



Capital Markets Day 2022

Wednesday, 22nd June 2022

Q&A

Evelien Goovaerts: Thank you, Bart. We are a little bit ahead of schedule, which is, I think, not a bad idea because something tells me that we will have quite some questions during this Q&A session. There are already a lot of questions lined up from the webcast. So let's see if you can do better here in the venue.

So Mathias, Bart and Ralph.

Ralph Kiessling: I need a chair. Yeah, Mathias?

Mathias Miedreich: You see our flexibility is not only in our manufacturing system for CAM but also in the setup of the stage, to be always to the moment.

Gunther Zechman: Good afternoon. Two hopefully quick questions. Can you give us a feel for how much you're looking to invest in the greenfield, in the North American rechargeable battery materials greenfield site, please? And secondly, just on the last point that came up, the €100 million fixed cost reduction in the auto cat's business. What's the cost split between fixed and variable cost in the business today, please?

Mathias Miedreich: Yeah, maybe you start with the last one and then we –

Ralph Kiessling: I would say 70%, 75% variable.

Mathias Miedreich: So coming back to the first question, what is the CAPEX for North America you have seen? Filip has said before, from the €5 billion or more than €5 billion that we have said before, €4 billion will be invested in the E&ST and Battery Materials side. And I would say of that, if you would take around one-quarter of that should be the North American number.

Gunther Zechman: Thank you.

Wim Hoste (KBC): Good afternoon. I have two questions, please. First, the discussion, LFP versus NMC. I was wondering to hear your thoughts about LFP outside of China. I think there was a slide mentioning 25% globally market share for LFP and then 75% for NMC. So what's the regional breakdown of the market shares of the technology?

And then also for your business in China, how profitable is it today versus the rest of the NMC operations and also, what's your profitability outlook for that business? I think there's probably some fixing still to do on the pricing side, etc., but could you maybe elaborate a little bit on that as well? Thank you.

Ralph Kiessling: Yeah, starting with the first question on, let's say, global LFP share. Yeah, let's say, we estimate about 25%. We see that it will be substantially higher for China. It's already higher right now. While, of course, also in the customer roadmaps, there's certain mention about LFP for the other region.

There are not established footprints and, at least from today's point of view, we also don't see announcement on established footprints. And as we see that the different regions regionalised and there's really a request on regionalisation, we believe that the market penetration and market share for LFP in China will remain higher than it is for the other regions.

Mathias Miedreich: And then there was a final question on pricing, right?

Ralph Kiessling: Yeah, there was a question on China. Yes, our China assets are currently still underutilised. And as I said, in our strategy going forward, with the customer programmes, with the qualification, we see that our utilisation will increase towards 2024. And then we have, let's say, clearly utilised plans, which will then also bring us sufficient and the right returns.

Riya Kotecha: Hi. These questions are the Ralph. I'd like to understand your rationale for seemingly increasingly focusing on the design-to-cost segment with a manganese-rich versus the higher performance segment with high-nickel. I understand that manganese-rich is a bit more of a competitor to LFP given the pricing per kilowatt hour. And is Umicore facing the decision to somewhat trade off margin for market share by entering into a bit more of the mass market?

And then how confident are you that you can achieve the premium pricing, which was discussed in the first couple of sessions, with entering into section of the EV market that's more price sensitive? And related to that, can you give us an idea of what mix you will have in terms of the manganese versus high-nickel versus mid-nickel?

Ralph Kiessling: Yeah, I think for manganese-rich, coming to your question on price sensitivity, I think you need to look at this from the total equation of the pricing from manganese-rich, including the metal manganese-rich. The nickel content is substantially lower than, for instance, for a high- or even a mid-nickel technology.

So from a system, from a cathode material system point of view, so it has clearly advantages. When it comes to the added value for Umicore, we do not see major difference for that, but, as I said, for the total system pricing.

When it comes to shares right now between high- and mid-nickel and manganese-rich, this is reaching out mostly in the second half of the decade. I said that we estimate manganese-rich kicking off into mass production scale requirements after 2026 or in 2026 right now. So it's a bit too early to pre-empt what the shares between high-nickel and between mid-nickel and manganese-rich will be. We see growth in the nearer term, first of all, for high-nickel, but on the longer-term also then the design-to-cost segment further evolving.

Mathias Miedreich: Maybe I can add to that. It is not the case that we have decided to sacrifice the high-nickel or high energy density segment for the sake of manganese-rich. The manganese-rich, the HLM applications are specifically designed to address what would be design-to-cost market, which is a contender towards LFP. And you have seen before that we estimate this market segment to be around 25% of the total market. And as Ralph has laid out, from a customer side, OEM side, this is great because HLM as a cost of everything, including the metals, it's significantly lower, and they will save money.

Now, from an Umicore side, so our value creation part, the things we are doing with the metals there is not such a significant difference. So even that we are entering that segment, we do not see a negative impact on our average profitability.

Riya Kotecha: Thanks. That's really clear. And my second question is to do with the value chain localisation of HLM. I understand that about 80% of the manganese sulphate and about 35% of the electrolytic manganese is still produced in China. So how easy is it to relocate the value chain towards European markets?

Ralph Kiessling: Yes, that's true that, let's say, a maturity right now for the manganese is coming from China. We see also certain footprints coming up for manganese in Europe, for Euro manganese ramping up about 2025 and others. There is also the possibility to go via manganese leaching, for instance, from the metal side. So there are opportunities clearly to more regionalise the value chain also for manganese in the longer term.

Charles Bentley: Thanks. So a question I asked earlier was gigawatt hours to kilotons conversion; can I get the answer to that one? You said earlier the CAPEX intensity of the US is going to be lower than other regions. Is that just because the efficiencies you've talked about? I mean, I guess if I think about cost of steel equipment, so on and so forth, surely is going up. So just get a little bit more on that.

And then one more thing that Filip said earlier was that the relationship between the CAPEX intensity and working capital requirements no longer holds. I was just interested in why that no longer is the case because I guess previously, you said half to one. And then obviously if we look at lithium prices, cobalt price, nickel price are all very, very high. So you would think that's even more the case. So anything more on that. Thanks.

Ralph Kiessling: Yeah. Coming to your first question to the conversion factor on gigawatt hours into tons right now, it depends, of course, on the technology to be applied. But if you take between 1.2 and 1.5, this is a fair range.

Coming to your question on CAPEX efficiency and CAPEX density reduction, this applies, of course, in every region where we do. So yes, you have certain differences on construction equipment, on infrastructure in this area, depending in the country where you invest, this is clearly. But this roadmap is across the board and is applicable for all regions.

Mathias Miedreich: Maybe I can add to that because I was answering that first topic. As we said, it's more a function of time than of region. So when we are – as we said, our ambition of 2025 launching the North American plant, we will be at a more advanced stage in the standardised manufacturing system than we had been a couple of years ago when we started at Nysa.

So that means at this point in time, there will be already a lower CAPEX density. And later investments will have even lower CAPEX density versus the 30% plan that Ralph has mentioned.

Ralph Kiessling: Yeah. Working capital equation. Yeah, the reason why this is maybe counterintuitive because you would say the prices are going up of the metals. While we say, no, that's not anymore the case – it's more less than that, the percentage – is because we see that more and more, we are able to convince our customers to carry some of those items on their balance sheets. So consignment models or other things like that. This is a tool that we are successfully using in the market.

Nicola Tang: Hello. Actually following up on that point, you mentioned earlier this long-term security of supply of low-carbon nickel, I think you mentioned, and maybe on the lithium side as well. Can you talk a little bit about the agreements there? Is it secured volumes, but flexible in terms of pricing? And then in terms of offering the closed loop to your customers, how do you reflect that in terms of price? Is it again a straight pass-through and how exactly does that work?

And then the second question was on the Auto Catalyst side of the business. Could you talk a little bit more about how KPIs for some of your employees are changing to now focus more on value and free cash flow rather than growth? And I was curious, you talked about those new partnerships or new types of partnerships with OEMs. Could you explain a little bit more, I guess what you're doing there and what it means in terms of visibility and contract structure? Thanks.

Ralph Kiessling: Yeah. On the nickel contracts you mentioned right now, low-carbon nickel contracts, I think it's a difference between on the – we are talking about low-carbon nickel contracts and you relate it also to nickel pricing. So we have business models in place where, let's say, the price, the metal price itself is a pass-through. So it's not part of our value add. So it's not a direct link here between the nickel pricing, on the one hand, and also about the carbon footprint of the nickel on the other hand.

Mathias Miedreich: And it's lithium as you mentioned, right?

Ralph Kiessling: And lithium as well.

Mathias Miedreich: Yeah. And sustainably sourced.

Ralph Kiessling: Absolutely.

Bart Sap: So on the Auto Cat, there were two questions, right? There was the partnership structure and the KPIs.

Mathias Miedreich: KPIs.

Bart Sap: Well, today, our colleagues are – well, our colleagues are always value-driven. That's one. So that's the main KPI and that's also the KPI that stays in place right now because we still have to capture the peak, we still have to qualify the business.

Of course, already today, we have very strict targets in our operations: capacity utilisation; PGM efficiencies; the number of passes a product needs to go through the furnace, how can we increase that? So these KPIs will stay.

Now, of course, as we transit further, it'll be really – I mean, what is now the weight of our SG&A, for instance, in the overall? I mean, what's the R&D weight that we going to have in our portfolio? How many FTEs we really sometimes need in certain sections?

So these KPIs we're currently designing and they will be designed and function, of course, of the strategy which we are now doing. But here we are at the start of the process because we are focusing right now on capturing the peak.

If you're now talking about these partnerships, then it's much more to have an open discussion in the sense that today, it's mainly you qualify for a platform. And, of course, there's some tolerant bands, for instance, on the amounts that you have to deliver and, basically, off you go with the market. In the future, this will not be so easy because you cannot really predict where the volume is going to be. So you really have to talk, okay, how are volumes evolving and what is the consequence for your pricing, for instance? How are you going to deal with spare parts? How do I make sure I really get good visibility on your demand so I can optimise my footprint? Then I can – I'm doing something wrong I guess, or okay. Then I'm optimising my footprint –

Mathias Miedreich: It's your beard.

Bart Sap: It's my beard. Whoa. Look, I'm looking dangerous, am I? No, it's about if I want to have a high capacity utilisation, I need to have a good visibility. So it's a much tighter cooperation. And as these platforms will last longer than typically four or five years, I mean, now we're talking seven, 10 years, it's frankly a different relationship. And not just to roll over with continuous cost decline, this will not be any more the case.

Jean-Baptiste Rolland: I wanted to come back on what you mentioned about co-investment and I was wondering if you could give us a picture of what your ideal partner looks like – size, reputation, whether more of an OEM type or a battery supplier, whether potentially European or Asian. And if I'm correct thinking that for your future partners, that exit costs would probably be higher on your side than on the side of your partners. How do you intend to protect yourself? That's my first question.

Second question with regards to technologies. I understand that you anticipate to extract the same value between manganese-rich versus NMC, regardless of whether mid-nickel, high-nickel. Does this suggest that you have, from the onset, started to discuss returns and pricing in your discussions with your prospective clients you're in qualification with? And I'm also, I guess, tying in with the co-investment model, how does this co-investment model, I would say, change the traditional qualification process that you used to go through?

Third question in relation to your market share. If I heard correctly that you are aiming between 5% and 10% of market share by 2030. I remember that BSF is aiming for 10% of market share by 2030 in battery materials. I'm not sure what is the critical size that's necessary to extract the most economies of scale, but how do you intend to extract economies of scale in that business knowing that from the – I would say, by design, because as you point out the localisation model caps in nature the economies of scale? How do you intend to extract these?

Bart Sap: Yeah, let me answer the last question first, because I think there's a misunderstanding we had in the discussion before. We said the global equation that we have in our capacity versus the market that we see versus the bottom-up customer demand, we think we are around 20% market share, right? And we concluded before that this 20% market share could be higher, but we deliberately want to prioritise value creation in front of growth. And the roadmap, how do we come to that number is not a top-down equation. It's a bottom-up accumulation of customer demand in a certain way that we think that we should be going forward.

And now let's come back to the first question. What is the ideal partner? I think there is no ideal partner per se and the partners that we have, are great partners already because we're not starting from scratch, right? So we have already announced a couple of those companies. Per se, we see that the value proposition to do such kind of partnerships is more on the OEM side.

Now, when I say on the OEM side, it doesn't mean it needs to be an OEM who is partnering with Umicore because you know that the OEMs have different strategies, how to integrate in the value chain. Some of them do the batteries themselves, others invest maybe together with other OEMs in battery manufacturers. ACC is one of those examples where Mercedes, Stellantis and Total have invested together. But at the end of the day, it's their vehicle through which they're doing partnerships.

And I think for us, the market, we have three types of customers. First are these OEMs where we talked about the importance of partnerships. Second are battery cell players that are in the very strong ecosystem of an OEM; example of ACC that we mentioned. And the third, and still very important part for us as customers, are the cell makers themselves.

But if you want, basically, a degree of integration, partnership will be more on the OEM related side. And on the cell-related side, it will go more on our value proposition on the technology roadmap that Ralph has explained, but also our reach into the value chain. But these are different type of partnerships then.

Your question is the costs of exit, aren't they more on our side than on the partner side? And here again, I repeat what I said before. A requirement for us is to have value creation. Otherwise, we wouldn't do a partnership. This also includes guardrails in terms of what if this could be contractual by mechanisms or by agreements so that we would not be in a position to have a one-sided exit cost side because this is never good for any kind of joint venture or activity if it's not a balanced approach going forward.

Towards the question of qualifications, I think there are two elements of it. The integration of our R&D teams into the R&D teams of our customers, in that sense, those qualifications are different because there's a much more frequent and deep exchange on what is needed and how this has to be engineered. But from a pure quality point of view, because you do qualification because you follow a standardised process of quality assurance to mass produce certain things, we do not compromise on those processes, be it a joint venture, a partnership or a singular customer. This, we will not compromise on in a certain way, but the R&D cooperation, indeed, has a much deeper character than before.

Ranulf Orr: A question around the capital intensity of the RBM business. So maybe you could start by giving an idea of what your average CAPEX per tonne or gigawatt hour is. And then following that, talk us through the journey and how you expect that figure to evolve over time. Under a previous management, the idea was presented that the greenfield investments are done and ongoing. It should be up to 30% lower almost immediately. You're now saying 30% reduction by 2030, so a lot further away.

And secondly, on recent calls, there were comments around technology step changes coming to manufacturing process that would also bring down the cost of –

Bart Sap: Yeah, CAPEX density.

Ranulf Orr: So why is it only 2030 and why does it not come sooner, I guess is question one. And then just on technology as well, if you don't mind. Could you give an idea of, are all your eggs in one basket now with solid state and your new partnership? And what's happened to silicon anodes? Because they were previously fairly prominent in your materials, but it's gone quiet. Thanks.

Bart Sap: Maybe you start on the technology side and I will answer then on the CAPEX density side.

Ralph Kiessling: Yeah. As I said, on the technology side right now, we're intensively working along the value chain between academics and also with OEMs, with start-up, on the development in cathode right now. With our announcement to work closely with Idemitsu, we will accelerate on the catholyte side and we are also going in other areas like silicon carbide.

Here, we are not, let's say... And we are still more in an elaborative phase right now, like with other technologies, like we have, for instance, for sodium iron, we have for this [inaudible].

So we are in parallel really on the one hand monitoring, on the other hand, developing also the long-term developments. But I think it's fair to say that solid-state batteries is on the most advanced side, yeah.

Mathias Miedreich: Yeah. Maybe one comment also to the announcement that we have done to have this partnership on the catholyte. So catholyte is one street into solid-state batteries. That doesn't mean that we are stopping our activities on the cathode active material, the traditional CAM for solid-set batteries. In the opposite, we are accelerating that. But what we had in mind is to partner with the best in the world.

And we think that our partner is one, if not the best in the world, looking to the patent portfolio and technological strengths to unlock that next step, that next big thing that could be there in solid-state batteries, this catholyte. But that's not closing doors or not putting all eggs in one basket, I just wanted to clarify that once more.

Now coming to the CAPEX extensity, deliberately we have not disclosed thus detail numbers on CAPEX density because it's a very important aspect of our competitive position. But you could take a result of the partnerships we have been able to do and the contracts we've been able to close, that our current CAPEX density or the CAPEX density that we are including in the offer forward, is quite competitive.

Now, why are we saying 30% towards 2030? This is because we also have scaled up our ambition and we have scaled up our ambition in terms of footprints. But then also, as I said before, the value chain integration. And it's true if you have – once you have a greenfield and we have that now in Europe, we have that in Asia, the additional CAPEX or the CAPEX density will be more than 30% even faster. But we took an average number that takes into account our overall ambition that we have presented here today.

Ranulf Orr: Silicon anodes.

Bart Sap: Yes, silicon anodes is something that we have reached a certain position in IP and in product maturity but you have seen that our plan going forward is an ambitious one. It is ambitious also in terms of CAPEX. So we have to make the decisions that we think are most value creative for Umicore.

And today we have prioritised in this plan on others. It doesn't mean that we will not at one point in time industrialise what we have created here, either alone or with partners, but at this point in time, our focus is on the roadmaps that you have seen and that we have highlighted. And that's also part of our CAPEX plan.

Evelien Goovaerts: Maybe some questions from the webcast. I'll take one question from the webcast and then we'll hand over to you. So you mentioned a lot about significant footprint expansions. We saw that on the slide. To what extent is this based on contracted business?

Ralph Kiessling: What we do, we are in continuous and advanced qualification with the different customers, with the different partners. And we will then have a staged approach to really transfer – once we have the confirmation from the partner, to realise and to translate this also in CAPEX commitments.

So when it comes to the outer years, this is based on the top-down approach, but not our approach, that of the customers. That means for our bottom-up approach, what let's say the capacity ramp-up is, but the execution of the capacity ramp-up with, let's say, the CAPEX commitment will come at this point in time when, let's say, we have final commitments, be it contracts with partnerships, so with our customers and partners.

Mathias Miedreich: But what we said earlier today is also that if you just make the math and look to the over 400 gigawatt hours in 2030, and if you mirror against that, the ambitions that have been communicated already with the customers that have already been communicated, we are already at around 50% of that 2030 ambition.

James Hooper (Bernstein Research): A couple of questions. The first one is about the joint development of the batteries tech. So for example, as Ralph mentioned earlier in the presentation, roughly half of your 2030 capacity is already taken up. To what extent is that technology going into that capacity being agreed with your customers and is it part of the joint development projects? Or are you still very much on the hook and paying for it yourself, thinking through what technology is going to be required by the customers?

And the second question is about the cash profile of the Auto Catalyst business, the €3 billion target for the next 90 years, FCF makes sense. But is this going to be more backdated towards the later years when you start to see the ramp down? Because obviously, with €5 billion CAPEX in the next few years, that might be when there's going to be clearly some need to use the balance sheet in the next couple. Thank you.

Ralph Kiessling: Maybe we start with...

Bart Sap: Yeah.

Ralph Kiessling: When we talking about joint developments going forward, that does not necessarily mean that we're talking about joint chemistry developments because this is our core of our competencies, but it's joint developments when it comes to have specification and to integrate it really in the cell design. And here we are closely working with the OEMs, with our end customers. And this is what we said, also the partnership directly have access to the OEMs, is really accelerating to have the right specification and to have the right design.

Mathias Miedreich: And maybe also, let me make one more point to that. I'm not sure if we said it very clear in the discussion so far. When we talk about partnerships, that means partnerships to produce cathode active material and upstream integration. That does not include IP and technology that we have on the product side. So all of the agreements that we are about to make, and that we have made, is absolutely securing the IP of Umicore. This IP will be valorised but is under our protection.

I just wanted to make it sure. Partnership doesn't mean that we are diluting our intellectual property all over the place. No, that's very much concentrated. In that sense, we are also independent of these customers. And then there was the question of the cash flow profile.

Bart Sap: Yeah. So thank you for the question because it also allows me to get across a message that actually I forgot to pass during the presentation, is that while we do see the value peak in the market around 2024, I said, we expect that more end 2025, 2026. So as we looked in PGM normalization at that point in time, and as only at that point in time, the

peak has passed, indeed, it will be 2026 onwards that we really start seeing the big free cash flows.

At the same time, we will continue to generate already quite substantial cash flows in the – let's say, in that stability transformation phase because the growth is happening in the next years, but then it will decline further to the end.

Riya Kotecha: Hi. Some of the OEMs like Tesla are talking about cathode flexibility to mitigate raw material volatility. Do you think that's credible or practically possible? Are you having similar conversations with the other OEMs that you're seeking partnerships with and how does that fit in with the strategy of trying to secure contracts and volumes when they seem to be looking for a bit more flexibility? Thanks.

Ralph Kiessling: I think when it comes to cathode flexibility, of course, you can have, let's say, with the OEMs, developing technology, roadmaps, and qualification around different cathode material formulation. And you may be able between platforms, then switch a little bit forth and back. But you have rather long qualification periods with the highest quality requirements. So it's not really a commodity where you can plug and play, and cathode material A in and B out. And the other way around, because metal prices are fluctuating, I don't see this

Georgina Fraser: Hi. I've got two questions. One of them is, you've got quite different strategy in Catalysts compared to your competitors, or the two big competitors out there. Just wondering how you see that in terms of a competitive advantage. Is it easier to get the best talent in the market at this point already?

And then my second question is Umicore, therefore, still being committed and leader in catalyst, but also in batteries? Is your go-to customer strategy evolving? Do you have, Ralph and Bart, the same customer meetings? Is it EV or next generation catalyst?

Bart Sap: Should I take that one?

Ralph Kiessling: Absolutely.

Bart Sap: Yeah. Indeed, I mean, we're pretty outspoken that we want to be the transformation partner and that we are sticking with our customers. Again, because the visibility in the market will highly vary. I mean, also for the OEMs, I think they're really looking for a partner to rely on and help them doing that transformational transition. So we are convinced about that and we're going to stick with that few.

If you say then do we work together with the same customers, Ralph and myself? Well, I'm coming from the Battery side before and Ralph is coming from the Auto Cat side before. So it makes discussion really easy amongst ourselves. And we're also already exchanging talent.

So to give you a concrete example, I think – how long is it now, nine months ago or something, the sales head of Automotive Catalysts actually moved to the Battery Material business because he has the network, he knows how to talk to these colleagues. And actually, I'm also receiving talent from the Battery group because they bring this focus on how can we be more agile because the Battery business is a bit more dynamic?

So they can learn in both aspects. And ultimately, we will have this, indeed, talent flow from one to the other and ultimately, of course, from Catalysis to the Battery. So I really think it's an asset.

Ralph Kiessling: Yeah. And also coming back to the first part of your question, do you think it's a competitive advantage or is there any consequence out of the different positioning of the three main players? We think, yes, it is because if you imagine, and again, put yourself in the shoes of a car manufacturer and you can choose whom to give the business. First of all, company A that has only that type of business left and might be constrained into the future with that, I mean, in general, as a general segment. Or company B that is actually trying to, in certain way, carve out that business. It's not very clear what will happen, maybe nothing, but maybe something not good.

Other than – in the Umicore case, everybody knows what will happen because we, and I used that word before, have skin in the game. We have future business on battery. We have current business on the catalyst side and we have even more far-out business on the fuel cell side. So therefore the long run, the customers see that as well and we see the first positive sentiment in that direction.

Bart Sap: Yeah. And if I can add another concrete example, we have OEMs coming to us and asking, 'How is your future revenue profile looking? If ultimately long term the Cat business is going down, do you have other revenues because we need a partner?' And then we see that the revenues stepped up in Battery Materials and Recycling is gigantic. And these OEMs make these big eyes. 'Wow, I mean, this is really a differentiator.' And again, I explained that's why some of our partners at Automotive Catalyst are now also the partners of Ralph.

Ralph Kiessling: Absolutely.

Mathias Miedreich: Yeah. And then over there, exactly, or the other way around, it's okay.

Sebastian Bray: Thank you. Can I come back to the 200 gigawatt hours? Mathias, as you mentioned as being covered by existing agreements. And it comes back to the question I asked earlier this afternoon on how much of this is Umicore versus how much is the partners? Because the VW JV, at the time it was announced late last year was up to 160 gigawatt hours, or roughly that by 2030 if I remember.

And Stellantis ACC gave a figure of up to 46 gigawatt hours, I believe was the number by the same period. And if you add those two together, you get close to 200. Does the 200 gigawatt hours include the 80 gigawatt hours of capacity that VW would 'claim for itself' within that JV? Or is there an 80 gigawatt hour additional that you view as signed and is included within that 200 gigawatt hours?

Mathias Miedreich: Just to be clear, that when we talk about this ambition of 160 gigawatt hours for VW, meaning – that means that the ambition of the joint venture to be created has a capacity of 160 gigawatt hours towards 2030, which represents around two-third of the demand of VW in Europe, which is around 230 gigawatt hours, I think, which was the number.

So the strategy is to secure this part of the supply for Volkswagen with this joint venture, together with Umicore. So, all of these 160 gigawatt hours is in the joint venture and will

deliver to Volkswagen. And on the ACC side, it's the same logic with a little bit different setup.

So that's why I was referring to already those two partnerships ambitions that have been said, give us already about 50% of the ambition that we have articulated. That was my logic that I have put forward.

Sebastian Bray: The 400 gigawatt hours, it's not a fully – it's not a prorated consolidated figure, it's a total of all the projects in which Umicore would be involved. Because my understanding of the VW project is that Umicore's share is 'half of that.' So it –

Mathias Miedreich: No, no, the way we – okay. So the way we are projecting it is as a capacity, including the full 160 gigawatt hours, not half of that, the full 160 gigawatt hours.

Sebastian Bray: And the CAPEX of the €5 billion is for all of the 160 gigawatt hours or just for half of Umicore's – or the € 4 billion, pardon me for –

Mathias Miedreich: It's only for the Umicore part of that, as we have said earlier.

Sebastian Bray: That's understood. So when you say the 200 gigawatt hours, it's purely referring to the ACC and VW announcement?

Mathias Miedreich: Exactly. Exactly.

Sebastian Bray: That's understood. Thank you.

Speaker: Hi, just coming to the co-investment bit that you mentioned before, looking at your cash flows, it doesn't look like you really need money from outside. And you mentioned access to capital markets, your debt and equity co-investments. Would the equation, in terms of your locking in the pricing profitability margins, change if an OEM or somebody had to co-invest with you? Is that some sort of quid pro quo that you're offering?

Mathias Miedreich: Maybe let me answer the question about turning it around a little bit. The rationale for us to do this kind of partnerships, one element of that is co-investment. You're right that we have very strong cash flows and we have financing means of different kinds but the more important thing for us is – the other elements of that is to lock in or secure demand as well.

So it's a very good and a very significant side effect, if you will, that there is a co-investment, but the ability to, with a very high likelihood, prescribe the future demand of the CAPEX that you are investing, and the strong and very close cooperation from an engineering and R&D point of view that you can imagine in such a partnership, is much more open and gives us much more foresight on what this specific customer is needing. These are the key elements outside of it.

So it's not – we are not doing this because we are at the mercy of the customers to get their money to make it. We're doing this – and as I said before, it was not a process we just said, oh, now let's go to partnerships. It took us some time to accept also that fact that it is a strategic – it is actually a value up for us doing a business through a partnership with an OEM versus doing it on a standalone business. That's how we look at it. And the positive side effect is the impact on financing.

Speaker: And the second question is, as you said, 50% of your capacity is spoken for in a way. How do you come up with the other 50%? Is it already some sort of negotiations that are ongoing that might come to fruition?

Mathias Miedreich: Absolutely. Absolutely. And there, it's very important to – if you can memorize again, the picture that I've shown at the beginning with those four phases, we are now in the phase two. In this phase two, we are benefiting from the work that has been done in the last two years in work on high-nickel chemistries. And as we said, we are currently in what we call advanced qualifications, so that's very far in the process. We have said that also a couple of months ago that we are in this process and that we would inform about good news on the way. ACC was one of the first, or was the first announcement and there will be more to come. So there is a funnel, if you will, that will further go into 2022, 2023. This will be the two pivotal years to make that happen but then we'll start to fill the other half of the capacity.

Speaker: Can I just ask in terms of probability of the funnel, what percentage you're using?

Mathias Miedreich: This is a very detailed question, probably. So when we talk about this, we have a high confidence that it will happen, but I wouldn't want to express this in a percentage.

Speaker: Thank you.

Evelien Goovaerts: We have a bit more time for a few questions from the audience dialling in online. So you talk a lot about closer partnerships in the form of JVs or other partnerships. Are there any risks that Umicore could lose business with existing or even future customers who may not be comfortable with what could be seen as a lack of independence?

Mathias Miedreich: This is a very good point, actually, and this is something that the customers are also addressing to me when I talk to them. And what my feedback is at this point in time, of course, this model has a limit. This model has a limit that we cannot do this kind of partnerships with unlimited partners. And if you look to our ambition and the ratios that we have just discussed, you see that we have scoped our ambitions also in a way that we probably will not have 10 partners in this kind of way, it will be less of them.

We will always make sure that each of the companies – what we are demanding on the one hand is value creation. So the type of contracts and the type of agreements we are doing, we want to make sure that this creates value for Umicore. But what we have to give, on the other hand, is an unrestricted attention of that activity towards the respective customer.

So we will not compromise for further growth if we are not convinced that we are able to serve our customers that we have selected or that have selected us. I think that's a very important point to do. We don't compromise on profitability and value creation, and we cannot ask our customers to compromise on excellence of execution and dedication of our teams.

Evelien Goovaerts: And then a question on the single versus multiple sourcing of cathode materials. So recently, we have been saying that customers have been shifting from typically single sourcing to dual or multiple sourcing. Has anything changed recently? And if not, if it's still multiple sourcing, what is then the visibility that we have in terms of platform share?

Ralph Kiessling: I think for specific platforms, we do not see really multiple sourcing, but we are, let's say, working on certain platforms with our customers. And usually, these platforms are not shared, let's say, with different cathode makers. So it's clearly dedicated platforms, let's say, with our partnerships.

Mathias Miedreich: Yeah. And just to make clear, it is a very big effort to do a qualification. It is impossible to say today the weather is like this, I change the cathode material supplier. It is a two to three-year project that a lot of cost is involved. When we talk about multiple sources, then it is OEMs or cell makers work together with different and not only one cathode manufacturer. But on the selected platforms, it's very rare that you have this multiple sourcing because it will mean that you have to spend double the cost to qualify it if you do it from the beginning; or even more, if you want to introduce it throughout the running of the platform. So when we talk about multiple sourcing, it is multiple sources over the portfolio of a customer, but not in a single specific platform.

Bart Sap: And maybe that brings us, again, back to the partnership model because that's creates commitments for these platforms from both sides.

Mathias Miedreich: Absolutely.

Evelien Goovaerts: Thank you. Time is officially up of this Q&A session, so we will take one final break of 20 minutes before we kick off the last set of presentations. So we will be reconvening at 16.15 UK time. Thank you.

[BREAK]