TSLA Earnings Call – FY2025 Q1

Date: April 22, 2025

Operator

Good afternoon, everyone, and welcome to Tesla's First Quarter 2025 Q&A Webcast. My name is Travis Axelrod, Head of Investor Relations, and I'm joined today by Elon Musk, Vaibhav Taneja, and a number of other executives. Our Q1 results were announced at about 3 p.m. Central Time in the update deck we published at the same link as this webcast. During this call, we will discuss our business outlook and make forward looking statements. These comments are based on our predictions and expectations as of today. Actual events or results could differ materially due to a number of risks and uncertainties, including those mentioned in our most recent filings with the SEC. During the question-and-answer portion of today's call, please limit yourself to one question and one follow-up. Please use the raise hand button to join the question queue. Before we jump into Q&A, Elon will be providing an update. Elon?

Elon Musk

Hello, everyone. Well, there's never a dull moment these days. Thanks for sure. Every day is going to be exciting. As some people know, there's been some blowback for the time that I've been spending in government with the Department of Government Efficiency or DOGE. I think the work that we're doing there is actually very important for trying to sprain in the insane deficit that is leading our country, the United States, to destruction. And the DOGE team has made a lot of progress in addressing waste and fraud. The natural blowback from that is those who were receiving the wasteful dollars and the fortunate dollars will try to attack me and DOGE team and anything associated with me. So, but then I'm really left with two choices. Should we just let the waste and fraud continue? And it was continuing at a -- to grow at a really unsustainable pace that was bankrupting the country or to fight the waste and fraud and try to get the country back on the right track. And I believe the right thing to do is to just fight the waste and fraud and get the country back on the right track and working together with President Trump and his administration. Because if the ship of America goes down, we all go down with it, including Tesla and everyone else. So, I think this is critical work. Now, the protests that you'll see out there, they're very organized, they're paid for. They're obviously not going to say, admit that the reason that they're protesting is because they're receiving fraudulent money or that they are the recipients of wasteful largesse, but they're going to come up with some other reason. But that is - the real reason for the protests, the actual reason is that those receiving the waste and fraud wish to continue receiving it. That is the real thing that's going on here, obviously. So, now that said, I do think there's the large slug of work necessary to get the DOGE team in place and working in the government to get the financial house in order is mostly done. And I think starting probably next month, May, my time allocation to DOGE will drop significantly. I'll have to continue doing it for, I think, probably the remainder of the President's term, just to make sure that the waste and fraud that we stop does not come roaring back, which will do if it has the chance. So, I think I'll continue to spend a day or two per week on government matters for as long as the President would like me to do so and as long as it is useful. But starting next month, I'll be allocating probably more of my time to Tesla and now that the major work of establishing the Department of Government Efficiency is done. So, at Tesla, we've gone through many, many crises over the years and actually been through many near-death experiences. We were probably on the ragged edge of death at least on maybe a dozen times. It's been so many times. This is not one of those times. We're not on the ragged edge of death, not even close. So -- but there are some challenges, and I expect that this year will be, there will probably be some unexpected bumps this year. But I remain extremely optimistic about the future of the company. The future of the company is fundamentally based on large-scale autonomous cars and large-scale, large volume, vast numbers of autonomous humanoid robots. So the value of a company that makes truly useful autonomous humanoid robots and autonomous useful vehicles at scale at low cost, which is what Tesla is going to do, is staggering. I continue to believe that Tesla, with excellent execution, will be the most valuable company in the world by far. But that's an important if, we must execute well. But if we do execute well, I think Tesla will be the most valuable company in the world by far. It may be as valuable as the next five companies combined. So, but there'll be a few bumps along the road before that happens. I said I think on the last earnings call that we'll start to see the prosperity of autonomy take effect in a material way around the middle of next year. We expect to have these -- be selling fully autonomous rides in June in Austin, as we've been saying for now several months. So that's continued, but the real question from financial standpoint is when does it really become material and affect bottom line of the company and start to be a fundamental part of the -- when does it move the financial needle in a significant way? That's probably around the middle of next year, second half of next year. And then once it does start to move the financial needle in a significant way, it will really go exponential from there. So that's, I'd encourage people to look beyond like the, some sort of bumps and bundles of each road immediately ahead of us. But left your gaze to the bright shining sort of down the hill, I don't know, some Reagan-esque imagery. And that's where we're headed and not too distant future. Like I said, kind of next year or two. So, let's see. With respect to supply chain risk, something that Tesla has been working on for several years is to localize supply chains. This actually makes sense from a cost standpoint and from a logistics risk standpoint, is to have the supply chains be at least located on the continent in which the car is built. And so we are, I think the least, a company, the least affected car company with respect to tariffs, at least in most respects, I mean, it remains to be seen. Now, tariffs are still tough on a company when margins are still low. But we do have localized supply chains in North America, Europe, and China. So that puts us in a stronger position than any of our competitors. And undoubtedly, I'm going to get a lot of questions about tariffs, and I just want to emphasize that the tariff decision is entirely up to the President of the United States. I will weigh in with my advice with the President, which he will listen to my advice, but then it's up to him, of course, to make his decision. I've been on the record many times saying that I believe lower tariffs are generally a good idea for prosperity, but this decision is fundamentally up to the elected representative of the people being the President of the United States. So, you know, I'll continue to advocate for lower tariffs rather than higher tariffs, but that's all I can do. So, now let me walk you through why I'm so excited about the future of Tesla. So, first of all, autonomy. The team and I are laser focused on bringing robotaxi to Austin in June. Unsupervised autonomy will first be solved for the Model Y in Austin. And then -- actually you should parse out the terms robotic taxi or robotaxi and just generally like what's the Cybercab because we've got a product called the Cybercab and then any Tesla which could be an S3 extra wide that is autonomous is a robotic taxi or robotaxi. It's very confusing. So the vast majority of the Tesla fleet that we've made is capable of being a robotaxi or robotic taxi. And as we're going from -- once we can make the whole system work where you can have paid rides fully autonomously with no one in the car in one city, that is a very scalable thing for us to go broadly within whatever jurisdiction allows us to operate. So, because we're solving for is a general solution to autonomy, not a city specific solution for autonomy. Once we make it work in a few cities, we can basically make it work in all cities in that legal jurisdiction. So, if it's -- once we can make it based to work in a few cities in America, we can make it work anywhere in America. Once we can make it work in a few cities in China, we can make it work anywhere in China, likewise in Europe, limited only by regulatory approvals. So, this is the advantage of having a generalized solution using artificial intelligence. And the -- an AI chip that Tesla designed specifically for this purpose as opposed to very expensive sensors and high precision maps of a particular neighborhood where that neighborhood may change or often changes and then the car stops working. So, we have a general solution instead of a specific solution. Then, with regards to Optimus, we're making good progress in Optimus. We expect to have thousands of Optimus robots working in Tesla factories by the end of this year, 10 years forward. And we expect to scale Optimus up faster than any product, I think, in history, to get to millions of units per year as soon as possible. I think I feel confident in getting to a million units per year in less than five years, maybe five years. So, by 2030, I feel confident in predicting a million Optimus units per year, it might be 2029. So,

let's see with respect to energy, energy business is doing very well. The Megapack is -- enables utility companies to output far more total energy than would otherwise be the case. When you think of the energy capability of a grid, it's much more than, say, total energy output per year. If the powerplants could operate at peak power for all 24 hours, as opposed to being at half power, sometimes a quarter power at night, then you could double the energy output of existing power plants. But in order to do that, you need to buffer the energy, so that you can charge up something like a battery pack at night and then discharge into the grid during the day. So, this is a massive unlock on total energy output of any given grid over the course of a year. And utility companies are beginning to realize this and are buying in our Megapacks at scale. So, at this point, a gigawatt class battery is quite a common thing. So, we have many orders and offer for gigawatt and beyond batteries. And we expect the energy -- the stationary energy storage business to scale ultimately to terawatts per year. So very, very good numbers. Now, Q1, first quarters of a year are usually pretty tricky. Because it's usually the worst quarter of the year because people don't want to go buy a car in the middle of winter during the blizzard. So we picked Q1 as a good quarter to do a cutover to the new version of the Model Y and we changed production of the world's best selling cars with -- remember the Model Y is the best selling car of any kind on earth with a 1.1 billion unit per year output of a single model. And we did this changeover at the same time in factories all across the world. So congratulations to the Tesla team on an amazing job in pulling off what is a very difficult transition. So yeah, it's really very impressive work. So, yeah. In conclusion, while there are many near-term headwinds for us and the border industry, the future for Tesla is brighter than ever. The value of the company is delivering sustainable abundance with our affordable AI powered robots. So this, I like this phrase, sustainable abundance for all. If you say, like, what's the ideal future that you can imagine? That's what you'd want. You'd want abundance for all in a way that's sustainable. It's good for the environment. Basically, this is the happy future. If you say what's the happiest future you can imagine. One which is that would be a future where there's sustainable abundance for all. Closest thing to heaven we can get on Earth, basically. So, thank you again to the test team for all their efforts of the challenging time. I look forward to continuing to lead the team to great success in the future.

Travis Axelrod

Great. Thank you very much, Elon. Before we move on, Vaibhav has some opening remarks as well.

Vaibhav Taneja

Thanks, Elon. As Elon mentioned, in Q1, we achieved something which has never been undertaken in the automotive industry of updating all our factories for the best-selling car in the world, all at the same time. And this is, people don't understand, this was not a small feat. We're not aware of anybody else being able to do the best-selling car all at once within a quarter. And that too hitting all the timelines which we had established at the beginning. So, big kudos to the team for making this happen. Additionally, we also hit record gross profit for energy storage business in the quarter. Now, getting back into the business, there has been a lot of speculation as to the reasons for decline of our vehicle deliveries in the first quarter. We had previously guided that we will be updating all factories and this will lead to several weeks of lost production, which did happen as planned. The ripple effect of the change is not having enough new Model Y available in most markets for people to see and experience till the last few weeks of the quarter. Additionally, the negative impact of vandalism and unwanted hostility towards our brand and our people had an impact in certain markets. Despite this, we were able to sell out legacy Model Y in US, China, and a few other markets within the world. And again, just so that people understand, we were producing the legacy Model Y till middle to end of February. And we switched over and we were able to still sell out within that period. So, again, big achievement by all the people at Tesla to make it happen. We've been extremely -- we have a very extremely competitive vehicle lineup, which with most vehicles going through a recent update, and add to that, if it wants an FSD, you have a personal chauffeur which can take you almost anywhere under supervision. There are numerous stories shared by customers ranging from how it has improved their daily commute, to providing mobility to customers with disabilities, to giving older customers the ability to travel comfortably and independently. Not only is FSD Supervised safer than a human driver, but it is also improving the lives of individuals who experience it. And again, this is something you have to experience, and anybody who has experience just knows it. And we've been doing a lot lately to try and get those stories out, at least on X, so that people can see how other people have benefited from this. Now, coming into some of the financial stuff, auto margins declined sequentially primarily due to a reduction in the total number of deliveries, lower fixed cost absorption due to factory change awards and lower regulatory credit revenues offset by a slight increase in pricing due to the launch of new Model Y despite incentives which we had to sell legacy Model Y. Our energy storage business, like I said before, has achieved yet another milestone of create highest gross profit in the quarter. This was despite sequential decline in deployments. The importance of this business, as Elon mentioned, is pretty profound, especially in this environment. Because, in order for our grid to work properly with the demands from AI and all this, you need some more stability. This is by far the simplest and best solution, which we are aware of, which can help do this. And we've also developed certain unique solutions to help our customers to achieve this. Additionally, on the Powerwall side, we've been selling the new Powerwall 3, and it's been received with very good reception from customers, and to the extent that we are currently supply constraint. On services and other margins, they were slightly down sequentially, primarily because of the pressure on our used car business and insurance business. Note that we continued our journey to improve profitability in our services and collision business through better labor productivity. As previously discussed, our operating expenses continue to increase sequentially, primarily due to our AI-related initiatives, including Optimus, and also cost of development for our vehicle programs, including Cybercabs, SEMA, and cheaper models. These expenses flow through R&D. We believe even in the current environment, it is the right strategy, in making investments in these areas to position us for the long term. These increases were offset by decreases in SG&A changes in our vertical effort program. Other income reduced significantly on a sequential basis. The primary reason was Bitcoin mark to market loss in Q1 versus gain in Q4, resulting in a $472 million drop. The remainder of the change is because of FX reimbursement. With the adoption of the new mark to market standard for Bitcoin, we expect increased volatility in other income in addition to the FX volatility. I know tariffs is the hottest topic which people talk about and it has various impacts to our business. And as Elon mentioned, on the vehicle business, we've been on this journey of regionalization for years. Specifically in the US, Model Y has been rated the most American model made car on Cars.com Made in America index three years ago. [This end product] (ph) of the all the work which team has been doing all the years and to the extent that today, if you look at our vehicle lineup in US, we're about approximately on a weighted average basis 85% USMCA compliant. So, like Elon said, this definitely gives us a bigger edge as compared to our other OEMs in terms of managing the tariffs, but we're not immune because when the Section 232 auto tests become effective in May, which includes Canada and Mexico, and Canada and Mexico has been part of our regionalization study. They will have an impact on profitability. And I know research modeling on this impact has been up about a couple of thousand units which is pretty much in line with what we've been forecasting. The impact of tariffs on the energy business will be outsized since we source LFP battery cells from China. We're in the process of commissioning equipment for the local manufacturing of LFP battery cells in the US. However, the equipment which we have can only service a fraction of our total installed capacity of late. We've also been working on securing additional supply chain from non-China based suppliers, but it will take time. Also note that, in spite of all the impact on US from energy -- from tariffs on the energy business, we do have a Megafactory China which just started operations in Q1, and that should take care of our business outside of the US. There's also an important impact of tariffs on our capital investments. I know this is going to sound counterintuitive since in order to launch manufacturing or expand lines, we have to bring equipment from outside the US because there is not that much capacity in the US. And the current trade environment, such equipment being brought in is subjective.

Elon Musk

The expense is bringing in from China right now.

Vaibhav Taneja

Exactly. And the reality is that China has the basic one, which has the most capacity to provide [indiscernible]. Our CapEx guidance inclusive of [tariffs] (ph), even with the optimization we have tried to do, it is forecasted to be still in excess of 10 billion this year. We're still evaluating what more to do on this one. To summarize, we have near-term challenges in our business due to tariffs and brand image. We think our strategy of providing the best product at a competitive price is going to be a winner, and this is the reason we're still focused on bringing cheaper models to market soon. The start of production is still planned for June. Additionally, the advancement in FSD related features, including pilot robotaxi launch in Austin later this year, should help create a new era of demand. I would like to thank everyone at Tesla and our customers.

Travis Axelrod

Fantastic. Thank you very much, Vaibhav.

A - Travis Axelrod

Now, we will move on to investor questions. We will start with questions from say.com. First question is, what are the highest risk items on the critical path to robotaxi launch and scaling?

Ashok Elluswamy

It is Ashok.

Travis Axelrod

Yeah, we've got Ashok on line.

Elon Musk

Sure. Well, just to talk about the -- disambiguate Cybercab from robotaxi once again. So, the -- when will -- the Tesla's because the Tesla's that will be fully autonomous in June in Austin are probably Model Ys. So, that is currently on track to be able to do paid rides fully autonomously in Austin in June and then to be in many other cities in the US by the end of this year. It's very difficult to predict the exact ramp sort of week by week and month by month except that it will ramp up very quickly. So, it's going to be like some basically an S curve where it's very difficult to predict the intermediate slope of the S curve, but you kind of know where the S curve is going to end up, which is the vast majority of the Tesla fleet being autonomous. So, that's why I feel confident in predicting large scale autonomy around the middle of next year, but yeah. Certainly the second half of next year, meaning, I predict that there will be millions of Tesla's operating autonomously, fully autonomously in the second half of next year. Yeah. It does seem increasingly likely that there will be a localized parameter set, especially for places that have, say, very snowy weather, like, say, if you're in the northeast or something. Like this, you can think of it, it's kind of like a human. Like, if you, you can be a very good driver in California, but are you going to be also a good driver in a blizzard in Manhattan? You're not going to be as good. So there is actually some value in, you still drive, but you're probably, of an accident is higher. So it's increasingly obvious that there's some value to having a localized set of parameters for different regions and localities. But this is -- I'll put that in the nice-to-have category, not -- it's not the required category. Again, it's -- really the car is, it's just very much like the human. It's digital neural nets and cameras and humans operate with biological neural nets and eyes. And so the same strengths and weaknesses will be present. Or, a digital neural net and cameras versus a biological neural net and eyes. Ashok, if you'd like to elaborate on that.

Ashok Elluswamy

Yeah, speaking to the location specific models, we still have a generalized approach and you can see that from deployment of FSD Supervised in China, with this very minimal data that's China specific, the models generalize quite well to completely different driving styles. That just shows that the AI-based solution that we have is the right one because if you have gone down the previous rule-based solutions or like more hard-coded HD map-based solutions, it would have taken many, many years to get China to work. You can see those in the videos that people post online themselves. So, the generalized solution that we are pursuing is the right one that's going to scale well. And you can think of this location specific parameters that you don't need to ask a mixture of experts. And if you are sort of like familiar with the AI models, the Grok and others, they all use this mixture of experts to sort of like specialize the parameters to specific tasks while still being general. This makes the model use limited amount of compute to solve for the diversity of tasks that it has to solve. In terms of addressing the question that asked for, what are the critical things that need to get right, one thing I would like to note is validation. Self-driving is a long-tail problem where there can be a lot of edge cases that only happen very, very rarely. Currently, we are driving around in Austin using our QA fleet, but then it's super rare to get interventions that are critical for robotaxi operation. And so you can go many days without getting any single intervention. So you can't easily know whether you are improving or regressing in your capacity. And we need to build out sophisticated simulations, including neural network based video generation. That's all happening in the background to make sure that we deliver a safe product and we are able to measure our safety even though we can't just exceed when we're driving around the block or something like that.

Elon Musk

Yeah, I mean, very basic terms. If that -- if we're seeing an accident every 10,000 miles, well, then you have to drive 10,000 miles of average before you get an accident or an intervention. So, it's like, okay, I mean, we must be really, you don't have to be very worked out by the sheer number of Teslas doing [indiscernible] in Austin right now. We're like, it's going to look pretty bizarre.

Ashok Elluswamy

Some people are chasing us away.

Elon Musk

Yeah, there's just always a convoy of Teslas going. Well, just going all over to Austin in circles. But yeah, I just can't emphasize this enough, in order to get -- figure out long tail things, it was one in 10,000, that says one in 20,000 miles, well one in 30,000. The average person drives 10,000 miles in a year. So, now try to compress that test cycle into a matter of a few months. That means you need a lot of cars doing a lot of driving in order to compress that or to do in a matter of a month what would normally take someone a year.

Ashok Elluswamy

Yeah, and I would just also add that if you haven't looked at those videos coming out of China, people are really…

Elon Musk

Yeah, those videos are amazing.

Ashok Elluswamy

Yeah, they're putting it to real test. I mean, they're dark roads.

Elon Musk

Frankly, I think the Chinese consumer might be the most [American] (ph) consumer and, I actually, our customers in China are awesome. They have a lot of fun with the cars. I saw one guy take a Tesla on -- autonomous on a narrow road across like a mountain. And I'm like, very brave person. And the Tesla's driving along on a road with no barriers where he makes a mistake, he's going to plunge to his doom. But it worked.

Travis Axelrod

Great. Thank you. And the question was on Cybercab itself, we're in B sample validation now.

Elon Musk

Yeah, we should ask that question too.

Travis Axelrod

Yeah, we have our first big builds coming at the end of this quarter in Q2. And then in the coming months, we start to large scale installation of all the equipment in Giga Texas with still on schedule for production next year.

Travis Axelrod

Yeah. And I just want to also to clarify because I think people don't understand the thing that there's no new building being built and where is Cybercab going to -- literally the same factory.

Lars Moravy

It's happening and people don't know it’s just happening upstairs all the long lines while we're still building the Model Ys and Cybertrucks every day.

Elon Musk

Yeah. So it's worth noting that the Tesla Gigafactory at Austin is three times the size of the Pentagon.

Lars Moravy

Including the garden.

Elon Musk

Yeah, including the ground zero garden. And I’d go visit Pentagon like, this building used to look big, but then you won’t.

Travis Axelrod

Great. Thank you very much. The next question is, when will FSD Unsupervised be available for personal use on personally-owned cars?

Elon Musk

Before the end of this year. Not necessarily -- I say within the US, like we do want to test -- at Tesla, we're absolutely hardcore about safety. We go to great lengths to make the safest car in the world and have the lowest accidents per mile in. So -- and look, fewest lives lost. So we want to be very careful. So we want autonomy to be definitively safer than manual driving. So it's not enough that it just be as safe. It needs to be meaningfully safer than if it's cars mainly driven. And we want to confirm that there's not something -- we just want to be cautious with the rollout. We don't want to jump in at the deep end with an army. So with that said, I think we should -- people should -- we should be able to have it work in several cities later this year for personal use. So the acid test being you should be able to -- can you go to sleep in your car and wait until your destination? And I'm confident that it will be available in many cities in the US by the end of this year.

Travis Axelrod

Great. Thank you very much. The next question is, is Tesla still on track for releasing more affordable models this year? Or will you be focusing on simplifying versions to enhance affordability similar to the rear-wheel drive Cybertruck?

Lars Moravy

Yeah, we're still planning to release models this year. As with all launches, we're working through like the last-minute issues that pop up. We're not getting down one by one. At this point, I would say that ramp maybe -- might be a little slower than we had hoped initially, but there's nothing, just kind of given the turmoil that exists in the industry right now. But there's nothing blocking us from starting production within the next -- within the timeline laid out in the opening remarks. And I will say, it's important to emphasize that as we've said all along, the full utilization of our factories is the primary goal for these new products. And so flexibility of what we can do within the form factor and the design of it is really limited to what we can do in our existing lines rather than build new ones. But we've been targeting the low cost of ownership. Monthly payment is the biggest differentiator for our vehicles. And that's why we're focused on bringing these new models with the big, new lowest price to the market within the constraints of selling.

Travis Axelrod

Great. Thank you very much. The next question is, does Tesla see robotaxi as a winner-take-most market? And as you approach the Austin launch, how do you expect to compare against Waymo's offering, especially regarding pricing, geofencing and regulatory flexibility?

Elon Musk

Well, okay. The issue with Waymo's cars is it costs way more money, but that is the issue. The car is very expensive, made in low volume. Teslas are probably cost 25% or 20% of what a Waymo costs and made in very high volume. So, ironically, like, we're the ones to make the bet that a pure AI solution with cameras and what do you have? The car actually will listen for sirens and that kind of thing. It's the right move. And Waymo decided that an expensive sensor suite is the way to go, even though Google is very good at AI. So I'm wondering. And it is worth noting that Tesla has both an incredible AI software team and AI hardware chip design team, prospect [indiscernible]. So yeah, it's really -- I mean, I don't see anyone being able to compete with Tesla at present. I'm sure that'll change eventually, but at least as far as I'm aware, because we will have, I don't know, 99% market share or something ridiculous. That 90-something-percent, at least, I don't know, some of them might change, but if we have millions of cars deployed next year unless others have millions of cars deployed, like, we'll have -- unless we're blocked by regulatory situations, it won't be long. I mean, in a few years, we'll have 10 million autonomous cars on the roads and counting.

Ashok Elluswamy

The other thing which people forget is like we're not just developing the software solution, we are also manufacturing the cars. And like, Waymo has, they're taking cars and then trying to put...

Elon Musk

Waymo in it.

Ashok Elluswamy

We don't do that, so that definitely gives us a big leg-up. And like Elon said, we only have a big existing fleet which hopefully, with a software update could become autonomous.

Elon Musk

With software update, it will become autonomous. To be clear, the Model Y that we are talking about in being autonomous in Austin in June are the Model Ys we make currently, there's no change to it.

Ashok Elluswamy

I think people don't appreciate that the car they can buy today...

Elon Musk

The car that they have.

Ashok Elluswamy

Are the car they have is capable of these kind of things.

Vaibhav Taneja

In fact, it does drive autonomously from the factory to the end of line, every car nowadays.

Lars Moravy

That runs through the tunnel, the Model Y is everything.

Elon Musk

Right. Yes, exactly. We have -- it has been pointed to use -- it's doing useful work fully autonomously at the factories as Ashok was mentioning. The car is driving itself from end of line to where it was supposed to be picked up by a truck to be taken to a customer. And I'm confident also that later this year, the first Model Y will drive itself all the way to the customer. So, from our -- probably from our factory in Austin and one in here in Fremont, California, I'm confident that from both factories, we'll be able to drive directly to a customer on the factory.

Lars Moravy

Cool delivery.

Elon Musk

Yeah, literally goes from the end of line and drive themselves to your house.

Lars Moravy

It's important to note in the factories, we don't have dedicated lengths or anything. People are coming out every day, trucks delivering supplies, parts, construction.

Elon Musk

And people can film it. By the way, you can see this from the road. Like, it's not covered. And there's many people take videos online. And anyone who wants to see it and just drive past our Fremont factory and see the autonomous cars driving themselves. And they drive themselves and they put themselves in the exact right spot to be picked up.

Lars Moravy

Yeah, the logistics yard is right there in the open. We don't move it again to another lane.

Elon Musk

They go to a specific spot, parking spot. Yeah. So that's just a routine like everyday thing now.

Travis Axelrod

Great. Thank you very much. The next question is, can you please provide an update on the unboxed method and how that has progressed?

Lars Moravy

Sure. It's progressing, absolutely. As I mentioned just a minute ago, like it is the basis for our Cybercab manufacturing process. It's really what we changed in order to allow the low cost of production and also get the super high levels of automation. Really, levels of automation that are sort of unheard of in the vehicle manufacturing scale. This is like not something that when you see it be produced, you'll think of in terms of, like, wow, this car has been built for 100 years. It's really something we've changed. In the past year, we've been like focusing on a lot of key development areas like, marrying these large subassemblies together in a precise way, in an accurate way. We've also derisked things like corrosion of uncoated aluminum structures, the ceiling across the seams of the vehicle and when you marry several components. And we've even done early crash testing and improvement that like it's going to be just as safe as the other car we build. So like we're -- as with all that combined, we kind of go into the builds that we have in this quarter for the Cybercab product, and that's the next real big test of full-scale integration with the unboxed process. And that's kind of where we are. So you'll see them on the test roads in a couple of months.

Elon Musk

Yeah. Although the line won't be at this rate…

Lars Moravy

Initially.

Elon Musk

Initially, this is a revolutionary production system. I'm not sure what the right word is. Unboxing sounds like something when you get your phone.

Lars Moravy

And you open it up.

Elon Musk

You have like a pleasant experience when you take your phone out of the box, which of course is nice, but this is more revolutionary than that. This is a profound reimagining of how to make cars in the first place. No car is made like this anywhere in the world. The factory is the product as much as the car is the product. So, this really is the first principles approach to manufacturing that will ultimately allow us, I think, to -- I'm trying to think, I'm confident, ultimately allow us to achieve a cycle time, meaning a unit every five seconds or less, off a single line.

Ashok Elluswamy

And we want to incorporate some of these for testing into our existing production lines as well with the Cybertruck already.

Elon Musk

I mean, this is something I've been thinking about for a long time and sort of thinking about this a long time, and it's kind of -- it's not a crazy thing. Like a car every five seconds may sound like it's coming out like bullets, but actually it's coming out at walking speed.

Ashok Elluswamy

It's a meter a second.

Elon Musk

A meter a second. So this is like we're still far away from caring about the ergonomic drag of the manufacturing line because you're still at 3 miles an hour. Every five second sounds crazy but it's 3 miles an hour that we're talking about. So yeah, you can run away from it basically. But that's still, by far, and fastest line on Earth, and it's like half hour make, [indiscernible]

Lars Moravy

Shanghai phase 2. 33 seconds.

Elon Musk

We're the fastest, right?

Lars Moravy

I would think so.

Elon Musk

We think we're the fastest at 33 seconds in our Shanghai factory, but this would be six times faster or seven times faster, thereabouts. I mean, it'll be slower than that but the point is that like when you fully optimize the design and you've got operation of the next-generation factory that we're building right now, the 5-second cycle time or less is, the design is capable of it. So if you -- when you go through like new architecture, you go from like being like in any -- I mean, probably China in particular is an A+ on a moderately, an advanced but still traditional car production system. So they're really in about as good as possible to do within in a conventional scenario. So trying to get much below, sort of below like 30 seconds, extremely difficult. But, and you start getting into sort of impossible where you just -- you have to be faster than a human could possibly move. So then the autonomous line, it really just needs to be robust moving really fast, and that's where you get to sub-5 seconds. But we'll start off with getting a C and a new architecture, but then the potential is there over time to move them up to an A+, within an A+ architecture.

Travis Axelrod

Great. Thank you very much. The next question is, how is Tesla positioning itself to flexibly adapt to global economic risks and form of tariffs, political biases, et cetera?

Vaibhav Taneja

As Elon said, we've been [indiscernible] team for a while. We continue to mitigate global economic risks like tariffs and political biases by regionalizing part supply factories in North America, Berlin and Shanghai. For example, in North America, our high-volume vehicle programs have over 85% North America content and Shanghai vehicles have over 95% local content. Berlin has similar levels of regionalization as North American when you exclude the battery, and we are working on regionalizing the battery as well. This is a pre-pandemic strategy that we accelerated post pandemic through supply diversification, dual-sourcing, vertical integration, advanced analytics, and local partnerships to ensure supply chain resilience and production stability. Having said that, we are not 100% insulated and these tariffs rates are higher on our low volume platforms than the high-volume ones.

Elon Musk

Yeah. There's no more vertically integrated car company than Tesla. I mean, we're taking -- we're most vertically integrated car company since Henry Ford back in the day when they're doing mining iron and stuff and growing rubber trees. Like we're not growing rubber trees and mining iron yet. But we are -- we have both a lithium refinery in South Texas. And it's -- I mean, the biggest lithium refinery outside of China, I think. Is that right?

Unidentified Company Representative

Yeah. I think so.

Elon Musk

But it has -- its upward potential would be the biggest lithium refinery outside -- and we've got to expand and build more, right. And then we've got the catheter refinery in Austin next to Gigafactory. We've got to figure out what to do about the anode. This is an ongoing subject of discussion. The best of all possible would be figuring how to have no anode. Best part being no part. That's the dream of the lithium batteries to be not having anode. But either way, we better have the anode, the cathode and the lithium and the electrolytes, separator to make a cell. But there's no other car company that has both lithium refineries and cathode refineries. We're ridiculously vertically integrated, and thus are best positioned to protect against supply chain disruptions. You want to talk that progress?

Unidentified Company Representative

Yeah. Certainly, for our in-house cells, we've multi-sourced every component. We have every path coming from at least two different countries of origin, which is we started this -- the supply chain team and the engineering team worked together on this for the last couple of years to put that together. It's not something we did in a couple of months. This is years of work. So we're in a good position to take advantage of that and the in-sourcing of lithium and cathode, the two most critical parts that actually does run that backyard and we're totally insulated from.

Elon Musk

I think it need to be an operation.

Unidentified Company Representative

I think it need to be an operation.

Elon Musk

We also make our own cells by the way. Cell production, if you took this -- you make the anode, the cathode, the lithium, the electrolyte separator, can and then you got to put all that together in the cell factory and there are entire companies that only do is produce cells but they don't do the other stuff, refine lithium or the cathode or. So, our cell production is going quite well. And I think we're, we're a company sort of the lowest cost per kilowatt hour.

Unidentified Company Representative

All cells we purchase in North America.

Elon Musk

Yeah. So we have the lowest cost per kilowatt hour, all things considered. So the Tesla cell is the most competitive cell. Yeah, for a kilowatt hour bringing to a car, it's a Tesla cell, it's lower cost than a supplier cell.

Unidentified Company Representative

Yes. And the plan this year is to really build off that base. Getting to lowest cost is, it's the hardest challenge for so many entry. It's relatively easy to build a flashy product that does one thing well. To build something at high volume, low cost is super difficult, and we're kind of using that space to let go off and add performance in different areas for new products coming out.

Lars Moravy

Yeah. I mean, to Elon's point, there's a lot of advantages for regionalization. The most important thing is we're maximizing the working capital for six to eight weeks on the ocean. If there's a design change, then everything that's in transit basically has to be scrapped. Secondly, port disruptions, as we saw during COVID, can be very expensive because slide disconnects can shut down production. So then your only option is costly expedite. It also gives us resilience in supply chain. If one region is down, we can bridge with others. It's more to set up in the beginning, but it's critical to have when the need arises. Having said that, it's unrealistic there's 100% regionalization across the board for specialized areas such as semiconductors. In such cases, our teams works very closely with our partners to ensure we have strategic banks in place and disruption doesn't impact production while we stand up the regional manufacturing for that particular commodity.

Unidentified Company Representative

And I'll say like unless the vehicle, like Elon was talking about with cells, we're also heavily integrated, important ingots, internal castings, we recycle those and melt some. There's the same thing with plastics, but it doesn't mean we're not exposed. We do have some areas where we use magnets and we've been working for years to find alternative sources and bring those up as well as we have machines. And as we've mentioned in the past, we're working on ferrite numbers for some time. So like, as Karn said, with our heavy regionalization percentages, we definitely like the lowest exposed to this, but we're not completely immune as Vaibhav mentioned.

Travis Axelrod

Great. Similarly related on the battery side. Is Tesla still battery supply constrained as noted on the Q4 call and does that change with tariffs?

Karn Budhiraj

This is Karn. We've been working very hard to expand battery cell production in the US, both with vendors and what Bonnie mentioned earlier with the 4680 program. And we're also working on moving the upstream supply chain for battery cells to the United States for several years. And that strategy is really starting to pay off now. As it stands right now, we're not constrained on battery cell supply for vehicles. The recent tariffs do pose some challenges to Tesla Energy, well, like our CFO mentioned earlier, but it's something we've been anticipating and we should be able to resolve in a timely fashion. We actually have a kind of place right going towards it. We also have some other sources coming online to supplement the shortfall. And then of course, we have the production that's happening in-house. We have a slight disconnect of aligning the right cells with the right path. So that's the little bit of puzzle that we have to solve internally. But as far as cells go, there's no shortage.

Travis Axelrod

Great. Thank you very much. The next question is, did Tesla experience any meaningful changes in order inflow rate in Q1 relating to all the rumors of brand damage?

Unidentified Company Representative

In Q1, as I mentioned earlier, we took the best-selling car over the last two years and ramped up all four of our global factories. And in less than eight weeks, we've already gone to the rate of our previous Model Ys in the factories. So, just kudos again to the team for the great job there. And despite the economic strain and negative articles, in California in Q1, Tesla remained the best-selling car, not just EV. And additionally, we had a record number of test drives globally in Q1 as well. So, interest remains high. And so right now, we continue to see good interest still on vehicle.

Elon Musk

Yeah. I mean, Tesla is immune to sort of the macro demand for cars. So when there is economic uncertainty, people generally want to pause on buying, doing a major capital purchase like a car. But as far as absent macro issues, we don't see any reduction in demand.

Unidentified Company Representative

Correct. And that's what we're continuing to focus on affordability. And it's fun to focus there.

Travis Axelrod

Fantastic. Thank you guys. The next question is regarding the Tesla Optimus pilot line, could you confirm if it is currently operational? If so, what is the current production rate of Optimus bots per week? Additionally, how might the recent tariffs impact the scalability of this production line moving forward?

Elon Musk

I want to emphasize Optimus is still very much a development program. It's not a large volume production. This year, we'll make a few -- we do expect to make thousands of Optimus robots, but most of that production is going to be at the end of the year. So the -- almost everything in Optimus is new. There's not like an existing supply chain for the motors, gearboxes, electronics, actuators, really anything in the Optimus apart from the AI for Tesla -- Tesla AI computer, which is the same as the one in the car. So when you have a new complex manufactured product, it will move as fast as the slowest and least lucky component in the entire thing. And as opposed to proximation, there's like 10,000 unique things. So, that's why anyone who tells you they can predict with precision the production ramp of the truly new product is -- doesn't know what they're talking about. It is totally impossible. So, you go through this like a series of constraints where I would think this part is a limiting factor, now that part is a limiting factor, and this part is a limiting factor and multiply that by 1,000 basically. And then the rate of the production is decided by how quickly you can solve each of those problems. Now, Optimus was affected by the magnet issue from China because the Optimus actuators in the arm do use permanent magnets. Now Tesla as a whole is not me to use permanent magnets. But when something is volume constrained, like an arm of the robot, then you want to try to make the motors as small as possible. And then so we did the design in permanent magnets for those motors, and those were affected by the supply chain, by basically China requiring an export license to send out anywhere with magnets. So, we're working through that with China. Hopefully, we'll get a license to use the rare earth magnets. China wants some assurances that these are not used for military purposes, which, obviously, they're not. They're just going into a humanoid robot. So that's not a weapon system. But that that is certainly an example of a challenge there. But I'm confident we'll overcome these issues, and we'll, by the end of this year, have thousands of populous robots.

Travis Axelrod

Great. Thank you very much. And the last question, we already covered earlier, whether Robotaxi was still on track for this year. So, with that, we can move on to analyst questions. The first question is going to come from Pierre at New Street. Pierre, please unmute yourself.

Pierre Ferragu

Hey, guys. Can you hear me?

Elon Musk

Yeah.

Pierre Ferragu

That's great. I'm super excited to hear robotaxi and Optimus becoming the very tangible future for Tesla. But I have actually a question on the legacy, not legacy, in the current like auto business. And when I look back to the ramp of Model 3 a few years ago, I really saw it as being the iPhone of cars, a new product, completely reinvented, very different user experience, vastly superior, impossible to match for traditional competitors. And for the iPhone, which resulted in the high end of the smartphone market quadrupling in size and actually Apple taking 60% market share. And so when you look at the Model 3 and the Model Y today, I think they are still actually vastly superior to any other cars. And I wonder why they've taken about 15% of their addressable market and not more actually? So, another way to put it is, why are there so many people still buying BMWs and Mercedes, knowing that Model 3 and the Model Ys are out there and available? And I wonder if you're trying to solve that internally. If you understand why -- what are these auto buyers buying a Model 3 or Model Y missing? And if you have ideas of things you could do to address that, maybe there is enormous value left on the table there. Yeah, that's what I'm wondering these days.

Elon Musk

Yeah. The reality is that, in the future, most people are not going to buy cars. So it's kind of what, one could sort of say, look, if you think one to continue with your phone metaphor, I mean, you can remember the days of the flip phones when there was a hundred different flip phone designs. And I would, the mistake that lump manufacturers made was to try to make that many different variants of a flip bone, but which was a mistake. They should have made the iPhone. So, because obviously everyone's going to want a smartphone. But in the beginning of when the iPhone came out, I was like, wow, I can't believe these guys are not reacting as though this is death. But they didn't, they kept making the variants of smartphones. Nokia, I think, at one point was the most valuable company in the world or close to it, but they kept making flip phones. Trying to find another market niche. Maybe somebody wants a phone of a different style, maybe this different color or whatever it is. Nope. They just want a super intelligent phone that can do everything. Just one. So I said this many years ago. But in the in the future, in the not too distant future, buying a gasoline car that is not autonomous will be like riding a horse while using a flip phone. Some people still do it, but it's rare.

Travis Axelrod

Great. Thank you. The next question comes from Emmanuel Rosner at Wolfe. Emmanuel, please unmute yourself.

Emmanuel Rosner

So, Elon, the public version of the FSD software still has a decent amount of, I guess, intermittent human interventions that are required. So, what's still required for the software on your end to get to a level where it doesn't need to be supervised? And I'm asking that in the context of, obviously, the June launch being in the next couple of months. What still needs to happen?

Unidentified Company Representative

We're working on a number of items too.

Elon Musk

Go ahead.

Unidentified Company Representative

I mean, we are aware of the interventions that are happening in public bus, and that's why we are hardcore burning it down. And really speaking, some initial launch city helped us focus on, like, solving all the issues that we face here. For example, like, we're just focusing on Austin. We're not, like, solving all the issues that customers in Boston or somewhere else might face. And then here, we just, like, have big list of all the issues, just burn it down, and that's what the team is working on along with other sort of, like, redundancy issues. For example, if one of the computers goes down, right down the customer fleet, it would, like, throw the red hands and ask you to take over, but we don't want that kind of situation. So you're solving both, like, the reliability issues of the autonomy software and also the reliability issues of the system software, like, together for Austin.

Elon Musk

Yeah. It really just we just worked through a long tail of unusual interventions. So, and these are really very rare. Like, as a single intervention every 10,000 miles. I mean, that's a lot of driving you got to do to even find one case within Athens.

Unidentified Company Representative

Yeah. And some interventions that have been due to systematic, like, missing functionality. For example, for handling emergency vehicles correctly, you don't need to con consume audio as an input. But then the customer facing versions don't have audio input, but the version that's in -- that's going to be in Austin will have audio input and so on.

Emmanuel Rosner

Okay. But would you have, like, remote operators, for example?

Unidentified Company Representative

I mean, every now and then, if a car gets stuck or something, someone will, like, unblock it. But it's just because we are a bit conservative and are tend towards more safety than even if we get stuck every now and then, we do have remote support. But it's not going to be required for safe operation. If anything, it's just required for more availability.

Elon Musk

Anyway, it's only a couple months away, so you can just see for yourself in couple months in Austin.

Travis Axelrod

Great. Our next question comes from Edison at Deutsche Bank. Edison, please unmute yourself.

Edison Yu

Hi. Thank you very much for the question. So I wanted to ask about the Optimus supply chain going forward. You mentioned very fast ramp up. What do you envision that supply chain looking like? Is it going to require many more suppliers to be in the US now because of the tariffs? How does one kind of think about what needs to happen there?

Elon Musk

Let's see how things settle out. I don't know yet. Right. I mean, so some things we're doing as we've already talked about, which is that we're already taking tremendous steps to localize our supply chain. We're more localized than any other manufacturer, and we have a lot of things underway to increase the localization, to reduce supply chain risk associated with geopolitical uncertainty. Did you have a follow-up?

Edison Yu

Yeah. Wanted to come back actually to the robotaxi then. Do you have a sense on how many cars or how big the scale will be initially and how that might ramp up? I know you're targeting millions of vehicles in the second half kind of next year. But initially at launch, how many vehicles would be reasonable? And is it going to be as simple as if one goes to Austin, let's say, in late June or July, you'd be able to request?

Elon Musk

Yeah. We're still debating the exact number to start off on day one, but it's, like, I don't know, maybe 10 or 20 vehicles on day one. And watch it carefully. They scale it up rapidly after that. So, we want to make sure that you're paying very close attention the first time this happens. But, yeah, you will be able to -- end of end of June or July, just go to Austin and order a Tesla for autonomous drive.

Travis Axelrod

Great. The next question comes from George at Canaccord.

George Gianarikas

Hi, thank you for taking my question. It has to do with FSD pricing. Can we envision when you launch unsupervised FSD that there could be sort of a multi-tiered pricing approach to unsupervised versus supervised similar to what you did with autopilot versus FSD in the past? Thank you.

Vaibhav Taneja

I mean, this is something which we've been thinking about. I mean, just so you know, for people who have been trying FSD and who've been using FSD, they think given the current pricing is too cheap because for $99, we're basically getting a personal show.

Elon Musk

Yeah. I mean, we do need to give people more time to like, they want to look at like, like, key breakpoint is, can you read your text messages or not? Yes. Can you write a text message or not? Because, obviously, people are doing this, by the way, with autonomous cars all the time. And if you just go over drive down the highway and you'll see people texting while driving, you know, doing 80 miles an hour.

Unidentified Company Representative

And putting on makeup on at the same time.

Elon Musk

Yeah. Putting on makeup, doing their hair with them mirror down and texting and driving at 80 miles an hour. This is a common occurrence. So, people eating lunch, you name it. Shaving. So, anyway, but right now, the car is very insistent that you pay attention to the road. So, which reduces the value somewhat because it's very rigorous about you paying attention to the road. And we'll gradually lighten up on that with every few weeks or every month, we'll relax that a little bit, make up so you can be more and more able to do things you want to do and not have the car to manage your attention. So that that that value, it'll really be profound when you can basically do whatever you want, including sleep or and then that $99 is going to seem like the best $99 you've ever spent in your life.

Travis Axelrod

Great. And, George, do you have a follow-up?

George Gianarikas

My follow-up is about geographic expansion. Just maybe discuss additional markets. There's been some news around India recently that you could launch, this year and next. Thank you.

Vaibhav Taneja

So, yeah, I mean, we we've been working on getting into India. India is a very hard market. And especially the current and I don't want to talk just about tariffs, but the current tariff structure with India is that any car which we send in is subject to 70% tariff. Also, like, a 30% luxury tax on it. So, the same car which we're selling is, like, 100% more expensive than what it is. So that creates a lot of, you know, anxiety. It's like, people feel, okay, they're paying too much for the car. And by the way, we're not getting the money. The local government is getting the money. And that's why we've been very careful trying to figure out when is the right time. We, like I said, we are working on it. It's a great it would be a great market to enter because India has a big middle class, which we would want to tap in, and that is the market which we want to be in. But, again, these kind of things create a little bit of tension which we're trying to work around.

Travis Axelrod

Great. Thank you so much. The next question comes from Adam Jonas at Morgan Stanley. Go ahead, Adam. We can't hear you, Adam. So, maybe we'll put you back in the queue, and we'll move to Colin Langan from Wells Fargo, while Adam figures out his audio. Colin, please unmute yourself.

Colin Langan

Great. Do you hear me?

Travis Axelrod

Yes.

Colin Langan

You're still sticking with division-only approach. A lot of autonomous people still have a lot of concerns about sun glare, fog, dust. Any color on how you anticipate on getting around those issues? Because of my understanding, it kind of blinds the camera when you get glare and stuff.

Elon Musk

Actually, it does not blind the camera. The we use an approach which is direct photon count. So when you see the -- a processed image, so the image that goes from the sort of photon counter, so the silicon photon counter that gets goes through a digital sig signal processor or image signal processor, that's normally what happens. And then that that then the image that you see looks all washed out because if it's, you point the camera at the sun, the post processing of the photon counting washes things out. It actually adds noise. So part of a breakthrough that we made some time ago was to go with direct photon counting and bypass the image signal processor. And that and then you can drive pretty much straight at the sun, and you can also see in what appears to be the blackest of night. And then here in fog, we can see as well as, like, people can, probably better, but I'd say probably slightly better than people, but than the average person anyway. And yeah.

Colin Langan

So the camera is able to see when there's direct glare on it. I'm little surprised by that. Okay.

Elon Musk

Yeah.

Colin Langan

Okay. And then just there are obviously media reports the other day that the affordable model was delayed. It doesn't sound like that's correct. Those reports also talked about it being more of a cheaper version of the Model Y. Any color on what we should expect? Is it a cheaper version of Model Y, or is it actually going to be a design change with it?

Vaibhav Taneja

So I think Lars already covered it in answering one of the say.com cautions. The real thing which we are trying to focus on is affordability. And using our existing lines, there's always limitations when you're using existing lines as to how many different form factors can you bring to. So that's the way I would say you should think about it. And I don't know if Lars, anything more to add.

Lars Moravy

Yeah. And I think I said this before in other calls. Like, with the recent upgrades on the Model 3 and Model Y platforms, we made some pretty great cars at pretty great prices, and we added a bunch of features and things like that. I think it's easy to consider that, moving forward, Tesla doesn't make bad cars, and we always make, you know, our intent is not to make a car that is any worse than any car we've ever produced in the past. And so, models that come out in next months will be built on our lines and will resemble, in form and shape, the cars we currently make. And the key is that they'll be affordable, and you'll be able to buy one.

Travis Axelrod

Great. We might have time for one last question. Adam, we'll try your audio again. You want to try to unmute yourself, Adam? All right. Unfortunately, it's still not working. There you go.

Adam Jonas

Sorry, guys. Technology.

Travis Axelrod

Go ahead, Adam

Adam Jonas

Yeah. Hi. Yeah. In the February 28 Joe Rogan interview, Elon, you advocated for a ramp in tariffs, to give people time to adjust. Otherwise, quote, you said the system would break, and bad things would happen. So are things breaking yet? And if the announced -- as if the tariffs as announced remain in place, when would things start breaking?

Elon Musk

Well, at the risk of stating the obvious, I'm not -- I'm one of many advisors to the President, I am not the President. So, and -- but I made my opinion clear to the president and that -- and other people made their opinion clear to the President. He is the -- he listened -- he talks to many people, and he makes his decision. And, I'm hopeful that the President will observe whether my predictions are more accurate than the predictions of others and perhaps weigh my advice differently in the future. We shall see. But, I'm an advocate of predictable tariff structures and generally, I'm an advocate for free trade and lower tariffs. But now, one does need to take a look at where -- if some country is doing something predatory with tariffs or is providing extreme support for -- if a government is providing extreme financial support for a particular industry, then you have to do something to counteract that. So, but I think that's on a case by case basis strategically. But, the President is the elected representative of the people and his fully within his rights to do what he would like to do.

Adam Jonas

Okay, Elon. I respect that. Just as just as a follow-up, and thanks again. Between China and the United States, who in your opinion is further ahead on the development of physical AI, specifically on humanoids, and also drones? I'd be interested in. And is it even close and kind of how, yeah seriously.

Elon Musk

I think you know the answer for drones. I mean a friend of mine, Naval, made this posted on X. I reposted it. But I think a prophetic statement, which is any country that cannot manufacture its own drones is doomed to be the vassal state of any country that can. And we can't America cannot currently manufacture its own drones. But that's again, unfortunately. So, China, I believe, manufactures about 70% of all drones. And if you look at the total supply chain, China is almost a 100% of drones, are have a supply chain dependency on China. So, China is in a very strong position. And, here in America, and we need to shift more of our people and resources to manufacturing because this is and I have a lot of respect for China because I think China is amazing, actually. But the United States should not have such a severe dependency on China for drones and be unable to make them unless China gives us the parts, which is currently the situation. With respect to humanoid robots, I don't think there's any company in any country that can match Tesla. Tesla and SpaceX are number one. So, and then now I'm a little concerned that on the leaderboard, ranks two through 10 will be Chinese companies. But I'm confident that rank one will be Tesla.

Travis Axelrod

Great. Well, I think that’s unfortunately all the time we have for today. We appreciate all your questions and look forward to talking to you next quarter. Thank you very much, and goodbye.