So, if you look at the chart on the left hand side, you can see what's happened over the last decade between cars, utilities and trucks. You can see the crossover between cars and utilities has already occurred a couple of years ago. And then, if you look outwards, you can see the convergence between trucks and cars. Now, on the left hand side – this is purely looking at demand, and sales volume.

On the right hand side, what's even more interesting is, looking at the average transaction price. You can see the uplift between going from utilities – from cars to utilities, it's an increase from \$26,000 to \$33,000, and then it's another \$15,000 to go up to the trucks. So, this is why, even though some people could look at this chart and say, well, cars and trucks looks like they're about the same volume, why are you guys focusing on trucks? It's really because of this. If you go out in the Auto Show and you take a look – at Cobo, you'll start to see that the cars have really become commoditized. It's very difficult for OEMs to differentiate their products.

And the next thing, we focus on beyond looking at where the volume and demand pools are. It's really looking inward at Ford. Where is it that we're strong? Where do we have a really strong brand presence? And then, where do we think we can leverage those trends to win? And for us, it's around these four dimensions; work, adventure, performance and human connections. Work, clearly, it's all about commercial vehicles and trucks; adventure, it's about our utility products and some of the more aspirational pickup trucks, like the Raptor that you see there; performance, we're leveraging halo products like the Raptor and the Shelby Mustang that we've just introduced, but we're taking that brand halo and extending it to differentiated series upgrades, like the new Edge and Explorer, ST series that we're bringing in the market; and then, human connection, for us, is all about understanding the unmet needs of our customers and then coming up with ingenious product solutions, leveraging technologies to make people's lives better.

So, you can see, really this slide highlights how different those strategic choices have translated into capital allocation. So, if you look at 2015, this was the cycle plan over the 2016 to 2020 period, the five-year plan. We basically allocated our capital and our resources in terms of engineering resources accordingly, about a third, a third, a third between cars, utilities and trucks. You can see how dramatically different this plan looks in 2018, really at the – under Jim Hackett's leadership, the shift around the strategic choices, 94% of our capital and our engineering, as a follow-on to that, will be allocated to utilities and trucks, and only 6% to cars, okay. And this is really, we've recognized that we have a job to do to be good stewards of capital and we want to make sure we allocate that capital and those resources in areas where we know we can win.

All right. So, I want to talk a little bit about how to win. I talked to you – I want to focus on these three elements. The first one, we've touched on already; work, adventure, performance, leveraging areas where we're strong. These are areas where we have very strong iconic nameplates with fantastic favorable opinion, and very strong pricing power. So, if you look at F-Series, if you look at Explorer, if you look at Mustang, not only are they the market share leaders in their competitive set, but they also come in a pricing premium against everybody else. So, this is something that we really want to lean into and embrace.

The second element of our strategy is really to add incremental growth products. To expand our product offerings and go into more profitable growing segments, like the products you see there, the Aviator and the Ford Ranger.

And then the last element of our how to win strategy is, improving the mix. And that's leveraging products like Raptor, or like the ST, Black Label in the case of Lincoln, and driving up not only the average transaction price, but the average contribution margin for the products that we're bringing to market.

So, what's been at the heart of how Ford has been able to do really well in these segments? It gets back to really understanding the customers. Having a deep, long-lasting, visceral understanding of the customers, and because we have that, we're able to innovate and lead. And I want to use this example of – we entitled the slide a century of truck leadership. Basically, this is a segment that we own. We've been the market share leader for 42 years with F-Series sales volume, and then 37 years as the best-selling vehicle in the U.S.

So, this isn't something that's cyclical. It's not tied to the introduction of one new product that's been sustained for a very long period of time. And you can see, as a leader, we're always constantly innovating to try to ensure that we protect that leadership position, maintain the moat,. And I'll just highlight a couple of examples.

In 2010, Ford introduced the Raptor pickup truck. We basically created a new segment with the performance pickup truck. The average transaction price is almost double what we have with the base entry vehicle. The margins are really high. And as you can imagine, it's something that our competitors are going after. This isn't just a niche product. We sold more Raptor last year than Chevrolet sold Corvettes.

So, if you think about the level of engineering, investment, F&T that goes into doing a bespoke product like a Corvette that's on a standalone platform [ph] to facilitate (00:08:56) a plant, we can do a Raptor off the F-150 and some more of them at a very, very high mixed rate.

In terms of another example, the year after, we introduced the direct injection turbocharged downsized EcoBoost engine. Many experts, some of the folks in the room even, maybe challenged the [ph] convention of the (00:09:20) truck customers, would actually give up their V8 and you'll hear things like there's no replacement for displacement. These customers will never give it up.

Today, the majority of the trucks we sell are EcoBoost. 60% of our F-150s have EcoBoost engines in them, and it's been a huge enabler for us to meet the regulatory requirement. And then in 2015, we made a very strategic decision to switch over to a high-strength, military-grade aluminum alloy body construction over traditional steel. We did this not only for fuel efficiency, but we recognized that for the truck customers, they value improved performance, they value the increase in payload and they value the increase in towing and that translates into pricing power and we've done that now for the rest of our lineup with Super Duty and then, Expedition and Navigator.

Let me share with you the results of that change. So on this slide what I'm showing you is combined F-Series, F-150 and Super Duty, and you can see in November 2014, we did this change over to the aluminum body, and then we followed on in September of 2016 with Super Duty.

Now, take a look at the average transaction price between 2015 and 2018. You can see the increase from \$42,000 to \$46,700. We increased our market share at the same time. So, not only did the ATP go up, but we actually gained 2 percentage point of share and we've widened the gap from the second place competitor, Chevrolet almost double going from 180,000 units to 324,000 units.

F-Series is a fantastic success. We sold 1 million F-Series last year. Our PR team did the math. We sell one every 29 seconds. So by the time we're done with this session, we will have sold another 120 F-Series. So it's something that is really a fantastic product for us. So, not only has the price gone up, I can tell you with conviction that our profitability on the F-Series after we've made this change is better than the outgoing products, so it's a fantastic product.

We talked a little bit about mix and I just want to share with you an anecdote. 30% of our F-150s are comprised of Lariat up through Raptor. That's how rich the mix is. And we joke within Ford that this is our luxury product in terms of pricing, okay.

So, we talked about adding incremental products. This is a great story. You can see on the right-hand-side the growth of the midsize truck segment in the U.S. in terms of hundreds of thousands of units. You can see the growth that we're projecting all the way through the planned period. We have this great Ranger product coming [ph] up of (00:12:10) one of our flexible architectures that we've launched in global markets outside the U.S. Now, we're bringing it into the U.S.

We're in the midst of the launch. So far the reception has been fantastic by the media as well as by the dealers and we're very confident it's going to be successful. And this is not, because we have too much hubris. It's because we know from our track record in markets outside the U.S. that this product has been really well received against products like the Colorado and the Hilux.

So, if you look to the right-hand-side, when we started this program in 2011, we were fourth in global sales. After we launched the product, we're now second in global sales without having a presence in the largest pickup truck market in the world, which we've now taken care of that with launching it in the U.S. So, we're very confident that this product will do well. Since the launch, we've had 280,000 hand-raisers, which is also growing and it's pretty strong demand based on our experience.

Okay. Let's talk a little bit about utilities, and I showed you that chart earlier and why we were making such a big, big commitment to utilities. In 2020, if you look at external forecasts from people like IHS, one out of every two vehicles sold in the U.S. will be a utility vehicle, and we are attacking this space from products as small as an EcoSport all the way up to an Expedition, and we changed over our Expedition last year. It was very well received. You can see some of the third-party accolades and feedback from the media there.

In terms of performance in the marketplace, this was a segment that we really underinvested in and our competitors took full advantage of it. That product has been around for a very long time. But you can see the impact of the changeover. Our average transaction price increased by \$12,600. We increased our market share – segment share by 50%. We went from 12% to 18%. And then you can see the Conquest from GM increased by 3%.

Now, we plan to attack our largest and highest volume SUV product, the Explorer. Explorer was launched in 1991. Over that period of time, we've sold 8 million Explorers. And in our business, we know how much the product freshness has an impact on sales performance. Explorer is one product that actually [ph] has (00:14:50) bucking the trend, if you can look at the image on the right-hand-side, the current generation Explorer that's in the marketplace today in the dealerships, we launched that in 2011. It's seven years old, yet the sales volume continues to grow.

We're just starting to see it fall off, but it's had a great, very sustained run. And we're really bullish that when we introduce the all new product that we showed earlier this week, that it's going to do really well. This is a completely brand new product using our new rear-wheel drive unit size body architecture, flexible architecture. You can see the very athletic stance much more sporty, more capability.

It's also smarter, it's got a lot of very innovative smart technology, including driver-assisted technology like lane centering, lane keep assist, automated parking, automated emergency braking in both drive as well as reverse. It's completely connected you can connect up to 10 different devices to the modem. And we're also broadening the lineup. So you can see, we'll have our traditional line up all the way up through Platinum, but we're introducing a full hybrid that has over 500 miles of range and can tow up to 5,000 pounds and an ST Sport version. Again, taking advantage of that halo from our Ford Performance team and product like the Shelby GT500 and the Raptor.

I want to share with you some data. So we launched the [ph] ST Series (00:16:26) on the Edge last year and before that, the last generation Edge, we had a sport series. We decided to use the [ph] ST Series (00:16:28) similar to what we've done with Fiesta and Focus, and now we're extending it to our utilities. The last generation Edge Sport sold at about a 10% mix, the new Edge ST has doubled that. We're selling that at about a 20% mix and we expect this trend to continue with Explorer at much higher volumes. So, another example of how we're using mix to improve our profitability.

I know one of the questions that's been raised in the past is whether or not the utility segments will become commoditized. And if you go to the auto show, you can see everybody's launching products into the segments and we really believe that we want to stay ahead of that. And one of the ways we want to do that is, really do a better job of offering very tailored differentiated products that targets peoples' emotive needs, their emotional needs.

So, the example I want to use with you is the current generation Escape, that's shown and there – we'll be changing this over and launching it over the next 12 months. This is coming off our front-wheel drive, all-wheel drive flexible architecture and it's going to be repositioned as an urban active utility vehicle, so a much more expressive and styling, but really targeted towards the urban customers.

Then we take the same flexible architecture and introduce an incremental product that's completely differentiated with a new silhouette and top hat that's going to be targeted towards an off-road – rugged off-road customer. So the segment that we used to go to market with one product will now have two, a much broader coverage, and then more bespoke to Focus in terms of the target customers. This is going to allow us to defend our position and mitigate any risk of being commoditized.

Let's talk a little bit about Lincoln. So, the same change we did was Expedition, we did with the Lincoln Navigator. This is an all-new product, it's really the flagship product for Lincoln. Fantastic reception. You can see it was named North American Truck of the Year last year, it was also scored the highest results ever on the J.D. Power APEAL survey, beating out all of the premium players in Europe, as well as in Asia.

So, North American products from Ford won the overall highest score in J.D. Power APEAL. Let's take a look at the market performance and the financial results. So, same data here, look at that increase in average transaction price \$83,000 from \$55,900. At the same time, we increased our market share by 11 percentage point from 13%. And the Conquest from Cadillac almost tripled from 4% to 11%. In terms of mix this, factoid will I think surprise you, 80% of Lincoln Navigator sold are Reserve or Black Label. Our highest series Reserve or Black Label, make up 80% of the volumes we're selling. So, obviously, typically when you launch, you expect a rich mix, but this really surprises in terms of how rich that is. The other thing that's really exciting about this for the Lincoln brand is, we're Conquering a lot of new customers, much younger customers to Lincoln. So, 60% of the sales are coming from customers who are new to Lincoln. They've never owned a Lincoln product before, 60% of the Navigator customers.

So, we want to build on that success. We know that for some customers in some cities the Navigator is still may be a little bit too large. So, we want to introduce a product just below it called the Aviator. This is launching in 2019. It's a 2020 model year, so later on this this summer. And it's going to be an incremental product that expands the Lincoln portfolio into this very fast-growing premium utility segment. So, think of this as the Lincoln variants coming off the same rear-wheel drive architecture as the Explorer I shared with you.

It's going to be a fantastic product. We have one on our stand. If you get a chance, please take a look at it if you make it to the show. And the same results that I shared with you on Navigator, we expect to have with this product I think the team really knocked it out of the ballpark. So, I just gave you a very, very quick glimpse of the products that we've recently launched or are about to launch. As I mentioned at the beginning 75% of our product portfolio will change, including these three incremental products that we don't have today. We talked about the small off-road utility vehicle that's going to help us expand our market coverage along with the Escape. We're also bringing to market a fully bespoke battery electric vehicle. This is going to be a performance utility vehicle inspired by Mustang. Again, leaning in and leveraging that brand equity that we have with Mustang. And then, of course, bringing back the iconic Bronco as well as in incremental product.

So just a quick recap. We feel really good about the decisions we've made around capital allocation in terms of where to play. You can see it's focused in these categories, work, adventure, performance and human connections, where Ford is really strong with strong brands and favorable opinion. And then, our strategy on how to win is to leverage those iconic brands, add in incremental growth products in the fastest growing segments. And then, at the same time improve our mix.

So with that, I would love to take any of your questions and see if I can shed any more light on our strategy.

## QUESTION AND ANSWER SECTION

Rod Lache

*Analyst, Wolfe Research LLC*

Q

Great. I have a few questions maybe to kick this off. Maybe just the first one just looking at Ford successes over the past few years and the direction that you guys are going. A lot of it is really enriching the mix, driving average transaction prices higher.

Product development is obviously a very long lead time sort of endeavor and you have to take a view on where is mix going to be in the next couple of years. So, when you go through that process and you're clearly adding content for things like Aviator and Explorer. How do you think about what the consumer is going to be willing to pay and where the rate environment is? How does that factor into your product planning?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. Rod, I think that's a great question. You may have heard last year we made as part of org redesign, smart redesign, one of the changes we made was we created this enterprise product line management organization and this was really trying to get at the question you're asking is, how do we have a team that has P&L ownership for the vehicle lines rather than looking at it as a business unit and then looking at it end-to-end. So in the now, near and far historically with Ford is, we would staff up a team that work on the next generation product. So the next Explorer, the next F-Series, the next Mustang. And as soon as we're done launching it, we disband the team and then we ramp-up the team again when we do a fresh thing and that ownership end-to-end of the total lifecycle of products didn't really exist, so we want to do that. And by doing that, we'll have not only a much deeper visceral understanding of the customer, but we'll be able to make much faster adjustments around mix.

The other thing we're doing is, we have invested really heavily in our data analytics capability and we're going to be able to enhance that now that 100% of our products in the U.S. market will be connected. We can tap into those connected vehicles and get a much better understanding of what customers are using. So I can tap into that data and tell, if you are you using your paddle shifters as an example, maybe you are if you're driving a Mustang, maybe my wife [ph] and her flex (00:24:58) doesn't know what it is, how many times is [ph] Sabrina (00:25:02) adjusting her pedals in her vehicle that data we can now mine and then use that to make decisions.

And then the other thing we're doing is, we're calling it yield management. But looking at within markets that historically we've treated as homogeneous like the U.S. market, we can look at the average churn rate between Louisville versus Miami versus L.A., and adjust our products' mix accordingly have more dynamic pricing and then adjust the content and inventory accordingly. So that was a really key driver behind the creation of this enterprise product line management organization.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

So, there'll be some flexibility in terms of content based on how the market evolves?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yes.



Rod Lache

*Analyst, Wolfe Research LLC*

Q

Can you talk about the, another observation that's pretty clear going to this auto show or any auto show recently is, every automaker out there now is pursuing a strategy of aggressively growing their truck portfolio, maybe that's not as much of a threat to Ford in some key areas body-on-frame trucks and things like that.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

But in crossovers, we're seeing proliferation. What's your view on will that segment be as profitable as we think three, four, years from now as it is today.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. There's certainly a lot more competition. And any time you have more competition, there's going to be pricing pressure and that's why we're very cognizant of that risk and we're trying to ensure that we continue to innovate have a very differentiated go-to-market strategy, tap into customers' emotions, because that's where you get the pricing power.

Anytime you become, you're selling just based on cost of ownership, durability, reliability, quality, those are all very important things, but they are basic expectations. It's very hard to differentiate based on those things. So, that's clearly our strategy. What we're trying to do. And then, we're also looking to innovate what's going to be next after utility vehicles, what's going to be the next silhouette innovation and that's been a big focus for between Jim Farley's team and myself in terms of identifying that next trend, and in some cases creating that next trend.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

And then, lastly and I'll open it up to additional questions. The burdens on the industry are increasing broadly. And I think Hackett talked a little bit about the bill that the industry is going to be facing and maybe some of these things that are in that bill are not the kinds of things that you would do ordinarily if it was just purely – the plan was purely to maximize returns on invested capital.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

I'm thinking about electrification as an example and you talked about ramping up to over \$2 billion a year in spending there. So, how are you guys thinking about that? And do you think that that's something that actually could be supportive of returns and margins based on some of the actions you're taking with Volkswagen and others?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. Absolutely. So, we recognize that the three key trends that are going to shape our industry over the next decade: electrification, increase in levels of connectivity, and then more autonomous driving technologies, very asset-intensive. We're trying to obviously improve our fitness to help fund some of that spending, so you referenced the work that we're doing as part of our redesign to help free up the spending to do that. We're looking at things that we can do in conjunction with other people, so alliances. As an example, you heard of the news today that we've announced on VW, as a way to [ph] defer (00:28:48) that. Certainly, the work that we're doing with Argo and looking at other potential investors is something we'll pursue.

And then, with respect to whether or not we think it's going to bear fruit, absolutely. There's no doubt connectivity is here to stay. It's going to be persistent. We view it as a wonderful opportunity. Historically, the business model in our businesses, we sell you a car, you drive it off the lot, and we hope to see you in six years to buy another one and the only time we deal with you in between is when something bad happens like we have a recall.

Now that the vehicles are connected, we have the opportunity to own that relationship throughout the life of the product. And for us, it's a profound shift. It's no longer thinking about a transaction model. It's now a used model. And the ability now to provide services through that pipe, and then also provide over-the-air updates is game changing for us, so we're very excited about that.

Electrification, it's not a question of when, it's just how fast. And, certainly, we have to do our work to help build the demand and educate the consumers and then drive the cost down. NAV is tremendous opportunity in terms of the profit pools. We just have to solve the little technical challenge.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

At this point though when we're talking about things like EV, the efforts that you're making is more cost mitigation as opposed to something that's promising in terms of...

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

No, I wouldn't characterize it as that, Rod. We are certainly working very hard on costs because that's a huge lever there. But our product that we're launching will be contribution margin-positive. This is not a strategic action to make people feel good. It's going to have to deliver [ph] its (00:30:47) demand on capital. Yeah.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

Interesting.

David Tamberrino

*Analyst, Goldman Sachs & Co. LLC*

Q

Hau, Dave Tamberrino of Goldman Sachs. Appreciate you outlining the percentage luxury and high trends series that you have, particularly on the pickup trucks. I'm curious how defensible you think that market share is with some compelling products coming from both of your major competitors on the lot right now? And it's my first. I have a second.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. We feel really good about our products. We, obviously, we are working to stay one step ahead. So our teams are working on the next generation F-150 as an example. The folks are introducing their products. So we're never standing still. We do market research. So we actually researched our next generation truck against the competition and it actually did really well. We won the research and then we even did an adjunct against their newest truck and the gap increased, which is very rarely. The last time I remember seeing that happen was when we tested Mustang against Camaro. So we feel very good about the strength of our truck products. We never underestimate our competitors. But if you look at the sales results, it's a battle for second place.

David Tamberrino

*Analyst, Goldman Sachs & Co. LLC*

Q

Okay. Anything specific to call out with why the gap widened?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

We have a really good understanding of our customers. We offer them solutions that they're willing to pay for. And the example I gave with the light weighting, it's about payload, it's about towing. It's more than just fuel efficiency and connectivity is going to be a big part of that. We're building on our leadership. We've already announced we're going to introduce a Hybrid F-150. We're launching a diesel as well. So we're just trying to always stay one step ahead of the competition.

David Tamberrino

*Analyst, Goldman Sachs & Co. LLC*

Q

Got it. And second question, what's the percentage of parts commonality between your North America F-Series lineup and your global Ranger platform?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Right. So, we've mentioned that we're trying to get from the nine platforms down to five flexible architectures. So, right now, we have a – within four, we call it T3 and T6. The plan is to converge them on to one common flexible architecture. So, going forward, the commonality will be very high. Right now, they're off two different platforms.

David Tamberrino

*Analyst, Goldman Sachs & Co. LLC*

Q

Okay.

Q

Hi, I'm going to ask a more strategic organizational question. How have you evolved your approach to product development kind of incorporating if any lessons learned from agile development and the whole kind of Silicon Valley approach to minimum viable product in the iterative development?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yes. Did Jim Hackett, put you up to that question?

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Q

No. I asked the same question to one your competitor so I will compare the answers.

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Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. Now, this has been on of Jim's biggest, biggest areas of focus is really challenging the way we work and we talk about the smart redesign. It's not just about head count reduction we know how to do that you just give everybody a budget task and they cut heads. What Jim's really the reason why he's calling it smart redesign is rethinking the way we work.

And one of his big fundamental beliefs is, he refers to it as designed thinking, but it's all about understanding consumers, recognize their unmet needs, ideating different ideas and then doing very rapid prototypes testing it with customers, using minimal viable prototypes, so that you're not [ph] bought (00:34:37) into – you don't have too much equity in the answer and then using that to speed up the process.

So let me give you some examples. Our battery electric vehicle, we created a team within Ford called Team Edison. We basically tried to disrupt ourselves. We took engineers, designers, scientists, marketing people outside of the mainstream organization, we put them down in a unique building in [ph] Corp Town (00:35:03) and we basically said your job is to disrupt Ford challenge all the rules and the conventions.

And I'm so excited to when you see the products you'll see the difference in terms of not only the product execution, but the way we've done everything like the technology, the human machine interface, it's game changing. It's something you never would have expected from a company like Ford. Then as part of the smart redesigns, we're taking the learnings from Team Edison and then trying to bring that back to our mainstream organization. But that's very much fundamental to the smart redesign we're doing right now.

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Q

So, you also are in charge of purchasing. So, I'm just curious as we think about sort of the relationship with suppliers and you lean on them from two aspects. I mean, is there the opportunity in the near-term to maybe lean on them for a little bit more cost savings in a more traditional sense. But [ph] known (00:36:02) in over sort of the long-term is the opportunity to lean on a little bit more for technology and in cost sharing in the future, particularly as we get into EVs and AVs and as you think about sort of that future technology, how much can they bring to the table and how much you need to control? I mean it's powertrain, with all the OEM, but with new Powertrains, the new autonomy where you kind of draw the line at what you're willing to buy is a full system from that.

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Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. So, it's very hard to generalize, but the key to how we think through that is we do a very thorough commodity segmentation of all the things we buy. So, our annual turnover is in excess of \$100 billion every year, but we have – I'll give you maybe two bookends. You have something that's truly a commodity maybe an A-pillar trim part, plastic injection molded, not high pressure mold. Everybody's got that equipment. That's a product where we would design it and we would market test it.

We would introduce low cost suppliers from places like Mexico, India, China and drive the price down and just leverage the market competition to drive the pricing down. That would be appropriate for a commodity like that. On the other bookend, if you're working with a partner around let's say Level 3 autonomy, you're not going to take that approach. There's only a handful of suppliers that have the capability to do that for you. And in those cases, we want to find the right partner and we want to engage them very early. We're giving them the design requirements. So, the performance requirements, we're letting them dictate how they want to design it, the recipe that they want to use. And then, whether or not they can meet our targets for function as well as costs.

And then, there's everything in between. So it really varies in terms of how we think about working with them. In terms of the opportunity to get more cost out, absolutely, I mean, you guys know covering the industry, the margins of our most suppliers are twice that of the OEMs. That's not sustainable over the long run, right. So there's got to be some parity in equity and we're working with our supplier partners to deliver the best value for everyone, because it's not healthy for them to see the OEMs underperforming in the long run either.

Q

And, Hau, I asked this question of Jim this morning on the call, but I'll ask it for you again. I mean, when you look at the global Ranger, you said it was number two and it doesn't even participate in North American market or the U.S. market specifically. In sharing that with VW, is there any risk that you're slightly opening the door to competition on what is Ford's core strength on trucks and it just seems like a slightly dangerous foray to sort of embark on with them.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. That's a great question. So I want to use the opportunity to just to clarify the scope of the alliance. In terms of pickup trucks, the sharing is only in three markets Europe, Africa and South America. It does not extend into markets like Asia-Pacific. So as you know, we build the Ranger in Azerbaijan for the Asia-Pacific region. It does not extend into North America where we've just launched the Ranger. So it's in markets where we already compete with them and the products will be differentiated and we have different brand positioning. So, we think it will be a win-win for both teams.

Dan Levy

*Analyst, Credit Suisse*

Q

Dan Levy, Credit Suisse. Wanted to first just start by asking a question on Lincoln. We've now seen one of your cross-town rivals go through another, call it, reinvigoration of their luxury brand, something that maybe they've lost some of their brand heritage. They're trying to find it, but it's been a struggle. And I think that one could make a similar case that Lincoln is still trying to, I guess, find its way in the industry. I see, obviously, there's good product out there with Navigator and Aviator, but how much more do we have to go on Lincoln? How long is the path to really finding that right niche for it in the market?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. So, I think we feel really good that we have a differentiated positioning for Lincoln in terms of within Ford – we don't use this as a external advertising mantra, but within Ford we refer to it as quiet flight. We're not trying to be a European [ph] driverless (00:40:47) car. We're not trying out outdo somebody else. We want to be differentiated and be Lincoln. It's really focused around delivering American luxury in a way that's maybe not over

the top. And so, that positioning, we feel really good about, it's differentiated, nobody's really trying to do the same thing.

We know from our analysis of the industry and we've looked at proxies with – if you look at Audi, if you look at some of the premium players and the near-premium players, it's a difficult journey. It takes at least two product cycles, if not three, to reinvent the brand. So, there's a lagging effect. The product could be there, and if you look at the third-party accolades that I've shared with you, we feel like the product is there. But the customers – it will take time for the customers to appreciate that, recognize that, and then reward you for that in terms of pricing and sales volume.

The good news is, we're making headway. So, the fact that our mix is so strong, the fact that our ATP went up to \$83,000 from \$56,000, the fact that 60% of those customers are new to Lincoln. Those are green shoots for us of the progress we're making. The great news is, the company is committed to it. We're not going to be impatient with it, we're not going to pull the ripcord on it, or switch directions, because we know it's going to take two or three product cycles, and we're in the middle of maybe one-and-a-half product cycles. We have to be patient.

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Dan Levy

*Analyst, Credit Suisse*

Q

Okay. Maybe a follow-up. In terms of adding technology, connectivity and ADAS Level 2, Level 2-plus content to vehicles, want to understand, to what extent is the technology that you're adding, something that customers are willing to pay for versus technology that you're adding, where you're really able to get a price premium from your customers. And obviously, as regulatory mandates make this a little more commoditized, how do you stay ahead of the curve, so that you're continuing to add technology that customers are willing to pay for, as opposed to something that's just commoditized and there's no value here?

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Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. It's a very fine balance and it's a part of our job. And the work that I do in terms of partnering with Jim Farley and the Global Markets team, the way I think about it, it's sort of like if you are a surfer – I grew up in New York City, so I can only imagine what it would be like to be a surfer, but if you paddle too slow, you'll miss the wave and if you're too far ahead of it, the whitewash will eat you up.

So, for us, if we're too slow, and it becomes a regulatory mandate like fix something, seatbelts, or ABS brakes, you have no pricing power, very limited pricing power. If you're too early, and the technology is still not mature enough and the cost is too high, no one is going to buy it. So, for us, it's all about finding that sweet spot of being ahead of the regulatory mandate, but at the scale and price point where customers will find value in it. And the autonomous technology is a fantastic test case of this.

So, there are systems out there that are really good in terms of function. Some of our competitors across the street have one, but if you look at the price points and the packet, it's like \$5,000. There are very few Ford customers that would pay \$5,000 for a feature. So, for us, what Jim Hackett has been challenging us on is, you have to start with the market demand, and use that to drive the technological solution. You can't engineer a Rolex watch and then try to go figure out how to price it in the marketplace, and that's been our approach.

We think right now, in the near-term over our business plan period, the sweet spot is going to be in that Level 2-plus range in terms of affordability and attractiveness in terms of sales volume. So, we have the technology to go beyond that, but not at a price point that's going to be sustainable. Yeah.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

I had just one or two follow-up questions if I may. The North American business has been a success story, there's no question about it. What you've achieved so far, the truck franchise, where you're going, looks very compelling with the new Ranger and Navigator and Aviator and Bronco. Where things kind of went off the rails a little bit for Ford obviously is markets like China and Europe.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

And in South America, it's a different story. But China and Europe are markets where there's a commitment clearly from the company to address this organically. And I was hoping you can just talk about that from a product development perspective, and maybe each market separately. Europe, it seems like you're just in the wrong markets, the markets that are most competitive. Brexit obviously hurt too. In China, you didn't have enough new product maybe and something happened to the brand. So what's your perspective on those?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. I think the markets are different. As you stated, we have different causal factors. So, maybe we can start with China. So, beyond just the kind of the macro market forces, we clearly had a product lineup that was aging. And we didn't have the right products in the right segments. The good news is we're in the midst of fixing all of that. We're going to be launching 12 new products this year in China. Many of them are in the right segments, utility products that were coming online.

We're also leveraging our joint venture partners to help us fill gaps in our product portfolio in terms of price spans, especially in – where the growth is happening in those Tiers 4, 5 and 6 cities. The territory would be a fantastic example of that. So we're pretty confident in that. I think the long-term plan for China is, we have to really be more autonomous in China. That market is changing at such a fast rate, and in many cases, that's leading the rest of the world in areas like connectivity and electrification as an example.

So, you'll see us really empower the team there more, in terms of capital allocation decisions around where they want to play and how they want to win, around design decisions and around sourcing decisions and really lean into our joint venture partners and tap into their knowledge of the local market. Anning Chen, our new leader – even though he's a former Ford employee, he spends quite a bit of time outside of Ford at Chery. He brings really a very fresh China-centric perspective. And we just have to give him time to have an impact. So, we're pretty excited about that.

Europe, the heart of the market is still in the B and C cars. There are segments that are very, very competitive. We – Bob Shanks, which he's shared with you in the past, the – kind of the bubble charts of where we have products that are returning the cost of capital, that are meeting our long-term EBIT margin targets, and the ones that are not and the decisions we've announced recently have been a good first step to really streamline that.

So, you're going to see us essentially focus our product portfolio around three key areas: commercial vehicles, so that's not only the commercial van, but also the Ranger pickup, we categorize that as a commercial vehicle in

Europe; passenger vehicles [ph] that are much (00:48:57) more reduced presence in segments where we know we can win; and then imported products, products like the Edge and the Mustang that we can bring in with very little spending and compete. And then we're going to leverage our alliances to help us restructure; and then, certainly, there's going to be a bit of restructuring that has to happen in terms of taking out capacity and head count in Europe.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

From a product perspective, is this something that we should be thinking is a couple of years to fix, because you've just recently started to reconfigure and change strategy in these markets, or will we see some – sounds like China has some products in the pipeline...

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. So, we have just launched the Focus in Europe, so that product has been really well received. We have an incremental, very emotive product coming online that we'll be launching over the next year. And then, we're working right now on our commercial product lineup and changing that over. So I think it's a similar story. There's products in the way. So it's not like you have to wait three or four years to see new products, but we're thinking beyond the next three years is really the cycle plan that we're deciding on now. It's maybe five years out in terms of where to play.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

Okay. And can you just talk a little bit about – a little bit more detail on how this Volkswagen arrangement works that you announced this morning.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

So product – it sounds like there's product that's coming out in 2023, product in 2024.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

Again, it's a long lead time kind of thing and maybe that's product cycle limited, right, because you have certain plans that you can't – things can't happen that quickly there, but in the near term there presumably is some kind of financial relationship with them and there are some product development information.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A



Well, we – yeah, so, it's basically centered on three products. We have a commercial van product in Europe. It's our Transit Custom truck and they have a facing product that we will be engineering – designing, engineering for them and sourcing it. So that's really important. We didn't call out. So, the Ford, my team will be leading the sourcing awards to all of our suppliers, for the combined volume and we will be building this for both companies. The same is true with the pickup truck.

Again, the focus on the commercial vehicle is in Europe, the pickup truck is in Europe, Africa and South America. Ford will be designing the truck. We're going to engineer it, we're going to source it, and we're going to build it for the two partners. And then, VW will have the same role on the smaller commercial vans. So, for us, it's our Transit Connects. For them, it's the Caddy. But that's again for the European market.

So, for us, we're already as part of my engagement today with our supply base is dimensioning for them the scale opportunities. As you can imagine, our combined volumes, we will be the market share leader. So, it's a tremendous windfall for our suppliers in terms of scale, efficiencies and revenue opportunity and it's a way for us to really mitigate some of the potential risk in terms of dealing with the suppliers, as we shrink in some of the other areas around the world. Yeah, so, we're very excited about it.

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Rod Lache

*Analyst, Wolfe Research LLC*

Q

In the interim, does Volkswagen reimburse you for developing these products for them and vice-versa?

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Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

So, Ford incurs the engineering. We get it back through the transfer price. Yeah.

---

Rod Lache

*Analyst, Wolfe Research LLC*

Q

When the vehicle is produced?

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Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah.

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Rod Lache

*Analyst, Wolfe Research LLC*

Q

Okay.

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Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

And that's why you're seeing us give you the guidance that it's going to be in the 2023, 2024 timeframe.

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Rod Lache

*Analyst, Wolfe Research LLC*

Q

Got you.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

So, we would have been incurring the spending anyways, right. So, it's not like it's incremental. It was in our plan. We're just now able to recoup more of it when we go to market.

Rod Lache

*Analyst, Wolfe Research LLC*

Q

Okay.

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah.

Q

With all the new product you're launching, I wondered if you've done – and if you're going to share – if you have done any cannibalization research, because presumably someone who was in a focus is not going to go buy a Bronco, now maybe some of those – some of that comes from a competitor, but some of it also comes from Explorer. And I guess, specifically as you launch the Ranger, how does that interact with the low-end work truck F-150?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Yeah. We actually view this as an opportunity. We've talked a lot about the mix and how much the average transaction price has increased when we changed over to the new architecture. The downside risk of that is, you run the risk of not being affordable. And in some cases, we were compressing our margins to keep that customer, that work customer. We now have the ability to target that customer with another product at a much lower cost basis. So, we feel like there's very little cannibalization. Certainly, we've looked at industry proxies in terms of what our competitors have done. We know, for example, the cross shopping and the cannibalization between Colorado and Silverado and we can use that as a proxy to understand what would happen to us. But we feel like it's not going to be a huge risk of anything, it's going to be an opportunity for us to have more coverage and maintain the pricing premium on the F-150.

Adam Michael Jonas

*Analyst, Morgan Stanley & Co. LLC*

Q

Hey. It's Adam Jonas of Morgan Stanley. So, actually, I think it's been coming from four years ago, when GM decided to exit Europe. And I can tell you, they're loving it. They love not having really any employees there. You have 54,000 employees in Europe right now. Could you do what GM did?

Hau Thai-Tang

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

Could we do it? I think it's technically possible, yeah. I don't want to speculate. I think we have to be careful, Adam, because we are in the period of sustained economic growth and you guys, who cover this industry, you know how the cyclical nature of it. That cyclical nature happens across markets and regions as well. And if you have

all of your eggs in one basket, you lose the ability to have that hedge. And so, for us, leaving Europe is not something that we feel like is the right thing for Ford.

It's still a very attractive market in terms of volume and profits, but it's also strategic for us in terms of technology and innovation. And it gives us a hedge, if there is a macroeconomic issue. So, technically, I'm sure we can do it. There will be some considerations, but it's not in our plans.

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**Adam Michael Jonas**

*Analyst, Morgan Stanley & Co. LLC*

Q

Just a follow-up. By the way, I think you sold about 112 F-150s so far. So, good job. China, how long – do you see any risk that as the cars become connected, taking photographs, collecting data, becoming part of a utility – a transport utility that foreign firms, particularly U.S. firms might be limited in their ability to participate in the best parts of those ecosystems?

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**Hau Thai-Tang**

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

A

I think we've recognized that the China market is different. The entire digital ecosystem is different and there are different partners. So, our solution in China has to be unique to China. We're trying to be intelligent about that in terms of how we design the hardware and the software architecture, so that we don't incur a lot of unique engineering. But what we want to do is, design the upper layer and partner with local players because it's not going to be Android and Apple CarPlay and Google, it's going to be [ph] BAT (00:56:49). And so, that's been our approach.

What we're really bullish about is, we feel like China has the rate of development in that space in China, China is now leading. And the opportunity for us is to take those learnings and actually apply it to other markets. And you guys have spent a lot of time there, you're seeing that firsthand. So, we think that's another reason why we want to be in markets outside the U.S. Yeah.

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**Rod Lache**

*Analyst, Wolfe Research LLC*

Well, I think we're out of time anyway. But thank you very much...

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**Hau Thai-Tang**

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

Thank you, Rod.

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**Rod Lache**

*Analyst, Wolfe Research LLC*

...Ford Motor Company.

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**Hau Thai-Tang**

*Executive Vice President, Product Development and Purchasing, Ford Motor Co.*

All right. Thank you.

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