

All right, I think we can go right into questions. So, let's go ahead and start addressing the questions.

Question-and-Answer Session

Operator

(Operator Instructions) Our first question comes from Amir Rozwadowski from Barclays Capital. Your line is open.

Amir Rozwadowski – Barclays Capital Inc.

Thank you very much, and good afternoon Elon, Deepak, and Jeff.

Elon R. Musk

Hi.

Jeffrey K. Evanson

Hi.

Amir Rozwadowski – Barclays Capital Inc.

Hi. Yes, I was wondering if we could talk a bit about the ramping of your facility at the moment. It seems as though, based on your release, you do expect to now deliver the vehicles in the June timeframe. And I was wondering if you could provide us an update in terms of getting the factory up and running to the run rate at which you expect to be delivering vehicles and where you stand today?

Elon R. Musk

I mean the initial ramp of course would be sort of slow, and then will spool up rapidly. We're keeping exact ramp, sort of confidential and in part because we want to as we increase the production, we want to stabilize it at various plateaus, evaluate the quality if it looks good, then ramp up. And our goal is to be at a run rate, an annualized run rate of greater than 20,000 you'd see at the end of the year.

But it's a little difficult to predict that ramp, exactly in advance. It's going to dependent on how rapidly we can make costs add to exceptional quality.

Amir Rozwadowski – Barclays Capital Inc.

Are there any major pieces that need to be done, shipped in or installed on, I mean, is there any sort of color you can give us as to where you stand today versus perhaps your last earnings call.

Elon R. Musk

Yeah, we have all of the factory machinery in place, we have the vast majority of the tooling in place. There are a few stamping dies (inaudible) due to late changes, and those are coming in next month.

But really the machinery is in place, and it's just a question of ironing out any bugs with the overall manufacturing system. The factory is sort of like big machine with many subcomponents effectively. So it's getting that machine, so work effectively at the subsystem level and then in the transition for one subsystem to next and then being able to kind of spool it up, and go at a greater and greater speed.

And we really want to be supersensitive to the quality of the product, and our aspiration is to deliver costs that have zero defects. So it will take sometime to be able to have the whole system move with equal cadence to achieve that goal.

Amir Rozwadowski – Barclays Capital Inc.

Would you do feel comfortable that you can hit the 20,000 or greater by the end of the year?

Elon R. Musk

I'm highly confident with that, yeah.

Amir Rozwadowski – Barclays Capital Inc.

Great. Thank you very much for the incremental color.

Elon R. Musk

You're welcome.

Operator

Our next question comes from Chris Kovacs from Robert Baird. Your line is open.

Christopher M. Kovacs –Robert W. Baird & Co. Equity Capital Markets

Hi, guys, thanks for taking my question. Can you give us a sense of, it's going to be another record quarter with reservations, you have over 10,000 now. Can you give us a sense of, what percentage of those you started to lock-in, you take specs for cars. And then can you maybe comment on how the new stores have affected your reservation momentum and how you

expect the momentum to increase or changes that you can allow customers to test drive cars in the summer?

Elon R. Musk

Sure. We've begun to lock-in the cars that are as we queue up the parts for production. So we've got the first 100 cars locked-in where we're really not seeing any significant follow-up from at least in the beginning from people, as far as the people said, I've put down the deposit now, I'm not I want the car. It's really been an extremely high rate of people wanting to put down the remainder of the money and complete their purchase of the vehicle. Regarding the new stores and how that's going, George would you?

George Blankenship

Sure.

Elon R. Musk

I have George Blankenship here, and George probably would be the best person to provide some color and detail regarding these stores.

George Blankenship

We had very, very good traffic in Q1 as the shareholder letter said, we had over 410,000 people go through the six new design stores that we have. We are now getting ready to start opening our new stores for this year. We plan to open about ten more new stores – of the new design stores in traffic locations similar to those that the six exists then. And the traffic has been very positive and has a positive effect on the reservation flow both from Model S and Model X. So it's been very, very positive, and we're looking to open at least 10 stores this year of the new design.

Christopher M. Kovacs –Robert W. Baird & Co. Equity Capital Markets

Yeah.

Elon R. Musk

Well, and I should say with a particular focus in the greater New York area, where we think there is a substantial untapped market.

George Blankenship

So if you combine the additional marketing cars that would be there in these stores and the customer rights and drives, definitely there would be a

significantly higher level of marketing effort and presence that the customers who see starting in this quarter.

Elon R. Musk

Yeah, it's worth noting that, I mean the sign-ups that we've – the 10,000 people have done reservation payment. They've not test driven the cars. And I think so – to achieving these numbers we're now advertising with no test drives and in many cases with stores that only have cars part of the time. By the end of this month, I think we'll have, people have more or less cars in all the stores.

But today since these cars have been reserved for testing, much of the time that there has been no Model S in the store, which offsets the sales challenge. So I think we should see some acceleration of reservations as a function of having cars people can actually drive. And, having more stores open and an increased word-of-mouth from people seeing cars actually on the road, and eliminate any question marks it will, that the car is, in the mind of consumer, if the cars brings production.

Christopher M. Kovacs – Robert W. Baird & Co. Equity Capital Markets

Okay, thank you guys for that color. And just one follow-up, I think there was some news that came out with Toyota and RAV4 announcing this week and they mentioned 2,600 cars in the next three years or so. Can you talk about, is there more to that contract contemplated in that number in terms of the \$100 million deal you guys have with them, besides 2,600 cars, and what's your indication on Toyota or what is the triggers for them to expand that numbers in future years beyond the next three?

Elon R. Musk

We've had and continue to have extensive discussions with Toyota about scaling up the quantity significantly. And I think Toyota wants to wait until the space of the RAV4 program gets on the road before potentially signing anything that's at a larger scale. But I think, this is certainly good grounds to conclude that the scale up the odds of scaling up, I think, are good. I mean, I wish, I could characterize with any greater sense to you than that, but I think the reaction to the next RAV4 is going to quite positive.

This car is amazing acceleration and handling and its one thing that wasn't clear in the announcement earlier this week it got 60% more range than Leaf in highway, city, or any scenario really. So it should be quite a compelling vehicle from its capabilities, resemblance and capabilities

compared to say a Leaf. The prices are bit on the high side and, but the volume numbers initially are low, so hopefully that's not an issue.

Christopher M. Kovacs – Robert W. Baird & Co. Equity Capital Markets

Thank you very much.

Operator

Our next question comes from Patrick Archambault from Goldman Sachs. Your line is open.

Patrick K. Archambault – Goldman Sachs & Co.

Great, thank you very much. I guess two questions from my end. Can you tell, obviously you have a pretty big events and well anticipated event in front of you. Can you tell us a little bit about what your strategy is to get some cars in the hands of the press clearly word-of-mouth, as you say, is important and that's going to be a key channel for getting the thing reviewed, and hopefully helping the reservation numbers. So how are you thinking about that in terms of your marketing strategy over the coming month or two?

Elon R. Musk

Sure, we've had limited test rides for journalists, going back as far as September. But that the more, sort of exhausted reviews, I think, we want to wait until the car is as close to perfect as possible before we do that, so certainly past to start of production. If we give a car that may be have some bugs in it, and a journalist is free to write whatever they write, then they would presumably write about a few issues. And there's no point in doing that, if those expected to be cleared up within four, five weeks. So I think, we'll wait until probably end of June before doing any journalist reviews.

Patrick K. Archambault – Goldman Sachs & Co.

Certainly, and I don't know may be one for Deepak, just on the modeling side. It sounds like with some of the tooling, coming in late and, I guess just, the characteristics of low volume production when you're ramping up, you're going to probably be using components manufactured with pre-production tooling, and if you do it right obviously doesn't impact the quality, but impacts the cost. Can you tell us a little bit about how you expect your material costs to trend as you ramp up and when you think they can sort of come down, once you have the volume behind you to that, to help you hit that 25% gross margin target.

Deepak Ahuja

Sure, I mean as we have said the 25% target is when we achieved our annualized 20,000 units production since there is labor and overhead component as well to it. So that would be some time late this year and on a full quarter it's we'll get closer to that in Q1 of next year. Initially at this point primarily in Q2 as you said it could be a variety of reasons why initial pricing from suppliers could be low.

It's just a mere fact that they have low volumes, prices would be high, sorry. Just a mere fact that they have low volumes in some cases and result in higher prices. So that's being factored in our financial assumptions, and most of Q2 expenses will be in R&D for those issues and that's why we have also provided the guidance of our increased R&D expense in Q2.

Elon R. Musk

Yeah, to be clear, we remain impacted arguably at this point, increasingly confident of achieving 25% gross margin for 2013.

Patrick K. Archambault – Goldman Sachs & Co.

Okay, terrific very helpful. Thank you.

Operator

Our next question comes from Colin Rusch from ThinkEquity. Your line is open.

Colin W. Rusch – ThinkEquity LLC

Thanks so much. Can you talk about the cycle time right now in terms of car production and how many more iterations of the manufacturing process you expect to go through before you start selling cars? I should say that more or less than specific?

Deepak Ahuja

I'm not sure what you mean by cycle time on the reproducing cars at a very still base at this point perhaps you can clarify that?

Elon R. Musk

Well, you mean production?

Colin W. Rusch – ThinkEquity LLC

I'm just asking how long is it taking it to, are you, you're running test cars through there assuming now, I mean is it taking two weeks or is it taking a four month. And how many iterations on those process refinements, do you think you go through before you really like them in?

Elon R. Musk

Well, I think we're going to keep iterating for the next four or five weeks and even have to restart production, I think there is going to be room for improvements on the car, as there is with any product. And so, I don't think we'll have a stop iterating on improvements of the vehicle.

But I mean we're really down to very sort of small refinements at this point. I mean these are kind of nuance issues of fit and finish, and rattle, squeak, the final fine tuning of the stereo system and that kind of thing, it's not major stuff. But I want to be really attentive to the details, and I don't want to more or less to be right all way down to the smallest detail, but that's kind of what we're doing was right now are things can kept very timely reasonable level.

Colin W. Rusch – ThinkEquity LLC

Great. And can you talk a little bit about the cost structures of the battery packs, how much do you think you can improve on a pad performance and sort of further controls as opposed to improvements on the battery sales, and how what's the time line for making that sort of improvement?

Elon R. Musk

It's increasing the dollars per kilowatt hour or the range. And I think, if we wanted to, right now, we could build the pack directly build the pack with 500 miles range, it doesn't seem to us that people would necessarily, most people wouldn't really have need or want for that and so it's better to use that space for cargo capacity or other things. The bigger focus overtime will be improving the cost per kilowatt hour battery pack. And improving both the non-sale cost and the sale cost, we're pretty comfortable with where we are, in terms of achieving the 25% gross margin next year.

So we've got a pretty good idea of how to get there. And at that time we'll continue to see what's the sale and non-sale pack cost decrease. Historically, it's been at roughly the 8% to 10% per year rate, not necessarily, it's not necessarily smooth, I think that it's about average over time. And it looks like things will continue to improve at around that rate in the future.

Colin W. Rusch – ThinkEquity LLC

All right. Thank you so much.

Operator

Our next question comes from Adam Jonas from Morgan Stanley. Your line is open.

Adam Jonas – Morgan Stanley & Co. LLC

A couple of questions, first I appreciate that you won't disclose more reservations kind of on going on the Model X, I think that's a wise decision that focused the attention on the S? But will you continue to publish the balance sheet item of reservation payment and if you do will that balance, still include Model X reservation payments as well, that's the first question.

Elon R. Musk

Adam, yes, it will, so we have to report that on our balance sheet, so, yeah.

Adam Jonas – Morgan Stanley & Co. LLC

Okay, all right.

Elon R. Musk

I think yes, obviously, if we show Model S reservations, show the total balance sheet number, it's super hard to figure out what the Model X reservation number is. But we don't recall attention to something when our focus is very much on the S.

Adam Jonas – Morgan Stanley & Co. LLC

Understood, but it may raise some questions like the next one, which is if you look at the ratio of the cumulative reservation balance over the reservation number to get like a ratio, that ratio did decline kind of materially from 4Q from the end of December to the end of March, about 11,500, about 10,500 on a implying incremental reservation amount, on incremental reservation number decline a bit sharper than that.

Is there anything to read into that, is that because the Model X reservation amounts are just a much lower per unit, or you seeing like the incremental now at the first that your VIPs and super high network folks that maybe were a higher up on the reservation list and getting the performance packages, is that reflecting kind of just more of the mass market buyer now, if you could call that for the Model S incremental reservation?

Elon R. Musk

That's a good question, Adam. The driver is that we received half year, or we received more general reservations not signature reservations. As you may recall, we basically, completed or sold out all of our signature series cars in early January and the cause of the reservation amount for signature series cars is \$40,000 versus \$5000 for general production. So clearly, in Q4, that's been a big chunk of the last of signature reservations came in and that resulted in that higher average reservations amount.

Adam Jonas – Morgan Stanley & Co. LLC

Great, next question is on your Model S delivery target moving it up into June, but you're still providing the revenue guidance of roughly stable at \$30 million of the group level, that would imply, I mean, there is a very small number of deliveries that you're going to be making in 2Q, I mentioned that because I'm presumably, most people on the call talk about models have roughly zero deliveries in the second quarter right now. So, I mean are we talking about a handful, kind of 10, 20, 30 that order of magnitude, it doesn't seem like give you much more than that, if you're going to be near to \$30,000 million revenue mark?

Elon R. Musk

Yeah, I mean it's on that order, yeah. It's not like, it's not one and it's not 100s.

Adam Jonas – Morgan Stanley & Co. LLC

Okay.

Elon R. Musk

So sort of in the 10.

Adam Jonas – Morgan Stanley & Co. LLC

Okay, just want to confirm that, thanks, Elon. And then finally, given the pull forward of the good timeframe of the launch timing, a very positive reception of Model X. Your ability to kind of show and accelerate perhaps key developments for the Gen 3 a few years out, have you given any further thoughts potentially, using an opportunity to raise a bit more capital to help fund these projects that really deserve probably more resources or could it deserve more resources, given the great interest in your early execution on them? That's my last question. Thank you.

Operator

Thank you. Our next question comes from Carter Driscoll from CapStone Investments. Your line is open.

Carter W. Driscoll – Capstone Investments

Good afternoon, gentlemen, I guess I just want to follow-up on the reservation question, just a little differently, talk about some of the stores and some of the sales people and talk about maybe multiple orders, some individuals, and maybe some are actually exceeded multiple orders, and maybe that affected positive or negatives in terms of you are positioning the car, and then also maybe some people have been rumored to be potentially reselling the car, or flipping the car and whether that might has a minor impact or not at all, could you address that point first?

Operator

Participants please hold on for a moment we are having technical difficulties. Ladies and gentlemen thank you for holding, please standby. Thank you, please go ahead.

Elon R. Musk

Sorry about that everyone. Why don't we pick it up again with Adam Jonas' last question please? Adam if you are on the line, can you repeat that please?

Operator

Pardon me Adam Jonas, can you please queue back up. We currently have Carter Driscoll's line open from Capstone.

Elon R. Musk

All right, why don't we take Carter's question and then we'll come back to Adam.

Carter W. Driscoll – Capstone Investments

Thanks for taking my question. I just wanted to follow-up on Model S reservation question, you're talking to some of the stores, we heard certain comments that maybe certain individuals had ordered multiple, or put down multiple reservations in the chances potentially, getting the cars, but all concerned if you heard similar things from some of your, some feedback from some of your sales people?

Elon R. Musk

There has been a few mentions of that, the quantity is so minimal that it is not an issue, there has been a couple issues, they did a couple inputs on our web form as well, on the subject, but it is so few and far between that it is not an issue.

Carter W. Driscoll – Capstone Investments

Okay. And then just moving over quickly just a question on the Daimler agreement, in your prepared remarks you alluded to that potentially outpacing all the other development contracts that had before. Has the automobile move from the prototype into early stage production, maybe you could shed some color on where that's progressing right now?

Elon R. Musk

I guess it's effectively early phase production, although, in terms of cars that we're prepared to deliver to customers, but those will occur kind of next month.

Carter W. Driscoll – Capstone Investments

Okay. Thank you for that. That's all I had.

Elon R. Musk

So with respect to Daimler, I know and my apologies for any misinterpreting context there. We certainly delivered many electric smart battery packs and charges and Mercedes A Class, but we have not yet eliminating for the new program beyond the initial prototype level.

Carter W. Driscoll – Capstone Investments

Therefore on the prepared comments about it, potentially, exceeding the other development contracts, is that based on their market division globally, or is it based on discussions you've had before. I guess having seen that for hit essentially, be a push this week and you're getting a picture of that. We'll make you comfortable that it's going to exceed all your other development contracts if the vehicle is not out of prototype stage?

Elon R. Musk

Well, I mean the nature of the agreement is in excess of everything combined to date. So, that's the plan essentially, and that's what we're gearing up to do with Daimler.

Carter W. Driscoll – Capstone Investments

Okay. It is just the last, not to push it too hard, but is that, do you expect something in the back half of this year, or is it really just all the focus on the Model S today?

Elon R. Musk

Our primary focus really is on the Model S, but we still expect to make material progress on the new electric Mercedes-Benz later this year. But production deliveries in terms of our customers would see is essentially on the early 2014 timeframe.

Carter W. Driscoll – Capstone Investments

Okay, appreciate the color. Thank you.

Operator

Thank you. We do have a question from Adam Jonas. Your line is open.

Adam Jonas – Morgan Stanley & Co. LLC

Hey, thanks for taking a follow-up here. So you mentioned that the Model S has now been fully certified by the U.S. Environmental Protection Agency and the State of California. But unless I missed it in the release, I didn't see the disclosure of what the mileage was going to be and presumably when this goes on sale and the initial deliveries in June unless I'm mistaken or it have to have a sticker with the combined fuel economy?

Elon R. Musk

Yeah, are you talking about the MPGe rating?

Adam Jonas – Morgan Stanley & Co. LLC

Exactly

Deepak Ahuja

And the range I think it's what?

Adam Jonas – Morgan Stanley & Co. LLC

Yeah, exactly the...

Elon R. Musk

Right, right, so I'm not sure if you had chance to see the range blog we published earlier today. As far as the EPA fuel economy rating, we're expecting it to be at least or in fact initially it will be 89 MPGe.

Although, where we think we might be able to improve that with some efficiency improvements at the charter level because it's measuring the AC watt-hours and so we think that, we don't promise anything but we think there is a little room for improvement there. But the current sort of official rating is 89 MPGe. And then on the two-cycle test, we got 320 miles and on the five-cycle test, 265.

Adam Jonas – Morgan Stanley & Co. LLC

Sir, can you repeat those please.

Elon R. Musk

On the two-cycle test, 320 miles, so it is actually 20 miles above our target. And on the five-cycle test, which is a much more intense test when the car sort of goes up to 80 miles an hour testing, that's 265 miles range.

Adam Jonas – Morgan Stanley & Co. LLC

Excellent. Thank you, sir. And the only release it for the largest battery size?

Elon R. Musk

Correct. All initial deliveries are for largest battery size.

Adam Jonas – Morgan Stanley & Co. LLC

Okay.

Deepak Ahuja

And I just want to mention everyone should go and check out our website blog. You will see a very thorough letter from Elon and J. B. Straubel, our CTO that explains a lot of the details and some of the numbers behind that. It's quite interesting reading.

Adam Jonas – Morgan Stanley & Co. LLC

Thank you.

Elon R. Musk

I think we're going to have an exciting thing announced later this year regarding long-distance travel with the Model S. Sometime, probably, in the July-ish timeframe and it's going to be pretty cool.

Adam Jonas – Morgan Stanley & Co. LLC

Great, thanks, Elon.

Elon R. Musk

All right.

Operator

Our next question comes from Dan Galves from Deutsche Bank. Your line is open.

Dan V. Galves – Deutsche Bank Securities, Inc.

Hey, good afternoon. You guys mentioned that there were still some stamping dies to be delivered in next month. Are you comfortable with all your suppliers in terms of them being able to supply production parts in time for the launch?

Elon R. Musk

Yeah, we're highly confident of that.

Dan V. Galves – Deutsche Bank Securities, Inc.

Okay, got it. And then in terms of the Tesla stores and service centers, can you give us an update on how many you feel like you need to support global sales of the Model S and the Model X? And clearly, by owning your own stores, you guys are capturing a lot of the margin that's usually taken by the franchise dealers but do you have an estimate for what percentage of sales kind of the Tesla stores and service center costs will represent as a percentage of your revenue, over time?

Deepak Ahuja

So, Dan, to answer your earlier question, we expect to have close to 30 stores by end of this year and as we look at next year and growth of Model X in 2014, we'll be somewhere north of 50 stores at that time and when we think globally that gives us enough capacity and throughput in these stores to sell our projected volumes of Model S and X as we've shared externally so far.

And we certainly have a sense of our percentage of revenue for these stores. It's part of our SG&A expenses and we don't necessarily split that out, but I can tell you that we're very efficient in our selling as compared to the typical dealership model and that's something we absolutely track.

Elon R. Musk

And it's also; I think we don't have a national advertising spend, it's zero so maybe at some point I think we'll want to do that but probably not for the first few years at least. I mean right now demand outstrips supply, so we need to improve supply. That's our focus.

Dan V. Galves – Deutsche Bank Securities, Inc.

Okay. Thanks very much for that and can you give us an update on when you expect to begin sales in Europe of the model S and if there is – I am not sure if you have announced pricing for the European vehicle but when would that be if you haven't already.

Elon R. Musk

Sure. We expect to start delivering in Europe over next year and we've not yet announced final pricing for Europe, but it's going to be sort of sensible pricing compared to what's in the U.S. It will be a little higher to account for exchange rate variations and logistics costs of bringing things to Europe and so there is some import duties and what not., but it will be otherwise quite similar to our U.S. pricing.

Dan V. Galves – Deutsche Bank Securities, Inc.

Got you, there are certain countries in Europe that the tax regimes are very favorable to EV's.

Elon R. Musk

True

Dan V. Galves – Deutsche Bank Securities, Inc.

Is there any opportunity to kind of take advantage of that a bit by selling the car higher or do you think that the pricing will be kind of consistent across Europe?

Elon R. Musk

I think it's important to kind of do the right thing for customers. So I think we are sort of really taking advantage of them to lower tax rate and I think

that will be very bad. But we are going to have really great sales in a lot of those countries. I mean we are huge in Norway. There had been a [buzz] in Norway at some point, but we actually have just phenomenal customer base in Norway and in places like Switzerland and

George Blankenship

Netherlands

Elon R. Musk

The Netherlands

George Blankenship

Denmark

Elon R. Musk

Denmark, yeah.

George Blankenship

The Scandinavian countries all really selling on the incentives and the customers have responded very positively both for Roadster and for Model X

Elon R. Musk

And then things like I think London is going to be a very strong market as well because we got, there is no congestion. You don't pay the congestion fee, if you have an electric car and the cities are taking a lot of steps to install access to electricity for electric vehicles for charging. From a pricing standpoint we probably see a slight premium in Europe but we don't want to kind of push to get a larger premium in Europe. I think that would be to send the wrong message to customers. Yeah that will be unfair.

Dan V. Galves – Deutsche Bank Securities, Inc.

Make sense thanks very much.

Operator

Our next question comes from Ben Schuman from Pacific Crest. Your line is open.

Ben Schuman – Pacific Crest Securities LLC

Hi, guys, thanks for taking my call. May be Elon, can you discuss how you divide your timely days between Tesla, Space X and Solar City with all three companies approaching such critical events and milestones?

Elon R. Musk

Yeah. It is kind of intense right now. To admit I'm not getting a lot of sleep. My time is generally on average split roughly 50-50 between Tesla and Space X. And then Solar City is less than a day, a month. So that doesn't take much time at all. I mean credit for Solar City really goes to Lyndon and Peter Rive who has taken an [excellent] job running that company.

I don't think it's going to have a just an outstanding IPO later this year. In fact I don't think most people realize how good it's going to be, really good. And yes, so I basically I want to email a lot. I think I'm primarily an email processing device and that's really helpful to be able to run both companies simultaneously. And then I guess, when I'm with my kids, when they don't need my direct attention, then I want to email as well. That's kind of how it works.

Ben Schuman – Pacific Crest Securities LLC

All right, great thanks. And then I guess with the Toyota announcement given the size of the production contract, we get to about 38,000 Tesla content per vehicle. You've mentioned in the shareholder letter that the Mercedes powertrain costs can be sort of low enough on higher volumes to fit a higher volume vehicle. Can you sort of walk through the steps there. Did it all just appear to economy to scale or is there are some additional cost reductions that you can point to.

Deepak Ahuja

Ben, I just want to clarify certain point, I think it's very tempting to take the approximations that you just said did of \$100 million deal as the volumes announced to come up with \$38,000. It's a simple math, but I have to say it's very imprecise and not very useful. There are many elements to our transaction with Toyota, in addition to volume. We have partnership with them on ongoing training and support and service and warranty and there are few other things.

So the analysis of cost that you mentioned is not that straightforward on a per unit basis. And furthermore for confidentiality reasons, as you can imagine we can't share with you the price itself of the powertrain and the underlying cost to us. So, I want to just clarify that and also keep in mind that the volumes we are talking here on the Toyota program are far lower and there is an inherent design in efficiency when you are trying to develop

a powertrain and make it fit in an internal combustion engine vehicle, it doesn't give us those cost savings that we get inherently from the Model S platform. When we look at the higher volumes for the Daimler program, the huge economies of scale and other design factors that help us out.

Elon R. Musk

Yeah, I mean just to be clear, the economies of scale is the single biggest driver of cost reduction, I think first it's an approximation, if you scale up production by a factor of 10, your costs would generate drop by half.

And that's a good generalization I think. And so that's where most of the cost savings is coming from. And then there will also be continued design improvements as we figure out how to achieve the same end goal in a smarter way. Those are the two drivers of mass market, a technology gains mass market which is continued iteration on the design and economies of scale and that's generally true for any technology.

Ben Schuman – Pacific Crest Securities LLC

Great, and thanks for the help on the math there. That's very helpful.

Operator

Our next question comes from Jesse Pichel from Jefferies. Your line is open.

Jesse W. Pichel – Jefferies & Co., Inc.

Yes, good evening gentlemen. I'd like to ask you that the Daimler drivetrains. In your letter, you allude to tremendous volumes. Can these volumes be large enough to change the cost structure of the S drivetrains and was a contract of this magnitude factored into your 25% margin guide?

Elon R. Musk

So with respect to the margin that's not really, we are not talking about the 25% gross margin model, we are talking about the Model S, just by itself, so no that's been factored in. And I think economies of scale, does need to be some commonality to achieve those economies of scale. And there will be some amount of commonality, so I guess it would probably just some help to the Model S costs to add the Daimler volume in there. It's not directly additive, but I think it's at least partially added it to the economies of scale.

Jesse W. Pichel – Jefferies & Co., Inc.

There has been a lot of chatter in the media about the Tesla battery pack showing up in solar projects and do you think that solar could be a driver of your significant driver of your battery cells in the future?

Elon R. Musk

I don't think we want to show all of our cards right now, but I think there is some interesting potential in that direction may be in partnership with the certain solar company.

Jesse W. Pichel – Jefferies & Co., Inc.

When investors are thinking about what it takes for EVs to really penetrate the market, we always come back to the charging infrastructure build out and do you think you can give us some color on how you see this build out occurring? Along key corridors where are we in the build out? What are you do doing to accelerate the build out and what business models do you see emerging?

Jeffrey K. Evanson

So, I think we're going to have a very exciting announcement on the charging front in the July timeframe, sort of traveled to earlier. And I don't want to release details of that quite yet, but I think it's really going to – the light bulb is going to turn on when people see that. It's pretty awesome. And so, I think it's really going to put in the missing piece of the puzzle, but now is not quite the right time to talk about it.

Jesse W. Pichel – Jefferies & Co., Inc.

That's what I was hoping to get. I have just one more question. You talk about Norway, but you missed the big, perhaps the biggest markets for you which is China. What kind of interest are you getting from China either for store or for a drive chain?

Elon R. Musk

We certainly see China as very important market and we're hoping to begin sales in China towards the end of next year, but there is a lot of variables in there with regard to approvals from the Chinese authorities went up today. Our aspiration would be to begin sales that are in the latter half of next year.

It's an important market and we're not currently in discussion for any [Tootie Pie] deals two companies within China, but that's I suppose the possibility in the long-term. In the short-term, we're very focused on our partnerships with Daimler and Toyota.

Jesse W. Pichel – Jefferies & Co., Inc.

Thank you, gentlemen.

Operator

Our next question comes from Andrea James from Dougherty & Company. Your line is open.

Andrea James – Dougherty & Company LLC

Hi, thanks for taking my questions. Trying to gauge the opportunity in the Daimler partnership, if we look at all the powertrain agreements signed in Tesla history is about \$140 million in agreements is that about right? Are you talking about a Mercedes contract value that's an order of magnitude greater than that or just simply greater?

Deepak Ahuja

Yeah, the \$140 million is probably what's partially in our financial statements, Andrea there is a little bit more to it, as well as our existing Toyota agreement, which is not in our financial system and will happen over the next few years. So the number is north of that roughly in the \$280 so million range.

In terms of the Daimler contract, its north of that, how much, I think probably best to just wait until we mature or get to that level and talk beyond, but we just wanted to still give you some sense of scale by providing that guidance.

Andrea James – Dougherty & Company LLC

Okay. Thank you.

Elon R. Musk

Yeah, there is certainly, I mean there is a possibility for it to lead to something that's order of magnitude greater, but we need to get things, we reach one level after another. So the question is proving ourselves that at each successive level, which we've been able to do thus far and but we need to keep doing that in order to progress to essentially the next level.

Andrea James – Dougherty & Company LLC

Okay. And then R&D in Q3, do you look at that as roughly about half of Q2, because some of that shifts up into COGS?

Deepak Ahuja

A lot will shift into COGS, I think half is probably a bit on the high side, in terms of have reduction, I mean so it all depends on and there is some accounting implications here that we need to sort out is to what costs can get trend into COGS and what time versus in R&D. We'll provide you better guidance as we – when we do the Q2 call and go into Q3 specifically.

Andrea James – Dougherty & Company LLC

Okay. And then just raising your lower end of your guidance by the \$10 million there on the earlier deliveries, can you just go over what exactly is in the guidance range again and sort of what about the early delivery helps you to feel more confident on the lower end?

Deepak Ahuja

I think it's a measure of the slightly higher confidence that we have in achieving our numbers that enabled us to narrow the range.

Andrea James – Dougherty & Company LLC

Okay. Thank you.

Operator

(Operator Instructions) Our next question comes from Michael Lew from Needham. Your line is open.

Michael Lew – Needham & Co. LLC

Thanks and good afternoon. On the last call, you mentioned that you were thinking about a mainstream offering for Gen 3 instead of an updated Roadster. Do you have any update on your thought process there, like what types of market times you are looking for?

Elon R. Musk

I mean, it's very aspirational at this point, because our intention is focused on the Model S and on our key powertrain partners, Toyota and Daimler. So, I mean, late 2015 would be the earliest.

Michael Lew – Needham & Co. LLC

Okay.

Elon R. Musk

2016 is probably most likely, but something like that.

Michael Lew – Needham & Co. LLC

Got it. Okay. And also on the RAV4 electric, are you providing multiple versions of a battery pack as [true as it stayed] a 100-mile range and you've highlighted in the shareholders letter that you are providing a range of 170 miles.

Elon R. Musk

I think there was unfortunately the way that the information was communicated was a little confusing because there is actually only this one battery pack. And the range is actually, if you were comparing today to what the Leaf 100-mile range is, which is the city driving that compares to the 170-mile number for the RAV4 or sort of 165 miles to 170 miles. If you look at the Leaf, say five cycle test that range is in around the 70-mile to 75-mile number I believe, grant maybe 71-mile or something, 73-mile, very difficult. Okay, I think it remains positive at 73-mile. So when comparing to the five cycle range, the RAV4 range is around 105 miles. So in any given range scenario, the RAV4 is about 60% more range than a Leaf.

Michael Lew – Needham & Co. LLC

Okay.

Elon R. Musk

I think we still got confused with comparing the Leafs city range to RAV4's five cycle range, but which is not apples-to-apples obviously.

Michael Lew – Needham & Co. LLC

Okay. Yeah. I was trying to reconcile the 100-mile from Toyota and your 170-mile. That's a little bit confused. That's a big 70-mile delta [unless] Toyota talked about 100 miles strictly highway driving, but still that's a nice 70-mile increment on the city side.

Elon R. Musk

Sorry. Could you repeat the question?

Michael Lew – Needham & Co. LLC

Toyota had stated 100 miles and you are at 170 miles for the RAV4 and there is 70-mile delta there, and I guess, or maybe Toyota was mentioning highway driving versus, I'd say, city driving.

Elon R. Musk

Toyota is referring to there is what's called the five cycle.

Michael Lew – Needham & Co. LLC

Okay.

Elon R. Musk

It's extremely arduous range and it's at least 100 miles. Actually, depending on configuration it's actually at least 105 miles and it maybe as high as 120 miles.

Michael Lew – Needham & Co. LLC

All right.

Elon R. Musk

And if you were to compare that to the Leaf, you would compare it to the Leafs five cycle range which is 73-mile.

Michael Lew – Needham & Co. LLC

Right. Okay. I get that.

Elon R. Musk

Yeah.

Michael Lew – Needham & Co. LLC

Okay. And then, one more.

Elon R. Musk

What happened in the media was people were looking at the Leafs city range of 100-mile and comparing that to the RAV4's five cycle range and those are not comparable numbers. That's where you want us, make more sense to compare it to the sort of 100-mile, almost 170-mile range for the RAV4.

Michael Lew – Needham & Co. LLC

Okay. I agree. And also one last question. Earlier you mentioned a high conversion rate for the model S sign ups to reservation. Have you seen any signs of, let's say, cannibalization for model X, since those that are on the

wait list for the S may just choose to switch over if they get early on the [lane] the model X a little bit earlier?

Elon R. Musk

Well, the model X deliveries will be really, I mean, if you put out a deposit for model X you're going to get the car in almost two years, maybe 22 months, that kind of thing. So it's really, you're do getting a car in Q2 of 2014, if you put down a deposit for the model X, whereas you get a car in Q2 of next year if you put down a deposit for the model X. So there's about a year advantage there, and then we'll see how deposits track, but I think it will remain true that you will be able to get a model S a lot sooner than a Model X for quite some time.

Michael Lew – Needham & Co. LLC

Okay. I misunderstood. I thought they would be rolling out late in 2013, but thank you.

Elon R. Musk

I mean, very tiny numbers that's possible, but, I mean if you put down a deposit now you're really going to get your car in about 22 months-ish. I mean, that's overly precise. Figure it at approximately two years.

Michael Lew – Needham & Co. LLC

Okay. I appreciate it.

Jeffrey K. Evanson

Hey, Patrick, we probably only have time for one more question.

Operator

Our last question comes from Ben Rose from Battle Road Research. Your line is open.

Ben Z. Rose – Battle Road Research Ltd.

Good afternoon, gentlemen. Just a question. From the shareholder letter, you say [quote] selected cars are independently purchased and crash tested by the NHTSA. Do you know whether the model S will be one of those cars, and if so, when?

Elon R. Musk

Yeah, it will definitely be one of those cars. I'm not sure. In fact, I'm not sure if they actually tell us exactly when they do it, but I don't know. I think they just buy the cars, I think, secretly and we don't actually know where they are in the queue.

Ben Z. Rose – Battle Road Research Ltd.

But you would be surprised if they didn't issue a crash safety test rating by, say, August or September?

Elon R. Musk

Honestly don't know. But we do feel that we are confident that when they do test the car it will be a surprise to our safety rating level. In fact, I think the model S, in my opinion, will be the safest car on the road and we have certain architectural advantages that other cars don't have like a much longer crumple zone in the front, because we don't have a big engine block that we're going to deal with. A sidewall intrusion is, we think will probably be the lowest of any events and our rear crash performance is definitely going to be better than any stance because we are protecting for the third row occupants.

In fact, for the rear impact, the car is designed to not just take a highway speed impacting the rear, but be able to take a highway speed impact on half the car, which I think is an important threshold for safety for the third row seats. And has very good roll over protection. I really think this is going to be the safest car on the road.

Ben Z. Rose – Battle Road Research Ltd.

Okay. Thanks very much. Appreciate it.

Elon R. Musk

You're welcome.

Jeffrey K. Evanson

All right, thank you every one for joining us today on the call. And we look forward to talking with you next quarter. And we'll also be attending a couple of conferences in the month of May, including the Deutsche Bank Clean Tech Conference next week. Thank you everyone. Have a great day.