

Tesla, Inc. NasdaqGS:TSLA

FQ2 2019 Earnings Call Transcripts

Wednesday, July 24, 2019 10:30 PM GMT

S&P Global Market Intelligence Estimates

	-FQ2 2019-			-FQ3 2019-	-FY 2019-	-FY 2020-
	CONSENSUS	ACTUAL	SURPRISE	CONSENSUS	CONSENSUS	CONSENSUS
EPS Normalized	(0.40)	(1.12)	NM	0.32	(1.45)	5.67
Revenue (mm)	6440.98	6349.68	▼ (1.42 %)	6666.71	25024.06	30871.07

Currency: USD

Consensus as of Jul-24-2019 11:29 PM GMT

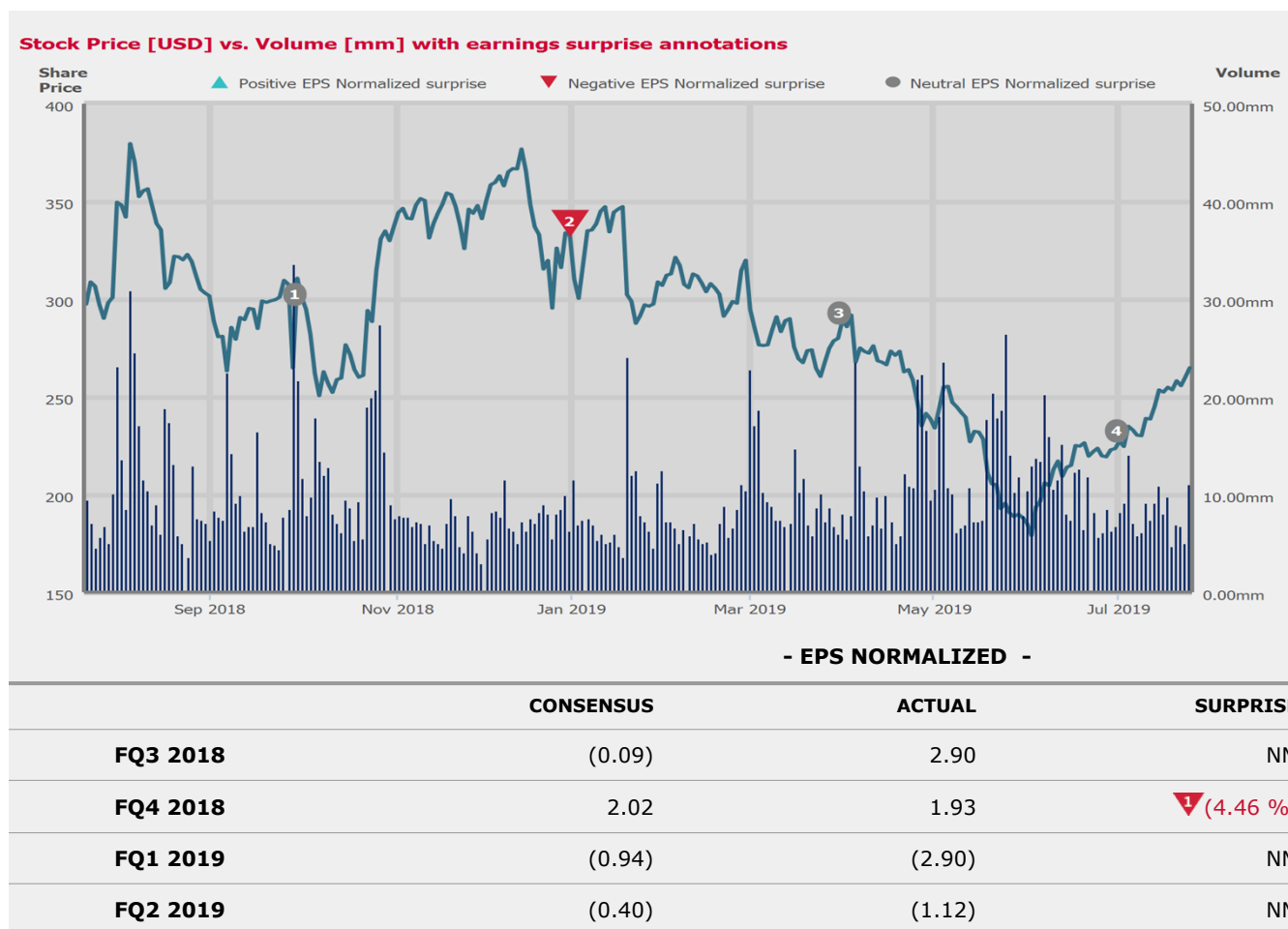


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Presentation

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. [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

Senior Director for Investor Relations

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, J.B. Straubel, Zachary Kirkhorn and a number of other executives.

Our Q3 results were announced at about 1:45 p.m. Pacific Time in the update letter we published at the same link as this webcast.

During this call, we will discuss our business outlook and make forward-looking statements. These comments are based on our predictions and expectations as of today. Actual events or results could differ materially due to a number of risks and uncertainties, including those mentioned in our most recent filings with the SEC. [Operator Instructions]

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

Elon R. Musk

Founder, CEO & Director

Thank you. So last quarter, we delivered more than 95,000 vehicles, which is a record for Tesla. Put that in perspective, it's nearly an 80% increase in deliveries compared to the second quarter of last year. I think it's sometimes hard for people 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. It 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 as I said, I think that is not well appreciated how the quotas grow at that rate.

But 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 said, all of this was achieved thanks to the tremendous hard work of the entire Tesla team.

Model 3 is once again the best-selling premium vehicle in the U.S., 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 5-star rating from Euro NCAP earlier this month. This is in addition to Model 3 receiving an overall 5-star rating in the U.S. from NHTSA and -- including earning 5 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.

So -- and since the vehicle that they evaluated, we've actually made -- committed to advancements of both Model S and Model X, including our recent update 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've 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 in Fremont, preparations for Model Y production have already begun. Since Model Y has high component overlap with Model 3, it should be -- we expect it to be a lot easier to ramp. It's something in the order of 3/4 of all the parts are common between Model 3 and Model Y. And we expect many 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 an exponential. We can feel a linear, but we can 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've ever seen. So obviously, if that trend continues, the results, I think, are going to be pretty amazing. And I think that will continue.

So we've been able to improve service considerably. 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 want 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 collision repair. And we've in-sourced a great deal of the collision repair activities, which has had, I think, quite a good effect on customer happiness. And this will continue in the months to come.

So it's 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 and ramp of 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 a 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 3 different numbers. So yes, you obviously cannot deliver more than you make, and so typically, we will make more than we deliver. And then demand generation activities kind of move in kind of like -- to get together with production like 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 tends to happen is that we'll solve the production issues, then say, okay, we need to increase demand -- address demand then we may increase production, then increase demand. And

like I truly get caught up in these details a lot, but if you look at the actual results, like I said, look at cumulative deliveries over time for Tesla, cleanest exponential we've ever seen, extrapolate that curve.

So there's a tremendous amount to be excited about at Tesla, and we'll have more share in the coming weeks and months. Zach, is there anything you'd like to say about our results?

Zachary Kirkhorn

Chief Financial Officer

Yes, sure. And 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 loss. As we've mentioned a few times, we stabilized international logistics and delivery operations at 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 net 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 in progress on cost efficiencies.

A few things to note. There's \$117 million within operating expenses for restructuring. We had a sequential reduction of \$104 million related to regulatory credit, which is inherently lumpy. And in our other income line, we saw a \$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 are 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 immense focus on improving our operating efficiency. And while operating expenses and capital expenses may appear to be unnaturally 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 we take a step back here, I think it's important to remember that 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. 3 years ago, we unveiled the Model 3. 2 years ago, we brought the product to market. 1 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 nonreservation 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 fixed 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's 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

Senior Director for Investor Relations

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

Elon R. Musk

Founder, CEO & Director

Yes. So an important update is that J.B. Straubel, our Co-Founder and Chief Technology Officer, will be transitioning to a senior adviser from the CTO role. And Drew Baglino will be taking over most of J.B.'s responsibilities. I'd like to thank J.B. for his fundamental role in creating and building Tesla. Thank you, J.B.

Jeffrey B. Straubel

CTO & Senior Advisor

Thanks, Elon.

Elon R. Musk

Founder, CEO & Director

If we hadn't had lunch in 2003, Tesla wouldn't exist, basically.

Jeffrey B. Straubel

CTO & Senior Advisor

It's been -- yes, it's been quite an adventurous 16 years.

Elon R. Musk

Founder, CEO & Director

Yes. Lunch with you and Harold Rosen [indiscernible]. That's the reason Tesla exists.

Jeffrey B. Straubel

CTO & Senior Advisor

I remember it well. And maybe just to add a bit more to that. I'm not disappearing, and I just want to make sure that people understand that this is not some lack of confidence in the company or the team or anything like that. I love the team and I love the company and I always will.

So Drew and I have worked closely together for many, many years, and I have total confidence in Drew. And I'm 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 yes, I mean I'm actually really happy with how we've kind of phased and transitioned some of these different projects and people in, and I feel like this is a super-good process overall.

Is there anything you want to say?

Drew Baglino

Former Vice President of Technology

I would say obviously big shoes to fill, J.B. But we have been working closely. In fact, we've been talking about this project back in 2003 all along and...

Elon R. Musk

Founder, CEO & Director

You guys talked back in 2003 as well?

Drew Baglino

Former Vice President of Technology

Yes.

Elon R. Musk

Founder, CEO & Director

Wow. 2003 was a good year.

Drew Baglino

Former Vice President of Technology

I was graduating, and I didn't know what to do. I was like, oh, let's go do this project. But no, I feel exactly as you feel that we are 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.

Elon R. Musk

Founder, CEO & Director

Yes.

Jeffrey B. Straubel

CTO & Senior Advisor

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 an operational with obviously less -- not an executive-type role.

Elon R. Musk

Founder, CEO & Director

Sounds good. Well, J.B., thanks again for your instrumental role in creating this company and Drew as well. So that's cool. You guys talking about it in 2003. Yes. Lovely. The right year.

Jeffrey B. Straubel

CTO & Senior Advisor

Good year.

Elon R. Musk

Founder, CEO & Director

Good year.

Drew Baglino

Former Vice President of Technology

It was -- the technology was ready. It was the time.

Elon R. Musk

Founder, CEO & Director

Yes. It was like the same line. It's like finally ready, just needed to be put in a car. AC Propulsion. Al Cocconi, Tom Gage. TZero. Got to give those guys a little credit. Yes.

Drew Baglino

Former Vice President of Technology

Yes, they did some fine work.

Elon R. Musk

Founder, CEO & Director

Yes. Great. I think we'll go ahead with some questions now.

Martin Viecha

Senior Director for Investor Relations

Thank you very much. So we have some first questions from our retail shareholders from say.com.

Question and Answer

Martin Viecha

Senior Director for Investor Relations

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 Tesla is lowering car cost if supply is constrained?

Elon R. Musk

Founder, CEO & Director

Sure. There's a number of things to consider here. The -- there's really 2 key dimensions for demand. There's value for money, and then there's affordability. Obviously, if somebody simply does not have enough money to buy the car, it doesn't matter how much the -- how good the value for money is. You can have infinite value for money, but if someone does not have the funds to buy the car, they simply can't get it. So it's very important to parse those 2, and I think there's like -- there's tremendous amount of desire to buy our cars, but people -- obviously, if they don't have enough money to buy them, they cannot. So we have to make the cars more affordable.

And effectively back in the U.S., our cars got almost \$2,000 more expensive with the expiry of the tax credit on July 1 -- or the 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 \$1,000 more expensive, which seemed like a reasonable compromise. So that's essentially what I mean. We feel like this is sometimes just have these sort of pretty absurd notions like if demand is high, you can't just charge any price. Like you cannot charge any price. I think making our cars more affordable is also fundamentally part of the Tesla mission. So yes. Is there anything you want to add?

Zachary Kirkhorn

Chief Financial Officer

Yes, 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-churn cars was slightly more than that for the Standard Plus. 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 and to identify some of our sales, and so some of our pricing adjustments reflect those elements of that strategy.

Elon R. Musk

Founder, CEO & Director

Yes. Essentially, we expect average selling prices to be the same within a few percentage points.

Zachary Kirkhorn

Chief Financial Officer

That's correct.

Elon R. Musk

Founder, CEO & Director

Yes.

Zachary Kirkhorn

Chief Financial Officer

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 where our ASPs are going based on order data. And so that gives us 1 to 2 months of lead as to where our actual recognized ASPs will be. And so I would expect

some adjustment to our Model 3 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 net, our expectation is that the Model 3 gross margin will continue to grow.

Elon R. Musk*Founder, CEO & Director*

Yes. On the gross margin point, like the full self-driving is just an extremely important part of the margin calculation, and the features for full self-driving are -- only a 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 the full self-driving package is 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 of full self-driving to obviously match the rollout of the product. So the gross margin over time will be really quite compelling when factoring in the full self-driving option, which is, yes, accounted to \$7,000 in mid-August. And that number will increase over time.

Martin Viecha*Senior Director for Investor Relations*

The second question is many of us who follow Tesla closely are incredibly excited about 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?

Elon R. Musk*Founder, CEO & Director*

Yes, I think for our Battery Day, we're going to do a comprehensive review of cell chemistry, module and pack architecture and a manufacturing plan that has a clear road map to a terawatt hour per year. The timing for this probably is about 6 months, like maybe February or March next year, show and tell.

Martin Viecha*Senior Director for Investor Relations*

Great. 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?

Elon R. Musk*Founder, CEO & Director*

Sure. I meet with the service team multiple times a week and get daily updates on the reliability of the vehicle. We -- the best service, of course, is no service. Like that's the vehicle just -- reliability and quality being so good that service is rarely required. That's what the main goal is like, eliminate the need for service. Then in terms of increasing service resources, we're opening service centers as fast as we can and have already opened 25 new service locations this quarter, and that will increase -- the rate of service center opening will increase dramatically in through the course of this year as well as more Mobile Service. Mobile Service 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. For parts delivery, we've made massive improvement to logistics for getting parts to service centers. Hey, Jerome, do you want to -- Jerome is helping to manage the service -- global service and...

Jerome Guillen*President of Automotive Division*

Yes. As you pointed out, the best service is no service. So we're trying to continue improving the quality of the cars. And we 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 a lot fewer work to finish the cars in the factory. Besides that, we stock way many more parts in 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.

Elon R. Musk

Founder, CEO & Director

Yes. They had the regional service heads in the U.S. at the factory last week, and it was incredibly helpful, just a closed loop on -- with service and production and with the software team. And for example, like a lot of service visits are just questions about how to use the car and...

Jerome Guillen

President of Automotive Division

And it's the #1 visit is how to use Autopilot. So yes, a bit of education there helps.

Elon R. Musk

Founder, CEO & Director

Like literally how do I turn it on.

Jerome Guillen

President of Automotive Division

Yes.

Elon R. Musk

Founder, CEO & Director

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

Martin Viecha

Senior Director for Investor Relations

Okay. The next question is, in April, Gigafactory 1 had efficiency of about 23 out of the 35 gigawatt hours theoretical capacity. Has this been improved yet? And is Tesla still cell constrained? Are there any near-term plans to increase the plant theoretical capacity?

Elon R. Musk

Founder, CEO & Director

Drew?

Drew Baglino

Former Vice President of Technology

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...

Elon R. Musk

Founder, CEO & Director

So about 28-ish?

Drew Baglino

Former Vice President of Technology

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

Elon R. Musk

Founder, CEO & Director

Cell volume is approximately matching the production ramp rate.

Drew Baglino

Former Vice President of Technology

Yes.

Elon R. Musk

Founder, CEO & Director

Yes.

Martin Viecha

Senior Director for Investor Relations

Great. Thank you very much. And the last question is what is the new Lathrop facility.

Elon R. Musk

Founder, CEO & Director

Nothing major. It's a parts distribution warehouse.

Jerome Guillen

President of Automotive Division

Yes. We're optimizing the real estate, trying to consolidate everything under one roof, reduce the cost. There's really nothing special there.

Martin Viecha

Senior Director for Investor Relations

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

Operator

Our first question comes from the line of Dan Galves of Wolfe Research.

Daniel V. Galves

Wolfe Research, LLC

Congrats on the \$5 billion cash number. I'm halfway expecting some headlines tomorrow of Tesla's got too much cash on the balance sheet. I was wondering if you could update us on Gigafactory China. 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?

Elon R. Musk

Founder, CEO & Director

I -- yes. I mean, we don't talk too much about like detailed price plans, but I mean if you're asking like what do I think the long-term demand for Model 3 is in Greater China region, I think it's about -- I mean from Shanghai Gigafactory, I think it's actually -- long-term demand is about 5,000 a week.

Daniel V. Galves

Wolfe Research, LLC

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

Elon R. Musk

Founder, CEO & Director

No. Our plan is to -- well, to source cars to sort of greater Europe area from Fremont, California, and until we have European Gigafactory operational. And that's -- but that's probably a couple years before -- it's probably 2021 before we have an operational Gigafactory in Europe. And so until that time, we will source from California. Yes. It's like -- this is again 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.

Operator

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

A.M. Sacconaghi

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

I was wondering if you can comment about whether you felt that Q2 benefited from consumers in the U.S. sort of rushing out to buy Model 3s in advance of the declining federal tax credit, a phenomenon 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 3s sold in the quarter were in the U.S., which is sort of higher than your normalized percentage of U.S. sales. And so do you feel that, that phenomenon 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 are better than last quarter. Is there anything else you can point to that provides that confidence?

Elon R. Musk

Founder, CEO & Director

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

Zachary Kirkhorn

Chief Financial Officer

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 U.S.-based orders as a result of the step-down.

A.M. Sacconaghi

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

Okay. 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 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 5 or 6 years?

Elon R. Musk

Founder, CEO & Director

Actually, we were just talking about this earlier today. We're not quite sure ourselves. I think there's some cannibalization. In fact, there may be false 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 emphasized 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 I say, like 2013 or 2012 Model S compared to today's Model S, night and day. In fact, I still run into people I knew who have like 2013 Model S, and they think it hasn't changed. And I'm like it is dramatically better in every way.

But we don't do model years. We just roll in improvements as they come. So 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 communications issue and just get a better understanding, and they're -- from the front lines like what -- demand should be higher for S and X than it is, and we'll get to the bottom of it and fix it.

Operator

Next question comes from Emmanuel Rosner of Deutsche Bank.

Xin Yu

Deutsche Bank AG, Research Division

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

Elon R. Musk

Founder, CEO & Director

Well, if you factor in the full self-driving option, I think it is in play for the year. We just need to get the features done, make sure they're great, roll them out and recognize revenue and increase the take rate on full self-driving. But also for the existing fleet, there's a very significant opportunity to upgrade the existing fleet to full self-driving since 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 like, long term, we are talking 25%, 30%. Not -- long term meaning like a year. Long term like in Tesla vernacular. That 30% gross margin is, I think, quite likely.

Zachary Kirkhorn

Chief Financial Officer

Yes. 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 hit record lows on labor content to build the vehicle. And we saw an ASP adjustment reduction in Model 3 from Q1 to Q2, yet the gross profit on the vehicle expanded, attributed to the cost reduction efforts that are underway.

Jerome Guillen

President of Automotive Division

Our labor costs are more than 50% reduction in 1 year. Yes, it's progressing every quarter.

Elon R. Musk

Founder, CEO & Director

Yes, it's worth like -- so what the labor hours were quarter-over-quarter?

Jerome Guillen

President of Automotive Division

Reduced in half, yes, since Q3 last year. But it's also all the [indiscernible] the spares. The scrap is reduced to pretty much nothing, reduced 90% year-over-year. Spares reduced more than half also. So our goal is to make the cars more affordable, and so we're pushing every day, yes. And every week, we hit records on most lines, yes, and in terms of output and cost per unit, yes, we're in very good dynamic and a level of fiscal discipline that I have not -- we have not had in the past.

Elon R. Musk

Founder, CEO & Director

Agreed, yes. So like from a core financial health standpoint, I think -- I'd just like to echo Jerome's words. Like I think Tesla's fiscal discipline is dramatically better than times in the past.

Operator

Our next question comes from the line of Joseph Osha of JMP Securities.

Joseph Amil Osha

JMP Securities LLC, Research Division

Listen, listening to you talk about mix here and the fact that you're running a single shift at 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?

Elon R. Musk

Founder, CEO & Director

Well, we are reconfiguring the floorspace in Fremont, and there's like quite a lot of factory space that's currently 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...

Jerome Guillen

President of Automotive Division

Yes, where we're improving the material delivery for S and X just like we have done for Model 3, we've seen 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're much more efficient with parts delivery. It helps that we're increasing production actually. And so that space that we've cleared out, I'm looking at it right now, in Fremont, we're just going to put Model Y stuff in there. So if you visit the factory from, I would say, every 6 months, you'd have a hard time recognizing and finding your way, yes. It's constantly changing and evolving, yes.

Elon R. Musk

Founder, CEO & Director

Yes. Just like I said, what's interesting about this factory is -- 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.

Joseph Amil Osha

JMP Securities LLC, Research Division

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?

Elon R. Musk

Founder, CEO & Director

Yes. 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 number is like 8,300 to 8,600 Model 3s and the balance in S and X. So sort of 1,600 to 1,800 S/X and like -- in round numbers, 8,500 3s, 1,500 S/X per week but probably a bit more than that.

Operator

Our next question comes from the line of Dan Levy of Credit Suisse.

Dan Meir Levy

Crédit Suisse AG, Research Division

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 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 are 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?

Elon R. Musk

Founder, CEO & Director

Zach?

Zachary Kirkhorn

Chief Financial Officer

Yes. On your question about the cadence of regulatory credits. 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 so as you model regulatory credits in Q3, I would not expect a significant increase in regulatory credits, although it's hard to forecast exactly.

The regulatory credits composition is a mixture of these particular deals that are onetime. 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 offset 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 credit is something that traditional -- we generally try not to run the business based on regulatory credit revenue.

Elon R. Musk

Founder, CEO & Director

The regulatory credit is like -- I mean it's a relatively small part of the equation for Tesla. And the -- I think the ZEV credit situation, I think really needs reform because the market for ZEV credits is negligible.

Now some of what's happening here is the other manufacturers are kind of like waiting to see how their EV sales do 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 a need to do a deal with Tesla. And if they sell fewer, then there is.

Operator

Our next question comes from the line of Colin Rusch of Oppenheimer.

Colin William Rusch

Oppenheimer & Co. Inc., Research Division

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?

Elon R. Musk

Founder, CEO & Director

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

Drew Baglino

Former Vice President of Technology

Yes. 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 all the -- we're good for the next year, as you said, Elon.

Elon R. Musk*Founder, CEO & Director*

Yes. I mean I think we probably need to like just do like a reset like -- I'm not saying master plan part 3, but it's really like, to some degree, the Battery Day will be kind of like master plan part 3, which is like, okay, how we get from kind of in the tens of gigawatt hours per year to multiple terawatt hours per year. That's a pretty giant-scale increase. And so yes, it's an increase of sort of roughly 100. Like if we're at 28 gigawatt hours right now -- well, actually, there is more than that when you count the factories in Japan. So call it like a little over 30 to 35 or something like that. And how do we get to like 2 terawatt hours a year? [indiscernible] 19 increase.

Drew Baglino*Former Vice President of Technology*

That's the way you have to think about it because that's what we need to do.

Elon R. Musk*Founder, CEO & Director*

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

Colin William Rusch*Oppenheimer & Co. Inc., Research Division*

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 for you guys from a planning standpoint in terms of sell-through on both the Model S and Model X?

Elon R. Musk*Founder, CEO & Director*

Yes. I think it's probably a bit too much focus on S and X. And the S and X are -- they are nice, but they're not -- and I think it's like without them, we couldn't spell sexy. So like the main reason -- well, not the main reason, but a reason is we want to keep spelling sexy. So that's -- not that I like -- that is a reason, I should say, not the main reason to keep going with S and X.

But the story for Tesla future is fundamentally Model 3 and Model Y. And I think -- so like my guess is like long-term sales of -- long-term meaning couple years type thing, the demand for -- sales demand for 3 is like on order of 0.75 million units a year, and it's probably 1.25 million units a year for Model Y. So combined, it's like maybe 2 million from those 2 vehicles alone. And then S/X is like maybe 80,000 to 100,000 a year. So it's like 4% or 5% of the volume of 3 and Y. And then you throw like a truck in there, pickup truck and till the semi, it just gets smaller and smaller. So they are great products, but they are -- from a volume standpoint, they're not all that important in the long term.

Operator

The next question comes from Pierre Ferragu of New Street Research.

Pierre C. Ferragu*New Street Research LLP*

I'd like to ask you, Elon, about distribution. So you made like -- you guys made a big change at the beginning of the year, going from like an almost 100% online 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 --

following an online distribution model? And I saw you opened 25 new retail locations in the quarter. So how do you see your retail footprint evolving over time?

Elon R. Musk

Founder, CEO & Director

As I said, we 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 an increase 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 sales. So if you think of like a retail location is kind of like a viral seed in an area. It would grow organically by itself, but the retail location is actually is like a viral seed. It's not that -- they aren't needed. They're like an accelerant.

But what is needed for sales in any given area, and I'd say this worldwide, frequently we've been told like this country is different or that country is different. I'm like people around the world pretty much want the same thing so -- in my experience. But they have to have a service location that's convenient. So it can't be like you've got to drive 5 hours to a service location. You have to have service. You have to have supercharging and charging all sorted out. You've got to have good consumer financing. And then the price must make sense. And any place where those 4 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 locations.

Zachary Kirkhorn

Chief Financial Officer

Yes, 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 densification of our service centers in the locations in which our customers currently reside. We do have areas that are underrepresented for service centers where the drive time is too long or there are populations don't have appropriate access to charging in 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 a retail presence.

Elon R. Musk

Founder, CEO & Director

Yes. Supercharging is incredibly important. You can't just have like 80% of the routes that somebody wants to take. You need 100% of the routes because a car is like -- it's really freedom to travel. Anything that inhibits freedom to travel impairs the fundamental value of the product.

Drew Baglino

Former Vice President of Technology

Or perceived.

Elon R. Musk

Founder, CEO & Director

Yes, exactly. Real or perceived freedom to travel.

Operator

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

Joseph Robert Spak

RBC Capital Markets, LLC, Research Division

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 U.S. and China, and I guess even in Europe where they've been also a little bit tougher on regulating?

Elon R. Musk

Founder, CEO & Director

Yes. 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 need 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 in 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 quite specific to EU rules. And we're just not present really when those rules were drafted. So that's what's got put in place. But they're making a ton of sense, but we just got to work through the process to change them.

Joseph Robert Spak

RBC Capital Markets, LLC, Research Division

Okay. And then the second question is you mentioned service a number of times. There's obviously 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?

Elon R. Musk

Founder, CEO & Director

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, and it's like a supermarket. Like you always know where the Cocoa Puffs are, and you just go meet there and go to grab it. And then you just replenish the shelves with parts. And so what we're basically putting all parts that are used more frequently than like 6 weeks literally on the walls of the service centers. There's no ordering of the part. You just go take it off shelf and put it on the car. We really want to get to not merely same-day service but same hour. Sort of like Jiffy Lube but applied generally to service.

Zachary Kirkhorn

Chief Financial Officer

Yes. And specifically on the working capital piece of this, we actually have a significant amount of service parts inventory. The challenge is it's not just at the service centers. And so a lot of the lag that is experienced is we have to get the part 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 potentially.

Elon R. Musk

Founder, CEO & Director

Yes. And also just having parts, if I may add, if we made them internally or if they're made at a supplier, just sending them directly to the service center instead of like having them go through a bunch of distribution outlets. In fact, like when I was in China on my last trip, I was like asking the China team, "Hey, is there anything silly that we're doing that we should fix?" And they said, "Yes, well, 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 I'm like, yes, no problem. There's always like crazy things that happen, if you're like -- if you have a 45,000-person company and then just kind of basically stop doing silly things. It's, yes, a lot of what is needed for improvement.

Zachary Kirkhorn

Chief Financial Officer

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 for the new plateau of volume, and then we'll grow again, and we'll need to rebuild those processes.

Elon R. Musk

Founder, CEO & Director

Yes. I mean Tesla is the only company that makes things in volume that is fully vertically integrated all the way through sales and service and charge and everything. So we really just need to look at total system efficiency and say if Tesla was the auto industry, how would we do it to maximize economic efficiency. And that's -- and then we're going kind of 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.

Martin Viecha

Senior Director for Investor Relations

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 3 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.

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