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Corporate Participants:

Cristiano Renno Amon, Qualcomm Incorporated – President and Chief Executive Officer

Conference Call Participants:

Stacy Rasgon, Stanford C. Bernstein & Co., LLC., Research Division – Senior Analyst

Presentation:

Stacy Rasgon: Good afternoon, everyone. I hope you had a good lunch. Thank you for coming. I'm Stacy Rasgon. I'm Bernstein's Senior Research Analyst for U.S. semiconductors. And I really can't express what an honor it is to have our guest here today, Cristiano Amon, the President and CEO of Qualcomm.

So Qualcomm, both of us -- I've covered this stock a long time, and it's been through an awful lot over the last 5 or 10 years, as we all know. China to the EU to the FTC, Apple, Huawei. Wave after wave of attacks against the business model, frankly, from regulators and customers. Frankly, it made a lot of investors gun shy for a long time on this one as it really wasn't clear what was coming down the pipe. But I think sitting where we are today, it absolutely, to me, looks like we've come out the other side of this. I'd say virtually every regulatory and customer dispute either dismissed or settled in Qualcomm's favor. I'd say they have a product portfolio and a roadmap that is probably the best that they've ever had in their entire history coming out the other side of that.

I'd say through all of that, it was really interesting that they never lost sight of the end goal to continue to do what they do best, namely investing and developing the world's best communication and compute technologies. And so they now appear set to hopefully reap the benefits of an increasingly connected and connected AI world. To tell us all about it, it gives me great pleasure to welcome Cristiano. Thank you so much for being here today.

Cristiano Amon: Thank you. Thank you so much. Always a pleasure talking to you.

Stacy Rasgon: Like I said, I've been looking forward to this one all day. So in this session, I don't like to talk a whole lot about the near term, but I'm going to get questions. I want to just get it over with.

Cristiano Amon: Bring it on.

Stacy Rasgon: So things have been rough for smartphones, as we know, for the last couple of years. I think it's fair to say that you and me as well did not foresee how bad smartphones were going to get over the last couple years. I think they were down double digits at least two years in a row, and we're probably down 20% or 25% even off of the peak. But it does look like they've hit bottom and even maybe, dare I say, maybe be improving. I think Android inventories, as you suggested, have normalized. Your IoT business is growing a bit again sequentially off the bottom. The auto business looks like it's doing very good, it's growing.

I guess, how can investors think about the likely trajectory from here? And maybe you can just remind us kind of what you've said? It wasn't that long ago you reported. But just what are we looking at as we kind of go forward from this point after we've been through everything that we've been through and that you've been through over the last couple of years?

Cristiano Amon: Very good. I think it's a great starting question. Nice to see you, too. Here's one way to think about this, big picture. I think investors first need to look for one of the things we have been saying. And I think we have been executing with a little bit of steps that are clearly identified. The Qualcomm technology has a number of end markets that Qualcomm technology is very relevant in addition of phones. I think that the story in auto, the story on PC now, I think there's going to be other coming on spatial computing and industrial and so forth.

But I think what happened to handsets, I will kind of tell you kind of where we are right now. First, I will point us to maybe our Investor Day that was 2021. It was about my first Investor Day when I became CEO, and I said, look, here's the Qualcomm strategy. We're going to be very focused on a market that is fully penetrated. It's a market that's fully penetrated. We accept that there's no growth. It grows with GDP, up and down.

Stacy Rasgon: Unit growth, you mean?

Cristiano Amon: Yes, unit growth. We're going to be focused on content. We're going to be focused on technology. We're going to be focused on share of wallet. And we even raised the profile of our handset business. If you think about how QCT was from an operating margin standpoint and what it is, really focused on share of wallet technology and value. As a result of the steps that we took in investing in the Snapdragon portfolio, you saw our historical share with Samsung, which would be about 50%, now operates at a higher level in the 70%-plus share point. We have been well design in for all the premium smartphone on Android.

And what we see in handsets, now that we went to the shortage of semiconductor, the demand has skyrocket all the way to the correction at the bottom. What we see now is it's stable. But there's one thing that is positive. Mix continues to improve. And it's been reflected in our numbers, which means in a market that does not grow, we have been growing content, and we see a mix improvement, especially towards the high end and premium tier. And a little early to say, I'll be careful when I say this, but positive early signs on AI use cases coming to smartphone, which drove the next wave of launches of flagship. So at this point, we feel you're -- I think I have a positive bias on handset, which is a flat market with an upside bias, but I really like the fact that the mix continues to improve.

Stacy Rasgon: Got it. Remind me, your chip business collectively has grown at, I don't know, 20% CAGR or something over the last, I don't know, four or five years. I ran the numbers the other day. But even while smartphones were falling 20% or 25% from the peak, and so a good amount -- some of it was auto and everything, but a good amount of it was that content. Do you have any feeling for how much your content has grown just generally over the last like four or five years?

Cristiano Amon: A couple things to describe in this whole conversation. Because I remember several years ago, and you and I have this conversation, the first big wave of content change for

Qualcomm was the 4G to 5G transition when we said when we go from 4G to 5G, we have more content, we have RF content. But that changed. I think 5G transition, especially on the flagship, happened back in 2020. So we've been now into it for several years. What is really changing is the amount of computing. More and more, a more capable processor with CPU, GPU and of course NPU.

The other thing that is happening is you probably understand there is a different correlation on units. When we sell a modem to an iPhone, for example, but when we sell a full Snapdragon into Android, I think in terms of ASP content, it's like 4:1, 5:1, depending on that. That has been also a vector, especially in China for content increase.

Stacy Rasgon: Got it. So let's actually talk about the future drivers of content. And this is AI, smartphones. Although the way you were just talking about it, it feels like it's maybe more than just AI. You talked about CPU and graphics and GPU and NPU, which is the neural processing which is the AI piece, which I gather is an evolution of the Hexagon DSP that was in there already. There's other things. There's video processing and camera.

Cristiano Amon: Absolutely.

Stacy Rasgon: RF and all sorts of other things. Maybe if we can just start at a high level on sort of content expectations. And then I absolutely want to drill down into the AI story, the AI at the edge. How should we think about those different pieces of the puzzle that you supply in terms of driving content? And I guess maybe starting at the premium tier, but even just more broadly, like how do we think about that?

Cristiano Amon: Yes. First of all, we'll talk about AI later, but that's one -- I will make a side comment on this because it's relevant to your content question. Interesting enough, AI is actually bringing the modem again to the front and center because especially of latency, when you talk about text or voice or audio, voice becomes relative -- importance again with AI.

So I think there are cycles of advancement on the modem. Of course, our RF attach is one. But the biggest change has been the capability on the processor in continuing to increase computer vision, camera. NPU, silicon area continues to grow from generation to generation. And we see significant improvement in terms of the AI processing capability, even more than you see in graphics. And I expect that cycle on the AI to continue.

Stacy Rasgon: Okay. So I guess, what does it mean for content, though? So again, I may get it if you're selling a high end part for $100. Is it -- because you've been -- I think you've grown your overall like content was out of 15% or 20% historically. Is that the same kind of level we ought to be expecting going forward or is it lower or --?

Cristiano Amon: It's probably similar. Look, I'm not trying to provide a chipset ASP, but we have seen ASP went up generation after generation because of content, and we have seen those kind of growth rates. It really depend on the tier, on the product, but it's very healthy. And it's really changing really from comms to computing.

Stacy Rasgon: Got it. So let's talk about AI smartphones. And I'll be honest, I understand that people are buying, they're getting delivered. Why do I want an AI smartphone? What am I going to do with it? And I know along those lines, you guys have been doing a fair amount on the ecosystem work, and you've been doing software and OS support and pre-training models and things. So, you have probably a better view than most on the types of things that

people can do with it, but why do I want to go out and buy one?

Cristiano Amon: Okay. So let me -- hopefully we have time because this is an interesting topic, a conversation. And I don't want to take away from PCs and autos.

Stacy Rasgon: Yeah, there's also other stuff we want to talk about, too.

Cristiano Amon: So I'm going to try to be brief, but I want to be a bit provocative because -- what I like about Qualcomm, we always make big bets. And sometimes you have to see it before it happens. And yes, there's always -- things sometimes happen at different pace. But I've seen a similar movie before. I like to talk about this, providing this example. So we go back to 3G, and we had our BlackBerrys and our Nokia phones. And then what happened at that time, the experience was actually provided by the provider of the phone. It was the same. At that time, they had -- there was a Symbian app store, you have a BlackBerry app store, but most of the experience was used.

But then the smartphone arrive. The smartphone arrive. The big deal was there was a computer. But when it arrive, the existing company said, oh, I can do it on OS, too. And there was a BlackBerry OS, and Nokia did MeeGo and Maemo, and they said, look at those 10 apps that are there. I can recreate those apps. But quickly, quickly, the 10 apps became 100 apps, 1,000 apps, hundreds of thousands of apps, and that was the experience. The experience was the app. It wasn't the actual UI of the phone. That's what changed.

So when we think about AI on phones -- and it's important to understand that AI is on phones, different AIs on PC, different AIs on glasses, different AI on cars, different experience, but especially on phones. Back in 2018, that feels like six years ago, we put the slide when we accelerated 5G and we said every generation of wireless has one thing that happens with it. When we said 4G, it was 4G and the computer in the palm of your hand. It was mobile computing. We said 5G is going to be AI. And it was very clear when you -- we didn't have a very good understanding how AI would evolve, especially a GenAI model. But it is now clear to us that a GenAI will change the human computer interaction.

So let me give you an example. Every single app could theoretically apply an AI front end, whether they get the AI from an open source, whether it's Llama, whether they get their OpenAI from Google on the front end. Think about this, like something as simple, as simple if you go to your banking app that is based on APIs that go into the bank cloud to get information, you could ask the AI. The AI get the same information. It could eventually, even if you want to render it to you like your app renders. So what happens is those platforms are changing very fast. That's the reason we did AI Hub. The reason we did the AI Hub, which is applicable not only to phones, to cars, to everything --

Stacy Rasgon: This is your collection of models, by the way?

Cristiano Amon: We have now over 2,000 developers. Actually, for you to understand how it works, you could have a model that gets quantized and get optimized to run at NPU. You could get that model, attach it to your app, push that to the app store, and you can start your app -- you can have that model interface. And from that, the model can do many things.

So the point that I'm trying to make it to you is we're starting to see now the same pattern. We see a few use cases. You saw live translate. You see Circle to Search. You see photo

editing. You remove somebody from a picture, add somebody from a picture. But I would say we are just at the beginning. And I like to provide the following example just to finish that answer. We have seen historically over generations, there are more you can do with your phone, not less. Always more you can do with your phone. And that's why we're increasing so much content and computing content into the phone.

So there are things today that you can argue, I have to answer this very long email right now. It's very complicated. I'm going to wait until I get to my laptop. But with the Copilot, you can probably start doing certain productivity on your phone that you're not doing otherwise. With this different type of AI interface that it can help you get things done, create an image or something, you'll be able to do it on the phone. So I think AI on the phone is going to be probably as natural as apps or how apps are going to evolve, and we're just the beginning of that transition right now.

Stacy Rasgon: Got it. How long do you think it takes until we see -- that's the unknown at this point?

Cristiano Amon: That's the unknown, but I'll say here's the things that I like. The trend is going to the way we want it to be. We started to see all the flagships now with AI capabilities. We started to see some of the use cases being developed. They developed by the OEM. They're developing by the ecosystem players. They're developed by the OS players. And we're starting to see a lot of developers get interested in bringing an AI front end to their apps. So it's reasonable to say within the next five years, this could be how we're going to interact with our phones, and it's going to feel natural to us.

Stacy Rasgon: Is it fair to say, you guys aren't trying to monetize the AI Hub, are you?

Cristiano Amon: Look, right now, no. The AI Hub, it's a unique thing that we have developed. I think there's nobody that has anything like that for the edge. And basically what it is, is you can bring your own model. It gets quantized, optimized, available. We actually build even a device cloud. You can -- as a developer you can test it on the target device in the cloud that's actually hosted in AWS and you can deploy that. We just launched. We have over 2,000 developers, so that's exciting. It shows how much activity is where people are thinking about a front end AI for their app.

Stacy Rasgon: At least it must give you some visibility, too, in terms of what's going on and what's --

Cristiano Amon: Absolutely. Absolutely.

Stacy Rasgon: That makes sense. Let's talk about PCs a little bit, as long as we're on the AI device topic. So this is interesting. I was making the point earlier, like first, I want to try to just aggregate. We talk about ARM PCs and AI PCs. But I think the AI PC is what's being used to sell the ARM PC narrative to the end customer. That's my -- maybe I'm wrong, but would you say that's true or --?

Cristiano Amon: Partially. You're not entirely incorrect, but there is something fundamental happening, which is actually, it's the combination of a transition of a PC to a different architecture happening at the same time that there's a transition of Windows. So I think those are two distinct things that happen to be at the same time. And I think at the end of the day, to be very direct and honest, I think the true AI PCs that Microsoft put together is really the Copilot+, and it happens on the Qualcomm architecture.

But I have a lot of things to tell you about this. It's actually important to break this down.

So I'll start in reverse order. I'll start talking about Windows before I talk about what we're doing with Microsoft. This is my personal opinion. I'm sure Microsoft's not saying that, but I'm saying that I saw some articles in the press about this. I think this is a big transition of Windows. It may be as significant as Windows 95 type transition. And the Copilot+ is this AI that is very pervasive that runs all the time. It runs all the time. And you started to see what happens when you run all the time. There's a tendency right now to think about AI in the cloud and what you do on devices. Just to get the stuff from the cloud you're doing on device is different. They actually -- they're developing different. The use case, the application is different.

So I'm going to give you just some examples of the use cases announced by Microsoft when I talk about the Copilot+. One is Recall. And think about this, you're indexing, you're running. You're running this computing engine, and you're indexing everything that happened on that screen, every pixel. And then you just tell the machine, I saw a YouTube video like this with this content a week ago and say, here's what you saw. I went to a webpage, and this is what you saw. I saw a document that has this -- from Stacy Rasgon, they have this particular short saying Qualcomm is awesome. This is what you saw. So this thing is a different use case.

Now, let's shift it to another use case of PCs, which is a communication device, Teams. The ability to actually add subtitles in any language to somebody that's participating, talking a language you don't understand. This is like a -- it's a new use case. It didn't exist before on something that you do on PCs.

What I like the most is the whole concept of co-creation, for example, what they did with photo and paint, and you have a lot of company. If you're doing ideation -- so think about this, you're creating an image, you're doing photo editing, you're doing video editing, creating something new. Think about this. You create something. You say, I don't like it. I'm going to do it again. I don't like it. I'm going to do it again. I don't like it. Every time you run this, 100 billion -- multiple 100 billion parameter in the cloud, who's paying that bill? But once you do it on the device, it's a whole different story.

So I think there is this big change in how the operation system is going to work. And now I'm going to go from that to what we're doing. I think we went on a mission, and our mission had three different vectors. I'm glad that we got to this point, and I think it's showing that we executed on it. One mission was the desire of Microsoft to change to Windows into an ARM instruction set. And we went on a journey with them. We knew we had to launch multiple products with them to get to this point, to get the ecosystem ready, applications to be native, the emulator, et cetera.

Stacy Rasgon: You've been making chips for Microsoft laptops for -- since what, 2016? It's a while, right?

Cristiano Amon: We had the journey. And remember, it was not until Windows 11 that you could run Win32 apps on the emulation. You got to get the emulation going. You have to get all of the ecosystem. That's one vector.

The other vector is we needed to bring the performance leadership to the Windows ecosystem, and I think we did that. And it's good to see a company like Qualcomm that we're telling investors, you look at us as a comms company, and we're telling you that we're actually a connected computing company. I think when we have the performance leadership in PC, it's like graduation day, which that's kind of where we are. That's the

second vector.

The number three vector is this transition of Windows to AI. And there is a reason, for example, when you saw the Microsoft Copilot+ launch in 22 devices from Lenovo, Dell, HP, Acer, ASUS, Sensa, everybody, and the entire service line all on X Elite. There was a reason for it. The reason is very simple. You won't run on anything else. When you think about this AI running, and I think there's a lot of confusion in this space. The CPU is busy, has a job to do. The GPU is busy, but now you have this other computing that is running all the time.

When the Copilot+ run on Qualcomm, it use for the entire battery life of that device, it consumes about 20, 30 minutes. If you run on the best that you can buy from the incumbent, the fastest you can buy from the incumbent today, five to six hours. So that's kind of the different conversation is that's the reason I think initial launch, you only see Qualcomm because it simply won't run unless you have a completely different equation. So we like that. We think it's -- AI becomes a tailwind for diversification entering the PC space. And because we're new to this, we don't have any share. It's just a great expansion of the model.

Stacy Rasgon: Do you think that continues? I understand the current products from the incumbents don't really support this kind of -- they've got new products that are coming that will in theory support it. I'm starting to get a little bit maybe why consumers would want an AI PC. Is it a stretch to have to go and convince them to buy the ARM-powered AI PC versus the x86 once? Because it's like new and weird and different maybe. What is it about the ARM-powered -- the ARM architecture in particular that you think is superior to x86, assuming like similar AI?

Cristiano Amon: So that's the reason I think when you first used that argument, I said you're partially correct. And here's the part that I agree with you. If you have to go to the point of sale and you tell the consumer, this PC does everything the other PC does, everything, but the instruction set is actually running on an ARM. Then say, what's the real value proposition? However, when you say this PC changed, this PC is the Copilot+ PC, it's a different experience all together. On top of it, it has 22 hours of battery life. It's a very thin form factor. Then it changes the conversation exactly to the point that we are right now, which is the incumbents are saying, I will have that, too. Wait for a little bit. I will have that.

And I think that is what's really changing the conversation. We see that with Best Buy. We see that with courage. We see all the retail. This is something new. It's this new AI-powered PC, this new experience provided by Microsoft, and some new experience from different developers. We don't know what they are yet.

Stacy Rasgon: Got it. Do you think other players in the ARM space in this is good or bad for you?

Cristiano Amon: Fantastic. Fantastic. I'll tell you the reason why. First of all, when other players coming in with an ARM-based CPU for the PC space, the first thing is validate the SAM, that it's an ARM SAM. Done. That's -- it changes the conversation.

The second thing for us is, look, if you look at where we live, the neighborhood that we live, phone is probably incredibly competitive in a concentrated environment. When we enter into auto, everybody said, look at who's there. Everybody's there. Mobileye is there. NVIDIA is there. You're going to go into auto. How are you guys going to be able to

compete? And I think for Qualcomm, this is good. I think we feel good about our DNA, which is about competing in very -- markets that move very fast, and we like our differentiation. It's just performance per watt. That's what we do best.

Stacy Rasgon: Got it. I guess is the first big use case coming out for smartphones, is that -- are we all waiting for Apple now? Is that -- are we waiting to see if they do something with this?

Cristiano Amon: Look, I think one thing that will be great for the industry, if they come in with great use cases or a platform that a lot of -- and an engine that a lot of developers are going to come up with new experience, this is going to have a positive cycle and actually will accelerate the AI smartphone upgrade.

Stacy Rasgon: And I guess on the PC side, they've taken share since they started introducing their own ARM-powered PCs. So they're creating an experience.

Cristiano Amon: The question that you have to ask is, what is the difference between the Snapdragon X Elite for the Windows ecosystem is they restored the performance leadership for the Windows ecosystem. And it's just -- so AI is a new thing, which is very unique and differentiated from Microsoft. And then what Snapdragon X Elite is the fastest CPU and is the best battery life. And I think that is what the competitiveness that now the Windows ecosystem has and got back to the front of the line.

Stacy Rasgon: What would you consider success in the -- like the PC market's 250 million units, give or take. What would be success? Is it 20%? Is there 50 million ARM PCs and you get half? I don't know how to size it.

Cristiano Amon: Okay. We're not making share assumptions, but I can give you like a proxy answer, if I may. First of all, the reason this is great for the Qualcomm model is because we don't have any share. Like we're just starting, so everything is game.

Second thing. When you think about our model and phones, most of the contribution in terms of gross margin and operating margin comes from the high and premium tier. A PC product for -- that we built, we build a portfolio that go from $600 and above laptop, that's like a premium SoC. It's equivalent to a premium smartphone.

Stacy Rasgon: No matter what you're selling there.

Cristiano Amon: And it has some of the attributes from a financial standpoint that you see on our model from selling a premium smartphone. So think about, this is like better than expansion of the premium tier in handset.

Stacy Rasgon: So the margins on the PC chips should be higher on average than the margins in the handset business?

Cristiano Amon: Look, without making a margin statement, I think you should assume that the content is much richer. ASPs are higher, given their performance, and that's kind of our sweet spot in our Snapdragon portfolio.

The other part of the answer to the question. The more -- just put yourself in Microsoft position. So what we like about it, if you look at historically in the PC side, where do you have the strong hold of the x86? With the enterprise. And the enterprise will be very slow to move. Let's say you launch Windows 10, enterprise said, I'm going to stay on

Windows 7 a little longer. You launch Windows 11, the enterprise is going to stay on Windows 10 a little longer.

There's something that is different now, especially when the Microsoft Copilot, the Microsoft revenue model for the Copilot, Microsoft is driving a transition of the enterprise to Windows 11 to AI PCs. That is helping us having a bigger addressable market first. And even if you model like if we have 10% share, it's a significant, I think, upside for Qualcomm. And we feel like we're well positioned not only because we have the best performing chip, but we're the only one off the gate that can run Copilot+. So we like our chances.

Stacy Rasgon: Got it. Got it. I don't really want to ask about Apple, but I'd be remiss, unfortunately, if I didn't ask about Apple.

Cristiano Amon: Go ahead.

Stacy Rasgon: So what is the current baseline assumption now? It's the iPhone that launches in '26 is when they start to go away?

Cristiano Amon: Whatever we said, we have been very transparent with Apple and our model. So when we extended and renew the agreements, we highlighted we expect that at '26, it start to go away, and that's the assumption right now.

Stacy Rasgon: Got it. Any risk to the royalty business if and when that were to happen, or does that -- should we assume that sticks?

Cristiano Amon: Not really. I think there there's a tendency I think of folks to connect the chip and the royalty business, even though I think the court decided that even if they were together, it was okay for Qualcomm, even though we don't do that. And I think it's basically as royalty is independent whether a Qualcomm chip gets utilized or not. I think we feel really good about a situation that we have to litigate our patents and we had good outcomes. So it's not like you even know what are the IP that has already been determined. We feel the licensing business probably at a stable point in its history right now.

Stacy Rasgon: And is it fair to say at least in the near term, your content at Apple seems to be going up, not down? I know -- again, I don't know how much you want to talk about what they're doing, but clearly, you've got an RF competitor of yours that seems to have lost some content. It looks like it's gone to you guys. Maybe more generally, how do I think about what sort of the integration between the RF and the modem is actually doing? Because I think that's a trend that's helping beyond whatever is going on at Apple.

Cristiano Amon: Look, without speaking on anything Apple, I think we had -- I think we have developed a competitive RF front end portfolio. I think from a performance standpoint, I think we have been differentiated. And we have seen, I think, good interesting across the industry for our premium RF component.

Stacy Rasgon: Got it. Let's talk about auto and the broader diversification theme here. So you just recently took your pipeline numbers up I think from $30 billion to $45 billion.

Cristiano Amon: $30 billion to $45 billion.

Stacy Rasgon: What does pipeline mean?

Cristiano Amon: It means -- see, the beauty of auto is when you get -- you get a design win, and you have in that design win, you have --

Stacy Rasgon: These are confirmed designs. This is not like we're engaged, we're trying to win. These are actually confirmed designs?

Cristiano Amon: No, no, no. It's a little bit more than that.

Stacy Rasgon: Okay.

Cristiano Amon: Those are confirmed design wins with an associated agreement that has -- basically, you have very well defined for the particular model the content over the years, over the volume of that model. I think one thing that is good is because we're designed with virtually every car company right now, we have the ability to see the overall market is very well calibrated.

And I think the reason we had been disclosing the pipeline is because it's a very stable, and that's why we -- how the pipeline converts into revenue. We have been delivering on that on a quarterly basis, regardless of how the market changes up and down. For us, it's a story of new models with our content. It's a share story. And we're tracking to the statements we provide, $4 billion and $9 billion, and it's just according to plan. It's likely a very predictable and reliable business.

Stacy Rasgon: Did those targets already imply that the pipeline was going to expand? Because you didn't raise the targets when you raised the pipeline.

Cristiano Amon: No hablo ingles.

Stacy Rasgon: How far does the pipeline go out, by the way? How many years?

Cristiano Amon: Look, right now we have -- we're participating in RFPs for cars in the 2027 timeframe. So a lot of the design wins for cars launch in '25, '26, some in '27.

Stacy Rasgon: Got it. What kind of things actually drove the $15 billion increase?

Cristiano Amon: So one, there's a new disclosure we provide, and some of it was already in the $30 billion, but there was a big percentage going forward. One new disclosure we provided, of the $45 billion, we said one third of that, it happens to be the increase. But even though there is some component of that in the $30 billion before, one third of that is ADAS and autonomy. And I think that drove a lot more content, especially for AI processing. It's our high performance NPUs, like server class performant NPU. And I think our solution has been resonating. We had a very flexible architecture. Sometimes our own stack, sometimes third-party stack. And we had displaced some incumbents that had a very strong position into that space, especially for autonomy.

And it speaks to one of the things that have been resonating well with the automotive industry. One is the fact that we have capabilities in all domains. The fact that we actually have the ability to scale the technology up and down from a premium car to an entry level car, especially because safety and electronics becomes now table stakes in many of those cars. And then it's the power equation. When you put a server-type solution in the trunk

of a car plus cooling, how it consumes energy versus what we do, it's really --

Stacy Rasgon: So you guys are not putting a server in the trunk of a car?

Cristiano Amon: We have server-type performance, but it does not consume as much energy as a server.

Stacy Rasgon: Got it. Got it. What does the Arriver acquisition bring to the table in terms of your autonomous efforts?

Cristiano Amon: It's a full stack. One --

Stacy Rasgon: It was interesting how you went after it, right? So I won't tell the story here, but --

Cristiano Amon: You need to give us an A plus for creativity, both how we went after and how we structured the deal.

Stacy Rasgon: It's clear it was important to you.

Cristiano Amon: But I'll tell you what's important of this. I think, we -- it was a combination of things. So Arriver is a full stack for ADAS. And then we also together with Arriver, we did the very strategic partnership with BMW. And with BMW, we are joint developing, I think, the stack for the driver policy plus the computer vision, and then we have the ability to deploy that at other car companies. And I think from a BMW perspective, it makes sense as the stack gets more miles, it gets better.

So I think it's important. It has been useful in both ways. I think one way for car companies that want to basically partner with us on silicon in the stack is -- there's another environment the car company wants to probably have their own stack, but they want to have an option if in case they want to switch to our stack. And then I think the flexibility of having just the silicon. I think we have the complete proposal, a very flexible model.

And one thing that is unique now is Flex. People should not underestimate, I think, how interesting Flex become for a car company. Because on a single SoC, Flex -- we got a single SoC. We can combine ADAS and digital cockpit on a single SoC. So what you do, if you have an entry level car, you have now a tiering structure for you to deploy ADAS in an immersive digital cockpit experience. Those are the things that we play with the assets that we have.

Stacy Rasgon: How much of the revenue -- today, you're run rating out $2.5 billion kind of annual run rate-ish. You did $600 million-and-something last quarter. How much of that revenue is ADAS versus digital cockpit versus like infotainment or connectivity?

Cristiano Amon: The majority of the revenue right now, when the whole started was mostly connecting the car to the cloud, mostly telematics. Now, the majority of what's in the revenue right now is telematics and digital cockpit. And I think ADAS is going to start to be material as we go towards our $4 billion.

Stacy Rasgon: Is the bulk of the pipeline ADAS?

Cristiano Amon: Of the $45 billion, one third.

Stacy Rasgon: One third, you said. Okay. Got it. By the way, I should have mentioned, I think I forgot. If you have questions, in your program, there's a QR code. You have to access the Pigeonhole forums for this, and you can put your questions in and we will get them as we will have some time at the end for Q&A.

Cristiano Amon: Easy questions only.

Stacy Rasgon: Easy questions. Who do you compete against most on the ADAS? Is it just NVIDIA or Mobileye? Or who do you actually see most when you're going after this?

Cristiano Amon: I think really the incumbents was Mobileye and NVIDIA. And then I think we're seeing NVIDIA at some of the high end, Mobileye across the board, and we're the new entrant.

Stacy Rasgon: Got it. There's only a few with like full stack solutions. You, NVIDIA, Mobileye, and I guess like Waymo and Tesla do their own thing.

Cristiano Amon: But the thing you need to -- important to understand is from ADAS to autonomy, there are several layers. And I think ADAS is probably going to be in every car. And the ability to actually commercialize volumes, what is unique about us is the ability to provide a scalable solution to the OEMs.

Stacy Rasgon: Got it. Let's talk about the IoT segment a little bit. So this is one, I know you've given targets in '21, and clearly, we've gone through a bit of a cyclical depression. Do those targets kind of still stand, but just I think about like the timeframe being pushed out?

Cristiano Amon: They move a little bit to the right. I think one thing that is important, Stacy, and eventually, eventually, without making a commitment, I think the next opportunity we had maybe at the next Investor Day, we probably need to think about how we communicate, because there's a lot of things in the IoT.

Stacy Rasgon: What is in there exactly?

Cristiano Amon: So what -- the way you should think about our revenue streams today within QCT, we have handsets, we have auto, and then you have what we call the IoT segment. There's a lot of things in there, and they are not things of the same nature. They're very different. That's why I think eventually we have to start breaking that down. So first thing you see in there is PCs. So PCs in that segment, that --

Stacy Rasgon: Which today is small.

Cristiano Amon: Negligible. And it's going to start it -- today, most of you see revenue is Android tablets, is in the compute segment. That's going to start to become material fiscal '25, all those laptops launching right now. Some are back to school. That's one thing that is in there. The other thing that is in there is spatial computing. Mixed reality, virtual reality, augmented reality. I think we are in the very early stage of that market. VR, it's in the tens of millions per year, but I think --

Stacy Rasgon: Of dollars?

Cristiano Amon: Units.

Stacy Rasgon: Units. Units.

Cristiano Amon: I think the AR has potential to gain scale. I'm actually very happy about what we're seeing right now with the project we have with Meta, the Ray-Ban glasses. There are other devices coming. That's in the IoT segment.

The other thing that is in the IoT segment is our Wi-Fi access point business. Retail, enterprise. Carrier gateway has been one that is growing. Most people don't know this, but we actually also develop our own fiber asset. We have XG-PON, and we've been growing the carrier segment as well for Wi-Fi access point. Also in that, it's our wearable business, our industrial business. That is -- when people think IoT, they think industrial IoT. That is in there, but it's not the biggest segment. I think it has a lot of potential. So all of those things are in this segment right now.

What we have seen is when the business there was the traditional business, which is the tablets and wearables and some of the modem connectivities, we've been through the industry, I think, correction that happened in broader IoT. But now the new is coming to the segment. The new is PC. The new is spatial computing and what we call industrial next, which is less about connectivity, more about computing AI at the edge, et cetera.

Stacy Rasgon: Got it. Got it. We've got eight minutes left. We've got some questions here. Should we go to the lightning round?

Cristiano Amon: Yeah, rock and roll.

Stacy Rasgon: Can you discuss China risk? Could they stop paying license fees as retaliation to U.S. sanctions? And I can think of other China risks, frankly, but how do you think broadly about that?

Cristiano Amon: Yes. Look, I think everybody that is in the semi industry is going to get a China risk question. I will kind of unpack this in the following way. First of all, if you have a leadership position in semi, you're going to have a big business in China. It's just the nature of the beast. Actually in the last earnings call, we made some more detailed disclosure about our business in China, what stays in China, what is from China going to other markets so people understand it.

Second, we've been fortunate enough to this point that we have not been restricted in some of the markets that we operate. We're not restricted on phones. We're not restricted on PCs. We're not restricted in automotive. We're actually, we're designed with all the Chinese EVs. I think we have been, to the extent that we can, I think continue to play our role on the dialogue, I think, between the two sides. We are become an important ingredient for Chinese companies that have export ambitions especially. So I think that's probably as good as an answer I can give it to you.

I think there is in general, I think from semiconductor industries, the geopolitics in the U.S./China is something that's important to watch. I think at this point, it has not impacted us. As we diversify the company, we have seen actually more traction in China, not less traction in China. And we have to continue to monitor the situation.

Stacy Rasgon: Yeah. And I guess just the last bits of Huawei revenue are now out of the model because of the most latest sanctions. You held guidance for the quarter in the wake of --

Cristiano Amon: Yeah. You called that correctly. We had said we'll be out of the model in '25. It's very

simple, actually. Our license was for 4G chips. We never had a 5G license, 4G chips. And China, if you look at the deployment of China 5G and where their domestic 5G is penetrating down the tiers, we expect that there will be no demand for 4G phones in '25. The only thing that really happened is it happened that in the model two quarters ahead of its time. That's it.

Stacy Rasgon: Got it. How do you think about the potential application of M&A to drive value? Are Qualcomm's days of attempting larger transformational M&A finished?

Cristiano Amon: Not finished. Look, we have been clear with our strategy. I think our strategy -- like we're not changing strategy. We're actually executed. You probably see there's a little bit of logic behind the madness. You saw we put the strategy together, we've been executing. Auto was the first one everybody saw. Now PC people are saying. I think spatial computing is going to be the next one that people are going to see it, then industrial and so forth.

We've been executing on the strategy, and we have been actually very open about M&A that accelerate that strategy as something we're interested in doing. We have done some smaller acquisitions that were important for executing. We talk about Arriver and the role it had in auto. NUVIA was an important one for the role it has on PC. So we are very active. One thing that I'm going to say is the current environment, we're very focused in evaluating things that are actionable. We're not focused on things that are not actionable.

Stacy Rasgon: Got it. And just general use of cash, are you keeping powder dry for bolt-on or technological --?

Cristiano Amon: Look, we had returned a lot of capital. We consistently increased the dividends, and I think we did that this year as well. And we are preserving optionality in our balance sheet, especially for the things I outlined. We've been executing on our diversification plan with a certain discipline. And we look -- there are things we can do that will accelerate the execution, like the examples I provided.

Stacy Rasgon: Got it. How flexible is your supply of Snapdragon Elite processors if demand is very strong? That would be a good problem to have.

Cristiano Amon: Look, this is a very good question because we had a lot of internal debate. Especially because as you go to a new market, there's a lot of things that are new, especially about the Copilot+ and how to forecast. So we look at our supply chain and we decided to play for success, and we'll see how that evolves.

Stacy Rasgon: Okay. Okay. How do you think PC gaming could be effective with the PC shift to the ARM architecture?

Cristiano Amon: I am so happy I got this question. So thank you for whoever asked this question. This is a very good question because often people ask me, why do I need AI for this? Why do I need AI for that? Why do I do AI on the cloud? Why do I do AI on device? So without naming names, I don't want to make any product announcement, but I want you to understand because this is actually easy to understand.

So the first thing, when we enter the PC space, and the simple answer to your question, we have the top 1,200 titles, Microsoft, Qualcomm and us working with all of the gaming companies. We've been optimizing, make sure it's running, it's optimized to the GPU,

we're doing all those things so we can run on the Adreno GPU with Qualcomm on the Snapdragon X Elite. So we're coming off the bat with the top 1,200 games, and the list will continue to add. I think that's an important thing.

But you have now something different. You have the GPU that you always talk about, can I render the game, but now you have this big NPU AI engine. So a lot of big game titles are in conversations with us as well as Microsoft because they are very interesting about the role of the NPU to create an NPC. Think about an RPG game. Think about a game that you actually have a character, that you have a dialogue with it, and think about that being a large language model, for example. So I think game experience is going to change with AI. And it's going to change with AI where the GPU has a role to play, but the NPU has a role to play. That's actually very exciting. We're very excited because it could be eventually another reason for people to buy an AI PC.

Stacy Rasgon: Okay. These are not being positioned as gaming PCs yet, though?

Cristiano Amon: Not been positioned as gaming PCs.

Stacy Rasgon: Got it. Here's an interesting one. Tesla's Full Self-Driving 12 success is driving demand for mobilized similar solutions. How far is Qualcomm away from providing a similar Level 2+ point-to-point driving solution?

Cristiano Amon: Look, we have -- a lot of our engagements is really Level 2+. And I think that's the reason we're actually doing the joint development of stack with BMW and have other partnerships as well.

Stacy Rasgon: Got it. We've got about 40 seconds left. I will give you your soapbox. Got a whole room full of folks here. Why should investors buy Qualcomm stock now?

Cristiano Amon: Okay. So I think it's important -- it's really important to understand Qualcomm based on what are core assets. I think there's a tendency to say, oh, look at this mobile market. And I think we've been to the trough in the mobile market and the effect's highly concentrated, all of that.

But I think if you step back, what are the real Qualcomm assets? Like what are the elevator pitch in Qualcomm? It's high performance connectivity. Any type of standard connectivity, Qualcomm is the number one with cellular, Wi-Fi, Bluetooth, GPS. Like recently, we announced something that we're the only one that has this capability in the market, it's micro-power Wi-Fi. It's Wi-Fi, but it has the Bluetooth power profile. So think about this. You don't -- all of a sudden you get an IP address. You can have an earbud, and you can talk to a large language model because you have an IP address in the cloud. So that's one asset.

The other asset is high performance compute, every form of compute. CPU, GPU, image signal processors, NPU for battery powered devices. And then we're building the engine for artificial intelligence at the edge. If you just look, for example, some of the things that a lot of the hyperscalers are saying, some of the things that NVIDIA is saying, you start training in the data centers because that's where the data center is available. Now you're starting to move the data centers where the energy is cheap or energy is available.

But once the model is trained and you have the inference, the model move where the people are. And I think we have been really building this engine to run AI at the edge,

and it actually been serving as a tailwind for the Qualcomm diversification. So you should look at those three assets that we have and realize that they're new end markets. They're being transformed by technology. And I think we've been consistently executing on it.

So I actually look where the stock is right now, and I think it's a multiple expansion. It's actually understanding that not only auto is real, PC is real, and those are different end markets that are actually growth markets. I think spatial computing, we're going to see that evolving. I like to use the Ray-Ban glasses as an example. When it was firstly built, people thought they're going to take photos and post it on Instagram, which is a good use case for social media. But now whatever the glass see, Llama see. Multimodal models you ask, what is this, and the model tells you. It's a different way of using the computing. That's going to be another wave.

Industrial, while there's incredible things happening on the data center, what I hear from industrial companies is, I need to move my AI to the edge. You saw, like we signed an MOU with Aramco, one of the largest companies in the world. There are so many things happening, but this is transformation. So I think we're at the beginning of a great story for Qualcomm. We're just going to continue to execute.

Stacy Rasgon: Got it. And I think with that, we'll leave it there. Thank you so much.

Cristiano Amon: Thank you. Thank you so much.