Q2 2019 Earnings Call

Company Participants

- Drew Baglino, Vice President of Technology
- Elon Musk, Chief Executive Officer
- Jeffrey Brian Straubel, Co-founder and Chief Technology Officer
- Jerome Guillen, President, Automotive Division
- Martin Viecha, Head, Investor Relations
- Zachary Kirkhorn, Chief Financial Officer

Other Participants

- A.M. Sacconaghi, Analyst, Sanford C. Bernstein
- Colin W. Rusch, Analyst, Oppenheimer & Co Inc.
- Daniel Levy, Analyst, Credit Suisse
- Daniel V. Galves, Analyst, Wolfe Research, LLC
- Edison, Analyst, Deutsche Bank
- Joseph Osha, Analyst, JMP Securities LLC
- Joseph Spak, Analyst, RBC Capital Markets
- Pierre Ferragu, Analyst, New Street Research

Presentation

Operator

Good day, ladies and gentlemen, and thank you for your patience. You've joined the Tesla Q2 2019 Financial Results and Q&A Webcast. At this time, all participants are in a listen-only mode. Later, we will conduct a question-and-answer session and instructions will be given at that time. (Operator Instructions) As a reminder, this conference may be recorded.

I would now like to turn the call over to your host, Senior Director of Investor Relations, Martin Viecha. Sir, you may begin.

Martin Viecha {BIO 17153377 <GO>}

Thank you, Latif, and good afternoon, everyone, and welcome to Tesla's Second Quarter 2019 Q&A Webcast. I'm joined today by Elon Musk, JB Straubel, Zachary Kirkhorn and a number of other executives.

Our Q3 results were announced at about 1:45 PM Pacific Time in the updated 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. During the question-and-answers portion of today's call, please limit yourselves to one question and one follow-up. (Operator Instructions).

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

Elon Musk {BIO 1954518 <GO>}

Thank you. So last quarter we delivered more than 95,000 vehicles, which is a record for Tesla. To put that in perspective, it's nearly an 80% increase in deliveries compared to the second quarter of last year. I think it's -- this percent is a heartfelt to appreciate, when you have a large manufactured item with a complex global supply chain. Just how difficult that is, I'm incredibly proud of the Tesla team for being able to do that. I think this level of growth is possibly unprecedented might be the fastest that any large complex manufactured item has grown in history.

So just I think really great work by the Tesla team to achieve that outcome and we expect growth to continue in the future at -- for several years to come at the 50% to 100% level. So it's like drilling think that is not well appreciated how to put this growth at that rate. Achieving record number of deliveries is an important milestone and shows the rapid progress we've made in managing a global logistics and delivery operation at high volume. And as I've said all this was achieved, thanks to the tremendous hard work of the entire Tesla team. Model 3 was once again, the best-selling premium vehicle in the US, outselling all of its gas-powered equivalents combined.

In Europe, Model 3 is approaching sales levels of its established premium competitors and it was awarded a five-star rating from Euro NCAP earlier this month. This is in addition to Model 3 receiving an overall five-star rating in the US from NHTSA and including earning five stars in every category and subcategory, and achieving the lowest probability of injury of any vehicle ever tested.

Motor Trend also recently selected Model S as the best vehicle they have ever tested in their 70-year history across all other cars. So Motor Trend, which is arguably the leading authority in evaluating vehicles, the Motor Trend Car of the Year is the most coveted award. It's pretty incredible that they would say that Model S in their entire 70-year history is the best vehicle they have ever evaluated. This is despite Tesla not buying any advertising in Motor Trend and it speaks to their journalistic integrity. That's something special. Since the vehicle that they evaluated we've actually made -- commenced advancements of both Model S and Model X including our updat of a new suspension with active damping capability and an all-new drivetrain that's capable of a 370-mile range in the Model S and a 325-mile range in the Model X.

We also issued numerous software updates and improvements that have made Model S and Model X faster, safer, and added dozens of new features. Just like Model 3, Model S and X have the hardware needed for future full self-driving capability. As we look ahead to the rest of the year and into 2020, we remain focused on launching new vehicle and energy programs further expanding on manufacturing operations and continuing to improve customer service.

We remain focused on international expansion because local production is essential to being cost competitive. By the end of this year, we will -- we expect to be producing Model 3s in volume out of Gigafactory Shanghai. And as you can see from the photos in our quarterly letter, the equipment installation there is progressing well. We also have to finalize a location for our European Gigafactory before the end of the year.

Here at Fremont, preparations for Model Y production have already begun. Since Model Y has high component overlap with Model 3, it should be -- and we expect to be a lot easier to ramp. It's something in the order of three quarters worth of parts are common between Model 3 and Model Y. And we expect the manufacturing costs for Model Y despite additional content to be approximately the same as Model 3.

This quarter we opened 25 new service locations and added more than 100 mobile service vehicles to our fleet. And although our fleets have a total -- Tesla fleet size has doubled in the past 12 months, which is again just kind of a crazy thing to consider that Tesla is almost doubling all cumulative production every year. This is a totally mad thing to make as many cars in a year as we've made in our entire history.

And to have that be an ongoing trend, I think it's difficult for people to really feel an exponential. We didn't evolve to feel exponential, we can feel linear, but we could only understand an exponential at a cognitive level, but Tesla is expanding at an exponential rate. And in fact if you look at the Tesla cumulative deliveries chart like year-over-year cumulative deliveries, it's about the cleanest exponential graph I have ever seen. So, obviously, if that trend continues results I think are going to be pretty amazing and I think that will continue.

We've been able to improve service conservatively. You can imagine that if -- obviously, if we're doubling our fleet every year, managing service is quite difficult. It's like a total -- because service scales as -- not just with new production but as the total fleet scales, service needs to scale. And we're going to scale service in a way that's sensible from a cost standpoint. But it's really quite a difficult challenge to scale. Nonetheless, we've made massive improvements in service, especially in parts waiting, time to wait for parts and inclusion of repair and we've in-sourced a great deal of the inclusion repair activities which has -- had I think quite a good effect on customer happiness. And this will continue in the months to come.

So a very important milestone I think, we believe Tesla has -- is now at the point of being self funding and we expect to be cash flow -- free cash flow positive in future quarters with the possible temporary exceptions around the launch or ramp of a new

product. From a profitability standpoint, we expect to be probably around breakeven this quarter and profitable next quarter, so that's -- I feel pretty confident about that.

And then in terms of deliveries, we expect deliveries to be between 360,000 and 400,000. We expect production to be slightly higher number than that and demand to be a slightly higher number than that. So people often confuse deliveries production and orders for Tesla and they're actually three different numbers.

So yes, you obviously cannot deliver more than you make that such will make more than we deliver. And then the demand generation activities kind of move in kind of like -- to get together with production like it, it doesn't make sense to put a lot of effort into demand generation, if production can't meet the demand and likewise.

So what just happened is, we'll solve the production issues then the key we need to increase demand, address demand then it may increase production, it may increase demand. I -- and like its like fewer get caught up in the details launch, but if you look at the actual results like I said look at cumulative deliveries over time for Tesla, cleanest exponential you've ever seen. Extrapolate that code.

So there is a trend not to be excited about at Tesla and we'll have more share in the coming weeks, months.

Zach is there anything you'd like to say about our results?

Zachary Kirkhorn {BIO 20940148 <GO>}

Yeah, sure. Thanks, Elon. A few things I want to highlight before moving into the Q&A. Overall, Q2 was a strong quarter for Tesla. I'm extremely proud of the team for the progress we've made. We've achieved record vehicle production and delivery, record storage production and deployment, record services and other revenue with a corresponding reduced lost. As we've mentioned a few times, we stabilized international logistics and delivery operations and higher volumes, and we saw gross margin improvement in nearly every aspect of the business, adjusting for the impact of regulatory credit revenue. As a result of these accomplishments, we once again achieved strong free cash flows, which is only partially attributed to working capital benefits, we also successfully raised roughly $2.4 billion in that proceeds in May.

Thus we exited the quarter with $5 billion in cash and cash equivalents, the highest in our history. Our net loss reduced significantly relative to Q1, aided by higher volumes and progress on cost efficiencies. A few things to note, there is $117 million with an operating expenses for restructuring. We had a sequential reduction of $104 million related to regulatory credits, which is inherently lumpy. And in our other income line, we saw $66 million reduction. This is nearly entirely due to foreign exchange, which we don't hedge. GAAP automotive gross margin only reduced slightly despite the reduction in credit revenue and expected reductions in our vehicle average selling prices. Adjusting for the impact of credits, automotive gross margin improved materially. For Model S and Model X, ASPs were impacted by pricing actions, applied to inventory of vehicles built prior to the launch of our

powertrain and suspension upgrades in April, the majority of which were sold and delivered in Q2.

For Model 3, global ASPs stabilized during the quarter at roughly $50,000, a sequential reduction, yet gross profit per Model 3 improved, representing the continued success of our cost management efforts.

Note that we continue to defer a significant portion of revenue associated with full self driving, which will be recognized in future periods. Upon the release of additional features. Operating expenses, net of restructuring continues to improve as well, despite the increases in volume, reflecting the amends focus on improving our operating efficiency. And while operating expenses and capital expenses may appear to be a naturally low this quarter, that's not the case, rather these reflect continued progress on cost efficiency and ability to scale our core technologies and processes.

If you take a step back here, I think it's important to remember the Tesla is on a long-term journey and it's difficult to see the full picture, looking quarter-to-quarter. We committed that Model 3 will be a transformative product, both for the industry and our business. Three years ago, we unveiled the Model 3; two years ago, we brought the product to market; one year ago, we demonstrated our ability to build the Model 3 at high rate. So far this year, we've demonstrated our ability to manage global deliveries and logistics at a higher rate, but the most important thing is that we've demonstrated our ability to generate significant organic demand, as nearly all orders generated in Q2 were non-reservation holders.

And thus far in Q3, our order pacing is ahead of where we were at this point in Q2. And as we noted in our Q2 production and delivery release, our order backlog increased over the course of Q2. Ultimately, the Model 3 is accomplishing what our business needs it to do, it expanded our sales and customer base, enabling us to generate cash, we need to reinvest. In the process, we've appropriately managed our operating expenses and have reduced the cost of running the business. This is critically important because I feel as though we've broken through a baseline six cost barrier, enabled by the success of the Model 3 business. With continued focus on execution and cost management, the next 12 to 18 months should be the most exciting yet. During this time, we believe that Gigafactory Shanghai will be producing at scale, Model Y will be in production, addressing the most popular vehicle segment, our European Gigafactory will be well underway. Our autonomous driving feature suite will continue to develop, energy products business will grow and maybe a few other things along the way.

And while there is inherent risk in any large and ambitious set of projects, our intent is to grow and invest as fast as we can afford to. With the cash we have on hand, and the stabilization of Model 3 across the key areas, as I've noted, we believe we're in great shape for this next phase of growth.

Martin Viecha {BIO 17153377 <GO>}

Thank you very much. Now let's start taking some first questions. Sorry about that. Go ahead.

Elon Musk {BIO 1954518 <GO>}

Yes, I think, so important update is JB Straubel, our Co-founder and Chief Technology Officer, will be transitioning to a Senior Advisor from the CTO role and Drew Baglino will be taking over most of JB's responsibilities. I'd like to thank JB for this fundamental look rolling and creating and -- and building Tesla. Thank you, JB.

Jeffrey Brian Straubel {BIO 16619298 <GO>}

Thanks, Elon.

Elon Musk {BIO 1954518 <GO>}

If we hadn't had lunch in 2003, Tesla wouldn't (inaudible) basically.

Jeffrey Brian Straubel {BIO 16619298 <GO>}

It's been -- yeah, it's been a quite adventure, 16 years.

Elon Musk {BIO 1954518 <GO>}

Yeah. Lunch was (inaudible), that's the reasons I'd like this.

Jeffrey Brian Straubel {BIO 16619298 <GO>}

I remember it well. And maybe just to add a bit more to that, I'm not disappearing. And as far, to make sure that people understand that this is not, not some lack of confidence in the company or the team or anything like that, it's as I love the team, I love the company and I always will. So Drew -- Drew and I worked close together for many, many years, and I have total confidence in Drew and I am not going anywhere, if there's anything I need to do to be helpful to Drew or the whole team or any of the ongoing projects. So yeah, I mean, I'm actually really happy with how we've kind of phased in transition. Some of these different projects and people in and I feel like this is a super good process overall. Drew, you want to say anything?

Drew Baglino {BIO 21161872 <GO>}

I'll just say, obviously, big, big shoes to fill JB, but we have been working closely. In fact, we've been talking about this project back in 2003 all along and...

Elon Musk {BIO 1954518 <GO>}

That you guys talked about in 2003 as well.

Drew Baglino {BIO 21161872 <GO>}

Yes.

Elon Musk {BIO 1954518 <GO>}

Well, 2003 is good year.

Drew Baglino {BIO 21161872 <GO>}

I was graduating, I know what to do, like this project. But -- no, I -- I'm -- I feel exactly as you feel that we are well -- well set up, that we know how to get help where we need to from you and that we're very excited about the growth ahead of us, myself and the whole team.

Jeffrey Brian Straubel {BIO 16619298 <GO>}

Yeah. And I'm excited to stay involved in some of our core technologies and all that and help where I can, just in less of less of an operational, obviously, less -- not executive type role.

Elon Musk {BIO 1954518 <GO>}

Sounds good. Well, JB, thanks again for you role in creating this company and growing well. So that's the way you guys talking about in 2003, sounds like the right year.

Jeffrey Brian Straubel {BIO 16619298 <GO>}

Good year.

Elon Musk {BIO 1954518 <GO>}

Good year.

Jeffrey Brian Straubel {BIO 16619298 <GO>}

It was -- the technology was ready.

Elon Musk {BIO 1954518 <GO>}

Yeah, with the (inaudible) looks like finally ready, it's ready to put in your car, AC propulsion (inaudible). If you could give us regular credit.

Jeffrey Brian Straubel {BIO 16619298 <GO>}

Yeah, they did some pioneer work.

Elon Musk {BIO 1954518 <GO>}

Yeah. It's great. Some of the questions there.

Questions And Answers

A - Martin Viecha {BIO 17153377 <GO>}

Thank you very much. So we have some first questions from our retail shareholders from say.com. And the first question is, it has been stated that Tesla is supply constrained not demand constrained. Can you help us shed some light on why the slight is lowering car cost is supplies constraints?

A - Elon Musk {BIO 1954518 <GO>}

Sure. There's a number of things to consider here. The -- there's really two key dimensions for demand. There's live money and then there's affordability. Obviously, if somebody simply does not have enough money to have a car, it doesn't matter how much the value -- how good the value for money is. You can have infinite value for money, if somebody does not have the funds to buy the car, they simply can't get it. So it is very important to parse those two. And I think there's like -- there's tremendous amount to buy our cars, but people obviously they couldn't have enough money to buy them they cannot. So we have to make the cars more affordable. Actually, like in the US our cars got almost $2,000 more expensive with the expiry of the tax credit on July 1 or partial expiry.

And we only dropped the price of the Standard Range Plus Model 3 by $1,000 or actually -- yes, by $1,000. So the base Model 3 actually got $8,000 more expensive, which seemed like a reasonable compromise. So that's actually (inaudible) we feel this is sometimes just having sort of pretty absurd notions like, if the amount is high, you cannot just charge any price, like, you cannot charge any price. I think making our cars more affordable is also a fundamental part of the transformation. So, yes, is there anything you want to add?

A - Jeffrey Brian Straubel {BIO 16619298 <GO>}

Yeah, I'll just add to that. I agree completely. What I'll add is that generally speaking within the Model 3 lineup, the pricing adjustments for our higher trim cars were slightly more than that for the Standard cars. So the -- so we'll see how the data plays out on this, as we take in more orders, but the expectation is that our mix will move towards higher trim to some extent, offsetting some of the ASP adjustments from the pricing changes. And one other thing I'll add is that, we are focusing on a couple of markets as well to target intensify some of our sales. And so some of our pricing adjustments reflect those elements of that strategy.

A - Elon Musk {BIO 1954518 <GO>}

Yeah, essentially that we expect average selling price to be the same within a few percentage points.

A - Jeffrey Brian Straubel {BIO 16619298 <GO>}

That's correct.

A - Elon Musk {BIO 1954518 <GO>}

Yeah.

A - Jeffrey Brian Straubel {BIO 16619298 <GO>}

Yeah, generally on ASP as we noted in the letter, it was roughly even over the course of the quarter, stabilized around $50,000 and we have good visibility into our ASPs are going based on order data. So that gives us one to two months of lead us to where our actual recognized ASPs will be. And so I would expect some adjustment to our Model 2 ASPs, as a result of this pricing change. But the trim mix will offset some of that. And we continue to make great progress on cost efficiencies. And so overall in that, our expectation is that the Model 3 gross margin will continue to grow.

A - Elon Musk {BIO 1954518 <GO>}

Yeah, on the gross margin point like the -- like full self driving is just an extremely important part of the larger calculation and the features for full self driving are only as portion of them have rolled out. So the revenue recognition on the full self driving option is limited at first, until those features roll-out and also the demand for full self driving packages limited because the features are mostly prospective instead of current. But as those features roll-out, I would expect the take rate for full self driving to increase significantly as well as the recognition -- revenue recognition full self driving to obviously match the roll-out of the product. So the gross margin over time, will be really quite compelling when factoring in the full self driving option, which is, yeah, kind of to 7k in mid-August and that's number will increase over time.

A - Martin Viecha {BIO 17153377 <GO>}

Thank you very much. The second question is many of us who follow Tesla closely are incredibly excited about a battery and powertrain Investor Day and its technology implications. Can you provide us any more detail on when this will be and what will be covered?

A - Elon Musk {BIO 1954518 <GO>}

Yeah. Before our battery day, we're going to do a comprehensive review of cell chemistry module and pack architecture. And manufacturing plan that it has a clear roadmap to a terawatt hour per year. The time is probably is about six months like maybe February or March next year. Show and tell.

A - Martin Viecha {BIO 17153377 <GO>}

All right, thank you very much. The next question is, you stated on the Q4 2018 earnings call that customer service was a personal priority for 2019. Can you update us on what has been done to-date to ensure that all owners are receiving an industry leading customer experience?

A - Elon Musk {BIO 1954518 <GO>}

Sure. I meet with the service team multiple times a week and get daily updates on the reliability of vehicle, we -- the best service of course is no service, like that's -- like vehicle just reliability and quality being so good that services rarely required, that's the main like eliminate the need for service. And in terms of increasing, so as resources initially we're opening service centers as fast as we can and have already opened to 25 new service locations quarter and that will increase the rate of service center opening will increase dramatically into the course of this year, as well as more mobile service. Most of this is really great because it's like we just come to you and fix the car, wherever you are and it's hard to beat that for convenience. The cost delivery we've made master improvements to logistics for getting parts to service centers. Hey, Jerome, do you want to -- Jerome is how we manage the service, global service and...

A - Jerome Guillen {BIO 17525057 <GO>}

Yeah, as you pointed out, the best service is no service. So we're trying to continue improving the quality of the cars. And track this daily and fewer and fewer service visits are required from the most recent cars that we're building. So we're on a good trend there. We also need our luck pure work to finish the cars manufacturing. Besides that, we still more parts of all the service centers and we ship everything same day pretty much, so that people don't have to wait for cars -- for parts, and we accelerate service and we increase capacity. There's a lot of improvements that we've already implemented and many more on the way. So I'm relatively optimistic and I'm happy to help with the service team.

A - Elon Musk {BIO 1954518 <GO>}

Yeah. We had the original service heads the US at the factory last week, and it was incredibly helpful, just a closed loop on -- for what service and production and with the software team. And for example, like a lot of services visits are just a questions about how to use the car and...

A - Jerome Guillen {BIO 17525057 <GO>}

And it's the number one visit is how to use Autopilot test. So yeah, a bit of education there helps.

A - Elon Musk {BIO 1954518 <GO>}

Like how do I turn it on.

A - Jerome Guillen {BIO 17525057 <GO>}

Yeah.

A - Elon Musk {BIO 1954518 <GO>}

Like it's good. It's like, how do I turn it on? Okay. So just providing better feedback on user interface and officially how you turn it on. And yeah. A whole bunch of things that are quite elementary to reduce service load.

A - Martin Viecha {BIO 17153377 <GO>}

Okay. The next question is, in April, Gigafactory one had efficiency of about 23 out of the 35 gigawatt hours theoretical capacity. Has this been improved yet? And is Tesla still sell constrained? Are there any near-term plans to increase the plant theoretical capacity?

A - Elon Musk {BIO 1954518 <GO>}

Drew?

A - Drew Baglino {BIO 21161872 <GO>}

We have seen improvements in the 23 gigawatt hour number. We're in the high 20s now with the trajectory continuing upward. We're not...

A - Elon Musk {BIO 1954518 <GO>}

So about 28-ish.

A - Drew Baglino {BIO 21161872 <GO>}

Yeah, 28-ish. I would say, we're not so constrained for any of our activities at the moment.

A - Elon Musk {BIO 1954518 <GO>}

Cell volume is approximately matching the production of ramp rate.

A - Drew Baglino {BIO 21161872 <GO>}

Yes.

A - Martin Viecha {BIO 17153377 <GO>}

Great. Thank you very much. And the last question is, what is the new laser facility?

A - Elon Musk {BIO 1954518 <GO>}

Nothing major. It's just a distribution warehouse.

A - Jerome Guillen {BIO 17525057 <GO>}

Yeah, we're optimizing the real estate trying to conciliate everything under one roof, reduce the cost, nothing special there.

A - Martin Viecha {BIO 17153377 <GO>}

Okay, thank you very much. Latif, we can start the Q&A question queue on the call.

Operator

Yes, sir. Our first question comes from the line of Dan Galves of Wolfe Research. Your line is open.

Q - Daniel V. Galves {BIO 16540648 <GO>}

Hey, thanks very much for taking the questions, and congrats on the $5 billion cash number. I'm halfway expecting to some headlines tomorrow if Tesla's got too much cash on the balance sheet. I was wondering if you could update us on Gigafactory China. We don't have a great sense of what delivery volumes in China are for Model 3 at the moment. Some sources are around maybe 3,000 or 4,000 per month. What have you seen in terms of order flow and demand since you announced pricing at a local product that gives you confidence that you can get to 3,000 per week type of demand in that market?

A - Elon Musk {BIO 1954518 <GO>}

I -- yeah, don't get worked up too much about detailed price plans, but are you asking like what do I think the long-term demand for Model 3 is in Greater China region? I think it's about from Shanghai Gigafactory, I think it's actually a long-term demand is about 5,000 a week.

Q - Daniel V. Galves {BIO 16540648 <GO>}

Okay, sounds good. And have you considered potentially sourcing cars to Europe from that China plant at all?

A - Elon Musk {BIO 1954518 <GO>}

No. Our plan is to -- well, to source cars to greater Europe area from Fremont, California and until we have European Gigafactory operational. And that's -- but that's probably a couple of years before, it's probably 2021 before we have an operational Gigafactory in Europe. And so at that time, we will source from California, yeah. It's like this speculation, it's my opinion, but so what I think, say, long-term demand is for Model 3, it's probably 15,000 units a week globally, something like that.

Q - Daniel V. Galves {BIO 16540648 <GO>}

Okay. Thanks for taking my questions.

A - Martin Viecha {BIO 17153377 <GO>}

Thank you. Latif, next question please.

Operator

Our next question comes from the line of Toni Sacconaghi of Bernstein. Your line is open.

Q - A.M. Sacconaghi {BIO 3056875 <GO>}

Yes, thank you. I was wondering if you can comment about whether you felt that Q2 benefited from consumers in the US sort of rushing out to buy Model 3 in advance of the declining federal tax credit, a phenomena that you sort of saw in Q4? And part of the reason I ask is, at least by my analysis, it looks like maybe 70% of the Model 3 sold in the quarter were in the US, which is sort of higher than your normalized percentage of US sales. And so do you feel that, that phenomena may have occurred in Q2? And are you still confident that Q3 deliveries can improve sequentially? And beyond the data point that you provided on the call that the orders quarter data better than last quarter, is there anything else you can point to that provides that confidence?

A - Elon Musk {BIO 1954518 <GO>}

Yeah. I think we'll -- demand in Q3 will exceed Q2. It has thus far and I think we'll see some acceleration of that. So -- and then I think Q4 will be, I think very strong. So we expect that quarter-over-quarter improvements. I think Q1 next year will be tough. I think Q3 or 4 will be good, Q1 will be tough. Q2 will be not as bad, but still tough. And then I see like Q3 and Q4 next year will be incredible.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

Yes, just to add on the tax credit step down, so the step down from Q2 to Q3 was significantly lower than the step down from Q4 to Q1. It's also important to keep in mind that there's seasonality in the auto business in Q1, which also is part of the impact. But generally speaking, our order rates so far this quarter is higher than where we were at this point in Q2, and we haven't seen a significant impact on US-based orders as a result of the step down.

Q - A.M. Sacconaghi {BIO 3056875 <GO>}

If I could just follow up. Elon, I'm wondering if you can comment on whether you believe Model 3 is having any cannibalization impact on as S and X sales or why you think that -- or why else there might be sort of a structural step down in the demand and delivery levels relative to what we've seen over the last five or six years?

A - Elon Musk {BIO 1954518 <GO>}

Actually, we're just talking about this earlier today. We're not quite sure ourselves. I think there's some cannibalization. Maybe the pulse expectation in the market that there's like some big overhaul coming for S and X, which then cause people to hesitate to buy if they think there's some like radical redesign coming, which is why I've stated publicly that this is not the case. The Model S and X today are radically better than the ones that when we first started production, especially S. Like -- say like 2012 or 2013 Model S compared to today's Model S, night and day. In fact, I still run into people I know who have like 2013 Model S and they think it hasn't changed. And like, it is dramatically better in every way. But we don't do model years. We just roll in improvements as they come. So -- but I think there is maybe a communications issue where people don't realize just how much better the S and X are today than when we first started. And we actually want to address that communication issue and just get a better understanding from the front lines, like what demand should be higher for S and X than it is and will get to the bottom of it and fix it.

A - Martin Viecha {BIO 17153377 <GO>}

Okay. Thank you very much. Let's go to the next question.

Operator

Next question comes from Emmanuel Rosner of Deutsche Bank. Your line is open.

Q - Edison {BIO 1838267 <GO>}

Hey, it's Edison in for Emmanuel. Just first question on the guidance. I know previously, there was a target out there of 25% kind of on S/X and Model 3. Just wondering is the updated one, is that suggesting that that's no longer in place for the year or kind of what are the implications with today's update?

A - Elon Musk {BIO 1954518 <GO>}

Well, if you factor in the full self-driving option, I think it is in, in fact, the year. We seem to get the features done, make sure they are great, rolling out and recognize revenue and increase the take rate on full self-driving. There's also -- for the existing fleet, there's a very significant opportunity to upgrade the existing fleet to full self-driving. So most of the fleet has not purchased this option yet. So there's a significant margin potential for the existing fleet to upgrade to full self-driving, which most of the fleet can. So yes, absolutely, I think that like long term, we are talking 25%, 30%. Not long term meaning, like a year. Long term like in terms of vernacular, that 30% gross margin is I think quite likely.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

Yeah, and we continue to take significant costs out of the Model 3, in particular, as well, and Jerome can comment further on this. But every week, nearly every week, we had record lows on the labor content to build the vehicle. And we saw an ASP adjustment net reduction in Model 3 from Q1 to Q2, yet the gross profit on the vehicle expanded attributed to the cost reduction efforts are underway.

A - Jerome Guillen {BIO 17525057 <GO>}

Our labor costs are more than 50% reduction in one-year. Yeah, it's progressing every quarter.

A - Elon Musk {BIO 1954518 <GO>}

Yes, I just want to like to see what the labor hours were quarter-on-quarter.

A - Jerome Guillen {BIO 17525057 <GO>}

And reduced in half, yes, since the Q3 last year, but it's also all -- for the fact that's associated with spares, this craft is reduced to pretty much nothing reduced 90% year-over-year, spares are just more than half. So we're -- our goal is to make the comp more affordable and and sort of pushing every day, yeah. And every week, we'll hit records on most lines. And in terms of output and cost per unit, yeah. We're

in very good dynamic and level of difficulty discipline that I have not -- we have not had in the past.

A - Elon Musk {BIO 1954518 <GO>}

Great. Yeah. So like, for a core financial health standpoint, I think I'd just like to echo Jerome's words. I think Tesla's fiscal discipline is dramatically better than times in the past.

Operator

Thank you. Our next question comes from the line of Joseph Osha of JMP Securities. Your line is open.

Q - Joseph Osha {BIO 1499003 <GO>}

Hello. Listening to you talk about mix here and the fact that you're running a single shift your S and X facilities in Fremont. I'm wondering is there maybe some potential to reconfigure the floorspace there a bit? And is that something that you're thinking about?

A - Elon Musk {BIO 1954518 <GO>}

Well, we are reconfiguring the floorspace at Fremont and there's quite a lot of factory space that's probably taken up with the S/X parts warehousing, parts for the S/X line and we don't really need that so that's where we're putting a lot of the Model Y activity. Jerome, do you want to add?

A - Jerome Guillen {BIO 17525057 <GO>}

Yeah, we're improving the material delivery for S and X just like we have done for Model 3 using some radical improvements. We reduced production part warehousing costs by again 90%, 9-0, since Q3 last year, and so we're making a lot of room. We have -- we are much more efficient with parts delivery and helps that going in production actually. And so that space that we've cleared out, I'm looking at it right now in Fremont which is going to put Model Y stuff in there. So if you visit the factory from, I would say every six months, you'd have a hard time recognizing and finding your way. It's constantly changing and evolving.

A - Elon Musk {BIO 1954518 <GO>}

Yeah (multilple speakers) I'm sorry, go ahead.

A - Jeffrey Brian Straubel {BIO 16619298 <GO>}

Yes, just like efficiently factory both Fremont and Giga is like just the rate of improvement, which is not slowing down has been incredible. It's like you're just like you can feel it and see it.

Q - Joseph Osha {BIO 1499003 <GO>}

And just as a follow on then, could we see you manage to make 8,000, 7,500, 8,000 Model 3s in Fremont by the end of the year, you think?

A - Elon Musk {BIO 1954518 <GO>}

Yes.

Q - Joseph Osha {BIO 1499003 <GO>}

Okay. Thank you very much.

A - Elon Musk {BIO 1954518 <GO>}

I mean, I feel confident, it's -- let's just say that the trend is very clearly towards being able to get to 10,000 vehicles a week, of which that would be -- there is rough numbers like 8,300 to 8,600 Model 3s and the balance in S and X. So there's sort of 1,600 to 1,800 S/X. In round numbers, 8,500 3s, 1,500 S/X per week, but probably a bit more than that.

Operator

Thank you. Our next question comes from the line of Dan Levy from Credit Suisse. Your line is open.

Q - Daniel Levy {BIO 19982139 <GO>}

Hi, great. Thanks for taking the question. I wanted to ask about your reg credits, in particular, the non-ZEV piece. You're not disclosing the ZEV piece anymore, but just a couple of questions on this. First, how can we think -- is there any quarterly cadence to think about this? And then what's the composition of this? Is this going purely to European OEMs? There's obviously one automaker that you've agreed with. I don't know if there any others that you're looking at? And lastly, to what extent can you or are you willing to sacrifice pricing in Europe to sell higher volumes to generate more reg credits? And are you having discussions with other automakers on this front?

A - Zachary Kirkhorn {BIO 20940148 <GO>}

Yeah, on your question about the cadence of regulatory credits, it's -- it is, generally, as I've commented in the past, we expect regulatory credits to become a more meaningful part of our business. On a quarter-to-quarter basis, it's very difficult to forecast them. As you saw from Q1 to Q2, that declined. And as you model regulatory credits in Q3, I would not expect a significant increase in regulatory credits, although it's hard to put that exactly. The regulatory credits composition is a mixture of this particular deals that are 1 time. There's also some that are production based over time. The production based ones are easier to forecast because it's based on cars that we build and we get an outset to that way. The deal specific ones are lumpier which makes it more difficult. And then your final question was on, does it make sense to sacrifice pricing to drive regulatory credit in certain markets. It might. I'm not sure if we've specifically gone into the details of that, but generally, we're selling cars in markets at the prices we think are appropriate, and the

regulatory credits is something traditional. We generally try not to run the business based on regulatory credit revenue.

A - Elon Musk {BIO 1954518 <GO>}

The regulatory credits is like, I mean it's a relatively small part of the equation for Tesla. So -- I think the ZEV credit situation I think when is reformed because the market for ZEV credits is negligible. Now some of what's happening here is other manufacturers are kind of waiting to see how their EV sales due before buying any credits from Tesla and so it kind of depends on how that goes if they sell more EVs then there's not really need to do with Tesla and if they sell few, (inaudible).

A - Martin Viecha {BIO 17153377 <GO>}

Great. Latif, go to the next question please.

Operator

Thank you. Our next question comes from the line of Colin Rusch of Oppenheimer. Your line is open.

Q - Colin W. Rusch {BIO 15823117 <GO>}

Can you walk us through the plan for battery sourcing in China? How many -- how much of the supply is going to come from internally produced batteries? How much is coming from externally? And what's your expectation around cost per watt hours as you start to ramp?

A - Elon Musk {BIO 1954518 <GO>}

I mean, I don't know if we want to talk about the details of battery supply. We've got a good handle on. We don't expect to be self constrained in China for the next year, I don't know. Drew, what do you think?

A - Drew Baglino {BIO 21161872 <GO>}

Yeah, that's what our plan looks like right now. In terms of internal versus external, I think we should wait until we have our discussion early next year, but yes, we have agreements in place with -- we're good for next year, as you say, Elon.

A - Elon Musk {BIO 1954518 <GO>}

Yeah, I mean, I think you probably need to like just do like a reset like mostly a Master Plan for our Powerplant 3, but it's really like just under Battery Day will be kind of national, which is like, okay, how do we get from kind of (inaudible) gigawatt hours per year to multiple terawatt hours per year. What -- that's a pretty dry and scale increase -- so yes. Sort of roughly 100 like a 28 gigawatt hours right now, well, actually there is one where you count the factories in Japan. So a little over 30% to 35% like that. And how do we get like 2 terawatt hours a year? What would you like? So to order bank to increase.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

That's what you have to think about it.

A - Elon Musk {BIO 1954518 <GO>}

Yeah.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

That's what we need to do.

A - Elon Musk {BIO 1954518 <GO>}

In order to make fundamental shift in the world's energy usage and really transform things to sustainable energy future, if you're not in the terawatt hour ranges, it's like, it's a nice new story, but is not fundamentally changing the energy equation.

Q - Colin W. Rusch {BIO 15823117 <GO>}

Okay. And can I have a follow-up question around Model S and Model X saturation? Obviously, you guys have some ideas around how big that market is? How should we be thinking about sustainable volumes and pricing on those volumes? Obviously, we're seeing some lower numbers here, and I think that's a core element of what's going on with the story that as we see pricing drop and volumes drop, what are the right numbers to think about you guys from a planning standpoint in terms of sell-through on both the Model S and Model X?

A - Elon Musk {BIO 1954518 <GO>}

Yeah, I think it's probably too much focus on S and X. And the S and X are -- and they are nice, but they're not -- and it's like without them, we couldn't spell sexy. So the main reason the reason -- well, it's not the main reason, but a reason, is we want to keep spelling sexy. So that's not a reason, I should say not the main reason but to keep going with the S and X. But the story for Tesla future is fundamentally Model 3 and Model Y and I think like my guess is like long-term sales of anything a couple of years, I think. The demand for -- sales demand for 3 is like in the order of 0.75 million units a year, and it's probably 1.25 million per year for Model Y and combined like it's maybe 2 million from those two vehicles and then S/X is like may be 80,000 to 100,000 a year. So it's like 4% or 5% of the volume in 3 and Y. And then truck throw a truck in there, pickup truck and a semi, it just gets smaller and smaller. So there -- there are great products, but there -- from a volume standpoint, they're not all that important in the long term.

A - Martin Viecha {BIO 17153377 <GO>}

Thank you. Let's go to the next question please.

Operator

The next question comes from Pierre Ferragu of New Street Research. Your line is open.

Q - Pierre Ferragu {BIO 15753665 <GO>}

Hey, thank you for taking my question. I'd like to ask you, Elon, about distributions. So you may like -- you guys made a big change at the beginning of the year, going from like an almost 100% on line distribution model, you tried to push back on test drive and get people to buy the car, try it and return it if they don't like it. So could you give us an update on how it is progressing? Do you see this start becoming mostly like an online distribution on -- following an online distribution model? And I saw you opened 25 new retail locations in the quarter, so how do you see your retail footprints evolving over time?

A - Elon Musk {BIO 1954518 <GO>}

Actually, I said, we've opened 25 service locations. I think really what we find is that the word-of-mouth for Tesla is incredibly good. So once there's a new piece of customers in a particular area, they love the cars and they talk to all their friends about it, and that's really what drives sale. So if you think of like retail locations, kind of like a viral seed in an area. It would grow organically by itself, but the retail locations actually is like a viral seed. It's not they aren't needed, they just like an accelerant. What is needed for sales in any given area, I'd say this worldwide, frequent retail like this country is different or that country is different. Like people around the world pretty much want the same thing, so in my experience. They have to have a service location that's convenient so it can be like you've got to drive eight to five hours to a service location. You've got to have service, you have to have the supercharging and charging all sorted out, good consumer financing and then the price must makes sense. And any place where those four things are true, our sales are great. So we're rolling out service centers like crazy. Service centers are the key to sales, not the retail location.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

Yeah, and we're going city by city on the service center point. We're looking at where our populations are of existing customers. We're mapping driving time from the customers to the service centers inclusive of traffic to improve intensification of our service centers and locations in which are customers currently reside. We do have various that are under representative for service centers where the drive turn is too long, where the population that don't have the appropriate access to changing the service centers and we're working as fast as we can to get places up and running in those areas. So it's very systematically being mapped out with a focus on service and supercharging as opposed to retail presence.

A - Elon Musk {BIO 1954518 <GO>}

Yeah, supercharging is incredibly important. You can't just have like 80% of the routes that somebody wants to take. You have to have 100% routes, because a car is like really freedom to travel, anything (inaudible) travel is -- it drives the fundamental value of the product.

Q - Pierre Ferragu {BIO 15753665 <GO>}

All perceived.

A - Elon Musk {BIO 1954518 <GO>}

Yes, exactly real or perceived for freedom travel.

A - Martin Viecha {BIO 17153377 <GO>}

Thank you. Let's go to the next question please.

Operator

Our next question comes from Joseph Spak of RBC Capital Markets. Your question please.

Q - Joseph Spak {BIO 17457170 <GO>}

Thanks. So Elon, you mentioned the importance of full self-driving for gross margin. You've also mentioned the importance of China. Do you expect to be able to offer the full self-driving suite that you plan to offer in the US and China? And I guess even in Europe where they've also been a little bit tougher on regulating?

A - Elon Musk {BIO 1954518 <GO>}

Yeah, we expect to be able to offer full self-driving actually everywhere, except EU because there's just some committee rules that were put in place years ago that needs to be changed. It's up -- from a technical standpoint, it's very doable, but we just need to work through the regulatory committees to get the regulatory approvals and rules changed. It's just -- it all just takes a bit longer than other places. But I think we'll see a lot of pressure from our customers in Europe to have these rules changed so they can have access to full self-driving. And I think at the end of the day, the regulators will answer to the public. So I think it's just a temporary thing and it's as quite specific to the -- to EU rules, and we're just not present really when those rules were drafted. So that's we got to put in place. But they're making a ton of sense, but we just got to work through the process to change them.

Q - Joseph Spak {BIO 17457170 <GO>}

Okay. And the second question is, you mentioned service a number of times. There's always been some, I think, growing frustration with owners. And you mentioned parts availability and you've issued the dealership model, but I guess how do you plan on increasing parts availability without the corresponding working capital commitment that would be required as the fleet continues to grow?

A - Elon Musk {BIO 1954518 <GO>}

It's actually just taking the parts that were stored in a bunch of warehouses and just moving them to the service centers. And the thing that makes sense is I think to have the service centers where the parts are kind of all on the wall, it's like a supermarket.

Like you always know where the parts are and you just go meet there and going to grab it and just replenish the shelves with parts. And so what we're basically putting parts that are used more frequently than like six weeks on the walls on service centers, there's no ordering of the parts, you just go take it from the shelves and put it on the car. Really want to get to not merely same-day service, but same hour. Sort of like applied generally to service.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

Yeah. And specifically on the working capital piece of this, we actually have a significant amount of service parts inventory. The challenges it's not just at the service centers.

A - Elon Musk {BIO 1954518 <GO>}

Yeah.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

And so a lot of the lag that is experienced is we have to get the parts from the distribution center to the service center. And so by moving -- by localizing the parts, I don't expect that to be a large working capital drain on the company. It might actually be the reverse where we don't need to store as many parts eventually.

A - Elon Musk {BIO 1954518 <GO>}

Yeah. And also just having parts, if I may -- if we make them internally or if they made by a supplier sending them directly to the service center instead of like having them go through a bunch of distribution outlets, in fact, the warehouse in China from the last trip actually the China team here, is there anything we're doing that we should fix this. And yeah, we'll -- several of the parts that require replacement are literally made in China, and then we end up shipping them to New Jersey and then back to China. And could we please just ship them like literally across the road. And like, yes, no problem. There's always like crazy things that happen as -- if you're like -- if you have a 45,000 person company and then just basically start stop doing silly things. It's -- yeah, a lot of what is needed for improvement.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

And as the scale of the business increases, the economics of localization of things like parts distribution make a lot more sense. Whereas in the past, when the company was smaller, having centralized centers was easier from a cost perspective. So the business -- because the company is growing so fast, as Elon has mentioned, we have to continue to redesign processes and systems to restabilize ourselves in a plateau of volume.

A - Elon Musk {BIO 1954518 <GO>}

Yeah.

A - Zachary Kirkhorn {BIO 20940148 <GO>}

And then we'll grow again and we'll need to rebuild those processes.

A - Elon Musk {BIO 1954518 <GO>}

Yes, I mean Tesla is the only company made some things that volume that is fully vertically integrated all the way through sales and service and charging everything. So we really just need to look at total system efficiency and say in the limit if Tesla was the auto industry. How would we do it to maximize economic efficiency? And that's -- and then we got to like recalculate that optimization as we achieve greater scale. We're confident we can achieve a fundamentally better economic efficiency than the rest of the auto industry.

A - Martin Viecha {BIO 17153377 <GO>}

Thank you. Okay. Unfortunately, that's all the time we have for today. So thank you so much for all your questions, and we'll speak to you again in the next three months. Thank you.

Operator

Ladies and gentlemen, this does conclude today's conference. Thank you for your participation. You may disconnect your lines at this time.