

Ingredion Texture and Innovation Day Transcript

Thursday, November 14th, 2024

Noah Weiss

Are you ready for some texture? Good morning. My name is Noah Weiss, VP of Investor Relations for Ingredion, and welcome to our Bridgewater Innovation Center. For those of you joining us online, welcome as well. Before we get too far into the presentations, we have some forward-looking statements that we're going to be making today that are covered by our safe hardware provisions. Just take a moment to take a look at this. We've got a great agenda for you today. We've got two Jims, two Mike's, and a Val that are going to be presenting at the beginning. Jim Zallie, our President CEO, actually started his career in this building 40 years ago with Ingredion. Valdirene Evans, who heads up our global texture solutions business and is going to be talking to you about the texture opportunity this morning. She has been with Ingredion for seven years. Fantastic knowledge, spent some of her time in Asia PAC and has a background in pharma and specialty chemical.

Michael O' Riordan, who is our Texture and Healthful Solutions Head for EMEA and APAC, is going to be presenting to you on the texture solutions today that we're going to be talking about. And he spent time throughout his 30-year career with Ingredient in various regions of Asia, in China, in Europe. I hope you got a chance to talk to him throughout the day today.

Dr. Michael Leonard has come to us more recently, but he's got more than 25 years within specialty CPG startups. He's going to be talking to you about the science behind texture. He is our chief investment officer and head of our protein fortification business, so that makes sense.

Then Jim Gray, who I think most of you know, has been with us for 11 years, has met with most of you before. He's my boss, fantastic boss. Following the presentations, we'll have a short Q&A, and then we'll have a break, at which point we'll divide into teams and have a tasting and tour of the facility. So please save your appetites. And this will all culminate in a unique texture and tasting experience that our culinology team has put together. I think you'll enjoy very much.

So with that, I would like to introduce our first presenter, Jim Zallie, our President CEO.

Jim Zallie

Thank you, Noah. It's actually 41 years, but who's counting? Forty-one years this year. I love this place. Let me just say I love coming back always to Bridgewater. It brings back so many good memories.

What I can say, honestly, standing in front of you all today is we went through a rehearsal, obviously, for this yesterday. I am more excited than I have I've never been about what we're doing from a standpoint of the science and innovation of texture. I think at the end of today, you will also have an appreciation for some of the opportunities and some of the science behind texture that perhaps you never realized. For me, being in the industry for so long, there's many things that I was really shocked and surprised by what our team is doing. I hope you really enjoyed today's presentation in its entirety, not just what you're going to see in the PowerPoint slides, but in the tour and also in the tastings that you're going to have as well.

This first slide, it says, "This is What's Next". I want to just make sure that that resonates with you as well, because our customer value proposition for Ingredion is "Be What's Next". We, as an ingredient supplier, take it very personally, that we want to "Be What's Next" for our customers. I think when it comes to the texture frontier, you're going to see that we're going to be what's next from a textural innovation standpoint on behalf of our customers.

We started talking about texture in earnest probably a couple of years ago, even though we've been a supplier of ingredients that texturize foods for many, many, many years, and we've had a lot of capabilities around the features of the ingredients that impact texture. But when it comes to the benefits and truly understanding the science and correlating that, we saw it as just as a tremendous opportunity. So unlike flavor, texture really does not have any standardized descriptors. There are many things that impact texture or how you perceive texture. Before you even bite into a product, just the appearance of the food itself, the mouthfeel, the way the texture of the product will enable flavor to come through, obviously, the impact on overall taste. The auditory experience, which you saw in the video, that was very prominent from a standpoint of all the foods that one consumes, and that impacts something that we call overall liking. We'll try to put that in more perspective.

What's fascinating is that, and you're going to see that our approach is obviously very global, we're a very global company. In the Chinese language alone, there are more than 140 descriptors that describe textures in Japan, more than 400. Then, of course, there's all different terms in the English language as well. That presents a real opportunity. Yet despite all of those terms, each and every one of us know what we like or dislike when it comes to the texture of a product. I, myself, for example, I only buy chunky peanut butter. I don't like smooth and creamy peanut butter. I buy chunky peanut butter. When you think about these products that you may buy or want to consume at any particular time of the day, I'll guarantee you you're processing a lot of things in your mind regarding the time of day, what mood you're in, what environment you're in, how it's going to make you feel. A lot of these things are all intuitive and complex and present a tremendous opportunity when you think about the correlation for a food company to take

consumer insights and all of those behavioral aspects that they need to consider to develop a new product that will sell for a particular point of purchase, along with the correlation to sensory, and then for a company like ourselves to work with a company like that on understanding from a structure from a production standpoint, how texture can manifest itself along with flavor for a product's overall liking. You're going to hear that from Dr. Michael Leonard, in regards to the work that we're doing. If the texture isn't working, people aren't going to come back and have a repeat purchase for that product because, again, the product can impact a lot of the things that I just described. And greater than 50% of consumers really consciously are thinking about texture, not just flavor, when they purchase a product.

This is a slide we showed at CAGNY last year. We genuinely feel, and this is what we think the opportunity is for, Ingredion, that's come out of a whole body of work that we did last year with a strategy refresh that led to our winning aspiration, which I'll share as I hand the presentation over to Valdirene, in relationship to how texture really plays in our industry, we believe, an undervalued but vital role in impacting it comes to our Texture and Healthful Solution segment, where we're focused on sugar reduction, protein fortification, and fiber fortification, complementing the texturizing portfolio. It's that, along with, obviously, flavor, and it's that confluence that influences overall liking for a food product. We think for ourselves to supply solutions beyond ingredients themselves, therein lies the opportunity.

You can read some of the statistics here, but certainly, when you think about a product having a light and airy texture, you would think that product most likely would have more of a healthy connotation to it. That's just an example. For our business, this is our Texture and Healthful Solutions segment. Today, 2.4 to 2.5 billion. Jim is going to give a four-year growth outlook in his presentation. This year, 2024 operating income margins at 13% to 15%. About 90% of our sales go into food and beverage. Within Texture and Healthful Solutions, also, when it comes to skin and hair care for texturizing, we do offer ingredients for that category. For Beauty and home and pharma, about 10% in totality. That's the breakout on the food side that you see there for the Texture and Healthful Solution segment. The market for texturizing ingredients and the market for both foods at retail, as you see at the top, \$600 billion global package food retail market that we look at as an opportunity for CPG companies to promote their products with front-of-pack texturizing claims to draw in consumers.

In 2023, 10% of those products that were launched had front-of-pack texture claims. When you look at the category of starch, hydrocolloids fibers. The ingredients that we sell that we would consider to be foundational cornerstone ingredients to texturize, the backbone of texture. It's 20 billion in size, so a lot of headroom for growth for us. Then when you think about the ability to combine those ingredients and formulate those ingredients, along with bringing our capabilities

that we've invested in in sensory and consumer understanding, and Mike is going to talk to you about structure function understanding, the opportunity to identify true solutions for influencing those front-of-pack claims. For us, we're focused on three primary, but there's an obvious big one in the overall texture experience one, which would be healthy foods, and I'll share that in the next slide in our winning aspiration. But to accelerate growth in texture solutions, we've identified three priority consumer benefit areas. One is, how do we influence the texture experience? That to make foods interesting, to make foods unique, novel, that have a preferred consumer liking when it comes to the texture experience. Again, influencing how the product is It could be from a healthfulness standpoint or whether it be indulgent along with flavor.

Affordability, you're going to hear about because we're a global company, and affordability certainly today with food inflation, is a very important aspect. When CPG companies are targeting consumers. That's a big opportunity for us because if you're formulating a product, being able to optimize the product for cost as well as the overall liking is very, very important. And then clean, label, natural, authentic. But when it comes to the healthfulness also, when you think about a lower sugar product, a reduced fat product, or let's say a gluten-free product, to be able to impact and have the texture be just like you would expect a full fat, full calorie, and/or non-gluten-free product. That's how we can impact texture. Last year, again, we had an enterprise-wide strategy refresh, and this is what we came up with, which is what our ingredient winning aspiration is as a company. I just want to walk through it. That is to be recognized as the go-to provider for Texture and Healthful Solutions that make healthy tastes better. What's behind that? First of all, we as a company will continuously strive to make foods healthier through some of our ingredient technology and also foods healthful.

Then we strive to make healthy, healthier, and healthful foods taste better through textures that impact overall liking. We intend to do that to earn the respect of customers by being uniquely recognized. We genuinely want to be respected, and we want to be credible with what we say. We want to be seen as an idea generator and a concept developer. I think what you're going to see today from us from a standpoint of the tours, the prototypes, the concepts, I hope you see that. We want to be an opportunity spotter because we have invested a lot from a marketing capability standpoint in consumer insights, not just in the United States, but around the world.

We want to bring those ideas and opportunities to our customers. We, of course, want to be a problem solver. I think we've been recognized as such for many, many years. But in this field of specialty, we want to be a problem solver. We, of course, want to evolve to be truly a solutions provider, and we hope we convey to you what that means exactly, certainly in Michael O' Riordan's presentation. Then we want to be a co-creator with our customers. We want to be an innovation partner to co-create and develop consumer-preferred winning innovations that will sell

to consumers. With that, I'm going to turn it over to Val, who's going to talk about the opportunity within texture. Val, over to you.

Valdirene Evans

Good morning to all of you. I hope you have tried our prototype on protein bar outside. Who like the texture of that one? Okay. I'm going to talk about exactly what markets and what opportunities exist for the texture segment. So as Jim mentioned before, we have a market for texture globally of about 20 billion for ingredients and the combination of ingredients which we call solutions as well. But we want to call attention to two areas here that is called clean label, so more natural trends of products that consumers are looking more and more. They are reading labels, they are looking to what is inside the food they are eating. We do have a strong position as a company in the clean label space for this segment. The second area is affordability, especially in emerging markets, especially with the inflation that we are experienced today. Our customers are looking how can we tweak formulas for them and help them to find more affordable foods with some cost reduction for themselves. We can play in three areas. We can play with more sophisticated textures. We have expertise for that, which is inside this large market that we talked about, 20 billion. We can play with the natural products, so clean label, which is a big trend.

We can play in affordability. And another area that is a big trend, we can also make the texture of a healthier products to taste better. How many of you have tried very good health profile of products, but you don't like the taste? So texture can help to improve that. And this is what I'm going to talk today. So there are many areas of opportunities. The market is big enough already, 20 billion, but we are very tuned with what consumers want. We are a company that not only look to our customers, but look also to consumer trends. Please feel free to ask questions in the end. You are investors, but you are consumers as well of food, so we can discuss the questions that you may have in this space. When we talk about this market, we are talking about starches in our portfolio that we have been for a long time and have a lot of experience on that. Hydrocolloids that we also have in our portfolio that we call gums, natural gums. Also, fibers is an area that we are increasing and enlarging our portfolio as well. These ingredients, of course, can be combined with others.

Other ingredients that resulted in this 20 billion market. The grow is between 2 to 2.5% for ingredients. However, the solutions, the combination of ingredients to solve problems or to improve texture, to improve taste is a fast pace for this segment. So this is a bit of numbers behind for proprietary studies that we have made in these areas that I just talked about. So affordability 80% are paying attention to the price of food and beverages today. This is something we cannot ignore, and it's out there. Seventy-five % think they claim all natural is very appealing. They want

to know which ingredients are inside what they eat. Seventy-two % prefer products with the natural ingredient, similar trends, and 60 % regularly check the ingredient list now when they go to buy food. That is what we are dealing with. The change of consumers behavior, the change in preference, the attention to food inflation. So all this we need to address, and we have a capability today to address that. So what drives the demand in the texture market? We talked about 20 billion market, right? So what is behind that? What drives that demand for texture. If you go back to the basics, population now grow is important, of course.

More people to be fed. But we have differences between developed markets and developing markets. If you talk about overall we are going to say economically, grow, drives growing texture demand. Urbanization due to the convenience also drive demand in this market. But developed markets, they have a higher GDP per capita. In developed markets, we can afford to have more sophisticated products, more premium textures. There is also, of course, a huge demand for convenience. People to pick what we call ready to eat meals, food that you just warm up and you eat. There is a high demand for this type of products. In the developing markets, it's another profile. There is growth also due to urbanization, people moving to the cities more and more of ready to eat meals, but you see the difference in consumption. In Germany, 20 kilos ready to eat meal. US, 16. Thailand, which is a very emerging country already in the level of 13 kilos. This is, of course, a trend in emerging markets as well, but there is still a gap that is going to be fulfilled over time. But developing markets, affordability is very important. They want food with the basic ingredients that is good, but it's not very expensive.

In different markets, you have to tailor a bit the strategies, the type of products you sell, and how do you fulfill the needs. But urbanization, economic growth, populational growth are, of course, influencing the demand for food and for texture globally. Another important data, if you look to modified starch consumption per capita in different parts of the world, in the US, it's six times larger, the consumption per capita. Noah mentioned that previously to the US, I was living in Singapore heading Asia Pacific for Ingredion. We saw the growth In China, between 2015 to 2022, the consumption of modified starch grew 12.5% compound annual growth. There is growing demand in emerging markets of modified starch. We are far away from the levels that we have here in the US. If you talk about India, India, about, let's say, seven years ago, had no consumption of modified starch, zero. They started seven years ago to consume. The trend is growing.

There is plenty of opportunity of utilization of modified starch out of the US in several parts of the world. Besides that, what we have seen as other trends in this market that is influencing the demand. So convenience, I talked about urbanization, lifestyle trends is driving more demand. Delivery food has grown significantly after the pandemic. We all know that. People got used to

order food, and they are continuing to do that. But also there are companies investing in more technologies in this segment of delivery foods. You see here a robot that is inside the university delivering food for students. Group Hub, Delivery you have Uber Eats. I can name many companies that are growing in the food delivery space, and they are also creating new technologies to accelerate the delivery of food. This is a space we need to watch out, we need to be prepared, and they have specific demands. Mike is going to talk a little bit about fries, for instance, what we can do to fries to taste better in delivery space and so on. But the food delivery is a growing area with specific needs. Multicultural foods is another important area. In our study, consumer study, 60% of consumers said that they prefer multi-texture and multi-flavor foods. We see more and more tortillas in the US. We see some mocha textures in food in the US. You see Asian food here. You see Greek yogurt in every supermarket.

There is global exchange of multicultural foods happening, even though every local, every country has their food preferences. But there is also this exchange that's happening, and we are looking to this opportunity. How can we improve the textures of this food crossing countries and the regions to adapt? The other trend, it's not here, but of course, is healthier food. After pandemic, this is a big, big trend. Everybody is looking for healthier foods, but they want healthier foods that taste good. There are many healthier foods that you don't want to eat, you don't like the taste. We can help to improve that through texture. Those are one part of the drivers of the demand. There are, of course, many other things, but we brought to you a good discussion about the most things we see that drives demand of texture in the food segment. Now, the question is How do we, as Ingredient, meet this opportunity? How we are preparing ourselves. What we are doing to meet the global texture opportunity? The texture opportunity is global. We have a footprint in every part of the world, as you can see, through IDEA Labs, what we call application labs and the technical labs.

Our local teams, sales, marketing, and technical team, they are in constant contact with the locals. Even though this is a global opportunity, it requires good understanding of the food at the locals. The food preferences are different across the globe, and we invested in being close to them and understand their needs. We have in this segment, 22 plants globally, across different parts of the world, all regions, and we have local teams, and we have idea labs for that. So the opportunity is global with some local knowledge. And in some countries, for instance, Thailand, we just completed 41 years in Thailand. China, we entered more than 30 years ago. So we have a deep understanding and deeper relationships with our customers in many parts of the world. Then the other part of the opportunity that we have is the complexity of producing food ingredients or combination of food ingredients with consistency at the right level of specs that fulfills the requirements of labels and all that, the variability of raw materials that we have to control. There

is a bunch of points that you need to have expertise to provide good ingredients or good solutions, food solutions through the value chain.

Our customers don't want to deal with this complexity. So this is an opportunity, and this is what we are qualified to do for our customers. So we deal with this complexity for them. We have, of course, understand of the regulations, formulation, raw materials that you have to qualify your suppliers, the whole manufacturing, consistency, and managing the packaging, transportation, shelf-life stability with the temperatures and all that. This is how we can, of course, capture good opportunity, so our customers don't have to deal with this complexity. We do this for them. Here is the journey of innovation. We can detect the trends, we can create to new products and deliver to our customers, or we also can solve problems for our customers or improve their products. This is the journey of innovation. So we engage with the customers. We explore how texture can make the healthier products taste better. Or we ask them, what is the problem that you are trying to solve that you cannot? And we help them to do that. Then we assess the current state, define the problem and the opportunity more clearly. Then we rapidly generate digital concepts and solutions.

Sometimes the customer wants to create a new product, we support them. We can generate 200 ideas, for instance, to digital concepts and then we refine with the customers which one could be better. We use our know-how and we use systems, AI, other concepts for that. That precise data-driven prioritization, model and test the prototypes, and then we implement and scale. Of course, as we are manufacturers, we have the possibility to go from the ideation until the end of the chain. We can really create prototypes and produce the prototypes of foods for our customers. If you ask me, can you give some example here? We approach the customer that discussing with them. They said, I want an affordable cheese. I want a cheese that costs lower, so the lower class can afford to buy good cheese. The second request they had to us is, I want to reduce the animal protein in this cheese, reduce the content of milk in this cheese. We created a formula for them. You are going to see in your tasting, 20% cost reduction of the cheese for our customers. Just by tweaking ingredients, the texture was not compromised. It tasted good, but it was option for affordability.

Another example, one customer came to us and said, I produce ice cream. I consume a lot of energy with our fridges. We developed a formula of ice cream that does not melt two degrees above. Imagine for this customer to have all the fridges with two degrees above how much energy consumption they reduce it. Sustainability, cost reduction. I could be here talking forever of the examples we have, but it's just to illustrate how texture can go beyond just the food experience, but also support some issues, some problems that our customers are trying to solve. We do this through this partnership in the in the engagement with our customers. Coming back to our 20

billion, five categories represent more than 90% of texture solutions opportunity. We have a deep understanding many years doing this, lots of experience in the texture. We understand that this category is very deep. What is behind, what are the needs, what is the size of the market. We selected these five to be focused. They represent most of the space of texture that we play. To finalize, the area of texture opportunity. I would say we have a leading global position in texture.

Jim Gray is going to present you per region where we are leading. We already have a leading position in texture for many years that we play on that. But we were not claiming the leadership in this space. We are now claiming the leadership in this space because we have a higher market share across the globe. Companies like the flavor in the flavor space, they say we are the flavor houses, right? We are the texture house, and we are going to claim more and more our leadership in this space. We have been leading the global position that on top of that, we are adding new capabilities and more insights, consumer insights that are driving our innovation and our expertise. We identify and create consumer-preferred textures for customers. We have been developing markets for texture for a long time already. And we want to improve also the customer success rate for new product launches. Mike is going to talk more about that. When our customers launch products in the market, there is a high percentage of failure. How do we improve the texture upfront, so they have less failure in their product launches? Of course, capture value exchange branding beyond a product level model.

So we have expertise, we have consultative capabilities that we can solve problems for our customers beyond the just product level offers. So the opportunity for texture is now. We want to make this a bit more clear, educational to consumers, the role that texture plays. I think Jim talked about that already in the opening. But we as Ingredion, we are moving, leading this space. The customers already tell us when they talk to us, they say, you have the most technology in this space than other companies. So they want to stay closer to us because they know we are going to bring novelties for the texture space. With that, I'm going to pass now to Mike, and he's going to cover concrete examples, a bit more concrete things about what we are doing, what we are offering in the texture space. Thank you.

Mike O' Riordan

Thank you very much, Valdirene. And thanks to my colleagues because they give me the most exciting part of the presentation. I get to talk about solutions at customers. Hopefully, I excite as well. If you take away anything from today about the opportunity, hopefully you'll remember this slide. I was flabbergasted to realize that eighty percent of all launches in the marketplace fail. Can you imagine how much waste that is for organizations that are developing these food products. So this is the Uber moment for me. You go back to 1999, When people were standing in the rain and wondering, taxis are not coming and they have to pay \$700 to go to that New Year's Eve

party. It's diabolical the waste that we see in our food industry, but it's the opportunity for us. And by the way, for the smaller companies, the failure rate is even higher. So it's probably closer to 90%. They fail faster. Probably their cycle time is six months. You take the larger companies, their failure rate probably a little bit less, maybe it's 70%, but they spend two years developing these products for it then to fail. You can imagine how much that costs.

Some of these big food companies are spending a billion dollars a year on R&D. I get very excited by that because just like that Uber moment, also I see technology can really help us to increase the probability of success. And hopefully today, you will get to see that we are really advancing in that area, we should increase the probability of success. The other thing that if you can take away from today is the importance of texture to consumer liking and to the success of a launch. We say here that 40% is linked to texture. Sometimes I give the analogy of a car is that with texture, consider it like the machine, and flavor is probably a bit more like the design. For sure, nobody wants to drive an ugly car, but you get there. Sometimes we'll eat products. It's maybe bitter, a little bit sweet, but you'll eat it. However, nobody will eat a yogurt that's split or is grainy or lumpy. And just like a car, you turn it, if it doesn't move, you're not going anywhere. And so it's really critical to get the texture right.

The good news to get a repeat purchase is that it's a science. And that's the other thing I'd like to take away from today. It's not an art. It's a science, which means that if we have all of the data, and we've been in this business for over 100 years, we have a lot of data. And if you can get technology to mine that data and you look at the characteristics of different products, this is an example of a yogurt. There are certain characteristics and attributes. If you can map out your likelihood of success for launching a product into the marketplace. So this is really very important to repeat purchase. Again, I'll take my example. I will not go back to a bar in Ireland where I come from and get a point of Guinness if it doesn't have that nice creamy head on top. And so texture is really critical.

The other thing is that there are certain categories where texture is even more important. My colleagues were showing you earlier that for these particular categories here, it represents about 90% of that 20 billion of texture opportunities that we talked about. We have purposely selected these areas to really focus on. This is our where to play. Because texture is critical, 70% of consumers will expect to have the right texture in their products if they're going to have the repeat purchase. And texture is complex. So if I just take one of these categories like dairy in a place like Germany, where we are based, our European headquarters. Very often, of course, we'll open the lid, we will scoop out a nice chilled yogurt. It will have a certain texture and creaminess that we will have developed for that particular demographics. However, if you take a place like China, the challenges are much more different. And so if you go to the tier three, tier four cities, in these

particular areas, people even have fridges to chill some of their products. One of the skill sets that we have is how do we bring this affordable nutrition to the masses. In those particular markets, in tier three, tier four cities, we develop yogurts where they're ambient a stable, and people just dip a straw in and it needs to... And they drink it. And so that type of texture for that demographic is very different. And so you can imagine all of the permutations as you go across all of these different categories, which we've got to accomplish to make sure that we get that consumer liking.

So if you were concentrating in the presentation a little bit earlier, you would know that batters and breadings is a very big sector for us. It's also a very big market. Some of you may have had the experience like me where you go to your farmer's market on a Sunday and the French fries that you eat are quite soggy. And then you may wonder, well, why is it that they can't replicate that? Like you go to your favorite food service restaurant around the world where you always get, for the most part, a very crispy, crunchy French fry. And that's where we've come in. We spent a lot of our time over the years mastering that. One of the things that is really nice is that we're that little bit of that magic transparent coating on the French fry that gives it that crispness over a prolonged period of time. And so I say a prolonged period of time because some of these French fries have to sit underneath a heat lamp, as you know, for periods of time. But also more and more, we're seeing the emergence of delivery from home. A number of you in this room, I am sure, get delivery from home.

And so how do you make sure over that prolonged period of time, that it's also crispy when it arrives at your home. One of the other things which I really like about the sector that we play in is that we are recovering the starch from the side stream when making some of these French fries. And so, again, you're utilizing it rather than going to animal feed, you're really reducing and enriching a lot more for human consumption. And also, of course, if you get that crispiness and that prolonged over a period of time, there's less waste as well. So overall, if you think about the impact that has from a sustainability perspective, it's really very strong. Tortilla is a stable product, as you know, for many families around the world. And one of the things to take away about Ingredion is that we have a deep expertise in the area of starch-based texturizers. The great thing about starch-based texturizers is that they are affordable, and they are very consistent from nature. One of the challenges that we always face is to make sure our solutions are really providing total cost and use for our customers.

And by having that foundational ingredient from starch, it gives us a unique point of differentiation. Of course, making these products are challenging, and so we have the solutions capabilities to do that. So sometimes it may be freezing, microwaveable, and so forth. And more recently, and that's why we have this aspirational vision to go from being the go-to texture provider, but also the helpful provider, is that we're seeing more and more requests for low carb, gluten-free, and

high protein. And we got to do all of that and make sure still it's affordable for the masses that are consuming these products. And so that is an area. It's a very big area, \$45 billion market.

Traditionally, we've been very strong and high moisture. And in recent years, we start to develop more and more solutions with our portfolio in the low moisture area. Bakery itself is an \$8 billion opportunity out of that \$20 billion, and so we see significant upside in this particular space in the bakery space. So Mochi is, I'm not too sure how many of you, you're probably all foodies to some degree, and I know it quite well. But first of all, the market size is massive. It's 283 billion overall, and that's for all type of food products, because it has been very prevalent in Asia Pacific for the last 20, 25 years. I worked in China for five years. And so you get the experience of many of these pastries, of it being chewy, elastic, which comes from tapioca, which, again, as you know, we are the global leaders in tapioca products. And so these are fascinating textures you can get from different food products. And I don't know if any of you have teenagers like I do, but they spend a lot of time taking pictures of these mochi type of products and posting them on TikTok or some of these social media things just to share them with their friends, that's some of the amazing textures you can get. I was actually with my wife at Dylan's Candy Bar in Times Square last month, and as you know, that's owned by the Laurent family. So food is a bit like fashion. Some of these trends are coming true. And I was quite surprised, even in New York now, to see mochi on the front of a lot of these different confectionery products. And so we're quite excited by that because we own the mochi space and texture in Asia Pacific.

We've had a lot of success in that area, and now we're beginning to see these trends also coming in for the Gen Z, in particular in parts of Europe and the US, which gives us an enormous opportunity of growth there as well. I'm wrapping up, but this takes me a little bit through my own journey in this company in terms of how we have evolved over the last number of years. In my early days in the commercial world, I would say our offering primarily focused sauce. And so we would have starches to provide the opportunity to replace some tomato solids, make it more affordable. Obviously, you got to have some stability in whether the pizza is frozen or chilled, what have you. And so that was mainly our offering in pizzas at that time. More recently, some of you remember we acquired a hydrocolides company, TIC, a number of years ago, and some of those gums are really critical, particularly when it comes to gluten-free, and they have unique functionality in there. And so all of a sudden, we also have a broader range of ingredients that are also very relevant for the crust.

Then on the cheese side, one of the, again, recent acquisitions is we have acquired a company, Katech in Europe, to have a very good understanding of starch and protein interactions. And so getting that melt right, they also will source ingredients from different places is something that now makes us relevant in that particular area. Also, we need to make sure we got an affordable

cheese. Some of you also know that we have these flavor modulating products that are natural, that can enhance the saltiness or can mask some of these off flavors, which, again, is an amazing tool to have in your toolbox. And then just on the toppings from our plant-based recently through our building out of our plant-based products, the pulses, we can now replace some of the meat with some of these alternative vegetarian offerings. So again, we have relevancy there as well. So you can see how we built out the opportunities over the last number of years, which has enabled our growth. And then you got to pull all of that together. And so hopefully, you'll appreciate that today, the skill sets that we have is our ability to work with customers and come with a holistic solution for them, as opposed to just a part of the challenge.

Let me wrap up a little bit by why are we different from anybody else in this space. What gives us the right to call ourselves a go-to provider for Texture and Healthful Solutions? And hopefully, I can share with you a little bit the reasons why I strongly believe that and why our customers are very receptive to working more and more collaboratively with us. If you take the first part on sensory, and hopefully you can ask these questions today. How many companies can link consumer liking to texture back to ingredients? How many companies can walk into a customer and say, your product sits here on the map versus others that are out there? And we can help you to move into this particular space to the number one in this particular category by addressing some of these demographic requirements for texture. How much value can that create for a customer? How many companies can really do that in the space of texture? Also, we have something called Atlas. If you talk about the consumer ingredient preference, where we have been building a database over 10 years now, where we've been talking to consumers around the world as to what ingredients are acceptable on a pack.

So some ingredients may be well received in certain geographies, but not in others. And so we can inform our customers that these ingredients will be very well received by consumers. And also, if our customers ask us, what about the sustainability in the sourcing of these formulations? We work with How Good to be able to provide the sustainability footprint behind that. Again, ask yourself this question. You interconnect with a lot of different companies in our space. How many of them have a plant science program that actually build the functionality into the crops to give you the unique textures that our customers need? We have that. Natural hybrid breeding to be able to offer unique functionality that nobody else has. The next frontier, which we're very excited by, and Mike is going to get you water a little bit your lips on this in a moment, is around the year of predictive formulation. Because we've been in this for 100 years, you see all the different applications that we work in. We have immense data, and now we start to mine that data to not have to wait two years to come up with a product that may fail, but to predict what that formula will be that will provide a higher rate of success.

And then at the end, we're looking to see with all of these capabilities, some of our customers need help. And so we are beginning to find that they spend a lot of money outsourcing to different companies to help them along this journey, that we can offer some of these services. We have immense expertise. We can offer all of them or maybe a la carte, just parts of them, services to our customers to ensure that we increase their rate of success. Because I want to leave you again, the opportunity is that if only 20% of launches are successful, the opportunity is massive. We can help our customers, and we believe with all these capabilities. We can do that and increase the speed to market. So I'm now going to transition to Dr. Mike Leonard, our Chief Innovation Officer. There's a little video to get you excited before he comes up on stage. And so hopefully this gets you in the mood to learn a little bit more about the science behind texture. Texture is a science, not an art. And hopefully you appreciate that during the day because it's a science. We can all really capitalize on that and create a lot of value for our customers and our shareholders.

Dr. Mike Leonard

All right. I bet no one ever told you that texture science was actually just a big party and a lot of fun. Well, we have a lot of fun in this building and in all of our ideal lab centers around the world, but we also do some great science. That's the amazing thing about being a scientist. You get to make a career out of doing things like this and helping customers and helping the world be a better place. So, thank you all for being here. I want to echo what Noah said earlier. I want to welcome you to our Bridgewater Global headquarters for Innovation for Ingredion. Bridgewater is one of 30 centers around the world where we interface with customers and we learn about local taste, local needs, translate that into new ingredient development and new product development ideas for our customers. As you all know, consumers are globally diverse, and our customers' needs arise from everywhere. That's a big challenge, but we have a very talented team and a very unique set of capabilities and tools that I'll share with you this morning. And hopefully, for those of you that are here today in person, you'll get to experience for yourselves a little bit later.

I should add that at our Ideal Lab locations globally, we have a variety of capabilities at each center. So here in Bridgewater, you'll see the full extent, end-to-end development of our insights to development of ingredients, all the way to creating prototypes for our customers. So think about facilities like pilot plants, application labs, sensory facilities, places where customers can come in and co-create new products with us. We have a mixture of these capabilities all over the world. The customer needs that we learn about from our Ideal labs really fuel the decision-making and choices that we make about how we build our capabilities as a technology organization. What I'm showing here are a combination of our technology platforms and functional capabilities that all come together in a unique way to deliver against the ideas that you saw from Mike and Val and Jim a little bit earlier. Because innovation is a team sport, creating great textures is also a team

sport within the innovation function. I'll spend a moment on this. If we look at our technology platforms, Mike just mentioned plant science. We'll talk about that a little bit later. But this is a very important part of our agenda in terms specifying the performance that we want from an ingredient directly at the seed level before we even get to a processing facility.

Ingredient science, knowing all the physics and chemistry of how our ingredients perform in an application, will go into some detail about that today. Process technology, of course, process and product are intimately linked to deliver performance of an end product. So texture is not one or the other. It's connected to the product characteristics and the process used to make the product. Biotransformation, another way to generate new functionality in products and to generate new textures. And that's the capability that we're actively building here at Ingredion. So the one's highlighted in green are the ones that I hope today you get a sense of how they come to life to enable great new textures. Functional capabilities, sensory, of course, you all know this. Sensory science, not a new idea, but we have some very specific and very unique techniques that we use to learn from consumers what drives liking and how do they describe what texture means to them. Culinology, you'll have a taste experience later today. Culinology is all about bringing the end-to-end experience to life for you as a consumer to showcase all the elements of this capability set, all the elements of the value chain, all in a finished product.

And then analytical science. None of this matters if we can't measure it. Jim talked earlier the lack of vocabulary for texture. There's no lack of data for texture. It's our job to harness all those data and to translate those into consumer liking, product designs that win for our consumers and for our customers, and to help inform the investments that we make on the capabilities side. We're investing a lot right now in the data analysis part of this, understanding how the decades and decades of data we've accumulated as an organization and continue to pull in today can be translated to predicting consumer liking at the front-end. Happy to talk in detail with all of you about the capabilities we're building there, but a lot of work on AI, a lot of investments in data science to bring that to life. That's a summary of capabilities. Now, Mike spoke about this a few minutes ago. We also have an industry-leading position from a specialty starch portfolio perspective. If you look at the native starch sources that we leverage to develop our products: corn, tapioca, rice, potato, pea, to name the top ones, those are five native starch sources.

If you look at all the ways we can specialize those sources, we have over 3,500 products just in starch in our portfolio. Starch is really the building block, the foundational key to texture. Hence, the leadership position that we have in this industry and that we want to continue to expand on. This is an amazing portfolio to start with. Clearly, we're the leader in starches. We have supporting actors in our portfolio on hydrocolloids. Of course, formulation is holistic. Even though our core is in starch, we have expertise around other elements of formulation, and we bring those together

in solutions for our customers. Now, I think it's important when we talk about healthful solutions, I think Val alluded to this earlier, if the texture isn't right for any food, customers and consumers will not come back for seconds. But especially when it relates to nutrition, this is super, super important. Because nutrition doesn't matter if people won't eat the food. So texture has got to be right, especially for high nutrition products. That's something that we take very seriously, especially given the importance of healthful solutions in our portfolio. We're coming at this problem from a position of strength.

Great capabilities, unique capabilities that all work together with our portfolio of ingredients to deliver an outstanding toolbox for product development. That's great because eating is simple, but food is really complicated. Eating is one of the most fundamental human experiences that we have. We all have special relationships with our food and different types of food. But food is a complicated thing. If we work this continuum, you think about when you experience food, take your first bite of a new product or something you've eaten for a long time. You have a perception. Your brain integrates all the things that are coming at it into, do I like this or not? A decision that you're making. That's the first bite. As you chew, as your saliva interacts with the food, you're making more decisions. The food changes as you process it in your mouth. We have a fancy term for that called oral processing. Turns out there's a lot of science, physics, and chemistry that go behind how you to actually chew, consume, ingest food. So your brain is making all sorts of decisions here. Those decisions and your perceptions are entirely based on structure when it comes to texture.

Food structure is very, very important. And there's structure you can see. So the structure of a waffle, the structure of the food we had outside. There's things that you can see very easily. Cell structure of bread. You can see the fiberosity of a steak. You expect certain things based on that structure. That's what you can see. Turns out that that's based on structures that you can't see so easily. So microstructure. If you look at those fibers under a microscope, what do you see? There are structural elements that are very, very important to get right, or else that fiber is not going to behave the right way in your mouth. All this depends on molecules. So the higher order structure that you experience in food is a direct consequence of the molecular structure and the molecular interactions of starches, hydrocolloids, proteins, fibers, you name it, everything that goes into a formulation. Understanding this continuum and going from the properties of a molecule to an experience that you have as a consumer, well, that takes a lot of capability, a lot of experience, and a lot of science, and that's the work that we do here. That's also the foundational role that data and data science have to play, because going from right to left on this chart We can't just do it with our brains and brute force.

We need to leverage the data and new algorithms that are emerging that can help us find new relationships between structure and function for consumers. So eating is simple, but food is complicated. And that's why we've got the unique set of capabilities and team that we have here. Turns out that getting delicious food to people is also complicated and also depends a lot on texture and getting texture right. So Mike talked a bit about fries. This chart shows some data on root cause reasons for why consumers have issues with fried chicken and French fries at point of consumption in a quick-serve restaurant or fast-food restaurant. And you see two descriptors here. Fries weren't crispy enough, fried chicken wasn't crispy enough. Well, right out of your kitchen, getting texture right is hard enough. But imagine if that food has to sit for 15 minutes, 30 minutes. Coming up with a way to operationally allow a restaurant operator to deliver that fresh out of the oven experience 30 minutes after food is prepared, that adds a whole other dimension to this challenge. And that's something that we take very seriously as developers. Within our culinary team, we have a lot of expertise in knowing how to design for those types of hold times.

But you can also see other descriptors here. Food wasn't fresh, while texture is also related to freshness. Taste is inconsistent. Hopefully, you took away from this morning's discussion that taste incorporates a lot of things. When consumers say, Hey, this thing doesn't taste very good, well, they also mean texture is not very good. Texture plays into multiple elements of getting food to people, distributing food, serving food in a commercial environment. In addition, texture is experienced across multiple senses. We all have the intuitive sense Well, what does texture mean? Well, it's related to the video you saw. I mash things up in my mouth and I decide if it feels good or not. Well, it also depends on what you hear when you're chewing it. Your inner ear has a reaction to food as you're chewing it. Process is crunch. So audible crunch. Crispiness. I can differentiate between crispiness and how hard something is, how resistant it is to deformation in my mouth. Tooth packing, something we try to minimize. We don't want food to accumulate in our as we eat it. Not so easy to do with a lot of the ingredients that we're working with in packaged food products.

So we measure impact of texture across all these sensory dimensions, and we have proprietary tools to do that, and a vocabulary that we use to describe all these attributes. We relate that all back to formulation and the science that we use to develop new ingredients. This chart shows some differences between, again, a fry application of a standard clear coat versus our optimized solution. Folks in the room will experience that today. That shows that we know how to improve performance across all dimensions of texture in this type of situation. So let's talk a little bit about the building blocks. So we talked about our portfolio, the 3,500 starch ingredients, specialty starch ingredients that we have in our portfolio. But if we go to the far right on that previous chart, everything starts with molecules. Texture starts with these two molecules, amylose and amylopectin, are the building blocks for the majority of textures that we experience in our lives.

Amylose is a linear polymer. It's a straight-chain polymer that likes to pack very, very closely with itself. So it forms stacks of molecules, forms layers. And when you break those layers, you get a very brittle and dense type of behavior, and it crunches. So layers, sheets of brittle things, they crunch very easily. So when you think about crunch, think about amylose. Think about sheets of this polymer.

On the other hand, amylopectin has some branches to it. It's not a straight chain. It's a branched chain molecule. When amylopectin packs together, it can't really form those dense layers of things that have that brittle and dense set. It doesn't crunch as much. It turns out that it forms a more porous and a spongy structure that delivers crispiness. If you think about an extruded snack and you break it in half or you bite into it and you look at it, you can see a cell structure. That's related to crispiness. That's directly related to the molecular structure of the underlying amylopectin and the starch source that's used for that snack. Combinations of these two present very rich opportunities for creating new textures. So very rarely will you have just one or the other. It's the combinations that really add the diversity and the specialty to texture. So think about these two players when you think about texture. This drives a lot of what we experience as consumers.

So going a step further, when those molecules get together, interact with each other, they pack in different ways. This is an example of amylose packing together with itself, forming larger aggregates, and organizing into larger scale structures. You've got collections of amylose, collections of amylopectin, other ingredients in your formulation. Amylose will like to organize into a large scale structure called a granule or a spherulite. That's a micrograph of a starch granule on the right-hand side of this chart. Those layers represent layers of amylose. Now, that starch granule, the properties of that thing are directly related to what you experience as a consumer when you're eating product. This is the foundational piece of how texture is generated in starch-based products. The chemistry of that depends on a lot of factors. We know how to manipulate the properties of that granule, how to manipulate its role in coatings, manipulate its role in formulations to deliver great textures. So understanding how to go from molecule to how it organizes into larger scale structures like granules is really important. We have that understanding. Now, backing up another level, how does this relate to what I experience in a French fry coating? Well, this is a micrograph, confocal laser scanning micrograph. It's a fancy term for a unique type of microscopy.

These are things that you can see with your naked eye, but you need a little bit of magnification. But you can look at how the starch and the fat are distributed in the crust. We can stain those things differently, and you can relate the spatial position of the starch and the oil to the consumer experience. You've got the molecules that pack in different ways. You've got those molecules that aggregate into larger scale things, and then they all have to occupy space on the surface of a fry

in just the right way so that you want to keep eating your fries and have more and more, and have that really amazing textural experience. Relating the molecule all the way to the properties of the coating, that's the work that we do here. Again, we have a range of capabilities to help drive texture preference. It's all based on understanding at the molecular level of how the foundational building blocks of texture, amylose, amylopectin, other molecules work together. Plant science is among the most powerful tools we have to drive functionality. Now, I talked earlier about process technology and biotransformation as two other tools that we can use, and we certainly do.

Lots of chemistries we can use on native starches, physical processing we can do to create diversity in texture, biotransformation, enzymatically modifying products to create new textures. I think you're all aware of a lot of that. But plant science is unique to Ingredion. It's a capability that we're very proud of and are growing. With plant science, we can directly influence the properties of corn at the seed level to essentially program in properties that we want in the end product. So thermal reversibility, gelation properties, texturizing properties, process tolerance, drought tolerance. We can engineer all that into the seed. Now, today, we do that in a traditional breeding construct. So non-GMO. In fact, the coating that I was showing earlier leverages a product from our plant science program. It's non-GMO clean label starch. We use traditional techniques to do that today using our proprietary germplasm. As we go into the future, we're evaluating new techniques on gene editing and new ways of breeding that can speed up that process, because as you know, the traditional breeding process takes years. It's not something that happens very quickly. It actually builds in a good advantage for us. We have a significant head start over competitors in these spaces where we've developed our proprietary varieties.

So plant science is a tool we're going to continue to bring to the table and continue to leverage, but we're very proud of what we've been able to accomplish so far with this capability. To wrap up, I hope you're walking away from our presentations today, and this one in particular, with a sense of how our product portfolio and capabilities can help to enhance great textures, enable great textures that consumers crave across a variety of categories, and you'll experience that today. Helping products stay crispier for longer in low moisture applications, creating springiness and sponginess, we saw that in the video, indulgence, creaminess, and high moisture applications. Again, that's one of the benefits of our starch portfolio. It delivers benefits across the continuum of moistures in a variety of products. And then superior stretch and melt in cheese. We have a tremendous amount of category exposure to benefit and are very proud of the capabilities that we've developed so far and look forward to continuing to innovate. So, thanks very much. And with that, I'll hand it over to Jim. We'll talk financials.

Jim Gray

Mike well, I think we come here every day, and we always get a little bit excited about what's happening in nature and what we can see there. And actually this amazing science and conversion process, working with customers such that we actually get to enjoy it. We actually get to taste it. We actually get to see it. We get to feel it. We get to rip it apart, which is so, I think, unique to each of us as individuals in terms our own eating experience. Let me pull this together and talk about why we believe and why we wanted to come here today and share with each of you our belief in both how we see the volume growth and the drivers of this business. As well as comments on how we're building intangible assets, which we think continues to drive future strategic position, but also resulting in greater profit for our texture and healthful segment. As we look at the growth drivers, Val began with just the size of the opportunity globally. We have a footprint in many, many, many countries, over 120 countries we sell into, 30 plus Idea Labs, hundreds of folks in our Idea Labs as well as in our customers' labs working on technical solutions.

So understanding local taste preferences, understanding the challenges that our customers are running into as they try and formulate, as they try and make that packaged food or that food service product, and then saying, Hey, we may be able to solve some of that problem. And not just having to do it locally, but then referencing our entire global R&D team to be able to say, we're in our vast experience of library in our knowledge in our data, as Mike referred to, might we have a novel solution that actually can solve that problem locally for that customer. That allows us to continue to drive volume growth across a number of categories. And as we do so, one of the most important things is that our product mix continues to get more valuable. And I'll highlight this in a minute in terms of increasing average prices per ton for the types of ingredients as well as the solutions that we bring to our customers. Now, our business is one where we're always mindful of crops. Whether it's a couple of crops of corn, it's a singular crop of tapioca, maybe where rice is coming to market in different parts of the world.

So our pricing centers of excellence always have to grab that changing raw material as well as some of the other inputs, like say, energy, and what we've experienced in the last couple of years, particularly in Europe. We're very vigilant on being able to say, For this type of product, for this solution for this customer, let's make sure that we're mindful of the changes in the input. Now, I'll say one thing here as I get into an outlook for this segment is that since we can't necessarily predict the value of corn two years from now or the value of natural gas three years out, when we do an outlook, it's all on price today. So we just hold our prices, we hold our corn costs, we hold our input costs. It's really more of a real outlook instead of anything that has any type of price assumptions in it. Our pricing centers of excellence really help us manage and reduce that volatility. We've really improved upon that over the last couple of years. But nonetheless,

everything that we make is from nature. Then I think you had a bit of a hint from both Val as well as from Mike O' Riordan, and that it's not just about an ingredient.

It's actually about, well, what are the customers' problems and how can we provide solutions? Some of those might be in terms of service, but oftentimes it's actually combining eating, combining different ingredients for them and actually having insight into how they manufacture and what they want to achieve through their marketing and through their innovation with the consumer. What's that particular eating experience that represents their brand? How can we help them be more successful in representing their brand and actually making sure that that consumer eating experience is something that's enjoyable and generates repeat for them. That repeat brings their consumers back to their brand and makes it even more loyal. We're moving more forward as we think about what solutions and services. Those allow us then from our starting position, Val referenced this, but I just want to put it out there. We are starting from a very strong position. We have a leading position in multiple geographies around texture. We'll admit that we're still chasing to be the leader in the Middle East and Africa. But nonetheless, we have very strong market shares, leading market share positions in terms of where we're starting from. That gives us confidence as I to present a four-year outlook for this segment, and maybe just a little bit of housekeeping.

We would like to finish this year, get our K filed, get the final tally of '24 versus '23 in the books, and then whether it's at CAGNY or next year at a Capital Markets Day, we'll come back and we'll talk about the outlook for the entire enterprise. We want to provide some time to our food and ingredients teams. As they are recently come together, they're looking at what their opportunities for growth are. But on this particular business, since this business largely reflects our specialty ingredients portfolio that we've talked about for a number of years. This business is one where now, as we've come together as a global team, we have confidence as we're going forward in our volume growth. I'll highlight that we anticipate 5% to 6% net sales category for this business. Again, this is on a on a real-price basis. So, take where corn is at or tapioca prices are at today. This business currently operates in around a 27% to 28% gross margin. We see that gross margin expanding. Over the next four years. We'd like to make sure that we're getting that gross margin to higher than 30%. Our op income CAGR, we confidently believe, is 8% to 10% on this segment.

Then I will highlight at the bottom, and something that is important, and let me build upon this a little bit, is that the EBITDA margin on this business is about 2.5% to 3% higher than our op income margin. This business has absorbed both assets and depreciation for downstream production, as well as some of the amortization for some of the acquisitions that we've made over the last couple of years. So relatively attractive EBITDA margin business by 2028, four years from now, we're really shooting for this EBITDA margin to be pushing 20% on this segment. Then one of the things

that I want to I wanted to highlight, and obviously, as US GAAP evolves here, we're going to be talking a little bit more about segments, and we're talking about a little bit more of the detail behind those. But I did want to highlight, so this business carries between 12% and 14% SG&A. If you take our gross margin and you take out 12 to 14% in our SG&A, so what is that? That's investing in sales teams that actually can really listen and consult. It's investing in field folks who are technical experts. It's investing in those ideal apps to be local. It's also investing in Mike's team and all of the capabilities that we have here so that we can continue to develop IP, and what I call intangible assets, know how competencies, not always reflected in patents, but that actually drive that greater functionality in that next ingredient, in that next solution that we're bringing to customers. R&D what we invest in R&D around texture and healthful is about 2.5% of sales. I think as we go forward and we see more and more functionality reflected in our products, we're going to be investing in the R&D. Clearly, obviously, we're investing in the data science and AI as that has become much more available to us. Then also this segment is one that has more organic capacity, opportunities in front of it. We've highlighted that in the past where we've invested and we see that continuing. We do expect the depreciation against this segment to be a bit higher.

You may ask, well, what would drive and support that gross margin and that gross margin expansion? I just want to highlight two aspects. First, is that the underlying volume growth in some of those markets that Val alluded to, you might have caught between 2% to 5%. To the extent that we're in developing markets or even frontier economies, we really see the We look for texture at much, much higher rates. If we weight average in some of the more developed markets where your population growth may be 0.5%, 1%, we may see more moderate growth rates. But nonetheless, just the fundamental places where we play across the globe, we do see underlying volume growth.

Now, within that, then, just to characterize that these average selling prices per metric ton, you've probably heard me refer to that often, these are much, much higher value per ton than, say, the rest of our company in our traditional food and ingredient space. We anticipate that even going higher as we move forward. You work in more clean label demand. Those tend to sell a little bit more value per ton into the marketplace. This allows us to really drive that product mix enhancement, which is really supportive of gross margin and gross margin expansion as we go forward.

Then finally, we'll continue to invest the organic capital. Just to reference, we've made some public statements in the past about either big investments, and so we put a lot of money into our global starch-based texturizer network. We've largely completed that investment. We built and expanded our modified starch capacity in Shandong, China, and that's commissioned and up and running. We've invested in food systems and continue to actually invest in food system capabilities around

the world. Here's just a few companies, mostly all of these are tuck-in acquisitions that we highlight that have been part of our recent history of texture and healthful solutions. So very confident in the top-line growth. I would call it modest margin expansion, but nonetheless really confident in that modest margin expansion. But also a significant investment in the team and in the R&D, and really believe that we're building more IP and more intangible assets that really support the moat that is around this business globally. With that, I just want to highlight and hearken back to what Jim began with, which is why I think is we all as a team really do believe and have confidence in our winning aspiration. But more importantly, we're actually excited about it. We want to make the world, and we want to deliver healthier ingredients. We want to make foods healthier. But most importantly, what we realize is that people have to enjoy eating it in order for them to come back to it.

As Mike Leonard pointed out, we have a real passion for doing that right. And so while those of you on the webcast can't enjoy that, some of those that are here, after we close out the webcast, we are going to get to experience that and see that. And if you are a shareholder, at some point, when you interact with Noah or myself in the future, we hope that we can bring that to you as well. So with that, let me move to Q&A, and we're going to invite everybody up. Noah will moderate this, but we'll bring the whole team up for some Q&A. Okay. I'll just take that.

Noah Weiss

If I could ask everybody just to wait. We have two microphones, one on each side. Wait to ask your question until we have a microphone. That'd be great. Thank you. Okay. Ben?

Question and Answer Section

Ben Theurer, Barclays

Hey, morning. Ben from Barclays. Congrats. Well done. My first question really is, how to tie this together from going to your customers, working with them on those solutions, the science behind it, and then ultimately you need to charge for it. How is that process working when you go to your customers and try to convince them to try something new, something better, and then obviously you want to charge for it? How is that upcharging? How is that perceived by your customers? Do you get pushback? Is that something they're willing to take because they know they get something better? How does that actually come back from what is a great product for the customer to the financial piece for you guys?

Jim Zallie

I think, let me take it and then I'll pass it off. I think, first of all, the approach that we have is a very flexible approach. It's not a mandatory approach that's a push, but it's a combination of understanding what the preferences of the customers are on how they want to leverage our total capabilities and the solution that they're looking for. What we've done as it relates to how we're defining and categorizing texture solutions internally is using the play-to-win framework that has shaped our strategy. One of the last elements of the play-to-win strategy after you define your winning aspiration and where to play and how to win is your enabling management capabilities. As it relates to operationalizing solutions, it starts with a brief with a customer. Then we want to track how we're delivering from a timeline standpoint on delivering. We're going to be working against that brief, for example. But it starts, first of all, with understanding what the customer is looking to solve and what suite of capabilities that we can offer might they want to leverage or participate in. And if they would be open to a complete turnkey solution and a suite of services, or are they looking for just an ingredient offering and want to have transparency behind the components.

We're very, very flexible in that approach. What we're being, I think, surprised by is how customers are looking for speed, number one, and more of an integrated approach towards what we can offer to take labor out of their process, not just in the product development, but also in the final product form. So it involves inventory of less ingredients and looking for something that would just be a better holistic solution. And so it's, I would say, a flexible approach, but at the same time, we are wanting to make sure our customers are aware of all of our capabilities. And then when we engage on the topic, clearly, the value that we're providing and the cost involved with that gets factored into how we will want to talk about monetizing the total capabilities offerings. It could be along a continuum from a standpoint of working towards a service offerings in combination with the ingredient offering or just the ingredient offering. It's a continuum that we're looking at, but it's very well scoped right now. It's being scoped right now along that continuum.

Jim Gray

Ben, I think it's helpful because some of the audience do follow brand companies. Some brand companies just come to us as procurement, and they just want an ingredient. But we look at our customers, we segment them. We clearly have a proportion, a fairly large proportion of our customers who really value innovation. What's interesting is that some of them actually want to do the innovation on their own, and so then they have a brief and they want to control the different elements. Some actually look at innovation and have a need, but don't necessarily know how to get their arms around that innovation journey that Val highlighted for us. What we find is that there's a gap. There's a gap in capabilities, there's a gap in coordination in order to bring

innovation for a brand company quickly together so that they can actually get what they think is their product, that they want to market test. They want to see it with consumers, and we can really help with that. To that extent, then they're willing to accept, well, no, actually, the price of the ingredients, the price of the solution from ingredient is fine because we actually got to market faster, and we probably got to market more successful with a higher probability of success.

And so not all customers are created equal, but where those are looking to us on that innovation journey, that's where I think we can match them with what Jim and Val had pointed out.

Valdirene Evans

Yeah. And just to add it to that, our model, as Jim said, has been very flexible up to now. We start now to see that there is a value of offering services of this consultative approach as well. So we recently launched a study with the customers and talked about the consultative capabilities we have. And some customers said, I would pay for that service. In addition to the combination of ingredients or the ingredients that we sell. So we are now developing ourselves to offer in addition to sell ingredients and sell solutions, to sell consultative services as well. But we need to leave the flexibility there for which customers want and are willing to pay that service, and some customers that goes directly to buying the solution from us. Over time, how we are going to offer both. How do we monetize that part of the services? We are studying what's the appropriate level, but we receive a very positive feedback to the customers willing to pay also for that. It depends from country to country, from region to region, from customer types. But moving forward, we are going to play both, selling solutions, ingredients, but also selling services as well.

Jim Gray

It may, just to add on that, it may be that it's important for us to at least put a value on the type of upfront work that we're doing with the customer because usually, if you have a smaller, more entrepreneurial customer, they may actually be willing to actually pay because they just need the coordination and they can't nearly possibly grab all the expertise. Your medium, your larger customers, they may expect this, but we're going to be part of communicating the value that we create from both medium and large customers to say, Well, wait a minute. We're using our data, we're using our people competencies to actually make you more successful in the marketplace. And so that may not be directly monetized. That may come through the value of the ingredient or the solution sale.

Valdirene Evans

Correct.

Jim Gray

Noah.

Noah Weiss

We will go to Kristen.

Kristen Owen, Oppenheimer & Co. Inc.

Good morning. Kristen Owen from Oppenheimer. Potentially a little bit of overlap with the last question, but maybe a simpler explanation on ASP per ton. What goes into the higher ASP per ton for Texture and Healthful Solutions? Is it differentiated products? Is it more ingredient products? Or is it that you're maybe successfully pricing for some of the solutions that you're offering?

Jim Gray

I think there's maybe just two pieces to that. One is, well, what's the raw material coming in? While you're buying a ton of raw material as it's presented in Mother Nature, how much of it actually works into the finished good? That always gets translated. We call that conversion, or you could think of it as yield. Then the second is, well, what's the cost of the conversion? What's our fixed cost? How many times do we have to touch it? Do we have to mill it? Do we have to somehow purify it or separate it? Are we modifying it? Are we drying it? Are we packaging it? As each time we touch it, we're going to have a little bit more production cost. It's not just us, it's also reflective of the industry. That's going to be cost that needs to be recaptured back. I would then say that I think what's a little bit unique in terms of... because you asked about price and not cost, so obviously cost drives price. But then margin is really driven by the greater functionality. Why is that? Well, we may be a small percentage of the ingredient cost of the packaged food, but the role that the ingredient plays in either maybe stability, helping them on the manufacturing yield of their own line in the shelf life of the product, that's where the foundation of a starch can actually really play a role. All of those costs for a brand company are much, much higher than the ingredient cost.

Jim Zallie

I think if you think about what we were trying to convey of how texture impacts overall liking, analogous to flavor, and you think about us as a company, further highlighting and illuminating that critical role that that plays in overall sensory preference and consumer preference, analogous

again to flavor, and making sure that the value is understood for that critical consumer preference. Then it becomes that much more of an indispensable ingredient and solution. And to Jim's point, it's going into the formulation at a relatively low level to provide, whether it be viscosity, whether it provide texture, stabilization, emulsification, and all of that has an outsized performance on the overall consumer liking. And that's where I think the inherent value comes in. And companies would be very hesitant to want to make a change in formulation if you have a winning product on the shelf. That's being preferred because not just of its flavor, but its texture. And that's where I think the value is for this particular ingredient segment or solution segment.

Valdirene Evans

Yeah. And I would say, when you look to our portfolio, you have the functionality of the product. The more sophisticated it is and the more science there is behind, of course, we can charge more because the benefit is higher for the customer. We have a very good understanding of our portfolio where we are more differentiated than competitors. Where we are moderately differentiated from competitors, where we have a products that are similar. The more you move to solutions, the higher the sophistication, the size behind, and the more you can charge. So you have products that by science are already bringing a lot of functionalities and more sophisticated, so you can charge more for that. But we need to continue innovating, because over time, competition is going to copy our products, but we are constantly trying to be ahead of the curve to deliver more different appreciated products and solutions to customers. And that is where we can charge more on that.

Jim Gray

Let's go to Charlie.

Charles Rose, Cruiser Capital Advisors

I'm not a food scientist, so I apologize. I'm a chemical engineer by education, but I won't hold myself against.

You've done a fabulous job of taking a starch company, CPC International, and really transitioning it to something very different over. You've done a fabulous job in many ways that are really using the old company in a transformative way, very cleverly, to elevate its capabilities. What other capabilities don't you have today that reinforce the core business? Does it lack still that would create more, fill in the boxes type of thing? What boxes are you missing still? You don't have a biotech box. That's obvious to me. What are the boxes you're missing? Or are there other chemical technologies you're missing that you need to fill in to add the recipe to the equation that

really elevate the power of the company going forward? Because really what you've done here is really reshape the existing franchise in a way that's very powerful to elevate its earnings power.

As Jim has said, Okay, we're going to get to these metrics over time, which is fabulous. But the real question is, how do you make this a real great company over time? That's what I call a compounder. Tell me what you're missing that you're thinking about, because I'm really in awe of what you're doing, and I really complement you in many ways. Yeah. Well, so what I'm not a food scientist, Jim, so don't hold it against me.

Jim Zallie

No, no, no. But it's a very astute observation, and we appreciate the observations. What I would say is that we're going to stay very, very focused on what our strategy is. And we're very clear now on what our winning aspiration is. And anything that can help build out, round out the portfolio of problem-solving solutions ingredients to texturize foods, to know everything and anything about how to texturize foods. I really think that when you go on the tour and you see what Mike has, no pun intended, cooked up for you in relationship to the texturizing offerings, but it's not just that. It's the science behind the offering so that you can understand better than maybe you've ever thought about why what you're tasting and perceiving is the way it is from a food microstructure standpoint. Anything that we can do to enhance the portfolio of ingredients that round out our portfolio of ability to texturize foods. And then from a scientific capability standpoint, Mike is building and is being challenged by myself and Jim to think outside of the box on the capabilities he needs to build in texture data measurement science, some of it you're going to see. That helps give us insights that we've never had before that's going to, I think, be an eye opener for customers.

There's also sensory, in a sense, needs to be taken to the next level when it comes to the sensory science behind texture. We talk about developing a texicon, a language of texture, and advancing that proprietarily. Equally, when it comes to sweetness, a sweet tabular in relationship to a language that's really proprietary and unique to ingredient. And so he's working on that. He has a pilot going in relationship to the leveraging of artificial intelligence from a standpoint of predictive formulation. That basically enables us to get at the structure, function, predictability to do things faster for customers and to develop proprietary formulas faster. That's what I would say. The other thing, too, and you did highlight biotech. We've talked about synthetic biology, and we have pursued that as part of an offering of what's called Fermented Sugar Cane Rev. M. It is an area that we believe long term will have promise for the food industry when you think about the drivers of sustainability and the drivers for feeding a growing planet more efficiently and sustainably, cost-effectively. But that field, and Mike knows it very well because he came from that field, he came from the startup world in synthetic biology, is also littered with a lot of failures.

So you have to be very prudent in how you pursue it. But I would say that's another capability we want to have and then focus it in support of texture, in support of sweetness, and in support of fiber fortification. Those are some of the things that we're looking at. But the strategy is very clear, and that's what's going to continue to ground us and guide us. But there are definitely opportunities to fill in some spaces to make us even more powerful or potent in our problem-solving capabilities.

Charles Rose, Cruiser Capital Advisors

Does it become more organic or more M&A-focused or balanced?

Jim Zallie

No, it'll be a combination of both. It'll be through his investments in capabilities, again, that he can... That's within his own control. And then clearly, from an M&A landscape standpoint, looking at businesses where we can acquire. Obviously, when you're going to acquire a business, we would love to be acquiring sales, profits, and talent.

Charles Rose, Cruiser Capital Advisors

Sure.

Jim Zallie

And then from a technology standpoint, though, we have a venturing arm that Mike oversees, looking at technologies along the lines of what I describe that would be very value-enhancing to us, we think, in the medium to long term.

Charles Rose, Cruiser Capital Advisors

Thanks.

Noah Weiss

We'll take one last question, Andrew. We have time.

Andrew Strelzik, BMO Capital Markets

Hi, thank you. I actually have two quick ones. In terms of the long-term growth outlook, I don't think we have the history. Are you able to provide a little bit of context as you evolved the strategy. As you evolved the capabilities, of how additive that is to the growth rate. Maybe a little bit of how this would have looked the last several years. Then I guess I would have thought from an operating income growth perspective, and I know you're going to give the 25 next year, you're going to give another four of you at the enterprise level. I would have thought there would be a wider gap between this segment's growth and the enterprise growth. I guess you're saying the DNA and the investments are maybe what's compressing that if you could just give a little more context to why that's the case or how to think about that.

Jim Gray

Probably the reference that we would have is that we previously said that the overall company was 2-4% revenue growth. That was weighted up by what we previously called our specialty ingredients, as a subgroup. In specialty ingredients, we're always going to single digits type of revenue growth.

I think what we've done is as we've broadened the base of the business that is global texture and a healthful segment. We're being very, I think, center on what we think that next four years of revenue growth looks like in terms of... And we've narrowed that cager a bit. Sort of in line, but I think a little bit bigger base. Then As Val highlighted, we're actually targeting some other categories. Right now, what we don't have, I think, playing necessarily into that is as we move forward in terms of more solutions-based working with our customers who appreciate and value that innovation, might that be more of a kicker as we think about what's in terms of that revenue. I think, Andrew, with regard to your second comment, there is a gap between the F&I. I just said I think that we're also at a point where the F&I businesses are performing really well. We faced some pretty tough slog with the rise in corn. It As always, it takes us time to get that through either multi-year contracts or just in our normal pricing. But I think relative to where corn is at today, I think we're earning in those food and industrial ingredients a fair return that does encourage us to invest in those assets. Maybe that's just maybe it's more a happen stance in the portfolio. That's what's happened.

Noah Weiss

I think we have time for one last one.

Jim Gray

Right here. No. No, yeah, go ahead.

Josh Spector, UBS

Josh Spector with UBS. I just wanted to ask on the growth forecast that you have. When you're talking about 5, 6%, you talked about the category at 2 to 5. What's different with an Ingredient on the drive above that? Is it a heavier starch portfolio? Is it the scale? Is it the region? What gives you confidence within the framework of the industry?

Valdirene Evans

I think so first of all, we have our opportunity pipeline that we measure and we track what is coming. And some opportunities are quite large and quite transformational for large companies. And that represents something that is not exactly organic. But is a new feature that we are bringing to the market in some particular categories. And this is bringing us an additional grow versus the market grow. So when I did my presentation, I talked about that Ingredient, not only sell, but create new markets, right? And we continue to do that. If you can prove to a tortilla company that you can add gluten-free with soft texture from another raw material that's more simple supply chain. That you can fast deliver to them, they are willing to buy. So we operate in a way that we not only look to organically grow, but we create new needs and we create new features that customers are interested. In these dialogs with the customers, they are willing to take this next step or this next level of functionality to their product.

Jim Zallie

If you think about what we cited in relationship to the growth of the texturizing ingredient segment, that's just something that we're referencing that is projected. But then if you think about texture having its moment and texture having its day being underappreciated or undervalued in the role that it plays for overall taste and overall liking. When you think about the drivers that Val talked about that are putting more of a premium on texture. For example, food is being delivered now more to a consumer. It's estimated globally right now, 250 billion growing to 750 billion by 2033, I believe, so tripling.

And you just think about taxing a food product, being able to reach a consumer in the state that is going to be preferred and the demands that's going to put on formulators like us to help a company to have a product that's going to taste great when it gets to a consumer. The multicultural phenomenon of people as they go up the socioeconomic ladder wanting to experience different types of foods and the different unique textures that has in a global company like us being able to lean into that and then throw on top of it foods that are just going to be formulated continuously

with lower sugar, lower salt, lower fat related to pressures around regulation, demands for healthier products, and those needing to taste. Those are turbocharging the demand for texturizing solutions in comparison to what's cited historically, perhaps, and maybe project it. We think it's something that offers an opportunity.

Jim Gray

Because what you just heard is why we are chasing even better and higher functionality. Just to contrast, when we look at the total market for texture, there's still a fairly large amount of just native starches sold. And so there's a lot of really basic, just the very first step towards texturizing. We continue to see both modified as well as physically modified clean label starches penetrating that bigger market. The world right now, the common denominator, I would probably argue, is probably more native starch.

Connor Introna, Stifel Financial Corp.

Hi, guys. Thanks for fitting me in. Last question here, I guess, Connor from Stifel. So my question more or less pertains to volumes. Are you seeing more or less modest volume improvement amongst the largest multinational CPG businesses?

Taking that a step further is how should we view the composition of sales growth between volume, mix, price, and how much of that is share gains from your competitors versus underlying volumes? What metrics is driving yours? I know you highlighted some specific ones earlier, but about the category specifically. We talked about the macroeconomic things, but more specifically towards your volumes. Thank you.

Jim Zallie

Let me let Jim pick up on what I'm going to say. First of all, this last quarter for Texture and Healthful Solutions, we cited 11% strong volume growth, and we felt and we feel that we have momentum going into quarter 4. That certainly is coming off of a softer 2023 where the industry, I think, was dealing with the remnants of destocking, et cetera. There definitely is category up, an upturn, an uptick, and growth. And that's pretty much been seen in most parts of the world, and we've been benefiting from that. And again, we see momentum as we go into it. Then overlaying it in to how our strategy will help us to engage with customers that are looking desperately to drive innovation now to get volume growth because they know that it can't come from just reducing their price to move volume, but they need innovative growth. Again, we think the textural aspect is going to be an important part of that. I think, look, it's a combination of all three. It's volume, it's our pricing centers of excellence, and it's mix that Jim talked about to get the margin enhance.

But maybe you want to comment a little bit on the forward outlook and how you see the mix between the two.

Jim Gray

I think what grounds us is that we tend to use the US market, and we tend to look at Circana data or something like that. We tend to look at price, elasticity, and unit volume of... Pick your favorite brand in one of the categories that we highlighted today. Our texture and healthful is a mosaic of growth. We are definitely going to see much stronger volume growth, full period, in our Asia Pacific businesses. We just have more people, more consumption of native starch. Our solutions and our footprint allow us to bring much better solutions to mid-size and large brands. That's always going to be a driver, both what we've seen in the recent quarter, year to date, as well as we go forward. When we look at half of Mike's business in Middle East and Africa, again, really strong volume growth, similar type of pull. Large populations, lower economic base, convenience, package foods is a really nice pull. I mean, a single-digit, double-digit type volume growth. Now then, we wade ourselves back into what we see in Europe or what we see in the US, and now we have our conversation of, well, what can we track in Circana?

I would just say that the one tailwind that we have is that as the cost of going out to eat has risen, both in Europe as well as in the US. I think there's some rationalization going on where people might say, well, you know what I might eat one or two more meals at home during the week. What you've seen from some of the data is that, look, eating at home has risen as an occasion. We love that. That drives unit volume growth for our customers, and we feed ingredients into that. I think those probably are the two or three very topical aspects or trends that I think are compacting our volume growth right now.

Noah Weiss

I think we're going to go to a 10-minute break now. For those of you joining us online, thank you very much. We'll leave you now. For everybody else in the room, if you could please be back here by 10 minutes at 11:15, and we'll break up into our tour and tasting groups. Great. Thank you very much.