

Tesla, Inc. NasdaqGS:TSLA

FQ3 2018 Earnings Call Transcripts

Wednesday, October 24, 2018 10:30 PM GMT

S&P Global Market Intelligence Estimates

	-FQ3 2018-			-FQ4 2018-	-FY 2018-	-FY 2019-
	CONSENSUS	ACTUAL	SURPRISE	CONSENSUS	CONSENSUS	CONSENSUS
EPS Normalized	(0.09)	2.90	NM	0.61	(5.61)	3.16
Revenue (mm)	6294.72	6824.41	▲ 8.41	6729.74	20570.68	28532.95

Currency: USD

Consensus as of Oct-24-2018 8:10 AM GMT

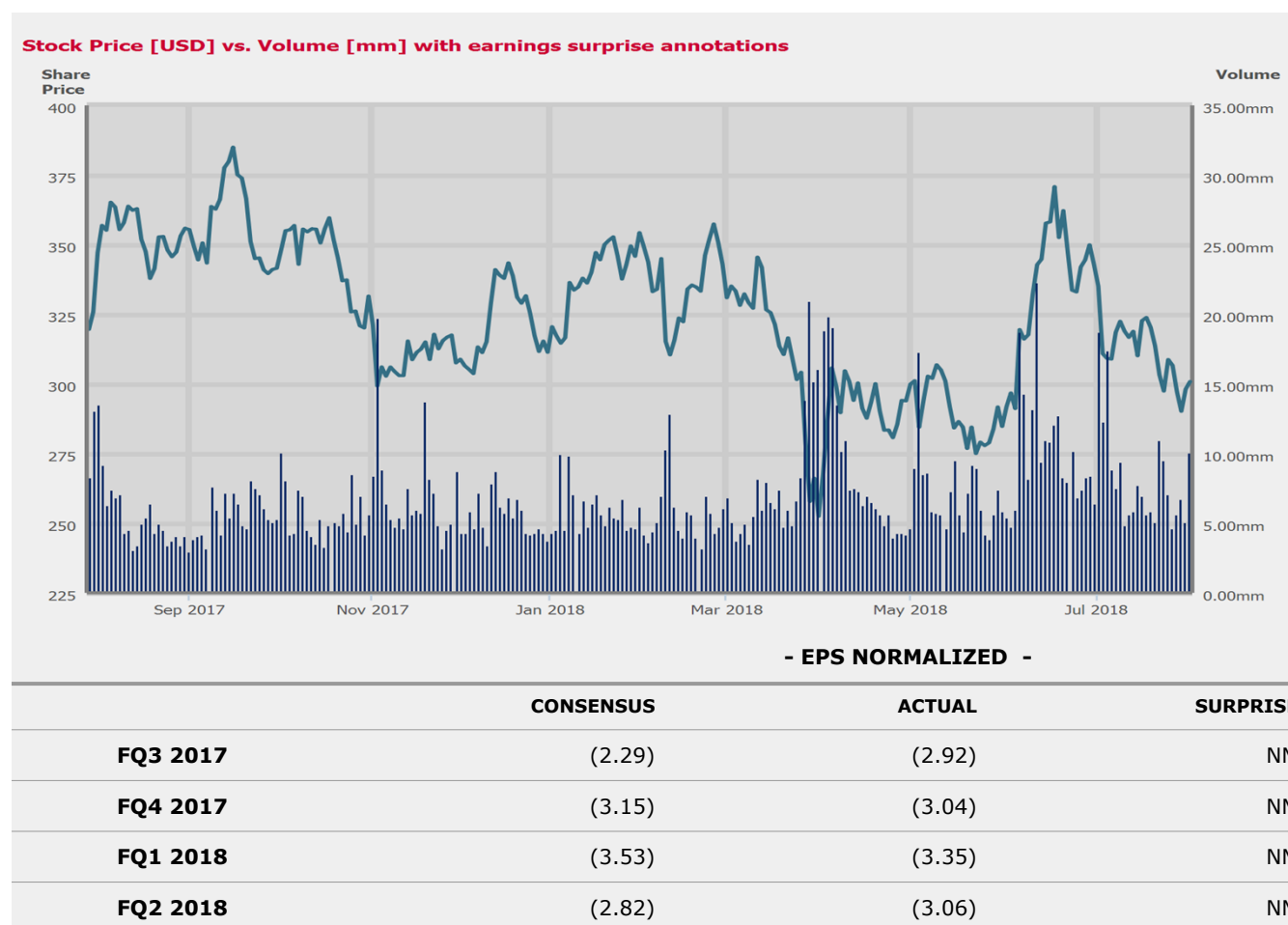


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Call Participants

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Jeffrey B. Straubel

Chief Technology Officer

Laurie Shelby

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Presentation

Operator

Good day, ladies and gentlemen, and welcome to the Tesla Q3 2018 Financial Results and Q&A Webcast. [Operator Instructions] As a reminder, this conference is being recorded.

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

Martin Viecha

Senior Director for Investor Relations

Thank you, Sherry, and good afternoon, everyone. Welcome to Tesla's Third Quarter 2018 Q&A Webcast. I'm joined today by Elon Musk, J.B. Straubel, Deepak Ahuja and a number of other executives. Our Q3 results were announced at about 1:00 p.m. Pacific Time in the update letter we published at the same link as this webcast.

During our 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]

But before we jump into Q&A, Elon has some opening remarks. Elon?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Thanks, Martin. So I'll make some opening remarks, and then we're going to talk about vehicle safety, Autopilot and factory safety. And we have a number of people from Tesla here to elaborate on that. So I think there's just a lot going on that you would find interesting.

But I want to start by thanking all of our customers, employees and shareholders. This was an incredibly historic quarter for Tesla. Model 3 production stabilized. We delivered a total of 84,000 vehicles globally, which is more than 80% of vehicles that we delivered in all of 2017. In fact, we delivered more cars in this quarter than we did in all of 2016 in a single quarter.

Model 3 became the best-selling car in the U.S. in terms of revenue and the third best-selling car in terms of volume. We saw higher revenues and significantly better profitability in our energy business. I mean, I think with solar, it may have been the best quarter ever for solar. We achieved GAAP net income of over \$300 million, increased cash and equivalents by \$731 million and achieved a greater than 20% gross margin for Model 3.

And moreover, we expect to again have positive net income and cash flow in Q4. And I believe our aspiration is something that will be for all quarters going forward. I think we can actually be positive cash flow and profitable for all quarters going forward, leaving aside the quarters where we may need to do a significant repayment but -- for example, in Q1 next year. But I think even in Q1, I think we can be approximately flat in cash flow by end of quarter.

This quarter was made possible by the incredible execution of our employees across the board, from sales, production, delivery, service, energy, engineering, finance and all of our G&A teams. Really every part of the business executed incredibly well. I want to thank everyone again for their incredibly hard work. I especially want to thank customers who helped -- it's like I've never even heard of this -- maybe this has happened before, but I've never heard of a case where a company's customers actually cared about the future of the company so much that they volunteered their time to help the company succeed. I think that's amazing. Just -- you don't see that anywhere. So yes, really, chokes me up, actually.

This quarter, we started rolling out Version 9 of our software, which is the biggest software upgrade in 3 years. And Model 3 received a 5-star safety rating in every category and subcategory. I think that's the lowest probability of injury of any car that the U.S. government's ever tested.

Looking ahead, we expect to produce and sell even more Model 3s in Q4 and expect that trend to continue into Q1. And we're excited to bring Model 3 to Europe and China early next year given that the market for midsized premium sedans in those regions is even larger than in North America.

I said before that we must prove that Tesla can be sustainably profitable. This quarter was an important step towards that, and I'm incredibly excited about what lies ahead. So this is -- yes, just so, so proud of the Tesla team and our customers. Really appreciate the support of our long-term shareholders. And yes, I just want to say on behalf of the Tesla team, we're just super appreciative of your support through what has actually been a very difficult time.

All right. Now let's move to -- let's start off with vehicle safety. Madan, who's our lead vehicle safety engineer, been with the company for a long time. Madan, how many years has it been that we've been working together?

Madan Gopal

10 years.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Eight?

Madan Gopal

10 years.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

10 years. Wow, so yes, I've been working with Madan for 10 years. And we've had so many conversations on vehicle safety. Wow. And you know what, the -- we're really going to try to go the extra mile with vehicle safety, not just -- in fact, there's a series of government-mandated tests, but what some companies do is they game the system. So they know where the side pole impact is going to be. They strengthen it right in that position. At Tesla, we're like, "Okay, what is the weakest point in the car? Let us test it at that position." So the actual safety is not fully captured in the tests because we anti-game the system. Madan, if you...

Madan Gopal

Thank you, Elon. Just to give you a very quick background about myself. So like I said, joined Tesla 10 years. I'm extremely very happy to mention I'm working with an extraordinary set of very passionate and very hard-working individuals, and that essentially shows in our product. So that's very important for us.

And also important is our principal mission statement on safety because what we want to do is safety has been -- is probably the important factor for our vehicle. It's not just for electrical vehicle. Any vehicle, period. And that fundamentally differentiates us, so -- which essentially helps us to keep adding new features and new safety technology. And that's very important and that shows in Model 3. Just the things that we have.

Also the fact that we have electric vehicle, the design and architecture uses a fundamental benefit over traditional vehicles. And that takes care of, for example, whether you have a block of engine in the front where we can work with using pretty much open architecture in the front. And the whole fact that you have all the electrical and high voltage and motors and all of that almost below the central gravity of the vehicle, it's the lowest probability of reduced or lower risk, and that significantly benefits.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. I think architecturally, we have Newton on our side. And having Isaac Newton on your side is definitely the way to go.

Madan Gopal

Right, exactly. So in the latest series of tests, I would like to specifically talk about Model 3. NHTSA did a series of tests, actually 4 tests, for 1 frontal, 2 side and 1 rollover test. And if you look at -- we've been calculating how can we distinguish within the 5 star. There are so many vehicles that already get 5 star. And if you look at within the 5 star..

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

That is not all the same. Not all the same.

Madan Gopal

Yes, exactly. So if you look at there, the tricks we came up with, which is a part of U.S. NCAP rating itself, as a lowest probability of injury, Model 3 has the lowest. And just to give you a context, there are a total of 900-plus vehicles since 2011 which have been rated. So the fact that Model 3 is the best among all the 943 to be exact. So that speaks to value.

And I'm very happy to say that Model 3 has achieved -- we are not stopping right now. What we would like to do next is how we can make use of the active safety and Autopilot features and make it even more improvement so the next area that we're focusing on, how to integrate active and passive safety. That's our next area of challenge, which we will improve for sure.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. And so worth noting that the safety extends to not just people in car but also pedestrians.

Madan Gopal

Correct.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. So not having a big engine block in the front of the car is really helpful so -- because if you -- if the car were to hit a pedestrian, we'll get to active safety next because the best thing is actually not just to hit car or a pedestrian. The fact that the hood can condense so far in is really helpful because it ends up being like a sort of -- sort of like a trampoline or like -- it has -- you just -- you don't have a rock underneath this. That's very helpful.

So it's helpful for pedestrian safety and for the safety of people in the car. And then even if you have like a head-on collision with another car, the extended sort of crumple zone of a Tesla Model S, X or 3 is helpful to the people in the Tesla and the people in the other car. So it's not just for people in the car.

Madan Gopal

I'd like to add one item, which is essentially how we look at the real-world safety, which has always been an important element for Elon. So if you look at the -- our blog post, we showed how we handled the central fall impact in the front hood. By the way, that's not part of NCAP rating. Just to show how we go over and above the NCAP rating to make sure it's real world safety. That's very important for us.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Exactly. That's what I mean by like anti-game the system, like what is the worst way that the car could be hit, not just sort of strength and where we know the test will happen and that kind of thing. So obviously, we're all in these cars, our friends are in these cars, family is in the car, so we care a great deal about safety. A lot of people think safety is boring, but not Tesla. So thanks, Madan.

Madan Gopal

Thank you.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Thank you for your decade of hard work and the rest of Tesla safety team. And with that, let's move on to Autopilot and yes, just give an update on sort of Autopilot software, AI and hardware. Yes.

Stuart Bowers

Vice President of Engineering

That's great. This is Stuart Bowers. We will soon begin to roll out the team's most advanced Autopilot feature ever, Navigate on Autopilot. In our last release, we launched a new set of neural networks that combined together, provide a view of everything happening around the car.

With Navigate on Autopilot, we'll use information to understand exactly where the car is on the highway system and to automatically change lanes, handle forks and take high-curvature exits to follow a nav route. Initially, it will require drivers to confirm lane changes using the turn signal before the car moves into an adjacent lane. Future versions will allow customers to waive the confirmation requirement if they choose to.

One area that I'm personally really excited to build on with this improvement is active safety. With the advancement in neural networks covering 360 degrees of view around our car, we can provide a level of constant vigilance that humans just can't. Ultimately, this should allow us to warn, even intervene, for an enormous percentage of modern accidents and to ship these improvements as software upgrades to our existing customers.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

And we have a lot of -- we see this all the time in the data where the car will do an automatic braking event and save a pedestrian or another car from impact. This happens all the time.

Stuart Bowers

Vice President of Engineering

All the time.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. All the time. Essentially every day. So great [preview].

Stuart Bowers

Vice President of Engineering

Yes. The team's done incredible work here. And by bringing more of the cameras around the car, we can detect things as they come toward us, not just directly in front of us.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes.

Peter Bannon

Director of Silicon Engineering

Hi, this is Pete Bannon. The Hardware 3 design is continuing to move along. Over the last quarter, we've completed qualification of the silicon, qualification of the board. We started the manufacturing line and qualification of the manufacturing line. We've been validating the provisioning close in the factory. We've built test versions of Model S, X and 3 in the factory to validate all the fit and finish all the parts and all the provisioning close. So we still have a lot of work to do, and the team's doing a great job. And we're still on track to have it ready to go by the end of Q1.

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

Great. And that will be roughly 1,000% increase in thrust and capability compared to the current hardware. And so it's obviously a giant improvement. Despite being about the -- it costs about the same, cost volume, and product consumption are approximately the same as the current hardware. But it's a tenfold improvements in frames per second. Yes. And improved redundancy as well.

But very importantly, very important to emphasize is that the only -- the thing that needs to change between the cars produced today and the cars that are produced in the second quarter of next year is swapping out the Autopilot computer. And this is a simple change that takes place in half an hour in service to upgrade the computer. And anyone will be able to upgrade their computer to full Self-Driving capability -- upgrade their car to full Self-Driving capability with a simple service visit.

So we expect all cars with the Hardware 2 sensor suite, basically anything made in the last roughly 2 years will be upgradable to full Self-Driving.

Peter Bannon*Director of Silicon Engineering*

Yes. In fact, a lot of the cars we're using for testing today have, in fact, been upgraded from Hardware 2.

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

Right. So it's very important to emphasize like people shouldn't -- it's like -- it seems like people want to wait until that comes out, but there's no need to wait until that comes out because it's just a very simple plug-and-play change to get the full Self-Driving. And anyone who's paid for the full Self-Driving option will just get it done for free. And anyone who still wants to order full Self-Driving at this point, it's just an off-menu item. You can still order it, but we took it off the order -- menu just because there are -- it was really creating a lot of friction in the sales process and people didn't understand the difference between Enhanced Autopilot and full Self-Driving.

So just to simplify the order process, we took that off. But anyone who asks for it can certainly get it. And it really ends up being a discount on future capability. But to be clear, there's definitely no need to wait until Q2 to order a car. It's -- we want to make it just a completely seamless process. So there's no advantage to ordering now versus Q2. Andrej, do you want to...

Andrej Karpathy*Director of Artificial Intelligence & Autopilot Vision*

Yes. Thanks. Hi, everyone. I'm Andrej Karpathy, I'm the Director of AI here at Tesla. And my team trains all the neural networks that analyze the images streaming in from the all the cameras for the Autopilot. For example, these neural networks identify cars, lane lines, traffic signs and so on.

The team is incredibly excited about the upcoming upgrade for the Autopilot computer, which Pete briefly talked about. This upgrade allows us to not just run the current neural networks faster. But more importantly, it will allow us to deploy much larger, computationally more expensive networks to the fleet.

The reason this is important is that it is a common finding in the industry, and that we see this as well, is that as you make networks bigger by adding more neurons, the accuracy of all their predictions increases

with the added capacity. So in other words, we are currently at a place where we've trained large neural networks that work very well but we are not able to deploy them to the fleet due to computational constraints.

So all of this will change with the next iteration of the hardware, and it's a massive step improvement in the compute capability. And the team is incredibly excited to get these networks out there.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Great. Thank you. And I've said this before, but I think -- let's talk about how we look at the longer-term future. We absolutely see the future as kind of -- as sort of shared electric autonomy so that you'll be able to do ride-hailing or share your car in any way in a sort of long-term model that's some combination of like Uber, Lyft and Airbnb. So there'll be Tesla-dedicated cars for ride-hailing, and there'll be -- and any customer will be able to share their car at will, just like you share your house in Airbnb.

So it's a combination of those 2 models. I think it's pretty obvious where things are headed long term. The advantage that Tesla will have is that we will have millions of cars in the field with full autonomy capability, and no one else will have that. So I think that puts us -- that will end up putting us in the strongest competitive position long term.

And then, Laurie, can you finish off with -- let's talk about factory safety. And thanks for the hard work of you and your team. And I think we've made great strides. And yes, please, please go ahead.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

Yes, thanks. We have the safest cars made by the safest people. So it's an exciting time here at Tesla. All car and manufacturing factories have injuries. At Tesla, we have a commitment to 0 injuries. And our target is actually on good reporting. So we have good reporting of injuries, good reporting of near misses, good observations and lots of improvements. So to be the safest company in the world, we have to be committed to that. And everybody here is. So we're actually steadily getting there, and we're not going to stop until we're there.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Absolutely.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

So one...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. So I've been mentioning like -- for example, like we had like some sort of -- for example, like we do get these like quite unfair accusations. For example, one of them was like we were underreporting injuries. And it's worth noting that OSHA completed their investigation and concluded that we have not been doing anything of the sort.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

Correct. Correct. The company here had a 4-month long Cal/OSHA investigation. And it basically proves that we are recording properly and doing as we should be. So it's much different than what you would read about in the press.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, that is true.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

Yes, yes. I'm very proud of the team for that. It's a -- yes, one point I think people don't know is I've been here about a year now. Time flies when you're having so much fun.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Feels like 5 years.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

I know. But when I joined, we were already really a fraction -- our injury rate was a fraction of what it had been when Toyota and GM ran the factory in the Numi days. So what we're all about is really continuing to make improvements from there.

And what's also important is not to have serious injuries. And that's extremely rare here at Tesla. We have really strong focus on prevention and also using mitigating controls so that these types of injuries don't occur. I mean, most of the injuries that we have are muscular sprains and things like that.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. Essentially, it's muscle strain and getting scratched.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

Exactly.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

That's the most of the injuries here.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

Yes, hand and finger cuts and sprains. So I kind of just want to break down a few things that my team has been working on, along with all the leaders here.

First is people and engagement. So one of the first things is meeting with you, Elon. We meet with you on a regular basis. We meet with all the production leaders. So it's full on engagement on improving safety. We have built a really strong EHS team, the best and the brightest.

We have -- and our EHS team is actually embedded into the line on the factory because we learn the process and we learn the people. You don't know how to improve unless you're out there, on the line, on the process, engaging with the associates, listening and learning from our associates. So we have really strong engagement, health and safety committees. We do find it, fix it walks. Our walker -- our leaders are out there walking and also looking for improvements.

And actually, just this quarter, we had over 15,000 improvements. I mean, that's like amazing. So very, very excited about that.

We also look at risk reduction and -- in human performance. People are going to make mistakes, so we're going to design in so we fail safely. We have an early symptom intervention program. This is where we have industrial athletes go out on the line and work with our associates before anything happens. Like if you have a pain, let's work it out. Let's strengthen and really get our employees fit. So we're doing that.

We've also just opened a new and improved health clinic. So when injuries do occur, we get the absolute best care for our associates. And it's actually overseen by one of California's leading orthopedic surgeons. And we did that because most of our injuries, like we said, like 80%, 85%, are those sprains and strains. So now they get that best care here on site. And we have 24/7 care. It's actually staffed by 3 full-time doctors and nurses. And I'm really super happy with the care they're giving, and I think employees are as well. And the third...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. We're going to expand on that. So the -- yes, Tesla's sort of health clinic both at Fremont and at Giga, so that we have a really immediate, first-class health care available right on the spot when people need it. And this is not just for workplace. This is for workplace and non-workplace.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

I know. That's super exciting. We're leading the world.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. If you like have injury for any reason, then there's health care immediately on site.

Laurie Shelby

VP, Environmental, Health and Safety (EHS)

That's where we plan to go, exactly. And then finally, just being proactive because that's what we're about, innovation and proactive. I mean, we joined a national safety organization. We partner with many leading universities, including California Berkeley, Center for Occupational and Environmental Health. We do presentations there. We work with the automotive industry and do benchmarking all the time. We're always looking and bringing people in to look for things that we can do better and for new technology on innovation and safety.

And with all of that, we have made improvements in our injury rates. We are more than 10% better year-over-year in our lost workdays and our days away. But the most important thing is we're also getting all those good engagement observations. They're moving up. So injuries down. Observations, engagements up. Thank you.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Right. Thank you. Thanks, Laurie. Yes, we'll provide regular updates on workplace safety. And yes, our goals is unequivocally to have the safest factories in the world where people look forward to going to work in the morning. So it's like -- yes, that's our goal.

All right? With that, we can move to questions.

Martin Viecha

Senior Director for Investor Relations

Cool. Well, thank you very much. Sherry, let's go to the first question please.

Question and Answer

Operator

Our first question comes from Dan Galves with Wolfe Research.

Daniel V. Galves

Wolfe Research, LLC

It's really amazing to see this landmark quarter after covering the company for so long. And thanks for bringing some of your team on to the call. It's very interesting. My first question is about cell supply. There's been some noise about tight cell supply and sparks and tight labor supply. Like in the short term, could you just talk about whether demand is outpacing supply of battery cells? And kind of what's your plan for long-term expansion, including cell supply in China?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

J.B., do you want to take that?

Jeffrey B. Straubel

Chief Technology Officer

Sure. I can speak to that. This is J.B. We have had a period where the supply was fairly tight for Model 3. But it did not really constrain the Model 3 production in any significant way.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, like for a week.

Jeffrey B. Straubel

Chief Technology Officer

Yes. Maybe for a few days. Yes, the impact was larger felt on the energy products. And that's still somewhat tight. But we do -- as we pointed on previous discussions, we do have third-party supplies of energy cells. So that production can continue even independently of the Panasonic supply in sparks. So that's been very helpful. And that is expanding in future quarters. And also the Panasonic supply is expanding. The productivity of existing lines is continuing to improve with a lot of hard work from the engineering teams and just operational stability. And we continue to bring online new production lines. So even just in the last several weeks, we started out by getting another self-production line with Panasonic. And through the end of the year, there's another line coming on and then one shortly after that. So there's a steady increase in the total supply that should keep us ahead of even Model 3 growth and also should let us have a larger percentage of energy supply be sourced from Giga locally.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. We are making a pretty nutty amount of the world's lithium-ion batteries. And Martin, like, I think we're at 60% or something.

Martin Viecha

Senior Director for Investor Relations

Yes. So at the moment, if you look at -- for example, for Q3, all electric vehicles made around the world, their total battery capacity was about 20 or 19 gigawatt hours. And what we produced in Q3 was about the same or a little bit higher.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Okay.

Martin Viecha

Senior Director for Investor Relations

So about half of the world's batteries, basically.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. Well, that's -- because we also source cells from Japan and elsewhere. Was that -- are you talking about just Giga or...

Martin Viecha

Senior Director for Investor Relations

So -- yes. So just the Giga itself is about 20. And on top of that, S and Xs, I don't know, another 4 or 5.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes.

Daniel V. Galves

Wolfe Research, LLC

Got it. No, it's a huge advantage. Is there plans that you can talk about for cell supply in China? Will that be produced in China? I'm assuming so.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Long term, it would be produced in China. Short term, we're not certain of the short-term situation. But long term, certainly.

Operator

Our next question comes from Pierre Ferragu with New Street Research.

Pierre C. Ferragu

New Street Research LLP

I was very surprised in the numbers you reported today, your gross margin performance on the Model 3. So if I remember correctly, you were expecting more of a 15% type of margin for this quarter, and you actually did better than 20%. So can you take us through what improved, like faster and better than you had initially anticipated in the manufacturing line and where these improvements came from?

Deepak Ahuja

Chief Financial Officer

Deepak here. And Jerome and others, please feel free to join. Our improvements on the cost side were in every aspect of cost. So clearly, our manufacturing labor hours improved significantly. Our overall manufacturing cost dropped almost 30% sequentially, Q2 to Q3. We produced more volume. So we had better fixed cost absorption. We had far less scrap. Our yield on each of the lines across both factories improved significantly. And as we look forward, we see even more opportunities. We are going through this phase where we are now stabilizing production and the team can now intensely focus on cost optimization. And that trend will just continue in Q4. Yes.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I think we're also being roughly on the conservative side when we predicted it. We said like 15% but we're being conservative...

Deepak Ahuja

Chief Financial Officer

Right. Our expectation was we would do better but we wanted to be conservative, you're right, in terms of our guidance that we gave for Q3. Yes.

Pierre C. Ferragu

New Street Research LLP

Okay. That's great. And then on -- as a quick follow-up, you've announced over the weekend like a mid-range car with smaller battery packs. And I was wondering, as you're looking at expanding, for example, the Model 3, I think about it as you had 2 options. One was to go -- grow and to keep what you're seeing at higher-end, higher-ASP car. And the other one was to go for a lower-cost car and stick to the U.S. So how did you decide the sequencing of these 2 things? Why is it lower car now and going abroad in the early next year?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, we're trying to provide the most affordable electric car options that we can. And since we just don't have the money to get to a \$35,000 car right away, we thought this might be a way to offer it as an intermediate step. And that's really it. Yes, we expect to start producing a significant volume for Europe in January. And it obviously takes some time to ship. So deliveries, probably pretty significant deliveries in Europe, kind of in the late February, March time frame because the cars have to get all the way from California to a customer in Europe. And for us, cars only count as delivered if it reaches the end customer and all the paperwork is completed correctly. So it's the highest possible standard for considering a sale a sale. Yes.

Deepak Ahuja

Chief Financial Officer

And also to APAC, we start delivering cars.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. The -- we may or may not deliver cars in APAC in Q1 but certainly in Q2. It will be kind of borderline as to whether cars are delivered in APAC by the end of Q1. So I can't say it for certain. Definitely in Europe. But -- and then definitely in APAC in Q2. Yes.

Operator

Our next question comes from Romit Shah with Nomura Instinet.

Romit Jitendra Shah

Nomura Securities Co. Ltd., Research Division

I guess just along those lines, you indicated that you're going to bring Model 3 to Europe early next year. Where would you like to see production in order to support that ramp overseas?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, initially, production will occur -- I mean, these last next several months, all production is -- vehicle production will take place at our car plant in California.

Romit Jitendra Shah

Nomura Securities Co. Ltd., Research Division

Sorry, I meant to ask, where would you like to see the production rate on a weekly basis go to in order to support that ramp?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. It's hard to predict with accuracy. The -- and there's also like all the tariff wars and everything. So long term, I'd like to say like we're not talking about like next quarter. So like what is global -- likely global demand for Model 3. It's probably in the order of -- anywhere from 500,000 to 1 million cars a year, let's say, good global demand for Model 3. I think it's something like, say, the 3 Series, that's around 0.5 million.

Deepak Ahuja

Chief Financial Officer

0.5 million.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

The BMW 3 Series is about 0.5 million a year globally. And generally, we find that we outcompete the BMW 3 Series quite well. So it seems like logical therefore that we will long term have a higher production -- or higher demand, maybe somewhere between kind of the BMW 3 Series and the Volkswagen Golf, which is about 1 million units a year. So yes, that's why I said anywhere from 500,000 to 1 million units a year, long term.

Romit Jitendra Shah

Nomura Securities Co. Ltd., Research Division

And you have to add new lines to support that? Or are you just going to continue to remove bottlenecks in the existing lines?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

No. We're definitely going to do local production. In China, we're moving rapidly on that. So we're aiming to have Model 3 production for the China market, for the Greater China market, active certainly next year. It will be happening next year. But it will be done in a very capital-efficient manner, much more akin to the way we did General Assembly line 4 versus General Assembly line 3. And then we'll also have a factory in Europe long term because it's pretty silly to make cars in California and ship them all the way to Europe. That's far.

Deepak Ahuja

Chief Financial Officer

Especially in high volumes.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, exactly. Essentially, it's -- I'm not talking about S and X. I'm just talking about the 3. So S and X will continue to be made in California. I think probably exclusively here. For cars, we're trying to maximize affordability. It makes a lot of sense to produce those cars at least in the continent where they are consumed or bought.

Operator

Our next question comes from George Galliers with Evercore.

George Anthony Galliers-Pratt

Evercore ISI Institutional Equities, Research Division

Maybe just following up on the previous question. Is the target still to produce 10,000 Model 3s a week in 3 months? And I think you mentioned in the past that once you got to run rate of around 5,000, you'd be

better placed to assess what CapEx is required to get there. So as of today, do you have a better idea of what CapEx is required to get to that kind of level at 3 months?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I think we're not prepared to speak to that right now, except that it will be conservatively less than the money that we spent to get to 5,000 in the first place, like quite -- I think quite dramatically less. So like I'd probably see a path to like 7,000 units with Model 3 with really minimal CapEx.

Deepak Ahuja

Chief Financial Officer

Very minimal.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. Very minimal to get to 7,000 a week. And then that's really just basically solving -- improving the uptime of the existing lines. And we can do the 7,000 a week. Yes, so -- and then it gets a little harder as you start to go above 7,000. We would need to at least bring lines down in Fremont for significant upgrades to get to 10k. But also just not -- we're not talking about massive amount of CapEx. But let's say like long term, it's -- again long term, it's -- predicting these on a quarter-by-quarter basis is very difficult because when you have an exponential growth rate like we do -- I mean, if look at Tesla's cumulative deliveries over time, it's like the cleanest exponential curve that I've ever seen. So -- but small movements in calendar time can look like a very large hit or miss one way or the other because it's such a steep curve. That's why I'm -- it's very tricky to predict things on a quarterly basis but a lot easier if you go out a year or so. Yes, I mean, it -- probably long term, it's at least sort of 7,000 to 10,000 cars from Fremont of Model 3 and then, I don't know, 5,000 to 8,000 in the rest of world, something like that. It's just a guess.

George Anthony Galliers-Pratt

Evercore ISI Institutional Equities, Research Division

Okay. And then just as a follow-up, in the letter, you do point out the size of the European market for premium midsized sedans is roughly twice that of the U.S. Could you also just maybe comment to what your expectations are for mix in Europe? Based off Model S and Model X, do you expect a richer mix in Europe versus the U.S.? Or is it fairly similar?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

We've given that 0 thought. I mean, this is like there's not -- I don't know, Martin, do you have anything to add?

Martin Viecha

Senior Director for Investor Relations

Yes. All I'm aware of is that because of cold weather, probably all-wheel drive and long-battery range will be highly demanded in Europe. But apart from that -- I mean, we ultimately have to start selling the car to see what the demand is. So...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. I mean, it seems like it's likely to be comparable to -- if premium midsized sedan market is like twice as big in Europe, then it's likely there will be at least as much demand in Europe as in North America. Like that's a pretty safe bet. But our goal really is to make electric cars that everyone can afford, not just to sort of mine high option value cars. It's like if we could produce a \$35,000 car today, we would do it. We need more work. There's more work to do before we can make a \$35,000 car and have it be positive gross margin. I'm not -- we're probably less than 6 months from that, but that's our mission.

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Operator

[Operator Instructions] Our next question comes from Maynard Um with Macquarie.

Maynard Joseph Um

Macquarie Research

As you continue to scale the business, can you talk about how we should think about how you balance profits versus reinvestments? You're targeting sustainable GAAP profitability and cash flow. But I'm curious if there's a level of GAAP profitability or GAAP operating margin or cash flow you want to hold and then take the excess to fund new growth or accelerate opportunities?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Sure. I mean, maybe to -- if I characterize that question, it'll be like, are we starving new vehicle development in order to achieve GAAP profitably and cash flow positive? Would that be an accurate -- is that essentially -- like the answer is no. So we've made significant progress on the Model Y. So in fact, I approved the prototype to go to production recently. So it will be 2020 before that's in volume production. But we made great progress there. Also continue to make progress on the semi and the newer Tesla Roadster. And then actually, the product I'm personally most excited about is the Tesla pickup truck. It's like -- I think that's going to reach the next level stuff there. And then I should not forget to mention the solar tile roof. We'll also start going into volume production of the solar tile roof next year. That's quite a long development cycle for -- because anything that's roof has got to last 30 years. So even if you do accelerate life testing as fast as possible, there's still a minimum amount of time required to do that. And there's a lot of engineering that goes into how do you put on the solar tile roof with a -- and not be really labor-intensive in doing so. So there's a lot of engineering not just in the tile but in the way it's done. And then we've got continued improvements in Powerwall, Powerpack, other energy products. I think we've got the most exciting product road map of any company by far. And I'm not even sure, like probably twice. I don't even know who would have -- which company would have a better product road map or even close. Yes. Maybe they do, but I don't know about them.

Maynard Joseph Um

Macquarie Research

Great. And when you think about Tesla having its own ride-sharing fleet or giving people the ability to loan out their car like an Airbnb model, I'm curious if your long-term plan is to build a platform that's going to enable companies to write applications to turn the car directly into an application. And then can you also maybe just talk about that business model? Is that -- should we be thinking more about like a revenue-sharing model sort of like how Apple takes a piece of revenue generated for applications from iPhones?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I don't know about turning the car into an application exactly. But I mean, maybe. But we're trying to do things that maximizes usefulness. And so if there's a way we can think of where third parties could do something, then that could make sense. But I do know for sure that Tesla will operate its own ride-hailing right -- its own ride-hailing service. We'll compete directly with Uber and Lyft, obviously, but then also have the ability for customers to offer their car and add or subtract their car to the fleet at will. It will be a company-owned fleet. And the company-owned fleet will just be where there aren't enough customer cars to be lent out. So if we find like in a particular metro, there aren't enough customers who are willing to add their car to the shared fleet, then that's where we'll supplement it with a Tesla-owned fleet. So that's why it's a sort of combination of the Uber/Lyft thing and Airbnb. And then we will charge something probably comparable to, yes, how does the App Store works, or I don't know, we charge 30% or something in order for somebody to add the car to the fleet. I think that's like a pretty sensible way to go. Yes.

Operator

Our next question comes from Adam Jonas with Morgan Stanley.

Adam Michael Jonas

Morgan Stanley, Research Division

First question is on governance. As the company conducts its search for a new Chairman, what are the attributes and experiences of that person that you think would be a best fit or best value for Tesla?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Actually, on this call, we are going to restrict the questions to operational topics. Do you have another question?

Adam Michael Jonas

Morgan Stanley, Research Division

No problem. Yes, I do. Can you tell us about the folks who are taking deliveries of Model 3? What are the top cars, car models or brands that they're trading in or switching out of? How many are new to the brand? Anything you're prepared to share, and then I've got a follow-up.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Sure. Absolutely.

Martin Viecha

Senior Director for Investor Relations

This is Martin. So I've done all the analysis of all the trade-ins that we've received. And really the only pattern that I've seen is that it's sort of all across the board, and the vast majority is non-premium brands. I think that is the #1 message. It's just that more than half of the trade-ins we received were priced at below \$35,000 when new. But other than that, there's no real pattern. I haven't noticed anything worth highlighting other than it's just a lot of people upgrading their cars quite dramatically.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

This is a huge upgrade. Yes, for most people -- well, maybe for most, but for many people, it is the most expensive car they've ever bought. So they're clearly demonstrating with their money, that they're willing to spend extra money to get a Tesla. So like suddenly there's a sense of like mass-market premium.

Martin Viecha

Senior Director for Investor Relations

And the price walk is way beyond the federal tax credit. So clearly, there is value to the car that they are perceiving, whether it's cost of ownership, whether it's sustainability, whether it's the brand or the product itself.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Safety. And safety.

Martin Viecha

Senior Director for Investor Relations

And the safety. All of the above is making a large number of customers jump up significantly in their purchase price.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. I mean really, I think -- I honestly feel like the top reason to refer a friend to buy a Tesla is it's going to keep your friend safe.

Adam Michael Jonas

Morgan Stanley, Research Division

That's a good reason. If I can just squeeze in since I couldn't ask the first one that you could answer, do you think that the third quarter is a milestone, Elon, where you think Tesla becomes sustainably self-funding and perhaps not in need of outside capital?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, that is our goal. We do not intend to raise equity or debt. At least that's our intention right now. That may change in the future. But the current operating plan is to pay off our debts and not to refinance them but to pay them off and reduce the debt load and overall leverage of the company. So -- and actually, I almost forgot one quite important thing. As -- and this is quite helpful. It's helpful to have these sort of crisis situations with logistics, for example. As I dug into the inventory -- like basically finished product inventory from factory to the customer, I was quite surprised to see how long that took and that it was quite expensive in a lot of cases to get cars to customers. This was something I didn't fully appreciate before. And we really have a major initiative at Tesla to get the average time from a car exiting the factory to receiving the check from the customer, being in the customer's hands, we have to be clear, we can only get the check when we give the car to the customer. So getting the car from the factory to a customer, to get that to be as short as possible. In August, the average time in North America to get a car from the factory to the customer was 30 days, which is embarrassingly long. By the end of the quarter, we've reduced it to around 20 days. And our goal in Q4 -- this is a goal, not a promise. But our goal is to get the average time of a car from the factory to a customer under 10 days. This is a giant improvement in the capital efficiency of the company because we're making on the order of \$75 million worth of products per day -- of cars per day. So every day, it requires \$75,000 -- \$75 million worth of capital. So every 10 days, it's \$750 million. And we -- obviously, we have a loan from the bank that we can make use of. But the banks will only loan us 85% of the cost of the vehicle, which translates to about 70% of the price of the vehicle. So -- and then we've got this loan outstanding, which effectively increases the COGS of the car. And it dilutes the company to the tune of 30% of one of the inventory -- of the finished goods in transit is. So this is really like tightening that and getting that below 10 days in North America and then also improving dramatically the time -- the transit time to Europe and Asia. It is where like having local factories is actually very important for the capital efficiency of the overall system because I think over time, we want to get the time for a car going from a factory to a customer under 7 days worldwide. And then the terms that we have from our suppliers are, on average, just over 60 days. Now our parts inventory management, also there's a lot of room for improvement there. We think we can probably cut that down to a few hundred million dollars or so, Deepak, something like that, maybe \$200 million or \$300 million of parts at the factory. So effectively, what we're going to do is reverse the working capital requirement for the company quite dramatically to the point where the faster we grow, the more capital we have. This is incredibly important for the capital efficiency of the company. It's night and day. Deepak, is there anything you'd like to...

Deepak Ahuja

Chief Financial Officer

No, I think you are totally -- we are reducing the raw material inventory on one hand by keeping production stable, finding efficiencies in warehouse management and supply chain and at the same time, reducing the time to deliver the car and convert that car into cash. And that significantly improves working capital needs.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. It's really quite dramatic. So -- yes, I think it sort of profoundly changes the financial effectiveness of Tesla.

Deepak Ahuja

Chief Financial Officer

Yes. We reduced our inventory in Q3, which helped. And although we had higher payables because -- sorry, higher receivables because the quarter ended on a weekend, we won't have that in Q4. So all of this should continue to help us in Q4 and beyond, the working capital gain.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. I mean, it occurred to me that even if the only thing -- like even if this was the only thing that Tesla did different, was to shorten the time from factory to the end customer, any given company that did that will outcompete all other companies over time. It will not be a contest.

Operator

Our next question comes from Toni Sacconaghi with Bernstein.

A.M. Sacconaghi

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

I have one for Deepak and then a follow-up, please. Deepak, the OpEx expense management was very strong in the quarter. I think it was down 13% sequentially, and OpEx was only up 5% year-over-year despite revenue growing 71%. So on that front, I mean, in hindsight, did you get too bloated and needed to get more rightsized? And looking forward, how do we think about OpEx growth versus revenue growth on kind of a more normalized basis?

Deepak Ahuja

Chief Financial Officer

Yes. Tony, so excluding onetime items, our OpEx decreased sequentially by 5%, to just clarify that first of all. And a lot of that was driven by the actions we took in Q2 to be more efficient with our employee headcount. We benefited from that in Q3. And we were really careful in terms of all of our spending. The other piece that helped us is a lot of our Model 3 spending on expense, sort of, R&D is reducing because Model 3 is going into production. So Q2 to Q3, we saw a reduction there. And it just gives you the sense of the leverage of -- the operating expenses can have while our revenue was growing dramatically. So our OpEx will increase in the future but in a far slower rate, and we will continue to be really, really careful about the spending. And I think there are actually more efficiencies than we can find.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

We are going to find them, absolutely.

Deepak Ahuja

Chief Financial Officer

Right. So we'll continue down that path.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Definitely.

A.M. Sacconaghi

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

And then to follow up, I was just wondering if you can help us a little bit on the -- back to the gross margin on Model 3 and the \$35,000 car. So this quarter, I impute that Model 3 ASPs were maybe \$59,000. And that might suggest that gross margins on a \$35,000 Model 3 might be about 0. And Elon, I think you alluded to the fact that the goal is really to get positive gross margins on a \$35,000 car before shipping. Are those all fair assessments? And I guess the question is, where is -- where would a Model 3 -- \$35,000

Model 3 be in terms of gross margins today? And where does it need to be before you want to offer it broadly to consumers?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. I mean, it's -- look, the problem with asking questions of that nature in detail is that it is a rapidly changing situation. So like literally, if you would ask this in a month, it will be different. In another month, it will be different. The -- there's no question that we need to get to a point where we can sell a \$35,000 car and where the full accountable COGS of the car is, let's say, on the order of \$30,000 or slightly less than \$30,000. So I think we want to ideally get the COGS of the car -- of that, configuration of the car, under \$30,000. That would be -- that's our goal. That's what we're pushing very hard to achieve.

Deepak Ahuja

Chief Financial Officer

Exactly. And it's just a matter of time. It's -- there's a significant and material COGS reduction that comes. We have the smaller battery packs with fewer amount of cells. It's not the same cells that we have in the existing cars. And you can see the...

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Fewer cells but it's not the same...

Deepak Ahuja

Chief Financial Officer

It's the same amount of service. So same cost.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Fewer cells and then the non-cell portion of the pack is also cost reduced. With the current midrange pack, it still has the same -- basically about the same non-cell portion of the past cost.

Deepak Ahuja

Chief Financial Officer

Exactly. And we are seeing massive reduction in all our manufacturing cost per car, which will continue. And as volume grows, that also helps us with the fixed cost absorption. So it's the same factors that have helped us so far, will continue to help us moving forward to get us there. Anything you want to add, J.B.? No?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes.

Operator

Your next question comes from James Albertine with Consumer Edge.

James Joseph Albertine

Consumer Edge Research, LLC

Wanted to -- just a point of clarification. Elon, you mentioned in August the time to get the car from a factory to a customer was 30 days, down to 20 at the end of the quarter. Your goal is under 10 by the end of 4Q. Where do we see that flow through from a COGS perspective? Is that in automotive gross margin? Or is that in services and other at this point?

Deepak Ahuja

Chief Financial Officer

Yes. It's all in automotive gross margin. All logistics costs outbound, it's all in COGS for Automotive.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Outbound logistics. Yes, I think we'll see a reduction in inbound logistics as well as outbound logistics. Maybe a question is like, for the debt that is carried for that period of time, is that factored into COGS? Or is that not?

Deepak Ahuja

Chief Financial Officer

The interest expense of the debt, that's in the interest expense line, okay. It's not in COGS.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Okay. Yes. That's why I think for the definition of COGS, it should probably be important to include anything that's directly driven by volume. Essentially, that affects the marginal cost of the vehicle. So although that is not in -- officially in COGS, in my opinion, it probably should be, to take the ABL interest expense and apply that effectively to the cost of the car.

Deepak Ahuja

Chief Financial Officer

And from a broader sense, you're looking at it as the cost of doing business, which can be volume.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. Just essentially, the cash flow for everybody increases quite dramatically. Dilution or leverage outside of the ABL line improves dramatically. And then the de facto cost of -- the effective cost of the car also reduces because you do not have the interest expense. If you have interest expense over 20 days versus 10 days, this is a big difference.

Deepak Ahuja

Chief Financial Officer

Yes.

James Joseph Albertine

Consumer Edge Research, LLC

Understood. I appreciate that clarification. Sort of what I was trying to get at, you've been running in negative gross margin in services and other for several quarters now. And wanted to get a sense for when that could maybe trough and start to turn the corner and to generate some profit for you. I understand there's a lot of building out going on for sales, service and charging infrastructure. But if you could give us some kind of clarification there, that would be, I think, helpful. And if you're willing maybe to provide an update on where you stand today in terms of battery costs. I know your goal of sort of parity with ICE vehicles but maybe an update, if you're willing to provide, on where you stand on that trajectory.

Deepak Ahuja

Chief Financial Officer

I think over time, every quarter, progressively, we will see an improvement in the Service and Other business as our revenue continues to grow and as the size of our fleet grows. It's as simple as that.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. I would -- long term, I would expect service to be a significant revenue item and to be a positive margin contributor. And it's going to be a function of our fleet size.

Deepak Ahuja

Chief Financial Officer

And age.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. And age. Essentially...

Deepak Ahuja

Chief Financial Officer

There are a lot of cars under warranty now.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes. No. Exactly, under warranty. It's like there's a lot of stuff that's under warranty. But as the warranty expires, so there's like non-warranty items. Then we expect service to have positive gross margin.

Deepak Ahuja

Chief Financial Officer

Yes. And that also includes our used car sales.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes, good point.

Deepak Ahuja

Chief Financial Officer

And our used car sales is continuing to grow, and they have a healthy margin. And so that overall business for mature companies is, in some cases, more profitable than new product sales. I'm not just talking about OEMs, auto OEMs. And we are at the early stage of our growth here. And as our fleet size grows, there are just so many opportunities in that business that it's a matter of time, as I'll simply say.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Yes.

Martin Viecha

Senior Director for Investor Relations

And on the battery cost, there was a question.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Well, that is a key sort of competitive metric. So I think it's safe to say we're much better than anyone else by a lot. But we prefer not to give a precise number.

Operator

Our final question comes from Phil LeBeau with CNBC TV.

Phil Lebeau

Elon, quick question. In terms of as the federal tax credit seems to be phased out as your sales cross over the threshold, what kind of an impact have you guys modeled into how much that might slow down potential sales?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

We don't expect this to result in -- I mean, the sales tax -- or the tax incentive in the U.S. drops in half in this quarter. But then we also start shipping to Europe and then start shipping to Asia. And we certainly do not expect anything that would cause our production to drop below, let's say, a minimum of 5,000 cars a week.

Phil Lebeau

But in terms of in the United States, do you expect that it'll slow down demand and sales within the U.S.?

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

I think that as we're able to offer lower-cost versions of the car, that we would expect demand to sustain in the U.S. But I want to be clear. It's not like we're holding back this lower-cost version of the car intentionally. It's just like with -- it's like is there anything we can do to provide a lower-cost car now, and that's where we came up with the depopulated long-range pack just like basically taking -- having a long-range pack with fewer cells. Like we really care about providing the end customer with the most affordable car that we can possibly produce, the best viability. And if we could do the smaller pack now, we absolutely would. It's just going to take us, I don't know, at least 3 months to get the production going and you got to [spool up] production. And that production is going to go to -- we're going to make the packs. The packs are going to go to the vehicle factory. We've got the cars that we're going to get delivered to customers. So that's why customers probably see the smaller battery pack on the order of like March or something, or February maybe. It's something on that order. And one thing -- these do trigger points that are worth bearing in mind. As our quarterly letter indicates, the Model 3 has the -- is the most efficient energy per mile electric vehicle out there. It's got the best efficiency. So we've got the best in terms of miles or kilometers per kilowatt hour, and we also have the lowest cost per kilowatt hour. This makes it very difficult for other companies to compete with Tesla because we're the most efficient car and the lowest-cost batteries. So I do encourage our competitors to really make a huge investment. And we've been saying that for a long time. And then they are only in this competitive disadvantage because they didn't -- we try to help them as much as we could and they didn't want to take our help. So they can use all our patents for free. We have -- they can use our Supercharger network if they can just have an adapter for our -- connector or something. We want to be as helpful as possible to the rest of the industry. The fact of the matter is we made the investment in the Gigafactory and other companies didn't. And we put a lot of effort into having extremely efficient cars, which are having the most efficient powertrains, and the other companies didn't. But I'm sure they will over time. But that's what has put us in quite a strong competitive advantage -- competitive position right now.

Martin Viecha

Senior Director for Investor Relations

Fantastic. I think that's all we have time for today. Sorry, go ahead.

Deepak Ahuja

Chief Financial Officer

I just want to add a comment in closing. And Elon started with it, and I wanted to say that from myself personally here. I want to personally thank all the Tesla employees who worked incredibly hard this quarter and in prior quarters in each and every part of our business. Our results really are the -- are a reflection of the execution done in the company -- done by the company and the passion that our employees have to deliver such results despite all odds. And I also want to thank all our customers and all our investors who believed in us and our product and our vision. All of that leading the world's transition to sustainable energy. So thank you from my side.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Do you want to add anything?

Jeffrey B. Straubel

Chief Technology Officer

No, I'm good.

Elon R. Musk

Co-Founder, Chairman, CEO & Product Architect

Okay. Anybody have any additional comments or anything? All right. Thanks, everyone. And yes, look forward to the next call. Thanks.

Martin Viecha

Senior Director for Investor Relations

Thank you. 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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