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**Driving toward the future  
of the fresh food industry**

Insights from the FMI FreshForward 2019  
executive forum

# FMI and Deloitte: Working together to improve food freshness

The fresh food industry is on the cusp of transformative change, faced with policy and business choices that will carry more consequential impact than anything we've seen in the past decade. As scale tends to be less of an advantage in fresh categories like produce, meat, and dairy, many of these policies and business decisions tend to be reactionary and driven by short-term thinking. FMI has the exciting opportunity to help remove barriers and establish a unified voice with a stronger, positive influence on regulatory policy and ultimately the future of our industry.

**Barb**

**Barb Renner, Vice Chairman and US Consumer Products Leader, Deloitte**



FMI is committed to helping our members navigate consumer shopping habits in complex categories, especially those influenced by volatile markets and limited shelf life—historically, meat, produce, and foodservice, but widening in 2019 to reflect new shopper perspectives on seafood and bakery. To that end, in addition to investing in consumer research and insights, FMI once again held our annual FreshForward event to give industry leaders an opportunity to review and discuss the business implications for the fresh category and how large industry players view fresh foods as a competitive differentiator.

FreshForward was designed to generate actionable takeaways for industry leaders. Our goal was to encourage thought leadership among food retailers and their suppliers, with a focus on topics that have the most influence on the growth and sustainability of businesses' brands. Organized and facilitated with an open and organic approach, the event sets up challenges to help solve for senior leaders all along the fresh foods supply chain. We anticipate that the actionable takeaways, specific to technology in fresh, food safety, and sustainable practices related to food waste and packaging, will emerge to be among the most aggressive areas for evolving the business of fresh, now and in the future.



**Rick Stein, Vice President, Fresh Foods, FMI**



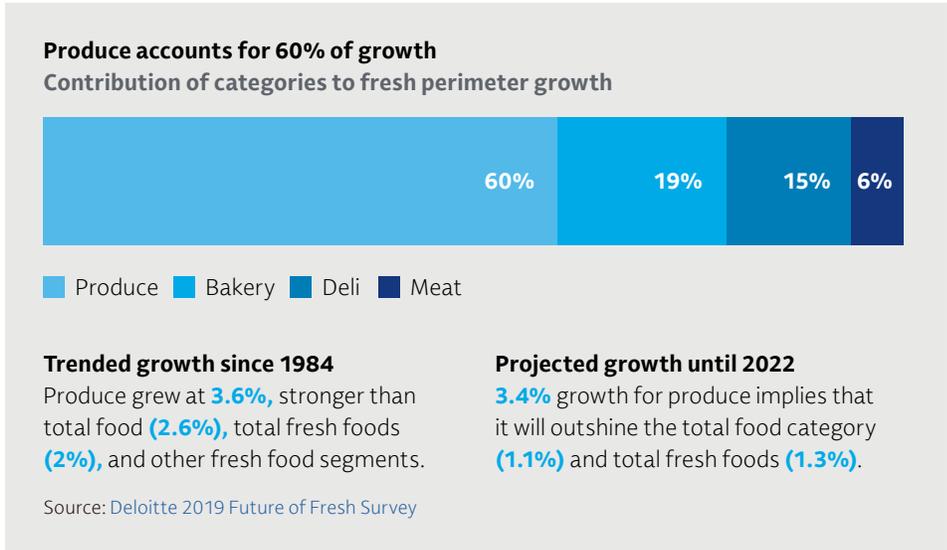


Among many other anticipated changes in the industry, research shows that fresh food is projected to grow at a stronger rate than total food, confirming the need for industry leaders to collaborate on goals and expectations for advancement.

The second annual FMI FreshForward was held at the University of Minnesota in August 2019, bringing together leading fresh food suppliers and retailers to brainstorm and share ideas around three pressing issues:

-  **Impact of disruptive technologies**
-  **Food safety and quality**
-  **Food loss and sustainability**

The three themes were introduced on the main stage by guest speakers, then attendees split into smaller groups to discuss, evaluate, and identify potential solutions for the fresh industry. The need for culture shifts and industry collaboration were recurring messages as attendees identified action items that can help the industry move forward more quickly and smoothly to keep up with the rapid and profound changes of technology, consumers, and regulatory policy.



# Impact of disruptive technologies in fresh food

Discussion and problem solving around disruptive technologies in fresh food began with a presentation to all attendees, offering the following key points for consideration.

1

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**New tools and techniques can help the fresh industry resolve long-standing problems**

**Brian Baker, Managing Director, Deloitte Consulting, LLP**

Food waste was previously considered a cost of business. Baker highlighted this and other opportunities for technology to create a connected value chain and boost profitability in fresh. With the help of technology like artificial intelligence (AI), blockchain, and advanced analytics, the focus can shift toward reducing cost of goods and providing better-quality products. For example, by “closing the digital to physical loop” in food waste, organizations could have a scenario in which in-truck sensors provide real-time updates on the condition of the produce in transit, send an alert if there is a problem, and prompt the truck to stop before the scheduled destination so produce can be sold instead of going to waste along the rest of the journey.

2

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**Machine AI can simplify and better address the fresh industry's biggest challenges, compared to current practices**

**Nick Ciminillo, Vice President of Retail Solutions, RELEX Solutions**

Offering fresh replenishment as an example, Ciminillo highlighted how new tech could allow hyper-scaling through measures such as more accurately calculating the cost of waste versus out-of-stocks and optimizing the continuous flow of product from distribution centers to stores. Ciminillo discussed other examples, including specialized AI analyzing weather to predict supply and demand of fresh product, and transparent AI allowing analysis at a level as detailed as reasons for high spoilage of one particular product on a certain day of the week.

3

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**Merchandising, operations, and supply chain leaders—rather than IT departments—should embrace best-of-breed technologies**

**Michael Lang, Partner, Invatron Systems Corporation**

Lang held the perspective that many operational and merchandising needs could be solved today with technologies that address the complexities of fresh item management. However, people in all areas of the industry should adopt this outlook and work to incorporate it rather than looking to IT departments to implement alone. Lang said organizations may not realize that some simple technology can make a big difference in operations and that automation has become a requirement, not a choice. If leaders in fresh merchandising, operations, and supply chain welcome tech adoption, benefits could include increased efficiency in operations, greater confidence in food safety, and better customer ROI.

Many of the presenters' points are confirmed by Deloitte's **Future of Fresh survey**, particularly around the ample opportunity for increased focus on technology by both manufacturers and retailers. For example, AI is frequently discussed in the context of managing fresh foods, but our survey confirms that adoption of AI-based technologies is in its nascent stages: Only 38 percent have partially or fully implemented AI-based warehouse management to monitor fresh food stocks, and only 3 percent of respondents have partially or fully started implementing AI that allows consumers access to product information. The two main barriers to implementing technology, according to survey respondents: time required to implement it and lack of skilled workers.

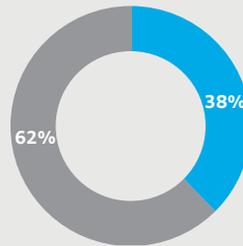
Attendees who participated in the breakout session on disruptive technologies also echoed the presenters' points and offered the following summary of observations and action items.

### High-level observations around disruptive technology

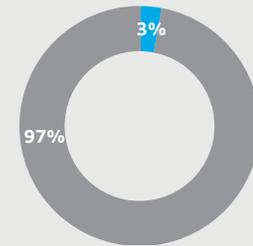
Your entire organization should be ready for the introduction of new technology. The business—rather than the IT department—should take ownership of the technology and make sure the organization has the right skills and talent to adopt and make full use of the new capabilities. Organizations can take a pilot-and-scale approach to build confidence.

The industry is transforming rapidly, making it even more challenging to implement technology that will continue to be relevant over time. Business can

### Implementation of AI-based technologies is low



AI - Warehouse



AI - Consumers

■ Partially/fully implemented ■ Not yet implemented

Only **38%** of manufacturers and retailers have partially or fully implemented AI-based warehouse management to monitor fresh food stocks.

Only **3%** of manufacturers and retailers have partially or fully implemented AI-based in-store technologies that allow consumers to access product information using a smartphone.

Source: [Deloitte 2019 Future of Fresh Survey](#)

change quickly, leading to the same issue of “patched systems” that companies struggle with today. Stakeholders should identify standard processes for the fresh industry that can be configured for exceptions, instead of customizing.

UPC or QR codes on labels offer a specific opportunity for collaboration that could benefit the entire industry. Embedding a UPC or QR code with more product information—production date, origin, shelf life—can help reduce waste and improve transparency on freshness.

FMI and third-party organizations play an important role in technology adoption, providing benchmarking, best practices, case studies, and proofs of concept to support the business case and ROI. FMI can also spearhead additional industry events to promote collaboration and take a more assertive role in helping lawmakers and regulators create responsible and standardized regulation for the industry.

“There’s never been a more powerful time to lean in on fresh.”

—Speaker, FMI FreshForward

## Action items related to disruptive technology

- Start with basics: Use technology to target the challenges all retailers, wholesalers, and vendors face, such as traceability across the entire life cycle, inventory positions, shrink, and store sales data. Design solutions that improve agility and readiness for the inevitable changes to come.
- Establish industry standards for data, with a free universal data set that would benefit the entire industry. Emphasize data integrity, particularly the need for clean data, fewer error points, and increased transparency around core competencies and goals.
- Strengthen trust between CPG and retailers: Demonstrate technology outcomes through workshops in proof of concept, speed, customization, and elimination of risk; have skin in the game to create stronger partnerships and move away from transactional relationships. Willingness to share information and basic data is a key to vendors, suppliers, and retailers working together to tackle challenges around issues such as food waste and recalls.
- Build the case for change: Understand the potential upside (look to the industry to understand what's possible), involve leadership in strategic planning sessions, perform a business assessment, and continue to monitor potential ROI and customer experience improvements resulting from tech implementation.



# Boosting fresh food safety

The food safety introduction on the main stage covered the following topics, which participants then explored further in the breakout session.

1

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**Ensure that your suppliers and partners in the supply chain are helping your food safety performance and culture**

**Gigi Vita, Vice President of Sales, Safe Quality Food Institute (SQFI)**

Vita began her discussion by outlining the need for food safety measures to reflect market changes, particularly the increase in fresh food concepts and changes in consumer perceptions around food freshness and safety. She noted that for the industry to progress, the general culture around food safety should evolve to prioritize constant education and improvement. While the leaders of the organization establish the standards, every employee should also uphold them. Benchmark certifications like those offered by the Safe Quality Food Institute help mitigate risks, but the onus is on the industry to work together to prevent recalls.

2

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**Enable “smarter food safety” by investing in research, holding suppliers accountable, and leveraging technology across the industry**

**Natalie Dyenson, Vice President, Food Safety and Quality, Dole Food Company**

Dyenson stressed that food safety should be part of business conversations and viewed as a business enabler rather than merely a quality checkpoint. In addition to quality checks on suppliers, there should also be an established process for food safety checks. Dyenson expressed the need for retailers and suppliers to partner around leveraging technology for food safety, noting that it could increase interoperability and improve how information is shared across the industry.

3

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**Understand your organizational food safety culture and act to improve it at the store level**

**Adam Johnson, Vice President and General Manager, Global Food Retail Services, Ecolab, Inc.**

Johnson spoke about the need to self-assess and define realistic goals that will carry food safety improvements from leadership to each employee. Technology-enabled assessment tools can help define goals and communicate expectations, verify that education and training are provided, and track progress against the organization's historical performance.

“Beyond being a business issue, food safety and sustainability are moral issues.”

—Attendee, FMI FreshForward

Participants in the food safety presentation and breakout session offered the following observations and action items.

### High-level observations around food safety

Today, food safety professionals are often siloed from other parts of their organization; they should report directly to C-level leadership, be involved in business operations and planning, and play a part in all decision making to contribute to forecasting and increased cost savings.

Culture around food safety is currently a compliance mindset, with organizations reacting to food safety concerns rather than being proactive. Reliance on third-party auditors can be risky: Competence, accuracy, and reporting may be inconsistent and can become a “check the box” indication of whether a supplier has completed their audit, rather than an accurate assessment of safety. For example, issues with romaine lettuce in 2018 were caused by a known water-source problem the supplier was treating—without evidence that treatment was effective.

Food safety should be owned by everyone, not just suppliers or retailers, with strong commitment and rigorous standards, regardless of size. Food safety should not be a competitive advantage: By increasing transparency and knowledge sharing throughout the industry, food safety can be treated as a common goal that’s much more likely to be achieved. Suppliers, retailers, and industry groups should also work together to encourage regulatory bodies to provide more effective responses to food safety issues and recall events, and establish more consistent standards and regulations for food safety.



The culture of reporting exists, and everyone understands the importance of keeping consumers safe, but ownership from the line to the top needs to be constant. Today, particularly in the United States, we enjoy a presumption of safety from consumers, but this could be at risk if the industry does not treat food safety as a fundamental concern. We should collaborate to be the undisputed leader in this space and have the safest food in the world.

## Action items related to food safety

- Broaden the discussion to all levels of the business: Analyze sustainability, food safety, and quality as an organization, rather than departments, and show business impact. Weave food safety into business operations decisions, and involve food safety experts in joint planning meetings with retailers/suppliers to increase integration into budgeting and forecasting, and to help identify cost savings. Aim to make advocacy a C-suite priority, with leaders promoting a culture of food safety with a common language, “zero tolerance,” and no fear around identifying problems. Provide compliance training, certification, and retention incentives for talent to maintain effective food safety practices.
- Adopt a more proactive mindset: Use predictive analytics and other scalable tools and technology, with a focus on the achievable, such as sensors and IoT to increase effectiveness of compliance; automation of activities where human error presents extraordinary risk; and technology that can increase visibility and minimize corruption and claims.
- Bond together and leverage collective influence: Suppliers, wholesalers, retailers, academia, researchers, industry associations, and government agencies can collaborate to research, prioritize, and address root causes; strengthen the culture and expectation to increase food safety; and align on issues and standards to advance food safety globally. The industry can help educate regulators on the proper food safety and recall responses and mentor smaller suppliers by offering support through continued education.
- Establish industry-level standards and benchmarks based on shared data and proven case studies: For one, audit procedures can be standardized with simple language, a universal supplier scorecard that incentivizes improvement, and solutions that emphasize education rather than penalties.
- Seek to improve regulatory coordination, notifications, and the recall process: FMI and other industry voices can push through greater clarity with the FDA; use product data to isolate root causes quickly and minimize impact; and establish a standard communication process for more rapid response to recalls.
- Account for allergens as a part of food safety management: Know who owns it and involve the food safety team.



# Game-changing strategies for food loss, packaging, and sustainability

To address food loss, packaging, and sustainability, the following main-stage presentations kicked off conversations and provided a starting point for breakout discussions.

## 1

**Where can the industry collaborate to achieve sustainability goals?**

**Tom Windish, President, Retail Channel, Cargill Incorporated**

Windish emphasized the importance of connecting “people, planet, and products” to solve challenges impacting each group, whether around food and nutrition, limited natural resources, or sustainable supply chains. He described Cargill’s BeefUp Initiative that aims for 30 percent reduction in greenhouse gas emissions in beef; a collaboration with the Nature Conservancy that helps farmers save water with effective irrigation; and other activities around blockchain and traceability. The presentation was also a call to action for the industry to partner on joint initiatives to realize these types of goals.

## 2

**“Plastic waste is the problem, not plastics.”**

**Janis McIntosh, Director of Marketing Innovation & Sustainability, Naturipe**

McIntosh encouraged a closer look at plastics in the berry industry and why a switch to corrugated paper containers might actually be more wasteful. McIntosh first noted how the plastic clamshell revolutionized the berry category by improving visibility and merchandizing, as well as reducing food waste, grazing, and pilferage. In considering a move to a fiber tray, she notes some unintended consequences for growers and retailers, including bringing back the visibility and merchandizing issues, increased shrink on both the product and the non-waterproof packaging, and increased need for warehouse space, among other possible challenges. She then posed the question:

Is the move to a fiber tray simply exchanging one problem (plastic waste) with another (deforestation)? Lastly, McIntosh called attention to the fact that the growers, who have been struggling with slim margins, weather-related strains on the farm, and depleting employee resources, would also be the ones absorbing the cost of the packaging switch.

## 3

**What is the outlook for “smart packaging,” and how can the industry achieve the benefits?**

**Francesco Fazio, Principal, Dublin, Deloitte Consulting LLP**

Fazio described innovative packaging options adopted by other industries and retailers around the world. He noted that “smart” in packaging can refer to a number of elements: high-functioning form or design that enhances the consumer experience; unique materials and chemicals that interact with the environment; and even digital connectivity that senses, measures, stores, analyzes, and communicates with other technology. Fazio described notable examples, including an app that manages inventory and supports dynamic pricing for retailers to reduce waste; a seafood supplier creating an end-to-end traceability platform to increase transparency for their consumers; and a CPG company partnering with an appliance company to create an oven that operates through connected technologies to deliver, prepare, and dispose of full meals. Fazio advised focusing on inventory management, product integrity, and user experience when considering how to apply these technologies and smart packaging ideas to fresh products.

In the breakout session that followed, participants compiled a list of action items that could help the industry improve strategies for food loss, packaging, and sustainability going forward.

### High-level observations around food loss, packaging, and sustainability

Sustainability comes at a cost, the benefits of sustainability are not always communicated throughout an organization, government standards differ in different jurisdictions and regions, and consumers make decisions with limited information.

Lack of consumer knowledge is a major problem: There is much room for improvement for the industry around communicating sustainability challenges. Consumers need to understand what can be recycled, how to recycle effectively, and the full repercussions of sustainable options. For example, if suppliers invest in compostable packaging but consumers don't recycle them properly, it just perpetuates the problem of waste. Many consumers assume anything in a recycling bin will be recycled—"wishful recycling"—which is rarely the case in the United States.

Improving knowledge within the industry is also imperative. For example, the industry made significant commitments to the cage-free movement before fully understanding what was driving demand. After the fact, it was realized that though consumers think cage-free is a great idea, they are not willing to pay for it. Benefits of the cage-free environment may not be as simple or beneficial as they appear on the surface.



Similarly, there is consumer pressure to reduce plastic use, though plastics are not going away soon: ICIS, one of the world's leading plastics market research companies, anticipates that the petrochemical industry will double plastic manufacturing capacity from 2016 to 2024. The American Chemistry Council expects the industry to spend nearly \$25 billion to build new plastic manufacturing capacity by 2025, compared with \$1.5 billion the industry plans to spend on cleaning up plastic waste. The World Economic Forum has issued a report on plastic that predicts a doubling of production in the next two decades.<sup>1</sup>

For suppliers and retailers, cost is a major barrier to more sustainable practices. Retailers may push for suppliers to be more sustainable, but suppliers often cannot pay the up-front costs, nor do they want to pass along extra cost to consumers. And despite consumer demands for sustainable options, their purchasing behavior indicates that most are not willing to absorb the increase.

Ultimately, retailers and suppliers should collaborate and be jointly committed both ideologically and financially to implementing improved sustainability practices; should not make it a point of competitive advantage; and should seek out opportunities to share knowledge and work together.

<sup>1</sup> Christopher Joyce, "U.S. Recycling Industry Is Struggling to Figure Out a Future without China," All Things Considered National Public Radio, <https://www.npr.org/2019/08/20/750864036/u-s-recycling-industry-is-struggling-to-figure-out-a-future-without-china>, broadcast August 20, 2019.



### Action items related to food loss, packaging, and sustainability

- Focus on consumer education—particularly pros and cons of seemingly sustainable options, cost increases, overall impact of waste on the environment, and how to recycle effectively. Create a standard glossary for communicating the product life cycle to the consumer. Incorporate sustainability into brand stories in a big way, from packaging to in-store signage to training for associates.
- Use smart packaging and analytics for better supply chain decisions. Monitor KPIs at a store level and tie to individual performance reviews to change behaviors; give individuals incentives to make decisions that align with sustainability goals, not just profitability.
- Shift the conversation from plastic to plastic waste by helping regulators focus on incentivizing recycling and the use of recycled materials, making these economically viable alternatives, instead of banning virgin plastic outright. It was suggested that FMI can help facilitate lobbying. Improve materials recovery facilities (MRF) through partnerships between manufacturers and retailers, be willing to initiate small pilots, and share findings.
- Implement a good-better-best approach to sustainability: Make an impact through incremental improvements, moving the needle without significantly impacting cost/ROI. Create a consumer-facing guide or rating system that promotes good-better-best sustainability practices in the industry, through universal messaging.
- Do not use packaging as a competitive edge. Close the gap between packagers, suppliers, and retailers. Create a collaborative environment to identify shared issues, implications, facts, and next steps, including influencing government for rules that support achievable sustainability goals.

# Looking ahead

Many candid conversations this year addressed a wide range of topics, with sentiments from participants resonating with these common themes and action items.



## Increase collaboration across the industry

- Hold one another accountable against a standard (food safety, freshness, and sustainability)
- Share knowledge rather than using it as a competitive edge



## Participate in policy discussions

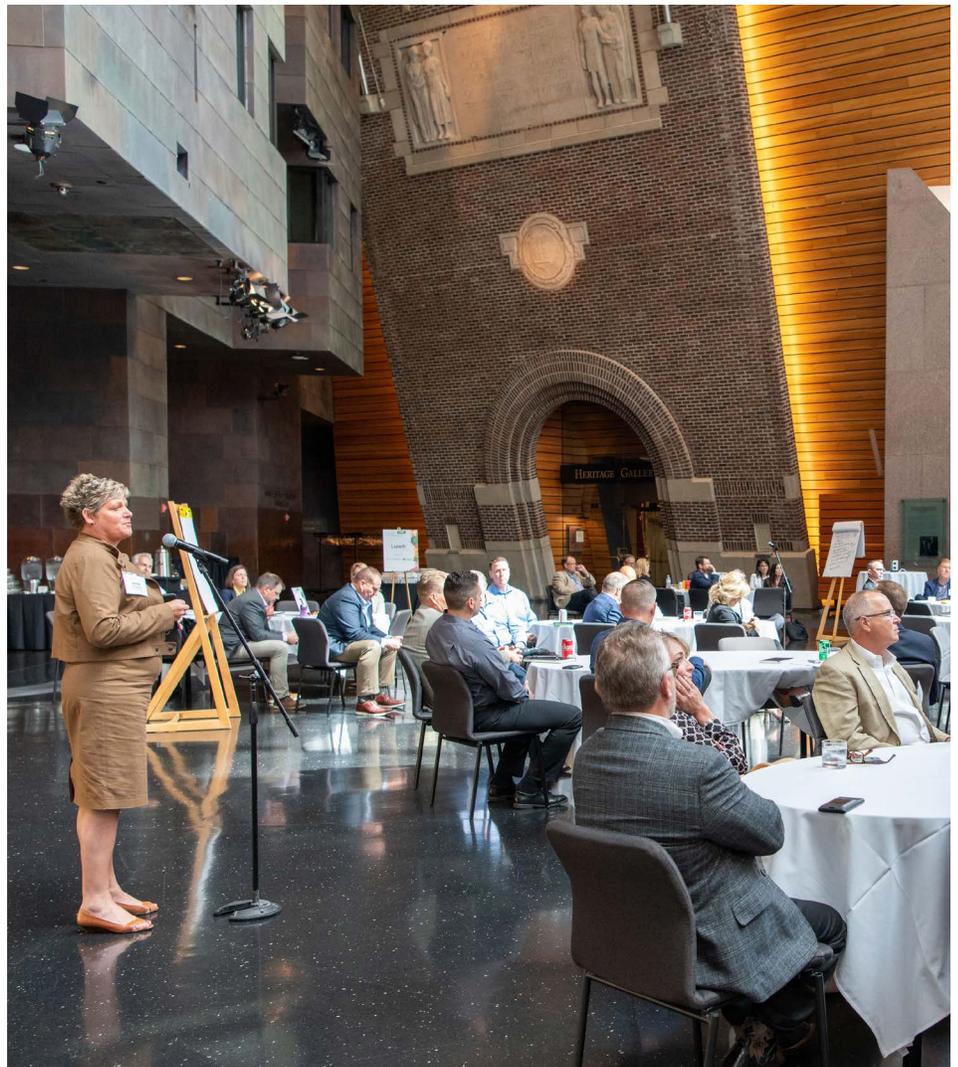
- Participate in conversations with government regulators
- Educate decision makers on the benefits of standardization
- Lead the discussion around establishing clear language and processes related to recalls, food safety compliance, and sustainability goals



## Take action to distribute costs

- Cost is a significant inhibitor of progress for all themes discussed at the forum
- Consensus on both sides of the aisle is needed to implement real change

As the industry continues to evolve, FreshForward will stand to provide an intimate setting for leaders to explore challenges and solutions for the future of fresh food.



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