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TEXT version of Transcript

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Presentation

Operator [1]

[Audio Gap]

and investors for Infineon's 2022 Fiscal Second Quarter Results. Today's call will be hosted by Alexander Foltin, Executive Vice President, Finance, Treasury and Investor Relations of Infineon Technologies. As a reminder, today's call is being recorded.

This conference call contains forward-looking statements and/or assessments about the business financial condition, performance and strategy of the Infineon Group. These statements and/or assessments are based on assumptions and management expectations resting up on currently available information and present estimates. They are subject to a multitude of uncertainties and risks, many of which are partially or entirely beyond Infineon's control. Infineon's actual business development, financial condition, performance and strategy may, therefore, differ materially from what is discussed in this conference call. Beyond disclosure requirements stipulated by law, Infineon does not undertake any obligation to update forward-looking statements.

At this time, I'd like to turn the call over to Infineon. Please go ahead.

Alexander Foltin, Infineon Technologies AG - Head of Investor Relations [2]

Thank you, operator, and good morning, and welcome, ladies and gentlemen, to our earnings call for the fiscal second quarter in 2022. As usual, we have the entire Management Board on this call. What is not usual is its composition: Jochen Hanebeck, for the first time in his role as CEO; for the last time, Helmut Gassel, Chief Marketing Officer; Constanze Hufenbecher, Chief Digital Transformation Officer; Sven Schneider, Chief Financial Officer; and Rutger Wijburg, our new Chief Operations Officer.

In our procedure, you will find continuity. Jochen will open the call with remarks on the market situation and divisional performance, followed by Sven commenting on our key financials. Jochen again will provide the outlook and highlight key messages.

The illustrating slide show, which is synchronized with a telephone audio signal, is available at infineon.com/slides. After the introduction, we will, as always, be happy to take your questions [Operator Instructions]. A recording of this conference call, including the aforementioned slides and the copy of our earnings press release, as well as our investor presentation are also available on our website at infineon.com.

And now, Jochen, over to you.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [3]

Yes. Thank you, Alexander, and good morning, everyone.

We are going through an exceptional period of time. The geopolitical and macroeconomic background has gotten cloudier over the past couple of months. The war in Ukraine is, first and foremost, a human strategy, but also has severe actual and potential economic consequences, causing scarcity and rising prices for certain materials and energy supplies. Inflationary pressures in most countries are increasing, while GDP growth prospects are being revised lower. And then there's still the pandemic. COVID-19 continues to impose significant restrictions on supply chains, as exemplified by the situation in parts of China.

How does our business situation look like in this environment? To begin with, we concluded a successful March quarter with the revenue and profitability trending upwards. Furthermore, demand in our key markets remains robust and is outstripping supply by far. For our target applications, automotive, industrial, renewables, data centers, IoT and other areas, supply limitations continue to persist, especially from the foundry side.

Our overall backlog of confirmed and unconfirmed orders has increased further again from EUR 31 million to EUR 37 billion over the past 3 months of 2022. Let me repeat our view on this metric. The order book is reflecting strong underlying trends, but certainly also cyclical shortages. Therefore, we do not take it at face value. Rather, we view it as one of various KPIs, others being lead times pushout and cancellation rates, inventory reaches or escalation calls from customers. Together, they tell us that genuine demand remains strong. In line with this, we are seeing a rising interest of customers to lock in supply and execute capacity reservation agreements with us.

Consequently, our near-term focus remains on the supply side, executing the ramp of our internal capacities, securing capacities from external manufacturing partners and finding solutions for challenges on the materials and logistics side, like freight roads, all to ensure the best possible delivery capabilities to our customers.

Let's come to the financial performance in our fiscal second quarter. We recorded revenues of EUR 3.298 billion, 4% up compared to the previous quarter and a 22% increase year-over-year. A stronger U.S. dollar supported these growth rates. Assuming a constant U.S. dollar-euro exchange rate, sequential growth would have been 3% and the yearly one, 17%.

Our margin progressed positively in the March quarter. In contrast with our typical seasonality with a segment result of EUR 761 million, the segment result margin came to 23.1% after 22.7% in the quarter before. All 4 divisions showed segment result margins in excess of 20%.

Now to the divisional performance in the past quarter, beginning as usual with Automotive. The segment recorded revenues of EUR 1.491 billion, an increase of 7% compared to the previous quarter. We noted positive developments across almost all product groups, supported by additional capacity, favorable pricing coming into effect and a supportive U.S. dollar exchange rate. These factors also contributed to a significantly improved profitability level. The segment result came in at EUR 324 million, equivalent to a segment result margin of 21.7% versus 18.8% in the quarter before.

After trade conflicts in 2019, COVID in 2020 and the global chip shortage in 2021, the automotive industry has now entered its fourth year of macro shocks, considering the war in Ukraine and lockdowns in China amid global macroeconomic uncertainties. Supply disruptions continue to plague car volumes in all markets.

Reliable unit estimates are very difficult in this environment. S&P Global, formerly IHS, has revised down its prediction for global light vehicle production to 80.6 million units in the calendar year 2022. For comparison, this is more than 10 million cars less than in 2018, showing the long road to full recovery. Overall, the automotive supply chain remains fragile. In order to make its most -- more resilient in terms of semiconductors, we see OEMs and Tier 1s trying to build up some inventories as the end customers' demand for cars remains high.

In addition, the 2 strong structural drivers in Automotive, ADAS and e-mobility, are continuing their strong trajectory. In China where EV subsidies were reduced considerably at the end of 2021, sales of so-called new energy vehicles in the March quarter showed very strong momentum with a share of just under 20%.

In Europe, the penetration of battery electric and plug-in hybrid vehicles reached close to 16% for the first 3 months of the year. Infineon is the key enabler of this transition with an unrivaled portfolio of products and solutions across silicon as well as wide bandgap technologies. In this respect, we are happy to report on 2 new silicon carbide design wins at Chinese automotive customers for their next-generation traction inverter and onboard charger. Taken together, they add up to a triple-digit-million euro amount.

Now to Industrial Power Control. Following a softer December quarter, IPC recorded an all-time high of EUR 430 million in revenues, a sequential increase of 13%. Automation and drives, home appliances and power infrastructure showed particular strength. In line with higher revenues, the segment result of IPC went up to EUR 93 million, corresponding to a segment result margin of 21.6% after 19.1% in the prior quarter.

While being conscious of macroeconomic uncertainties, the market outlook remains positive across most of our target applications. Order intake is strong. Many of our product areas continue to be on allocation. Decarbonization is a strong structural driver for renewable energies and the related power infrastructure. A further boost is expected to come from governments pushing to reach greater independence from fossil fuels. In mature markets like home appliances, we expect some softening after a strong surge to serve pent-up demand. Momentum for automation and industrial drives is intact driven by CapEx plans.

For more and more industrial applications, we benefit from our differentiating silicon carbide offering. There are a lot of ambitious announcement in this highly debated market, but let's look at actual numbers. The research company, Yole Développement, puts the overall silicon carbide device market size in 2021 at USD 1.1 billion and identified Infineon as the clear #2 with around [22%] share. In the past year, we grew more than twice as fast as the market leader.

Importantly, growth in our silicon carbide business these days does not come at the expense of margin, rather, current projects for industrial as well as automotive applications provide a tailwind. Our customers value excellence in device architecture and quality, breadth of portfolio and customer support based on superior system understanding. There will be more details in the IPC call the day after tomorrow live at the PCIM Trade Fair in Nuremberg or via the webcast.

Now over to Power & Sensor Systems. Revenue came in at EUR 925 million, a 3% decline compared to the previous quarter. While demand stayed strong across our key applications, our delivery capability was hampered by strict COVID containment measures affecting our distribution center in Shanghai. The segment result of PSS declined to EUR 237 million, corresponding to a segment result margin of 25.6% compared to 29.8% in the quarter before. Besides lower revenue, the mentioned delivery constraints led to higher logistics costs. Furthermore, as previously indicated, the timing of cost and price increases is not fully in sync.

The general demand picture we are seeing is robust with healthy order intake and lean channel inventories. There are signs of a slowdown in consumer devices like PCs and smartphones with limited effect on Infineon. More importantly, from our perspective, demand in the server business continues to be strong. We see continued investment in data center infrastructure, both for enterprise as companies return to the office as well as for cloud hyperscalers that enable digitalization.

With our industry-leading portfolio of power management solutions, we are very well positioned in this area. By way of example, our offering now includes power management systems for next-generation Intel Xeon processors comprising our XDP digital multi-phase controllers as well as OptiMOS-based integrated power stages and integrated point-of-load voltage regulators. This solution not only drives superior performance, it also leverages the green potential of data centers through higher energy efficiency.

Closing the divisional review with Connected Secure Systems. The segment increased its revenue by 5% quarter-over-quarter to EUR 448 million. In particular, microcontrollers for IoT applications as well as payment and identity solutions contributed to this positive development. The segment result progressed to EUR 108 million, equivalent to a segment result margin of 24.1% after 23.4% in the previous quarter. Demand continues to outstrip supply. Capacity constraints, especially from foundries, are limiting revenue potential. In the near future, we expect these shortages to become even more acute.

With regards to profitability, our continued investments in R&D resources to further strengthen our product road map will constitute a near-term burden. Our focus remains on harvesting revenue synergies from the Cypress acquisition over the mid and long term. Underlying market momentum in key areas, like industrial IoT, smart buildings and identity, remains strong, and we are pleased with ongoing design win activity.

Our microcontrollers and connectivity solutions have been selected by leading OEMs for multiple next-generation automotive infotainment systems, wearable and smart home devices. Furthermore, we could achieve key design and business wins across multiple regions for our payment and government ID solutions.

Now over to Sven who will comment on our key financial figures.

Sven Schneider, Infineon Technologies AG - CFO & Member of Management Board [4]

Thank you, Jochen, and good morning, everyone.

Let's take a closer look at our margin development. Gross profit in the second quarter of our fiscal 2022 came in at EUR 1.416 billion, resulting in a gross margin of 42.9% compared to 41.5% in the previous quarter. Excluding non-segment result effects, the adjusted gross profit amounted to EUR 1.498 billion, equivalent to an adjusted gross margin of 45.4%, up from 43.9% in the December quarter.

The sequential increase reflects the continued combination of an overall supportive market environment with strong operational performance. Our high-value system solutions see good traction with customers, which allows us to pass on higher input costs related to foundry and subcon supply base materials and energy. Furthermore, we have managed to keep utilization rates at our manufacturing sites high.

Now to our OpEx numbers. Research and development expenses increased quarter-over-quarter from EUR 399 million to EUR 447 million, underscoring our consistent efforts to fund an ambitious technology and product road map. Selling, general and administrative expenses went from EUR 330 million to EUR 369 million. The net other operating income was EUR 18 million.

The non-segment result amounted to minus EUR 143 million. Of this amount, EUR 82 million corresponds to cost of goods sold, EUR 6 million to R&D expenses and EUR 50 million to SG&A expenses. Other operating expense amounted to EUR 5 million. The financial results for the March quarter was minus EUR 43 million after minus EUR 45 million in the previous quarter.

Income tax expense amounted to EUR 121 million for the second quarter of the current fiscal year, equivalent to an effective tax rate of 21%, very similar to the previous quarter. Cash taxes in the March quarter were EUR 33 million, resulting in a cash tax rate of 5%. For the entire fiscal year 2022, we continue to expect a cash tax rate of around 15% as current prepayments will be trued up.

Our investments into property, plant and equipment, other intangible assets and capitalized development costs totaled EUR 494 million in the March quarter, up from EUR 408 million in the quarter before. Depreciation and amortization, including acquisition-related non-segment result effects, were EUR 405 million in fiscal Q2 after EUR 393 million in the preceding quarter.

The free cash flow from continuing operations in the March quarter came in as planned at EUR 120 million, down from EUR 378 million in the quarter before. The decrease is related to higher investments and working capital effects. For the coming quarters, we expect free cash flow to rise again.

On the financing side, our fiscal second quarter was quite eventful. On the back of the rating upgrade to BBB flat from S&P Global, we successfully issued a EUR 500 million bond in February. We used the proceeds to redeem an outstanding bond of equal size that matured in March.

Besides this refinancing, we took 2 sizable deleveraging steps. As already mentioned in our last call, a former Cypress convertible was paid off with a total amount of USD 387 million. Additionally, we did an early repayment of USD 555 million of the outstanding bank term loan from the Cypress acquisition more than 2 years ahead of its maturity. Furthermore, we paid our scheduled dividend of EUR 351 million after our Annual Shareholders' Meeting in February.

Taken together, these transactions, in combination with the quarterly free cash flow, had the following impact on our liquidity and leverage figures. Our gross cash at the end of March was EUR 3.2 billion. Our gross debt amounted to just under EUR 5.9 billion, leading to a net debt figure of EUR 2.7 billion. Gross leverage of 1.6x is now well within our target level of below 2x. Net leverage at the end of the March quarter amounted to 0.7x.

With comfortable liquidity and a well-balanced, long-term maturity profile, we clearly have the financial flexibility to fund our profitable growth trajectory even in challenging times. Finally, for my financial part, to our after-tax return on capital employed. The ROCE for the second quarter of our 2022 fiscal year came in at 12.3%.

Now back to Jochen who will comment on our outlook.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [5]

Thank you, Sven. At present, the numbers of parameters to watch and the range of potential outcomes appears exceptionally large. Geopolitical tensions are elevated. Inflationary pressures and rising interest rates lead to macroeconomic deceleration. Further material shortages and supply chain disruptions are looming. The supply of semiconductors continues to be the gating item in many verticals, and we still see shortages affecting many of our customers. Lead times are elongated.

At the same time, downstream inventories in some areas are increasing. While there appears to be some incomplete kitting, we expect downstream stock levels to stay elevated as customers continue to follow a just-in-case approach rather than a just-in-time. Of course, dynamics are different in the various submarkets. In sum, a supply-demand equilibrium will be reached sooner than in others.

For our key markets, near-term indicators tell us that demand remains strong. Consequently, our outlook for this fiscal year is still predominantly determined from the supply side. Importantly, in our base case, we assume no significant further effects on our business, for example, from extended lockdowns in China or major disruptions from a potential cutoff of Western Europe from Russian energy exports. Regarding currency, we adjust our outlook to an assumed U.S. dollar-euro exchange rate of 1.10 from 1.15 before.

First, to the running third quarter of our 2022 fiscal year. Here, we anticipate revenues to increase to around EUR 3.4 billion. By division, we expect ATV to grow sequentially by a mid, IPC and PSS by a low single-digit percentage. For CSS, we expect a slight revenue decline caused by supply limitations. The segment result margin should come in at a level of around 21%. As indicated before, input cost increases and sales price adjustments do not occur in parallel. Additionally, we will have to absorb some additional charges related to our supply chain such as higher freight cost.

For the full 2022 fiscal year, we raised our anticipated revenue figure once again from EUR 13 million to EUR 13.5 billion, plus or minus EUR 500 million. Baked into this number is the effect of a stronger U.S. dollar. Knowing our rule of thumb, you will be quick to calculate that this accounts for a good EUR 150 million for the remaining 6 months.

In these volatile times, we have to consider and swiftly act on scenarios. Therefore, we leave a comparatively broad corridor around the midpoint of our revenue guidance in place. At the midpoint, this would constitute an annual revenue growth rate of 22%.

From a divisional perspective, we continue to expect ATV and CSS to exceed the group average growth rate. PSS should grow roughly in line with the group average. For IPC, we now expect growth at around 10%. Reflecting confidence about our margin trajectory, we are firming up our guidance for the segment result margin to a greater than 22% at the expected revenue levels.

Our projection for investments in property, plant and equipment, other intangible assets and capitalized development costs remains unchanged at around EUR 2.4 billion. The speed with which we can expand our in-house capacities for both silicon as well as wide bandgap technologies is a function of equipment lead times. The activities regarding our recently announced new front-end module in Kulim, Malaysia, which will be dedicated to silicon carbide and gallium nitride, are proceeding as planned.

For depreciation and amortization, we continue to expect a value between EUR 1.6 billion and EUR 1.7 billion, including amortization of around EUR 400 million resulting from the purchase price allocation for Cypress and, to a lesser extent, still related to International Rectifier. For free cash flow, we expect a level around EUR 1.1 billion.

Before opening the call for your questions, let me provide a quick update on our progress towards making Infineon a CO2-neutral company. As you know, our products significantly contribute to decarbonization. At the same time, we strive to bring our own footprint down. After we already switched all our European manufacturing and other sites to green electricity in 2021, we are now doing the same in the United States, including our fab in Austin, Texas. We view this as one more responsible step towards climate protection in line with our stated goal of becoming CO2 neutral by 2030.

Now ladies and gentlemen, it is time to summarize. Infineon concluded a strong March quarter with EUR 3.3 billion of revenue, a 23.1% segment result margin and EUR 120 million of free cash flow. With the war in Europe, macroeconomic deceleration and COVID-related measures in China, the operating environment has gotten more challenging.

At the same time, we observed robust near-term dynamics in our main target applications areas: automotive, industrial, renewables, data centers and IoT. Demand keeps outstripping supply, and we see this imbalance stretching into the coming quarters, in some cases, into 2023. Therefore, absent any major further disruptions, we continue to expect a strong 2022 fiscal year with revenues of around EUR 13.5 billion, a segment result margin above 22% and around EUR 1.1 billion of free cash flow.

In silicon carbide, we significantly outgrew the market in 2021, strengthening our #2 position. With our announced investment of building a dedicated fab in Kulim, we are doubling down on wide bandgap. Whether responding to cyclical movements or coping with disruptive events, we have to react in a very agile manner, and the past 2 years have demonstrated Infineon's great capabilities in this respect. Most importantly, the secular fundamentals for Infineon's business remain in place. All efforts to decarbonize and digitalize our world rely on structurally increasing semiconductor content.

Alexander Foltin, Infineon Technologies AG - Head of Investor Relations [6]

Thank you very much. Ladies and gentlemen, this concludes our introductory remarks, and we are now proceeding with opening the call for your questions.

Question And Answer

Operator [1]

[Operator Instructions] Our first question comes from Francois Bouvignies from UBS.

Francois-Xavier Bouvignies, UBS Investment Bank, Research Division - Technology Analyst [2]

So I have 2 quick questions, if I may. The first one is on your margins for the next quarter of 21%. You mentioned some input costs increasing, but it seems to be like a step down versus the last 2 quarters. So if you can give a bit more details on the moving parts there and why we should assume 21%. And if you can, maybe, is there any offset on the pricing side with the input increasing? That's my first question.

And the second question is on your Automotive margins, more broadly, a very strong quarter. And if you look at history, actually, it's one of the highest for a very long time. You mentioned interestingly that silicon carbide was a tailwind to the margin. So I just wanted to come back to this comment. And how we should think about your silicon carbide margins over time versus your traditional silicon IGBT.

If we look at going forward, if your -- if margins are already a tailwind with the Siltectra impact, with the scale benefit and the move to 200-millimeter, should we expect in the medium term and even short term, based on your comments, that the silicon carbide business will improve your margins structurally in the medium, long term?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [3]

Francois, so the first part on your questions will be answered by Sven, and I will then help on the silicon carbide for Automotive. Please.

Sven Schneider, Infineon Technologies AG - CFO & Member of Management Board [4]

Yes. Francois, Sven speaking. Thanks for the question. So first question was on the Q3 margin. So just helping you to decompose the effects. You are right and we have said that, first of all, we benefit from a positive pricing environment, and that is visible and continues to be also visible in the coming quarters.

On the downside, as we have already mentioned in previous analyst calls, this is not the year of the typical seasonality for Infineon because you cannot fully synchronize, time-wise, the cost increases to us and the price increases from us. That's a general effect which we see. And in the second half of this fiscal year, we see a further supply cost increases, for example, from the foundry side. And now, on top, very recently, as a consequence of the Ukraine war, we see material prices and energy prices to spike, which you also cannot immediately pass through.

The third one is, as Jochen mentioned in the intro, we are expecting some increased logistics costs in regards to the lockdowns in Shanghai and China. And the last thing, which we should not forget, we have always said that we want to continue to invest into our revenue synergies, so into our road map, this will be visible in CSS in second half where we continue to invest.

And a last comment to Q3. If you just run the numbers, let's say, we have, give or take, 23% for the first half, now we are guiding to 21% for Q3. If we say 22% plus for the full year, this tells you that this is a dip and there will be an uptick again in quarter 4, margin-wise. That was the answer to Q3.

I start with Automotive margins near term, and then I hand over to Jochen for the silicon carbide-related question. So it was a very strong quarter for automotive based on capacities, based on product mix, based on dollar and pricing environment. I would expect the general trend, which I just described for Q3, to also come through in Automotive in Q3.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [5]

Yes. Thank you, Sven. On the silicon carbide, silicon carbide is, for sure, a very competitive market as many new entrants are trying, yes, to enter here, the power semiconductor space. We clearly focus on value, while at the same time, as depicted in the Yole Développement report, grew significantly.

You mentioned the 200-millimeter aspect. For sure, this technology will move eventually to 200 millimeter, but don't overstate this effect. We were first in the transition from 150 millimeter to 200 millimeter. And initially, that's not necessarily a cost advantage, but eventually, it will be.

The more important aspects to watch are the device portfolio and the package portfolio. We believe that over time, the differentiation potential in this regard is what matters most. And of course, our ambition remains for the silicon carbide market.

Operator [6]

Our next question comes from Johannes Schaller from Deutsche Bank.

Johannes Schaller, Deutsche Bank AG, Research Division - Research Analyst [7]

My first question is just on the inventory situation in Automotive, if you could give us a bit more detail here. I mean you alluded already to the inventory increases. I think that was more broad-based comment, maybe. It feels like some of the OEMs feel they build inventory in Q1 on the back of lower production, then there are others that say, actually, the supply situation has gotten worse into Q2. And then also, your backlog has gone up quite a bit, which probably doesn't point to an easing of the supply side. So maybe, can you just give us the update on where we are now? And then also, by the end of the year, where you think the supply/demand balance stands for auto, semis? And then kind of what products are maybe still in allocation by then?

And then the second question would be, Mr. Hanebeck, on portfolio optimization, I think you made a few comments on the German presence on the interviews that you're planning to do something here. So maybe, very broadly, can you give us a bit of an idea how you're thinking about that and how you're going about that review? And maybe even what areas you might consider for that?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [8]

Yes. Thank you, Mr. Schaller, for your questions. The first one will be answered by Helmut Gassel, and then I will take the second.

Helmut Gassel, Infineon Technologies AG - Chief Marketing Officer & Member of Management Board [9]

Good morning, Mr. Schaller. Yes, inventory, generally, I would say, is still rather tight. What you see in times like this, this incomplete kitting leads to imbalances of inventory. And of course, this very, I'd say, abrupt disruption of supply from Ukraine has led to very short-term changes in the manufacturing scheme of cars. That, of course, has increased further the imbalance of inventories. This will be, I'd say, flushed out over time. Nevertheless, what we do expect is that the post-COVID inventory levels will be substantially above than pre-COVID levels at least for a, let's say, extended period of time simply because people have recognized that supply of semiconductors is crucial to the downstream manufacturing.

Johannes Schaller, Deutsche Bank AG, Research Division - Research Analyst [10]

Now you would say that we're currently well below historic average that feed in Automotive inventories in particular?

Helmut Gassel, Infineon Technologies AG - Chief Marketing Officer & Member of Management Board [11]

Yes. There is very little recovery possible as currently, still, we're living hand to mouth, I would say, with our manufacturing site.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [12]

And you see it in the supply chain, Mr. Schaller. If you look at U.S., the car dealer inventory is still far below historic values.

But coming to your second question, portfolio optimization, yes, that's a lever. It's, let's say, reviewing what is high growth, high margin versus, let's say, lower growth and lower margin. It's too early to give here, let's say, concrete examples, but we are confident that there is a contribution to our profitable growth to be gained from. But rest assured, we will keep also our long-term orientation. We are not going to do here any sort of window dressing.

Operator [13]

Our next question comes from Andrew Gardiner from Citi.

Andrew Michael Gardiner, Citigroup Inc., Research Division - Research Analyst [14]

I had another one sort of on the strength in bookings that you're seeing at the moment. We've sort of seen that bar chart flatten off as you disclosed it to us for the first time earlier this year. It's ticked up significantly again, implying a very strong book-to-bill, well over 2 in the quarter. Can you give us any more detail in terms of what you're seeing within that sort of -- any estimate or guess of double or multiple ordering within that? And perhaps, also the duration of bookings, I mean, would you consider yourselves effectively booked through fiscal '23 at this point given where the backlog has moved?

And how -- I suppose, my final question, related to that, how is that affecting you're planning now for fiscal '23 capital spending? I know you don't want to give us a budget today, but just perhaps, on a relative basis, to how you might have been thinking about it. Given the lead times on equipment, I presume you need to be placing those orders today. So any insight on that would be helpful.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [15]

Yes. The first part will be taken by Helmut again, and I step in then for the CapEx part.

Helmut Gassel, Infineon Technologies AG - Chief Marketing Officer & Member of Management Board [16]

Yes. Out of the total EUR 37 billion of backlog, we have about 75% of that with a wish date within the next 12 months. So if you do the math, that clearly by far and large exceeds our revenue forecast for the similar period, which also means that a substantial part of that backlog is unconfirmed orders. And it's also a fact that more than 50% of the total backlog is coming from automotive area. So again, clearly showing that this is, I'd say, under huge pressure for supply.

The development, as a matter of fact, has not decelerated when it comes to backlog. And the overall situation, I would say, is still clearly indicating that in our core markets, there is no signs of weakening. And if there are any, then it is more in the consumer side of things, on the smartphone side and then the PC side, as Jochen mentioned earlier, maybe also in some small home appliances, battery-powered appliances.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [17]

Yes. Coming to the CapEx plan, of course, we cannot reveal the number for next year. But if you think about where we invest, we invest for in-house manufacturing, obviously, and that's very much linked to our structural growth drivers being renewables, being xEV, being data centers and so on. And there, we believe that the structural growth drivers are intact, if not, even long term accelerated. Therefore, of course, we placed orders for next year because otherwise, the opportunity would be gone. In case we need to manage it left or right, up or down, we will do so as we have done in the past. But as we believe in these structural growth drivers, we have put all orders almost out for the long lead time, especially the front-end equipment.

Operator [18]

We'll now move to our next question from Didier Scemama from Bank of America.

Didier Scemama, BofA Securities, Research Division - Director in EMEA Equity Research & Head of European IT Hardware [19]

I'd just like to go back to Andrew's question on the backlog versus your revenue outlook and versus your margins. So if I understand correctly, your backlog is covering pretty much most of '23. But at the same time, you're not confident enough that this backlog will basically be confirmed since you're not raising your pricing ahead of that. And given that you're keeping -- telling us that demand from the automotive and industrial customers remain strong and resilient and then the supply, I'm not quite sure I understand the margin trajectory for the back half of this year.

So if you could just explain a little bit the mismatch between the order intake, the backlog strength, the lack of supply, the demand from your customers and your margins underperforming. And also related to that, I just wanted to know if you could give us an update on the ramp of Villach 300-millimeter. Is it still a quarter of the cleanroom utilized for production by year-end or if it's any different?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [20]

So maybe I start with the backlog. You're right, the backlog is very high, and we clearly said that it's not the only parameter we take into account. Actually, the ratio of backlog versus revenue is, I think, on a historic height. So we have said also that there are some cyclical elements in there. So it's not our main indicator for driving the business.

And now with respect to the margin expectation, I hand over to Sven.

Sven Schneider, Infineon Technologies AG - CFO & Member of Management Board [21]

Yes, Didier, thank you for the question. That gives me also the opportunity to explain that the dollar effect again because we got some questions. So again, our rule of thumb, as you know, is it's EUR 15 revenue per cent, per quarter. So if we reduce from 115 to 110, it's 5 times 15 times 2 quarters. That gives you a good EUR 150 million. So in terms of our revenue increase from EUR 13 billion to EUR 13.5 billion, a little bit less than half of that is from the dollar. The rest is incremental capacity and, now coming more closely to your question, from pricing.

And therefore, I do not agree with your statement that there is an impact or we are too weak on pricing. The effect we have to focus currently is that we are living in a situation where we see macro uncertainty, as I described, where we see some counter effects in Q3. But as I said earlier, if you look at the implied guidance for Q4, you see that going up to 23-plus percent, which is another nice evidence of what I said with regard to demand and pricing.

And with that, I would hand back to Jochen.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [22]

Yes. And I hand over to Rutger, immediately update on the Villach ramp, please. Rutger?

Rutger Wijburg, Infineon Technologies AG - COO & Member of the Management Board [23]

Yes. Didier, this is Rutger speaking. So thank you, first, for the question. So the Villach ramp is actually going very well. We are bringing in tools as we speak. We do know, of course, that the industry at this moment faces some challenges, let's say, tool suppliers. But in general, I can say that the ramp is going according to plan for Villach factories.

You also know that we are not only ramping our Villach factory, but in the same time, we're also still expanding our Dresden factory. And together, we're building this One Virtual Fab in order to make sure there is enough and flexible capacity for our customers.

So overall, I am very confident with the ramp going on in Villach and also in the Dresden factory. And we also see at this moment, let's say, interest from customers to make capacity reservation. So overall, I'm very happy with the progress that we are making.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [24]

Yes. Thank you, Rutger. And to stress on this capacity reservation, that's much more of a factor we look into if -- rather than the total backlog, how is the interest of customers asking to lock in supply over the midterm. And here, we see increased interest clearly.

Didier Scemama, BofA Securities, Research Division - Director in EMEA Equity Research & Head of European IT Hardware [25]

Can I have a quick follow-up?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [26]

Sure.

Didier Scemama, BofA Securities, Research Division - Director in EMEA Equity Research & Head of European IT Hardware [27]

Yes. Maybe a question for you, Jochen, and congratulations on your appointment. I just wondered, when you look at where your gross margins are versus your peers, I don't need to name them, I think you know them very well, if I would have told you 18 months ago that the gross margins of all your peers would be above yours, you probably would have not believed it and neither would I. So what do you think is the main reason for this difference in gross margin leverage?

And second of all, I take solace from the fact that you are reviewing the portfolio at the time where you've got Dresden 300-millimeter adding capacity and Villach 300-millimeter in ramp-up mode. Isn't it the right time to kill some of the lower gross margin product lines that really show some leverage?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [28]

Yes. I think I made my statement on the portfolio optimization already. In terms of gross margin, of course, you have to take into account that for power discrete, where we are stronger, gross margins tend to be lower, but also OpEx is lower. So it really depends on with whom you are comparing us. But of course, we take the challenge of gross margin and segment result improvements. And I think, as Sven mentioned it a couple of times already, we consider to upgrade it, [Tom]. But once the market has stabilized, I don't believe in projections from the peak or from the trough. But yes, you can expect, in that regard, news to come from us at the right time.

Operator [29]

We'll now move to our next question from Rolf Bulk from New Street Research.

Rolf Bulk, New Street Research LLP - Research Analyst [30]

I would like to discuss your silicon carbide material supply. There's a lot of innovation in alternative technologies to increase wafer supply. You have your Cold Split tech, and there's also other initiatives out there like Smart Cut from Soitec. So my question, as you think about the next 5 to 10 years, do you see these other alternative technologies as a viable way to increase supply? Or do you, in your road map, plan to stick with monocrystal wafers and your own Cold Split technology?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [31]

Yes, thank you for the question. So indeed, the SiC boule or wafer supply, of course, matters is -- and debated a lot in the industry. From our end, first of all, as a market leader in power semiconductors, we see all the trends, we screen all the trends. But I tell you that from today's perspective, we see that efficient slicing of the boule remains the main path forward. And here, with our Cold Split technology, we have a key asset in our hands and want to go along that path. And we are in discussion with a couple of potential boule suppliers to safeguard our boule supply over the years to come.

Operator [32]

And our next question comes from Janardan Menon from Jefferies.

Janardan Nedyam Menon, Jefferies LLC, Research Division - Equity Analyst [33]

I was just -- when I look at your forecast for -- or the sort of indicated guidance for FY '25 where you said EUR 16-plus billion and if I take the number for this year's guidance, EUR 13.5 billion, then it reflects, even if I do it EUR 15.5 billion, it's about a 7% sort of CAGR over the next 3 years. So I was just wondering, how do you think about the next 3 years?

I understand that this is just not really a firm number and it could be anything, depending on how these things pan out. But I was just wondering, given that your guidance is for about 9% longer-term growth, how you see the next 3 years evolving? Is it likely that you see some negative growth and then a strong recovery beyond that? Or is it -- are you planning for more sort of a muted growth over the next 3 years? How do you see that evolving?

And if we do have an industry down cycle, how do you think Infineon will fare in that? Is there factors such as increasing demand for power discrete from the automotive, from the EV and renewable markets, which will -- which could make power discrete a more resilient part of the industry in such an environment? And are there any other parts which you think will be resilient as well?

And my follow-up is just a quick thing on microcontroller supply. Are you getting any evidence from the foundries that microcontroller supply could ease up a bit, both in your CSS division as well as your Automotive supply into the second half of the year?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [34]

Yes, thank you. Maybe I'll start with the second question. So we do see incremental supply from the foundry partners for '22. But for sure, these microcontrollers will remain most likely those product families which we will also still see in '23 in short supply.

With respect to your question on the long-term picture, and I would like to start it from the end. So if there is an economic, let's say, cooling, we would expect it to happen on the -- from the consumer side, the consumer confidence is coming down and related products demand is weaker. Now this constitute a certain part of our revenue, but it's not the biggest share. The biggest share in our portfolio relates to xEV, so the structural shift from combustion to electric car. It relates to renewables and it relates to data centers, IoT. So very much structural growth drivers.

And so I would, from today's perspective, I would clearly say that we can keep the 9% growth momentum. And therefore, numbers for the futures might be upgraded even though there is a potentially, out of the former described effect, a stabilization phase looming.

Operator [35]

We will now take our next question from Sandeep Deshpande from JPMorgan.

Sandeep Sudhir Deshpande, JPMorgan Chase & Co, Research Division - Research Analyst [36]

Two quick questions, if I may. Firstly, I mean regarding the inventory situation, particularly in the automotive market, you talked about that this situation could last into next year, both in microcontroller, power semiconductor, you just mentioned microcontroller. I'm trying to understand, why is there this difference in the auto market between China and the rest of the world? Chinese auto volumes are at 2019 levels, whereas the rest of the world is not. So how does the Chinese market get the chips which the rest of the world is not getting?

The second question I have is on your OpEx. When we look at your OpEx, it is suddenly going up quite significantly. There seems to be a big jump. Is there a reason, particularly in R&D? And where are these investments going to?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [37]

Yes. So Helmut will answer the question on automotive, China versus the rest of the world, and then Sven on OpEx.

Helmut Gassel, Infineon Technologies AG - Chief Marketing Officer & Member of Management Board [38]

Yes. Sandeep, first, yes, China has recovered quicker than the rest of the industry. China has, as you probably recall, started to gain volume already through 2020 in automotive. That also gave them a little bit of a head start in total volume.

And on the -- where do they get the chips? Most of the electronics manufactured for cars is manufactured all over the world, I would say. So it is not really that the Tier 1s are necessarily based in the same area. So I would rather look at the automotive from an electronics perspective as a global market, whilst there is a stronger growth in the automotive or recovery in the automotive volume in China.

Sven Schneider, Infineon Technologies AG - CFO & Member of Management Board [39]

Okay. Sandeep, Sven speaking. I take your question on OpEx. So yes, you are right, the numbers are going up, as I've described, more importantly for R&D than for SG&A. That's why I think there is a clear focus from us to continue to invest into what we described our growth trends and to invest also into the revenue synergies. So yes, there is some intention to do that.

There are also other more technical effects. One will probably be a bit more visible over time, which is inflationary pressures. And the other one is, if you are going more and more into a pretty successful year from a profitability standpoint, you also need to true up over time. But the most important part is R&D. We are not going down here. We want to invest into the future.

Operator [40]

Our next question comes from Adithya Metuku from Credit Suisse.

Adithya Satyanarayana Metuku, Crédit Suisse AG, Research Division - Research Analyst [41]

Two questions from me. Firstly, I was just trying to understand, on the backlog, when you report these backlog numbers and pricing changes, do you reprice the historical backlog? Or do you just add the orders in the quarter and keep the old backlog as it is from a pricing viewpoint? I just wanted to understand that.

And then secondly, a question for Sven on the headwinds. As we look second half of this year, would you expect these headwinds to be more based on the OpEx side? Or would they be more on the gross margin side in terms of the margin decline of the segment results stage? Any color there would be super helpful.

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [42]

So Helmut, on the backlog repricing effect, please?

Helmut Gassel, Infineon Technologies AG - Chief Marketing Officer & Member of Management Board [43]

You got me there. I'm not 100% sure. I do believe, honestly speaking, that we do reprice the backlog, everything that's forward looking. So basically, because the price is related to product, but we have to verify that. So that's something we will follow up with Alexander Foltin later. Thank you.

Sven Schneider, Infineon Technologies AG - CFO & Member of Management Board [44]

Yes. Adi, on the question with regard to, is it more OpEx or is it more the gross margin? So I mean we described a couple of the effects which can or will probably materialize. Maybe I'll give you also a little bit more color because that is important. And Jochen has said it in his intro, there are 2 main preconditions for our guidance to hold. The first one is, as we said, no major deterioration from the Ukraine war. So I'm now here looking at natural gas security and supply.

The other one is also important. We have seen, at the end of last quarter, trending into that quarter, some very significant lockdowns of mega cities in China. We have been affected with our distribution center in Shanghai. We had a very small impact in Q2, but we will see a revenue shortfall in Q3, which we then plan to compensate in Q4. So there is a net double-digit-million euro impact on the revenue side, which is baked in.

So again, this is the base case, we do not expect that to deteriorate. So having said that, I would say probably the bigger volatility is expected to come on the gross margin side compared to the OpEx side.

Operator [45]

We'll now take our next question from Sébastien Sztabowicz from Kepler Cheuvreux.

Sébastien Sztabowicz, Kepler Cheuvreux, Research Division - Head of Tech - Equipment Research [46]

On microcontroller, it seems that you have lost a little bit of market share last year and notably versus your peer like STMicro. Could you please make an update on your product to system strategy there and the progress you have made on generating this project integration with Cypress?

And the second one is on the margin side for the next down cycle because you are already generating a margin in excess of 22% for the fiscal year 2022. I know it is a bit hard, but where do you see your margin troughing potentially in the next down cycle, taking into account the elevated level of your profitability today?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [47]

Maybe I start with the MCU, and I assume you are referring here to some auto reports. Here, I would be careful to read into market shares in years with a lot of supply chain disruptions, pricing behaviors. So in the long run, we see our market share, especially in automotive microcontrollers, growing. This, we can conclude out of the design win pipeline, and our P2S approach is also fully intact for IoT applications. And as Sven mentioned, we are investing into this as we see it on the way to power systems and IoT systems as a key enabler.

Now on the margin development in the potential down cycle, that's a very nice question for Sven.

Sven Schneider, Infineon Technologies AG - CFO & Member of Management Board [48]

Yes. Thank you, Sébastien. So very hard to say, and why is that? I mean, first of all, what Jochen just said, we will upgrade our target operating model once markets have normalized. Have markets normalized in the meantime? Not at all. So please give us the time.

Looking at the margin volatility around our through-the-cycle target, I may point to the capital markets slide where we have given factors which are positive and factors which are, over time, weighing on the margins. And I think in the current situation, as we have said, if you are in such a boom situation, you need to be significantly above the 19%.

Anyway, the question is, how will the development continue? It depends on your macro scenario. Is it, a, I would say, a usual correction of 2 quarters, 3 quarters? Or is it another severe impact coming closer to a COVID situation? And I think that very much determines the impact.

But I would say, and again, there is a nice presentation in the capital markets slides, the resilience of our company over time, given that we are focusing so much on the growth trends, be it xEV, be it renewables, be it IoT and power, which are less impacted, the peak to trough is much smaller than it used to be some years ago. But I would really leave it there because it would not be reasonable to give you now a number.

Operator [49]

And we'll now take our last question today from Aleksander Peterc from Societe Generale.

Aleksander Peterc, Societe Generale Cross Asset Research - Equity Analyst [50]

I'd just like to understand, first of all, in CSS, you are implying that your access to foundries may be improving in the second half, but you also made comments on shortage are actually worsening in the current quarter. So I'd just like to know which way that is going exactly in terms of your access to foundries. I would imagine that lower smartphone and consumer demand would free up some capacity at foundries for you guys. Is that something you see?

And then secondly, just on PSS, you mentioned the mismatch between prices, input costs versus your own product prices. I think it's well understood. But why is PSS different from other segments? Why is it more affected by this than the other areas?

Jochen Hanebeck, Infineon Technologies AG - CEO & Member of Management Board [51]

Yes, this is Jochen. I'll try to answer. So I wouldn't read into the Q3 revenue decline for CSS too much. It's more of an operational topic. On the full year guidance, you see that CSS is developing nicely, and it is also supported by incremental better foundry supply than going into next year.

For PSS, prices versus cost, I think Sven elaborated on it already. PSS does have a very high -- or higher than group average share in revenue in China. So it was more affected or is affected here by the supply chain disruptions and also the related costs. So just to give you an idea, we have 3 distribution centers, 1 in Shanghai, 1 in Singapore, 1 in Frankfurt. And as the Shanghai center was locked down, we moved all the parts back to Europe or Frankfurt and Singapore and then, again, into the country to serve our customers. These are significant costs. And you will see PSS coming up again into the next quarters.

But Sven, you may want to add.

Sven Schneider, Infineon Technologies AG - CFO & Member of Management Board [52]

Yes, just -- Aleksander, I just wanted to add one thing to CSS to avoid any misunderstandings here. So Jochen made the comments on revenue. Here, just to add, there may be also some very short-term project-driven fluctuations in ID projects, so nothing which is sustainable. That's the top line. On the bottom line, that's what was my comment was for on CSS given that there is this significant supply foundry price increase hitting CSS in the second half, coupled with the R&D road map OpEx spending, that is why we expect the margin not to be sustainable in the next months at the levels you were seeing. So that was profitability more than top line.

Operator [53]

With this, I'd like to hand the call back over to Alexander for any additional or closing remarks.

Alexander Foltin, Infineon Technologies AG - Head of Investor Relations [54]

Thank you very much, operator. Thanks to all the analysts for their questions. It's now time to wrap up, and we are concluding our fiscal second quarter's conference call. Thanks for also leaving some unanswered questions that makes life for the IR team a little bit interesting here. Please get in touch with us. Thank you very much. Stay safe, and have a good day.

Operator [55]

Thank you. This concludes today's conference call. Thank you for your participation. You may now disconnect.