

**CHR. HANSEN**

**Annual report 2016/17  
October 25, 2017  
10:00 CET**

Operator: Thank you for standing by and welcome to the presentation of Christian Hansen's Results for the Full Year 2016-17. At this time, all participants are in a listen only mode. There will be a presentation followed by a question and answer session, at which time if you wish to ask a question, you will need to press star one on your telephone.

You are also welcome to submit questions via the webcast by clicking on the Q&A tab on the webcast at any time during today's call. Those questions submitted via the web will be answered after the call. I must advise you that this conference is being recorded today.

I would now like to had the conference over to your speaker today CEO, Cees de Jong. Please go ahead.

Cees de Jong: Thank you, operator. Good morning and welcome everybody. I'm Cees de Jong, CEO of Christian Hansen and with me is our CFO, Soren Lonning. Sorry for starting a few minutes late, but we know that there were a number of participants that were on another investor call and we wanted to give everybody the opportunity to connect.

Now, looking to 2016-17, it was another good year for Christian Hansen. All business areas grew in line with or ahead of our financial envisions. We completed the integration of NPC and LGG and shortly after the end of our financial year, we also completed the large capacity expansion for dairy cultures in Copenhagen.

And, especially this complex project has been delivered fully according to plan. During the year, we've also made good progress on building further capability and critical mass in our longer term growth areas. Food cultures and enzymes and Health and Nutrition both delivered strong growth performing just above the long term (emissions) for these businesses. And Natural Colors grew in line with these long term targets.

Overall, this meant that we reached the high end of our revenue expectations. Profitability improved in all areas and the significant EBIT improvement in Natural Colors is particularly encouraging. The solid operational performance has had a positive impact on our cash flow which also ended both expectations.

Our lighthouses progressed well during the year. Our revenue in bioprotection grew around 30 percent. And a range of second generation products has just been launched to further fuel future momentum in this category.

In Plant Health, we received registration for two new products ahead of schedule and we believe both products offer great prospects. In human microbiome, we expanded our strain library with lead candidates targeting gastrointestinal, immune and metabolic health. Now, we do expect our next financial year to also be another good year for Christian Hansen.

And to ensure we stay on the right track we have started the second review of our (Nexus) number one strategy and we expect the findings to be presented at a capital markets day in April.

Now, before we move on I would like you to take a look at the disclaimer on the next page. I hope you had a chance to read the statement or you will do so afterwards so let's move to slide number three, please.

Our financial performance was strong in '16 '17 and revenue which was up 12 percent on last year just exceeded the EUR1 billion. The organic growth and that excludes (NPC) for the first six months reached 10 percent.

The organic growth was mostly driven by volume and mix while price contributed to around 1 percent and the latter mainly due to higher raw material prices in Natural Colors. In Q4, organic growth was 12 percent with 11 percent from volume and mix and around 1 percent from price driven by euro based pricing.

For the full year, the impact of euro based pricing was neutral. Food cultures and enzymes delivered 9 percent organic growth and that growth was supported by all the levers of our growth model. In addition, growth was supported by very strong momentum in bioprotection.

In Q4, FC&E organic growth reached 10 percent. The organic growth in Health and Nutrition was 14 percent driven by all business areas and it's pleasing to see that animal health contributed well. We believe that the market conditions in most animal health segments have normalized.

Organic growth in Q4 for Health and Nutrition was 21 percent. Natural colors delivered 10 percent organic growth and volume and mix contributed around 6 percent and priced for. The price increases were driven by higher raw material prices and general price increases.

Volume growth continues to be impacted by a pruning of low margin business as we remain committed to improve profitability. Organic growth in our Natural Colors division reached 11 percent in Q4 with 8 percent from volume and mix and 3 percent from price.

Now, for the group, the operating profit before special items increased by 15 percent to ERU207 million and that is equivalent to an EBIT margin before special items of 28.9 percent. And that is up from 28.2 percent last year. The increase was driven by the higher sales volume and operational efficiencies.

In Q4, EBIT margin before special items increased 0.9 percentage point despite negative impact from currencies. The increase was driven primarily by Health and Nutrition and Natural Colors and as expected food culture and

enzymes saw a decrease in EBIT margin due to higher cost and a tough comparable to Q4 of fiscal year '16.

R&D expenditures amounted to EUR75 million or 7 percent of revenue compared to 7.1 last year. Profit for the period ended at EUR224 million and that is up 22 percent on last year. And finally the free cash flow before acquisitions and special items reached EUR188 million which is ahead of our expectations and mostly driven by the improved profit of the business.

Now, let's move to the next slide for an update on the strategic highlights of '16, '17. The three key strategic initiatives to support the long term growth of Christian Hansen all showed good progress during our last financial year. In bioprotection, we continue to see strong interest for our solutions in both fermented milk, cheese, meat as well as other application such as salads.

Bioprotection sales increased around 35 percent in the fourth quarter, ending the year with 30 percent growth. The growth is anchored in both EMEA and North America and we also see strong interest outside these regions and we will be able to address more of these markets with the launch of our range of second generations products. And I will come back to that on the next slide.

Within plant health, we saw strong growth in Nemix C and we continue to see encouraging field trials supporting the penetration.

Towards the end of the year we completed ahead of schedule the registration of two new products. And these products are called (Quatro) and Presence and the registration is in Brazil.

(Quatro) is a bionematicide that is applied in the soil at planting while Presence is the first commercially available biological nematicide for seed treatment. Both products are crop independent and enable us to address for instance crops such as coffee and soy as well as sugar cane.

In addition together with FMC, we've conducted a significant number of field trials to support the development of new biological plant health solutions. In the human microbiome, the third lighthouse, we've made solid progress.

During the year, we produced and formulated the first strict anaerobic bacteria with pharmaceutical potential.

Solid progress has also been made in our strain library for the human microbiome. There we have expanded with about 100 novel lead candidates targeting gastrointestinal, immune and metabolic health. These strains are being made available for co-development with customers and partners and both accomplishments are significant milestones in developing next generation probiotics.

And even though we're very excited about this progress, I must remind you of the long development times for this area and that is why we don't expect material revenue from the human microbiome within the current strategy period and that is running as you know to 2020.

Earlier this month, we concluded as planned the expansion of production capacity for cultures in Copenhagen. The start through process has now further progressed and over the next months, we will increase the production volumes in the facility.

Over the next years, this will be a significant driver for further margin expansions in Food Cultures and Enzymes. But in 2017-18, there will be no impact as higher depreciation will offset the scale efficiencies.

But of course, I said it before, as capacity utilization increased, the margin benefits will materialize. Our two acquisitions in Health and Nutrition have more or less been fully integrated. Synergies from NPC are materializing, driven by the in-sourcing of production, which was completed ahead of schedule, but also from cross-selling and internationalization.

Market conditions for dairy and especially beef cattle are improving, the top line was negatively impacted by the challenging conditions during our last financial year. LGG holds great potential and provides us with a strong pipeline of projects in both human health and dairy and some of these are already materializing.

Worth highlighting also is the positive development in profitability for Natural Colors where we are beginning to reap the benefits of the many profit enhancing initiatives that were launched over the last year. Many of the initiatives, such as the pruning of low margin business, taking out complexity by significantly reducing the number of SKUs will continue over the next quarters and result in a negative impact on top line growth.

Please go to the next slide, slide number five for a closer look at the second generation bioprotection solutions. Given the increasing importance of bioprotection in the Food Cultures and Enzymes portfolio, I'd like to spend a few minutes on the opportunities that we see within bioprotection. But especially also update you on the launch of our second generation solutions.

As you know, bioprotection uses nature's own resources to keep food fresh and safe and it help food manufacturer's gain a competitive edge without compromising their product label.

The first generation bioprotection products have grown with CAGR of around 40 percent over the last five years and bioprotection now represents more than five percent of revenue of food culture and enzymes. Development of a second generation solution, with an even stronger mold and yeast control, as well as a minimum of post-acidification, has been the focus area over the last years.

So we've developed robotized, high throughput screening assays making it possible to screen our entire strain collection, so those are the 30,000 strains that we have to find the best bioprotection candidates. Through this screening and advanced application trials, where we were mimicking real life dairy settings, we found a handful of strains that have been combined into our fresh (queue) second generation solutions.

Now during this process, we've also gained better insight into the very advanced mode of action which positions us quite well for the development of future generations. If I touch upon that quite briefly, the mode of action is a combination of mechanisms that counter harmful micro-organisms including

competition for nutrients, competition for space, production of metabolites and cell-to-cell signals that affect the other species spreading ability.

The first generation bioprotective products have primarily penetrated Europe and North America. A stronger yeast and mold control was needed for the other regions with longer transportation times in hot conditions, in an often broken and cold chain. And also in those regions, we see a heavier use of chemical preservatives.

Second generation now opens up these markets and we now have the opportunity to help dairies in those other regions. Those dairies are interested in extending shelf life in a natural way or taking out the chemical preservatives.

The second generation will also complement the existing solutions in Europe and North America and help further expand the use of bioprotection, which today is still below 10 percent of the addressable market.

To drive the further penetration, we've developed concept with the regional bioprotection expertise teams who will assist the existing sales force during the sales process. Most importantly in the application trials that will be done locally. Now with the launch of our second generation solutions, we believe we're in a position to drive the further expansion of the category and maintain the growth momentum.

Let's move to the next slide for a look at the overall regional performance. The EMEA region is representing 44 percent of group revenue, delivered 7 percent organic growth for the year. The growth was driven by strong growth in bioprotection and human health in cheese, meat, enzymes, animal health and Natural Colors all delivered solid growth.

In the fourth quarter, the organic growth was 10 percent in EMEA, supported by strong growth in bioprotection, cheese, meat and wine. And in the fourth quarter fermented milk, including probiotics and enzymes, showed solid growth.

In North America, we saw 13 percent organic growth. There was strong growth in bioprotection, cheese, meat and probiotics for fermented milk, animal and Natural Colors. There was solid growth in fermented milk. And in cheese, as you know, the growth was supported by conversion of large U.S. customers.

Organic growth reached 18 percent in fourth quarter, with strong growth in all areas except enzymes, which showed good growth. In a difficult fermented milk market, it is good to see the strong growth that is supported by very strong momentum in bioprotection, but also improving momentum in probiotics in North America.

Asia-Pacific delivered 16 percent organic growth for the year, driven by strong growth in fermented milk, including probiotics, enzymes and human health. The strong growth in fermented milk of course continues to be driven by China but growth rates there are coming down as the base becomes larger.

Organic growth reached 8 percent in the fourth quarter and it was driven by strong growth in human health and Natural Colors and growth in fermented milk in China in the fourth quarter was lower than in the first nine months due to a tougher comparable. Finally in LatAm, we saw 10 percent organic growth, with strong growth in cheese, meat, human health, animal health and plant health.

In the fourth quarter organic growth reached 14 percent and that was supported by strong growth in cheese, plant health and Natural Colors. We continued to see a demand for our natural ingredients despite difficult economic conditions in certain countries.

Now with this, I'll hand over to Soren to go through the financial of each of our businesses, Soren, please go ahead.

Soren Lonning: Thank you, Cees. Let me start with Food Cultures and Enzymes where we have seen a strong momentum throughout the year resulting in organic growth of nine percent, all from volume and mix.



Organic growth in Q4 reached 10 percent as we realized a 1 percentage point positive impact from the use of Euro-base pricing driven the Turkish lira and the Argentine peso.

The volume growth of the full year was primarily driven by strong growth in cheese and fermented milk with both segments supported by very strong momentum in bioprotection. Growth in cheese was also driven by a conversion project with large U.S. customers. Our fermented milk was supported by further penetration of both (ambient) and regular yogurt in China.

In Q4, volume growth was especially driven by cheese, meat and wine; however, also supported by solid growth in fermented milk including probiotics and enzymes.

Turning to the EBIT margin where we, as expected, saw a decline in Q4 and therefore full year EBIT margin increased slightly. The full year improvement of 0.2 percentage point has been driving by scalability in production. However partly upset by initiatives to enable full utilization of existing production capacity ahead of the expansion inside Copenhagen as well as higher R&D expense to support the bioprotection and LGG initiatives.

In Q4, margin decreased by 1.3 percentage points primarily due to higher sales and marketing costs to support the strategic initiatives, that's there where the tough comparable related to the sale of the property in the U.K. last year.

Currency also impacted unfavorable in Q4 driven by the lower U.S. dollar.

Let's turn to the next slide and look at Health and Nutrition which delivered 21 percent organic growth in Q4 and thus resulting in a full year growth – organic growth of 14 percent. Organic growth for the full year was driven by strong growth in all business areas. Human health was driven by further penetration of probiotic dietary supplement and infant formula with highest growth in APAC and EMEA while growth in North America is coming down somewhat from a very high growth rate in the last years.

Animal health was primarily driven by customer wins in (inaudible) and poultry, while the swine segment also showed positive momentum. Both beef and dairy cattle continued to be negatively impacted by the market conditions, especially in the U.S., but with an improving trend.

Market conditions for all other animal segments have more or less normalized. Plant health was driven by further penetration of existing products as well as the launch of (Quatro) and Presence.

Turning to the EBIT margin, where we saw a strong improvement in Q4 of 5.3 percentage point, resulting in an EBIT margin expansion 0.9 percentage point for the full year. The full year margin expansion was driven by efficiencies in production, including the in-sourcing NPC products, a reduced (graph) level in human health, lower royalties due to LGG and reduced production cost due to the production of dairy cultures in our human health (plant). The increase was partly offset by increased activity to support strategic initiatives, including commercial support for LGG and higher depreciation, amortizations related to the acquisitions.

The margin expansion in Q4 was driven by the same operational efficiency in production also impacting full year. As well as the sizeable increase in the sales volume. There was also a positive impact from a lower level of impairments in Q4 this year compared to Q4 last year. These positive effects were only to a smaller extent offset by the discontinuation of traded products from NPC last year, which impacted margin positively in Q4 last year as we lessen unfavorable currency impact from the lower U.S. dollar this year.

Please turn to the next slide. (NCD) delivered 10 percent organic growth for the full year with volume and mix contributing 6 percent and price 4 percentage point. Organic growth reached 11 percent in Q4, with price contributing 3 percentage point and volume, 8 percentage point.

Volume growth outside the carmine category remained in line with the long term growth and vision of around 10 percent. The impact from pricing reflected higher raw material prices for our natural and general price increases only partly offset by declining carmine prices during the year.

In Q4, the use of Euro based pricing also contributed to the price growth. The organic volume growth was primarily driven by strong growth in the natural keratin and natural and anthocyanin pigments and within (coloring) food stuff. Carmine volumes declined due to profitability initiatives.

Growth was anchored across most industries and especially driven by North America, where we continue to see double digit growth from the ongoing conversion.

The EBIT margin for the full year increased by 2 percentage point, driven by ongoing optimization initiatives, including margin management and operating efficiencies, but also positive timing from inventory, which we expect to reverse in F.Y. '18.

EBIT margin in Q4 was up by 3.1 percentage point, driven by margin management initiatives, the positive timing of inventory, as well as tightly managed price concessions for carmine as the raw materials prices declined.

I would also like to highlight that the return of the invested capital reached 30 percent, a number which confirms the attractiveness of the business.

Let's move on to the next slide. Taking a step back and looking at the full year group results, we delivered 12 percent growth in revenue measured in Euro, which equaled an organic growth of 10 percent. Of the 10 percent organic growth, volume and mix accounted for 9 percent and price for 1 percent.

Acquisitions added another 2 percentage point, while the impact from currencies was close to zero full year. Q4 showed an organic growth of 12 percent, of which 11 percent came from volume and price and 1 percent was price growth, mainly from using Euro-based pricing and raw material related price adjustments in Natural Colors.

The gross margin improved by 1.1 percentage point to 54.4 percent, driven by improvements in all business areas. And this also benefitted the EBIT margin

before special items, which improved by 0.7 percentage point to 28.9 percent. Special items of around EUR1 million were incurred due to the LGG acquisition and the announced closure of the acquired factory.

Let's take a closer look at the cash flow on the next slide. The cash flow from all (rating) activities has improved by EUR39 million in F.T. '17, while the cash flow use for operational investing activities has increased by EUR29 million, largely due to investments in capacity for culture production.

All in all, this has resulted in a free cash flow before special items in acquisition of EUR188 million. On top of this, we also spent EUR73 million Q1 for the acquisition of LGG and their related businesses. The capital expenditures excluding the acquisition corresponds to 10 percent of revenue, which is above last year as we increase the investment level this year.

Relative to revenue, CapEx will come down in F.Y. '18 but due to many investment opportunities, CapEx will remain at a sizeable level in absolute terms.

Return on invested capital excluding goodwill has increased by 0.4 percentage point, while the net interest paying debt to EBITDA ratio remained unchanged and 1.7 times, thus absolving the acquisition of LGG and enabling payment of an extraordinary dividend during F.Y. '17.

Please turn to the next slide. F.Y. '17 was another good year where we realized our financial ambition. We also expect F.Y. '18 to be a good year, with 8 to 10 percent organic growth driven by all business areas. Health and nutrition and Natural Colors are expected to contribute in line with long term ambitions while Food Cultures and Enzymes is expected to grow slightly ahead of the 7 to 8 percent, primarily due to strong momentum in bioprotection.

Let me remind you that the outlook for organic growth is sensitive to both exchange rates in those countries where we use Euro-based pricing and raw materials and Natural Colors. Based on the current levels, we do expect the impact from Euro-based pricing to be positive, around 1 percent, and the

impact from raw materials to be negative.

EBIT margin before special items is expected to be around the same level as in F.Y. '17 as the lower U.S. dollar will have a negative impact on EBIT close to half a percentage point, due to us having around 30 percent of our sales in U.S. dollar but only around 20 percent of our costs. Also, the temporary lack of margin expansion from scalability and production in Food Cultures and Enzymes restricts the potential for margin expansion in F.Y.'18.

Please do note, that the EBIT margin in Q1, in addition to currency, will be negatively impacted by the property divestment last year in Q1, capacity (roundabout) in Food Cultures and Enzymes and the previously mentioned timing from carmine in Natural Colors.

Following the better than expected improvement in F.Y.'17, we expect the free cash flow in F.Y.'18 to be at the same level as last year, due to a continued high investment level to support growth, but also a negative impact from the lower U.S. dollar, one of tech benefit realized in F.Y.'17 from acquisitions, and a change in the Danish realty regulation for export credit, which will result in a one off negative cash flow effect.

Please turn to the next slide. We remain committed to our capital allocation priorities, stipulating an ordinary dividend of 40 to 60 percent of net profits. The board of director proposed to pay out Danish (kroner) 6.33 per share, equaling EUR112 million, or 50 percent of net profit.

This will bring the total cash spent for F.Y.'17 up to EUR285 million, when including the acquisition of LGG and the extraordinary dividend. The actual allocation continues to be guided by our ambition to maintain a leverage in line with a solid investment grade credit profile. For the time being, we aim to not exceed two times net debt to EBITDA on a quarterly basis, and thus end the year around 1.7 to 1.8 times EBITDA.

Before we move into the Q&A session, please have a look at the next slide.

Over the coming months, we will perform another review of nature's number one strategy to ensure we stay on the right track and use our resources in the right way. The findings will be presented at a Capital Market Day in London on April 18, 2018, where we hope to see many of you.

Soren Lonning: A formal invitation will follow. With this, I will hand over to the operator to start the Q&A session.

Operator: Thank you. As a reminder, if you wish to ask a question today please press star one on your telephone and wait for your name to be announced. If you wish to cancel that request, please press the hash key. So once again it's star and one if you wish to ask a question today.

Your first question today comes from the line of (Arthur Reeves), please ask a question.

(Arthur Reeves): Good morning everyone. My question is about next year's EBIT margins. I understand your point about the U.S. dollar but I thought that the new products particularly in bioprotection have a higher margin than your existing products and so I expected margins to increase. Can you talk me through some of the moving parts there please?

Soren Lonning: Yes. Let me address this, (Arthur). As mentioned as you also alluded to, currency will have a negative impact of almost half a percentage point on the group so that's a very significant impact.

When we discussed the impact from production, we have continuously communicated that in '18; we don't expect scalability from our new facility in Copenhagen, the expansion that we have made here. And that is because we are starting the ramp up, that takes some time and cost to do that. But also we start to fully depreciate on that equipment. That means that that will offset the underlying scalability that we will have.

We expect the impact to be more negative in the first half of the year and then turning slightly positive towards the second half of the year in isolation. But no, we expect around zero impact on the full year.

And then your comments related to bioprotection, it is true that we in general are seeing components that help on our product mix and bioprotection is one of them. It is a product category with an attractive margin so that is helping. But normally, we see product mix giving to the tune of 0.3 margin points in a normal year.

That being said, we also see at the moment quite a strong growth in some more basic enzymes such as lactate and that counter impact's part of this. So overall, the product mix is expected to be close to neutral in FY '18.

(Arthur Reeves): Thank you very much.

Operator: Thank you. Your next question today comes from the line of (Lars Toppon), please ask a question.

(Lars Toppon): Yes, just first of all congrats with another good quarter. On Natural Colors, you mentioned the effect from – on margins in Q4 from timing of inventory. I just wonder if you can be a little bit more specific on that impact.

And then you also mentioned SKU reductions. Can you elaborate on the number of SKU reductions? Where are you coming from, where are you going to? And how much of this have you do, how much are you going to do in the new financial year? Thanks.

Soren Lonning: Yes, let me take these (Lars) and try to answer your questions. When we think about timing in Natural Colors, do bear in mind that when we have the fluctuation of raw material prices then we also – it has an impact on our inventory. We have to adjust prices on our inventory and that is phased in to accounting principle over a certain time period.

And it means that some of the reductions in this parameter that we have seen in Q4 especially on carmine will flow into the new year. And that is where we have been able to maintain prices quite well in Q4 on the carmine, despite prices going down. And then we had a little bit of tailwind in Q4 and that will turn around into become negative in Q1. So that's the expectations on that.

In terms of the ...

(Lars Toppon): How big is the swing factor? Sorry. Just to be able to model it correctly.

Soren Lonning: Yes, I think on the year including everything, we have timing – positive timing effect in Natural Color for the full year of around half a point to 1 percentage point or margin. In Q4 specifically, it's close to 2 percentage point that came from this. So it means that it's particularly the Q4 effect that will flow into the Q1 and potentially also there the Q2.

(Lars Toppon): Does that suggest that next year, we should assume a slightly lower margin for Natural Colors compared to this year?

Soren Lonning: I would ...

(Lars Toppon): And especially compared to the Q4 level?

Soren Lonning: Yes. You can not use a certain quarter to extrapolate because we have seasonality also and how much top line we have through the quarters. When we look to the full year, we are guiding for the group around last year and if being asked, I would also say that more or less applies across the different business areas.

In Natural Color, the guidance I can give you here is we'll be close to what we have seen in '17. Maybe slighter deviations but to that tune.

On the SKU reduction to address that, then we have – what we have done so far has primarily been driven or been focusing on reductions within carmine. It has been less around the SKU reductions and actually more about specific businesses with the customers where we have had too low margin. Now we are in the process of completing the more structural SKU reduction program that we have. And we are targeting a 40 percent reduction in SKUs.

Just to put that in perspective, we are going from 1,400 – 1,500 SKUs down to something that looks like 1,000 SKUs in Natural Colors. The impact on revenue of this will be a less than 5 percent and to the – maybe to the low end of this target here. That's a factor but it's not a very large factor to be



included here. We, of course, do our utmost to move business to all products in our portfolio to mitigate the effect.

(Lars Toppon): Thank you very much for taking my questions.

Operator: Thank you. Your next question today comes from the line of (Solin Sunso), please ask your question.

(Solin Sunso): Yes, hello, gentlemen, (Solin). First, a question in Food Cultures and Enzymes. You continue to post strong growth in cheese, I mean that's a very elevated inventory levels on cheese in (sales) markets especially in North America. I just don't understand how you continue to post this strong growth in cheese, maybe you could elaborate a little bit on what is sort on the main drivers.

And then my second question is in Health and Nutrition, where you say that the growth is doing by human health. I just wondered whether – is this the orders you talked about in the beginning of the year where you said you were working on some larger orders that will come in the end of the year or is this something new that has come in that is driving growth.

Also in Health and Nutrition, on animal health you say that market conditions for animal health have normalized. What kind of growth rates does this imply for the market now? Thank you.

Cees de Jong: Sir, let me take your first question. Good morning. The strong growth in cheese is considering – is consisting of two elements. That year we've covered as one of the largest cheese manufacturers in the U.S and a few big ones as well. So that's key driver for growth. In addition the two bioprotection in cheese is nicely growing.

You say that the stock levels are very elevated, I would say they're elevated. And what we do expect going forward is that the consumption of cheese in China will start to pickup and that cheese will not be manufactured in China and of course this is the processed cheese that ends up – let's say – in pizzas and the like.

For last year, it was definitely conversion and a bit of bioprotection in cheese. Soren, you want to take the other two?

Soren Lonning: Yes, let me do – let me address that. As you rightly (Solin), we did throw out a '17 guide that we expected a strong finish to human health particularly in Q4 and we also saw that is related partly to timing of launch with the large customers and also of course the baseline from the previous year.

That was generally as expected, however, I would say we came out stronger in Q4 than we originally expected in human health and isolation and of course one thing that we are considering is whether our customers have taken a bit more stock on board than we – than what is actually the normalized level.

So I would say we exceeded strong growth. It was stronger and there is a fear that our customers have more stock right now. So that's an aspect to be aware of.

When we look to animal health then as we have said earlier, we have historically grown around 7 to 9 percent in animal health. And that's also something that we have communicated in the – in our capital market. So that is what I would refer to as a (normal) market growth. It may be that due to the attention that we see right now, that normal could be slightly higher. But I would say probably to the high end of the range at the moment.

(Solin Sunso): OK. Thank you very much.

Operator: Thank you. Your next question today comes from the line of (Ben Gormen), please ask your question.

(Ben Gormen): Hi guys. Thanks for taking my question. Could you just clarify first of all in terms of probiotic consumption in North America. You sort of said that there was improving momentum there. But then also, talked about the high growth rate coming off in that region versus sort of significant growth in EMEA and APAC. So that's sort of the first one, if you could clarify that.

And then in terms of Natural Colors, growth in volumes obviously sort of takes a (cent) and the pricing making up the rest but the 10 percent that you

talked about longer term, would you expect volume growth to make up a bigger proportion of that given the variability in pricing of carmine still and (Ato) others.

And in that context, do you think you might be losing any market share through your sort of profitability programs? Obviously, you talked the reduction in SKUs which would imply that you might also lose some market share there as well.

And maybe, just one final one on that same topic. What do you think the industry growth for Natural Colors is at the moment given conversion from the synthetic? Thanks.

Cees de Jong: Let me take your first question, (Ben), on probiotics. When I look at sort of probiotics overall, first and foremost what we – what we see is growth driven by Asia-Pacific. Very strong growth in China. We're about a third of the (inaudible) contain probiotics. And when you look at how some of these products are being launched, it's really impressive with a very often strain names, very prominent on the pack of the (inaudible) so that that this a key driver for our growth.

I would say that generally, also in the more western markets, there is becoming a halo effect from focus on good bacteria in general and work that's done on the human microbiome. So what we've seen is good interest from many dairies for bringing probiotics product to the market.

I would – I would – I would fairly say that it is mostly outside (E.U.) but we do see that it's in U.S. And then of course you have to remember that adding LGG to our stable of strains is positioning us quite well to also in yogurts, further grow the probiotic segment.

Soren Lonning: Let me address the question regarding Natural Color and the answer to your first question is yes, we do expect a high volume growth going forward relative to the 6 percent that been reported this year. That is a natural consequence – over time, we would expect a relatively stable price

environment with some smaller adjustments in the positive direction. So that's a clear yes.

To the question around being concerned about losing market share with 6 percent, let me then answer firstly what we believe is sort of the growth of industry which we assessed between 5 and 6 percent. And then we are confirming this in the – in the ongoing strategy discussions that we have here. We see Natural Colors excluding coloring food stuff roughly to the tune of the 5, and then coloring food stuff outgrowing this. So between 5 and 6.

So we actually growing well in line with the overall market. But in addition to the market share that we have lost, that has been very deliberate decisions that's been busy that we have deemed unattractive. So low margin carmine business. So it means that the mix of improved a lot. And we have actually gained market share in the segments where we – where we – which we find attractive. So I hope that answers the question on Natural Colors.

(Ben Gormen): Great, thank you, guys.

Operator: Thank you. Your next question today comes from the line of (Heidi Vesterinan). Please ask your question.

(Heidi Vesterinan): Yes, thank you. There was a report yesterday about wine production potentially declining. Is wine a big exposure to you? Has it contributed a lot to your growth rates in past years?

And then the second question, could you maybe elaborate a bit more on U.S. human health. I think you had talked about potentially high inventory levels. Perhaps it's a bit slower. We did have a lot – another competitor talk about major destocking by one large competitor – customer, sorry. So is this an impact you're seeing across the board or is it specific customers having this impact? Thank you.

Cees de Jong: Good morning, (Heidi). Of course we're all worried as to what happens in the U.S. in a fantastic wine region. In all fairness, when we look at ourselves, at wine sales are fairly limited. So the effects that the devastating fires will have on the local growers will not impact our sales that much.

When I look at human health, in these – in the U.S. market, there's a couple things going on. First and foremost, we see that at consumer level, consumer's are beginning to get a bit sort of confused. Because there's so many products on the market who are often, there's not good signs behind. And what we observe is that some of our large customers are struggling a bit with how to position themselves against (death) by (inaudible) second rate type products.

In addition to two, we have seen a little bit of order paths in Q4 that may impact Q1. So we're a little bit cautious when it comes to human health sales going forward. We expect growth to still be good, but to come off the very high levels that we've seen.

In general, when we look at the category, consumers still take a key interest in probiotics. And again, as I also answered previously to (Ben), the halo effect of everybody becoming more aware as to what good bacteria are doing, the science that's going ongoing in the micro biome generates a general interest in probiotics. So we think that category is such – is not so much under pressure, but we think that certain customers are currently sort of – are in need to reposition themselves. I hope that addresses your question.

(Heidi Vesterinan): Thank you.

Operator: Thank you ladies and gentlemen. Once again, as a reminder, if you wish to ask a question, please press the star one on your telephone.

Your next question comes from the line of (Annette Luki), please ask your question.

(Annette Luki): Thank you very much. My first question is regarding your expansion of the food and culture capacity in (Inaudible). And in terms of impact on gross margin, so can you share with us a little bit on how you see first half versus second half? And maybe in this respect also confirm that the commercialization is on track.

My second question goes to the growth rates in Natural Colors and if we take out price increase is 6 percent organic growth. Still seems to be slightly behind what you were focusing at your Capital Market Day a few years ago. What is needed to get that organic growth rates without price increases into the group average around 8 to 10 percent?

Cees de Jong: Soren, why don't you take the Copenhagen and I'll take the second question?

Soren Lonning: OK. Yes, I mean the – I would say that when we look about the ramp up then the scalability effect – the direct scalability effect of that will be – it will be to the tune of maybe half a percentage point or something like that. So that will not – between first half and second half. So that will not in itself be very large.

But the associated effect of this is that we – last year, built a lot of inventory in the first half to be prepared for the shut downs. While we – in the first half of this year, we'll be using some of the inventory as we ramp up the new production facility.

So actually when you look at the combined effect, then it can be quite material between the first half and the second half. But it's – but it's less about the running in but more about the inventory developments that follow the shut down frequency. So that's the best guidance I can give you here.

What we vow to give an update how we are performing according to expectations and I would say we are following the timeline spot on plan. And we have actually produced slightly more than expected in the plan. So I would say overall, we are exactly where we hope to be in terms of the expansion of the Copenhagen facility.

Cees de Jong: And if you're – I understand your question on Natural Colors where it sounds like you're a bit concerned that there's only 6 percent volume over the last year and at 4 percent price. So let me try to clarify the situation.

First and foremost, when we look outside of carmine and (inaudible), organic growth is actually spot on our long term vision. Then what we're doing is we're very intentionally pruning our portfolio of SKUs as just explained by

Soren and obviously that has some impact on the organic growth. We really want this business to (come) up to mid-teen margins as we guided in the Capitol Markets Day. And in order to do so, it's important that we work from a more rationalized portfolio of products.

When we then look at an important driver for growth is the United States, you have to remember that there we have been growing double digit for the last many quarters and with the food service now fully stepping up to naturals. We first saw McDonald's, we now see Dunkin coming.

Our expectation going forward is that our growth is in line with our long term guidance, then it's the organic growth obviously. I hope that addresses your question.

(Annette Luki): Yes, thank you so much.

Operator: Thank you. Your next question today comes from the line of (James Target), please go ahead.

(James Target): Good morning, everyone. A couple questions from me, firstly just on China fermented milk. You mentioned the great (inaudible) flow but obviously on a strong prior comp. I just wondered if you could say what you think the market is growing up in China at the moment and what you think the upside is there in terms of penetration.

Then secondly, just on bioprotections, I think you were launching products going into new categories like salmon and salads, just wondered what the progress was like there. Thank you.

Cees de Jong: (James), let me take those questions. We think that the Chinese market is growing around nine percent, we see a couple of things. Like I said before, we see probiotics becoming more and more important and again, I can't stress this enough, when you guys would look at the labels of some of these new products that are being launched, it's quite impressive. The strains that are in take a very prominent place on the label; it's almost like the Japanese specialized yogurt that we all know so well. The Chinese now seem to copy that.

Actually one of the big players recently launched a yogurt that with a probiotic that was tested in space, if you guys Google for that, you'll something quite impressive and I think you will all immediately recognize the strain that is in that yogurt. So that is an important driver.

In addition to in China, where we look at fermented dairy, we see premiumization and not just by probiotics but also more advanced products targeted at millennials that drive the category.

When we look at (ambient) products, let me just say that we were very proud to be in a products that sold 3 billion units per year. We now know that that product sells 8 billion units per year. I mean, the Chinese fermented milk market already by far is the largest in the world and yet, (per) capita consumption is only half of that of the United States and only a quarter of what we consume here in Europe. So there's still quite some pent up demand, but 9 percent is the number there.

When we think about bioprotection and the adjacent categories, I'm pleased to say we have increased the number of customers that we serve with us (Zellus). When we look at (Zellus), we understand the microorganisms that cause the spoilage there. So that gives us good growth.

In (Sellman), we're also progressing but at a somewhat slower pace. The key driver for growth in bioprotection is the traditional areas where as I mentioned during the call, the penetration is only yet about 10 percent.

(James Target): Thank you.

Operator: Thank you. We do have time for one more question. This last question for today comes from the line of (Hans Gregerson), please ask a question.

(Hans Gregerson): Good morning. Four quick questions, Soren, in terms of FX on sales excluding your price list, what do you see in prevailing exchange rates (that to be)?



Secondly, you mentioned on cash flow, there were some negative impact from some export arrangements or insurance schemes in Denmark, what is that?

Then over to U.K., in terms of (bio ag), it mentioned that you had a new product that was sort of plant agnostic. Can you elaborate a little on that, what that will be?

And then finally bioprotection, what growth are you sort of forecasting for 2018 based on the correct guidance you have released? Thank you.

Cees de Jong: So it's you first, Soren.

Soren Lonning: Yes, let me address that. If we look to the currency effect on the top line then we expect a difference between organic growth and euro growth in the FY '18 of around 4 percentage point. That also includes a little bit of acquisition effect but that is marginally here.

So it is a quite sizable effect on top line that we see relative to the guidance we are going on organic growth. That was – I hope that answers the first ...

(Hans Gregerson): Sorry, (Soren), can you here me?

Soren Lonning: Yes.

(Hans Gregerson): Did you say there was a minus 4 percent on ethics?

Soren Lonning: Roughly to that tune. Between what we guide on organic growth and what we expect in euro at this point in time that is predominately FX. And then there is more almost margining effect from LGG impacting in the first two months of the year, but around 4 percent percentage point.

Then when we look to, you raised the point about VAT export credit. Just recently a bill has been proposed in the Danish government that will remove these, you will say it's a small subsidy that should make it more attractive to export of Danish companies. However, the Danish – that has been put forward – the bill that dissolves this extra subsidy.

It has a one time effect of up towards 10 million euros on our cash flow in '18 if that bill is being passed in parliament. We consider it very likely as we understand there is some majority supporting the bill so that will be a likely effect coming into '18. But that's one-off that we need to deal with and address this year.

Cees de Jong: (Hans), good morning. Let me take your two questions on (Bio-Ag) and the one on (Bio-P). On (Bio-Ag), we've been launching two – we got registration and have been launching two new products, it's called (Quatro) and that's a bionematicide that we apply in the soil at planting.

Basically it's quite similar to Nemix but has way easier handling capabilities; it's a higher concentration product. There we target sugar cane but also coffee and other foods and vegetable. And pricing is similar to the best chemicals.

When we look at the other product called Presence, again it's a bionematicide. And to our opinion is the only commercially available bionematicide that indeed is crop independent. What we're targeting is crop like soy beans, cotton and corn. And just to lift a bit of lid, we have very strong test results for this, so similar to chemicals with 60 percent yield increase in soy beans. So this product will allow for premium pricing.

(Hans Gregerson): OK. What does that can do for the plant?

Cees de Jong: It protects – when you do seed treatment, obviously you can protect at a very early stage and it protects the nematodes, so the soil worms from attacking the seed. So the plants easy its yield, so the plant grows better, the seeds survive at an early stage.

So we basically – and I can't talk to mode of action because we're still filing further IP, but it basically doesn't allow nematodes to destroy the seed or later when the plant starts forming roots, to attack the roots.

On (Bio-P), I don't think we've guided for the growth. I'm looking here at the table, Soren says no, so I don't want to earn a red card at the last question.

What we have said though, (Hans), is that full year last year was 30 percent, last quarter was 35 percent and with the launch of second generation products, I think we're very well positioned to continue good growth in bioprotection. I hope that addresses your questions to your satisfaction. And operator, I think that concludes the call as well, so thank you for your assistance.

Operator: Thank you. That does conclude our conference for the day. Thank you for participating, you may now all disconnect.

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