

# MediaTek 4Q21 Earnings Call

Thursday, Jan 27, 2022, 3:00pm Taiwan Time

## PREPARED REMARKS

---

### Jessie Wang, IR Deputy Director

Good afternoon, everyone. Joining us today are Dr. Rick Tsai, MediaTek CEO and Mr. David Ku, MediaTek CFO. Mr. Ku will report our fourth quarter results and then Dr. Tsai will provide our prepared remarks. After that, we will open for Q&A.

As a reminder: Today's presentation will provide forward looking statements based on our current expectations. The statements are subject to various risks and factors which may cause actual results materially different from the statements. The presentation materials supplement Non-TIFRS financial measures. Earnings distribution will be made in accordance with financial statements based on TIFRS. For details, please refer to the safe harbor statement in our presentation slides.

In addition, all contents provided in this teleconference are for your reference only, not intended for investment advice. Neither MediaTek nor any of independent providers is responsible for any actions taken in reliance on contents provided in today's call.

Now I would like to turn the call to our CFO, Mr. David Ku, for the fourth quarter financial results.

### David Ku, Chief Financial Officer

Good afternoon, everyone. Now let's start with the 2021 fourth quarter financial results. The currency here is in NT dollar. Revenue for the quarter was NT\$128.7 billion dollars, down 1.8% sequentially, and up 33.5% year-over-year. Annual revenue totaled NT\$493.4 billion, up 53.2% year-over-year.

Gross margin for the quarter was 49.6%, up 2.9 percentage points sequentially, and up 5.1 percentage points year-over-year. Gross margin for the year was 46.9%, up 3 percentage points from the previous year.

Operating expenses for the quarter were NT\$34.1 billion dollars, compared with NT\$31.9 billion dollars in the previous quarter and NT\$27.5 billion dollars in the same period last year. Full-year 2021 operating expenses were NT\$123.6 billion, compared with NT\$98.3 billion in 2020.

Operating income for the quarter was NT\$29.7 billion dollars, up 1.5% sequentially and up 93.3% year over year. Non-TIFRS operating income for the quarter was NT\$30.9 billion dollars. 2021 full year operating income was NT\$108 billion, up 150% year-over-year. Non-TIFRS operating income for the year was NT\$110.4 billion dollars.

Operating margin for the quarter was 23.1%, increased 0.8 percentage points from the previous quarter and increased 7.2 percentage points from the year-ago quarter. Non-TIFRS operating margin for the quarter was 24%. Operating margin for the year was 21.9%, up 8.5 percentage points from 2020. Non-TIFRS operating margin for the year was 22.4%.

Net income for the quarter was NT\$30.1 billion, up 6.3% sequentially and up 101.6% year-over-year. Non-TIFRS net income for the quarter was NT\$31.2 billion dollars. Net income for the year was NT\$111.9 billion dollars, up 170% year-over-year. Non-TIFRS net income for the year was NT\$113.9 billion dollars.

Net profit margin for the quarter was 23.4%, increased 1.8 percentage points from the prior quarter and increased 7.9 percentage points from the year-ago quarter. Non-TIFRS net profit margin for the quarter was 24.2%. Net profit margin for the year was 22.7%, up 9.8 percentage points year-over-year. Non-TIFRS net profit margin for the year was 23.1%.

EPS for the quarter was NT\$18.99 dollars, up from NT\$17.92 dollars in the previous quarter and up from NT\$9.35 dollars in the same quarter last year. Non-TIFRS EPS for the quarter was NT\$19.63 dollars. 2021 full year EPS was NT\$70.56, compared with NT\$26.01 in 2020. Non-TIFRS EPS for the year was NT\$71.81 dollars.

A reconciliation table for our TIFRS and Non-TIFRS financial measures is attached in our press release for your information.

That concludes my comments. Thank you.

**Jessie Wang, IR Deputy Director**

Thank you, David. And now I would like to turn the call to our CEO, Dr. Rick Tsai for prepared remarks.

**Dr. Rick Tsai, Chief Executive Officer**

Good afternoon, everyone. 2021 was a great year for MediaTek. Following a successful year of 2020, we again set several financial records in 2021. We achieved a record revenue of NT\$493 billion, or US\$17.6 billion. We more than doubled our earnings per share to NT\$70.56. In addition, both gross margin and operating margin increased for 4 consecutive years. Gross margin increased more than 11 percentage points from 35.6% in 2017 to 46.9% in 2021. Operating margin increased more than 17 percentage points from 4.1% in 2017 to 21.9% in 2021.

These results reflect our successful implementation of strategies to have early readiness in 5G and WiFi 6 to capture the entire product cycle as well as industry-leading low-power computing technology, supported by disciplined operation. Meanwhile, thanks to our enhanced competitiveness in technologies, we are better able to expand our addressable markets and provide more values to our customers.

With strong business fundamentals, we are confident in sustaining a strong cash flow going forward. We therefore in last April raised our cash dividend payout ratio to 80%~85% on regular basis and launched

a 4-year special cash dividend program of NT\$16 per share per year. Based on our 2021 EPS of NT\$70.56, we expect our cash dividend payment in 2022 to be in the range of NT\$72 to NT\$76, subject to Board of Director's approval.

On the business side, all revenue groups delivered strong annual growth rates in 2021. Altogether, more than 2 billion electronic devices sold in 2021 were enabled by MediaTek solutions ranging from smartphones, smart TVs to routers, broadband, notebooks, tablets and a large variety of devices. These billions of smart edge devices are complementary to the fast-growing cloud computing and play a critical role in enriching everyone's cloud experiences. Motivated by the convergence of smart edge devices, we recently made some changes in business organizations to consolidate our resources and invest heavily on the fast-growing computing, connectivity and smart edge platform businesses. We will also align revenue disclosure with these changes starting from 2022 with 3 groups: Mobile Phone, Smart Edge Platforms and Power IC.

Along with this trend and our continuous expansions in addressable market, we foresee our total addressable market to grow to US\$140bn in 2024 from US\$80bn in 2021. For MediaTek, with such growth prospects as well as strong and matching technologies, we believe we will enjoy revenue CAGR of mid-teens% for the next 3 years with all revenue groups growing robustly.

MediaTek possesses all the key technologies and capabilities for the smart edge devices. We offer high performance, low power CPU, GPU and APU. Our comprehensive and synergistic portfolio of short/long range wireless/wireline technologies, that is, 5G modem, WiFi 6/7, Bluetooth, 10GPON are industry-leading. In addition, the high quality camera, video, audio IPs using our superior edge AI techniques provide highly differentiating values to our key customers. All these technologies, IPs and capabilities are integrated into various products, serving multiple and complementary platforms, in a most efficient manner. Power ICs, being broad based in nature, provide not only values to MediaTek products, but also steadily growing revenue.

Still, we continue to invest aggressively in technologies for the future growth beyond 3 years. We are extending our core capabilities into higher power computing, high performance/low power graphics IPs, 5G modems with low latency, massive distribution applications, next generation WiFi, security IPs, all of which will be integrated into advanced system architectures for different platforms and ecosystems. Underneath them all are the leading edge process as well as 3D chiplets technologies in collaboration with our foundry partners.

Lastly but importantly, we collaborate closely with our key customers and ecosystem partners at the early IP/product development stage in order to optimize the system performance and greatly enhance the user experiences. MediaTek strives to be a reliable and trustworthy partner to our customers, as we become more relevant in the industry.

The business momentum that we have built in the last couple of years, our broad-based product offering and continuous technology migration within our competitive portfolio will make 2022 a resilient year for MediaTek, despite the potential uncertainties in the end market. We expect, in 2022, our revenue

growth to exceed 20% with a gross margin target of 48 to 50%, thanks to better product mix and strong technology migration.

With that, let me comment on 2022 growth drivers for each revenue group,

For Mobile Phone, as the largest smartphone SoC maker, we aim to sustain our leading position in 2022. Our main growth drivers this year will be continuous 5G migration in more regions and expansion into flagship segment.

We expect global 5G smartphone penetration rate to grow from high-30s% to exceed 50% this year, which represents approximately 700 million units. Although 5G penetration rate in China stays high at 80% where we aim to sustain our leading position, we expect 5G unit growth to mainly come from other regions. We expect our 5G shipments to regions outside of China to double in 2022, due to our strong 5G design-in pipelines with global customers with extensive market position in North America, Europe, India and other emerging regions. In addition to our strong Sub-6GHz portfolio, our mmwave SoC has also been certified by a global major operator with mass production starting in the second half of 2022 for global market.

We are also every excited about our expansion into flagship. The technical capability and user experience of our first flagship SoC Dimensity 9000 is highly-recognized by the market. Major benchmark data shows that Dimensity 9000 has a powerful CPU with the best power performance. All major China brands have adopted Dimensity 9000 and the first model is scheduled to launch in March. We are also working closely with key customers to market the Dimensity 9000 as a leading 5G SOC brand. With our strong technology investments, we will continue delivering future generations of flagship products.

For Smart Edge Platforms, we are still at the early stage of technology migration in WiFi6, 6E, 5G, Bluetooth 5.0 and we expect multiple-year growth opportunities ahead of us.

In addition to technology upgrade on existing platforms which contributes most of the growth for this group this year, I like to point out that our ability in expanding into new platforms and capturing emerging opportunities through leveraging our leading technologies will begin to pay off this year.

First, with our early readiness of 5G modem and WiFi 6E, we have been able to penetrate the notebook market successfully. Our partnership with Intel and AMD help us build a strong design-in pipeline with all major global OEMs. As more notebook models start mass production this year, we expect revenues from this new platform to grow meaningfully.

Furthermore, we are seeing other revenue generating opportunities starting to bear fruits. One example is Customer Premise Equipment, or CPE, for global operators where we ship multiple products including the main chip, 5G modem and WiFi6. Another example is AR gaming device where we provide the critical multimedia SoC. These developments will provide future growth in this area in years to come.

For Power IC, the structurally higher demand driven by accelerated technology migrations continues into 2022. We offer power IC solutions in diverse industries including computing, communication, consumer, automotive and industrial.

Product sales through Mediatek group platforms such as Smartphone and smart edge devices will continue to grow robustly this year and to account for about 30% of our power IC revenue. Non-group-associated businesses including fast-charging adaptor, Type-C and memory related power IC products will grow even faster. Among which, automotive and industrial applications are showing the highest growth rates and will account for more than 10% of our power revenue this year.

For the first quarter of 2022, we expect revenues coming from higher 5G adoption and flagship Dimensity 9000 shipment to offset lower seasonal demand for certain consumer products. We also expect mix shift towards higher-value added products across all revenue groups and bring benefits to gross margin.

We therefore forecast our first quarter revenue to be in the range of NT\$ 131.2 billion dollars to NT\$ 141.5 billion dollars, up 2% to 10% sequentially, and up 21% to 31% year-over-year at a forecasted exchange rate of 27.7 NT dollars to 1 US dollar. Gross margin is forecasted at 49%, plus or minus 1.5 percentage points. Quarterly operating expense ratio to be at 25%, plus or minus 2 percentage points.

To summarize, we are making very good progress towards 2022. Based upon our 20%+ revenue growth target this year, US\$20 billion dollar revenue is around the corner and this will be the beginning of a new chapter for MediaTek. With our business realignments to invest heavily in computing, connectivity and smart edge platforms, we believe we are on the right track to capture future growth opportunities, along with healthy smartphone growth. We are confident to achieve our 3-year mid-teens revenue CAGR target and to create shareholder value.

This concludes my prepared comments. Wish everyone stays safe and have a happy Chinese New Year, thank you.

### *[Q&A]*

#### **Q - Randy Abrams, Credit Suisse**

Thank you and congratulations on the results, also looks like a good outlook. First question, I wanted to ask on the business segments, a two-part question. I think first, just the motivation to combine, it looks like you're combining the compute, IoT, networking with what used to be the smart home or mature product, which originally had much different growth rates, so I wanted to understand the motivation to combine. And then the second part, if you could give the fourth quarter by segment, either the revenue or the growth, and also a rough view on the split for 2022 or growth by segment?

#### **A - Dr. Rick Tsai, CEO**

Okay. Randy. I'll take the first part and David will do the second part. The consolidation of our two business groups, actually multiple objectives, for example, the most important is to create scale. Well,

these two businesses comprise about 6 billion revenue last year, within which there are many synergies where they were kind of artificially separated before, I mean like TVs. We have strong smart and AI enhanced display capability, where they will be utilized easily to our smart vision product lines and also to our OTT, and all the WiFi products that we have almost being utilized in TVs and all the other products. So the strong synergy among different product lines and with the consolidation of the R&D resources will be combined also. We will be more productive in our R&D resource division and also those R&D resource will be asked to deliver the new business opportunities and that's mainly why, Randy.

**A – David Ku, CFO**

Okay. Randy, for your second question. Maybe I talked about the growth rate last year for the 3 business groups and also talking about the revenue breakdown roughly. I think for last year, basically overall, all business groups grew more than 30%, probably the strongest for the mobile phone sector. But I think the key point is, all groups grew more than 30%, that's point number one. Point number two, in terms of revenue breakdown for fourth quarter last year for the 3 business groups, I think mobile phone accounted for roughly 52% and power IC accounted for roughly 7% and the rest go to the smart edge platform.

And for this year given the fact like the CEO talked about earlier, I think this year, we're looking for another strong growth year and more importantly all 3 business groups, all have pretty robust growth rates. I would say the revenue, the percentage of revenue contribution to be pretty much in line with what we had in the fourth quarter last year. I don't see there's any big movement or change there.

**Q - Randy Abrams, Credit Suisse**

Okay. And to clarify then, all three groups probably pretty similar near that 20% average?

**A – David Ku, CFO**

Yes, I think profitability they are also very similar as well.

**Q - Randy Abrams, Credit Suisse**

Okay. And actually the second question I wanted to ask on the, more the profitability side, margins have seen a good expansion. I feel like it's two things, it's mix, improving competitiveness, but also you've had the industry tight supply environment, which has been a good seller's market. I'm curious your view, factor in you have the vector of competitiveness, but also supply environment starts to shift. How you are looking at the base of margin, if this is the new level where we should start looking at 50 plus, or just being mindful, it's a good environment could come down. So curious your view on gross margin.

And then for OpEx, there's been a lot of talks about hiring and getting more aggressive after keeping headcount pretty stable the last few years after buying MStar. So, if you have a view on OpEx and hiring for this year.

**A - Dr. Rick Tsai, CEO**

Okay. Randy. We expect, as we said in our opening remarks, we're looking at 48% to 50% gross margin budget and we are also looking at the resilient year 2022, despite what we believe there will more uncertain in the macro environment. China, US, et cetera. So in that sense, the supply and demand imbalance which we have seen or the industry had seen last year and a large part of 2020, I think will be a bit more moderate in 2022. But because of our technology migration capability and our mix improvement, we still believe we can improve our margin to what we now forecast. Whether we're going to do better, I mean, I think this year with supply demand being more moderate, we will have to work with our customers also with our suppliers, we will optimize our margin going forward. The second question?

**Q - Randy Abrams, Credit Suisse**

Okay. I will then, just quickly on the OpEx outlook.

**A – David Ku, CFO**

I think Randy, I think for the OpEx ratio, I think like the guidance gave out is around 25% plus/ minus 2%. I think for this year compared to last year, I think our strategy is still invest heavily and aggressively for the growth for the next three years plus. So the goal is actually, probably trying to maintain, probably slightly down a little bit. I think last year the OpEx ratio was around 25% to 26%, this year I think the goal is actually to keep around 25% so would be a similar level. But overall, I guess, given the fact that we can continue to grow the top line and also improve the profitability and actually the gross margin, I think overall, we should be still looking for another year of operating margin improvement.

**Q - Gokul Hariharan, JPMorgan**

Thanks for taking my questions. Congrats on the good result. I just want to focus on the longer-term guidance, the mid-teens long-term growth and expansion of the addressable market opportunity. Could we talk a little bit about as you see the addressable market grow from 80 billion to 140 billion. What is the main driver, are we addressing new markets in the next three years or is it just the addressable market growing at that rate?

And also when we think about mid-teens growth for overall MediaTek in the next three years, which are the segments which are growing faster? If you think about mobile, smart edge and power IC, which are the segments which are growing significantly faster than the mid-teens? That's my first question.

**A - Dr. Rick Tsai, CEO**

Okay. We expect all three groups, of course, to grow pretty robustly. For the coming three year, I think a lot of the growth will come from the technology upgrades and the products, much better product mix we have already put in place now in 2022. However, we see mobile growth rate compared to smart edge platforms growth rate, smart edge platform growth will be higher compared to mobile phones.

The power IC also is always a very steady and very good. So for '21 to '24, we see our SAM moving from TWD80 billion to TWD140 billion. We are not counting any very new market, addressable market, which by the way, with our heavy investment in our R&D, will come in after three years, I must point out. Thank you.

**Q - Gokul Hariharan, JPMorgan**

Understood. That's very helpful. Thanks, Dr. Tsai. Second question on 5G in mobile, usually what happens when we reach 60%, 70% penetration in 5G, we start to see prices start to come down a little bit. How do you see this evolve, at least in 4G that happened, 3G also happened, do you see that happening in 5G as well? I think previously you had guided that ASPs for 5G should still be going up this year. But as we look forward, do we see that prices start to come down for 5G beyond this year, or do you think that 5G penetration can actually stay around these levels?

**A – David Ku, CFO**

I think at least for this year, for 2022, like we explained earlier, we still see flattish to slightly up on the blended 5G, but more importantly if you look at our business spreadsheet, the mix between 4G and 5G continue to improve. So on the blended ASP which including the old smartphone sector is actually heavily attractive, but even you only look at the 5G, we believe it's still pretty flattish to slightly up, mainly due to, what we talked about earlier, the business expansion, which including the smartphone segment expansion and also the global expansion. I think one thing I'm trying to highlight, is that when we say global expansion, maybe people still have the impression talking about the emerging market, but in reality, like we talked about last time, even for US market last year alone, I think we ship more than 30 million units of smartphone. And this year I think the number should be continued to grow. From a market share perspective, in US Android market share last year, we believe our market share is north of 35% and this year will continue to increase. So the global expansion and also some segmentation expansion really help at least for this year. For next year, I guess maybe a little bit too mature, too early to talk about that, but overall, we do believe as long as we can continue to enjoy the technology migration and also expansion of our addressable market. We should be able to cope with the mix change nicely.



**Q - Roland Shu, Citi**

Happy New Year and congratulations about the very good result. First question, David, you mentioned about the mix between 4G and 5G SoC continue to increase. So, may we have the 4G and 5G SoC revenue breakdown in last year? And also in this year, will we still continue to grow 4G SoC revenue in 2022? And also from the gross margins point of view, how about the 4G and 5G SoC margin compared to corporate average now?

**A – David Ku, CFO**

Roland. First of all, for 4G/5G breakdown on revenue, we didn't really disclose that externally. But if I can share with you, the 5G revenue is more than 50% of overall smartphone already and is continue to grow strongly this year, given the facts like we talked about earlier, the penetration rate will increase from last year 30% to this year Globally of more than 50%, and we enjoy the global expansion, again, not just in China, global expansion. I think that's that much we can disclose. In terms of gross margin, I think right now, it's pretty much for all product lines and also all our business segments, they are pretty much in line with corporate average. Okay, there are some difference, but I won't say it's a big difference. Some of them higher, some of them lower, but I would say actually it's all within the guidance range.

**Q - Roland Shu, Citi**

Okay. So how about for the 4G absolute revenue this year? Are you going to continue to grow the 4G revenue this year?

**A – David Ku, CFO**

No, I think for the absolute revenue obvious is probably more flattish, maybe even down a little bit, if the volume wise to come down for the good reason, because a lot of 4G will be converting to 5G.

**Q - Roland Shu, Citi**

Understood. Okay. Second question, could you comment about for your inventory? So your inventory actually has been going high. Among all your product lines, what product carries the highest inventory level and what product is with the lowest inventory level? Are you expecting for any like the inventory correction? Any comment?

**A – David Ku, CFO**

I think, first of all, before I commenting about the details of inventory, I'd like to talk about the market inventory or the customer inventory. I think in general what we see on both on the channel side and also on the customer side, I think the inventory level even though compared to last year has slightly

increase, I guess mainly due to a lot of customers still trying to strategically use some inventory off slightly higher inventory level to manage the uncertainty for the supply chain. But overall, on an absolute level, we do see both from the channel side as well as from the customer side, the inventory level is healthy and manageable. Then come back to the MediaTek side, I think, our inventory again, compared to last quarter, Q4 versus Q3, it actually increased. I think mainly due to we need to cope with the current market situation. And to make a long story short, we do believe around 100 days of days of inventory is normal, and is actually probably a better way to manage, given the overall situation.

What do I mean by the overall situation, if I just detail it out, actually what we need to consider about is a longer lead time for advanced node, and also the overall foundry and OSAT capacity, and pricing consideration, and also of course, we need to take into consideration about the market competition situation and also the last are the customer requirement. But overall I guess, we do believe it's manageable and also it's healthy and is for the preparation for the future revenue growth.

**Q - Brett Simpson, Arete Research**

I wanted to ask on pricing generally, but on mobile, on the smartphone business, we understand you've made material price increases in 4G and also a price uplift in 5G. Can you maybe just help us understand is this fully reflected in Q1 guidance, or do we see some of the price increases coming in Q2? And more broadly, and this goes for the broad portfolio you offer, and with pricing going up reacting to the foundry cost increases, how do you think the consumer, how do you think price rises impacts consumer demand this year, or do you think it's relatively inelastic? Thanks.

**A – David Ku, CFO**

Brett, I think for the pricing, let me be precise, I'm simply talking about two elements, one is actually our cost, which is the foundry pricing, and another part actually is our pricing. I think all start happening fourth quarter last year already, and first quarter this year, the guidance do including the new pricing on the MediaTek, by the way happening, starting from last quarter, and also the new pricing on the new cost element for MediaTek, basically starting from fourth quarter last year. So short answer is yes, it's including in the guidance already.

And the second question would be, will the new pricing is having any impact of overall volatile market demand. I guess actually is for any price increase, certainly we will have some impact, but overall, if we net it out, we still see actually it's the overall impact on the demand, may be later we'll talk about that, the demand still looks solid and healthy. That's what we see for the moment even after the pricing.

**Q - Brett Simpson, Arete Research**

And maybe just as a second question for Rick. You talked about a sort of slight shift on how you're addressing the Smart Edge and even your computing is one of the key growth drivers. Can you maybe

talk a bit more broadly about the strategy here? Are you going to address Window's 11 with your platforms? And I guess on the GPU side, you use a lot of Mali today and Mali doesn't support Direct X, and things like raytracing, which you're going to need if you move into the computing market more broadly. How do you address or how do you think about graphics? Because I guess when you look at the players in computing today the NVIDIA, AMD and Intel, they have significant resources in graphics, which are very different architectures to what we see in smartphones, so I'd just like to know your strategy here in GPUs.

**A - Dr. Rick Tsai, CEO**

Okay. Understand the question. It is indeed, computing is indeed an addressable market, fair large one for MediaTek, where we have, I would say quite small exposure. We have built quite strong capabilities in computing, CPU, GPU, APU. We also understand those are mostly based on the mobile, flagship mobile applications. We have some way to go, both on the technology point of view and from the ecosystem point of view, we understand that. That's why I said earlier in one of my response that some of the large addressable market, is not now in our three-year forecast, or addressable market, maybe a small portion.

But, so you can tell our horizon is beyond three years, it's more like a four years and beyond. And then we certainly, that is also a big reason why we are investing resources in R&D and therefore developing for future addressable market. They are not easy we understand, certainly GPU being a very challenging technology for that kind of market. We are, I cannot really disclose our strategy, but we are looking at not just the certain IP as you just mentioned, we must, we don't exclude any possibilities within the industry.

But the important thing is, I think, I believe with the revenue we have, with the revenue growth we have, going forward with the margin that we have been improving, we have, well, pretty good capability from financial point of view for sure, and our capability to recruit now much better high talent people to move forward. Thank you.

**Q - Brett Simpson, Arete Research**

And maybe just a follow-up to that, Rick. I guess, there's a lot of hype around metaverse. We're seeing a lot of new products being introduced at some point this year. When would you expect MediaTek to have a platform to address this market?

**A - Dr. Rick Tsai, CEO**

We're almost there. Actually, this is a major part of our, again, our addressable market. We have been working with some of our key customers with certain VR- or AR-specific applications. We have built, I think not 1, but some of our MediaTek's really core competencies are low-power technology capability and low latency capability, which was very good performance from a computing point of view, not to

mention all the connectivity modems, WiFis, the Bluetooth. So we have all the elements. I'm sure you understand.

And, of course, the metaverse is, I don't know whether it's young or not, it's fairly young. We know it's going to be big. We are working with, or shall we say, key system companies to work with them in making our technology into the devices for those applications. There is no doubt in my mind that MediaTek will be a major player in the metaverse universe, shall we say. There's no doubt in my mind. It's just, but I'm not so sure that we're having in 1 year or 2 years. It will take a little while. And that's fine with us, because we have, I think, as I said, a very strong already fundamentals that will give us the competing capability and advantages.

**Q - Sunny Lin, UBS**

So my first question is on the supply chain tightness. I want to get your thoughts on how long does the foundry supply constraint may sustain? And would you anticipate further margin impact from the foundry cost increase for next couple of quarters?

**A – David Ku, CFO**

Well, I think for the supply chain situation, just like the CEO talked about earlier, compared to last year, I think it's actually, some of it is up a little bit, but it doesn't mean actually there is ample supply is out there. I think, probably the best way to think about that is actually still tight, but manageable. And given our overall operating and also given, especially given the size we have, I think relatively speaking is actually we got ample support for what we need for this year.

In terms of pricing, I think, I'm talking about the supply chain pricing, I think, overall, given the market uncertainty and also given the overall demand situation, I guess, our views are probably is actually it's not a good time from the supply chain's perspective to think about increase of price, that's our view.

**Q - Sunny Lin, UBS**

Second question on the same market size that you mentioned. So for 80 billion going into 140 billion, would you be able to provide the breakdown by key markets?

**A – David Ku, CFO**

Yeah, certainly. I think for the 80 billion in 2021, roughly 40 billion is on smart edge platform and 10 billion in power IC and the rest go to mobile phone. And by 2024, our view is actually on the smart edge will grow from 40 billion to roughly 80 billion, power IC will growth from 10 billion to 14 billion to 15 billion, mobile phone will grow to 50 billion. I think that's our view.

**Q - Sunny Lin, UBS**

So a few years ago, you mentioned that your plan for automotive. Is that still ongoing? Is that part of the smart edge for your business?

**A - Dr. Rick Tsai, CEO**

Yeah, it is. Actually, we have built a pretty good and competitive product in the infotainment applications, smart cockpit and, of course, the modem, 5G modem modules. But we have won some, I would say, critical win with the OEM. We have not made a big noise out of it, because the revenue so far is not huge. And the automotive business is a very time-consuming go-to-market kind of a business. MediaTek certainly is in this very important segment. And as we move on, we will -- I mean, there are some -- like some new, but very significant EV startup that we will work with to develop product for them in the future.

**Q - Bruce Lu, Goldman Sachs**

Congrats on a great result, and thanks for the detailed update for the addressable market. I try to ask a question about the profitability and the sustainability. We understand that the foundry raised the wafer price and you guys did a very good job in terms of pass-through the cost, which delivered good margins in the first quarter. So what's your customers' feedback and how does that look for the margin profile throughout the year? I mean, I do remember that Rick was mentioning that the first quarter is a new chapter of your profitability. And do we expect the margin will continue to trend up throughout the year?

**A – David Ku, CFO**

Yeah. Bruce, I think during the opening remarks by our CEO, Dr. Rick Tsai, I think we talked about from a year-over-year perspective, I think we do basically address up. I think if you recall earlier last year, the guidance for the full-year we gave out was 44% to 46%, and we end up actually probably slightly on the higher end, actually exceed the high end of our guidance. And this year, I think the overall guidance is 48% to 50% and, of course, as you can assume, we are working toward the mid to high end, if not exceeding it a little bit. I think that's the goal.

But given the fact, actually there's still a lot of uncertainty and also now we're only talking about it like, not even end of January yet. So, we probably won't be able to provide more detail, but overall, I think if I'm looking at the fourth quarter gross margin and also if I'm looking at the guidance we gave out for the first quarter, which is the 49%, plus-minus 1.5%, to answer your question directly, I think both from of the profitability and also from sustainability perspective, we do have certain level of confidence. I think mainly due to, again, 2 factors: the continued migration for technologies and also the expansion, not just on the flagship side, but also on the global expansion. I think that 2 factors together do give us a certain level of confidence to continue improve the profitability as we indicated earlier.

**Q - Bruce Lu, Goldman Sachs**

So my next question is more for your M&A strategy. I mean, I saw a very different phenomenon between MediaTek versus global peers like Qualcomm or NVIDIA, who are usually trying to acquire a big company trying to use M&A to expand their product portfolio. But from a MediaTek perspective, the company acquired ILITEK and sell it out the SigmaStar, Airoha, all these companies. When you invest in them, I didn't think you sell them and make a very good money out of it, but you don't really include them into your product portfolio to enlarge your product offering. So why is that there is a big difference between MediaTek strategy versus the global other fabless companies?

**A – David Ku, CFO**

Bruce, I think what you talked about probably is only the partial picture rather than the full picture. For example, for most of the, sort of the target or company we acquire, actually we keep this in-house and grow nicely. Just to name a few for example, for MStar, right now, it's actually 1 of the foundations or key pillar for the smart edge device business. And also for Richtek, right now actually last year we talked about the revenue growth, by the time we acquired it, the revenue was something about 500 million, but now we grow the revenue last year to more than 1 billion. And more importantly, and we also talked about for PMIC IC more than 10% revenue come from automotive and also from industrial. Well, another example is actually Ralink, actually maybe too long ago people forget about that. And we acquired Ralink and right now more than 2 to 3% of revenue is actually coming out from Ralink in the space of IMB or the connectivity.

So we do actually have a pretty solid M&A track record. So what you talk about is the audience, from the seller side wise or from the revenue side, it's actually much smaller, but we can actually, probably given your question, the short answer is MediaTek is actually also consider about M&A in the past and also going forward, I think that will be one of our growth strategies.

**Q - Bruce Lu, Goldman Sachs**

Well, I do understand the Ralink, Richtek, but that was like more than five years ago. What I'm trying to say is that, in the last 3, 4 years, the industry is in series consolidation. But for the last 3, 4 years, we just don't see that coming from MediaTek. Is there any particular reason behind that or?

**A – David Ku, CFO**

Bruce, sometimes M&A take 2 parties to make a deal. And it's, actually is, so it's not like we want to do a deal, the deal will happen. I think the only thing I can say is, actually we see this as a one of a possible option and we've done that so many times and whether or not it's the right timing, or right topic come out, it's actually sometimes out of our control.

**A - Dr. Rick Tsai, CEO**

Well, it is definitely in our picture. If you look at MediaTek during the last 4, 5 years, we, actually we just had to basically turnaround our business first and invest in technology, without which, I mean, there is really no good base to make any major M&A and successful M&A. And I think MediaTek is now in a much stronger foundation that we can be more aggressive. However, David said that well, too, it takes 2 to make a deal, but we are going to, we are looking at all options.

**A – David Ku, CFO**

If I may, maybe I can add 1 thing. I mean, since all analysts is on the line, actually it's another issue it's actually on the Taiwan accounting system, I think doing M&A, most of the US company can reporting for GAAP and people focused on non-GAAP. So, when you look at our financial announcement, we actually disclose, in Taiwan, what we call non-TIFRS. Unfortunately, I think most of industry analyst basically people on the line, probably only focus on the GAAP. I think that's actually is another issue somehow limit Taiwanese company to go out and buy a sizable company. Because once you go out buy a sizable company, you will incur sizable depreciation. So we need to focus on non-GAAP. I think it's a good time for me to also bring this up as well, that's why we started to disclose the non-GAAP, which is the non-IFRS number three years ago. But when I read the research report, to be honest, not too many people report that, so maybe that's a good point, Bruce. Maybe you can help us going forward.

**Q - Bruce Lu, Goldman Sachs**

I mean, well, definitely, you guys did a big acquisition I would definitely start to learn more about the non-GAAP and report to investors, as well as analysts maybe need to be educated a bit more. I don't disagree. But the reason I asked this question is that, MediaTek is a highly, highly consumer-centric business nature with higher exposure in China. So if you want to get a faster track to get into the enterprise business, non-China business, M&A might be a fast track from a lot of investor perspective and we are just trying to see if the management is aggressive in terms of doing that, because that's the underlying rationale for me to ask the questions.

**A – David Ku, CFO**

Bruce, I'll probably just make a final closing and then we move on to next question. Well, first of all, like the CEO said, M&A is our strategy. And the second of all, when you talk about MediaTek, a lot of revenue coming from China, I would say, that's again it's the wrong impression. When you compare the revenue contribution from China between MediaTek, Qualcomm and Intel, I think we are on the same level. So that's just 1 clarification on that.

**Q - Charlie Chan, Morgan Stanley**

A Happy Chinese New Year ahead. So my first question is easier is about the Windows opportunity. You said that in your 140 billion in TAM opportunity and for WOA or the PC CPU market, what is the TAM that you are looking at, and the starting point of the revenue contribution? That's my first question on WOA.

**A - Dr. Rick Tsai, CEO**

I think I answered that question earlier, it is not in our 140 billion addressable market. I mean, it doesn't mean we're not pursuing that, it's just going to be 4 years and beyond, we need some time.

**Q - Charlie Chan, Morgan Stanley**

Okay. Any reason that it takes longer time? Because, I mean, in terms of how we are design, you already have a big success in the Chromebook processor, whereas your major competitor Qualcomm seems to overcome the ecosystem easier. So I'm just a little bit surprised why it takes much longer for MediaTek.

**A - Dr. Rick Tsai, CEO**

Well, Chromebook, yeah, we have been doing well. And we certainly will continue to invest in that segment for sure. That segment actually has a very high synergy with our current investment in the flagship chips. I guess, what I am talking about is really sort of much larger addressable market, including Chromebook, which takes higher power computing capability ecosystem synergy.

If you look at our competitor, the time, the years they have taken to be where they are, of course, I don't know really well how much their revenue is. So it is a market that we recognized to be very large, but also with different kinds of barriers. And we must address those barriers in a very robust manner. I think again, we are in a good position that we don't have to rush, that's quite important. I want to do the right things. I want to set the right strategy and execute them well.

**Q - Charlie Chan, Morgan Stanley**

So I think sometimes it's a good strategy is to bide your time, patient, but I also noticed that you are kind of ahead about no matter WiFi 7, which for end market I think should be 2 years later and even your 6G Vision White Paper, right? I think that is a great paper, but in the paper you mentioned that the timeline should be 2030, right? So what would the company want to kind of take a lead of, kind of a very leading edge, kind of from thinking about future technology? And do you think MediaTek can really kind of lead the world, especially MediaTek was very successful in China or emerging market features, and now 6G seem to be kind of the leader for the world. So can you explained kind of the rationale behind why you want to do this so early?



**A - Dr. Rick Tsai, CEO**

I'm just trying to make sure I'm answering the question, your questions. First, I think, WiFi 7 or 6G, I'm very proud that we have made tremendous progress. If you look at where we were 4 years ago with WiFi6, for instance, our market position versus our major large US competitors, we were behind. Now, we are kind of, at least shoulder-to-shoulder.

6G we have done a tremendous job with 5G modem, and the, we have invested in high talent people so that we have 6G blueprint. These are the things that, which are very difficult, very challenging, but on the other hand MediaTek does have a handle. Computing market is, I mean, it's an existing market for a long, long, long time. However, it's not a big existing market for MediaTek, at least yet. So the pace from our end, it's not whether we want to invest or not, we do and we are putting resources. I just don't want to put in undue expectations. And I want to make sure that for the next 3 years, we can keep our forecast of mid-teens percent growth based on what we know, what we are doing and what are we working on the 3- to 5- year horizon that we can also deliver a good growth target for that. So it's not that we are not being aggressive, we are, but I don't want to put in undue expectations.

**A – David Ku, CFO**

Rick, if I may, actually, Charlie, I think one thing I'd like to be clear is by, listening to your question I think maybe there's some miscommunication. I think from an investment perspective on WOA, I think what Rick talking about, we've actually been aggressive. So for investment, we've been aggressive. Just about the expectation, and also about the mid-teens growth, we didn't really factor in a huge number, I think that's the clarification on that. But it doesn't mean we won't invest in 2 or 3 years later, actually, we talk about want to invest right now for 3 years later market, I think during the opening remark by CEO, Rick.

**Q - Frank Lee, HSBC**

I just wanted to have, I guess, a follow-up question on this long-term growth of mid-teens. I think the last year or 2, we've seen the tightness in semiconductor leading to price increases. As you look forward as part of your long-term growth, is there any assumption of ASP improvements going forward as part of this long-term growth target?

**A – David Ku, CFO**

Well, I think, the answer is probably yes and no. "Yes" means it's actually through the product mix and also getting to the higher end, we do expect to grow the ASP will continue to improve. The "no" part is actually, is currently, we didn't really factor in sort of the simple price adjustment for mid-teens growth.

**Q - Frank Lee, HSBC**

Okay. So basically what you're saying is that, ASP increase is really the function of content growth going forward?

**A – David Ku, CFO**

In technology and content, yes.

**Q - Frank Lee, HSBC**

Okay. And then just, and sort of like a positive, because I know you gave a good breakdown in your 80 billion target in 2021 getting to 140 billion, and the different areas that are growing. The smart edge looks like it's growing the strongest, from 40 billion to 80 billion, but others are also growing. Is it safe to assume, if we could, I know it's difficult, but is there a way you can just give us an idea, from a content growth perspective, the percentage increases, should we expect the biggest to come from the smart edge?

**A – David Ku, CFO**

It's actually from all 3 business segments. For example, for mobile phone, like we talked about from 4G to 5G and also into the flagship that actually, by content growth. For the smart edge, which including WiFi 6, WiFi 6E, WiFi 7, that's actually another example of content growth. Another example is actually, for example, for the wireline communication, the G-PON, 10G-PON. So I think really just on the whole segment. For PMIC, power IC, for example, we get into that industrial, get into automotive, actually that's also performance of content growth. So it's actually happened in all 3 sectors. And if I want to add anymore, it's actually on the smart edge platform due to the variety of products over there, we also have an element of volume growth as well.

**Q - Frank Lee, HSBC**

And then, I guess, my last question is on the auto, I know you guys addressed this a bit as well, but I guess, as far as, because it seems to be a major growth area for a lot of people in the industry. Is there any more specifics you can share, as far as like from a product point of view within auto, that you were targeting more to breakthrough? I know you talked about infotainment, but is there any other areas in auto that you think would be the biggest opportunity for MediaTek in the next couple of years?

**A - Dr. Rick Tsai, CEO**

I think with automotive, we also, we look at our competencies. Our competence line in computing, in connectivity. And the new products that we will be developing, certainly probably will be with our

major competences and then maybe expand some. But we certainly have the power IC capability. Whether we will go to a point of very high voltage power IC, that remains to be seen.

**-End of Q&A session-**