

REFINITIV STREETEVENTS

EDITED TRANSCRIPT

QCOM.OQ - Qualcomm Inc at Sanford C Bernstein Strategic Decisions Conference

EVENT DATE/TIME: JUNE 01, 2022 / 6:30PM GMT

CORPORATE PARTICIPANTS

Cristiano Renno Amon *QUALCOMM Incorporated - President and Chief Executive Officer*

CONFERENCE CALL PARTICIPANTS

Stacy Aaron Rasgon *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

PRESENTATION

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Good afternoon, everyone. Thank you so much for coming today. I'm Stacy Rasgon. I'm Bernstein's senior research analyst covering U.S. semiconductors as well as semi cap equipment. And I cannot express what an honor is to have our guest here today. This is Cristiano Amon, the President and CEO of Qualcomm in his first appearance, I believe, at SDC.

So Qualcomm, Qualcomm both as a company and a stock has been pun awful a lot over the last 5 or 10 years. From China to the EU to the FTC to Apple, the Huawei, I mean the company's business model has suffered wave after wave of, at least thought off wave after wave of attacks of regulators, customers. It's made a lot of investors gun-shy for a long time, as it wasn't clear what was going to come down the pipe next.

But sitting where we are today, now I do think it finally appears the company has come out the other side of this. Virtually every regulatory and customer dispute that they've had has either been dismissed or settled in Qualcomm's favor mostly. Through it all they continue to do with what they do best, namely investing and developing the world's best communication technology, is now reaping the benefits of that, and especially now as the 5G cycle is now well on and continuing.

And I think the story, though, goes beyond that. They're not leveraging, they're not insignificant expertise to drive new into new adjacent markets, things like industrial, things like automotive and others, which are not getting large enough to actually materially add to the model and to the growth outlook as well as just significantly diversify the revenue base away from what historically has been a smartphone story, and I don't think it's entirely a smartphone story anymore. And I think the further we go, the less it will be a smartphone story.

But to tell us all about that, it gives me just a great pleasure to welcome Cristiano. So thank you so much for being here today.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Thank you. Thank you so much. Really appreciate the opportunity, and good talking to you in person.

QUESTIONS AND ANSWERS

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

In person. Thank you. So before I dig into any of that, look, you've been at Qualcomm a long time. You've been in the CEO seat now for what, about a year?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Not yet. 11 months.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

11 months, almost a year.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

I think honeymoon ends at 12 months, I guess.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

I don't think anybody gets a honeymoon these days.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

I agree.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

But I guess, I mean, obviously, you were there through everything I just described, but like what is different now versus that period? And I guess, you at a high level, like how is the strategy now different, if at all, under your leadership versus maybe what we've seen in the past?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

No, very good. I appreciate the question. Look, it is a complete new Qualcomm. And I actually thought about it, whether I will use this example or this comparison, you know what, I will because it may be easier for me the investors to see. When you think about the -- what is really happening to Qualcomm and the fundamental thing behind the new strategy is the elevator pitch on Qualcomm is we have 2 major assets, anything wireless communication. And we invests a lot. We're creative standards, we invest a lot to make sure we're #1. We're #1 in seller, #1 in WiFi, #1 in position location, #1 in Bluetooth, anything wireless communication.

But also everything high-performance computing for low power device. So if I can just do a comparison, not a great comparison, but I think I'll be able to prove my point. If you look at companies, for example, that's just the case of NVIDIA. They had a GPU, which is a graphics processor unit. It's a parallel computing and they had a market that was the gaming market. But then all of a sudden, there was this brilliant idea that there is another market for parallel computing. And all of a sudden, you saw the opportunity within inference and training because that for crunching a lot of data and make predictions worth within intelligent in parallel computing.

I think I can draw a similar parallel to Qualcomm. They are now a large number of end markets and applications for the Qualcomm assets in addition to mobile. And I think that's the fundamental of the new strategy. So mistake to look at Qualcomm right now and try to make parallels with the Qualcomm in the past, which is a lot of people will look at Qualcomm in the past and say, "This is a comms company for the mobile market, where most of the business is the licensing business." There's nothing wrong or our position in mobile in license, but the reality is the new Qualcomm is most of the growth is in the semi space. License is a stable part of the company. We'll remain stable. We'll will remain important, I think, source of cash flow, which allow us to continue to invest in R&D. The new mobile strategy, it change, is doing well, but the reality is it's about really creating opportunity for technology in the markets. And that's the new Qualcomm. It's about a connected processor company that is enabling the digital transformation at the edge of many industries, and that explains what we -- what is happening to us in our Automotive business, what happened to us at the other IoT business. And it's -- we all of a sudden have a lot of new end growth markets for the company, and that's changing the trajectory.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. I mean you're absolutely right, like when I started covering the company, I mean it was I think licensing was 80% of the profit back then. It almost didn't matter what was going on with chips, and licensing was growing. This was the smartphone and 4G cycle, and it was -- and it is a different story. I think licensing is enough, so it's stable, but it's a chipset content story and adjacency story, and that is really what's driving it.

So maybe we could dig into each of those.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Yes.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Let's talk about chip content first. And it is -- I can't avoid talking about handsets. So we will talk about handsets. But let's maybe start there from a content story in handsets. As you went from 3G to 4G to 5G., we've seen content go up. And with 5G, though, the content increase has been massively material. And can you maybe talk about some of the drivers of that? And where are we in that cycle? I mean 5G now is, I don't know, maybe 1/3 of it, but they're mostly high end. Like how does that look as 5G starts to mature and in terms of like the content versus like where we are now and where we're going?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

No, that's good. Look, happy to talk about handsets. It's -- I think...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

I'll ask the China question in a moment, but...

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

That's okay. I'm ready for it. But Qualcomm I think, will continue to be the company that is setting the pace of innovation in the smartphone business, and it's always going to be part of the company. But there are a couple of things that's also changing in handsets.

So first, I'm going to answer your question directly. When we move from 4G to 5G, what we saw was at the same tier, whether it's a premium tier, high tier, mid-tier, low tier, we saw about a 1.5 multiplier in terms of revenue because we had the additional silicon content of the 5G modem plus RF front-end, plus just a better combination of technologies in the processor. That was the story when we start moving from 4G to 5G.

However, I keep hearing sometimes from investors, there was a couple of questions since we had our earnings about, well, is 5G migration completed and then what's going to happen? Should we think about the Qualcomm business now, you have that in cycle and now there's going to be a commodity business. No. Completely different and exactly what's driving the increase in ASP and earnings in silicon content, it's not 5G anymore. It's a processor.

So let me walk you through that a little bit. 5G transition, it happened already in many markets. But when you look by tiers, premium, high, mid, premium high is already 5G. Even if you go to emerging markets, the best 4G phone you can buy is a 5G phone. That transition really occur. So actually, the question about, is this -- what's happening to Qualcomm is, let's see what happens when the 5G migration is completed? It's -- in some markets, like the United States, it's already happened several generations ago. Samsung Galaxy S10 was 5G.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

I mean even China's fifth 80% 5G now, right?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Galaxy S20 5G, 21 5G, 22 5G. What's really happening is, in addition to the 1.5 multiplier and more than our front end, what we see now is content growth in the process or bigger GPU, bigger NPU, large number of image signal processor and the story of looking at QCT ASP increases and the contribution to bottom line has been more of a content processor story than a modem story.

A couple of points. I know that you wanted to keep the handset question short, it was my goal as well, but I need to bring this up because I think it's an important topic. Also, our strategy as a company in mobile change. There is a new strategy, which is we have -- and I've been very vocal about this, we're focused in premium and high, Android. Share of wallets, we have, I think, about a quarter -- a couple of quarters ago, 40% higher revenue than our nearest competitors and not interested in commodity business so that race to the bottom. And I think as a result of this strategy, we see things going in the right direction, which is increasing share of Samsung as well as continue to execute on the Huawei addressable market.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. So is this why -- like, obviously, like everybody is terrified about China. China handsets look awful. It's not new, by the way. They peaked in 2016. So like I don't know, but they look a bit -- but it hasn't affected you. Is that why -- is that more low end? You're not playing there. It's not a market that you're -- because it certainly hasn't -- at least versus where the numbers have been coming in, it hasn't seemed to impacted at all.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Yes. Let's talk about present and let's talk about the near future. So because of our strategy to be more focused on premium and high tier, I think that has been a little bit more resilient. We see as a role, there's a trend that continues to happen within the mobile market, it doesn't grow as flat to a downward bias because of the China lockdown.

There has a richer mix. The phones are gaining utility. But the reality is, China is about 20% of the market right now. China is -- or at least was a still a few days ago and a massive lockdown. I think that has significantly suppressed the size of the market in China. I expect that it will bounce back because we've seen the COVID wave in developing economies. We saw that impact.

So -- and -- but having said that, I think our position in China, it's continue to be strong because what's happening to Qualcomm's Mobile has nothing to do about the size of the market. The market has a negative bias right now. But what's happened to us is structural. We're -- Huawei left the market, so we're executing into that, and we're gaining share of Samsung. That's exactly the story of the Qualcomm Mobile business.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. Let's talk about that Huawei opportunity. You talked about \$10 billion and \$10 billion becoming available. Have those phones already gone elsewhere though? Like is it still available? Or is that volume already moved?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

I think we're well into our way to do this. And I think it's -- you kind of see what happened in the market. I think the most of the winners has been companies like Vivo, Oppo, Xiaomi, and I think it's kind of early to tell what's going to happen in Europe. I think Samsung still have an opportunity to exercise some growth there.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. And I guess with Samsung, so you said that you share it, it's mostly high end, right? It's doubled effectively. You're, I don't know, 40% before now, it's 75% or 80% in the flagships in the galaxies. I guess what's driving that? And when did it happen? It feels like it happened quite rapidly.

And then I guess as a follow-on, the biggest question I get on that, obviously, is the sustainability element of it. And look, I guess it's no different. Like every year, you're fighting for every socket. That's just the nature of the business. But how do you think about longer-term sustainability of that?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Yes. So look, what's happening right now, I think, has been a results of focus and execution, really focus on strategy on premium Android. We're very happy with the fact that we gain share at Samsung. The Galaxy S22 now, we're north of 75%. I know you didn't ask this question, but I will remind how the math works and why this new strategy is working well for Qualcomm.

One, Galaxy S22 because I have the whole Snapdragon 8 series there. It's equivalent of selling modems to 5 iPhones. So it's a very good trade to gain share at Samsung. And I think what's really happening is a combination of factors that make us believe we're in a very strong position to keep and grow within Samsung.

I'll give you 3 different factors. One factor is, if you look what's happening with the Chinese customers, Vivo, Oppo, Xiaomi, Honor, they're doing well in China, but they're really focused on growing to Europe. Those companies, unlike Huawei, they did not have a very strong premium brand.

So if you actually look at their advertisement in detail, you're going to say all they talk about it is I have Snapdragon 8. And I think that puts a lot of pressure in the market. By the way, Snapdragon unneeded awareness in China is 80% without us doing anything on -- we don't have an intel insight (inaudible) right? And it's done by our customers. And as a result, I think it puts a lot of pressure on Samsung for the markets they have excellence.

The second data point is I will point you out to the Samsung advertisement right now. If you look at the advertisement in a number of regions, there are traditionally regions they use the Exynos part, Samsung advertisers Snapdragon 8 as an ingredient brand on the Galaxy S22.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Even where they are using (inaudible) Exynos?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Yes, that's how they're communicating to consumers. Now I'll give you the data point number three. We're investing to have a highly differentiated solution. It's not about what we do only on the modem side, on the GPU. I think Adreno GPU has kept the crown of the highest performance for what in the industry. But also the Nuvia team that is now part of Qualcomm is also designing a CPU that we're going to take to mobile as well. It's part of Snapdragon 800.

So when you put all those things combined, I think our focused strategy, the competition, I think, with the Chinese customers, Snapdragon position in the market and our IP, I think we're in a very good position.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. I'm going to ask one more handset. And it's -- I'm not going to ask the Apple question. I think we know the answer to that. It's in the model going away. If it doesn't go away, great.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Upside.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Right, Okay. MediaTek, this is the other question I get. Obviously, it's -- what's the competition look like? But I could argue that it's a better market structure. Like when we've seen price wars in the past, there were more players. There's effectively 2 merchant players now NVIDIA and MediaTek. But they are trying to move up. You're kind of moving a little more into the midrange. Like what is that interaction look like?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Yes, look, it's a whole new world right now. Look, let's just look at before and after, right? Before you have a lot of our Chinese customers that max they will go to will be a high tier. The premium tier was occupied by Huawei. And then you have in many markets outside United States, Japan, you have Samsung with your own processor. It was just -- it was a crowded market and as a MediaTek competing for the high, mid-, low.

I think is a completely different market structure right now. That's number one. Second, we're very focused on share of wallet and premium high tier. That's the Qualcomm constraint. That's what also drives the IP road map that we can apply in our one technology road map to automotive and IoT and all the other industries. And the other thing is I don't think us or MediaTek are looking at this as a growth market. It's a mature market. And as such, I think there has been a very rational approach towards the market. And I feel pretty good. There's plenty of room for both of us.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Okay. No more handsets. Let's talk cars.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Yes.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Lets talk auto. So you talk about, like what is it, a \$16 billion pipeline at this point for...

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

That's correct.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

What is in there? What kind of -- I know you did the infotainment, you did connectivity, but I don't get the impression that the \$16 billion is primarily that. What is there? And like what is the time frame? How does that ramp? And what is driving that?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

So -- there's a lot of questions in there. So let me just take it in layers. First one, \$16 billion is the design win pipeline that we announced in the last earnings call. After the earnings call, we announced Volkswagen Group. That's not included in the number.

Second data point. I think the 16...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

What was that to Volkswagen, by the way, what products?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

It's ADAS for Volkswagen Group. The second data point is within the \$16 billion, the majority of it's telematics and digital cockpit. ADAS, it's going to be new addition to it. It's very -- they're very small in there. It's going to -- there are design wins that are not yet completed in that number. But I think it is a growth story.

Here's how you should think about the Qualcomm Automotive business. And we're very proud of it because in a very short period of time, we'll be able to build a position and really winning the future of the automotive industry. We created a digital chassis platform. The digital chassis platform, it has a number of components, they can -- you can use...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

What do you mean by digital chassis, first of all? What does that mean?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

So today, and let me start at a high level because this is -- at least, I believe, is an interesting conversation.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

That's why I'm asking.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

There's before and after, right? Before the way the industry would work is a core company will have a model, and they will have a bunch of electronics. They're going to become to the model. In some cases, the electronic was designed as part of the model design. They will have a number of Tier 1s, they will bid and we'll get a lot of RFPs for different people building components to this car. You have microcontrollers, you have IVI, you have all those different processes.

Well, a couple of things have changed now, high level. Number one, I think car companies realize that they need to have a direct relationship with semiconductor companies. Some of them they didn't really understand what the importance of semiconductor industry.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

We're discovering that now, right?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Number two, the market expect the core companies to be tech companies. I love to keep bringing this example. At some point, Rivian selling hundreds of trucks was worth more than Volkswagen. So the -- what it's basically saying is that companies need to be tech companies, they need digital assets.

Piece number 3, which is it's not about component from the car, but do you actually have a digital platform that they can build on the digital platform, a lot of softer assets and then apply that up and down for different models. That's the unique thing about the digital chassis. So that's what we did. And you can see in our design wins, for example, when Stellantis come out and said, "I selected Qualcomm across 14 different brands." It's not about I got this model. So that's what we did. The Snapdragon Digital Chassis. It's a complete digital platform, it's modular.

You can add components to it. Some silicon gets reused. And you can do -- all of the things that is in the C box, all the different connectivity connecting card to the cloud. There's a car-to-cloud service platform. You have the digital cockpit for every single screens in the car. Then you have ADAS that ranges from in cap all the way to Level 3+. You can do a combination for inter-level cars ADAS plus digital cockpit in the same SoC. And then on top of that, you have a processor for autonomy.

The last part of the answer is we -- the next addition to our design wins has really been the ADAS story. First one was GM, both Ultra Cruise and Super Cruise running on Qualcomm. The second one was BMW. We also did a very unique BMW announcement. We jointly developed to drive policy and I have the rights to the software so I can offer to other OEMs. Then we have Renault. We talk about the Stellantis and the most recent Volkswagen.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Got it. And so what does Arriver bring to the table?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

It's basically a proven computer vision stack for our computer vision SoC as part of ADAS. And it really -- it was the perfect asset to basically build on the Snapdragon digital chassis as it relates to a computer vision surround camera. And that computer -- the computer vision stack of Arriver is now part of the Snapdragon Ride ADAS platform.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. And I mean the customer announcement that I found most interesting with Arriver was BMW. And for those of you who may not know, like sort of the original triumvirate on autonomous driving, it was Intel, Mobileye and BMW, and they were the -- even before Intel bought Mobileye, it was the 3 of them. And then Intel and Mobileye merged like not that long after. And now we've got BMW moving deal on Vision, which is sort of the Mobileye bread and butter. And like, how do I read that? Like am I reading that like -- at a high level, it seems obvious, but I mean like what does it mean?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

You're reading that correctly. At the end of the day, there are certain customers, which are halo customers. And I think the customers have been the forefront for technology innovation. And I think the BMW decision to move to a Qualcomm platform and to do joint development with Qualcomm -- It was well noticed by the rest of the automotive industry, and I think it's been reflected in what has happened since then. And the Stellantis in the VW are not small projects.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. Can you maybe talk a little more broadly on your ADAS and autonomous? I mean, are you trying to go for like full autonomy? Or like what's the end goal here?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

I love answering this question. Look, we're actually going in for scale. And at the end of the day, we do have some engagements with customers that are going to go to Level 4 autonomy using our processor. I think we're very well positioned there, because you cannot put a server in the trunk of a car. The power envelope is different.

I point out to Mary Barra at the CES press conferencing, opened a trunk of the Cadillac Lyriq, show a little pizza box and said, the whole thing run here on Qualcomm, no liquid cooling, none of that. So however, I think the scale business and what's going to generate a lot of revenues is really ADAS. And we're being very focused on from regulatory in cap to Level 2, all the way to 3+ highway autopilot and then parking. And I think that has an opportunity to be attached to every car, like airbags and ABS. And I think that's where really the revenue opportunity is going to come. Fully autonomous vehicles are going to come, but most likely, in my opinion, you're going to see those into first instantiation, delivery vehicles in the bike lane at a lower speed because the regulatory environment is complex, and we'll see what happens. But we're very happy that we actually build the platform that allow us to scale and get to revenue faster.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. And what are you doing in it? I guess it's vision, is it just like the rock compute? Like what are the actual like pieces that you're doing there?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Yes. So we do a lot of the competition across different types of compute from CPU to GPU to NPU. We have a lot of the image signal processes for a lot of -- plus the computer vision stack. And then we have a sensor fusion that captures all the sensors that come from radars and LiDARs in all the other sensors.

We're partnering for third-party provider, radars and LiDAR, but it all comes to a sensor fusion. And in our software, for example, I talked about the drive policy process all of this, and that's when we jointly development with BMW.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. Got it. And I guess, who do you view as the primary company? I mean, obviously, the 2 merchant solutions out there are Intel, Mobileye and NVIDIA. Are those the ones that you're seeing? Is there one where you seem to be winning like more than the others? Is it too early to say?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Too early to say. Here's what is different about what's happening in Qualcomm Automotive. What is unique about Qualcomm is we actually have comparability in all domains. So it's not about, hey, here's my computer vision SoC, which is kind of, for example, what Mobileye is doing. Or this is like -- this is my computational platform for the full autonomy. That's the beauty of doing the digital chassis.

The other thing that is unique to Qualcomm, our platform is actually open. It's open, it's flexible and allow the OEM to actually bring their own development and build on the platform. It's not a black box. So those 2 things are resonating with the OEMs. And the name of the game changed a little bit. it's about what is going to be my revenue opportunity over the lifetime of the car, and how do I create a platform that my software investment can survive multimodel, multigeneration, and that's what we've been very focused on.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. Got it. And you talked at the Analyst Day in terms of a revenue trajectory. I think -- I can't remember it was -- I can't remember, was it \$8 billion over 8 years? Or what was the time frame?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

I don't remember the exact number, but here's what I can tell you that, Akash, remind of that, we are ahead of plan.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Okay. Got it. Got it. Let's talk about industrial IoT now. First of all, just very similar, what is in this group? What is there?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Okay. Yes. By the way, in hindsight, actually coming here, I was thinking about it, I wonder if that was the right name, but -- because not all IoT is created equal. So let me start by telling what is not -- it's not about having a lot of microcontrollers with WiFi and Bluetooth connectivity in the catalog business to a distributor channel, that's not -- that's -- I think the Qualcomm IoT is a little bit different. It comes from the premise that when I started this conversation with you, Stacy, we have those technologies that now have a different end market and how do we apply that to the end market.

Now within our IoT revenue stream, we have a bunch of things there. And I think I'm going to tell what is in there. And I needed to break down in consumer, edge networking and industrial. Consumer -- and by the way, to make it easy, both for consumer's networking is 3. So 3, 3. Consumer, there are 3 main drivers of our IoT consumer segment. Number one is XR, virtual reality, augmented reality.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

You're most of the headsets and things.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Every single handset that is commercial today, it's powered by Snapdragon XR. I think they're largest customer, as you'd expect, it was Oculus for meta. It's already material in scale. And there's going to be new ecosystem that come in online. We can come back to XR later, but just that there wasn't there. So mixed reality, virtual reality, head-mounted display glasses, all in there.

The second thing in consumer IoT is tablets and future ARM PCs, which is the...

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

I'll talk about NUVIA in a minute, too.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Which I believe is an inevitable transition of PCs to ARM. The number 3 thing that is in the IoT consumer is, if you look, for example, Apple created an incredible market with AirPods. So if you look at us in our Bluetooth capability, thinking about the Snapdragon and you hear things like

Snapdragon sound, Snapdragon (inaudible) it's providing that platform for the Android ecosystem attach to our Snapdragon in mobile. That's just -- so a lot of, for example, Bluetooth through wireless earbuds across multiple brands. That's -- those are the 3 things in IoT consumer.

IoT EDGE networking, we have also 3 things: Mesh WiFi access point for the home. Mesh WiFi access point for the enterprise. And then wireless fiber, which is 5G fixed wireless. There's only 3 broadband technologies now. Fiber, if you can get it to the home; hybrid fiber coax cable, which is a U.S.-centric thing; and then if you have DSL, a solution to that is 5G, fixed wireless. That's one of the fastest broadband business. We have 125 customer premise equipment designs already. That's -- those are the 3 things in the IoT EDGE network.

Then we get to industrial. Industrial is very, very broad. In industrial, I'll tell a little bit how we execute on the strategy. I think the opportunity is massive. We're somewhat paced by our ability to execute. But I think there is some logic in how we're approaching this.

So the industry we have now in excess of 13,000 customers. It's a big ecosystem play. And here's how we're organizing ourselves in the IoT industrial. What's index? You hear talking about retail robotics manufacturer energy. So it's by vertical. We go to each vertical. We have a lighthouse customer. That's where we developed the platform. Each vertical has a particular problem to solve.

Let me pick one example. If you go back to 2 years, you're going to see, once in a while, every quarter, we have some sort of announcement with Walmart as an example. Walmart is brick-and-mortar store, that now has to put e-commerce on top. When you do that, you have a lot of opportunity for technology. from handheld devices for navigation, for somebody to be picking your shopping list, how to put smart cameras looking at the shelf, electronic shelf labels. You have self-checkout -- you have a lot of different platforms. Those platforms all use those 2 Qualcomm assets, connectivity, computation or artificial intelligence. You have a number of IT service companies that are deploying those as part of their digital transformation.

Once you get that solution retail, then you just copy and paste. You can go to a Target, you go to Carrefour, you can go to Cover, you can go to it. Then energy, we're doing the same thing. We're doing the same thing with manufacturing. That's why from partners and manufacturing ranges from Bosch and Siemens, Gridspertise was spun out of Enel as a result of doing a 5G smart meter, very diverse debt was in the industrial IoT.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. And I guess I look at those 3 chunks, consumer versus EDGE network versus industrial, can you give us some feeling of like relative sizes within that group like that?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Yes. We don't break down, I think, the revenue across those 3. But I think...

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Can you give us a small list? Biggest to smallest, I mean?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Yes. But I think I can give you some color about which ones are in the very beginning of the ramp and which -- so let's just go back to each one of them. I think we're all going to agree that mixed reality, virtual reality, augmented reality, we're just at the beginning of the ramp.

So right now, you see the Facebook ecosystem in place. I think then we talk about China coming online. We also have an announcement of a VR device with ByteDance TikTok, that's coming in. Those things, just looking at the Facebook numbers alone already rich the threshold that you have

now enough devices to develop work assistant generating content. So I think in augmented reality is going to be bigger than virtual reality. So that one is the very beginning of the growth curve.

I have said that before, I repeat it today, fully immersive augmented reality glasses which will probably start as a companion of your phone, it could be as big as phones. But we'll see. You have -- we're about 5 years away from having the optics following the electronics and connectivity to get a fully immersive glass to look like this.

The second one is PC. PC, it's a market, and we've seen some growth in the market in the pandemic. But for us, it's all growth. So it's -- we believe in the transition worm. That's an opportunity for us there. That's not yet material. So what do you -- where you have XR, VR, it's a ready material, PC is not yet material. It's about to happen.

I think the other one that I want to highlight is we're just in the beginning of this 5G wireless fiber. I think we saw a lot of -- we're well underway in the enterprise transformation of the home. That was the first wave of driving a lot of demand for WiFi access point. But now with the beginning of the enterprise transition. The enterprise transition is very easy to understand because companies are going to hoteling, you come in, you book a cube, a desk, main interface between you and the enterprise is WiFi. So you have to get WiFi everywhere, high-performance WiFi for collaboration. You need to move the data to Microsoft OneDrive. So that it is at the beginning of that. And then we'll get to industrial. As I said, a lot of those solutions are still in development, and we're barely scratching the surface of the TAM there.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

So I guess, given all that, like, I mean, this business has been growing by leaps and bounds over the last year or 2 or 3. What's been driving the growth? Has it been more like of the EDGE network in the WiFi? Or is it the industry or like what?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

So if you look at our IoT segment, last quarter, 61% growth year-over-year. Each one of those 3 segments in excess of 50%. And I think the, if you look -- if I have to single out a couple of things, on the consumer, I think the story there was really, not only VR, but also tablets. There has been -- tablet has becoming a productivity in our collaboration device in a move from commodity tablet to premium tablet. Think about the competition to what is an iPad Pro into a productivity use case, the wireless fiber is on fire and industrial, what is really driving this is digital transformation of enterprises. And I honestly believe that I know that there's a lot of negativity out there, but digital transformation and enterprises it's recession-free.

If you're growing, you want to invest in digital transformation, so the increased productivity and efficiency. If you're doing cost reduction, you invest in digital transformation to increase productivity and efficiency.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. Let's talk about ARM PCs as a piece of this. And so -- there are some that sold today. I mean Windows RT started when, 2012 or whatever it was probably the original surface, right? And even today, like I can go into a Microsoft store, I can buy a laptop with a Qualcomm chip in it today. They don't sell a lot of them, but you can buy them. It sounds like you think at some point in the not-too-distant future, people are going to buy a lot more of them. Why?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Okay. First of all, it's a long journey. It's not easy to switch an ecosystem, and it's a long journey. But now you have all the elements in place, all of it. And I'll explain what is different and why do we end up finding ourselves in a great spot. First, PC is changing. Any change as a result of the pandemic and the hybrid work model. So think about PC as the work horse to productivity.

First, big change. Number one use case on a PC is now communications. That's the #1 use case on PC whether Team or Zoom. Actually, it's a little bit for the mobile industry. It's a puzzle because the mobile industry since today is a 3G trying to find a video telephony of the killer app and took a pandemic, and that actually happened on the PC first.

So it's a communication. So connectivity is very important. The new use case of PC, when we do anybody try to think about the quality of the camera of the PC. That was in the feature that people will go to Best Buy to buy a PC. Camera becoming very important. The ability to support multimedia, Ute mobility battery life becomes very important. That's one set of use cases, but I'm not going to stop there.

The second thing is a hybrid work environment change, how the PC is looked at by the enterprise. First, the enterprise is trying to move all this data to the cloud. It's easier to protect, easier to firewall, easier to maintain. So if you try to do a collaboration on a file that is Microsoft OneDrive in the cloud and you have poor connectivity that wasn't great experience. So the bar for connectivity and connectivity anywhere is much, much higher.

The second thing that is happening is on-demand computing. I'll tell you this, pandemic hit, we had to cancel MWC. 2020, I said, whatever we had prepared to go in MWC, we're just going to do a virtual trade show from Qualcomm. So we brought Lenovo in, and we did a demonstration that I thought was amazing. At the time was pre-pandemic, pandemic was starting, nobody said anything about it.

What it is, is we show a full Adobe 8K video editing in the cloud using 5G millimeter wave on-demand computing, and you had no ability to say that this was not -- could not run on your PC. So this concept of on-demand computing, if you look of an enterprise that people had a workstation, you cannot move a workstation around from home to the office. So those workloads are all moving to the cloud and you need a PC that can support that.

But don't take my word for it. Just look at what Satya said to Bill last week, the future of compute is hybrid computing as well. You can even start thinking about eventually every PC is going to have an actual meter on it. So that is another thing that dive in range.

Number three, Apple transition to ARM. When Apple transitions to ARM, it helps move the ecosystem. When a company like Adobe say, my new software is going to be native on ARM and that's going to be released, not a day late. -- that change things.

And then the last part of it is, it was a long road, but we're getting there. The Windows ecosystem, unlike the Apple ecosystem, the Windows ecosystem has a lot of legacy. It was not until Windows 11 that we now can run 64-bit app. So now with Windows 11, there is no second class windows going from R&T back there in 2012 to where we are right now.

When you put all of this in place, all that we needed to do is to bring the cherry on top and say, let's just acquire the best CPU team in the world, and let's claim the performance leadership on the CPU. And I think that it's going to be a big business for Qualcomm.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

This is NUVIA. And my understanding is NUVIA was effectively the M1 design team sort of, kind of.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

It was I think it was the team that design, I think that breakthrough ARM processor and performance. And we're going to take it to first PC, then auto and then mobile.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Why PC is first with them now?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

Because I think the PC opportunity is real and the PC opportunity, especially what we want to do, which is to go after the next-generation laptop for productivity, I think we have an opportunity to claim performance leadership.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

And to be clear, in the targets you've given at the Analyst Day, the PC opportunity is not in those targets? So it would be upside.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

It's all upside.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Okay. So that's good. Obviously, NUVIA was working on servers, and you guys did have an ARM server effort at one point, which you've kind of shut down a while ago. Is that not something you're looking at, at this point especially with that asset?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

No. Look, I'm happy to answer that question. So right now, we -- our strategy is very clear. We have an incredible opportunity at the EDGE. Of course, we'll continue to execute in mobile, but we have this automotive opportunity. We have this broad IoT. We're talking about it. We have all of those opportunities. They're perfect for Qualcomm and our assets outside the data center.

Now just put that in the shelf. That's what we're doing. That's our strategy. There's another thing happening. The data centers it's coming out. And there's -- it's moving to distributed computing. We see a lot of things in the EDGE.

When we look at our assets, the ability to scale our assets to higher performance, like, for example, inference processor or the ability to do levers on our CPUs, that's there for Qualcomm. We're -- we have -- as we execute on the strategy, we look at those as opportunistic. It's not in our model, it could be upside to our model.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Okay. Got it. Let's talk about the fourth segment or RF front-end. And I guess you could argue that (inaudible) as well, but still, this is a new opportunity for you. Now you guys had an RF front-end effort a while back, and this is RF360, and I think you sold a lot of envelope trackers and not so much of anything else.

And I'll be honest, I was in the deeply skeptical camp on this business for a long time. And now it looks like you guys are actually bigger than Qorvo and bigger than Skyworks and bigger than Broadcom, at least within their mobile. What's different this time? Was this just a matter of like adding the filters so you finally have the portfolio? Or is there something else that's going on here?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

No, it's a great question. And I think at the end of the day, it was a core competence that we needed to develop in Qualcomm. We definitely under -- it was easy to understand how we could create value because we understand the space, a lot of the RF goes to our platform as we bring any new

technology in any new band, and we needed to understand how we're going to go from digital and we had analog with the transceiver, we had envelope tracker, but how do we get to other technologies.

So we knew it will be a long road, and we did that some of organic development, some with acquisitions. But what we did is when we went into the market, we realized we didn't have all the assets, and we're not competitive. So in all aspects, I think was a premature end into the market. But we learn our lessons. So what we did was said, we're going to pick an entry point. 5G is going to be the entry point, especially because 5G has a lot of applications beyond phones. Yes, today, RF front-end is very handset-centric, but it's growing as we grow into the other markets, we're attaching RF to it.

We knew the 5G is a technology that's not only phones go to all those markets, we have a great opportunity to -- we have a platform play abstract the alphabet super frequency bands, especially for other industries. And then we set ourselves to develop every single asset so that at the individual component, we can be #1.

So we had to go develop PAs with gas, that's -- we have gas PAs. We acquired filter assets for TDK. We invest into that. And I think I remember having investor conversation with somebody said, nobody can compete with FBAR. Right now, if you think about the benchmark of performance is now FBAR anymore is the Qualcomm UltraSAW and UltraBAW. Qualcomm UltraSAW has the absolute performance benchmark in the industry right now.

But then we got Switches, we acquire Switches, we develop tuners. So when we had everything from digital to the antenna, then we reentered the market in 5G, and the strategy is working. And it's working. We're very proud of it. And we'll continue to invest in technology, and we have an opportunity to take that beyond handsets to all those other markets that we're growing into.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. What does your RF attach look like right now?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

It's -- we used this statement, and I repeat the statement because it continues to be the case. Virtually all Snapdragon designs have RF front-end attach. I think we have different degrees of attach. I think 5G is very, very high. 4G is a growth opportunity, I think, for us.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

So there is RF attached to 4G as well?

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

There is RF attach to 4G as well. We actually had also some -- starting to see traction as discredits.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Or just selling RF by itself without RF...

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

RF by itself. They start into a range. And I think it's -- it's a great story. There was 4 established players would come in as a distant #5, high degree of skepticism and -- but we were able to execute, and it's going to be a big part of Qualcomm business going forward.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

Got it. I guess within RF, what about millimeter wave? We're still waiting. Obviously, it's been deployed here in the U.S. It really hasn't been deployed very much elsewhere. I know we're waiting on China on -- so is there a -- is there a value prop -- like do consumers care -- I mean my view -- and I could be wrong. My view is it's great as long as you're like standing under the tower and like there's no tree in front of you. I mean but I'm -- you probably have a different view.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

I have a different view.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

(inaudible) think about that.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

There's multiple ways to skin (inaudible) So let me try something different. Let me try something there. When you look -- for example, you look at every single country in the world that is going to do their 5G auctions and they pick 3.5 band, right, or the C-band, there's nothing special about this band. If we were back to 2G, everybody is going to say that's a really bad band.

If you look at the price of spectrum, in above 2 gigahertz in the days of 3G was pretty cheap. The reality is there's no more spectrum available. 3.5 is the only one. The other way to look at this is, if you look at what happened, like starting with analog cellular than 2G than 3G than 4G, what happened is carrier has been accumulating spectrum. They go to those auctions to accumulate spectrum. Every single spectrum holding that they have is equal to 1 carrier of 5G, maybe 2. So you have no way to go but you needed to go to more spectrum.

Look, at Qualcomm, when we move from CDMA to FDMA, I think our founder, I remember, he said that, look, we're starting to ask into bits for hertz. There's no -- it's a very small gain of putting packing more bits in the hertz, we're acentoed with electrical magnetic waves. So there's only one solution, more spectrum. So now let's go back to that conversation. You get all those actions at 2.5, and you get maybe 100, 200 megahertz, you get 1 or 2 carriers. However, you need more -- so millimeter wave, there's nothing special about millimeter wave is the only available spectrum you can get chunks of 800 megahertz. So one answer to this question is, yes, we can fight, we can debate, it's inevitable.

Stacy Aaron Rasgon - Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst

It needs to happen as well.

Cristiano Renno Amon - QUALCOMM Incorporated - President and Chief Executive Officer

It's inevitable. We can have a discussion about timing, but eventually, you're going to run at a capacity. When you run at a capacity, you have to densify the network. Why is so much more attractive for every market to do 3.5 first because you just put equipment in the existing tower. It is high, it's high CapEx and increase OpEx for you to add new cell towers, get cell permit and all this. But at some point, it's -- you're going to need to do it. And that's going to separate the haves and the have nots. So I actually think some of the United States deployment of millimeter wave is very

strategic because we're going to have to build the gigabit society and you're going to have more and more data and you need to have the lowest cost per bit, and the only spectrum of all as millimeter wave.

Now let me give you the second part of the answer of that question. United States, it's -- Verizon is building out. Every time I come to New York, I see more coverage outdoor with mobility. I think millimeter wave works very well on the 5G standard in a mobile environment, but also works very well indoor, in a campus.

So one thing that is going to start to get traction with the early, early phases of that. I point you to an announcement we made with Microsoft and we said, Microsoft and Qualcomm jointly developed private 5G networks using Azure Edge. The enterprise always built its own telecom. It used to be the PBX, then this WiFi access point. We sell a lot of that. We're the #1 WiFi silicon for enterprise. The enterprise is going to build 5G.

So one of the things we announced the 5G Summit last month, we announced stand-alone millimeter wave chipsets because then you don't have to have any other anchor network. You just deploy it, and that's suitable to a lot of private network deployments. So the enterprise eventually is going to be driving building millimeter wave as well. So it's going to happen. It's just a matter of time.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

Got it. So we are almost out of time, and I wish we had another hour, and I guess I could do this all day. But I will give you one last soapbox. You've got a room full of folks here. Why should investors buy Qualcomm stock?

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Look, I -- of course, I have a bias, but I think investors still don't understand that some of the assumptions about Qualcomm are no longer relevant. Like, for example, let me give you the list of things. When does the 5G migration starts to low down because your growth is based on 5G migration, nothing to do with it, especially if you look at what's happening between us and Samsung.

We've seen what happened in the mobile market. It's going to go to commodity, low teens margin, not the story for Qualcomm. It's all about whether or not you have Apple business, not the story for Qualcomm. It's -- can Qualcomm really grow in a market that is already mature, which is a mobile market, not the store for Qualcomm? We actually have incredible growth opportunities in auto and IoT. We'll continue executing on it. I actually feel at the last earnings call, we had to be sorry for disappointing why was the quarter so great. But the reality is it's a new strategy. It's really about understanding that there's a lot of new markets for Qualcomm technology. And I think this company has a great opportunity. I do believe the best of Qualcomm is yet to come.

Stacy Aaron Rasgon - *Sanford C. Bernstein & Co., LLC., Research Division - Senior Analyst*

I think that's as good of a place to leave it as anything. Thank you so much for joining us.

Cristiano Renno Amon - *QUALCOMM Incorporated - President and Chief Executive Officer*

Thank you. Thank you.

DISCLAIMER

Refinitiv reserves the right to make changes to documents, content, or other information on this web site without obligation to notify any person of such changes.

In the conference calls upon which Event Transcripts are based, companies may make projections or other forward-looking statements regarding a variety of items. Such forward-looking statements are based upon current expectations and involve risks and uncertainties. Actual results may differ materially from those stated in any forward-looking statement based on a number of important factors and risks, which are more specifically identified in the companies' most recent SEC filings. Although the companies may indicate and believe that the assumptions underlying the forward-looking statements are reasonable, any of the assumptions could prove inaccurate or incorrect and, therefore, there can be no assurance that the results contemplated in the forward-looking statements will be realized.

THE INFORMATION CONTAINED IN EVENT TRANSCRIPTS IS A TEXTUAL REPRESENTATION OF THE APPLICABLE COMPANY'S CONFERENCE CALL AND WHILE EFFORTS ARE MADE TO PROVIDE AN ACCURATE TRANSCRIPTION, THERE MAY BE MATERIAL ERRORS, OMISSIONS, OR INACCURACIES IN THE REPORTING OF THE SUBSTANCE OF THE CONFERENCE CALLS. IN NO WAY DOES REFINITIV OR THE APPLICABLE COMPANY ASSUME ANY RESPONSIBILITY FOR ANY INVESTMENT OR OTHER DECISIONS MADE BASED UPON THE INFORMATION PROVIDED ON THIS WEB SITE OR IN ANY EVENT TRANSCRIPT. USERS ARE ADVISED TO REVIEW THE APPLICABLE COMPANY'S CONFERENCE CALL ITSELF AND THE APPLICABLE COMPANY'S SEC FILINGS BEFORE MAKING ANY INVESTMENT OR OTHER DECISIONS.

©2022, Refinitiv. All Rights Reserved.