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AMG Advanced Metallurgical's (AMVMF) CEO Heinz Schimmelbusch on Q4 2018 Results - Earnings Call Transcript

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AMG Advanced Metallurgical Group NV (OTCPK:AMVMF) Q4 2018 Earnings Conference

Call February 28, 2019 9:00 AM ET

Company Participants

Jackson Dunckel – Chief Financial Officer

Ludo Mees – Senior Counsel

Heinz Schimmelbusch – Chairman of the Management Board and Chief Executive Officer

Eric Jackson – Chief Operating Officer

Conference Call Participants

Philip Ngotho – ABN AMRO Bank

Henk Veerman – Kempen & Co.

Frank Claassen – Degroof Petercam

Krishan Agarwal – Citigroup Inc.

Stijn Demeester – ING Groep

Operator

Hello and welcome to the AMG Earnings Q4 and Full Year 2018 Conference Call. I would now like to turn this conference over to Jackson Dunckel. You may begin. Jackson M. Dunckel. You may begin.

Jackson Dunckel

Thank you very much. Welcome to AMG's Fourth Quarter 2018 Earnings Call. This is Jackson Dunckel, the Chief Financial Officer. And joining me on this call are Dr. Heinz Schimmelbusch, the Chairman of the Management Board and Chief Executive Officer; and Mr. Eric Jackson, the Chief Operating Officer.

AMG's fourth quarter 2018 earnings press release issued this morning is on AMG's website.

Today's call will begin with a review of the fourth quarter 2018 highlights by Dr. Schimmelbusch. I will comment on AMG's financial results, and Mr. Jackson will discuss operations. At the completion of Mr. Jackson's remarks, Dr. Schimmelbusch will comment on strategy and outlook. We will then open the call to take your questions.

Before I pass the call to Dr. Schimmelbusch, I would like to ask Ludo Mees, our Senior

Counsel, to comment on forward-looking statements. Ludo?

Ludo Mees

This conference call could contain forward-looking statements about AMG Advanced Metallurgical Group. Forward-looking statements are not historical facts but may include statements concerning AMG's plans, expectations, future revenues or performance, financing needs, plans and intentions relating to acquisitions, AMG's competitive strengths and weaknesses, reserves, financial position and future operations and development, AMG's business strategy and the trends AMG anticipates in the industries and the political and legal environment in which it operates, and other information that is not historical information.

When used in this conference call, the words expects, believes, anticipates, plans, may, will, should and similar expressions and the negatives thereof are intended to identify forward-looking statements. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that predictions, forecasts, projections and other forward-looking statements will not be achieved.

These forward-looking statements speak only as of the date of this conference call. AMG expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in AMG's expectations, with regards thereto or any change in events, conditions or circumstances on which any forward-looking statement is based.

I will now pass the floor to Dr. Schimmelbusch, AMG's Chairman of the Management Board and Chief Executive Officer.

Heinz Schimmelbusch

Thank you, Ludo. During the fourth quarter of 2018, AMG generated \$344 million of revenue, \$63 million of EBITDA, \$29 million of net income and \$51 million of cash from operating activities. On a full year basis, EBITDA increased by 73% to \$217 million, the highest in the company's history. And net income increased by 66% to \$95 million, generating the highest earnings per share in the company's history at \$2.97 per share.

AMG Critical Materials generated EBITDA of \$56 the fourth quarter of 2018, a 117% increase over last year's fourth quarter. This very strong performance was due to a combination of higher vanadium prices and higher profitability in our chrome and our titanium alloys businesses. AMG Engineering signed \$316 million in new orders in 2018, representing a 1.22 times book-to-bill ratio.

Order backlog was \$241 million as of December 31, 2018, an increase of 17% over year-end 2017. AMG Engineering achieved an EBITDA of \$7 million during the fourth quarter 2018, an increase of \$1 million compared to the fourth quarter of 2017, driven by higher profitability generated from the delivery of casting furnaces and increased after-sales services during the quarter.

AMG generated cash from operating activities of \$97 million in 2018, a 24% increase over 2017. This strong cash flow enabled AMG to end 2018 in a net cash position. Because of this strong cash flow generation and 2018's high net income, we are proposing €0.50 dividend for 2018, with a final dividend of €0.30. This is a 79% increase over last year's dividend of €0.34 versus a 65% increase in earnings per share.

I would now like to pass the floor to Jackson Dunckel, AMG's Chief Financial Officer.
Jackson?

Jackson Dunckel

Thank you, Heinz. AMG's financial performance in the fourth quarter was very strong, with

revenue, profitability, operating cash flow and return on capital employed increasing substantially over the prior year. Revenue for the quarter grew by 23% to \$344 million, thanks to a 28% increase in revenue in our Critical Materials segment. EBITDA increased by 90% to \$63 million in Q4 2018 from \$33 million in the prior year, which was also due to robust performance in AMG Critical Materials.

Net income for the fourth quarter increased to \$29 million compared to \$14 million in the prior year and fully diluted earnings per share followed that increase to \$0.92 per share from \$0.45 per share in the prior year.

On a full year basis, net income attributable to shareholders increased by 66% to \$95 million in 2018 from \$57 million in 2017. And fully diluted EPS increased by 65% to \$2.97 in 2018 from \$1.80 in 2017. As mentioned earlier by Dr. Schimmelbusch, this exceptional financial performance in 2018 resulted in the highest annual EBITDA and earnings per share in the company's history.

Turning now to review of our two segments. Let's start with AMG Critical Materials. Q4 2018 revenues increased by 28% to \$273 million compared to prior year. This improvement was driven by strong sales volumes of aluminum products as well as improved prices in vanadium, aluminum products, chrome metal and titanium products. Gross profit for Critical Materials increased by \$27 million, increasing it twice the rate of our revenue increase or 68% over last year's fourth quarter. At the business unit level, substantially improved gross profit in vanadium, chrome metal, titanium alloys and graphite were partially offset by lower gross profit in silicon metal and in Brazil.

Critical Materials SG&A expenses in Q4 2018 decreased by \$2 million or 9% compared to the prior year due to lower personnel costs and professional fees.

EBITDA for the Critical Materials segment was \$56 million, an improvement of 107%

quarter-over-quarter, driven by higher gross profit.

Finally, AMG Critical Materials incurred a noncash, nonrecurring environmental expense of \$8.7 million in the fourth quarter, largely related to the Newfield, New Jersey site. Because it is nonrecurring, this expense is excluded from our EBITDA calculation.

Our AMG Engineering division signed up \$68 million of orders during Q4 2018 comprising mainly turbine blade coating as well as remelting furnaces. Order backlog was \$241 million as of December 31, 2018, an increase of 17% from December 31, 2017.

AMG Engineering Q4 2018 revenue increased versus the fourth quarter of last year by 7% to \$72 million. Gross profit before nonrecurring items increased by \$3 million quarter-over-quarter. This increase in gross profit was due to strong performances in after sales services, casting furnaces and in our turbine blade coating franchise.

SG&A expenses increased by \$2 million compared to the same quarter in 2017 due to higher employee-related expenses. Most of this increase was due to hiring in our after sales service business, which grew strongly in 2018.

Engineering EBITDA increased by \$1 million to \$7 million in Q4 2018 due to higher levels of gross profit, partially offset by higher SG&A expenses. Overall, SG&A costs in the quarter were \$35 million or 1% higher than the prior year. Full year 2018 SG&A expenses were \$144 million, a 9% increase from \$132 million in 2017, primarily due to an increase in personnel costs.

Net finance costs increased to \$7 million in Q4 of 2018 compared to \$2 million in the same period of 2017. This increase was primarily due to higher interest rates and higher outstanding gross debt associated with AMG's new long-term credit facility.

AMG's income tax expense increased by \$31 million versus the prior year, driven by the

full recognition of AMG's U.S. operating loss carry forwards in the prior year and higher levels of profitability in 2018.

As we often say, due to the volatile nature of the company's Brazilian deferred tax balances, AMG believes that the cash tax rate is a more meaningful metric. In the fourth quarter of 2018, AMG benefited from operating loss carry forwards that offset taxes payable. As a result, despite high pretax profitability, AMG paid taxes of \$21 million in 2018 as compared to \$10 million in 2017. Therefore, for 2018, AMG's effective tax rate was 15% as compared to 14% in 2017. In 2019, because of the full utilization of our U.S. NOLs and higher projected profitability in certain jurisdictions, we expect our cash tax rate to be approximately 30%.

Our fourth quarter 2018 capital expenditures decreased to \$18 million from \$28 million in Q4 2017. The largest expense in capital project in the fourth quarter was AMG's lithium project in Brazil. For the full year of 2018, we spent \$73 million in capital expenditures, including \$28 million on maintenance capital. As Dr. Schimmelbusch will discuss in his closing comments, AMG has significant optionality with regard to capital projects. Based on our current lead scenario, we would expect capital spending to be in the range of \$80 million to \$120 million in 2019. And we'll update the market as we proceed through the year.

In terms of liquidity, AMG's balance sheet is exceptionally strong and we are in full compliance with all debt covenants as of December 31, 2018. Including our \$382 million of cash, AMG had \$552 million of total liquidity as of the end of the fourth quarter of 2018.

On a year-to-date basis, operating cash flows were \$97 million, an increase of \$19 million over the same period in 2017 due to higher profitability in Critical Materials, offset by higher working capital levels. Thanks to this strong operating cash flow generation, AMG was able to invest significant capital in our growth projects, distribute a dividend to

shareholders and still end the 2018 in a net cash position. This is a testament to the strength of our portfolio's cash-generating capabilities.

That concludes my remarks. I would like to now pass the floor to Eric Jackson, AMG's Chief Operating Officer. Eric?

Eric Jackson

Thank you, Jackson. As a general remark, all of our businesses are performing well and continues to be highly focused on managing working capital and price volatility and delivering operational innovation and improvement. I will touch on a few highlights. AMG Vanadium's profitability was exceptionally strong in the fourth quarter as we delivered near-record levels of production in our Ohio facility and ferrovanadium index prices continued to increase for most of the quarter. Ferrovanadium prices started to adjust downwards later in the fourth quarter.

However, our recycling business model is the most economic and environmentally preferred outlet for the dramatic increases we see in Brazil spent catalyst and has proven to deliver strong financial performance at all price levels. AMG titanium alloys and coatings performance continues to improve quarter-over-quarter, driven in large part by higher titanium aluminide volumes and our increasing market share for low pressure turbine blades destined for the LEAP-X engine program. In the fourth quarter, we have expanded and extended a number of our long-term contracts.

Additionally, we are making excellent progress on qualifying and selling titanium aluminide powders for additive manufacturing applications, which is the result of our recently completed investments and collaborative program with AMG Engineering. In AMG Brazil, tantalum, lithium and niobium quarterly revenues were higher compared to 2017. However, profitability in our mining operation was reduced by lower tantalum and lithium

prices and the expensing of our ramp-up costs. The mine and processing plants are producing spodumene that meets our contractual sales specifications. Our EPC contractor plans to conduct our 100% capacity test at the end of May. This test was previously planned for April. Our tantalum processing plants rebuilt after the fire in late 2017, continues to set record quarterly production levels.

In AMG Engineering, exceptional demand for a number of our industry-leading vacuum furnace innovations and solutions continues to drive strong order intake, especially in the aerospace end market. We are working to reduce delivery times and streamline operations and are aggressively marketing our after sales service and parts program, which grew revenue by 48% year-over-year.

I'd now like to pass the floor to Dr. Heinz Schimmelbusch, AMG's Chief Executive Officer.

Heinz Schimmelbusch

Thank you, Eric. In summary, our business portfolio performed exceptionally well in the fourth quarter and we have a good visibility for continuing strong performance in 2019. 2019 started well. In 2018, we had an exceptional performance in Critical Materials, in particular in vanadium. However, the margin expansion we experienced due to the rapid increase in vanadium prices in 2018 will correct when prices level off. As published, we are working on what we call Cambridge 2, the doubling of our capacity in Ohio.

Furthermore, we continue to progress our cooperation with Criterion, the catalyst division of [indiscernible] to provide a global offering of an end-to-end differentiated catalyst supply and reclaim solution to refinery customers.

Despite a slight delay in the ramp-up of our lithium concentrate plant in Brazil, we are shipping high-quality in-spec material, which has been well received by our long-term customer. In addition, as we announced yesterday, we are pleased that our lithium

management team has been strengthened. On January 1, Dr. Stefan Scherer joined us as Chief Commercial Officer of AMG Mineração BV. He has over 20 years of experience in the specialty, fine chemicals and lithium industries.

The most important strategic initiative within AMG is the recently announced formation of AMG Technologies. This new division essentially comprises our aerospace engine business in titanium aluminides, ceramic matrix composites, thermal barrier coating equipment for turbine blades and equipment and powders for 3D printing applications in that industry. AMG Technologies aims to offer innovations not only through engineering new equipment, but also by extending what we call build-own-operate business model we successfully developed in our heat treatment service business.

Presently and in the coming years, we expect high growth in aerospace engine applications with thermal turbine blade coating as a leading example, followed closely by our titanium aluminides business. In both areas, we are a leading critical supplier. As regards to outlook, our last long-term guidance at the AGM in May 2018 was that we would reach \$200 million of EBITDA or more by 2020 or earlier. Obviously, it happened earlier and with record numbers all around. For 2019, our target is to exceed the \$200 million mark again. Our updated long-term guidance will be published at the AGM on May 1, 2019.

Operator, we would now like to open the line for questions.

Question-and-Answer Session

Operator

Thank you very much. [Operator Instructions] Our first question will come from Philip Ngotho, [ABN AMRO Bank].

Philip Ngotho

Hi, good morning, it's Philip Ngotho from ABN AMRO. I have a number of questions. First, on the ramp-up of the spodumene plant, so I understand it has been delayed by a bit more than a month. But I was wondering if you could indicate back in Q3, where the results you indicated that you were expecting the average utilization rate for the lithium plant in 2019 to be at 85%. And I was wondering what's – what the implications are for this delay, so what do you expect for 2019 in terms of average utilization rate? And in relation to that, I'm also wondering if you could still give a bit of a view on how the production costs are developing or what your view of – on that is?

Back two years ago, when you announced the plant – the plans to build a lithium spodumene plant, you were guiding for production costs of just above \$200 per ton. I understand that's excluding the shipments to China. But can you give an indication of where you see these – the production cost level averaging out so that we can also get a bit of a feeling of what to expect in terms of earnings contribution? Those are my questions for now.

Heinz Schimmelbusch

Though the SP1 ramp-up will lead to what is expected to happen in May, namely, with the end of – mid- to end of May, the so called, 100% test in the contract of our EPC contract that we have, that is a very important event and that has been shifted by a month, and we do not speculate about the ramp-up details as we got to – when we finally reach continuous 100%. That's not – that would be very unusual in the – the cost, you mentioned the cost is unchanged. We – what you just referred to – you referred to a cost level announced earlier, and that is unchanged. There's no new information about any cost level changes.

Philip Ngotho

Can I just ask a question, a follow-up on that? Because back in – with the Q3, Brazil – the call that we had after the results, you did comment on or maybe it was Jackson, you did give guidance on what you...

Heinz Schimmelbusch

It was exactly – I don't – that was Jackson who commented. I do not. And...

Philip Ngotho

Okay. But are you less comfortable of now issuing or giving some kind of guidance on what you expect in terms of average utilization?

Heinz Schimmelbusch

I have never changed my opinion on this lithium project. I think in my definition, it is business as usual, a ramp-up business as usual. It's a very complex chemistry plant. We are extremely happy that the product quality is excellent and that is the most important form. When you are running a business like that, the most important – the box to check first is, are we producing high levels of quality? And that is the case.

Every mineral logical composition of lithium-containing material has its individuality, and you can develop that and you can do all sorts of things, but then you have to produce consistent qualities, and we are. So that's number one. That's the first part, and that's a big success. We shipped the material – we started last year to ship that material to our very sophisticated customer. And the material is being used and is totally accepted.

The rest of ramp-up is tweaking, and that has unforeseen events and it has little accidents, but it is improving. So that wasn't special – we expect is 100% test to be

successful, and that has been the milestone for bringing the production consistently on a very high level. Why are we confident is because we have a very reassuring management team and the EPC contractor has given us very strong statements to that effect. I think we should then move on.

Philip Ngotho

Right. Then maybe, if I may, just one last question on this. Given that lithium will become spodumene, but also if you go – if you go also downstream, that it will become a very important element in your portfolio. How are you thinking about disclosure on – future disclosure on this segment or product? Will you be disclosing volumes or ramp-up sense or anything?

Heinz Schimmelbusch

Well, that would give me opportunity to talk about the large areas of AMG – the largest area of AMG. I think the area is, I think, around vanadium. The second largest is Engineering and that is going into the new entity, AMG Technologies. Battery materials will be reserved large area within the Critical Materials division. The battery materials, however, are not only lithium, they are lithium, graphite, natural graphite for the end nodes of the lithium ion battery. It's vanadium for the vanadium redox battery, which by the way, is a product of AMG, and it also touches on other things, such as antimony for conventional batteries.

So the spent cat in that or the spent catalyst area or the recycling of residues of the oil industry is number one; the new segment or new operating division, AMG Technologies, number two; battery materials is number three . Just to put a perspective on that. We are not planning – we have started to operate the AMG Technologies division as a segment January 1. We have an operating management in place. We have a business plan under

development for that, which will show the size of this segment. You can presently get a very strong first quarter in that sequence, you can address that with, actually \$70 million is EBITDA in this. But 70-ish or of negative \$70 million EBITDA in that division, of \$217 million in total. And this is maybe "rivaling" both to the spent catalyst and the battery materials area.

Now let me go back to lithium. In lithium, we have two – we have projects, as you know. The first of all, projects, of course, is SP2, referred to as SP2, the second spodumene plant. We have far-reaching negotiations and preparations and visibility studies and power plant work and preliminary engineering for this work, but we had addressed as Ecopro in Korea, which would be a chemical – emission chemical upgraded from spodumene in Brazil and then delivered to Korea where it will be turned into hydroxide and feeded into the Ecopro downstream system, as one alternative. And the third project here to be mentioned is a gasic carbonate plant in Brazil.

So we are definitely intended to – we intend to go downstream. And I just want to mention that as we got to priorities and sequence, it is off the – not wise to – if you go downstream in Brazil and press the button, well, that's fairly large and complex investment to, at the same time, start construction of SP2. That would be outside our management resources. And has also other implications as regard to the localities and permitting, et cetera, et cetera. So test for U.S., they can't.

Operator

Our next question will come from Henk Veerman [Kempen & Co.].

Henk Veerman

Hi, good afternoon guys. Thank you for taking my questions. Actually I have a couple and maybe specify, go through them one by one. Firstly, on your results in general, I think it

surprised a lot of people possibly like a strength in Q4 ,which I think in general is seasonally a bit of a weaker quarter. Were you surprised as well when you saw those results? And maybe you could give a little bit of more specifics on where you are surprised of the strength. And maybe more specifically on the aerospace-related demand, where I think if I look at the numbers, I see strong demand there. Was that atypical seasonally? And maybe you could give some color on that.

Heinz Schimmelbusch

Honestly, we were not surprised. We expected that. The business is, as Eric Jackson has pointed out, running well and in full capacity utilization on all – the engine is running on all cylinders. So therefore, there is no – there was highest visibility as regard to the fourth quarter. We were questioning our sales whether we can make into a net cash position.

Somehow you can view leverage in very many ways. You can say it's good or you can say it's bad. We are very conservative people, and we had since quite some time a target to not leverage to up because despite large CapEx, and also that has the reason because it is not unlikely that one of these days, we might come to have an acquisition in mind. And if you have an acquisition in mind, you need a very good balance sheet. So that was not a surprise. That's my answer.

Henk Veerman

Okay, that's clear. Two questions on lithium. One, there's more specific and one more general one. I think, start with the more general one. On your view on the lithium market, it seems like in the last months or quarters, if you will, there have been sort of couple of warnings on outputs of your competitors being lower than expected. At the same time, you see some of the guys experiencing delays in the ramp-up. I mean, and I think if I, for my understanding, I mean, the demands outlook has only increased. What is your view on

lithium pricing? And then not maybe for the next quarter or maybe, let's say, for the market in the next couple of years and sort of in a market where you will also ramp up your production?

Heinz Schimmelbusch

I personally have watched the lithium market since 40 years, and the reason for that is that I, in my former life, was the largest producer of lithium. So I have an opinion on lithium. You have very correctly pointed out that is delays – is that lithium chemistry is a challenging chemistry as regard to supply life, and I think what our friend at Morgan Stanley has overlooked is that – exactly that. The demand is solid. And the whole automotive industry is geared towards mega capacities in that regard.

So demand is pretty clear. Supply is less clear and there's challenges. And some of the announced supply lines will actually be much later. And therefore, I think in 2020, but that's a personal opinion, and I believe our General Counsel has read that all forward-looking statements are completely – whatever they are. But I expect this Lithium-5 to be corrected upward and in line with other large producers on this judgment.

Henk Veerman

Okay, well, I think that you – in general, you are very bullish then on the pricing conditions in the medium term?

Heinz Schimmelbusch

Yes.

Henk Veerman

One more specific one, on your deal with – or potential deals, let's say, with Ecopro.

Obviously, you announced a Memorandum of Understanding with a very – sort of like very specific deadline of when those discussions would end and when we would be in agreement. Yes, or no? Firstly, if I recall correctly, there was also a legal component to that Memorandum of Understanding, maybe you can comment a bit on that. And if sort of that deadline expire, does that mean that the Memorandum of Understanding is off the table?

And secondly, which I think is also very important, what is your most recent view on a partnership in downward integration versus in-sourcing yourself? Because what I feel in the market is that many investors and many stakeholders actually are quite worried about a potential in-sourcing. And I was wondering what would you say to those people. Thank you.

Heinz Schimmelbusch

What do you mean by in-sourcing?

Jackson Dunckel

Henk, would you mind just describing what you mean by in-sourcing?

Henk Veerman

Downward integration of projects that are producing lithium carbonate/hydroxide, doing it all by yourself instead of doing it, let's say, with a – in a JV partnership or doing it yourself.

Jackson Dunckel

We're doing it alone.

Heinz Schimmelbusch

It's a very relevant question. For example, if you build a government plant in Brazil, you have the alternative to build – to simply have a conversion agreement with somebody and then enter the market from there, and that is done with capital – it's less capital-intensive way to do that, illegitimate to – and we, of course, ramp that against – you have to also understand that – we, of course, do, I'm sorry to say that. But every country and Brazil is a country has a legislation favoring higher value projects, higher value products. And we think that it would be easy to not have a downstream plant in Brazil. You know that several countries, and that includes Chile, Indonesia and other countries have mining legislations, which are very much geared towards higher value production.

And spodumene is a low lithium concentration product, carbonated. It's been 100% or more of that, and not 7% or 6%. So that has to be kept in mind. As regards to Ecopro, actually we are right now visibly clean. So this is a very ongoing situation. The key aggression in the Ecopro things, we all have to be convinced that the technical sequence of creating lithium sulfide in Brazil and turning back into a particular flowsheet of hydrogen in Korea is feasible. We have a very high end technical team in chemistry.

We have actually a brand new management team with regard to technology chemistry of downstream, which was a tie-up from our competitors, an impressive group of people. And we are analyzing that sequence, that flowsheet. We have to be satisfied with that flowsheet, and that might imply a power plant because you better are completely convinced that this sequence is okay before investing a very large amount. And the alternative is, of course, into a conventional carbonate plant in Brazil.

Operator

Thank you. Our next question will come from Frank Claassen [Degroof Petercam].

Frank Claassen

Yes good morning to you. Frank Claassen, Degroof Petercam. Question on Cambridge 2, your second vanadium plant, what are the main hurdles left to take? And do you still think you can start construction already still in the first half? And maybe related to that, on your CapEx guidance, \$80 million to \$120 million, how much is involved for growth CapEx like Cambridge 2 and maybe also spodumene 2? So what's on that?

Heinz Schimmelbusch

Well, I commented on spodumene. If I have to characterize the sequence, I think, the downstream sequence perceived spodumene, that will be the – I think that will be the outcome of this priorities. The bulk of the range, which we have given or which Jackson has given \$80 million to \$120 million, it's vanadium, recycling as Cambridge 2. The hurdles, of course, we need to finalize certain supply agreements. We have reporters on this, but we want to be super sure that we have long-term agreements. We are very confident in this area because we have essentially an oversupply of that catalyst in North America, vis-à-vis the capacity. We are the capacity, practically.

And the amount of spent catalyst is rising because the amount of fresh catalyst is rising worldwide. Because as the IMO legislation has led to 200 million, that's my estimate, 200 million tons of bunker fuel seeking a new home, meaning you have to invest in desulfurization. And when you invest in desulfurization worldwide, you have to spent catalyst, you have to – desulfurization means nickel-embolic catalyst, so you add to the refinery – another refinery practically, using those catalysts that the vanadium is then in the oil and residing on those catalysts when it is a spent catalyst, and estimates are that the fresh catalyst and the spent catalyst volumes are going steeply up.

That's our scenario. Both for our Cambridge 2 and, of course, for expansion outside North America, and that is the reason of this transaction negotiations and preparations. Because we are traveling worldwide to where this fresh catalyst and spent catalyst events are

happening, and this has a massive growth potential. But we want to address this in the form of a partnership, AMG is of limited size. We are technology leader, but we need country expertise and so on. And so we are very comfortable in doing so in partnerships. And that also has, of course, CapEx implications. So the vanadium complex is, I think, the dominating area of CapEx hidden in this \$80 million to \$120 million number.

Frank Claassen

Okay, thanks. And then maybe last question on the vanadium price. It seems that the U.S. still has a premium versus the rest of the world. What is your view on the vanadium price going forward?

Heinz Schimmelbusch

Well, we are watching China weekly or daily. And Chinese price is creeping up again. There was a weakness, Chinese New Year, and so on. But it is, I think, strong. And that has implications. That is the result of the apparent enforcement of the REBA legislation and the REBA legislation is solid because it has not only environmental reasons, but also economic reasons because as we all know, vanadium alloy steel, the new alloy steel – you use less steel for the same purpose. And that is of course [indiscernible] to reducing exercise, and that is in mind of the legislators and the question was how are the REBA regulations enforced, and that was a question in some theoretical considerations. Well, that will be not strictly enforced, I believe it will be strictly enforced. And therefore, I'm confident that the buzz will be strong.

Frank Claassen

Okay, thank you very much.

Operator

Thank you. Our next question will come from Krishan Agarwal [Citigroup Inc.]

Krishan Agarwal

Yes, hi. Thanks for taking my questions. You earlier alluded to that the vanadium price is a sort of corrected and then margins are also correct in 2019. So can I push a little bit on that? Based on the current spot prices, do you think that the margins in the vanadium business in 2019 will be able to stay flat on a comparable basis to full year 2018? Or do you expect margin contraction year-on-year?

Heinz Schimmelbusch

The vanadium price in – when you do spot right now is around \$40 of vanadium. I think that is a good assumption for the rest of the year. It might go back up further. But tell me about the future. I think the fundamental trend when you read my elaborations in my letter to the shareholders in the last annual report, I will amend that by the way this year, and that we'll be adding another plant. Vanadium is in a multi-trend, long-term growth scenario. That doesn't mean this goes in a straight line, but if I had to pay the long-term vanadium prices, I would be very safe betting on strong vanadium.

The supply of vanadium is limited. The supply comes from remote areas, partly from environmental, very cumbersome production facilities, which are under scrutiny. We are having a very environmentally superior technology, and we are 100% recycle. We also work on technologies to not only go from spent catalyst into ferrovanadium, but also from spent catalyst into V2O5 and then high-purity vanadium as we are the world's leading titanium alloy producer. And when you hear titanium alloy, you hear vanadium.

So titanium alloys are only 90% titanium, the rest is other things. And among the other things, vanadium is the most prominent one and that's high-purity vanadium. And if you close the loop between spent catalyst – vanadium sourced from spent catalyst into high-

purity vanadium, that's a very interesting route and a very – it's in a way effect of integration into recycling. And then you match – and that is high margins, that is high margins, solidly high margin. So there's a lot of things happening in that section of our business.

Krishan Agarwal

Yes, thanks. A follow-up question on one of the business in Critical Materials, which is silicon. I'm not sure what's your view here, but the profitability in the last two quarters sort of have been lower than the usual levels you've seen in 2017. I understand that there was an operational disruption. So what's your view for the profitability in silicon to normalize in 2017? Or is this a new normal level of profitability for the silicon business?

Heinz Schimmelbusch

Jackson, would you have that? Eric?

Eric Jackson

I mean, as far as operations, we had some yield issues during 2018, and those have been corrected. So we're operating at full capacity and back to normal operations. I think silicon prices right now are generally weak. But we don't see any significant downside to those prices.

Heinz Schimmelbusch

And we are sold for the year.

Eric Jackson

And we are essentially sold for the year.

Heinz Schimmelbusch

Sold at the price, so there is no price risk anymore.

Eric Jackson

It continues to be a solid business for us.

Krishan Agarwal

Okay, understood. And finally, last year you've mentioned about sort of 100 headcount increase into your Engineering business given that the order book was strong. So apparently, there is a little bit of cost increase in the Q4 in the Engineering business. So just wanted to get your views as in – has that cost sort of have come into the P&L or do you expect further cost increase because of that headcount increase in 2019 on a full year basis?

Heinz Schimmelbusch

That's nothing unusual, there are headcount variations in various kinds in various countries. In general, we want to build headcount following a strong order intake. You know the order – let me talk about the order intake. Here, we are facing those in the Engineering business and in the titanium alloy business, which now is in one division. We are facing a strong, growing demand from the aerospace engine industry. The aerospace engine industry is dominated by the LEAP-X engine. And the LEAP-X engine has presently an estimated backlog of \$170 billion, which was built over years.

So, for example, I don't know – you have to set in, but from memory, there were 1,000 engines built in 2018, LEAP-X next year, it's almost double that number. So it's a high growth industry, very solid, very long term and the supply line is under threat, but we are adding pieces, but not in a big way. This is a question of high specialist hirings here and

there. But the very positive thing is that the margins are very stable and also stable margin this year. And you have to manage a deck like that, this whole supply chain, then the whole supply link is in the good shape. So we are in good shape.

And I think that is very much the reason for the formation of AMG Technologies because we need a very focused management on the aerospace business. And our titanium aluminide end up in the same engine, in the different section of the same engine. And coating, we are the world's leading supplier of coating of turbine blades that ends up in the same engine. And ceramic matrix composites end up in the same engine.

So that has led to this AMG Technologies formation, and there's also another thought behind that, by the way. And it has not – it's kept our attention that the multiples in aerospace are distinctly higher than the multiples in other areas. And we are very unhappy about our multiple and we want to highlight the fact that a large part of our business should be [indiscernible] but anyhow, we will be very specific on that as the year progresses.

Krishan Agarwal

Yes, thanks a lot.

Operator

Thank you. Our next question will come from Stijn Demeester [ING Groep].

Stijn Demeester

Yes good morning to you. My first question is on vanadium. In the past, you have guided for the sensitivity of \$1.5 million to \$2 million in additional EBITDA per \$1 per move over the price. Obviously, looking at 2018, this equation didn't hold up and gross profit and EBITDA was higher than you would assume on using the rule of thumb. Can you explain

which factors drove this extraordinary profitability in 2018? And can you help us understand or what should we take into account for 2019 when forecasting this vanadium business? This is my first question.

Heinz Schimmelbusch

I don't want to complicate your life. But our vanadium business has four cash flow components: one is vanadium; two is tipping fees, that's cash, that's nonvolatile; three, molybdenum; and four, nickel, because these three metals are being extracted. The tipping fee is moving up over time as the capacity of recycling is carved.

And the other elements have their own sensitivities each. So that is a complex formula. Molybdenum has been strong. Nickel is right now strong. Vanadium has been strong, leveled off a little, but it might be strong again. Tipping fees move up. So that's what's happening. But no matter what's happening, the tipping fees cover our operating cost. And therefore, we are the worst lowest cost producer of vanadium.

Stijn Demeester

Okay. And as I understand, there's another element that played in 2018 and that's Venturi reevaluations because of the strong price increase throughout the year. That obviously will not be repeated in 2019 if assuming that prices stay flat. So is that cause for a more difficult comp? And is it possible to quantify that comp?

Eric Jackson

This is Eric. I don't think we really want to disclose our inventory levels. But just as Heinz mentioned in his section, there was, of course, when you're a producer, you have a certain amount of inventory. And so when prices move up very dramatically in a short period of time, there is some margin expansion. And if they were to move down dramatically in a

very short period of time, there would be margin compression. But I don't think we want to honestly talk about our inventory level.

Heinz Schimmelbusch

Yes, they haven't moved down dramatically, besides the fact that 40 to 50, and now back to 40. So we're still in a very, very, very good character.

Stijn Demeester

Okay, understood. Thank you very much. And then a final detailed question on vanadium. There is this issue of the mega-skin residues as an input. Is that an element that will play in 2019?

Heinz Schimmelbusch

Not in 2019, but thereafter. And let me correct, let me correct. We have done laboratory tests and we are in final stages of setting – of improving that route and then comes qualification.

Eric Jackson

Could you, just for clarity, could you repeat your question, please?

Heinz Schimmelbusch

I think there was a misunderstanding, what [indiscernible].

Stijn Demeester

Yes, sure. Sorry – as I understood in the past, you benefited from a sort of residue material, which came from Mexican annuity plan?

Heinz Schimmelbusch

That's a different question.

Stijn Demeester

Okay.

Heinz Schimmelbusch

Yes, well, I think that's just – we source on an opportunistic basis search and other raw materials, but it's not a material

Eric Jackson

[Indiscernible]

Heinz Schimmelbusch

Yes it's not material to our business model and it's just opportunity.

Stijn Demeester

Okay, I understood.

Heinz Schimmelbusch

You don't normally rely on Mexico for large scale industrial operations. You know in Mexico – you're currently in Mexico goals.

Stijn Demeester

Okay, understood. And then the next question is on Ecopro. As I understand negotiations or I assume that negotiations are still ongoing, can you lay out complexities of these

negotiations? Perhaps...

Heinz Schimmelbusch

I'm not talking negotiations. I'm talking technical tests and visibility work, engineering work. So they are very clear what the structure is, what we have negotiated, but it needs to work. And this is a new route, a new flowsheet. And we need to ensure that, that it is the right thing to do. And all our Ph.D.s in our laboratories are on it right now, on this pilot plant work and laboratory work and we have to be sure. There was an earlier conversation in this call about supply delays, et cetera, in the lithium world. And that is related to that. We don't want to make a mistake. And time doesn't play really a character. It's not so that we will never compromise the visibility because we want to haste the input into production. This is a game of very high CapEx. And, therefore, you have to control your risks. And you cannot make compromise in that regard. Visibility means visibility in this industry.

In most cases, a laboratory is not enough. You need a pilot plant. And not only you need a pilot plant, you need a commercial kind of demonstration of the quality. That's very important.

Stijn Demeester

May be...

Heinz Schimmelbusch

I mean, let me elaborate, please. The upgrading of a lithium chemical produced in Brazil, in Korea is linking lithium sulfide into – turned into hydroxide, into a quality of cathode material, which is past 1 billion. It's a quality – it's not past one million, it's past one billion. So you better assure you are meeting those things, because the better in the material world is quality wise, that challenge – quality is the challenge.

Stijn Demeester

Okay, understood. I don't want to over simplify it but do you think the probability of starting a deal has come down since the third quarter? Would you...

Heinz Schimmelbusch

No, it has not. No, no, no.

Stijn Demeester

Okay.

Heinz Schimmelbusch

And those are [indiscernible]. Yes, so I think that covers it.

Stijn Demeester

Okay, final question, if I may, on tantalum. Obviously, prices, spot prices have come down a lot, I think, mainly due to new supply coming from Australia. That is probably not the end of it and also AMG is increasing capacity in the next few years. What is your view on prices? At which level do you expect them to stabilize? And should the current price levels influence your profitability for tantalum business and then also probably lithium business in the next few years?

Heinz Schimmelbusch

Well, we have a lithium tantalum mine, or a tantalum lithium mine in Brazil, and that we are, of course, the local producer. The interesting part here is, of course, Central Africa. When you can tell me about the future of political stability in Congo looks like, then I am able to comment on this. We have been active in Congo. We have left fortunately and we

don't want to go back. And our quality is that we can write long-term contracts in tantalum. In the Central Africa, you can write a contract, but then the question is what you do with that contact.

You can hang it, you can frame it and put it on the wall. That's about it, it's in a static value, not a commercial value. And I have watched this for a long time. I am wondering what uses of tantalum think when they source their value chains in Congo. And then the independent directors are signing statements that they have value chain scrutiny and audits and all that. It's all very challenging. So they probably – we have a very strong compliance officer who watches our value chains. And those companies, obviously, have that deficiency in that area. I think we are now...

Eric Jackson

Operator, I think, we've exceeded our time limit.

Operator

Alright, sir. Thank you very much. Gentlemen, do you have any closing remarks?

Jackson Dunckel

No, not from our side.

Operator

Thank you very much. Ladies and gentlemen, at this time, this now concludes our conference. You may disconnect your phone lines, and have a great rest of the week. Thank you.

Comments (0)