Thank you for standing by, and welcome to the presentation of Chr. Hansen’s Interim Report and Conference Call for Q2 2021/2022.

Currently, all participants are in listening-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 call is being recorded.

I would now like to hand over the conference call over to your speaker of today, Chr. Hansen’s CEO, Mauricio Graber. Please go ahead.

Mauricio Graber

Thank you. Good morning, and welcome to the presentation of Chr. Hansen’s results for Q2 of the financial year 21/22. I am here with our CFO, Lise Mortensen, and we will walk you through the highlights of our last quarter as well as our outlook for the full year before we open up for Q&A.

Please turn to the next slide. But before we do that, I would like to take notice of the Safe Harbour statement.

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

Before we start today's call, I would like to make a few comments on the implications of the Russian invasion of Ukraine, that's on everyone's minds these days. We are appalled by the escalating violence in Ukraine, and condemn the Russian invasion in the strongest possible terms. Our hearts and thoughts go out to the people of Ukraine, and our top priority continues to be the safety of our employees and their families. Important to say that we will also continue to work
with our Ukrainian customers to support the continued production of dairy products in Ukraine in the best possible way.

As a global supplier to the food and [? 00:02:07] industries, we have responsibilities towards fulfilling the basic needs of civilians for food and health products. This also goes for Russia. And as communicated on March 11, we will therefore, for now, continue to supply ingredients only for basic food and Human Health products in full respect of global sanctions. We are discontinuing supply of products that fall outside of these categories. Additionally, we have decided that profit from our continued operations in Chr. Hansen in Russia during the conflict will be donated to humanitarian aid in support of Ukraine. The donation is expected to be around €1 million to €2 million. We will continue to evaluate the situation as it develops and assess further potential changes in our activities in the coming period.

With these words, let's please move to the next slide, slide four. In a challenging environment, Chr. Hansen continued its strong performance, delivering 14% organic growth in the second quarter. Growth in Health and Nutrition further accelerated, supported by Human Health, while Food Cultures and Enzymes continued its growth momentum driven by its core segments and developed markets.

The Q2 performance took year-to-date organic growth to 12%. Our EBIT margin before special items came in at 27.7%. This is 70 basis points above last year. The improvement was driven by the strong volume development in Health and Nutrition, production efficiencies, as well as positive contribution from currencies, but was partly offset by the higher input cost and general ramp-up of activities. Year to date, the EBIT margin before special items reached 26.2% and was on par with last year.

Free cash flow before special items was €31 million in Q2, and €86 million year to date, meaningfully above last year due to stronger operating cash flow and lower CapEx compared to last year, where we acquired the site in Kalundborg for HMO.

Please turn to the next slide, slide five. If we look at the operational and strategic highlights of the quarter, the focus was very much on commercial execution and safeguarding our strong delivery performance to customers while responding to increasingly inflationary pressures and supply chain challenges. In Food Cultures and Enzymes, cost savings and productivity improvement continue to drive a lot of the dialogues with customers, resulting in new opportunities for bulk conversions and yield-optimising solutions, while growth in add-on concepts such as bio-protection was slower.

Growth in Human Health and HMO accelerated in the second quarter, supported by the rebound of the probiotic supplement market in Europe and the US, high pre-launch activity, new business wins in Women's Health, and strong momentum across all three acquisitions. However, we expect momentum to normalise during the second half of the year.
Dynamics in our agricultural business were mixed. While crop farmers have been benefiting from increased commodity prices, Animal Health customers are increasingly under pressure to save costs, with negatively impacted by the selling environment for animal feed products. That said, we continue to see very good growth with our recent launches, for example, GalliiPro Fit in poultry. Also, I am very happy to share that in Plant Health, we received the approval for our first biofungicide, which will first roll-out in the US and Brazil, and we also launched the first product through our UPL collaboration in Asia Pacific.

Overall, our licences delivered 12% organic growth in the second quarter, which was, as expected, lower than in Q1, driven by timing of orders. Growth for the first six months combined was 22% compared to 11% for the core business. As inflationary pressures continue to intensify, a key priority during the second quarter were price adjustments. In close collaboration with our customers, we implemented the first increases at the beginning of the calendar year. However, due to the war in Ukraine, overall market volatility and inflationary pressure have further accelerated in recent weeks, and we are implementing a second round of price increases this month. Lise will elaborate more on the implications of this shortly.

Lastly, I would like to mention that, as we communicated on March 24th, Thomas Schaefer has stepped down from his Chief Scientific Officer and member of the Executive Board, effective April 1st. I would like to thank Thomas for his contribution to Chr. Hansen, and look forward to working with him in his new role as Chief Scientific Adviser. Henrik Jørck Nielsen, previously leading our Animal Health business, will take over as Chief Scientific Officer and will focus on bringing our commercial and R&D teams even closer together to create a stronger customer-centric organisation and bringing innovations to market faster.

Let’s now turn to page six for additional comments on our sales performance. If we look at the top-line performance across the two segments in Q2, growth was, as expected, largely volume-driven. Food Cultures and Enzymes delivered 7% organic growth in Q2 and year-to-date with solid growth in both dairy and food and beverages. Pricing only had a modest impact as increases became effective only towards the end of our Q2 period. Growth in Health and Nutrition accelerated to 26% in Q2, leading to a 20% growth year-to-date, driven by Human Health and HMO that delivered very strong growth, while Animal and Plant Health grew solidly. Pricing was slightly negative as underlying price increases were offset by price settlements in the Plant Health related to our alliance with FMC.

If we look at the regional performance, please turn to the next slide, slide seven. Momentum in emerging markets improved, while we continue to see solid progress in developed markets. I am very pleased to report that all four regions delivered double-digit growth in the second quarter. Europe, Africa, Middle East delivered 13% organic growth in Q2, and 11% year-to-date, driven by a solid sales pipeline execution in Food Cultures and Enzymes and very strong growth in Human Health that was supported by increased activity in the traditional probiotic supplement channel and a strong HMO growth, the latter, however, from a low baseline.
Growth rates in North America remained stable at 12%, with strong momentum in cheese and very strong growth in Human Health, supported by the mentioned high pre-launch activity.

Latin America reported 17% organic growth, leading to 13% growth year-to-date. Food Cultures and Enzymes grew solidly despite continued soft fermented milk markets, while growth in Health and Nutrition was driven by sugarcane sales in Plant Health and good uptake of our animal probiotics.

Lastly, our region Asia Pacific grew 16% in Q2, and 10% year-to-date, with very strong growth in Human Health supported by new business wins in the Women’s Health category, as well as solid growth in Food Cultures and Enzymes. Our fermented milk business in China grew slightly, though we remain cautious for the rest of the year as we expect current market dynamics to persist, also in light of increasing dairy production costs and decreased consumer purchasing power.

And with these comments, I would like now 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. Our group EBIT margin before special items in Q2 came in at 27.7%, up 70 basis points. This was largely driven by the scalability benefits from the strong volume growth in Health and Nutrition and production efficiencies, as well as a positive contribution from currencies of approximately half a percentage point. Higher input costs negatively impacted our cost of sales, while operational expenses as a percentage of sales were below last year, in part due to the strong volume growth.

Total EBIT before special items in Q2 amounted to €84 million, which was 20% up compared to last year, and the increase was driven by Health and Nutrition, while EBIT before special items in Food Cultures and Enzymes was on par with Q2 of last year. Year-to-date EBIT before special items amounted to more than €50 million, up 14%.

If we look at the segments, we saw the biggest impact from input cost inflation in Food Cultures and Enzymes. The EBIT margin before special items in Q2 here was 28% compared to 31% last year as production efficiencies and positive impact from currency were offset by higher input costs and higher operational expenses related to increased activity following COVID-19.

In Health and Nutrition, the EBIT margin before special items in Q2 was 27.3%, compared to 19.2% last year. Here, the scalability effects from the strong sales performance, acquisition synergies, and currencies more than offset the higher input cost and the higher activity level.

Given the acceleration of the inflationary pressures, let me elaborate a bit more on the implications for our cost base on the following slide, slide nine. As Mauricio already mentioned, the Russian invasion of Ukraine has further accelerated inflationary pressures, whether it's related to raw materials, energy or logistics. Across our cost base, we are seeing substantial price increases and increasingly challenging supply markets with high volatility. Our number one
priority remains securing availability of key inputs and our ability to continue to deliver to
customers. Energy accounts for approximately 5% of our cost base, and we are monitoring the
situation closely, implementing mitigating measures where possible, for example, by shifting
volumes from air to sea freight.

Short term, a large part of our energy supply is covered by long-term contracts with fixed prices.
But the current energy market developments are likely to have a significant unfavourable impact
beyond FY22. To compensate for the increase in input costs, we have adjusted our selling prices
in close collaboration with customers. First price adjustments have been implemented at the start
of the calendar year across our different business units, and in addition, we will implement an
additional price surcharge for all customers, which is introduced this month.

In sum, this should bring our pricing contribution to organic growth for the full year up to between
2% to 3%, compared to previously-estimated, between 1.5% to 2%. However, the price increase
has come with a certain timing delay. They will not be sufficient to fully compensate for the higher
cost base by the end of this financial year, which is the key driver for our adjustment to the FY22
EBIT margin outlook from previously 27% to 28% to now 26% to 27%.

With these comments, let’s move to the next slide, slide ten, for the cash flow. Free cash flow
before special items stood at €86 million year-to-date, compared to €35 million last year, driven
by a strong operating cash flow and lower investments in property, plant and equipment as last
year was impacted by the acquisition of the Kalundborg site. The increase in the operating cash
flow before special items [? 00:16:34] €108 million last year to €131 million was driven by higher
operating profit. Return on invested capital, excluding goodwill, was 22.6% compared to 22.1%
last year. The increase was driven by the strong sales performance in Health and Nutrition, while
the return on invested capital in FC&E was down compared to last year due to the negative impact
from higher input costs and a general ramp-up of activities.

Let’s now move to the next slide, slide 11, for the outlook. Starting with the organic growth, we
have adjusted the outlook upwards from 5% to 8% previously to now 7% to 11%, supported by
the strong performance in the first half of FY22. However, the widening of the range with only six
months left of the year underlines the increased uncertainty that we are facing right now.

Let me go through some of the key drivers for the adjusted guidance. If we first look at what drives
the guidance up, then this is much due to the strong performance in the first half in Human
Health. This we do expect to somewhat normalise in the rest of the year as we did see a very
positive impact from early ordering ahead of new product launches by customers, especially in
North America in Q2. Secondly, we expect to see an increased impact from pricing initiatives in
the second half, and we now expect pricing to contribute between 2% to 3% for the full year. We
have also included a small positive impact from euro-based pricing, mainly in Turkey and Russia,
of up to half a percentage point based on the current exchange rate levels. The assumption is
highly uncertain, especially related to the Russian rouble.
Staying with the implication from the Russian invasion of Ukraine, we will, as explained by Mauricio, for now, continue to supply ingredients only for basic Food and Human Health products in full respect of global sanctions. Given the situation, we have reduced our sales outlook for Ukraine, Russia and Belarus. However, the areas are still assumed to account for between 2% to 3% of total sales in the second half.

Moving to profitability, the EBIT margin before special items is now expected to be between 26% and 27%, compared to the original expectation of 27% to 28% and despite the increase in organic growth. The adjustment is mainly due to the accelerated inflationary environment, which is only partly offset in this financial year by adjustment in the selling prices. The margin is also expected to be impacted by actions to protect against supply chain disruptions and to a smaller extent, the donation of profit from continued operations during the conflict in Chr. Hansen LLC, Russia. While acknowledging the moving parts in the outlook, we expect that the net impact from this to be largely neutral on the implied absolute EBIT level range, compared to our previous guidance on organic growth and EBIT margin. This also means that the free cash flow before special items is still expected to be around 140 million to 170 million.

And with this, I would like to hand back to Mauricio.

Mauricio Graber

Thank you, Lise. The performance in the first half of the year provides a robust foundation for Chr. Hansen to deliver on our ambitions this year. Responding to accelerating inflationary pressures and increased macroeconomic uncertainty, we are adjusting our outlook by upgrading our organic growth revenue target to 7% to 11%, lowering our EBIT margin expectations short term to 26% to 27%.

Fiscal year 22 is a year of execution for Chr. Hansen, and we remain focused on advancing our 2025 strategic agenda, while mitigating any potential disruptions from supply constraints and managing our cost base tightly as a response to accelerated inflationary pressures. Macroeconomic and political risk has increased substantially as a consequence of the Russian invasion of Ukraine, and we will continue to do our utmost to support our employees and customers during these challenging times.

Thank you for your attention. And with this, I would like to open the question-and-answer session.

Q&A

Operator

Thank you. If you have a question for the speakers, please press 01. Kindly limit yourself to two questions. However, feel free to join the queue again. In the interest of fairness and time, please limit yourself to two questions per turn. You can then re-enter the queue and ask further questions. Please hold until we have a first question.
Our first question comes from Alex Sloane with Barclays. Please go ahead.

**Alex Sloane**

Hi. Morning, all. Thanks for the questions. I've got two, if that's OK. The first one, just on the margin guidance, I think implies around 200-basis-points contraction in the second half, and I appreciate the colour you've given on the reasons behind that. Should we expect that pressure to continue a broadly similar magnitude into the first half of the next fiscal year? Or will pricing action already be mostly compensating by that point? I note that your medium-term target for fiscal 25 is still for a margin above 30%, but any comments on, at this point, how you feel about consensus margins for fiscal 23?

And the second one, any comment that you can make on the major IMF recall in the US and how that might impact your business in the second half or next year, and whether you can confirm in HMOs that you do have more than one customer in the US would be helpful. Thanks.

**Mauricio Graber**

Good morning, Alex. Thank you for your questions. I will take the second part of your questions about infant formula, address that, make some general comments on the margin before I pass it to Lise for more specifics. I don't want to comment on customers’ recall or specific situations. I think they are best to comment on that. The only thing that I can reaffirm is that, as we have seen in the first half of the year and in Q2, our HMO business continued to deliver on the direction that we have provided. We expect that business to grow above 20% for the year and we see good tracking on our HMO business. And we do have more customers – more than one customer – and continue to sign up more customers for our HMO solutions, where we are commercialising the top five HMOs and are producing those successfully.

As for your questions on margins, we have confirmed our long-term financial ambitions. We want to be clear about that. We are not giving a guidance on fiscal year 23. Lise can comment on the details, but a good point for you to think is we are saying that the prices are implemented with a time delay. Therefore, there will be a positive carry-over from pricing as we enter fiscal year 23. But Lise, on to you.

**Lise Mortensen**

Yes, I can maybe add that it's fair to say that whatever we are doing right now, implementing price increases on an annualised basis once implemented, is offsetting the extra costs that we are looking at the moment. And then, we live in uncertain times inflation-wise, accelerate again, and then we will go out with further price increases. I think that's also very much the name of the game in the markets these days.
Alex Sloane

Thank you.

Operator

Our next question comes from Christian Ryom with Nordea Markets. Please go ahead.

Christian Ryom

Hi. Good morning, and thank you for taking my questions. I have two as well. First is the phasing of the impact of price increases on the topline this year. You've implemented price increases here at the start of the calendar year. You're now implementing more here in April. When we look into the next fiscal year, the annualisation impact of the price increases implemented in this fiscal year, how will that play out? Will we see a pricing increase next year that could actually be larger than the impact that we're seeing this year from the increases already being implemented or in the process of being implemented? That's the first question.

And then, the second question is whether you can comment on the impact of the latest COVID-19 wave in China and how that might be impacting your outlook for that market. Thank you.

Mauricio Graber

Thank you, Christian. I'll take the question on China and pass it on to Lise for pricing. You're right to point out, actually, the lockdowns in China are becoming quite severe. We see that in the ability to continue to see a positive development on the market. Transportation is under pressure. Execution of normal business practices is under pressure. I know that our team has limited ability to visit customers in China. So, given that, I think we are: a) quite positive that we were able to have a slight positive development on our business in China. As I've said, we don't expect any significant growth in the underlying fermented category in China, but we believe that our business in China will be flat-to-slightly-positive for the year. It just doesn't enable us to further accelerate the commercialisation and momentum with customers, given the strong implementation of the lockdowns in China.

Lise, you want to comment on the pricing [? 00:28:35]?

Lise Mortensen

Yes, of course. Obviously, we don't give guidance at this point in time for the next fiscal. But you are right to assume that a full-year impact, everything else being equal – and that's very, very tough to say at this point in time – will be above 3%.

Christian Ryom

OK, great. Thank you very much.
Operator

Our next question comes from Søren Samsøe with SEB. Please go ahead.

Søren Samsøe

Hello, everyone. First, I had a question regarding Health and Nutrition. You, of course, saw very strong organic growth. And as I understand it, you assume that there has been some stock-building. But have you actually heard anything concrete from some customers? Historically, you have been quite good at saying one or two customers have been the cause of that. But have you received any concrete info from your customers that there has been stock-building? And secondly, what have you actually built into your guidance? Have you already assumed that it's stock-building so that growth would come down significantly in second half in Health and Nutrition? Thank you.

Mauricio Graber

Thank you, Søren, for the good question. And obviously, in Health and Nutrition, and particularly Human Health, was a strong driver of our Q2 performance. As I said, the growth in Human Health in Q2, just to continue to give you more colour, was strong across key categories in all regions. We saw strong growth in the Women's Health category in Asia, and that was driven by the combined strength of our Urex platform, with the HSO acquisition, as well, of the Astarte strains. So, I'm very happy to see that acquisition, and our strategy and our bet in the Women's Health category playing out.

Second, Europe benefited from the more dynamic, traditional channel growth, where it plays to the strength of our Chr. Hansen legacy business together with our strength to solution and flexibility and broader offering following the acquisition of UAS Labs. I don't believe in any of those markets there has been any inventory build-up. OK? When you go to the US, the US growth was largely driven by new launches and strong volume demand from customers. And I would not say inventory or stock-building, but yes, pipeline-building for the new launches that are largely taking place this spring. What we said is we expect the growth to normalise in H2, not to go negative. But we have seen very substantial growth in Q2. We see continued good momentum in our Human Health business, and we expect that to normalise to the growth we have seen before. So, it's a positive development in our Health and Nutrition business driven by Human Health.

Søren Samsøe

OK, thanks. That's helpful. If I could just take one more question regarding the margin and the impact from price increases. As I understand you, and please correct me if I'm wrong then, you won't see the real positive impact to margins of price increases until maybe some time in Q4, but mechanically, without giving guidance or anything, then if you don't get as big and fast price increases next year in raw material prices, will your price increases then hit more for the full year next year positively on the margin?
Mauricio Graber

Søren, we have implemented the first round of price increases at the beginning of the calendar year. Obviously, part of those price increases will have a positive impact as of Q3 and Q4. We are implementing a second round of price increases this month that will have limited impact on Q3, more impact on Q4, and the combine of the first round and second round will obviously have a carry-over effect into next year. And I think what Lise explained is that, assuming no further inflation, these price increases will compensate the inflationary input costs that we have seen this year. Should there be additional inflation, then we will need to go with another round of price increases.

Does that clarify your question? Or, Lise, is there any anything more we want to add on this?

Lise Mortensen

No, I think that's pretty much it.

Søren Samsøe

OK. So, it doesn't sound like you're seeing a reset of the market. I also assume that you remain confident your long-term or mid-term margin expectations of more than 30%?

Lise Mortensen

Exactly. That’s also what we say in the announcement. We do acknowledge that it's very uncertain times, but this is still our ambition.

Operator

Our next question comes from Lars Topholm with Carnegie. Please go ahead.

Lars Topholm

Thank you. Congrats with an exceptionally good quarter. Well done. I have a couple of questions as well. Going back to the discussion about price increases, I would like to understand for H2 alone, what kind of price impact you are seeing? It was +1% in FC&E in the first half of the year and neutral in Health and Nutrition. If it's true, 3% for the full year, does that mean 4% or 5% for H2? And if it does, what does that imply about your guidance for volume mix? Because as I see the low end of your guidance, total organic growth should be around 2%. And if there's 4% coming from price, that implicitly means volume mix could be negative. I just wonder if that's correctly understood.

And then, I have a follow-up question on the margin discussion because, Lise, you explained that energy costs are hedged near term, but when that hedge runs out, there will be a visible impact
Mauricio Graber

Lars, thank you, and thanks for the congratulations on Q2, words that we receive with a lot of humbleness. And I think my thanks go to all of our employees that have really worked under very challenging conditions to deliver a strong growth and a strong profitability in the first half of the year. So, I'm sure people really receive a lot of pride on your words. Thank you for that.

Lise, you want to comment on the questions around pricing for H2 and the margin and energy question?

Lise Mortensen

You're right to assume, Lars, that the pricing impact isolated for H2 will be probably in the range of 4% to 5%. So, that's true. And then, you talk to the lower end of the guidance, and that's exactly, as I also said, that we have actually widened the range in times of uncertainty. And in particular, the situation with Ukraine, Russia, that is the scenario that could potentially take us as low.

Lars Topholm

And then, price increases, if they cover the energy cost increase you see after your energy hedging--?

Lise Mortensen

I can talk to that also, Lars. Remember that energy cost is only 5% of our cost of sales. So, of course, it has an impact for us, but it is fair to assume that in the greater scheme of things, this is something that can be managed within what we are doing now. And then, of course, again, I have to say, this is everything else being equal, because we don't know whether we need more rounds of price increases. And if we need them, we'll make them.

Lars Topholm

That's very clear. Thank you for answering my questions. I have another one, but I will jump back in the line. Thanks.

Mauricio Graber

Just in closing, Lars, I would say that we have continued to see good momentum in our volume growth. I think, when you look at Food Cultures and Enzymes in our solutions, they represent a small percentage of the cost for customers. So, obviously, no pricing negotiations with customers are easy, and every conversation about prices takes a lot of energy and time in our organisations...
and the customers’ organisations, but we have not seen a volume impact due to the specific pricing negotiations with customers.

Lars Topholm

I understand that, Mauricio, but even though you are a small part of input costs, I think everybody else who represents the rest of your customers’ input costs are also increasing prices. So, maybe it's not that straightforward, but I hear what you say.

Mauricio Graber

Absolutely right.

Operator

Our next question comes from Georgina Fraser with Goldman Sachs. Please go ahead.

Georgina Fraser

Hi. Thank you. Good morning, Mauricio and Lise. Thanks for taking my questions. I was wondering if you could elaborate a bit on your costs by breaking out which are the key items that have been driving your margin headwind expectations? Maybe if you could give us a sense of the split of the headwinds between freight, logistics, packaging, and raw materials, or at least a sense which are the biggest pain points? And maybe if you could also remind us what percentage of costs are carbohydrates for fermentation?

And then, my second question is, and I think, Lise, you might have slightly answered this already, but if you could say a bit more, your new growth and pricing guidance implies quite a range of volume outcomes for just the second half of the year. So, just if you could elaborate a bit more on what's driving the uncertainty there, given we're already six months in. Thank you.

Mauricio Graber

Thank you, Georgina. I think we have provided in the call a good breakdown of our cost without getting into more competitive, sensitive information. I would pass it on to Lise, but I think unlikely we split that any further down from the nice pie chart we have provided.

On your question about volume. You're right. I think I would reiterate, it's uncertain times. I think the lower end of our guidance would imply a slowdown in volumes that go from Russia, Ukraine to Eastern Europe, and a general slowdown in momentum in the second half. But we're obviously optimistic on the upper end of our guidance to continue to see normalised volume with the benefit of the price increases that was just mentioned in the answer to the last call.

Lise, I'll pass it to you for the question on the cost breakdown.
Lise Mortensen

I can confirm, Mauricio, that what we shared in the slide nine, this is where the comfort level lies with us in terms of sharing details on our cost breakdown. But one important point is, of course, that energy is one of the very highlighted points, and we wanted to share that that is only around 5% for us.

Georgina Fraser

I think the key thing that I was looking for is really if you could just break out what might be a soft commodity exposure versus a petrochemical exposure, which would be the energy, the freight, the logistics, and packaging, right? If you could help us on that.

Lise Mortensen

Unfortunately, Georgina, we don't share those details.

Georgina Fraser

OK. Great. Thank you.

Operator

Our next question comes from James Targett with Berenberg. Please go ahead.

James Targett

Hello. Good morning, everyone. A couple of questions. Firstly, I'm going to try and come back on the cost base. My question is really not on a breakdown of cost, but it's really on what level of inflation you are baking into your margin guidance for this year for your cost base. And also, maybe what level of cost efficiencies that you're also expecting to deliver. I'm really just trying to understand the moving parts and the cost base to get to your margin guidance. So, the inflation figure will be particularly helpful.

And my second question is on Russia. Can you just remind us how the Russian business is split relative to the Group in terms of FC&E and Health and Nutrition, and what the growth rates have been of Russia historically, to get an idea if it has been accretive or not to Group growth? And also, if your customer mix in Russia is very regional, or local, or there's a big international exposure there? Thank you.

Mauricio Graber

Thank you, James. I will take the question on Russia, and pass it on to Lise on cost inflation. Russia, historically, is a market that has a heritage of dairy products, for sure. It has gone through different phases. There was the time of the ban of European cheeses to Russia that largely developed a
local cheese and dairy market in Russia. I will not go into details of growth by market, but if you want to make an assumption, you can just take the average of our EMEA growth and apply that to Russia. So, I would say it’s not a particularly high-growth market or a particularly low-growth market probably [? 00:44:25] over the period.

As far as the customer composition, it has a composition of a balance between international customers and local customers. When you talk about international customers that have a large presence in the market, you have the large international companies that have made investments in Russia that are part of our customer base as well as local customers. Limited component, I would say, of regional customers.

Now, to your part of the question of Health and Nutrition and Food Cultures and Enzymes, most of the business in Russia is really Food Cultures and Enzymes, limited in Human Health. And we have stopped everything that we consider non-essential. So, basically, we are not selling wine cultures, Animal Health products, Plant Health products. We really focus on dairy, Food Cultures and Enzymes and Human Health, infant formula and probiotics. But most of the business is really related to dairy and Food Cultures and Enzymes.

Lise, on to you for the cost inflation.

Lise Mortensen

As I said, James, the reason behind taking our EBIT margin expectations down is the accelerated inflationary pressure. As such, we don't see any production disruptions coming in here. The cost inflation to our cost base is assumed to be in the round of 10%.

James Targett

OK. That's very helpful. And, just in terms of cost efficiencies, I'm just trying to understand if these are being stepped up significantly this year, if there's any way you could size the level of cost efficiencies this year versus a regular year.

Mauricio Graber

It's a good question, James, because if you look at the equation, we will pass on price increases to compensate for the input cost inflation. And then, we will continue to drive our productivity improvements as a way to drive our margin expansion. That means that, in an inflationary environment, we need to double down on our productivity opportunities across all the different areas in Chr. Hansen, and that's a key priority for us as we look at the path forward.

James Targett

OK. Thanks very much.
Operator

Our next question comes from André Thormann with Danske Bank. Please go ahead.

André Thormann

Thanks a lot for taking my question, and good morning, everyone. My first question is in terms of Human Health, where I just want to understand whether you're still seeing competitors having supply issues in Human Health, and whether that has given you a tailwind. And also looking into H2, whether you expect that to continue. And my second question is whether you could quantify the negative impact on EBIT from Russia, Ukraine and Belarus that you expect in 2022. Thanks a lot.

Mauricio Graber

Thank you, André. Yes, it's a very challenging supply chain market in Human Health. I think we had continued to benefit on the work for our Group, even though ourselves, we also find this to be challenging. We have had some opportunities because of ability of supply from some of our competitors, but my best assessment is that that will normalise over time. And that's why we say that we expect also our growth to normalise in the second half of the year.

Lise, on to you on the negative impacts from Russia, Ukraine.

Lise Mortensen

André, we have included a reduction of our revenue in that region due to the ongoing war. Usually, we've been saying that we had around 3% of our revenue from Russia, below 1% for Belarus and Ukraine. And now we say, totally for the region, we are down to 2% to 3%. So, we've taken our top-line expectations down. The only other thing I can comment on is, as Mauricio said, the donation that we have planned as part of our operational expenses is going to be of €1 million to €2 million.

André Thormann

OK. So, €1 million to €2 million negative impact on EBIT from this region?

Lise Mortensen

From donating, yes. The profit that we have from continuing parts of our operations in Russia.

André Thormann

OK, cool. And then, just a small follow-up in terms of the first thing that you said, Mauricio. Just to be sure, are you seeing any supply issues in H2 for Human Health? Or is it still just competitors?
Mauricio Graber

It's a very challenging supply market, André. Difficult to predict that. That's why we have also part of the wide guidance that we provide is because we cannot predict how this will continue to develop. It's getting more difficult to source materials due to the Russia-Ukraine war. It's getting more difficult to secure some materials from China, as well. I think we have a robust team and a good supply chain. We expect not to have any disruptions, but it's a very challenging environment out there.

André Thormann

OK. Thanks a lot.

Operator

Next, we have a follow-up question from Lars Topholm with Carnegie. Please go ahead.

Lars Topholm

Yes. It's actually a question about Russia. Now, you donate your Russian profits, but is that the same impact as if you completely cease to sell to Russia? And the reason I ask is I assume you have some transfer pricing, which means that part of the profit you book on whatever ends in Russia is actually booked in Denmark. Also illustrated by the fact that the EBIT impact from your donation is smaller than Russia's share of revenue. So, if you decided, theoretically, tomorrow to pull out of Russia, would we then see an earnings impact, which is bigger than if you just donate profits? And, of course, how much bigger if the answer is yes? Thanks.

Lise Mortensen

Lars, it's a very complex question you are asking, with many nuances. We have tried to give the transparency that we could by sharing that we expect the profit of the business in Russia to be between €1 million to €2 million. We're very happy to provide you further details to understand better where you're going, but this is--

Lars Topholm

My question, Lise, is, basically, if your gross margin on what you sell to Russia is materially different from your Group gross margin. Because if you then lose or give up the revenue, I assume the incremental margin will be higher than what you are implying if you just donate profit.

Lise Mortensen

Again, it's a good question, Lars. At this point in time, this is not a scenario that we have included in our guidance.
Lars Topholm

But that's exactly why--

Mauricio Graber

We’re happy to say that on a one-on-one basis. You’re getting there in a quite complex topic also related to transfer pricing.

We have probably time for one more question, if there's an additional question before we wrap up the call.

Operator

Yes. We have a follow-up question from Søren Samsøe with SEB. Please go ahead.

Søren Samsøe

Yes. Thanks. It was regarding HMO. If you could tell us if you have seen more approvals of multi-stream products among your customers, and also if the bottlenecks that was part of causing the downgrade of the Jennewein acquisition more than a year ago, if those bottlenecks in production have now finally been fully solved. Thank you.

Mauricio Graber

Thank you, Søren. I can definitely confirm that the investment that we made in the facility in Germany, in Rheinbreitbach, to debottleneck the production of HMO has been successful, and we’re able to produce to all the volume expectations and demands from our customers. That is ongoing. And we do have more customers signed up for HMO mixes of different HMOs, and obviously continue to engage our dialogue with most of the leading infant formula manufacturers on their level of interest and unique [? 00:54:42] solutions for HMO. It's a market that is emerging and developing fast, but we are committed to deliver the growth that we commented this year of above 20%, and tracking well towards that objective.

Søren Samsøe

Can you try to put some words or quantify or just give us some insight into how important is it that they are using multi-strains or mixes rather than just single strains into the products?

Mauricio Graber

I think, Søren, what I would mention is the following: as you know, 2-FL has been the most commonly-used base in HMO. I think, the market for 2-AFL will probably see several competitors and has less of a differentiation. But it's the one that is being produced with more volume. I think we entered the HMO market because we believe it has innovation and scientific opportunities
that are consistent with the Chr. Hansen value proposition. And therefore, continuing to develop unique HMOs and unique HMO blends for customers is the route where we are going. So, to your point, it is important. It's important for the differentiation; it is important for the value proposition to customers; I think it's important also on the value proposition for the consumer that you get that HMO mix that is unique to the value proposition from our customers to the consumers. And, obviously, it’s more value accretive to have a unique mix in our offering to customers. I hope that provides you a little bit more light into this.

And with that comment, I would like to thank everybody for participating in today's call. And we look forward to continuing dialogues in person or virtually over the coming days and weeks. Thank you so much.