

Ingredion Inc. (Ingredion 2022 Investor Day)

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Corporate Speakers:

- James Zallie; Ingredion Incorporated; President, CEO & Director
- James Gray; Ingredion Incorporated; Executive Vice President & CFO
- Jason Payant; Ingredion Incorporated; Vice President, Corporate Finance & Interim Vice President, Investor Relations
- Pierre Perez y Landazuri; Ingredion Incorporated; Senior Vice President of Corporate Strategy & Specialties and President of EMEA
- Jorgen Kokke; Ingredion Incorporated; Executive Vice President & President Americas
- Jeremy Xu; Ingredion Incorporated; Chief Innovation Officer, President, Specialty Sweeteners and PureCircle CEO

PRESENTATION

Jason Payant^ Good morning, everyone, and welcome to Ingredion's 2022 Investor Day, expanded solutions and opportunities to deliver healthy and sustainable growth. I'm Jason Payant, Vice President of Corporate Finance and Interim Vice President of Investor Relations. And thank you all for joining us this morning.

Before we start, I have to say that some of our comments include forward-looking statements that are covered under safe harbor provisions. And we'll presenting by Jim Zallie, our President and Chief Executive Officer, who will take you through strategic growth and transformation.

Jeremy Xu, our Chief Innovation Officer, President, Specialty Sweeteners and PureCircle CEO. He's going to cover innovation capabilities and sugar reduction strategy. Pierre Perez our Senior Vice President of Corporate Strategy, Specialties and President EMEA, will take you through texture and food systems platforms, co-creating with our customers.

Jorgen Kokke, our Executive Vice President and President, Americas, will take you through plant-based proteins and investments in core ingredients. And Jim Gray, our Executive Vice President and Chief Financial Officer, will take you through our financial outlook and shareholder value creation while managing volatility. The presentations will be followed by a Q&A and we'll be taking questions in the room and on the webinar. And with that, I'm pleased to introduce Jim Zallie, our President and CEO.

James Zallie^ All right. Thank you, Jason, and I wanted to also extend my appreciation to all of you who've taken the time to travel to Bridgewater to be with us in person. And for all of you that are joining us live, thank you as well. We're excited because today is the first time in 5 years that we have hosted an Investor Day from Bridgewater. And 5 years ago, we were a much different company than we are today.

And that's the theme of the presentation today is an expanded set of solutions and new opportunity set that's really been opened up to Ingredion through organic investments that we have made and how we have transformed our portfolio. And so we have been on a path towards transformation over these last 5 years. So for some of you that may have been here 5 years ago, hopefully, you can experience and see that through today's presentations as well as the luncheon that we're going to have. So let me get right into it.

Ingredion, for those of you that are listening and may not be intimately familiar with Ingredion, we are a large, diversified leading food ingredient supplier. And the last 2 years, we've seen 11% top line revenue growth or 5.5% compounded annual growth pre-pandemic from 2019.

This year, we're on target to deliver low double digits revenue growth. So I think why that's relevant is over this period of time, we're experiencing, obviously, inflation. And we're demonstrating through our pricing centers of excellence, we're able to drive significant top line growth. This year will be well north of \$7 billion in revenue.

We're very diversified as it relates to our customer base. We supply 19,000 customers in 120 countries around the world. We supply to multinationals. We supply to local customers. We have a very sophisticated distributor network.

And one of the other things, when you think about Ingredion from a standpoint of our relevance and reach to be relevant to customers, any customers, big, small, anywhere around the world is that of the new product launches in 2021, 70% of those would contain ingredients that Ingredion produces, not that we're in all of those new product launches, but we have a shot to play in all of those new product launches.

So, we're very relevant as a supplier where customers look to us. And then when we're bringing innovation, they want to be partners from an innovation standpoint and it gives us an opportunity to supply. You'll hear from Jeremy about our 32 Ingredion Idea Labs around the world. This is one of them, and this is the world technical headquarters here in Bridgewater, but you'll experience today how our Ingredion Idea Labs are networked and how we're co-creating with customers.

And we have more than 500 food scientists around the world that are working in applications and technical service standpoint, and about 10% of those are PhDs that are working in Jeremy's group. And we take intellectual property extremely seriously as well with a patent -- a leading patent estate. And we're a very purpose-driven company. Our purpose is to bring together the potential of people, nature and technology to make life better. And we truly do live our purpose and we live our 5 values as well.

We're very committed, and you'll see in my closing comments about our Driving Growth Roadmap, which is underpinned by sustainable sourcing. And we have a commitment to have 100% of our 6 priority crops, to be 100% sustainably sourced by 2025. And we're very focused on healthy plant-based solutions. One of the things we hadn't really

highlighted, but a fact is that everything we do is plant based. Everything we source comes from plants, something that you may not have thought about as it relates to Ingredient.

Keeping it real simple from a standpoint of who we were and who we are. So who we were back 5 years ago was a starch and predominantly a caloric sweetener supplier.

Today, you should think of us as being a leading company that really understands texture exceptionally well, and we have a very sophisticated, comprehensive toolbox of the leading starch-based portfolio across different bases and modifications and clean label type products as well as complement it now with hydrocolloids through acquisitions of TIC Gums in '17 and KaTech most recently.

To really understand texture, you'll hear about a language that we've developed for a texture called a TEXICON, but we're a leading texturizing company.

We've also, consistent with our value of innovate boldly, placed a big bet about 4 years ago in plant-based proteins and have invested \$250 million in plant-based proteins, a diversified portfolio of flours, concentrates and isolates and we're about protein fortifying as well.

And that's a whole new capability set that we've brought to the company. And then in addition, through the acquisition of PureCircle and other investments in research and development to bring mouthfeel enhancement to build back the texture that's lost when you replace sugar. We're a leading sugar replacement company and can replace sweetness without a lot of compromise to the final product.

So think of us in those 3 dimensions as a company today. Our strategy is really simple. It's built on 4 pillars, and it guides us. And I'm going to start bottom left as it relates to what really underpins everything and that's our purpose, culture values and talent. I talked about the purpose. I talked about the values.

But really, it's about being a people-centric culture, especially today when it comes to employee engagement, employee retention. We invest a lot in making sure that we have an inclusive culture as a company. We have 9 business resource groups, for example, you would know them as employee resource groups.

We have 12,000 employees globally, 1,000 of them are actively involved in business resource groups from a standpoint of supporting diversity, equity and inclusion in our company. It's transformed the company in the last 4 years from a standpoint of engagement, commitment and just a shared purpose. And that really underpins everything that we're about.

Cost competitiveness and operational excellence, something that we have driven very hard in the last 4 years. We initiated a 3-year program called Cost Smart. Originally, it was \$125 million target. We well over-delivered at \$170 million. But we've transitioned

this now to ongoing cost competitiveness and operational excellence because we're mindful of the fact that today, we have a successful model to pass price increases through our pricing centers of excellence.

But we can't count on continuously driving price increases like all companies would be concerned about that. You're going to have to continue to be able to operate efficiently, streamline your operations and reduce waste. That's a big focus of ours. Commercial excellence really is about being easy to do business with and leveraging what is our heritage, which is our go-to-market model as it relates to how we work with customers.

We have tremendous talent on the ground in country around the world, and we operate very locally as a supplier, and we provide tremendous technical service and application support to customers. One of the things that we're investing in, it's a capability set that we're investing in right now is around solutions selling.

Previously, we used to sell ingredients and our salespeople and technical service people knew how to sell ingredients. Today, we're going through a whole transformation of education and training for people to understand how to sell solutions. And that's a big part of the transformation that we've undergone.

And our #1 focus is to transition the portfolio to more specialties. We've made acquisitions. We've invested boldly to do that. And what you're going to hear from Jeremy, Pierre and Jorgen, is it's all about, though, being focused on consumer trends and the changing customer landscape because that's the North Star. That's what guides us.

And so here's an example of those consumer trends and how our strategy aligns to them. Healthy living and eating. Specifically, we've got a very broad sugar reduction portfolio. Again, that portfolio of flours, concentrates and isolates when it comes to protein.

Clean and simple, consumers today want easy-to-understand labels and clean and simple ingredients in their products. It's an important determinant of a product's selection. We also supply prebiotic ingredients, FOS and GAS, fructo-oligosaccharide and galacto-oligosaccharide for digestive health and also encapsulating agents, for vitamins.

I don't know if you knew that about Ingredient, but we have that focus as well. And one of the things we passionately believe in is that our capabilities as it relates to texture, can and does impact taste and making sure that we stay focused on that.

It doesn't mean that we're going to branch out into flavors but understanding the impact of texture on preference we think is every bit as important as flavor. And we see opportunities to affect taste through texture, participating on the edges of flavor modification. And so that's a new opportunity or pursuit that we have that we think opens up growth opportunity for us.

The other thing when it comes to uncompromised texture and taste that you should understand about Ingredient is the ingredients we supply go into products at relatively low

levels and have outsized performance and are critical indispensable ingredients when it comes to providing shelf life, encapsulation, mouthfeel that determines what a consumer preference would be for a yogurt or a product like that. But also, the ingredients are highly multifunctional, and they can replace expensive ingredients.

So today, when you're in a high inflationary environment, from an affordability standpoint or formulating affordability, our ingredients our go-to ingredients to replace highly costly ingredients or to go through reformulations, which a lot of products are going through right now. So our starch-based portfolio is very cost-effective, multifunctional and we're seeing tremendous opportunity there.

And again, we encapsulate flavors as well, and you're going to hear from Pierre how we're expanding our set of capabilities to consider taste modification as well.

And when it comes to innovation partners, the pandemic has actually taught us a lot. Being relegated to working virtually has forced all companies to figure out how you're going to continue to partner with customers and co-create and innovate. You're going to see examples of that today. We've talked about it at CAGNY, we've talked about it at our earnings -- on our earnings calls, but this is real.

And you'll see virtual studios that we've developed and how we co-create with customers and how we provide marketing insights and consumer insights with trained panels that are certified to bring ideas to customers and to sell really complete solutions.

And the other thing that we have is a strong focus on ESG. And we have many partnerships with many leading customers as it relates to sustainability engagements. So we have been on this transformation journey, this path to drive more specialties growth, one of the pillars of our 4-pronged strategy for growth. And we are now at 33% of our portfolio from a net sales standpoint, coming from specialties, Pierre is going to give you a definition of specialties and how we consider what a specialty ingredient is for us.

But also one of the other things is that we are putting a lot of emphasis and a lot of focus on that other 67%, which is the core. And there are fundamentals that are changing in relationship to that industry. And the other thing that you're going to hear from Jorgen, is that 64% of our core is outside of the United States, in positions that we have in South America that are exceptionally strong, in Brazil or in Pakistan that are not experiencing the same fundamentals that the U.S. core market has experienced.

And at the same time, we're very focused on mitigating volatility from that core. So we're driving specialties growth. We're executing -- and at the same time, we see opportunities to enhance margins in the core, grow the core a bit and mitigate earnings volatility. And that's a very strong focus. And that I would submit to you is a difference of where the focus was 4 or 5 years ago.

And so we have placed big bets. We do have a very active M&A agenda. I'm going to talk to you about that in my closing comments. But we're not afraid to make investments,

and you're going to hear from Pierre about some additional investments today that we're committed to making in our starch-based texturizer network. But when you look at the \$700 million that we've invested just over the last 4 years, these are all coming to fruition now.

Now take the middle one, which is tapioca rice and potato. We've invested \$100 million in those areas that are noncore -- we want -- non-corn. We want to grow non-corn, diversify beyond corn.

These are actually delivering returns now. They are delivering operating income growth and they are accretive. Equally, the acquisition we made of KaTech and TIC Gums, that food systems capability is growing very nicely for us right now. And we are targeting 15% growth from food systems. That's growing, and that's a whole capability set that we're very excited, and that's delivering operating income.

But what's really exciting is the other investments that we've made that haven't even started to deliver really yet. The one that is, but it's small yet, but it's growing significant double digits is sugar reduction in PureCircle. Complete turnaround story, we bought a distressed business, we own 75% of it. And we're executing fantastically well under Jeremy's leadership to deliver significant double-digit growth in high-intensity natural stevia-based sweeteners, and that is earnings accretive now, but it's just in the very early stages.

The other 2 investments, the China investment is commissioning in August of this year with pent-up demand to be a local supplier in China. And that is just poised for growth and upside where today it's not contributing any operating income. So that's investment that is just about to commission, and again, we were very positive towards that.

And then plant-based proteins, \$250 million is experiencing negative operating income impact because of the commissioning of the facilities, but the growth is just in the early stages. And so we're very excited about the prospects there.

So all of these investments really have opened up new market opportunities for us and a whole new solution set, as I've said. For example, you're going to hear from Pierre about the texturizing market being an \$18 billion market growing mid-single digits. And again, we have leading positions in starch-based texturizers and clean and simple ingredients. The alternative protein or plant-based protein market, \$10 billion, growing at 7% per annum.

We're very well positioned. We're not a one-trick pony, flours, concentrates, isolates across multiple pulse bases, sugar reduction; the leading position we call it the trifecta when it comes to leaf extract, bioconverted and fermented when it comes to stevia; and mouthfeel enhancement to replace sugar.

So what I'd like to say and how I'd like to conclude my opening comments is when you think about Ingredion 5 years ago or 4 years ago, and you think about us today, when I get asked, how are we different? I would say back then, we couldn't do this.

We could not enable or participate in this category to develop a low-calorie reduced sugar, dairy and animal free, plant-based, clean label and indulgent ice cream. Back then, we could probably supply the corn syrup that went into the ice cream. We couldn't supply the mouthfeel enhancement. We couldn't supply the ice crystal stabilization. We couldn't supply the plant-based dairy protein. We couldn't supply the high-intensity natural sweetener.

All of those things we have capability. So with that, I am going to turn the presentation over to Jeremy Xu, who is our Chief Innovation Officer, but also the CEO of PureCircle. Jeremy?

Jeremy Xu^ Thank you, Jim. So innovation has long been the foundation for our success. It is in our DNA. So in my session, I will start by sharing with you our innovation philosophy and strategy. Then I will share with you a glimpse of variety of innovation capabilities we have around the world, then I will conclude with a sugar reduction as an example to show you how innovation can sustain our competitive advantage.

As Jim already articulated, everything we do in Ingredion start and end with customer. We have deep understanding of consumers and customers. So if you look at your left-hand side, our 5 growth platforms are based on those mega trends, and you are very familiar with this, and we have -- my colleagues will explain to you in detail.

And in the center of the slide, you are very familiar with all those major categories, we have world-leading application capabilities that we are serving our customers. The 2 other boxes probably are less known to you. Those are the hidden gem in our capabilities is our innovation capabilities that connect our business strategy to our go-to-market. So I will use a few slides to explain to you how strong those capabilities are.

These 6 science and technology platforms are the engines. So let me start with plant science. As Jim already mentioned, the mother nature gives us lots of tools, but we don't stop there. Our very comprehensive plant breeding programs give us additional tools.

So, we have breeding programs in corn, in tapioca, in pulse and of course, in stevia. And we develop varieties every year to help -- continue to help us to reduce the cost and advance our sustainability agenda. Chemistry is at the core of everything we do. So we have starch chemists, protein chemist, fiber chemists, working together to develop the new ingredients that develops a new taste, new functionality, new nutritional values.

Food texture science. We are the texture expert. So, we have scientists have deep understanding the relationship between the structure and function of texture.

Next, Ingedion Informatics is a new platform, we understand the digital provides new tools and capabilities for us to speed our development and reduce the cost. So, we are using artificial intelligence to advance our capability in this area.

Process technology has been a foundation for our success. We are using a lot of our pilot plants capability to continue to test and advance our novel manufacturing capabilities to translate the signs that the rest of the team developed into our manufacturing capabilities.

And the last about transformation is biotech. We also advanced our biotech capabilities to develop new ingredients so that we can make those products in a much more sustainable way.

Now those 6 technology platforms are enabled by other supporting functions, regulatory function ensure us to provide the safe and high -- we are operating very high ethical standard. Nutritional Science, as Jim just mentioned, we are entering the Nutrition & Health areas, and this capability will enable us to communicate to the consumers and customers, our offerings.

And sensory and culinology are I would say the art part of our capability. Our culinologist and sensory scientists are translating the consumer insights into our formulations and recipes that delight consumers.

Underpinned with those art forms, we also have the methodical way to analyze our data. And that's analytical and measurement science kick in. We have a world-class state-of-art instrumentations, so that we can provide the accurate data that scientists and engineers can develop new product, give real accurate feedback about our innovation.

Intellectual property department advise and partner with our scientists and engineers to protect our invention. We want to be rewarded of our innovation in long run.

Last but not least, we are also an active member of global innovation community. We partner with leading technology companies, and we also invest selectively in the start-ups. So we are bet on the early stage of technologies.

Now you put all those together, our 32 Ideal Labs around the world are truly the interface how we work with our customers. So we develop new ingredients. We develop new formulations, along with our customers, and we provide 24/7 solutions either virtually or in person.

And now we are increasingly using our digital capability and some of you will experience this today. Our philosophy or our vision is if you are connected to anyone in Ingedion in the world, you are connected to the world of Ingedion.

That's our vision. And we are tremendously benefit of this capability in the last 2 years during pandemic. Even with the pandemic, people cannot travel, we still launch 14 plant-

based ingredients in the last 12 months. We serve 14,000 customers, and we had more than 2,500 customer interactions, using our digital capabilities.

So, I hope I'll give you a glimpse of all our capabilities, how we develop the ingredient, make it cost effectively and sustainably and use our application capability to serve our customers. Now let me switch gears to using sugar reduction business platform to explain to you how actually in real life innovation can play a significant role to our business success.

As Jim already mentioned, sugar reduction is one major and megatrend in consumer. It is a worldwide trend actually for different reasons. In developed region, the healthy concern is obesity and overweight. In developing countries, diabetes is a prevailing reason, healthy reason.

So, we are the worldwide leader in natural sugar and natural high-intensity sweetener. And we project that market will grow from \$5 billion to \$7 billion in a few years, with the acquisition of PureCircle and also partnership with Amyris. We are the undisputed leader in this area. And we have this, Jim already mentioned, perfect, we call sweet trifecta, Reb M, which is the most desirable stevia, Reb M, that provide also sweet forms of products depending on customer needs.

And this is a very important slide for you to understand. Not only the sustainability, the taste is important. Economics is very important when you enter in the mass market to replace commodity sugar, right? On your left-hand side, the 2 reference cost reference, the world sugar and U.S. sugar.

Now you can see with technology advanced and the economy of scale in manufacturing, the bioconverted stevia costs over time will reduce and will be either at par or lower than the sugar in cost-use basis. Stevia is 300 [times] more sweet than sugar, right? So, it's not about a unit price basis, but on a cost-in-use basis, it's going to be even economically viable.

And if you look at the addressable market at the bottom of the slide, it's about \$85 billion addressable market. So we are very bullish. We have the economics and also other desirable attribute we can enter in this market.

Now you might ask, how can you do it, right? So let me show you why we believe we are best positioned to compete in this market, and our innovation capability is in full play here. If you look at our value chain play, we are a fully integrated value chain player in the stevia industry.

Start from the economic research, as I mentioned, our plant science group developing new varieties year in and year out that continue to reduce our cost and advance our sustainability. We also have a full control of supply chain to make sure our product is made sustainably. And of course, our technology will help us to continue to build the technology moat. We have a lot of proprietary technology to make and purify the stevia.

And that, coupled with our worldwide reach of our application and customer access. So we are really positioned extremely well to tap this huge market in sugar reduction.

So let me summarize. What we are doing in sugar reduction is very consistent with our strategy, starting with the consumer needs. We will provide a great taste, of course, calorie free but also clean label and natural.

We are the trusted partner for our customers to develop those solutions. And personally, I'm very, very excited. That's why I come to work every day because it really fits our purpose of the company, make people's life better. Now with that, I will hand over to Pierre, my colleague, to talk about the other part of exciting, please.

Pierre Perez^ Thank you very much, Jeremy. Good morning to you all. As indicated by Jim, I will cover our texture and food system platform but also provide an example of a systems co-creation with one of our customers.

Before we do that, let's try to define what we mean by specialty ingredients. Then in essence, Specialty Ingredients are competitively differentiated ingredients with unique value propositions. You understood from Jeremy how we develop them, then really innovation-led but also their commercialization requires a very strong application research and technical service support. And because of their uniqueness, they command a higher gross margin returns.

As you heard from Jim and Jeremy, our growth platforms are very much aligned with consumer demands and customer needs. We are the leader in starch-based texturizers, and we continue investing to extend our lead.

Clean and simple ingredients provide clean label solutions that meet consumer demands. We've invested in plant-based protein, as you heard, where we can grow with the market and provide differentiated offerings in very attractive categories. You will hear more from Jorgen in a while.

You've just heard about sugar reduction from Jeremy. And this platform really supports purposely global efforts to reduce caloric intake and promote healthy lifestyles. These more vertical differentiated anchor ingredients can be integrated in higher-value food systems, meeting customer needs in terms of texture, taste as well as nutrition, health, and wellness.

Our specialty business continued to grow during the pandemic across actually our 4 regions. And that demonstrates genuinely the differentiated value proposition and greater functionality, again, specialty ingredients provide. And as we speak, demand continues to be very strong.

We manufacture specialty starches in 32 facilities around the world. And we're using corn, potato, tapioca and rice. And that depth and breadth of raw material and specialty

starches is extremely important in order to have the full span of texture capabilities and functionalities.

Food is very local, and we genuinely strive to be close to both the source of our raw materials, but also close to our customers. Then doing that, we mitigate supply chain risks and we advance sustainability.

As indicated by Jim, the global food ingredients market is \$165 billion industry. Texturants, we include starches, hydrocolloids and fibers, represent a significant and growing component of this industry. In addition, modified starches, part of the darker blue on the right-hand side are growing at a faster rate than native starches.

Texture is as important as taste. And we are a global leader in texturizers. This is evidenced by the higher CAGR of new product launches, which included starch and hydrocolloids over the last 10 years relative to those that did not. Then texturizers are the largest component of our specialty sales, and are comprised of starch-based texturizers, clean and simple ingredients, but also the texturizing food systems and hydrocolloids.

We expect sales to grow 5%-plus annually to reach \$1.9 billion by 2025. That growth will be achieved through organic growth driven by volume, but also through capital investments. Then we will continue to pursue the right M&A opportunities that would then provide incremental growth versus our current estimates. And what we see is modified starch consumption per capita in emerging markets represents very strong opportunities for growth.

Relative to the U.S., for example, the consumption is less than half in emerging markets, but with a much greater population growth. That constitutes a significant headroom for growth. Announcing today, as Jim indicated and mentioned early on, to support our organic growth, we will be investing approximately \$160 million to expand capacity for starch-based, but also clean label texturizers over the next 3 years.

These investments will be made across multiple regions to meet the heightened demand for clean label, pre-gels and modified starches. We will also further localize production in Asia Pacific to mitigate, again, supply chain risks and expand our margins.

To further create value, we are formulating application and customer-specific system solutions, co-creating with our customers. Food systems readily address the needs of small- and medium-sized customers who outsource formulation work, quality and functionality consistency and regulatory compliance.

And they are ready to pay a premium for speed. The scarcity of skilled labors in batching formulation, the need to simplify sourcing and supply chains. And we see that very, very much over the last 2 years, and also the desire to shorten the time it takes for new product development, have more recently also created opportunities for us to sell systems to larger companies, including multinational companies.

Then this is an example of food system co-creation. It starts with a brief and that brief was about formulating a vegan feta-type alternative cheese. And we have basically co-created with the customer and eventually developed together a formulation.

In that formulation, we developed specifically 2 systems: one for the protein content of that alternative feta-like cheese, including, in this case, faba and chickpea proteins; and one for texture and stabilization, combining tapioca, pea and modified corn starches and agar. Then this capability which was established with the foundational acquisition of TIC Gums in 2017 and KaTech more recently last year, allows us to appeal to a growing customer need for more integrated food solutions provided with a stronger service orientation.

Then we believe that systems and solutions, system solutions can grow double digits and offer higher gross margin, while being less capital intensive which is very good for us in terms of delivering attractive return on invested capital. Then I hope I gave you a little bit of a feel on our texture platforms and also our move towards more integrated food solutions. With that said, I would like to pass it to my colleague Jorgen.

Jorgen Kokke^ Thank you, Pierre, and good morning, everybody. I have the pleasure to talk about plant-based protein and about our core ingredients.

So first of all, I have to say that we are very excited about the growth prospects for our plant-based proteins. As Jim showed, this is already a very large market of about \$10 billion, and we see ongoing growth high single-digit, driven by consumers that are seeking to increase their intake of plant-based protein, seeking nutrition, health and wellness as well as driven by sustainability considerations.

At Ingredion, we're focused on 4 key categories to market our plant-based proteins. The first one is alternative dairy. So, think about plant-based milk, plant-based yogurt, plant-based cheese and sports nutrition protein powders and so forth. Plant-based meat, I think, are very well known by everybody, but we're also focused on fortified bakery and healthy snacks that people can consume on the go.

The bottom line for Ingredion is that we have a business plan in place to achieve \$150 million in revenues in plant-based proteins. And what is important to note that we've already made the capital investments to achieve this \$150 million in revenues over the next 4 years.

We've been very active in this space, and it started with the foundational investments with our acquisition of Verdient Foods in Vanscoy, Canada as well as the construction of our South Sioux City facility in Nebraska.

But we've not stopped there. We've continued to innovate and added to our suite of plant-based solutions for our customers. And so given all the work that we've been doing with our customers over the last 1.5 years or so, we've built up a very strong customer project pipeline, and that is resulting in wins and it's resulting in growth. So, we grew our plant-

based protein business by 250% -- I should say, by more than 250% in the first quarter of this year, and we expect that trend, that positive trend to continue.

That level of growth is enabled by operational excellence in our 2 key facilities. Starting with South Sioux City, our facility in Nebraska. This plant is producing protein isolates from peas. These ingredients deliver a protein level of at least 80%, and they're highly functional and they deliver great tasting products. And as you can see on the page here, we've really amped up our production here, and we're up 560% compared to last year.

We're also very pleased with the progress that we make in Vanscoy in Saskatchewan, Canada. We're producing protein concentrates and flours from a multitude of raw materials, such as yellow peas, lentils, faba beans and chickpeas. And remember, Vanscoy is located in the pulse-growing belt in North America.

We acquired this facility in the fourth quarter of 2020. And subsequently, we brought our clean taste facility on stream early -- or late last year, I should say. And we're very pleased with the progress there, almost doubling our production output in the first quarter of this year, again, enabling and fueling our growth.

Wrapping up my short section here on plant-based protein. I also wanted to highlight that these ingredients are extremely complementary to the rest of the Ingredion portfolio. Specifically, our texturizers as well as our sugar reduction ingredients that are used alongside plant-based protein in the customer formulations.

Both Jim and Pierre and Jeremy were talking about our go-to-market, and it's true. Ingredion has a very strong go-to-market around the world that's very local, communicates with customers in local languages are on the ground and supported by our global network of Idea Labs.

We can leverage that network because for the most part, we already have relationship with customers that are interested in formulating with plant-based proteins. But there will also be a few new customers, and we've seen that already.

So, all in all, I would say that we're in a very strong position to enable our customers to innovate with plant-based proteins and to co-create with them. With that, let me transition over to the core ingredients business of Ingredion.

The core Ingredion business is a very large portion of our business. But as a proportion of our overall business, it is shrinking due to the growth of our specialties business. And that, of course, is a good thing. Because the role of our core business is to provide stable cash generation to support our specialties business. But that being said, we also see opportunities for growth in our core ingredients business.

If you think about our core from a geographic standpoint and you look at the \$4.6 billion in revenue that we had in 2021, the United States only represents 36% of our revenues. Meaning that 64% of our revenues is coming from other markets where we see

population growth and where we see demand growth. If I go around the horn, I would start in Mexico, where Ingredion has a very strong franchise that has a track record of strong delivery. And today, we're seeing strong demands in our Mexican business again.

And then South America, as Jim spoke to. I mean our South America business, the compound average growth rate in OI terms was 9% over the last 3 years. And we continue to see a very strong performance in South America as evidenced by our Q1 results.

And we have leading positions in both Colombia as well as in Brazil, where we have strong assets on the ground, relationships with customers and a robust demand profile. And then in EMEA, our Pakistan business has a leading position and Pakistan is a country with a young population where we see demand growth.

And so that supports a healthy demand profile for our core business. But we see other opportunities as well. We have the opportunity and the possibility to repurpose grind towards higher added value ingredients, for example, starch-based ingredients for corrugating or for other sectors such as food. And also, our polyols for personal care and pharma offer us opportunities for growth and for margin enhancement.

As Jim already alluded to and as Jim Gray will also discuss in his next section, reducing profit volatility is a key priority for Ingredion, especially in our core business. And that is especially pertinent as we've had to navigate a very volatile commodity and input cost landscape over the last few years.

And so, we've been successful in expanding our hedging program, and so reducing our risks, and that's serving us well, especially this year, and we'll continue to look for opportunities to expand that further by hedging co-products as well as the commodities that we purchase.

We've also, through our pricing centers of excellence, successfully renegotiated contract terms with our customers. And to give you an example, that means that the increases in freight costs that we're facing, and many other companies are facing is now an automatic flow-through to our customers and no longer an exposure to Ingredion.

Last but not least, I wanted to address what I believe is a misconception among the investment community as it relates to a high fructose corn syrup business and especially the size of our high fructose corn syrup business in the United States.

Following the actions that we have taken over the last couple of years, including asset rationalization, high fructose corn syrup, now only represents 20% of the GP dollars of our U.S. core business. High fructose corn syrup only represents 8% of the total gross profit dollars of our U.S. business, right?

If you parse that core business in the U.S., just in the U.S., you see that sweeteners represents now 50%. So, what are sweeteners? Well, those are products like dextrose,

those are products like glucose that go into bakery or that go into confectionery. And those are healthy markets with a healthy demand profile where we see good growth as we speak.

The second largest portion of our U.S. core business is starches. Those are your native starches that are used in the growing corrugating sector. Think about the Amazon effect or in the papermaking sector or in the food sector. Again, I would say that's a business with a healthy demand profile.

So, in closing, I would say that the exposure to high fructose corn syrup has been significantly reduced over the last couple of years. And all in all, we're confident and excited about the prospects for our core business. So, with that, it's my pleasure to turn it over to Jim Gray, our CFO.

James Gray^ Thanks, Jorge. Thank you. Welcome to those on the web as well as here in the audience. Let me pull this together and wrap it into what we like to call our 4-year outlook. And I think, first, as we've hopefully shown today why we have confidence in our net sales growth over the next 4 years. And we put that forward for the total company at between 2% to 4%.

And we obviously then get some leverage in the mix of our products as our adjusted operating income is expected to be growing 7% to 9% on average annually over the next 4 years. So obviously, that's driven by higher specialty growth. But it's also driven by higher emerging market growth, as Jorgen has pointed out. I'll talk in a minute about strong cost management, and then also talk about mitigating supply chain cost inflation as well as hedging.

But one of the things I want to point out in our assumptions as we look forward in our outlook is that we assume that price movements are really offset by corn and other raw material inflation. So, we don't really -- we pick a point of corn, and we look forward for 4 years, same for tapioca. And we don't assume that there's any real significant price margin inflation or accretion when we look at our outlook. So really, our net sales growth is driven by volume as well as an improving mix, okay?

So just to clarify that, when we look at growth in normalized cash from operations, we expect that to be greater than 10%. And over the next 4 years, our capital investment commitment is almost \$1.4 billion, of which we look to invest at least \$400 million in specialty growth opportunities.

One of the things that we started to share this year and will continue to as we go forward. When we look at our geographic segments is we'll help you understand what we think the revenue growth is between specialty and our core ingredients, which we now share and described in our K. And so here, to put it together, when you look at the revenue growth, overall, 2.4% net sales, specialty in that mid-single digits to high single digits really, and that's really reflective of volume and just mix.

And then our core, as Jorgen alluded to, while we generally believe it has been flat and it's been offset a little bit by a decline in HF in the U.S. As we've worked through that and has become a smaller proportion of our total, we now lean towards more kind of low single-digits on the core.

As the rest of the world outside the U.S. becomes a bigger proportion of the volume and of the net sales as well as we continue to move and shift grind towards categories which we think are at least exhibiting either growth in line with population or growth in line with GDP in the countries and therein. What does this mean for our operating income margin? We believe our operating income margin will improve 30 to 50 basis points per year on average over the next 4 years.

I would be remiss if I didn't actually address some of the concerns that exist today in the marketplace, the global marketplace. There's certainly a number of things in our external environment that are throwing volatility and uncertainty and unexpected surprises at us. And as management teams, we have to exude that resilience and that agility to look at these.

First and foremost, on top of a lot of people's minds is how is the Russia-Ukraine war impacted the availability of corn globally. Ukraine is a leading grower of corn globally and a leading exporter of corn globally. It certainly had an impact on, I believe, the global cost of corn.

Our teams, we immediately put in place a crisis management team. We looked at availability of corn and seed in our specialty corns around the globe and are working to make sure that we have enough for planning to have available and secure supply by both '23 as well as '24.

Another impact that's a bit more in our face. I think today is the rising cost of energy, be it oil or natural gas. We effectively use hedging programs for our gas both well into this year, but also have already started hedging significantly for '23 prior to even some of the run-up that we've seen in natural gas costs in the U.S., but also as well as within Europe.

Nonetheless, rising oil costs impact, our freight rising oil costs can impact our chemicals, they can impact our packaging supplies. And so we have to take actions where we're really focused on mitigating these inflations, which I'll speak to in a minute.

I think one of the things that's been frustrating for us has been how has COVID impacted ports. How has it impacted a backup in global demand, whether that's ocean container or ocean containers unloading into ports and then getting on rail and rail to truck and how we get our product to our customers.

Our customers have suffered through this. And we -- our suppliers have also been unexpectedly impacted by this. We continue to work through this. It is something that I think that we are seeing that the entire global supply chain of how we move our product both our inputs as well as our finished goods is mending. It is getting better.

We are seeing in some places, particularly in the U.S., where there's just more availability of the different modes of transportation that we use, but it's one where you still have to absolutely be vigilant. And it's also one area where digital has really helped us and continues to help us getting even better on tracking where our products are.

And then finally, as the Fed has tightened interest rates. And central banks in different countries around the world are looking at inflation and their attack and tactics towards that, we're seeing different rates of inflation domestically, and that's obviously impacting FX rates.

So, what are we doing to attack this? And there's really 2 prongs. So, one, Jim mentioned cost competitiveness and how we use that to mitigate inflation. So, we've long had a culture of continuous improvement within Ingredion. Jim highlighted that we had a 3-year plan called Cost Smart, which achieved over \$170 million of cost takeout on both our COGS and on our SG&A. But what we're really doing is flipping that and saying, from the frontline employee to the mid-manager where there are opportunities where we can continuously improve.

Some of that is also now enabled by how we shift costs to our shared service centers. We've stood up 3 shared service centers globally. You can continue to put centers of excellence and analytics into those shared service centers where you have a very competitive wage cost, but also, you're building a culture locally as an attractive employer.

And then finally, probably where we're most focused is really on digital capabilities. where can you actually take digital, both information and put it in the hands of the highly paid professionals who make decisions today that affect your entire value chain. And this is an area where many companies will probably explore more but there's really great opportunities here to be more productive and see both an effectiveness of decision-making as well as efficiency.

And what actions are we taking to attack volatility. So, we're both releasing capacity as well as trying to reduce volatility of our input costs and our revenues such that the profit change from quarter-to-quarter is more consistent.

Our business generally runs on an annual contracting basis. But quarter-to-quarter, we can have moves and input costs that often have caused, let's call it, frankly, some negative surprises. So, we've stepped back and we're taking a different approach to thinking holistically about where volatility attacks the business.

One of those is in how we think about hedging. And typically, when we've looked at a contract year coming up, and we've had a customer that prefers to have a flat price type of contract with us, that puts the cost of that raw material and the change in that raw material cost, that risk is on us as a company.

So, what we've traditionally done in corn, as an example, has hedged about 2/3 of that corn. And there was a natural hedge between the remaining cost of the corn and the co product. Well, it turns out when you have global trade wars and you have large movements of, whether it's soy or corn being exported or you have disruptions for war, that natural hedge can be further hedged. It can be reduced.

And so, by further hedging corn and by hedging coproducts, we can actually reduce the amount of risk exposure that we have. So we've put that in place this year. Our real first phase is really around the businesses in North America. Next, we'll look at our businesses that are relied upon U.S. corn.

And then our final phase, we'll be looking at markets where you actually have local corn, local currency and a local risk, maybe without as much of a future market there. What we're also doing with our partners, Eric Seip, who's our Senior VP of Operations, is looking globally at our network, and where can we release capacity.

Where can we find the efficiency within our factories that actually can help us take that efficiency up, allow a bit more throughput and allow greater amortization of our fixed costs. We believe these actions and the investments that we make will actually lead to an improving return on invested capital, currently at 10.7%. As Jim talked to the investments that we've already made, some of those which are not impacting our P&L that will return, and we believe that our adjusted ROIC will improve to the 12% to 13% range.

And I would highlight that at our valuation, our 4-year average free cash flow low yield is above 7%, which I think is attractive to some investors. Holistically, how we stepped back and thought about our commitment to shareholders and their return. And so, through a purposeful use of our strong balance sheet, dividend growth and share repurchase we believe that we can significantly improve TSR.

Our number one focus in terms of our capital allocation is really around organic growth projects. Hopefully, you've heard from the announcement from Pierre today, an additional \$160 million of pure organic capital growth to support our texture businesses. And Jim has highlighted some of the other growth planks today in terms of where we've invested.

We believe and I see as CFO that these investments are really what our company is really capable of. We have a great market opportunity to get after. We have a fantastic go-to-market team, and it lowers the overall risk. And it allows us to stand up here and say we believe by year 3, greater than 8% ROICs, by year 5, greater than 10% ROICs. We're investing dollars that are well above our WACC, leading to positive EVA growth.

Jim will also talk about where we've taken strategic cash to deploy against M&A that accelerates our specialties platform. So that's number one. Number two, then we consider our dividend and not just that we have an attractive dividend yield, but we're actually committed to our dividend payout in line with earnings growth. So as our adjusted EPS grows, we believe that we need to keep a dividend payout in the 38% to 40% range.

And finally, as we have cash that's either on our balance sheet or generated within the year, if we believe the stock is trading below its intrinsic value, you will see us in the market buying shares. And with that, let me turn it back to Jim Zallie for some closing comments. Thank you.

James Zallie^ Thank you, Jim. Okay. So let's wrap this up. And let's do that by sharing with you what we share with investors and what we share with customers, which is our Driving Growth Roadmap. And this really captures the essence of how we look to create value for customers and for shareholders. And again, it's all underpinned by our culture and the commitment to sustainable and trusted sourcing, driving operational excellence for continuous cost takeout, to drive efficiency.

And then Jorgen talked about the importance and the renovation that's going on in our core business from a standpoint of margin enhancement as well as growth and the diversification of that business. But really, the engines for growth are those 5 growth platforms that you see there.

And they're further enhanced by 2 elements that Pierre talked about that we're bringing into complementary focus of these 5, which is the umbrella of nutrition, health and wellness and taste, and taste modification and how we're thinking about and considering that.

And really, what it's all about, again, when you consider us who we were 4 or 5 years ago and who we are today. We were a starch supplier and a caloric sweetener supplier. So, when a company was developing a new product, they probably would think of our ingredients later in the formulation process, not necessarily upfront as part of the brief to affect the differentiation on label, on a front-of-pack claim.

But our whole mindset and the company's mindset is around a growth culture and around enabling consumer-preferred innovation. So, one of our values is be preferred. And that means we want to be enabling consumer-preferred winning products for our customers. So, our ingredients, if they're a texturizer, if they are a sugar reduction opportunity or if they are protein fortification can affect a front-of-pack claim.

So, we're not thought of any more as a passive afterthought by customers. We're considered upfront to enable a new value proposition that they want to feature to their consumer. That's happening in stevia, that's happening in plant-based, that's happening in texture, that's happening in clean label.

They're coming to us because they have a concept and we're co-creating and that's how we're creating value for customers. So this Driving Growth Roadmap is not just a blueprint on a wall. It's how we're driving growth for customers. And we're very, very committed to ESG as far as how that's going to shape our growth.

And I'll give you an example of how that's being considered. So, every year for the last 7, 8 years, we've published a sustainability report. It's called our 2030 All Life plan, which is our commitments to environmental, social and governance elements related to our All Life plan.

But one of the things we're working on right now is we're looking at the CO2 footprint, the greenhouse gas footprint of the products we manufacture because we're seeing our customers wanting to know that. Because consumers are going to want to know that from a standpoint, again, of the products they purchase, whether they're going to be consumer preferred or not.

So, we're working and partnering with a company right now to validate and certify our ingredients. And so that's part of the justification or part of the strategy for the \$160 million of investment for starch-based texturizers to more localize our footprint because that's going to be a competitive differentiation for us.

So, we're not afraid to invest in a business that today, \$1.5 billion going to \$1.9 billion in texturizers, where we're the world's leaders in specialty starches with the broadest and deepest portfolio.

We will defend and we will grow that business, and we're investing \$160 million. We're going to localize those supply chains because the pandemic's taught us that, that's the point of differentiation and service will be a differentiation, and it's underpinned by ESG. That's part of the strategy, not only to add capacity selectively in downstream refining starch technology but also shaped by ESG commitments.

And just in wrapping it up from a standpoint of, again, the key pillar of our strategy, which is specialty growth and the 4 platforms you see. In summary, texturizers 1.5% to 1.95% CAGR. Sugar reduction growing mid-teens, plant-based large growth, less than \$50 million in sales today, we see opportunities to take that north of \$150 million of sales within 4 to 5 years.

And other things that we don't talk about that much that are growing for us really double digits, so they're going to grow in the high single digits for sure, will be areas of pharma and areas of home and beauty. They're small today. but we are pursuing those, and there's a part of also the core trade-up that Jorgen talked about.

We have an active M&A pipeline. I'm spending a good portion of my time on M&A. But we're going to be disciplined. We've been disciplined over the last year, I would say, where we've seen valuations go extraordinarily high.

But expect us to continue to use our balance sheet, as Jim said, for value-creating M&A to enhance the value propositions of our growth platforms. And so with that, I'm going to open it up to questions and answers, and I'm going to direct them to my colleagues here, but Jason is going to moderate. So let's open it up to the audience here for Q&A.

QUESTIONS AND ANSWERS

Jason Payant^ Yes. Ben, Barclays.

Benjamin Theurer^ Yes, Ben Theurer from Barclays. One question I had just following up on your closing remarks about the growth in specialty and how M&A is going to play a role. So if we think about 3 to 4 years out, where do you think the company has most of opportunities to grow from a capital allocation point of view and which international markets?

Where do you want to focus on? Where do you think there are missing pieces that you have to focus capital allocation towards to get to the level of specialty and to get to the level of customer exposure? Where you want to be in mid of the decade.

James Zallie^ Okay. So, the question is from Ben from Barclays, and it's about M&A and it's about our capital deployment to enhance the value creation possibilities portfolio-wise geographically in our business.

So, what I would say, and I'll turn it over maybe to some of my colleagues here. But let me take a shot at it first, is when we look geographically, we want to diversify beyond just North America. We have a tremendous position in Mexico. We've got a nice position in Canada, and we've got a solid position in the United States, but we'd love to grow more in Asia-Pacific.

Our plant-based proteins platform, for example, we have the investments we've made in Canada and now in Nebraska. But we'd love to be able to expand our plant-based proteins, capabilities, and investments in Europe, in South America and in Asia. We see opportunities.

The vision that we have for plant-based proteins is that this will be a sustainable long-term trend and sizable category that will be global in scope. And we're looking actively at M&A to expand globally there.

Certainly, when it comes to starch-based texturizer growth in emerging markets that Pierre talked about, that's going to be an area that we're going to continue to grow but also considering it through the lens of the ESG that I talked about to do it smartly from a standpoint of reducing supply chain risks, diversifying beyond corn. That will be part of our mindset as well, diversifying beyond corn.

Enhancing anything that we can do to enhance the flavor delivery of sugar reduction and plant-based proteins, those 2. So, for example, anything that works in modulation to make a plant-based protein product taste good or mask flavor that we will be interested to pursue to enhance that capability set.

Anything in sugar reduction, where today, there are certain stevia extracts that work as flavor modifiers. Anything that we can do to enhance sweetness in line with high-

intensity natural, that will be something that we will pursue. So I think that's how we're considering that, Ben, from a standpoint of the M&A. Adam?

Adam Samuelson^ Adam Samuelson with Goldman Sachs. Maybe kind of continuing on that kind of line of discussion. But thinking about the business today and the competitive position you have today, strength in sweetener in texturizers and the sweeteners and plant protein, some of your competitors in specialty have much broader offerings?

And how do you think about your right to play and your right to win versus other peers who have much broader offerings and flavors and other ingredient sets and systems that are -- you talked about systems and solutions as a strategy. But I imagine it's still fairly small today.

How do you think about your -- what's your ability to win? And what advantages or disadvantages you have in terms of your being very narrowly -- or more narrowly focused on texturizers?

James Zallie^ Yes. I wouldn't say that we're now really focused. I think the category of texture is a very large -- a large part of a formulations success or a large part of consumer preference for anything that's going to taste good. Flavor is important, but texture, I would submit to you is equally as important for consumer preference. And it's very multifaceted when you think about multi-texture food products example.

And today, we think the capabilities we have in the breadth and depth in specialty starches as well as in hydrocolloids gives us a tremendous problem-solving set in texture, which goes hand-in-hand with flavor. So, we're highly relevant when you think about how many products, specialty starches and hydrocolloids find themselves in.

Then you think about that enhancement of that texture capability with plant-based proteins, which is added a whole new dimension, and then you think about sugar reduction, I think we're very highly relevant and on trend with where new product innovation is being driven by the food industry right now.

The missing piece is in flavors. And so that's something that, obviously, your question is topical based on the news this week of another company basically forming that capability set. But we think that in the area of texture, expect us to want to continue to become bigger and broader and more sophisticated from a standpoint of our understanding and our problem-solving capability.

And that alone makes us extremely relevant. And I don't think narrow, but I think actually broad enough to continue to propel our growth in a market that's \$18 billion today and where we play at \$1.9 billion. So, we have headroom for growth. So that's how we're seeing it.

But equally, we're saying that we recognize the importance of taste to capture more value as it relates to 2 categories: plant-based proteins and sugar reduction. So just being a

stevia supplier limits potentially the value capture in offering a holistic sugar reduction solution. So, we recognize that. And those 2 areas, I think we have a right to win with the right bolt-on capabilities. Other questions? And we may have questions coming in online, I don't know. We do.

Jason Payant^ So, coming in on the webinar. Question for Jeremy. While the cost for alternative sweeteners is trending lower, what is the ease of the customer's ability to switch to using an alternative sweetener in a product formulation? Does the customer need to add additional ingredients along with the alternative sweetener and would that add calories to the product?

Jeremy Xu ^ Yes. So it depends. It always depends on the application, right? So, in the area of beverage, it's relatively easier to formulate because you do not need what we call functional build back to add the texturized feelings. That's relatively easier.

Now in the other application like bakery or dairy, you need the second component that Jim mentioned about the filling agent, and we are working very hard to develop those agents and some of them already in our portfolio to complement that sugar capabilities.

With regard whether or not you can replace 100% of sugar. That also depends on the formulation requirement by our customers and consumers. And in many cases, we can replace 100% from sweetener point of view, sweetness point of view. In some areas, partial replacement is also possible.

Jason Payant^ Thank you, Jeremy. Next, online, can you discuss the breakdown of categories within plant-based proteins business today versus in 4 years? So alternative dairy, alternative milk.

James Zallie^ I'll turn that over to either Pierre or Jorgen, either one.

Jorgen Kokke^ Yes, you could take a shot?

Pierre Perez^ Yes. I'll take a shot. Yes. Then obviously, the 2 main leading categories are alternative dairy and alternative meat. There's no doubt about that, and you've seen that in the news, especially actually in the U.S. market.

The more established one is alternative dairy, especially plant-based milks and some sort of nutrition drinks, as you mentioned, Jorgen. And obviously is now the fast growth of alternative milks.

But beyond that, as indicated by Jorgen, around 45 bakery and also the continuation of dairy beyond milk. Like alternative cheese, I can tell you today, we are formulating plant-based alternative cheese everywhere globally. Then we see that as a genuine sustainable trend for the long term, and we're going to continue to extend to a large number of attractive categories.

Jason Payant^ Thank you, Pierre. The next. You discussed corn availability, but then you alluded to starch availability and unleashing new capacity. Are you able to supply starches to your fullest capacity? How is Ingredion's ability to supply versus the industry and do shortages globally create incremental pricing opportunities?

James Zallie^ I'm going to turn that over to Jorgen.

James Gray^ Maybe focus on food starch.

Jorgen Kokke^ Yes. Okay. So yes, I mean we've been dealing, I think, as a global industry with an extraordinary situation, very strong demand recovery post COVID in combination with obviously congested supply chains. I mean Jim talked about the ports here in the U.S. West Coast. Then, of course, there's China where new outbreaks of COVID have shut down ports.

So all in all, it's been a very challenging situation, but I would say that demand for our starches continues to be very strong, as you've also been able to see in our Q1 results. That situation is really continuing. I see things improving. Obviously, we're taking action. We're addressing the bottlenecks.

And we have been able to offset, I would say, the incremental costs associated with supply chains and additional other costs. And so I believe that we can continue to do that. And so we're seeing a very healthy demand profile, which is driving a very high utilization rate for Ingredion. And obviously, that sets up the conditions for first a strong pricing environment.

James Gray ^ Maybe I can just add, though, just the announcement today is we're not expanding grind.

Jorgen Kokke^ No.

James Gray^ The investment that we're making towards our texturizers is really downstream where we need the finishing capabilities, right? So whether that's more of our clean label starches, our modified starches. So the grind remains about the same, but it's the finishing channels, which is where we're finding the investments.

Jason Payant^ This is actually a question for Jim Gray. Can you give some more detail about the revised contract terms to de-risk the business model? Hedging corn co-products, putting freight costs on customers, et cetera, does this change how you operate the business if there is less commodity or inflation risk to manage day-to-day?

James Gray^ So maybe I'll just take the first part, which is in terms of how we thought about hedging the raw material, but then hand over the freight questions to both Pierre and Jorgen. For us, this is just the start as we look at our -- the demand that we have for corn or other raw materials.

And as we look at it, both in terms of when news of the season starts to appear, starts to affect how much financial contracts are out there, starts to affect how farmers are actually either selling their crop. We'll continue to work forward in terms of looking at -- how much of the value at risk in any particular planned year there is, and then we'll have bands that we'll manage within. And so, we'll be more forthcoming with that.

We won't ever hedge 100% because between the corn and the feed, there's actually a very, very nice correlation. But what you really want to do is it lessen your exposure to the co-products of gluten meal and corn oil, and you can do that with -- through soy contracts, particularly in the U.S., perhaps Mexico.

And then as we get into some of our other markets around the world, that's where we're really kind of exploring and still being creative. So, with that, maybe just (inaudible)

Jorgen Kokke^ Yes, maybe I'll make some cores on North and South America and hand it over to Pierre for EMEA. A little bit different markets. In North America, customers are looking for that fixed price for a year, especially if you think about our more specialized part of the portfolio. If you think about the more larger volumes, it's usually a fee-based structure. We are corn and co-products, et cetera, flow through to the customer.

But the volatility is mostly generated by the firm kind of price contracts. And so, as Jim was alluding to, we were very mindful of that. We've been working on that for a while now and prepared ourselves coming into 2022.

And so, what we've done, as Jim was mentioning, is expanded our hedging program to include co-products, which also allows us to buy more of the corn. And of course, natural gas, we were well covered coming into the year. So our first kind of priority is to try to offer customers that kind of security, but knowing that the world has become more volatile and more unpredictable kind of world.

We also took the action to update our contract terms, specifically in North America, where we have the latitude to if things change dramatically, we can open up those contracts and we can pass inflationary cost increases to the market. And so, we're actually taking that action right now and have started doing that already a couple of months ago is around freight. And so, we have the contractual attitude. We updated all our contract terms in North America.

If you think about South America, we have more flexibility in terms of pricing. For the most part, our prices get updated on more like a quarterly basis or there could be a 90-day notice period.

And so, we've been able to move our prices up in South America very significantly even this year and also certainly last year to reflect the higher cost profile that we're seeing across many different categories, corn, freight, energy, et cetera. So yes, I would say in conclusion, we have more latitude, more flexibility to pass on those inflationary cost increases to the market in both North and South America.

Pierre Perez^ And very, very similarly to what we have in the Americas, I would say, for Western Europe and emerging markets of Middle East and Africa, outside of Pakistan, it's mainly specialties. Then here, it was all around renewing contract terms. Then it gives us a couple of abilities, and we can adjust prices on a much more regular basis. And I would say, all the way down to a quarterly basis.

And also, we have -- and working with customers because this is not easy for the customer, it's not easy for us. And we were really very closely working together with our customers. And we have temporary air freight surcharges that we've put, then we have automatic pass-through that we have negotiated and so on.

It basically enabled us to adjust given inflation in a much more agile way. And for Pakistan, it's very much like North, South America. We have very little number of long-term contracts, and this is much more short-term pricing.

Jason Payant^ Thank you. I think we have time for one more question. I'll just check in the room. Any questions in the room? Okay. I'll go to the web. Your outlook reflects around 30 to 50 bps of margin expansion over the next 4 years. How confident are you that you'll be able to expand these margins?

James Zallie^ Well, let me take a shot, and then I'll turn it over to Jim because Jim seems to be chomping at the bit to take that one.

James Gray^ You know what. You answer.

James Zallie^ No. I'll let you complement what I'm going to say. No. Look. I would just draw you back to the \$700 million of investments and 3 of those sizable investments have yet to start to really deliver. And so that's exciting. And that is where you're going to see margin enhancement. I think the focus on food systems, which are high ROIC businesses, lower capital intensity and 15% growth there. You're going to see margin enhancement.

And I think you should have confidence based on what we've been able to display in relationship to our pricing, centers of excellence and our focus on mitigating earnings volatility that, that is a reason to believe, I don't think that's actually that aggressive of a target. I think that that's very achievable when you consider the investments we've made that have yet to pay off as well as the pricing centers of excellence in the muscles we've developed there. Jim, do you have anything to add?

James Gray^ Well, I just would add that as we attack both changing costs, as we attack the change in the raw materials, either with hedging or other business practices to mitigate risk, we're really going to see more of a consistency in the profit flow of the underlying business.

And that's going to allow the light to shine on the specialty growth that we've highlighted here. And you're going to see it will come through. It will be incremental. It will be additive. And that's really why we're confident in both the revenue and the...

James Zallie^ And the other thing, and again, I would remiss, and if Eric Seip who is our Head of Operations was -- is listening, and I'm sure he is. He would certainly want me to say that he sees tremendous opportunity, he's relatively new with the business, going into his full second year and he's seeing tremendous opportunities across the procurement space for us, as well as across driving digital transformation through connected factories.

So, we see, again, cost competitiveness, one of our 4 pillars equally being a significant contributor to margin enhancement going forward. So again, it's a pretty balanced approach when you think about investments, costs and pricing, I think, gives us the confidence we can hit those margin targets.

I think that's it. I just wanted to, on behalf of my colleagues, thank everybody for taking the time come to Bridgewater to be with us today. We have an interesting culinary lunch and tour set up for you. And for those of you that have joined us by web, thank you so much for being part of our Investor Day. And Jim and I look forward to updating you on Q2 earnings in the not-too-distant future, okay? Thanks so much.