

Tesla, Inc. NasdaqGS:TSLA

FQ1 2018 Earnings Call Transcripts

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S&P Global Market Intelligence Estimates

	-FQ1 2018-			-FQ2 2018-	-FY 2018-	-FY 2019-
	CONSENSUS	ACTUAL	SURPRISE	CONSENSUS	CONSENSUS	CONSENSUS
EPS Normalized	(3.53)	(3.35)	NM	(2.35)	(6.88)	1.59
Revenue	-	-	▲ 3.29	-	-	-
Revenue (mm)	3300.13	3408.75	-	4231.84	19194.83	26941.36

Currency: USD

Consensus as of Apr-30-2018 5:09 AM GMT

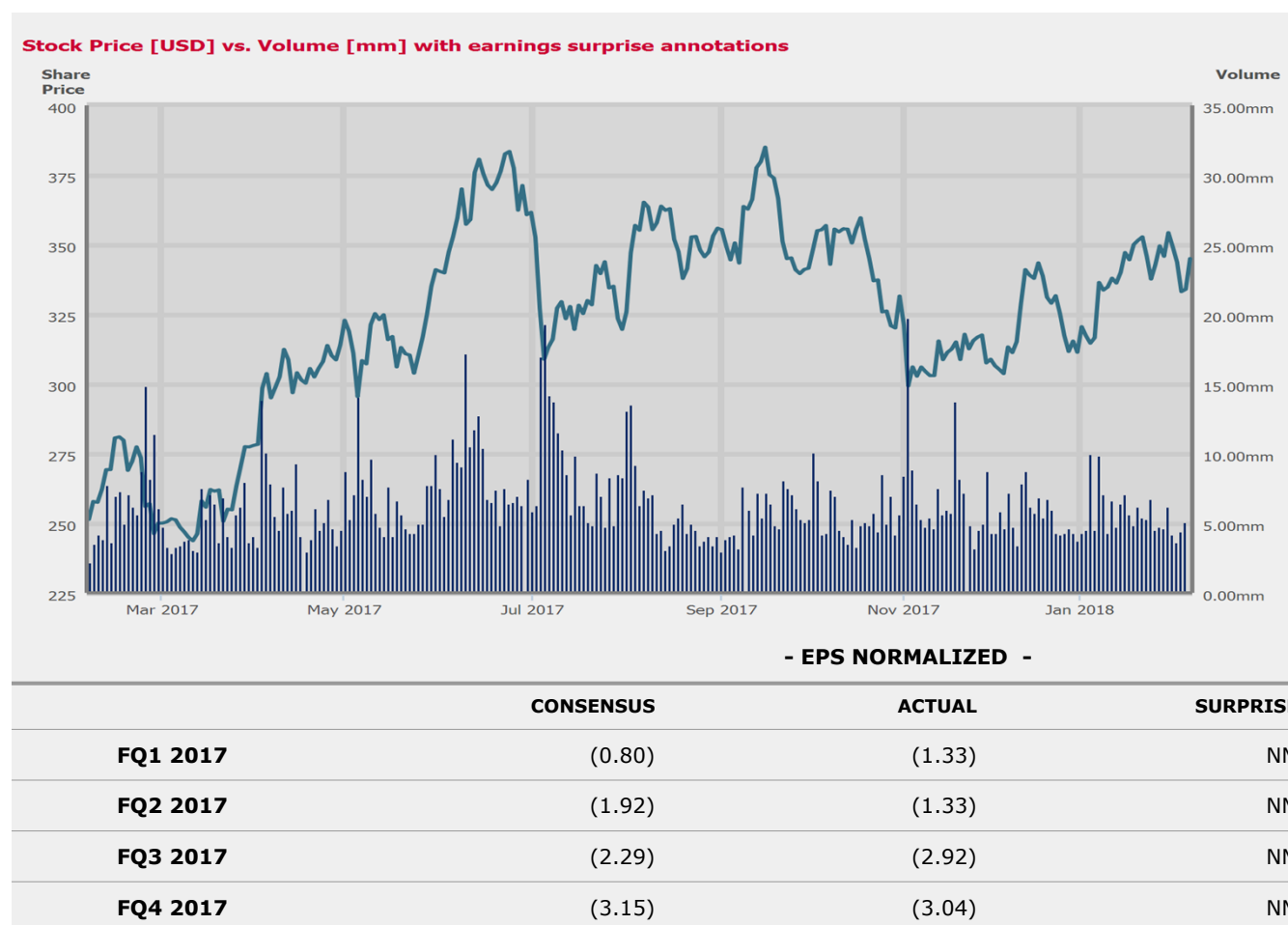


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Call Participants

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Galileo Russell

Phil Lebeau

Presentation

Operator

Good day, ladies and gentlemen, and welcome to the Tesla Q1 2018 Financial Results and Q&A and Webcast Call. [Operator Instructions] As a reminder, this conference may be recorded.

I would now like to introduce your host for today's call, Mr. Martin Viecha, Senior Director of Investor Relations. Sir, you may begin.

Martin Viecha

Thank you, Sherri, and good afternoon, everyone. Welcome to Tesla's First Quarter 2018 Q&A Webcast. I'm joined today by Elon Musk, J.B. Straubel, Deepak Ahuja and Doug Field.

Our Q1 results were announced at about 1 p.m. Pacific Time in the update letter 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. [Operator Instructions]

Before jumping into Q&A, Elon has some opening remarks. Elon?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I think our letter says most of it, but I think we're going to spend extra time on Q&A, try to answer as many questions as possible. I think we should really answer -- so we're going to go as long as there are good questions to answer.

The thing I'm most excited about is the rapid increase in output. We got -- just in the last 24 hours at Gigafactory managed to achieve a sustained rate of over 3,000 packs per day -- sorry, per week, and actually reached the peak hour with -- if extrapolated outward would be a rate of around 5,000 cars per week. And obviously, you can't take a peak hour and assume every peak is -- every hour is as good as the peak. But it's -- if you can -- if you're going to achieve it even once in an hour, then with continued refinement of the system and improved operational uptime of the machinery, it means that you can achieve that sustained rate with more refinement. So if we spend essentially a month or 2 improving the operational uptime and the system as a whole, we'll be able to do well over 5,000, I think.

I mean, what's interesting is that, at least in the case of pack production, we were able to do this with minimal CapEx. And I think, in general, our understanding of production is improving dramatically -- exponentially, in fact, and we are seeing ways to achieve improved volume with dramatically less CapEx by simplifying the production line, by really engaging with our associates, no matter how junior, and improving the way that parts are made. It's amazing how everybody's got good ideas. Just need to solicit those ideas and implement them and then making ongoing design improvements so that when we discover that something is not well designed for manufacturing, that we will very quickly change that part design and introduce that into the flow.

One of the things we also found is that there are some things that are very well suited to manual operation and some things that are very well suited to automated operation, and the 2 should not be confused. So I should be clear that the vast majority of the Tesla production system is automated. However, as I mentioned in a tweet a few months ago, we did go too far in the automation front and automated some pretty silly things. One example would be we have this -- so this is sort of ironically foolish. We had these fiberglass mats on the top of the battery pack, but basically like -- they're basically fluff. So we tried to automate the placement and bonding of fluff to the top of the battery pack, which is ridiculous. Like so we had fluffer bot, which was really an incredibly difficult machine to make work.

Machines are not good at picking up pieces of fluff, okay. Human hands are way better at doing that. And so we had a super complicated machine using a vision system to try to put a piece of fluff on the battery pack. That same -- and one of the questions asked was, "Do we actually need that?" So we tested a car with and without and found that there was no change in the noise volume in the cabin, so we actually had a part that was unnecessary that was -- of course, the line kept breaking down because fluffer bot would frequently just fail to pick up the fluff or put it in like a random location. So that was one of the silliest things I found.

We were also -- and this still remains to be fixed, but -- in a lot of cases, but we're overgeneralizing the design. So for example, the current battery pack has a port for the front-drive units, which we then put a blanking plate, a sealed blanking plate on. So essentially, we punched a hole in it and put a blanking plate at the hole and do that for all rear-drive unit cars, which is kind of crazy. We've added cost. We've added a manufacturing step, better failure mode, and for something that is unnecessary. So that is something that's -- or example of some things. That's changed. So -- and then result is we've had a radical improvement in production -- battery pack production went from taking 7 hours to make a pack 3 weeks ago to under [70] minutes now, so just to show that it's like really radical improvement. It's R&D possible.

We also saw a modest improvement in Zone 4 of module production. This, I should point out, is a clearly automated zone, and we're able to also achieve a sustained rate of 3,000 vehicles a week. So we're actually slightly ahead in battery module and pack production than expected. And with some work at the Fremont vehicle plant, primarily in the general assemble -- general assembly area, I'm confident we will very soon exceed the 3,000 mark in Fremont. So we're already there in the body shop, which is also almost entirely automated, where we weld up the body. They were already capable of over 3,000 cars a week, and the general assembly, with some improvements, which will include reductions on -- reduction -- I should say, temporary reduction in automation in a few places, then we should be able to do 3,000. So basically I'm feeling really good about the Tesla production of Model 3, and I'm very proud of the work that the team has done. It's been an amazing amount of hard work and sacrifice by some very talented people to achieve this outcome.

It's worth noting the -- you see a chart in the Model 3 market share versus competitors in midsized premium sedans. We are almost the best-selling sedan in the United States in this category and -- as of April, and we will certainly be there in May, unless something really odd -- I mean, be there in May, and then we'll really be there later this year, right. In the third quarter, it will -- I think there's a good chance Model 3 gets maybe close to majority market share of midsized premium sedans, 40 -- 30%, 40%, seems likely, and maybe a majority market share later this year. This is coming from a standing start against a lot of established brands who have far more sales outlets than we do, so this is very encouraging.

Okay. And yes, as this letter says, I'm feeling quite confident about achieving GAAP net income and positive cash flow in Q3. This is not, I'd say, a certainty, but it does appear quite likely in my view. We are going to conduct sort of a reorganization restructuring of the company in the next -- this month and make sure we're well set up to achieve that goal. And in particular, the number of sort of third-party contracting companies that we're using has really gotten out of control, so we're going to scrub the barnacles on that front. It's pretty crazy. You've got barnacles on barnacles. So there's going to be a lot of barnacle removal.

All right. Any concern or make any comments?

Martin Viecha

Thank you, Elon. Sherri, let's go to the first question.

Question and Answer

Operator

[Operator Instructions] Our first question comes from Brian Johnson with Barclays.

Brian Arthur Johnson

Barclays Bank PLC, Research Division

Yes. Want to talk a little bit about some of the -- first of all, if we talk about the -- sort of all relate to the production ramp. If we talk about the 5,000 per week run rate, is that assuming 7/24 ? Or at what point do you think you'd get to sort of 5-day, 2-shift operation?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, first of all, I think a 5-day, 2-shift operation is a ridiculous way to operate because that would be a very poor use of CapEx. Nor is it the way that we have operated in -- for most of Tesla. So the module production -- the cell module and battery pack production and powertrain production have always operated on a 24/7 basis. And the exception has been general assembly, which has operated on typically 2 to 3 shifts, so about a 5- to 6-day, 20-hour shift; and paint, which has operated on kind of a 6-day basis. So I think it just makes sense to operate the whole company on the same basis, but a majority of Tesla is always operated -- a majority of Tesla production has operated around 24/7 basis since we started production.

Jeffrey B. Straubel

Chief Technology Officer

Yes. And this is J.B. I can chime in. As Elon said, it really makes great use of the CapEx and the lines, and that's why we did it, starting way back at the beginning of S. But aligning everything to the same shift schedule makes it so much more efficient because we don't have the seesaw of inventory, the underlying inventory between the different shops.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Exactly. And one of the key things to improving the capital efficiency of the system is reducing work in progress -- work in process. And if you don't have -- if the shifts are not aligned, then you have to build up inventory in kind of a storage warehouse and then -- yes. So it's pretty foolish to actually operate on a 5-day, 2-shift in any way. But it's -- this is sort of a -- we're using the chip fab approach to capital efficiency, so it's called [indiscernible]. I don't know where it says what. I'm not sure what it's called. But like this is something called...

Deepak Ahuja

Chief Financial Officer

Ultimate workweek.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Ultimate work whatever, ultimate workweek. Yes. I think [indiscernible] people work like 3 long days and then 4 long days ultimately, something like that.

Deepak Ahuja

Chief Financial Officer

[indiscernible] crews on and just using overtime on weekends.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, yes. Exactly.

Brian Arthur Johnson

Barclays Bank PLC, Research Division

Right. So it seems like...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

It's not like one person working 24 hours a day, 7 days a week. There are like 4 or 5 shifts.

Brian Arthur Johnson

Barclays Bank PLC, Research Division

Yes. So if I just do the math, that would seem like 5,000 to get you to takt time of 2 minutes. And I go back to some of the prior conversations, I mean, that's -- my understanding is best in class is sort of 50 seconds to a minute. And I thought the whole going faster than grandma walker was actually targeted at blowing past that, but sounds like you're sort of 2x the takt time of other factories.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

The takt -- the number you're referring to is actually general -- the general assembly number.

Brian Arthur Johnson

Barclays Bank PLC, Research Division

Vehicles per minute, yes.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, yes. It's general assembly number, not that other stuff, but...

Jeffrey B. Straubel

Chief Technology Officer

You may have also not taken into account so-called OEE or the actual uptime of the line, which tends to make the takt time a little faster than the product cycles.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Let's say it could take us a minute then, because that would mean it's like over a 7-day, 24-hour workweek. Like we could also just say -- actually we did our peak pack production today was 32 packs in an hour, so we're under a minute -- under 2 minutes a pack and rising from there.

Jeffrey B. Straubel

Chief Technology Officer

Yes. And probably the numbers go up rapidly as we go to the subassemblies that are in higher unit quantity per car.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes.

Jeffrey B. Straubel

Chief Technology Officer

So 4x per module, and then we have smaller subassemblies still that are factors of 10 or 20, even higher than that.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. That said, I do believe that the path to manufacturing efficiency is velocity and density, and that is absolutely what we'll be working on rather than just trying to spend billions of dollars on duplicating a factory. If you make like -- if 2 companies are competing and one has to double its CapEx in order to double production and the other one can, with minor CapEx, can just speed up the line by double, it's a game over.

Brian Arthur Johnson

Barclays Bank PLC, Research Division

Great. But in the meantime, the lines -- then I think what you're saying, some starts, some stops to get to the 5,000 per week?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. You can't -- like you can't have like 0 maintenance time and 0 -- like you have to do equipment upgrades. You have to do ongoing maintenance, so you can't just have it be operating at peak rates 24/7.

Operator

Our next question comes from Rod Lache with Deutsche Bank.

Rod Avraham Lache

Deutsche Bank AG, Research Division

Just wanted to follow along on that line of question. So to the extent that you're adding humans in certain automated processes, can you just help us interpret the extent to which these changes affect the economics on Model 3? And to the extent that you've done some competitive analysis, all of these efforts in the Tesla production system, how do you stack up competitively against other OEMs in terms of labor hours per vehicle or depreciation per vehicle?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, I'll just say something -- so a few things, then I have -- Deepak can elaborate. Let's see. So the thing that I've noticed is, if you have a really complicated machine like the fluff bot that I was talking about earlier, in order to keep it operating, you have to have a ton of maintenance engineering. So you have like basically pretty expensive maintenance engineers that have to maintain the thing and fix it, like, basically 7 days a week, 24 hours a day. The cost of the maintenance engineer may not be incorporated directly into -- or fully incorporated directly into gross margin, but it's nonetheless a cost that far exceeds the labor cost of simply placing the fluff on the battery pack, which, as I said, that was unnecessary. So I think to actually -- I do not see this having a much of a long-term impact in our cost. I actually see it most likely our cost will decrease, or we consider the cost to producing the vehicles will decrease by getting rid of production stations that are really poorly suited to robotics because of the very expensive cost of robot technicians.

Deepak Ahuja

Chief Financial Officer

Rod, we are very CapEx efficient, or let me just start from that point. And if we look at our depreciation cost on a per-unit basis at steady run rate of 5,000 or so cars per week, we are, in my mind, well below a lot of our -- I mean, most of our competitors, well below \$2,000 per unit depreciation cost. And then overall, clearly there is some impact, as we have indicated in the letter, from the additional labor we've

added, but it's temporary. And our expectation fully is a lot of this labor will come out once we stabilize production and then figure out smart ways of automating where it makes sense.

Rod Avraham Lache

Deutsche Bank AG, Research Division

Okay. And just secondly, your comments in your letter on the advances in batteries were interesting. Could you give us some insight into how we can translate that into cost per kilowatt hour or some metric in terms of the gains that you're making?

Deepak Ahuja

Chief Financial Officer

That's something -- I mean, every data point, Rod, that we look at internally suggests that we are best in class, but we don't...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

We're the best, just not in class.

Deepak Ahuja

Chief Financial Officer

Yes. We're the best. Sorry.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Best in a class of one.

Jeffrey B. Straubel

Chief Technology Officer

I think directionally, Rod, it's helpful to understand the different commodities and the trends that we're pursuing in the batteries. Being on a path to reduce cobalt usage, for instance, has been something we've been working on for literally several years now. And this has been extremely helpful in the overall cost per kilowatt hour, especially with recent commodity price movements. So I think we can't really be quantitative, but that, directionally, is a pretty good trend.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. We think we can get the cobalt to almost nothing.

Operator

Our next question comes from Adam Jonas with Morgan Stanley.

Adam Michael Jonas

Morgan Stanley, Research Division

Elon, so you repeatedly said, I think, in recent weeks that you do not need to issue equity capital at Tesla. I think many investors on this call would say it's better to raise capital when you don't need to. So I guess first question is...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I disagree.

Adam Michael Jonas

Morgan Stanley, Research Division

Yes. You may not need to, but do you want to?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

No. I specifically don't want to.

Adam Michael Jonas

Morgan Stanley, Research Division

Perfect. Okay. My follow-up, Elon, is your cars produce really a large amount of data, and SpaceX gets into the satellite broadband business next year...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Not next year, but it's probably 3 years.

Adam Michael Jonas

Morgan Stanley, Research Division

Okay, 3 years. Some argue that SpaceX could offer Tesla a resilient cybersecure pipe for this precious vehicle data and a potential competitive advantage. So Elon, isn't bandwidth an obvious domain for collaboration between Tesla and SpaceX one day?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I mean, it might be. There's lots of interesting things we could do. Cars got a lot of computing power, and it's connected to the cell networks and WiFi and everything, or it's certainly connected to a LEO Internet constellation. I haven't really thought about it, but probably there is.

Operator

Our next question comes from David Tamberrino with Goldman Sachs.

David J. Tamberrino

Goldman Sachs Group Inc., Research Division

Elon, you've talked about the downtime on the Model 3. You're going to take 2 planned periods this quarter. One has already occurred. The other is going to occur later in the quarter. What specifically have you addressed in Fremont so far? And what are you planning to address a little bit later? And are those the lone kind of remaining bottlenecks for you to get to the 5k within the Fremont plant?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, the Tesla production system at this point is vast, so -- and we literally have the 2 biggest factories on Earth between the Gigafactory and Fremont. Giga is still slightly smaller than Fremont. I think -- well, maybe just -- yes, slightly smaller, but it will soon be bigger than Fremont. And Fremont is like the second-biggest building of any kind by footprint. So it's just like there's -- this is a vast -- the full answer to that question is a complex one. The -- I feel very confident about our ability to get to 5k very soon in a sustained rate at Giga, getting to -- essentially getting to 5,000 battery packs and motors and power inverters and charges and that kind of thing [installed] down at Giga by the end of next month. And battery production, no problem. General assembly is probably our biggest risk, and I'm really focusing on -- personally on that a lot in the next -- in the coming month. And then the -- our paint shop is maybe the second-biggest risk after general assembly, but these are all pretty -- these are all quite manageable. It's not like huge brain surgery to get these things right. It's a lot of work. I like to say it's a lot of -- just a lot of time and hard work, but it's very doable. And yes -- so it's really quite straightforward. It's not like a fundamental impediment here.

John Douglas Field

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Senior Vice President of Engineering (Leave of Absence)

And many cases, we've seen huge gains through software that's in the car, software that controls the automation and connects to our central system. So in many cases, it's not even hardware upgrades that create substantial increases in velocity.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, exactly. Doug makes a good point here, and I think that is -- that the production -- a really great production system is primarily a software problem. And there's no one in the auto industry that is remotely as good as Tesla -- at software as Tesla. We're -- I mean, Tesla is way better at software than any other car company. So if it is -- what I'm saying is true, that the biggest challenge in the production system is software, we are in a good position.

David J. Tamberrino

Goldman Sachs Group Inc., Research Division

Okay. Maybe taking my next question in a different direction. What is your time line for launching the Model Y? And have you begun to spend for this, or that only begins to start hitting the P&L from an R&D and a CapEx perspective in 2019?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

It will only start to become significant in 2019.

David J. Tamberrino

Goldman Sachs Group Inc., Research Division

Okay. So all of the CapEx spend for this year is associated with Fremont, Model 3, Gigafactory?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

No, no. I mean, please take me literally. I said it will only start to become significant next year. It's not 0 right now, but it's not a big number. It's not a big number relative to our revenue.

Deepak Ahuja

Chief Financial Officer

In the early days of product development anyway, there's not much CapEx. CapEx becomes greater as you commit it to equipment and equipment starts to come in-house.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. Although it is remarkable -- although the amount of money spent in the beginning is really quite low in the beginning of a development program, decisions made at the beginning of a development program have massive implications for future CapEx. So it is better to spend a bit more time making the right design decisions and really thinking through the producibility of a product before racing ahead with CapEx decisions. There's no question we could have made the Model 3 much easier to produce than we have. Model Y, I think Model Y is going to be a manufacturing revolution. It will be, I think, incredible from a manufacturing standpoint because we do not want to go through this pain again, yes.

Operator

Our next question comes from Romit Shah with Nomura Instinet.

Romit Jitendra Shah

Nomura Securities Co. Ltd., Research Division

Yes. I just wanted to clarify the gross margin comments related to Model 3 that you put in the letter. You said a couple of things. You said, over the medium term, Model 3 gross margins would be below the target of 25%. You also said that in Q3 and Q4, that those gross margins would be highly positive. So I'm just trying to understand what's possible for Model 3 gross margins by the end of the year. Could we get to a number that's close to 20%?

Deepak Ahuja

Chief Financial Officer

What I'd say is that progressively, each quarter, we will be getting better.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes.

Deepak Ahuja

Chief Financial Officer

The answer is yes, and it'll come down to what other economics come into play from currencies to commodities, and how much more cost we take out from labor. So I don't want to give you a specific number, but probably close to it.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

It's like -- yes, exactly. If not -- it's -- yes, exactly, very close to 20%, could be slightly below, could be slightly above.

Romit Jitendra Shah

Nomura Securities Co. Ltd., Research Division

Okay. Fair enough. And then, Elon, can I just ask you about...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Sorry. Just thinking of going a little further forward than, say, Q4, we're very confident of the 25% gross margin.

Deepak Ahuja

Chief Financial Officer

Thanks for clarifying that. Yes. We feel very good about that in the medium term.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

For next year, 25% is definitely what we would expect.

Romit Jitendra Shah

Nomura Securities Co. Ltd., Research Division

So when you say medium term, you're talking 2018?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, exactly. That's why it was important to clarify what these things mean. Yes, Q4 is when we expect to be on or about 20%. Then by the middle of next year, 25% gross margin should be where we are. And then we'll also try to get to the high 20s by the end of next year.

Romit Jitendra Shah

Nomura Securities Co. Ltd., Research Division

Okay. As a follow-up, could you just comment on Jim Keller's departure, a highly respected chief architect? What does it say, if anything, about the development of Tesla's custom silicon and Autopilot?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, Jim is a great guy. And the sort of dream he wanted to pursue for a long time to -- which is to kind of redesign how server architecture works, it's not something that I find a lot interesting, but it's something that Jim -- it's been a sort of a personal dream for Jim to do, and that's why he went to Intel. The Tesla -- the actual design of the Tesla hardware is primarily led by Pete Bannon. I should be clear, like the lead designer of that is Pete Bannon, who is still with Tesla, and then of course Andrej Karpathy is head of our AI team. So we don't plan to hire a replacement for Jim's position.

Operator

Our next question comes from Toni Sacconaghi with Bernstein.

A.M. Sacconaghi

Sanford C. Bernstein & Co., LLC., Research Division

I just wanted to follow up on the previous question and the gross margin targets. I think you had said last quarter that once you got to 5,000 units, you felt that you could get to 25% gross margins on Model 3, so that feels like at least a 6- or 9-month delay relative to what you thought a quarter ago. And I'm trying to understand what the key drivers are. Is it really the labor for capital substitution? I don't think currency sequentially has changed much. I understand it can be a headwind. But I think relative to when you made those statements, it hasn't changed. So perhaps you can help us understand what has changed in terms of the gross margin ramp for Model 3 relative to what you thought before. And I have a follow-up, please.

Deepak Ahuja

Chief Financial Officer

Yes, it's along the lines of what we said in the letter. If we look at the combination of the recently imposed tariffs, Section 232 and countervailing duties plus commodity price increases as well as the weaker dollar, that is adding significant material cost. And then temporarily, we are using more labor. So when you combine those 2, that's what led to our guidance. And certainly, the material -- the labor cost piece, we will address and that will come out.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. But I mean, we're only talking about a 3% to 5% difference. So like -- and that's something that we'll solve like within 3 to 6 months later, so I don't -- it's not like it's some -- don't make a federal case out of it.

A.M. Sacconaghi

Sanford C. Bernstein & Co., LLC., Research Division

And then separately, what, if anything, are you taking out in terms of your lowered CapEx projection for this year? And specifically, in spending less than \$3 billion, where does that take you in terms of both battery and production capacity for the Model 3?

Deepak Ahuja

Chief Financial Officer

Yes, so we're just being much more smarter in many cases. As Elon said, we are not just spending money on automation. We're of course looking at the problem, simplifying it, and that's helped us reduce our CapEx on Model 3. And then we are also being critical about how we grow our infrastructure and line it up with our growth in our business. So we feel that these are the right decisions and there is still room for

us to reduce it further if we wish to. So we are leaving ourselves some discretion here to go spend money where needed.

A.M. Sacconaghi

Sanford C. Bernstein & Co., LLC., Research Division

And so where specifically will you be in terms of capital requirement?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Boring bonehead questions are not cool. Next.

Operator

Our next question comes from Joseph Spak with RBC Capital Markets.

Joseph Robert Spak

RBC Capital Markets, LLC, Research Division

The first question is related to the Model 3 reservations, and I was just wondering if you gave us a gauge as maybe some of the impact that the news has had. Like of the reservations that actually opened and made available to configure, can you let us know like what -- how -- what percentage have actually taken steps to configure?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

We're going to go to YouTube, sorry. These questions are so dry. They're killing me.

Operator

Our next question is from Galileo Russell with HyperChange.

Galileo Russell

To represent retail investors, I was wondering with Waymo's plans to launch an autonomous taxi service in limited markets this year if you could give us an update on the Tesla Network and any details surrounding the launch date or geographic rollout.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Sure. So I mean, that's -- thank you for an interesting question. The launch involve -- where things are obviously going towards is a shared electric autonomy model. So the -- in order for this to -- obviously for the whole sort of system to work, you need all the pieces in place. You need to have full autonomy, full 4 or 5, whatever you want to call it, and obviously a lot of cars in the road and then build the software infrastructure behind that to enable shared autonomy, so to help enable people to share their cars and be able to offer their cars as effectively kind of a robo Lyft or robo Uber. It's sort of like a combination of like, I guess, Uber, Lyft and Airbnb type of thing, where you can own your car and have a higher percent usage of an autonomous electric car. You can say it's available generally to anyone who wants to use it when you're not using it. You can recall it at will. You can restrict usage to only friends and family or only users who are 5-star. Like this is like the obvious thing that's going to happen. But in order for that to be in place, we have to obviously sell full autonomy, and we're making a really good progress on that front. I believe that the current production of -- the vehicles that we are currently producing are capable of full autonomy, but the only thing that would really be, like, might be needed or maybe is probably needed is a computer upgrade to have more processing power for the vision neural net. But that's a plug-in replacement, a thing that can be done quite easily. So I think we're really well positioned and are building the right -- the foundation for a -- having millions, ultimately tens of millions of shared autonomous electric vehicles. [indiscernible] decide not to share if you don't want to. And then...

Galileo Russell

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And specifically on the timing, though, do you have any details about or when we could even expect to learn more about the timing of this service?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, the hardest thing to predict about the timing is regulatory approval. The thing that's tricky with autonomous vehicles is that autonomy doesn't reduce the accident rate or fatality rate to 0. It improves it substantially. But the reality is that even though we think our -- when we think autonomy, even car autonomy reduces the probability of a death by 30%, which would be incredible because this is like, if applied broadly, there's over 1 million, I think, 1.2 million automotive deaths per year. And how many do you read about? Basically none of them. However -- and but if it's an autonomous situation, you -- it's headline news. And the media fails to mention that, actually, they shouldn't really be writing the story. They should be writing a story about how autonomous cars are really safe, but that's not the story if you want a click on, so they write inflammatory headlines that are fundamentally misleading to the readers. It's really outrageous. So -- and this would be true like even if electric cars were -- I'm sorry, if autonomous cars were 10x safer. So instead of 1 million deaths, you have 100,000 deaths, there's still going to be people who will still sue and say, "Hey, you're responsible for the death here." And it's like, well, the 90% of people who didn't die are not suing. They're not -- they're still alive. You just don't know it, so you -- we've got to deal with that. And then obviously regulators respond to public pressure and the press. So if the press is hounding the regulators, and the public is laboring on misapprehension that autonomy is less safe because of that -- of misleading press, then this is where I find the things to -- the challenge of predicting it to be very difficult. And yes, it's really incredibly irresponsible of any journalist with integrity to write an article that would lead people to believe that Tesla -- that autonomy is less safe because people might actually turn it off and then die. So anyway, I'm really upset by those.

Galileo Russell

Yes. Really interesting answer.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I can personally say, from a technical standpoint, I think we'll probably be ready by the end of next year.

Galileo Russell

Awesome. And then one more quick thing on production capacity and speed of the Fremont line because this is something you mentioned a lot, it seems. And in the last quarterly conference call, you mentioned the max capacity with 700,000 cars for Fremont or somewhere around there. And that was S, X and 3. And so we recently got a report from Reuters saying that Model Y production would start in November 2019 at Fremont. And so I'm just kind of curious, with the Semi and the Model Y launching next year, like where are you actually planning on assembling these vehicles?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

The Reuters report is based on nothing, like I don't know where that came from. We will not be starting production on Model Y at the end of next year. I would say it's probably closer to 24 months from now. So 2020 is more likely a prospect for Model Y, or early 2020. And the production location for Model Y has not been decided. We're really crowded here at Fremont. I don't know where we'd put the Model Y production. So it's difficult to imagine that. We just could not fit the Model Y production at Fremont. We are jammed to the gills here. So one thing I'm sure, it's not here. It is crazy packed, and we're -- yes. And so we'll try to figure out what the optimal location is for Model Y production, but it's not here, not here in Fremont.

Galileo Russell

Okay. And I'm not an expert in battery pack technology, but it seems that a lot of people are speculating that the specs for the Semi truck, even, I believe, the CEO of Daimler said it breaks the laws of physics. So I'm wondering is this just a linear..

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

He doesn't know much about physics. I know him. I'm pretty happy you're engaged in a physics discussion with him. I actually studied physics in college.

Galileo Russell

So yes, my question is, is that just a linear improvement in your battery technology? Or is there some sort of new breakthrough or different platform that the Semi and Roadster are going to be built on?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Like even if we didn't -- I mean, even if we didn't improve our battery technology at all, we could achieve a 500-mile range truck. At all. We're going to do better than 500 miles.

Jeffrey B. Straubel

Chief Technology Officer

Yes. This is J.B. I think the key point is it doesn't require some dramatic breakthrough that -- so there's a fundamental misunderstanding, I think, of what the current technology in our existing products can actually do. And maybe that's just a misunderstanding of the current status of the technology versus others in the industry. That could be where some of that's coming from. If they're benchmarking sort of the best battery pack they can buy from a supplier and then mapping that with what the Semi could do, it doesn't give you -- it doesn't solve. I think that's maybe where some of this is coming from. But we -- I mean, we basically have what we need in-house and understand how to do those specs today or better, as Elon said.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

We could do a 500-mile range Semi today. I think the actual production unit will be about 600-mile range.

Galileo Russell

Awesome, great stuff. So I'm also wondering, are you guys going to let Porsche beat you to market with a 350-kilowatt hour Supercharger? Because I know you've mentioned a V3...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

We'll keep going until you ask questions that are not boring.

Galileo Russell

Yes, I can keep going. So the 350-kilowatt charger from Porsche, like if they had mentioned they're rolling that out, on the lab call, J.B., you seemed to indicate that you guys were sort of going to keep the status quo with your Supercharger technology. But Elon, I know you've mentioned that there is a V3 Supercharger, so I'm just trying to get some clarity on whether you will be improving your Supercharger technology or not and if there is a V3.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, we're definitely going to be improving our Supercharger technology. The thing about a 350-kilowatt charger is it doesn't actually make a ton of sense unless you've got a monster battery pack or have like a crazy high C-rate, in which case your energy density is going to be poor. So it's kind of cockamamie. Yes, I think maybe 200 -- on a -- also I don't know if you meant 350 kilowatts for a single car. That's really pretty -- you're going to frag the battery pack if you do that. There's no -- you cannot charge a high-energy battery pack at that rate unless it's a very high kilowatt-hour battery pack. So something along the -- yes, I think -- J.B., like a couple hundred -- 200, 250, maybe...

Jeffrey B. Straubel
Chief Technology Officer

Yes, I mean, that -- that's definitely sort of power level that we've discussed and explored. And some of it also comes down to an optimization around utility versus cost and trade-offs in the car itself. You kind of hinted at that, Elon, but there is a trade-off fundamentally between charge speed and essentially range or cost of battery. And we look at that pretty carefully. We understand the trade-off, and we could design cells in the pack that could charge it faster than 300, 400 kilowatts. But it's not a very useful trade-off to the customer. That's...

Elon R. Musk
Co-Founder, Chairman, CEO & Product Architect

Let's go to understand the difference between energy and power even, really. Energy -- obviously, energy's rate is essentially, at most, a range. And then power is kind of like your peak acceleration basically, the rate at which you consume energy. So really what -- it's more important to have long range than it is to have a superfast charge time. And you can sort of think about this in the devices that you use. Like would you rather have a cell phone that lasted 2 hours but had -- it could charge in 5 minutes or 10 minutes, let's say, but only lasted 2 hours. Or you'd like a cell phone that lasts 2 days and maybe takes 1 hour to charge.

Operator

Our next...

Elon R. Musk
Co-Founder, Chairman, CEO & Product Architect

Yes. I -- we'll keep going until we have quick questions on -- are still -- while they're interesting.

Galileo Russell

I have a couple more. For the Superchargers, I know you guys are not trying to profit off of Tesla owners with that infrastructure, but would you ever open that up to other automakers and try and generate revenue from that system?

Elon R. Musk
Co-Founder, Chairman, CEO & Product Architect

We've always said that we're -- this is not intended to be a walled garden, and we're happy to support other automakers and let them use our Supercharger stations. They would just need to pay the share of the cost proportionate to their vehicle usage. And they would need to be able to accept our charge rate or at least -- and our connector, at least have an adaptor to our connector. So this is something we're very open to, but so far none of the other car makers have wanted to do this. But it's like not because of opposition from us. This is not a walled garden. Trying to make a meritable share.

Galileo Russell

Okay. And maybe could you clarify what's the strategy? Like it seems like that would be a very strong moat to have this, that work that you guys have been building globally for years. So why open it up, and why is that not a moat?

Elon R. Musk
Co-Founder, Chairman, CEO & Product Architect

Sorry. Can you repeat the question?

Galileo Russell

I'm just wondering why that isn't a moat because as a long-term investor, I feel like the charging infrastructure you guys have built would take years and millions of dollars for another brand to replicate. So I'm just curious about the strategic thinking behind opening that up versus keeping it closed.

Elon R. Musk*Co-Founder, Chairman, CEO & Product Architect*

First of all, I think moats are lame. I mean, they're like nice and sort of quaint in a vestigial way. But like if your only defense against like invading armies is a moat, you will not last long. What matters is the pace of innovation. That is the fundamental determinant of competitiveness. And for any given company, if the rate of innovation -- let's say, like our competitors, maybe they're -- they come out with something near every 6 years. We're maybe every 2 to 3 years. So if our innovation is, let's say, twice that of any given competitor, then it is simply -- this is true of, generally, of companies in any industry. Whichever company has the highest rate of innovation, unless that company is actively killed by its competitors in some way that's nefarious or shoots itself in the foot, it will, at some point, exceed those competitors. Like this is obvious that this would occur with Amazon or Walmart, because Walmart's rate of innovation was negligible and Amazon's was very high. The outcome was obvious a long time ago.

Galileo Russell

And in terms of the Megacharger, I noticed you guys are going to be selling energy at a fixed price for those truck customers. So I'm wondering what the philosophy is there. Is it also you're going offer that at cost and reduce that energy price? Or are you thinking of that as a revenue stream for the company?

Jeffrey B. Straubel*Chief Technology Officer*

We haven't really talked about any of that and haven't finalized, frankly, any of that. It's -- we want to make sure that there's a very seamless and easy system to operate trucks wherever they need to go. And some customers may elect to work with us on the whole system or parts of it. But I think there's a lot of different ways that, that can be solved.

Elon R. Musk*Co-Founder, Chairman, CEO & Product Architect*

Yes. I mean, for sure, with commercial trucking like a heavy-duty Semi, economics are fundamental to that situation. We're not making decisions based on aesthetics or consumer-related things. We're -- like we made our -- we're trying to make our Semi kind of cool and sexy just because we think that that's a good thing to do, not because it affects the buying decision of our customers in a meaningful way. It doesn't really move the needle. I mean, there was like a laughable lawsuit recently from some company ironically called Nikola. It's like Nikola is suing Tesla. That's hilarious. Fate loves the irony. And -- but they're like suing us because of the way the trucks look, which is absurd. Nobody's buying a Semi truck because of the way it looks or because it's got like a wraparound windshield or whatever, please. So the economics are incredibly important. And so we have to make sure that the Superchargers or Megachargers, whatever you call them, or the trucks are set up in a way that you'd have very low cost of electricity.

Jeffrey B. Straubel*Chief Technology Officer*

I mean, one maybe slightly related point to that, that I think is super exciting about this is the potential to link up renewable energy generation at a very fixed and also very affordable cost to power future trucking fleets. Ultimately, that can give customers an incredibly deterministic cost per mile that will not change with the price of petroleum over decades, which is really, really an interesting proposition for a trucking customer. And that's something that we're pretty excited about.

Elon R. Musk*Co-Founder, Chairman, CEO & Product Architect*

Yes, exactly. It's really worth emphasizing that. For trucking companies, like if the cost of diesel goes up a few cents, it just like destroys their business. And whereas with the sort of Megacharger situation, combining -- having basically a solar battery-powered Megacharger, we have -- there are constant costs and we know what they are; we bake them in. And yes, it's very predictable and lower cost per mile than

a diesel truck. And fundamentally, it's like what is the cost per mile kilometer of cargo? And that drives the commercial trucking market. You can have the ugliest truck in the world and it still would be victorious.

Galileo Russell

Yes. And building on that, do you have any thoughts on how the trucking market could change or potentially grow if you guys are actually able to deliver on dramatic cost reduction, especially with things like platooning?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I think it will take away quite a bit of revenue from railway because the reason rail's heavily competitive is it's effectively just platooning with lots of railcars. And you need only a small crew to operate the train. However, trains don't go everywhere. So you have to like have a truck to deliver things to the train rail spur and then pick stuff -- pick it up. And then at the destination, the truck's got to pick it up from the rail spur over there. So you still have trucks plus train plus transfer. So I think platooning of trucks will quite dramatically affect the rail industry in a negative way.

Galileo Russell

Okay. Last one, I promise. On Tesla Energy, I assume that you guys are basically supply constrained, not demand constrained on that side of the business. So I'm wondering how you're prioritizing residential versus utility scale. And in particular, how has this successful project in South Australia sort of changed the industry's perception of what batteries can do?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, I think it's had quite a profound effect. The -- there's -- South Australia took a chance on doing the world's biggest battery. That's worked out really well. If you read the articles, it's worked out far beyond their expectations because the battery's able to respond at the millisecond level, far faster than any hydrocarbon plant. And so it's value and good stabilization is much greater actually than even a gas turbine plant, which can normally respond quite fast. So it's kind of like you get in a Tesla and you can -- you have that instant acceleration. Feels like you like have -- also like a mind meld with the car. It's just like the car is you. And then that same rapid response is true of the battery pack. So the customers that -- the utilities that worked with us thus far have really loved the battery pack. And I feel confident that we'll be able to announce a deal at the gigawatt-hour scale within a matter of months. So it's a 1,000 gigawatts -- megawatt-hours -- 1,000 megawatt-hours for [zeroing gigawatt-hours].

Jeffrey B. Straubel

Chief Technology Officer

Yes, maybe just for the first part of your question also, it is absolutely accurate that we are still -- there's more than enough demand. And we are still building under our demand backlog and actually increasing it slightly. And we're trying to do our best to prioritize customers between residential Powerwall and utility and commercial. I'd say our longer-term strategy is to shift a little bit of our focus and really catch up on our Powerwall demand backlog, which is quite -- it's too long right now. We know people are waiting too long. So that's -- I think that's generally the direction we're trying to take that. But Model 3 has taken a lot of focus in the last few quarters, and that trend is going to be reversing in the second half of the year.

Martin Viecha

Let's go to the next question, please.

Operator

Our next question comes from Phil LeBeau with CNBC.

Phil Lebeau

Elon, question on the Tesla Semi. Can you give us some perspective in terms of how many reservations you guys have now, and where you guys are in the plan for developing it and rolling out the first model?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

My apologies, sorry. We're just discussing something internally. Could you repeat that question?

Phil Lebeau

With the Tesla Semi, how many reservations do you guys now have approximately? And where are you in the process as far as the development and the rollout of the first model in terms of time line when you guys expect that to happen, et cetera?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I actually don't know how many reservations we have for the Semi. I don't think...

Deepak Ahuja

Chief Financial Officer

About 2,000.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

About 2,000? Okay. I mean, we haven't really tried to sell the Semi. It's not like there's like an ongoing sales effort. So sales orders are -- for the Semi are like opportunistic, more like companies approaching us. It's just not something we really think about much. Our focus is on the Model 3. We need to get that to above 5,000 a week at a good margin. We need to become a profitable company. That is a good criticism that has been leveled at Tesla, an accurate one. It's high time we became profitable. And the truth is like you're not a real company until you are, frankly. So that's our focus right now. And then -- so we've got an awesome product road map. The Tesla Semi is one of those things. And I think we've got a really good idea for the -- the Model Y is going to be amazing. I'm really excited about that. Tesla pickup's going to be great. So the product road map -- I mean, we have like way more cool things than we know what to do. Like the idea is -- idea generation part to devoted to execute it. So we just need to stay focused and not divide our attention on too many products at one time.

Phil Lebeau

And a follow-up. When -- given the fact that you're already packed to the gills in Fremont, when will you make a decision regarding a second manufacturing facility?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

So the -- that's probably later this year. It has to be later this year. So I'm not sure of the exact time, but I don't know, maybe next quarter but not later than fourth quarter for Model Y. And then we also expect to announce the location of the Tesla Gigafactory in China soon.

Phil Lebeau

And will that second factory, when you announce it, will it be in North America or is that going to be in China?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, I just said it's in China.

Phil Lebeau

So the Gigafactory's there, but the second manufacturing plant will be in China as well?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Sorry. Oh, I mean, yes -- sorry. In the future, all Gigafactories will include vehicle production. So right now, we've got vehicle production and battery production -- like battery production and motor and power electronics and charger production are at Giga and they'll be at our Fremont car factory. But future Gigafactories will all incorporate vehicle production. Please add to the fact things like that -- that we appreciate -- we're appreciative of the fact that the government of China has announced that they will be allowing full ownership of manufacturing facilities in China. We still have to express an order of appreciation to the Chinese government in that regard. I should also -- Robin, is there anything that you'd like to say or anything?

Robin Ren

Well, we're already in good discussion with the government, so we'll announce something when we'd like.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Okay. So Robin Ren's here with me. Robin is managing worldwide sales for Tesla right now. He was born and raised in China. Won the physics Olympiad in his circle. Anyway -- but we'll talk more about -- I think the next earnings call or next -- we'll have a lot more to say about that in the future.

Operator

Our next question comes from James Albertain with Consumer Edge.

James Joseph Albertain

Consumer Edge Research, LLC

And if I can be brief, I wanted to ask, given the coverage that you've received as it relates to these high-profile accidents, one of the things we like most about your company is you have the most miles tested and continue to test daily from an Autopilot perspective. Can you give us any color from what you're seeing in your data as it relates to the confidence that your consumers have in the Autopilot functionality, whether they've used it more or less frequently in their existing vehicles or whether they've opted to purchase the functionality more or less in lieu of these accidents? Because we're really trying to get ahead a sense of consumer sort of -- the ability or the likelihood of consumers to adopt this technology over time. So this would be very helpful.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

We do see a steady increase in the number of percentage of miles driven with using Autopilot. As we roll out more functionality, as we make it better, we see a steady increase. I think it's something -- for cars equipped with Autopilot, something on the order of 1/3 of highway miles, maybe closer -- maybe 1/2 in some cases are -- in some regions are on Autopilot. But then, of course, when there's like negative news in the press, then that dips. And then I was like, "Okay, this is not good because people are reading things in the press that cause them to use Autopilot less, and then that makes it dangerous for our customers and that's not cool." That's why I get upset. And then we get accused of blaming the victim. I was like, "Look, we're not blaming the victim here, but it is important that people not be under the wrong impression." The statistics are unequivocal that Autopilots improve safety. No question. In fact, one thing I was going to mention, forgot to but also going to mention, is that we'll be publishing our safety statistics on a quarterly basis so people know exactly what Autopilot safety is. Is it getting better? Is it getting worse? And it's like, look, coloring those impressions is that when there is a serious accident on Autopilot, people, for some reason, think that -- or some of the articles think that it's because the driver thought the car was fully autonomous and it wasn't, and we somehow misled them into thinking it was fully autonomous. It is the opposite case. When there is a serious accident, it is almost always, in fact, maybe always the case that it is an experienced user. And the issue is what -- more one of

complacency, like we get too used to it, that tends to be more of an issue. It's not a lack of understanding of what Autopilot can do. It's actually thinking they know more about Autopilot than they do, like quite a significant understanding of it, but there's less, [maybe less].

James Joseph Albertine

Consumer Edge Research, LLC

Just to clarify, Elon, so you've got 2 accidents spaced out pretty far. You've had dips during those periods when the accidents occurred. But to clarify your comments, you are increasing use -- you're seeing increasing usage and you've weathered those dips based on where we are today?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

That is correct.

Operator

Our next question comes from Ben Kallo with Baird.

Benjamin Joseph Kallo

Robert W. Baird & Co. Incorporated, Research Division

So I remember the Barron's story, I don't know if it was fake news or not, which you hung up on about your battery cost. And I don't want to ask a mundane question, so -- but I think it's important because one of your stakeholders are shareholders right now. And so far, we've had a couple pushouts in production. And is there a way that you can update us when you get to that 3,000 number or 4,000 number per week? I mean, you -- you're active on Twitter. Can you just let us know? Because -- we're going to have a big vacuum here and there's a lot of news flow out there that makes volatility into the stock. It makes it hard for people to own even though you have a lot of believers out there. And so even though it would be in my office right now, I think it's very important to get those kind of updates. And so that's -- I think that's my question. Can you give us an update when you get to 3,000 and 4,000 per week on the Model 3?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. Actually, the -- what's -- Tesla's such a leaky server of information that I think the news will leak pretty quickly. Also people track registrations very closely. So at most, any information that we provide would be 1 week or 2 in advance of what will become public knowledge just due to vehicle registrations and shipments that are tracked very carefully. So that really, the problem is like people get too focused on like what's happening in the space of a few weeks or a few months. This is -- it's an old maxim of investing, you should not be focused on short-term things. You should be focused on long-term things. We have no interest in satisfying the desires of day traders, like we couldn't care less. Please sell our stock and don't buy it.

Benjamin Joseph Kallo

Robert W. Baird & Co. Incorporated, Research Division

I completely understand your frustrations, and I'm frustrated too on how myopic we are right now. They also say that great years are made out of quarters and great decades are made out of years. So everyone's short-term focused in some ways, and volatility has a way of taking people out even if they are strong and want to be there. And so anything you can do to help in the near term on that, I think it's helpful for the stock.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I mean, I think that if people are concerned about volatility, they should definitely not buy our stock. I am not here to convince you to buy our stock. Do not buy it if volatility is scary. There you go.

Martin Viecha

Okay. And let's go to our last question now.

Operator

Our last question comes from Alex Potter with Piper Jaffray.

Alexander Eugene Potter

Piper Jaffray Companies, Research Division

Not sure if this is going to be a hard question to answer. You mentioned Model 3 market share versus the 3 Series and others in that segment. To what extent do you think Model 3 is, I guess, changing the denominator, making that segment larger as a class versus what it used to be?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I think it will probably increase the total number of sedans purchased, yes. Yes, I think so.

Alexander Eugene Potter

Piper Jaffray Companies, Research Division

So you think you're pulling ex Accord buyers and Camry buyers into that class, as example?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, we know this because of the trade-ins. So we see quite a wide range of cars [indiscernible] a lot of trading in the cars. They're not necessarily owners of a C-Class or an Audi A4 or a 3 Series.

Deepak Ahuja

Chief Financial Officer

We saw signs of trade-in with Model S, so with Model 3 it's going to be even more prominent.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, yes, exactly. And I think -- like also, once we get to like the shared autonomy, ride-hailing thing, we -- it could be as soon as the end of next year, but that's already technically ready. But then not long after that, I would expect some jurisdictions to give regulatory approval. The effective cost of ownership of a Model 3 or Tesla drops dramatically because you can share that car with others.

Alexander Eugene Potter

Piper Jaffray Companies, Research Division

Okay. Very interesting. Last one. You mentioned earlier, you think the Model Y production is going to be a true sort of production revolution. If you had to do the Model 3 over again, there are some things that you would have changed, and you hope to incorporate those learnings into the Model Y. What specifically would you do or what specifically do you plan to do?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, I think let's save that for another time. Like we'll talk about that when we unveil the Model Y. But it's really going to be dramatically better. The design and production system, I think, really will be next level.

Jeffrey B. Straubel

Chief Technology Officer

[indiscernible] bottom line.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

All right. Thanks a lot. Thanks. Thanks, everyone. Appreciate the good questions.

Martin Viecha

Okay. It's unfortunately all the time we have, so thank you very much, and speak to you next quarter. Thank you very much, and goodbye.

Operator

Ladies and gentlemen, thank you for participating in today's conference. This does conclude the program. You may all disconnect, and have a wonderful day.

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