



**Chr. Hansen Holding A/S**  
**Q1 2021/22 Results**  
**Conference Call Transcript**

**13 January 2022**

**PRESENTATION**

**Operator**

Thank you for standing by and welcome to the presentation of Chr. Hansen's Interim Report and Conference Call Q1 2021/22.

At this time, all participants are in 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'll need to press 01 on your telephone. I must advise you that this conference is being recorded.

I'd now like to hand the conference over to our speaker today, Chr. Hansen's CEO, Mauricio Graber.

**Mauricio Graber**

Thank you, good morning, and welcome everyone. Together with our CFO, Lise Mortensen, [? 00:00:43], we would like to wish everybody a Happy New Year and hope you and your families are healthy and safe.

As always, we will start this conference call with a short presentation on our recent quarter's results. In addition, this time we would like to also take the opportunity to present our new science-based climate targets that were published in November. This will take approximately 20 minutes and then we will move on to Q&A.

Before we begin, please take notice of the safe harbour statement on slide two.

Let's turn to slide three, please. Chr. Hansen delivered a solid start to the fiscal year 22 with 9% organic growth with euro growth reached 10%. Growth was fully volume-driven and supported by solid growth in Food Cultures and Enzymes, as well as a strong rebound in Health and Nutrition. Our EBIT margin before special items was 24.4%, compared to 25.2% last year. Excluding HMO, which was not fully reflected in Q1 last year, we would have seen a margin improvement as

scalability from solid sales performance more than offset the inflationary pressure and the general ramp-up of activities.

Absolute EBIT before special items amounted to €65 million, up 7% from the €61 million in Q1 last year. Free cash flow before acquisitions and special items was €55 million, compared to minus €7 million last year.

Let's turn to slide four for the strategic and operational highlights. During the first quarter, in-person engagement with customers picked up again and we saw good traction on our commercial pipeline and strategic initiatives. Our core businesses - Food Cultures and Enzymes, Human Health, and Animal Health - grew 7% where our growth areas, which account for approximately 10% of Group revenue - Bioprotection, Fermented Plant Bases, Plant Health, and HMO - grew 35%. Lighthouses are expected to outgrow the core business for the year but please note that the very strong growth in Q1 was in part positive due to order timing.

In line with our 2025 strategy, we continue to reinvest in our core business and lever our technology platforms to expand into new areas while further reaping the benefits of our recent acquisitions.

Let me briefly comment on the key highlights for the quarter. In Food Cultures and Enzymes, we saw very good sales project execution in EMEA as well as continued strong growth in the Cheese market in North America, which led to very solid volume growth in Q1. Human Health exceeded our expectations for the first quarter and delivered a very strong start to the year supported by a rebound in the traditional sales channel in Europe and North America, and positive order timing from Q4.

Further, I am pleased that with our expanded strength to solution offering and our strong supply chain performance, we were able to mitigate supply chains successfully and win new business, which will have a positive impact in the first half of the year.

Our HMO business also reported good progress with the first launches of the 5HMO mix in the US market, which had an extraordinary impact in Q1 as customers ramped up ahead of their product launches.

And lastly, Plant Health entered into a partnership with Indian ag player, UPL, to develop and commercialise microbial crop protection solutions.

Another highlight during Q1 was related to Bacthera, our joint venture with Lonza.

So, please turn to slide five. In November, Bacthera signed a commercial manufacturing agreement with Seres Therapeutics. It's an important milestone and therefore allow me to say a few words about the agreement. After we have successfully established our set-up in [? 00:05:28] and Basel to service customers in the clinical supply market, we are now accelerating investments into commercial manufacturing capabilities based on the long-term commitment from Seres

Therapeutics, whose lead candidate, SER-109 [ph 00:05:43], has the potential to become the first ever live biotherapeutic product in the market. As part of the agreement, we will build a new production site in Visp, Switzerland, which is expected to be inaugurated in 2024.

Whilst the commercial supply market is materialising faster than we expected, we are seeing that the clinical supply market is developing slower due to delays in clinical trials and patient intake during the COVID pandemic. These developments will require additional funding into Bacthera, but we are very confident in our ability to establish a leading player in the field which can count on our expertise and capabilities from both JV [ph 00:06:32] partners.

With these words, let's turn to slide six to dive a bit more into the sales performance during the first quarter. If we look at the top line performance across the segments, growth was fully volume-driven. Food Cultures and Enzymes delivered 7% organic growth in Q1, driven by volume and with solid growth in Dairy and very strong growth in Food and Beverages. The contribution from euro pricing was insignificant.

Health and Nutrition recovered after a very soft quarter reaching 13% organic growth in Q1. Human Health and HMO delivered very strong growth. As already mentioned, the rebound was largely driven by Human Health while in HMO was in line with expectations.

That said, I'm very pleased that a large part of our fiscal year 22 orders for HMO is already secured through long-term contracts. If we look at our Animal and Plant Health business, growth was solid and driven by Plant Health; we benefited from early orders while Animal Health faced a tough comparable from last year.

Across our businesses we are in close collaboration with our customers to implement price adjustments to reflect the current inflationary pressures. The implementation is progressing as planned and we will start to see the impact here from the beginning of Q2.

If we look at the regional picture, please turn to the next slide, slide seven. Growth was largely driven by developed markets. Europe, Middle East and Africa delivered 10% organic growth supported by good execution of the sales pipeline in Food Cultures and Enzymes and a recovery of the traditional Dietary Supplement channel in Europe. North America grew strongly with 12%. Growth in Health and Nutrition was positively impacted by order timing, as Q4 was very soft. We already mentioned launches in HMO, while FC&E continued to benefit from continued solid momentum in the Cheese market.

Latin America reported 8% organic growth, of which approximately one third came from euro pricing. Food Cultures and Enzymes grew solidly despite continuous soft Fermented Milk markets. And Health and Nutrition was driven by very strong Plant Health.

Lastly in Asia Pacific after a soft year end, we returned to growth driven by Food Cultures and Enzymes that saw a positive growth in China. The Fermented Milk market in China, though, is still not developing favourably and our outlook for China is still to be flat to slightly positive in fiscal

year 22, driven by the low comparable from last year and specific customer projects. Health and Nutrition was on par with last year. Both Human Health and Animal Health faced a tough comparable baseline from last year. In total this resulted in 4% organic growth for Asia Pacific.

And with these comments I would like to hand over to Lise for the financial review.

### **Lise Mortensen**

Thank you, Mauricio, and welcome also from my side. Please turn to slide eight. Looking at the development on profitability, the EBIT margin ended at 24.4% for Q1, down from 25.2% last year. The drop was in line with our guidance, driven by, first, the full inclusion of HMO, which was only partly reflected in last year's numbers as the acquisition closed mid-October; secondly, the general ramp-up of activities including travel; and thirdly, higher input costs from the inflationary pressure, which we only expect to see recovered in sales price increases as we progress through Q2.

This was then partly offset by a positive contribution from production efficiencies and scalability from the sales growth combined with synergies from our probiotics acquisitions. If we exclude the impact from HMO, then the EBIT margin would have been above last year by approximately half a percentage point. Total EBIT before special items amounted to €65 million, which is 7% up, compared to last year, driven by Food Cultures and Enzymes, while EBIT in Health and Nutrition was at the same level as in Q1 of last year due to the negative impact from HMO.

If we look at the segments, Food Cultures and Enzymes EBIT before special items was 3.8% and on par with last year, with production efficiencies and scalability effects from volume growth being offset by higher input costs not yet reflected in the sales prices, and a general ramp-up of activities.

Health and Nutrition's EBIT margin before special items was 11.9%, which is 1.7 percentage points below last year driven by HMO. Excluding HMO, our Health and Nutrition EBIT margin would have been above last year. The profitability improvements were driven by scalability effects and acquisition synergies that were partly offset by higher input costs and the general ramp-up of activities.

Let's look at the cash on the next slide, slide nine. The free cash flow before acquisitions and special items came in at €55 million, compared to a negative of €7 million in Q1 of last year. The increase was due to both an improved cash flow from operating activities and lower operational investments. The increase in the operating cash flow was driven by improved operating profit and a positive impact from working capital, compared to Q1 of last year. And cash flow used for operational investing activities was €18 million, down from €52 million in FY 21. The decrease in spending was driven by the acquisition of the [? 00:13:26] facility last year.

The return on invested capital, excluding goodwill was 20.00%, compared to 20.6% last year and the decrease was driven by Health and Nutrition, due to the inclusion of HMO, while the return on invested capital in Food Cultures and Enzymes was on par with Q1 from last year.

And with these remarks, let's move to the next slide, slide ten, to recap our guidance for the year. Following the encouraging first quarter, we keep the outlook for the year. Group organic growth is expected to be in the range of 5% to 8% and will largely be volume-driven off, but with some positive impacts from pricing to reflect the inflationary developments. Food Cultures and Enzymes is expected to deliver solid mid-single digit organic growth throughout the year and despite an insignificant contribution from euro-based pricing.

Organic growth in Health and Nutrition is still expected to be volatile across the quarters but is now expected to be more front-end loaded than earlier estimated. As already mentioned, Plant Health benefited from early orders in the first quarter, which will negatively affect Q2. For HMO, as Q1 benefited from customers ramping up for the US launches, the growth momentum will be lower the rest of the year, though still in a range above 20%. And for Human Health, our ability to serve customers has resulted in some extraordinary wins in Q1 and we also see good momentum going into Q2.

When it comes to EBIT margin before special items, this is still expected to be around the same level as last year - between 27% and 28% - as cost synergies from the Probiotics acquisitions, production efficiencies, and a small positive impact from the US dollar exchange rate will be offset by continued ramp-up of activities, investments into HMO business, and the inflationary pressure on certain input costs. The latter we expect to largely recover during the course of the year as price adjustments become effective.

The free cash flow before special items is expected to be around €140 million to €170 million as improved operating profit is expected to be more than offset by significant increases in taxes paid as FY 21 was positively impacted by acquisition-related one-offs. The free cash flow outlook assumes a CapEx in line with FY 21.

As you remember, we updated our long-term financial ambition last quarter to reflect the divestment of Natural Colours and the acquisition of Jennewein. And I would like to emphasise once more that Chr. Hansen remains committed to delivering industry-leading profitable growth and a strong cash flow with focus on spending discipline and capital efficiency.

Until FY25, we aim to deliver: mid to high single digit organic growth averaged over the period; an increase in EBIT margin before special items over the period to above 30%; and average growth in free cash flow before special items to grow faster than EBIT before special items.

And with this I would like to hand back over to Mauricio to present our new climate targets.

**Mauricio Graber**

Thank you Lise. I'm very happy to present Chr. Hansen's new carbon reduction targets that were published in November 2021 following the validation by the science-based targets initiative. Please turn to slide 11.

Chr. Hansen's microbial solutions enable healthier living for humans, animals, and plants leading a positive handprint in society and our planet. At the same time, we are committing to reducing our footprint. Taking climate action that is rooted in the listed scientific census [ph 00:18:07] is a natural next step for Chr. Hansen.

By 2030, Chr. Hansen aims to reduce its Scope 1 and Scope 2 emissions by 42% and its Scope 3 emissions by 20%. To reach these ambitious goals, we have launched a new programme called Think Climate Naturally, under which we will pursue a number of initiatives including: converting total electricity supply to renewables; reaching 100% recyclability of our key packaging materials and 100% circular management of our biowaste; working smarter with heat supply and switching to refrigerants with limited climate impact; engaging with suppliers to address low carbon practices in renewable energy; and by minimising air freight and moving to sea freight and pursuing partnerships on low carbon fuels.

Some of these initiatives are already paying off, not only on our footprint, but also on our costs. Converting to renewable energy sources like solar panels here in Denmark, for example, has kept the negative impact from the increase in [ph 00:19:26] energy prices down.

And with this, let me wrap up this presentation and summarise that Chr. Hansen delivered an encouraging start to the fiscal year 22, and we keep our outlook unchanged. 21/22 is a year of execution for Chr. Hansen and we will remain focused on advancing our 2025 strategic agenda, driving commercialisation of new innovations and delivering synergies from our recent acquisitions, while mitigating any potential disruptions from supply chain constraints and implementing price adjustments in close collaborations with customers to offset inflationary pressures.

Times continue to be uncertain, with high volatility from COVID-19, increased focus from customers on business continuity and cost savings, potentially new travel restrictions which could impact our ability to advance our commercial pipeline, and low visibility to end market demand. But I am optimistic that as a company Chr. Hansen is well positioned to deal with these challenges thanks to our robust and resilient business model.

Thank you for your attention. And with this, I would like to hand over to the Q&A.

**Q&A****Operator**

Thank you. If you have a question for the speakers, please press 01 on your telephone keypads now to enter the queue. Once your name is announced, you can ask your question. If you find your question has been answered before it's your turn to speak, you can dial 02 to cancel. In the interest of fairness and time, please limit yourselves to two questions per turn. You can then re-join the queue to ask further questions if you need to. Please hold for the first question.

And our first question comes from the line of Søren Samsøe of SEB. Please go ahead, your line is open.

**Søren Samsøe**

Yes, good morning, everyone. Two questions. First, regarding the input cost. If you could say what is the negative impact of input cost in Q1 versus last year? And then secondly, if you can comment on the price increases you're seeing, the level of price increase which you'd expect? And what would be the effect of that down on EBIT? Would that all be absorbed by the input cost increases? How do you see it? Thank you.

**Mauricio Graber**

Thank you Søren and good morning. I will pass some of this. Just recapping your question is about the input cost, our process for price increases, and, I would just say we have a very strong methodology overall to reflect price increases with customers and we expect to fully pass on the inflationary price increases to customers, so we have no margin dilution.

I will pass it on to Lise to comment on your specific question about input costs.

**Lise Mortensen**

Well, Søren, input costs and the inflationary pressure is obviously something that is unprecedented and that we are observing very closely. We have seen a higher cost and it's also impacted our results for Q1. We do not wish at this point in time to be very specific on it, but it is part of the view that we look at, landing the 24.4% for Q1. And it's also important to say that we are actually very happy to see that if we exclude HMO, we have been able to offset inflationary pressure and other costs coming from the high activity level through our productivity and scalability efforts.

**Søren Samsøe**

Okay, thank you.

**Operator**

Thank you. And our next question comes from the line of Lars Topholm of Carnegie. Please go ahead. Your line is open.

**Lars Topholm**

Yes, hello. Congrats with a very strong quarter. Quite impressive and good to see. A couple of questions on my side. So looking at your unchanged full year guidance, you need to grow 4% to 7% for the rest of the year and given you probably get 1% to 2% from pricing, that means organic growth will only have to be - or volume growth will only have to be 2% to 6%. So, I just wonder when you don't lift the lower end of your guidance range, is there any specifics we simply can't see? Or is it more a function of you preferring to be conservative in a scenario where visibility might not be so big?

And then I have a question on HMOs because Abbott has launched their 5HMO Similac product which you supply. I suppose that's the big thing for your HMO business in the quarter. First of all, I would like to understand when you sell to a product that contains 2FL and then instead sell for a product that contains all five HMOs, how much does your revenue per portion increase? Is it five times up? Or is 2FL still the main revenue contributor?

And then I wonder what this implies for the HMO revenue in the quarter. You mentioned lighthouses are 10% of sales. If we assume Bioprotections and Plant Health is - sorry Plant there [ph 00:25:56] is 10% of Food Cultures and Enzymes, that means Plant Health and HMO has to be 10% of Health and Nutrition. So, I just wonder how that is split between plant and HMOs. Thank you.

**Mauricio Graber**

Good morning, Lars. Thanks for your positive comments on the encouraging start of the year. So, two questions you had on guidance and on HMO. Let me try to provide some light into those.

So, for sure an encouraging start of the year with good momentum across our two business areas. And as I stated in the call, we also see good momentum going into Q2, but you are right; it is still a very volatile environment. So I think we're only, let's say, three months into the year of 12 months, and I think it's good to recognise that while we are in a good position in Q1, we maintain our guidance for year and that is the position.

Yes, pricing, we expect the growth to be mainly volume-driven. Pricing will contribute north of the 1.5% or around the 2% that you mentioned, but we expect to continue to see a good performance of our business and hope that provides some visibility into our current guidance.

Now, on HMO. So, the HMO mix tries to reflect more the physiological level of the five different HMOs so without going into confidentiality or disclosure [ph 00:27:48], we expect the different



HMO mixes for different customers may have a slightly different component. 2FL is the largest component of the mixes, but we see good presence of the other HMO ingredients there. And talking about the lighthouses, all of them contributed to the strong performance of 35% in Q1, but obviously, as we mentioned, particularly Plant Health and HMO benefited from order timing in Q1.

**Lars Topholm**

Yes, that I understand, but my question is if Plant Health and HMO is 10% of Health and Nutrition turnover, that is 9 million euros combined. If it's 50/50, then HMOs contributed 4.5 million euros and you have a big product launch from Abbott. So, given that in Q2 and Q4 last year HMOs were 6 million and 7 million in revenue respectively, I just wonder if sort of the underlying run rate for HMOs was in fact weak, given that you have this big product launch from Abbott. I'm just trying to understand the numbers.

**Mauricio Graber**

So a couple of comments, I think. I think your calculation of HMO is not 100% correct. HMO was more than that. But also consider that while we had the launch of HMO in the US, Abbott has not yet done a national launch. It was launched online, and it was, let's say, what would be called a pre-launch. So we do not consider the HMO performance to be below expectation. It's on target and we are confident to deliver the above 20% growth for the year, based most of those orders being secured by our long-term contracts.

**Lars Topholm**

That's very clear, Mauricio. Thank you very much.

**Operator**

Thank you. Our next question comes from the line of Christian Ryom of Nordea Markets. Please go ahead. Your line is open.

**Christian Ryom**

Hi, good morning and thank you for taking my questions. I have two as well. The first is a clarification on the HMO topic that we just touched on. Can you clarify whether in terms of absolute revenues Q1 here was your best quarter yet for HMO revenues?

And then my second question goes to the sort of guidance for the Health and Nutrition business where I understand that you say that the growth will now be more front-end loaded for the full year. Should we understand that to be a reflection of some pull forward of demand before the following quarters or from the following for the next quarters? Or should we merely understand

this as a reflection of a high growth rate in Q1 that will not necessarily repeat in subsequent quarters but not a matter of growth having been put forward? Thank you.

**Mauricio Graber**

Yes, so, first question on HMO. I will pass them onto Lise. I think it would be important to clarify if you're talking about the absolute - in absolute terms being the largest quarter in invoicing that we have had. And then to Health and Nutrition, I will take that on.

So, Health and Nutrition had a strong start of the year. 13%. stronger than we expected, basically driven by the good momentum, reopening of the traditional sales channel in North America and Europe, and also by our ability to win new projects based on the good execution of our supply chain. As I said, we go into Q2 with a good momentum in Health and Nutrition and that's why we said that the growth will be front-end loaded because we expect a solid first half of the year for Health and Nutrition.

While some people think there are low comparables in the second half of the year, I would just remind everyone that the low comparables in the second half of the year was for our Chr. Hansen business, but that our acquired business that were not part of organic growth in H2 had a very strong performance. So the comparables are not as easy as people might think.

Lise, onto you for the question of HMO.

**Lise Mortensen**

Yes. Let's be clear. We would like to avoid to give you absolute numbers on the revenue from HMO. What we can confirm is that the ambition for this year is a 20% plus organic growth on the baseline from last year. And yes, we did see some impact from positive order timing in Q1.

**Christian Ryom**

Okay, but you cannot say whether say Q1 was better than Q4 in in terms of revenue for the HMO business?

**Lise Mortensen**

No.

**Christian Ryom**

Okay, thank you.

**Operator**

Thank you. Our next question comes from the line of Georgina Fraser at Goldman Sachs. Please go ahead, your line is open.

**Georgina Fraser**

Thank you for taking my questions. Morning. So, my first question is if you're able to quantify to any extent just how much of the organic growth in human health was front-end loaded in the first quarter. I think it would be quite helpful to have that kind of aggregate number. And then my second question is I noticed that you have reduced your market expectations for Human Health over the course of 2020 to 2025 on the back of lower infant formula outlook. Can you explain why that assumption has not changed your expectations for the total addressable market for HMOs? Thanks.

**Mauricio Graber**

Hi Georgina. Good morning. I'll take the first part of your question in relation to what part of the growth on Health and Nutrition was sort of underlying growth versus some one-offs. And then I'll pass it on to Lise in relation to the infant formula and market potential.

So, most of our growth in Human Health, as I said, came from the strengthening of the momentum given the positive development we saw in the traditional sales channel in North America and in Europe, as well as the new wins. So order of magnitude less than one third of the Health and Nutrition growth would be related to one-off benefits related to Q4 orders that we were able to fulfil in Q1 or other non-repeatable and most of the growth came from this momentum that we have seen in Q1, and we see maintained going into Q2.

Lise.

**Lise Mortensen**

Yeah, when we think about HMO, I think it's important to recognise that the penetration is very, very low. This is a business and a market that's only growing and emerging now as we speak. And we do still believe that as this is the secret ingredient that the IF players are definitely looking into with high, high interest, it will be the ingredient that creates the premium product. We still believe in the full potential. But it is coming from a very low penetration.

**Georgina Fraser**

Okay, that was really helpful. Thank you.

**Mauricio Graber**

And that is consistent, Georgina, with what we have said both for HMO and Probiotics that obviously a better momentum in infant formula growth will always be positive, but let's say our business plans are based on the penetration of Probiotics and HMO into the existing volumes of infant formula.

**Georgina Fraser**

Great. Thank you, both.

**Operator**

Thank you. Our next question comes from the line of Heidi Vesterinen of Exane BNP Paribas. Please go ahead, your line is open.

**Heidi Vesterinen**

Good morning. I've got two questions. We see that milk and animal production is slowing relative to last year, and bird flu is emerging. Is this a concern at all in either segment? What are your expectations? And then secondly, we saw that pricing was negative in Health and Nutrition. Could you explain why that was and will that improve as you lift pricing in the coming quarters? Thanks.

**Mauricio Graber**

Heidi, good morning. So, I'll take the first one on Animal Health and then pass it to Lise on the pricing for Health and Nutrition. That was more related to a one-off situation that she can explain. But good questions. Thank you for that. So, we have seen pretty strong development in dairy farming. So we have not seen that impact our business in cattle in particular, in dairy farming for animal has been strong and I think it's driven basically by the innovation and the products we have put out, particularly in our probiotics solutions.

I think on Asian swine fever, there you're right; Animal Health had a very strong quarter in the Q1 last year as the population of swine in China was growing again under better health conditions where our probiotics have played a role and now face a larger comparable to that with definitely an effect of the African swine fever.

Lise, on to you on the pricing question on Health and Nutrition.

**Lise Mortensen**

Yes, Heidi. It is related to the agreement we have on Plant Health with our partner SMC [ph 00:38:55]. It's just a consequence out of the regular kind of settlements that we make with them, and agreement regards to how we recognise the revenues. So, it's a one-off for this quarter.

**Mauricio Graber**

So I would definitely not read from that anything in relation to our pricing ability or pricing passthrough for our business. As Lise said, it is more related to a one-off in connection to the settlements in Plant Health with SMC [ph 00:39:30].

**Heidi Vesterinen**

And just on my first question. Also we see milk production is slowing. Cheese has been very strong for you in recent quarters. Could that have an impact in FC&E? Or is that not a concern for this year?

**Mauricio Graber**

We don't view that as a concern for this year, Heidi, but we closely monitor the trends in dairy development, both for cheese and for the fermented segment.

**Heidi Vesterinen**

Thank you.

**Operator**

Thank you. Our next question comes from the line of Alex Sloane at Barclays. Please go ahead, your line is open.

**Alex Sloane**

Hi. Good morning, all. Congrats on the solid start. Two questions from me. The first one just on pricing to offset input cost inflation. I guess given the small cost percentage and strategic nature of your ingredients, it wouldn't be too much trouble to kind of land price increases with customers. But on the other side, I wonder what is your base case expectation in terms of your customers' pricing action to offset inflation? And could that have any drag on FC&E end market volume growth for this year? Are you expecting any pockets of slow down due to this inflation at all?

And the second question, just going back to HMOs, and the 5HMO mix, I wonder - I mean, it's obviously early days, but if you could give any colour on how that product is actually performing on shelf in the US, where it has been launched? And more broadly on HMOs, are there any regulatory milestones that we might expect globally this year that we should be looking out for and any prospect of that 5HMO mix being launched in further new markets over the next 12 months? Thanks.

**Mauricio Graber**

Thank you, Alex, for your questions. I'll take those two myself. So on your question around pricing, yes, we have a very strong pricing methodology and in close collaboration with our customers. All I would say is the pricing negotiations are advancing as planned and on target and we track those to conclusion of the negotiations and completion of the price increases and that is tracking on plan and on target.

I don't want to mislead you. I mean pricing negotiations with customers are never easy, but I think we have a very positive collaboration with customers on the understanding of the input cost and how that translates [ph 00:42:29] into price increases. But very pleased on how our organisation is managing that and confident that we will deliver on the price increase targets that we have internally.

On HMO, indeed, too early to tell on sell-through. Probably, you follow that market very closely. You'll be able to get a better read from the reports from our customers. I think what we are very pleased from the 5HMO mix is that everything that we expected on this being a front panel ingredient and positioned as the, let's say, important ingredient to make infant formula closer to mother's milk, that has been a very clearly communicated in the product launches, which I think is positive for the HMO market overall.

On regulatory, I think the biggest next step will be the regulatory approval of HMOs in China. We are working on that. But as we have stated, we expect that to take place in 2023-2024.

**Alex Sloane**

Thank you.

**Operator**

Thank you. Our next question comes from the line of Mattias Häggblom of Handelsbanken. Please go ahead, your line is open.

**Mattias Häggblom**

Good morning. Two questions, please. So, firstly, coming back to the dynamics in the global probiotic supplement market, which benefited from the rebound which you mentioned. So, obviously consensus-expected 2% organic growth for Health and Nutrition in the quarter. You come up strong at 13%. You talk about volatility to remain, but you also said, if I heard you correct, that momentum from human health into Q2 remains strong. So, what visibility do you have? And maybe help me frame what volatility here means. For example, can we rule out another negative quarter as we saw in Q4 last year, just to put volatility into perspective?

And then secondly, if you can shed some light of historical growth rates for the lighthouses, you have to put the 35% growth rate into context. You talked about that not being representative for the full year, but [? 00:44:48] seen a specific number for this so maybe help me understand how strong that number is. Thank you.

**Mauricio Graber**

Absolutely. Thank you, Mattias. So, Health and Nutrition, indeed we had a strong quarter. We see good momentum going into the second quarter, but when we talk about volatility it is usually because it is a more concentrated business and the way that orders fall into one quarter, or another can sometimes make a quarter stronger or weaker. I would not mention specifically could you see a negative quarter. I think the benefit that we have now that the acquisitions are integrated into our organic growth is we definitely have a much better balance in our total portfolio of end markets, portfolio strings [ph 00:45:48], end channels, but you would still see more volatility in Health and Nutrition as compared to Food Cultures and Enzymes.

**Lise Mortensen**

Maybe adding to it, it's also important again to highlight that the very strong execution we were able to deliver on supply in Q1 was also part of the success formula, so to say, of Human Health. And when we look back at in Q4, one of the things we were caught by was a raw material shortage so that we actually kind of left a business on the table that we couldn't execute on. And that's part of our upside now. So, we do have a dependency on our ability to supply.

During COVID in general, we've been quite successful, but also we are not immune in the world we are operating in, and I think that's also talking a little bit to the uncertainty that we're looking into to the rest of the year. But we are not adding any concrete pointers, it's just that this is in the environment where we are operating in.

**Mauricio Graber**

Just remind me, Mattias, was there a second part to your question that we haven't addressed, sorry?

**Mattias Häggblom**

Yeah, well maybe you have to put the 35% growth rate for the lighthouse [inaudible 00:47:16].

**Mauricio Graber**

On the lighthouses. So, what we have always said is that the lighthouses have a potential to reach 100 million and will grow faster than the core business, so if you want to make an assumption on the lighthouses, I always talk about the lighthouses being double-digit growth rate initiatives for us. And if you see, for example, Bioprotection, Bioprotection is something that has consistently

been growing above 10%. I don't know that I would go and qualify a specific a quarter [ph 00:48:00] on the lighthouses, because these are still very small businesses. So percentage on a quarterly basis can be misleading, but we are focused on delivering double-digit growth rate for our lighthouses year over year.

**Mattias Häggblom**

That's very clear. Thank you.

**Operator**

Thank you. Our next question comes from the line of Mirco Badocco of Bank of America. Please go ahead. Your line is open.

**Mirco Badocco**

Morning, everyone, thanks for my questions. So just a clarification on my side, if you can. You've mentioned benefits from timing of orders in Plant Health and product launches in HMOs. So, if you can clarify if there is any unwind here to be expected in Q2 or if it was just no repeatable benefits in Q1? So, Plant Health and HMOs. As I understand, Human Health is just a one-time benefit there. And also if you can give us an indication on the performance of Bioprotection in the quarter, that would be great. Thanks.

**Mauricio Graber**

I will take the one on Bioprotection and pass it onto Lise to comment on the one-off timing of orders. So, Bioprotection grew around 15% in the first quarter, which is solid. I would remind you that even though we launched in spring the generation three [ph 00:49:33], we are working in projects with customers, and we should not expect a larger contribution for the third generation of bioprotection before our second half of the year [ph 00:49:47].

**Lise Mortensen**

Yes, and building on your first question, Mirco. If we look at what was the one-offs in Human Health in Q1 that would impact the rest of the year; as we said, Plant Health was definitely a one-off in Q1, and we expect to see a negative side of that in Q2. For HMOs, there was some order timing benefiting in Q1 which will just level out over the year but ending the full year at the 20% plus that we talked to. And apart from that, I would say from the rest of the rebound of Human Health, it was a lot of new business opportunities that materialised and where we don't anticipate the negative side of it the rest of the year.



**Mirco Badocco**

Understood, thanks. And just following up on this. So on the Plant Health, I think you mentioned overall the one-offs were one third of the performance in Health and Nutrition. How much of that one third was the one-off in Plant Health?

**Lise Mortensen**

It's not big. And I also think when you think about one-offs, also think about into that we also include the benefit we have some from Q4, right? So, it's not the largest, Plant Health.

**Mirco Badocco**

Okay. Thank you.

**Operator**

Thank you AI next question comes from the line of Charles Eden at UBS. Please go ahead, your line is open.

**Charles Eden**

Hi. Good morning, Mauricio. Good morning, Lise. Two questions for me, please. Firstly, can you quantify the China growth you saw in FC&A in Q1? And maybe if you can remind us the comparison or at least sort of a range of the decline in the prior year quarter.

And then my second question is just a clarification to your response on one of the earlier questions on pricing, Mauricio. I think you said there would be no margin impact from the pricing. I just wanted to check I heard that right because does your pricing model protect the gross profit or the gross profit margin, as I thought it was the former, but maybe I'm incorrect so I just wanted to clarify? Thank you.

**Mauricio Graber**

Thank you, Charles, for the good questions. So, on China. China had had a solid growth against a low comparable from last year and that was mainly because Q1 of last year for FC&E was particularly soft. So, I wouldn't read much more into that from China, but I do believe our feeling is consistent with what we communicated in Q4, saying that we expect China to be flat to slightly positive for us for the year, despite the continued negative development of the Fermented category in China.

I will pass it on to Lise to comment on margin, but just to clarify my comments, I said when we passed [? 00:53:12] passed on prices to make sure that we protect our profitability.

**Lise Mortensen**

So if we think about the pricing impact and looking at our financials for this year, I think it's important to also call out that our price increases do come with some delay. The ambition is that we can increase the prices to offset not only just the cost, but also the margin impact. But it will come with some delay this year. And what do we base this on? We base this on that this is what we have usually done, and we are in a very good collaboration with the customers on it.

**Charles Eden**

Okay, thank you. And maybe I can just follow up quickly. So, are you able to say when you think your pricing will be in a position given where raw mats are today to fully offset the headwind? Are you able to give that detail?

**Lise Mortensen**

Well, it of course depends on whether we know the full magnitude of the headwinds at this point in time. It is very unprecedented times, so I think the overall conclusion is that what we're doing here is baked into our EBIT guidance for the year, which is a landing corridor between 27% and 28%.

**Mauricio Graber**

And we see around a quarter's delay between our inflation cost input and our negotiations with customers. I think under more normal conditions we would usually have one round of negotiations with customers. As inflation development continues to be more fluid this year, we may have several negotiations of pricings with customers.

**Charles Eden**

Understood, thank you very much.

**Operator**

Thank you. Our next question comes from the line of Andre Thormann of Danske Bank. Please go ahead, your line is open.

**Andre Thormann**

Yes, hello, both of you, and thanks a lot for taking my question. First of all, in terms of this good momentum you mentioned in Human Health, I wonder if you could elaborate a bit on this momentum and also on whether this is driven by the UAS [ph 00:55:31] combination that has happened. And my second question is in terms of Food Cultures and Enzymes; this strong performance that you have seen whether there is some kind of re-opening effect that has affected these numbers positively? That's my questions. Thanks a lot.

**Mauricio Graber**

Yes, so let me start with Human Health and not much more than I can add to what we said. I mean, the strong performance in Human Health was really driven by the reopening of the traditional sales channel in North America and Europe. We are benefiting from our strength to solution strategy and the broader portfolio that we have in Human Health, where we are now able to commercialise across the combined units the Chr. Hansen legacy, highly documented probiotics, and the addition of the strength from both HSO [ph 00:56:44] and UAS labs. So, it's like [? 00:56:48] but I would say a strong execution of our Human Health business.

We also highlighted, and I will repeat that again, that we have a strong supply chain performance that enabled us to capture business and have new wins while also fulfilling orders that we were not able to fulfil in Q4. And that combination puts us also in a strong position with Human Health into the second quarter of the year [ph 00:57:21].

In FC&E, it was mainly volume-driven and mainly volume-driven, and mainly in the [? 00:57:32] market. So very strong performance of projects in Europe, where by the way we were able to be more present with customers, and the cheese market in North America, partly driven by a larger presence [ph 00:57:47] in food service as well, but where we see some cheese types like mozzarella continuing to perform very strongly.

So, maybe we have time for one more question before we will wrap up the session.

**Operator**

Thank you. There is only one further question in the queue. That's from the line of Søren Samsøe at SEB. Please go ahead, your line is open.

**Søren Samsøe**

Yes, I just had one follow-up regarding the lighthouse projects where you can say you have earlier been quite concrete on the absolute potential of these while you now seem to be a bit less concrete, which I completely understand, but maybe you can comment a bit - there must have been some delays in delivering on these sort of overall ambitions you've had there because of COVID. Maybe you can elaborate a little bit more on what we should expect in the long term. I, of course, acknowledge that this is quite uncertain and difficult to predict, but maybe give us your thoughts there.

And then secondly on Animal Health, which I understand is quite weak in Q1, actually. I can't remember whether that was because of some particular high comparables or order timing, but just comment what's the momentum in Animal Health in the underlying business going into Q2? Thank you.

**Mauricio Graber**

So, Søren, on Animal Health. Animal Health basically faced a difficult comparable and the only thing that we mentioned as well was that in swine, particularly, we had a high comparable from Q1 last year because of the strong momentum of rebuilding the swine population in China versus now a little bit of return of African swine fever, but I think you could expect a normal momentum from Animal Health going into Q2 and we have seen a strong performance on Animal Health throughout the last a couple of years, so I'm very pleased with how the team has turned the innovation into market execution and commercialisation.

On the lighthouses, Søren, in our Capital Markets Day, we basically provided what we view as the potential of those lighthouses and then left it open to what our market share would be, and I think that is a much better way to present these that are really business development opportunities where we leverage microbial and fermentation technologies that we know very well into new commercial spaces. So, it's business building from a very low base but in areas where we see a large opportunity and we're very excited about.

So, I would repeat what I just said that the best way to think about our lighthouses is businesses that will grow faster than our core business and where we can expect double-digit growth rates year on year. For sure, you may have quarters that are higher or lower, but I hope that provides some perspective. Otherwise we'll be able to elaborate on this further as we talk going forward.

**Søren Samsøe**

Okay. Thank you for that.

**Mauricio Graber**

Thank you. So, with that, this concludes today's conference call and Q&A session. Thank you for attending and we look forward to continue our dialogue during the upcoming virtual roadshows. Thank you, all.