

R&D OVERVIEW

Consumer & Customer-relevant Innovation



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Fortification





Innovation key messages

1

Driving a focused, consumer relevant and customer-centric innovation agenda that is **delivering growth for texture, clean label and healthful solutions and functional ingredients for sustainable packaging**

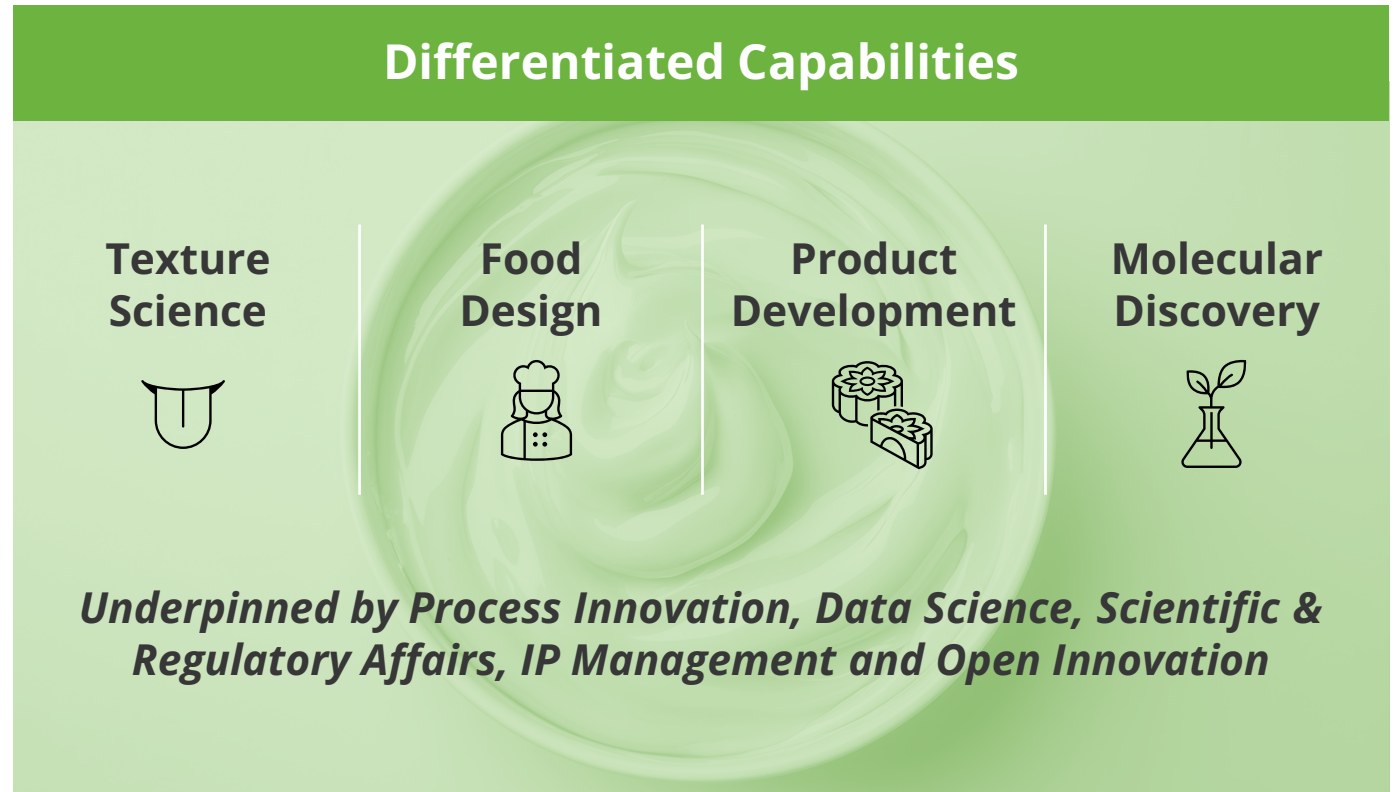
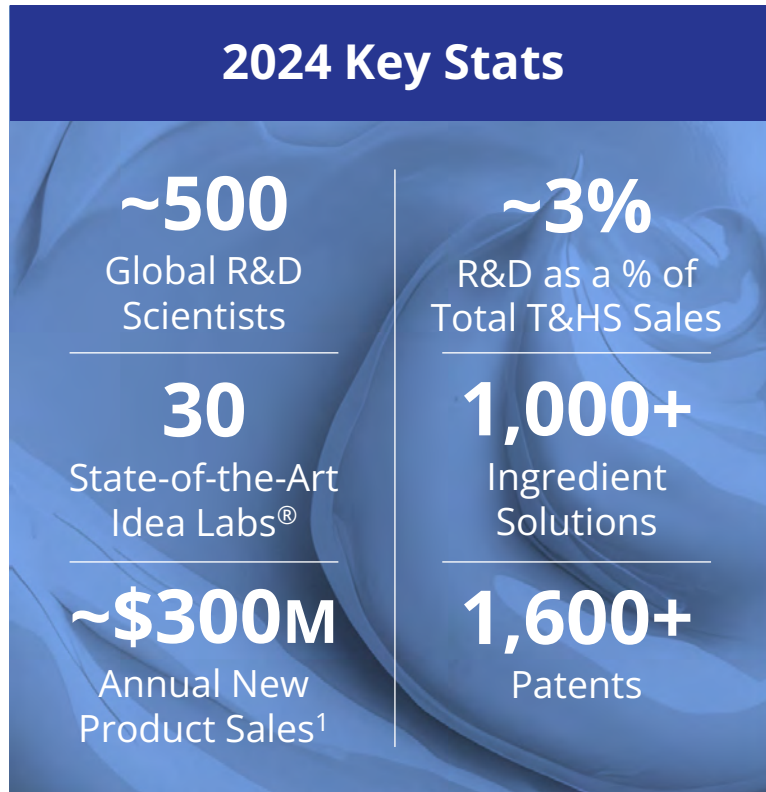
2


Investing and partnering to **extend our capabilities in texture science, sugar reduction and protein technology**, enabling us to design new solutions to fuel these growing consumer benefit areas

3

Building proprietary AI-assisted predictive formulation capabilities that will enable us to **co-create and scale innovation more quickly and effectively**


One innovation team: Global reach with extensive local expertise



 Consumer-led, insights-driven innovation and customer co-creation enabling scalable growth platforms

Driving scalable innovation through science and a continuous flywheel



 A repeatable, insight-driven engine that powers innovation, margin and growth

Our innovation is focused on products that are on-trend and delivering real benefits for customers

| | Clean Label | Affordability | Sugar Reduction | Protein Fortification | Weight-loss Drugs |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Consumer Behavior | Enabling consumer trust with simple, recognizable ingredients that deliver outstanding texture | Mitigating ingredient shortages and price fluctuations with innovative affordable solutions | Meeting demand for low sugar, low calorie products with plant-based, label-friendly sweeteners | Enabling plant-based and high-protein innovation with sustainably-sourced proteins | Supporting digestive health trends with soluble fibers and resistant starches |
| Innovative Solutions | <ul style="list-style-type: none"> ○ NOVATION® functional native starches that are process tolerant and clean label ○ HEMOCRAFT™ multi-functional rice flours are process tolerant and deliver luscious textures | <ul style="list-style-type: none"> ○ DOLCERRA™ and SIMPLISTICA™ solutions enable significant cocoa powder reduction in confectionary, bakery and nutraceutical drinks | <ul style="list-style-type: none"> ○ PureCircle™ by Ingredion stevia solutions enable sugar reduction in a label friendly way ○ ASTRAEA® Allulose acts and tastes like sugar while adding almost no calories | <ul style="list-style-type: none"> ○ VITESSENCE® Pulse pea protein isolates deliver outstanding performance in ready-to-mix, ready-to-drink and cold-pressed bar applications | <ul style="list-style-type: none"> ○ NUTRAFLORA® soluble probiotic fiber helps increase level of good bacterial in gut and is scientifically proven to support digestive health |



Positioned to win across major food trends with scalable, on-trend ingredient solutions

Eating is simple, but food is complicated

Eating Experience Continuum



Texture leadership in action: Unparalleled texture and texture science knowledge



MORPHOLOGY

Investment in **new-to-industry equipment** to link morphometric changes to the texture experience



RHEOLOGY

Establishing a **world-class external innovation ecosystem** to access cutting-edge science, equipment and thought leaders



SENSORY

Partnerships to establish the **drivers of liking** for texture and leveraging AI to **predict the best clean label solutions** for specific applications

CASE STUDY

Linking sensory perception and eating experience to protein formulation based on product morphology

Technical Challenge

- Develop a high-protein-based extruded snack where the eating experience can be tuned with protein selection



Computed Tomography Analysis



Pea protein
Airy structure –
thin walls/low density



Pea and rice protein
Dense structure –
thick walls/high density

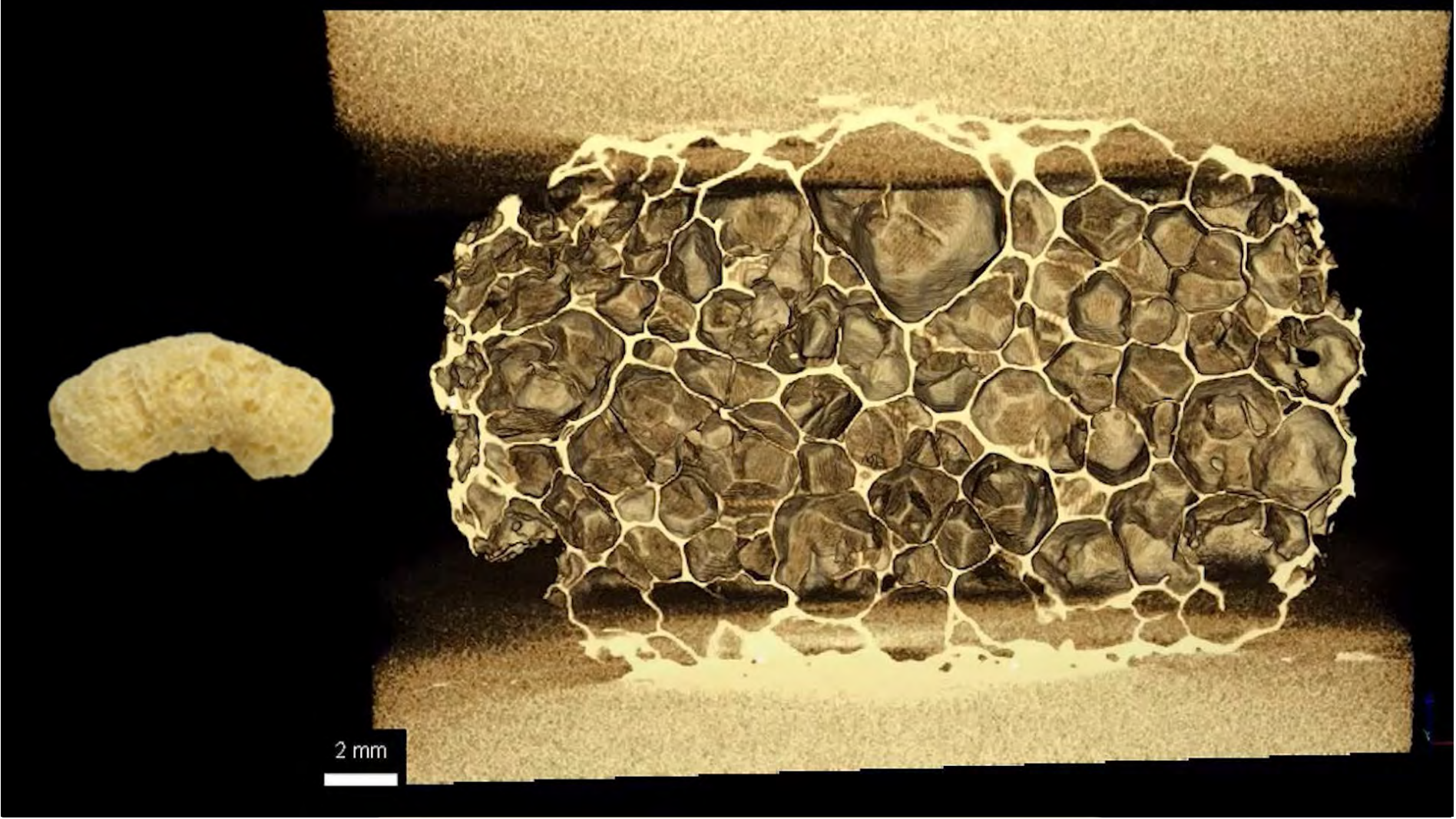
Results

- ✓ Pea protein product **significantly more crispy, airy, and less hard** than pea and rice protein
- ✓ Technology can help us **fine tune product design and performance**

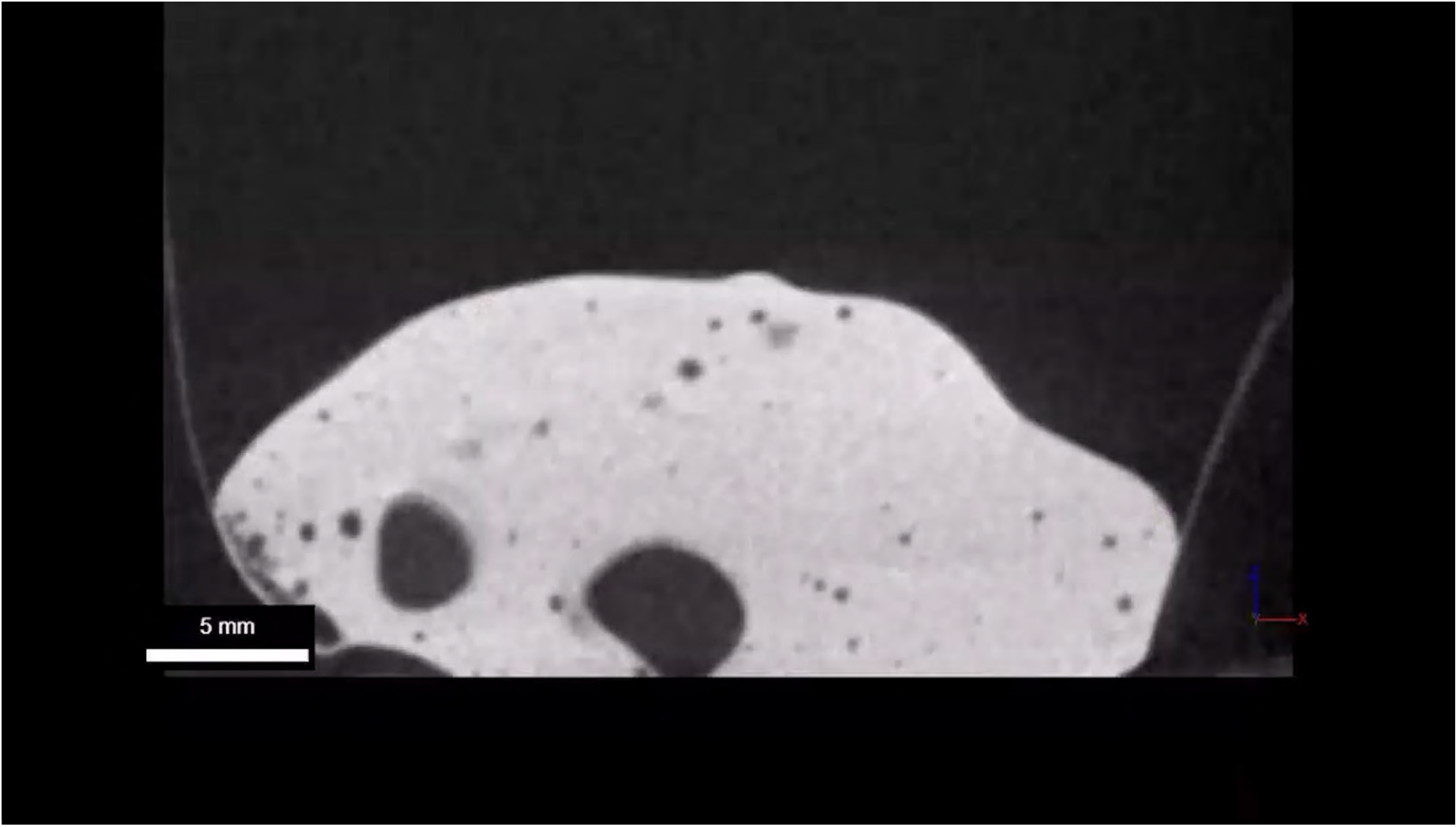


Enabling optimization of texture, nutrition and consumer acceptance

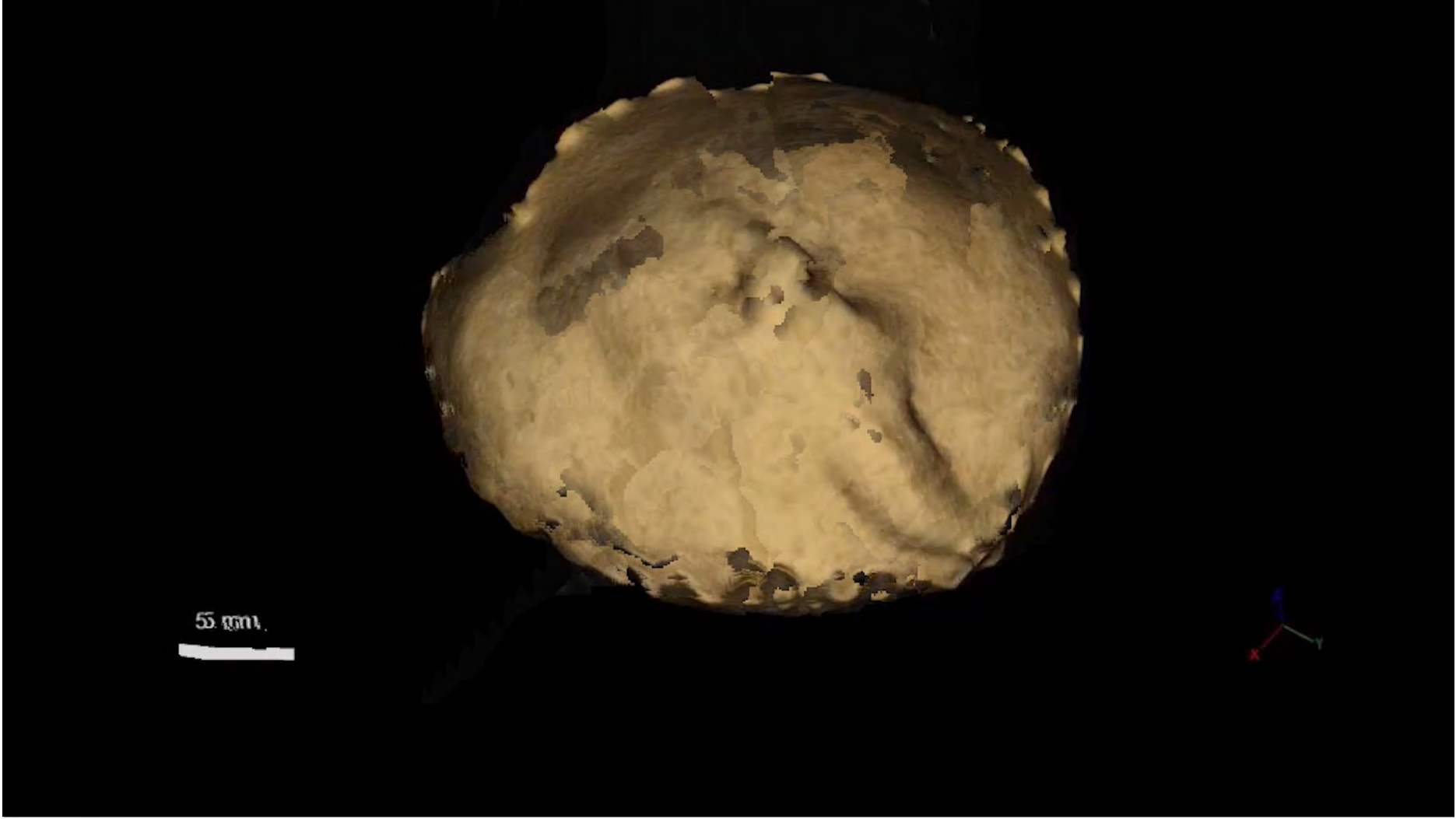
CT scan video: Puff



CT scan video: Bread



CT scan video: Crust



Nutritional beverages that deliver on protein content and product performance

Customer Need

- Nutritional beverage customers are looking to deliver beverages with increasingly higher plant protein content
- Beverages still need to deliver same dairy-like taste and smooth texture that consumers love



Our Unique Solution



VITESSENCE® 200D: A pea protein isolate with unparalleled solubility specifically developed for ready-to-mix and ready-to-drink nutritional beverages

- Faster dispersibility
- Smooth texture
- Neutral flavor



Results



Excellent solubility for easy dispersion and outstanding texture



Optimal viscosity for improved stability and reduced sedimentation



Delivering 80% protein on a dry basis, enabling front-of-pack claims



Lead the way in the ready-to-mix beverage market with our new pea-protein ingredient

CASE STUDY

Elevated texture solutions through product development as a service

Customer Need

- Rapid and more reliable product development process to deliver solutions that resonate in the market, drive consumer liking and meet cost targets



Our Unique Solution

First-to-market texture solutions service

- Consulting service for early-stage product development
- Leveraging artificial and human intelligence to develop validated pilot-scale products that resonate with customers



Results



Successful pilots in 2025 poised to launch globally in 2026



Faster, more effective co-creation than traditional product development processes



Strengthened strategic partnerships with key customers



Leveraging predictive formulation to increase speed and probability of successful launches

Molded fiber packaging for improved performance and sustainability

Customer Need

- Molded Fiber Type 3 packaging is an alternative to traditional plastics
- Manage high cost to manufacture: production time, energy usage and weight
- Cost and sustainability of solutions to enhance strength



Our Unique Solution



Range of plant-based, biodegradable binders for use in existing production operation

- Enhanced fiber-to-fiber retention, improves drainage, increases processing speed
- Improves bonding, imparts greater rigidity and internal strength, enables light-weighting
- Replace synthetics with natural biopolymers



Results

- ✓ **Reduced material usage**
- ✓ **Eliminate usage** of synthetic additives
- ✓ **Expand** size of **addressable market**
- ✓ **Enable end-of-life claims:** recyclability, biodegradability and compostability



Bringing sustainable packaging products to market that address our customers' toughest challenges

Innovation priorities: Investing in R&D that drives customer demand and sustainable growth



**Clean label
and fully
functional**



**New and
preferred
textures**



**Better for
you and
the planet**

Innovation key takeaways

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