PRESENTATION

Operator

Thank you for standing by and welcome to the presentation of Chr. Hansen's annual Report and Conference Call 2020 to 2021.

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'd like to ask a question, you'll need to press 01 on your telephone. I must advise you that this conference is being recorded. I would now like to hand over the conference to your speaker today, Chr. Hansen CEO, Mauricio Graber. Please go ahead.

Mauricio Graber

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

Thank you. Let's turn to slide three, please.

2020/21 was a year of transition for Chr. Hansen, with increased complexity for the combination of our recent portfolio changes and the global COVID-19 pandemic. In light of these extraordinary circumstances, I am pleased with the financial results that we delivered. Organic growth came in at 7% and at the upper end of our initial outlook. This was achieved despite the unsatisfactory result from human health in the second part of the year here the business faced a drop in demand from customers servicing the traditional sales channel combined with certain supply issues.

Food Cultures and Enzymes, on the other hand, was able to offset part of that with a strong year-end finish, an 8% volume growth in Q4.

Our EBIT margin before special items ended at 27.7%, down from 33.7% the year before. The decrease was in line with our expectations and largely driven by the acquisitions and currency headwinds. But we also saw a decline in the underlying business and Lise will elaborate further on that.
Free cash flow before acquisitions, special items and divestments ended up €196 million, compared to €225 million last year and was higher than our outlook, mainly due to timing of payables.

2020/21 also marked the first year of our 2025 strategy and we have reached important milestones in our transition towards a dedicated bioscience company with focus on our microbial and fermentation technology platforms. Let me provide a few highlights on each of our strategic pillars in the next slide. Slide four, please.

Organic growth remains our number one priority and we continue to re-invest in our core platforms of Dairy, Animal Health and Human Health. Our investments are focused on bringing new innovations to market faster, expanding our route to market and strengthening our applications and marketing capabilities.

In Dairy we have seen an all-time high launch activity in 2020/21. However, travel restrictions, lower trial [ph 00:03:23] activity at customers focusing more on their existing business and cost savings made it more difficult to bring our new launches to customers and drive new business. This was particularly the case for fermented milk markets, such as Latin America and China where consumer price sensitivity is higher.

In Animal Health, we further expanded our route to market by strengthening our local sales partner network, regionalising our marketing capabilities and rolling out our product offering globally.

Overall, we completed more than 50 new registrations globally and launched our first pet probiotic range. We also made good progress in China during the year, but the return of the African swine fever hampered growth in the second half of the year.

In Human Health, focus was very much on the integration of UAS Labs and HSO Health Care and addressing the challenges in the second half of the year. But we also advanced our strength-to-solution strategy and scientific agenda by working globally on more than 30 clinical trials.

Next to growing our core business, we continue to leverage our lighthouses. Buyer protection and fermented plant bases today account for approximately 8% of Food Cultures and Enzymes revenue. Both businesses delivered double digit growth in 2020/21 and made strategically important launches.

In Plant Health we continue to increase penetration and reach of our bionematicides. Commodity prices were supported, but COVID-19 has delayed the market entry into Canada as well as the launch of our first biofungicide. On the positive side, we entered the Asian market with our new biostimulant Akuto [ph 00:05:20] in South Korea and today we have announced a new partnership with UPL which will further expand our commercial reach. Due to the typical long registration timelines, we expect meaningful revenue from this partnership by the end of the strategy period.

Lastly, looking at Bacthera, we received the manufacturing licences for our clinical trial production and the team, which has grown to 70 people today, continue to mature commercial
opportunities with leading players in the life-biotherapeutic space. Extending our microbial platform via acquisitions and partnerships is our third strategic priority.

Please turn to the next slide, slide five.

The integration of our three acquisitions, UAS Labs, HSO Health Care and Jennewein have largely been completed. The three businesses delivered €105 million in revenue and €17 million in EBITDA, below our initial expectations, but in line with the corrected outlook. While we must recognise that the first year was not without challenges, especially related to HMO, all three acquisitions have delivered on our expectations in terms of strategic fit and potential for our 2025 strategic priorities.

In Human Health during the second half of the year, we have seen that our dependency on large accounts on the traditional sales channel can be a disadvantage for the business. With the acquisition of UAS Labs and HSO Health Care, we are addressing this imbalance and are building a more resilient business with a more defined, diversified customer base and a larger presence in the e-commerce space and a broader product offering, not least in the fast-growing Human Health category. We believe that for Human Health, the future lies in what we call the strength-to-solution strategy where we can support customers along the entire value chain from strength selection to finished product manufacturing. This is why we have also completed the insourcing of additional packaging capabilities in Q4 to take full control of our supply chain.

Coming to Jennewein and HMO: we have added one of the pioneers in the HMO space to our portfolio. HMOs and probiotics represent complementary and synergistic ways of modulating the microbiome and as such presents an attractive synergy opportunity for Chr. Hansen. That said, it’s still an industry in its infancy and regulatory approval delays related to COVID-19 and generally longer customer project timelines have slowed the development of the market. We are however progressing well in our dialogues with key customers who will drive the penetration of HMO and infant formula in the years to come and our capacity expansion plans to the outcome of these discussions.

Before I hand over to Lise for the financial deep dive, I would like to comment on our sustainability activities in the next page.

At Chr. Hansen more than 3,700 colleagues go to work every day to grow a better world naturally. Eighty-two percent of our revenue today contributes to the UN Sustainable Development Goals and across the organisation we work on embedding sustainability even further in our commercial strategies to drive more sustainable agriculture, better food production and improved health.

2020/21 was also a year where we increased our focus on climate action. During the year, we marked all of our Scope 3 emissions to set carbon emission reduction targets. The targets have been submitted to the science-based targets initiative for validation and we expect to publish them in the coming weeks. We also made good progress on embedding the recommendations from the task force for climate related disclosure in our enterprise risk management. And we
increased our use of renewable energy beyond Denmark through an agreement at our Nienburg site in Germany.

With regards to our people targets, I am very pleased that we already this year reached our goal of having more than 30% women in key positions and that we kept engagement high, our employees safe during the pandemic year. For the first time, we have also published the result of our gender pay gap analysis reflecting our commitment to fairness and transparency in remuneration, with a clear goal to reduce the pay gap going forward.

Lastly, I am also pleased that our board of director is increasingly involved and has decided to formalise and strengthen its oversight of ESG topics on Board and Committee level in the coming years.

With these remarks, I would like to hand over to Lise for the financial performance review.

Lise Mortensen

Thank you, Mauricio, and welcome also from my side. And let's look at slide seven.

2020/21 was indeed an extraordinary year with the global pandemic, and this is also what we can see in the regional performance of our business. The trends that we saw in the third quarter largely continued into Q4.

To start with a positive development: growth in our largest region, Europe, Middle East and Africa, accelerated in the fourth quarter and ended at 11% organic growth, largely driven by a step-up in Food Cultures and Enzymes, but Animal Health also delivered strong growth. Human Health, on the other hand, declined due to weaker demand. For the full year, this resulted in 6% organic growth for the region.

Looking at North America, the region reported 4% organic growth in Q4 with similar dynamics as EMEA. Food Cultures and Enzymes and Animal Health did well.

While Human Health declined as customers with large exposure to the traditional sales channels reduced their orders to bring down elevated inventory levels.

For the full year, North America reported 6% organic growth driven by Food Cultures and Enzymes and Animal Health.

Moving on to Latin America, the region delivered 15% organic growth in Q4 with a lower contribution from euro-based pricing. Slower end-markets impacted our Food Cultures and Enzymes business, while health and nutrition delivered very strong growth. For the full year growth was 26% with euro-based pricing accounting for approximately half.

Lastly, Asia Pacific delivered negative growth of 10% in Q4, leading to a decline of 3% for the full year. The decline in Q4 was driven by Health and Nutrition, which was impacted by a very tough comparable both in Animal and in Human Health. In addition to this, Human Health was also impacted by adjustment of inventory levels at key customers, including customers for infant formula.
Food Cultures and Enzymes also saw reported negative growth, but the relative performance has continued to improve during the last quarter, although it was still below our expectations and the Chinese yoghurt market remained under pressure.

Let's move to the next slide, slide eight for further explanations on the segments.

Food Cultures and Enzymes grew 10% organically in Q4, largely driven by volumes in part due to an easy comparable from last year. Growth was broadly anchored across the different product segments.

Our cheese and meat business continued its strong growth trajectory that we have seen throughout the year whilst in fermented milk and probiotics, we saw a step up in Q4. Our bioprotection lighthouse delivered strong growth, driven by meat and cheese applications, while fermented plant bases grew solidly.

For the full year, Food Cultures and Enzymes delivered 8% organic growth, with 3% volume growth outgrowing the underlying markets.

Cheese production volumes grew an estimated 1 to 2% for the year with higher growth in the second half where we saw the reopening of food service channels while retail remained strong.

Fermented milk markets on the other side declined slightly, with an estimated -2 to -3%, largely driven by lower output in China and in Latin America.

Turning to profitability, the Q4 EBIT margin before special items for FC&E decreased to 33% compared to 38.4% last year. The decrease is quite meaningful and there are several explanations for it.

First, last year’s margin was positively impacted by a one-time gain from a VAT case in Brazil, which explains around 1.5 percentage points.

Secondly, we've seen a ramp up of activities following the COVID-19 lockdowns last year, which was the largest drag on the margin. And thirdly, we’ve had to book an impairment loss related to development projects, which explains around one percentage point.

If we look at the gross margin it was actually in line with last year, but our production efficiencies were offset by product mix and higher scrap due to a termination at our [? 00:16:07] plant.

For the full year, the margin declined -2.3 percentage points from 34.3 to 32 mainly due to product mix, higher freight costs and negative currency impact that offset production efficiencies. But we have also invested quite heavily into our R&D activities in FC&E in line with our strategy of reinvesting in the core.

Moving to Health and Nutrition on the next slide, slide nine. Organic growth in the fourth quarter and for the full year was heavily impacted by the weakness in Human Health. Organic growth was -4% in Q4, leading to 5% for the full year. There were two main drivers for the decline in Human Health in Q4 similar to last quarter: a high comparable from last year and customers reducing excess inventories due to lower demand in the traditional sales channels.
Our acquisitions, UAS Labs and HSO Health Care, on the other hand, did very well. Though on the fourth quarter we also saw a lower contribution due to limited access to raw materials that are needed for finished product manufacturing.

If we look at Animal Health and Plant Health, both businesses did well in Q4 as well for the full year.

In Animal Health, growth was particularly strong in silage that exceeded our expectations for the year, but we also saw good momentum in poultry, particularly in Middle East and South East Asia, following the completion of the Gallipro Fit rollout. In Plant Health, growth continued to be driven by our bionematicide sales in Latin America.

With regards to profitability, the underlying EBIT margin before special items in Q4 was 32.1% compared to 37.5% last year and largely driven by the cost normalisation post COVID and the negative volume development.

For the full year, the underlying EBIT margin was 30% compared to 31.9% last year, and mainly due to negative currency impact of more than one percentage point.

The reported margin was 21.6% in Q4 and 19.8% for the full year and remained impacted by the recent acquisitions.

And with this, let’s turn to page ten for the Group financials.

In sum, our continuing operations, the macro- [? 00:19:07] platform delivered 6% organic growth in Q4, leading to 7% for the full year. The benefit from euro-based pricing faded in the fourth quarter, leading to only two percentage points pricing, while for the full year pricing contributed 4% to the organic growth.

Acquisitions added 12% to absolute revenues in Q4 and adjusting for a negative currency effect of -3%, this led to a euro growth of 15% for the quarter.

For the full year, the FX impact was -7% and the acquisitions contributed +11% leading to 11% euro growth.

Please turn to the next page, page 11 for a review of our profitability drivers.

Profitability came in largely in line with expectations for the full year but our margin in the fourth quarter was impacted quite meaningfully by the normalisation of cost levels post COVID-19 that I already mentioned in the segment review.

EBIT margin before special items was 28.8% in Q4, compared to 38.4% last year, with a decline in the underlying business of -5.4% and a dilution from the acquisitions of -4% while the negative impacts from FX lessened to only -0.2%.

If we look at the decline in the underlying business in Q4, then the increase in operating expenses compared to last year was by far the largest driver. But we also have an impact of approximately one percentage point from the VAT dispute case that I earlier mentioned.
The gross margin for the underlying business was on par with last year’s Q4 as production efficiencies were offset by product mix and higher scrap in FC&E.

For the full year, our EBIT margin before special items was 27.7%, compared to 33.7% last year, very well within our guidance range of 27 to 28%, but the decline in the underlying margin was larger than the one percentage point that we had anticipated due to the impairment losses and higher scrap in FC&E that we didn't factor in.

A few additional comments on the income statement items below EBIT, if we look to the right. Special items came in at €2 million driven by the Jennewein acquisition and carve out of Natural Colours and in line with expectations.

Net financial items were above last year due to the temporary higher debt levels. This will come down again next year. And taxes were significantly below last year due to a nonrecurring impact from the acquisitions. This will also revert next year.

If we look at the cash flow, then on the next slide, slide 12. Our free cash flow before acquisitions, special items and divestment decreased compared to last year driven by higher CapEx and lower operating cash flow. Operational cash flow was below last year as the higher non-cash adjustments and the acquisition related tax impact were offset by lower operating profit and higher interest paid. The free cash flow came in above the guided range of €140 million to €160 million in part due to timing of payables.

Our CapEx to sales ratio was 14.5% in FY21, elevated due to the acquisition of the [? 00:23:17] sight in Denmark for our new HMO production and also investments into the microbial platform and insourcing of the packaging capacity for Human Health in North America. Excluding HMO, our CapEx to sales ratio would have been 11%.

Following the receipt of the proceeds from the Natural Colours divestment, leverage came down to 2.3x EBITDA.

In light of the performance of the financial year, the Board of Directors proposes a dividend of 6.54 DKK per share, which corresponds to a total of €116 million.

The proposed dividend is in line with the payout in May in euros, but represent an increase in payout ratio from 50 to 58% of net profit from continuing operations.

And with this, let's turn to page 13 for the outlook.

Considering the high macroeconomic uncertainty and continued COVID-19-related disruptions, we expect organic growth for 2021/22 in the range of 5 to 8%.

FC&E is expected to deliver solid mid-single digit organic growth throughout the year despite an insignificant contribution from euro-based pricing, so largely volume-driven.

Organic growth in Health and Nutrition is expected to be supported by the businesses acquired in 2020. That said, growth is expected to be volatile across the quarters with Human Health impacted by the current challenges, including limited access to specific raw materials in first parts of the year.
EBIT margin before special items is expected to be around at the same level as last year between 27 and 28% as cost synergies from the probiotics acquisitions and production efficiencies will be offset by continued ramp up of activities post COVID-19 investments into the HMO business and inflationary pressure and certain input costs.

Inflationary pressure is normally covered by regular price increases. However, as all others, we also face a much more volatile environment now with regards to energy cost, key raw materials and transportation costs. We will work with customers to reflect higher costs through price adjustments or other optimizations, but there may be a timing delay.

Moving on to our free cash flow guidance. 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 a significant increase in taxes paid as 2022/21 was positively impacted by the acquisitions.

The free cash flow outlook assumes CapEx in line with FY21.

Please move to slide 14.

With the first year of our strategy cycle and the portfolio changes completed, we adjust our long-term financial ambitions to reflect the divestment of Natural Colours and the acquisition of Jennewein, but confirming the original ambition of industry-leading organic growth, margin progression and strong cash flow generation during the strategy period.

Until the end of our financial year, 2024/25 and taking 2020/21 as our new baseline, we aim to deliver: mid to high single digit organic growth averaged over the period; an increase in our EBIT margin before special items over the period with production efficiencies, scalability benefits and acquisition synergies that will be partly reinvested into the business.

Average growth in free cash flow before special items: we expect to exceed average growth in EBIT before special items.

Please note that the baseline for cash flow is adjusted for the acquisition-related tax impact of approximately €45 million in 2020/21.

Also note that we will face the HMO investments in line with the development of the business, and giving the slower ramp up of the markets, this means that the investments will come later than originally expected and more spread across the period.

And with this I would like to hand back to Mauricio to wrap up our presentation for today.

**Mauricio Graber**

Thank you, Lise. I will keep the wrap-up very short. 2020/21 was a year of transition for Chr. Hansen as we executed on the portfolio changes and dealt with the prolonged impacts of COVID-19. In light of this, I am pleased with our financial performance and the progress we have made on our journey of becoming a dedicated bioscience company with focus on our fermentation and microbial technology platforms. 21/22 will be another year with high macro-economic uncertainty and continued COVID-19-related disruptions. Commercial execution and
creating value for our acquisitions will be key while actively managing our cost base in advancing our 2025 strategic priorities to reach our goal for the next financial year and deliver on our long-term financial ambitions of industry-leading organic growth, improving profitability and strong cash flow generation.

Thank you for listening and please do open the line for Q&A.

**Q&A**

**Operator**

Thank you. Ladies and gentlemen, if you have a question for the speakers, please press 01 now.

Our first question comes from the line of Søren Samsøe from SCB. Please go ahead.

**Søren Samsøe**

Yes, good morning. Søren Samsøe from SEB. First a question regarding the gross margin for Lise. Maybe you already said it, but I think you talked about an underlying gross margin development in Q4 that was flat. Maybe I heard you wrong, but reported of course is down almost 400 bps. Could you just bridge that gap, please?

**Lise Mortensen**

Sorry, Søren. Yes, it's the acquisitions. The underlying gross margin was flat year on year [ph 00:30:29] for Q4.

**Søren Samsøe**

And then, since you had quite strong volume growth, I was just wondering why is it not up? Is that the higher raw material costs or why is the gross margin not up? I guess you have the usual scalability.

**Lise Mortensen**

We did in Q4 have an unanticipated scrap due to a contamination in our Copenhagen plant. And then of course also I have to say the product mix which is also impacting and offsetting some of the volume effect. In fact, you should expect production efficiencies from.

**Søren Samsøe**

And then just if you could say a little bit about— You have quite strong growth in food culture and enzymes in Q4. How should we see the year develop in 2021/22 in terms of growth? Is it more front-end loaded or do you see it as being more back-end loaded in terms of the growth?

**Lise Mortensen**

For Food Cultures and Enzymes, we expect a pretty balanced view for our FY22. So it would be in this mid-range, mid-single digits throughout the year.

**Søren Samsøe**
But is it fair, given that you are now of course starting to meet clients, I guess you're not up to sort of index 100 in terms of meeting activity and so on yet. Wouldn't it be fair to assume that it's more back-end loaded, or maybe not?

**Lise Mortensen**

It's not what we're expecting, Søren. We are expecting a pretty flat development by quarter if we look at Food Cultures and Enzymes. You are right that of course we will be able to visit customers to a larger extent throughout the year and with a certain delay that is also supporting our business. But we do expect also a tougher comparable if you look into the second half.

**Søren Samsøe**

Thank you.

**Operator**

And the next question comes from the line of Charles Eden from UBS. Please go ahead.

**Charles Eden**

Good morning, thanks for taking my questions. My first one is just on the revised medium-term guidance where you now expect expansion versus a 2020/21 base of 27.7%. Consensus for the end of the current strategy cycle for 25 is obviously some way ahead of this at 31.6%. Is today an indication that you see those expectations by the [? 00:33:17] as a stretch?

And then if I can just add a second question. The China decline in Q4: are you able to kind of give a quantification of that within SG&E and maybe comment on your growth assumptions for this market for 22, which is baked into your 5 to 8% organic growth guidance.

And then just a very quick follow up: You mentioned the scrap impact on the gross margin. Can you give us the value of that scrap impact? Thank you very much.

**Lise Mortensen**

Yes, thank you. If you look at the margin expansion towards the end of our strategy period, it's very important to highlight that the HMO business will continue to be a drag beyond our strategy period. So while we expect our acquired probiotics business, UAS Labs, an HSO Health Care to improve and become comparable to Chr. Hansen traditional level, HMO will drag beyond the period.

The scrap in Q4 was, if you look at Food Cultures and Enzymes specifically, around 1.5 percentage points impact and 1% for the Group.

**Mauricio Graber**

I will take the one on China, Charles. I think when you look at China you split a little bit the three businesses. So, as Lise mentioned Food Cultures and Enzymes, the development in Q4 was still negative, but we see continuous improvement momentum. So, I think fiscal year 22 we expect a positive development for the Chinese market, although not back to the full growth
that we have seen before, but it will turn positive after seeing a couple of years of decline in the Chinese fermented dairy market.

In Q4 we had negative developments for Human Health, both in infant formula and dietary supplements, and we expect those to normalise over the year, as you will see, customers in China, certainly through their higher levels of inventory in dietary supplements and the infant formula business normalising, where we have said that the penetration of probiotics into infant formula is our main growth and we have always assumed a low single-digit growth for the infant formula volume. So, it's all about penetration of our probiotic solutions into infant formula.

Charles Eden
Thank you very much.

Operator
And the next question comes from the line of Alex Sloane from Barclays. Please go ahead.

Alex Sloane
Morning, all. Two questions from me please. Firstly, just going back to the food culture and enzyme volumes in quarter four, obviously an impressive performance given China was still a drag albeit a lesser one. Can you maybe give some colour on the drivers of the 8% growth in terms of market growth, innovation, upselling and structural conversion? And perhaps your expectations on the relative contribution of those factors behind the guidance for FY22.

And secondly, just contrasting the performance of UAS Labs and the sort of legacy Chr. Hansen probiotic supplements business in FY 21, quite a marked difference, despite obviously broadly the same end consumer demand, so I'd just be interested, in your view, is that just a divergence? I's just temporary or is there something more structural going on? And is there a margin implication to this trend in terms of, I would assume you have higher prices and gross margins on your well-documented single strains versus the multi-strain offering. Thanks.

Mauricio Graber
Thank you, Alex. Let’s go first about FC&E volume. So, extremely proud of the FC&E team and the resiliency of that business and I think what we saw is that as euro-based pricing declined, the volume strength, and it’s something that we have mentioned several times. And when you look at the drivers of that growth is a lot of the execution across the different elements of the quadrant. So, if you look at pricing and share gains, that is always quite sticky because the nature of the industry, but we continue, I would say, to work very closely with customers and our service levels and quality levels always guarantee us opportunities to continue to drive some level of share gains.

Conversions: we did not see a high level of large conversion projects in 2021, but we see some of those ahead as an opportunity for us to continue to convert some of the remaining opportunities in Food Cultures and Enzymes.
In innovation and upselling, I think we had a record high level of product launches. As I mentioned in my comments, there's a time lag now because of the ability to visit customers to monetise those, but we continue to see good progress on some of them. Kynoch continues to be a very good success. Early, very good signs of our bio protection new generation as well as growth in our vegan line for plant bases.

New areas: basically, we saw a little bit of fewer launches in brewing, fermented beverages that were affected by COVID restrictions. But overall, the volume growth in Food Cultures and Enzymes, you can see that the execution of projects in the core business, in our core culture ranges, has been what is driving the growth and I'm particularly proud to see that despite the weakness in developing markets, you saw very strong growth in the core regions of Europe and North America.

So I hope that brings some colour to the food culture and enzymes, that by the way, also had some lower comparables in the quarters where you saw higher growth.

Now, onto Human Health. Strength to solution and being able to have a wider portfolio of probiotics, I think diversification really helps. We are now more balanced in our channel versus traditional channel versus the online channel. And really, if you see the acquisition of UAS Labs and HSO separately, they delivered double-digit growth rate. So e-commerce continues to grow and to be an area where more consumers look for their probiotic solutions. We expect the combination of those two to provide a more balanced growth picture for Human Health in 2022, even though we will see some lag of the inventory, customer conditions into the beginning of the year.

As far as product mix, it's true that the finished product has a slightly, let's say lower margin than our probiotics, but it also provides more customer stickiness and more customer loyalty because we’re working with them through the end solution. So I think the way I view that business is whether it’s finished products or probiotics, we are getting the full margin on the bulk business and then you get incremental cash, incremental revenue on the consumer packs. And as I mentioned, higher consumer customer loyalty.

Alex Sloane

Thanks.

Operator

The next question comes from the line of Lars Topholm from Carnegie. Please go ahead.

Lars Topholm

Thank you very much. A couple of questions on my side. If I look at your revenue and earnings contribution from acquisitions and the Jennewein it would seem that combined UAS Labs an HSO Health Care has gone from a 40% margin in the first half of the year to a 24% margin in the second half of the year. So I just wondered if you can put some words on why that is and how that looks going forward?
Then a second question goes to your 2025 ambitions of lifting margins. I would simply like to understand if PPA amortisations in the last year of the five-year period is assumed to be the same as it is now; i.e. around 19 million a year or if you get any sort of margin benefit from PPA amortisations coming down within the five-year period?

And then a third question is just a household question. So, you mentioned the two lighthouses in Food Cultures and Enzymes, 8% of sales. According to my math, that would imply plant based is less than 1%. Is that a correct assumption? Thank you.

**Lise Mortensen**

Last, I can't really recognise the numbers that you're talking to on the acquired businesses, so we will have to come back to you specifically on that.

With regards to your question on PPA, that will only come down once we reach our FY30 level. And I think that's also what we have shared until now. And then I would say on fermented plant bases, it's probably not completely off, but maybe Mauricio, you can put more—

**Mauricio Graber**

Yes, Lars, I think on plant basis, that's what we have said. It’s an emerging market. I think directionally that would be about 1% and we obviously grow very fast on that from a very small base into the fermented plant-based market.

**Lars Topholm**

And then I have a slightly broader question because you mentioned, Mauricio, in your presentation that your estimate is global yoghurt market declined with a couple of percent last year, so I’d just like to know your views on why that is and what will make this change and within what time horizon do you see it changing? And of course, I know it’s probably difficult to answer, but you also have an insight into your product pipeline, and you have previously mentioned that COVID could mean less new product development activity for your customers. I wonder if it's something of that we're seeing now and how you see that changing going forward? Thank you.

**Mauricio Graber**

Thank you, Lars. Obviously, you recognise the difficulty of providing some prediction on that, but I can share with you some of our thoughts. You’re right, the fermented market contracted. When we look at Fiscal Year 22, we expect overall dairy to be about 1% growth, and this will be like 1 to 1.5% in cheese and sort of a flattish development for fermented milk.

What will make fermented milk come back to growth is really largely driven by China and Latin America, a little bit the Middle East, sort of developing markets that are high on fermented milk or the yoghurt market. Obviously, we also see some of our large Western customers focusing on renewed innovation for fermented milk, and that is another source and opportunity for growth in that area.

**Lars Topholm**
Thank you very much, Mauricio. Thanks for taking my questions and please get back to me on the margin in UAS and HSO. Thank you.

Lise Mortensen
We will, Lars.

Operator
The next question comes from the line of Heidi Vesterinen from Exane BNP Paribas. Please go ahead.

Heidi Vesterinen
Morning. So one bright spot today was Animal Health, but we do increasingly hear that meat consumption is slowing or declining in places and we've seen some stats on animal production being challenged in areas. Does this concern you at all for 2022 and onwards over the mid-term? And then the second question: you talked about volatility in Human Health. Could you please help us with the phasing of this? Are you basically saying H1 will be down and H2 back to growth? Given that the raw material issue you talked about sounds Chr. Hansen specific, is there any risk that you lose customers due to this?

And then lastly, you had talked about cost-sensitive customers and consumers in emerging markets. Is there any chance that you could reduce prices to drive volumes given your very high margins? Thank you.

Mauricio Graber
Thank you, Heidi. Good morning. So, Animal health. Animal Health, we continue to drive with our probiotic solutions that reduce the replacement of antibiotics. And for sure when you look at the pressure on meat consumption, animal farming, sustainability, et cetera, there will be, in our world, new opportunities like plant bases. We view those as incremental opportunities because, Heidi, to be honest, the demand for animal protein in the key areas where we work – cattle, swine and poultry – will continue to remain strong as emerging economies demand access to some of those animal proteins. So, definitely not an impact in Fiscal Year 22. You can, as well as I, project what will happen long term, but not a short-term concern.

As it relates to volatility in Human Health, the only thing I would say is I would expect a gradual improvement in our Human Health business throughout the year. The key factor that you should consider is that, as of the beginning of this financial year, our acquisitions of UAS Labs and HSO will be incorporated in organic growth, so it will provide and bring that balance. And I already stated that both of those acquisitions had a strong growth in Fiscal Year 21 that did not account into organic growing.

The raw material situation is not specific to Chr. Hansen. You know there is a global shortage of some of those materials. I have mentioned that it did not impact the orders that we had committed, but it impacted our ability to go after new business and we have worked very hard to normalise that situation as we get into the Fiscal Year 22.
On your question of lowering prices to accelerate growth. We really do a value-based approach to the market. I don't think we gain new businesses by pricing; we gain new businesses by innovation in our customer intimacy and that sort of remains our strong belief on access to market.

And then just to wrap up on Animal Health. Our biggest opportunities to continue to drive penetration and global rollout of our solutions and that's what will continue to drive the growth.

Heidi Vesterinen
Thank you.

Operator
And the next question comes from the line of Christian Ryom from Nordea Markets. Please go ahead.

Christian Ryom
Good morning and thank you for taking my questions. I have two. Starting with the margin: if I try to factor out the higher scrap rates and the R&D impairment you had in the last year, your guidance for next year at the midpoint implies a 50-basis points contraction in the EBIT margin. Could you quantify how that lower margin guidance splits between say, higher investments into your OpEx base and then assumptions for general cost inflation?

That my first question and the second question is Bacthera, whether you can provide us an update on your joint venture and more specifically sort of rough indications for what to expect in terms of financial contribution for the coming year? Thank you.

Lise Mortensen
So with regard to the margin question, it's very important to say that when we talk about scrap and impairment, it was a very Q4 related item. If you look at the full year, EBIT margin for Food Cultures and Enzymes, which was the one that was impacted, the margin difference into this year was driven by investments into the business into R&D. And of course, again, that we go back to more normalised cost levels post COVID-19, so that's specific with regard to the scrap and the impairment. It was really mainly visible in Q4.

Christian Ryom
Just to be clear, my question was to the guidance for next year. So, the reason why you expect—

Lise Mortensen
But again, if you compare full year 21 to full year 22, the difference is caused by COVID-19 that we will normalise the cost level. It's explained by HMO continuing to be a drag to our margins. And then higher inflationary levels. And that's why we go with a more cautious number of 27 to 28%.
Mauricio Graber

Onto your question about Bacthera. So, the highlight on Bacthera was what we received the manufacturing licences for clinical production. We continue to work with several customers in the different regions and the pipeline looks very good. We will find in Fiscal Year 22 a good moment to provide an update on Bacthera where you see in our results in Fiscal Year 21 the share of loss of the JV was about 7 million and that has been sort of the burn rate for Bacthera, but we’re excited to see the momentum on the clinical phase one, phase two trials, our engagement with customers. And maybe the other thing I will mention on Bacthera is we have seen acceleration of some of the phase three trials, and maybe FDA approval and commercial approval of the first live biotherapeutic products may come earlier than we had originally expected.

Christian Ryom

Okay, and would that imply that we should see the burn rate coming down here over the next quarters?

Mauricio Graber

No, I would assume the same level of burn rate, at least for Fiscal Year 22.

Christian Ryom

Okay, thank you very much.

Operator

And the next question comes from the line of Mirco Badocco from Bank of America. Please go ahead.

Mirco Badocco

Hi. Thanks for the questions. I'd like to get back to infant formula. So, the market has been weak especially in China. So can you give us a bit more colour on current trends you are seeing in infant formula and for HMO specifically and also your expectation for the infant formula market in 2022 in China and in other key markets. So, do you expect the underlying market to improve at all to be back into growth? And related to this, how should we think about HMOs in this context?

And then the other question is on Human Health. You mentioned customer destocking, limited access to raw materials. So, is it something that will continue in the coming quarters? And the final one is on tax rate? You said you expect higher tax rate in 2022. Is it just going back to 2020 levels? That's how we should think about it? Thank you.

Lise Mortensen

Maybe I can just start with the tax question. Yes, we do expect to go back to normalised levels. We had a one-time non-recurring impact of around 45 million in FY 2021 that will not be repeated in the future. And that’s impacting both the P&L and cash, of course.
Mauricio Graber

So now onto your questions on infant formula HMO. So, the infant formula market indeed, basically our projections had been for a flattish to 1% growth development of the infant formula market and around sort of 2% over the period. But the key aspect for us is if you take probiotic in infant formula, we see a large opportunity to continue to drive penetration of probiotics and that is the most important driver.

Obviously, HMO provides a nascent opportunity to add a front panel ingredient into the infant formula. The first HMO market launches will be in the US. We expect that infant formulas with our HMOs will hit the market at some point before the end of the calendar year and that will continue to grow. So, I have said previously, and I can maintain that we expect HMOs to grow north of 20% next year, and HMO would be a front panel ingredient on the proposition that it brings the missing ingredient from mothers’ milk into infant formula.

On the question of Human Health destocking. What we saw is, we saw some quarters of very high Human Health dietary supplements growth during the pandemic that drove customers to higher levels of inventories of finished products that normalised during the second half of the year. There may be some tail of that into the beginning of the year, but we feel that this situation has, let's say, largely normalised and operating into normal safety stocks as we go into the future.

Mirco Badocco

Thanks. Can I just clarify one thing, Mauricio, you said on infant formula in China. So, you said you expect 1%, if I haven’t misunderstood over the period for the underlying market growth, is it the same thing?

Mauricio Graber

That was global. More difficult to make any prediction around the Chinese infant formula market. The Chinese infant formula market really was affected by several factors. One of them COVID lockdowns, more mothers at home, but I think the expectations or the views from the market is that the infant formula in China will continue to have two things: a strong preference for premium [? 00:59:35]. Even though you have seen a low birth rate, there's questions on the softening of the Chinese regulations about one child and what the impact will be. Still, remember, I would say that whether infant formula is flat, slightly declining, slightly increasing, the penetration of HMOs, and the penetration of probiotics will be what drives our growth in infant formula.

Mirco Badocco

Yes. And very last one related to that: when you expect HMOs to hit the Chinese market?

Mauricio Graber

That's a good question. As we have said, that the Chinese government has opened the registrations for HMO. It’s still very early on what the process will be, but we expect that to
take a couple of years for the HMOs to be approved in the market. I think we have time for one more question before we wrap up the call.

Operator

And the last question comes from the line of Rune Dahl from DNB Markets. Please go ahead.

Rune Dahl

Morning. Just a clarification question left from me. Could you just confirm that you still believe that HSO and UAS can reach 30% margin by 2025? And maybe also on the facing cost on Jennewein investments, how we are to think about those now with the delay? Thank you.

Lise Mortensen

If I start with the margin question, of course we don't guide that specific on it, but it's not completely off. It is that HSO and UAS Labs will be at a comparable level. That's our ambition by the end of our strategy period. So that is correct.

On the HMO investment, the benefit of a little bit of a delay in the pickup in the development of the market is that we can be very planned about how we build our site. We don't know at this point in time how it will and when it will, which quarters will be hit by which CapEx amount, but we are planning this very far and have now the benefit of tracking very well in parallel with the development of the market.

Rune Dahl

Okay, thank you. Just to be specific: Q4 last year you said very specifically that you're going to reach 30% margin by 25 in the acquired businesses. So, I was just wondering if that had changed, but [inaudible 01:02:21]

Lise Mortensen

That's the range we are targeting. Exactly.

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Thank you very much for listening to the Q&A. This concludes today's conference call and Q&A session. Thank you for joining and we look forward to continuing our dialogue during the upcoming virtual roadshows. Thank you all.

Operator

This concludes our conference call. Thank you all for attending. You may now disconnect your lines.