

Three Critical Food & Ag Industry Pain Points in 2023

Looking back at the first six themes Foodbytes has explored this year, our team identified three intersecting cross-category challenges that the food and ag industry is tackling today.

Bridging Climate & Financial Sustainability

Solutions that create value across both climate and financial sustainability will see grower adoption, set up for scale and forge deeply rooted improvements to the food system.

Expanding ESG from seed to plate

Our food system's transition from a linear to a circular economy is propelled by corporate ESG progress and innovations enabling new ways of working.

Upstream innovations help corporates make ESG progress by:

- optimizing plant health
- improving nutrient profiles
- reducing waste
- streamlining processing

Food Loss & Waste Reduction

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Proving grower ROI is paramount

Defining value for growers relies on ROI and solutions that fundamentally improve farm operations will increase long term profitability and encourage farmer adoption.

Addressing climate and financial sustainability will allow solutions to reach scale, help create fully traceable supply chains, and carry impact through the food system with improved:

- biodiversity on farmlands
- equitable farmer livelihoods
- nutritional profiles of harvests
- options and flavors delivered to consumers

Global Flavors & Ingredient Supply Chains

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Establishing Standardization through System & Behavior Integration

Compatibility is king and embracing opportunities to standardize technologies and traceability metrics across sectors will increase the ability to collaborate.

Marrying the old with the new

Legacy integrations, such as cloud based infrastructures, can enhance rather replace existing technology.

Creating a through-line

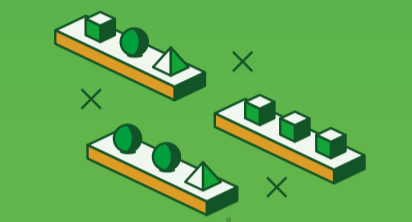
Aggregator-trader models aim to pool data and resources, bringing the supply chain together to achieve workable volumes and standardize sustainability impact measurement.

Simplifying the path to adoption

At the upstream and midstream levels, interoperable modular technologies improve usability by layering atop current platforms.

Robotics & Automation

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Inefficient collaboration



Efficient collaboration

Incorporating data-backed traceability into products demonstrates emerging certification standards to consumers.

For consumers, products or services that consider existing behaviors are able to integrate smoothly into routines.

Next Generation Nutrition

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Increasing Efficiency with Data Connectivity

Shared data standards create a common language that powers effective, interdependent decision-making in the value chain.

Data ignites standardization

Coordination of behaviors between producers, manufacturers, retailers and consumers creates solutions for resource management, workforce efficiency, and more.

Farm Management Information Systems

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Connection Informs decisions

Collaborative communication pathways bridge siloed, fractional data to support large-scale improvements in the food system infrastructure.

- Public-Private Partnerships
- Coalition Building



Getting closer to the consumer is key

Collaborating with startups that are conventionally closer to consumers empowers manufacturers to accelerate data-backed innovation.

Analytics on genetics, soil health, pesticide use and animal welfare communicate a full value chain story down to the consumer.

Data Sharing & Transparency

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“We've long promoted the process of transitioning to more sustainable farming systems that can reduce environmental impacts and preserve biodiversity: regenerative agriculture is one of them. We engaged with startups to find effective tools to measure the carbon content in the soil and to reduce agrochemicals used by finding natural alternatives or implementing digital solutions to support farmers' decisions.”

- Claudia Berti, Head of Global Open Innovation & IPR, Barilla

“Our machine health and irrigation scheduling technologies help ensure global food security by optimizing water and nutrient use efficiency, while reducing input costs, reducing labor costs and increasing yields for our customers. These technologies allow growers to track the available moisture level in the soil versus the crop's water needs, helping them make optimal irrigation decisions. At Lindsay, we have recently released our fifth ESG report. We recognize that ESG can support enterprise value creation and financial performance over the long term.”

-Brian Magnusson, Senior VP of Strategy & Business Development, Lindsay Corporation

“Whether we are speaking to farmers, chefs, or other food business operators, we often hear that there are too many similar overlapping options for digital integrations, causing fatigue. A number of our portfolio companies are actively integrating similar apps and options into marketplaces or app stores, so that their users do not have the burden of finding new solutions.”

-Brian Halweil, Strategic Associate, Astanor Ventures

“We should be moving from a system of siloed data to data exchange structures fit to enhance the business of farmers. Greater collaboration between [innovators] to underpin each other's businesses and remunerate value back to the key stakeholder – be that the farmer, supply chain, food company, or consumer – would help to establish standards throughout the value chain.”

- Michael Lavin, Founder & Managing Partner, Germin8 Ventures

“We recognize that the industry's core issue isn't merely generating more data, but ensuring that the produced data can seamlessly communicate and integrate with a farmer's existing systems. We believe that the real value of any new technology becomes evident through its ROI. For farmers, this ROI is clear when the data leads to actionable insights and tangible benefits.”

- Fabian Gosselin, Senior Investments Associate, Cleveland Avenue