

From Insights to Infrastructure

The 2026 Global Retail Collaboration Report

Published April 2026. A joint report of the International Fresh Produce Association, the Collaboratory for Open Software and Systems in Ag & Food (COSSAF), and TOTEM.

This report builds upon the previously published [October 15, 2025 Retail Issues Forum Report](#).

Two pallets. Same grower, same variety, same pack date, same truck. One arrives in perfect condition. The other gets rejected at the dock.

The data to explain what happened exists. It was captured at harvest, logged through transit, and recorded at receiving. It just never connects. By the time anyone can act on the problem, the product is already rejected and the conversation has turned to chargebacks.

This report is about what the fresh produce industry is doing about that, and where it still needs you.

Who we are, briefly

Supply Chain of the Future is an open, non-competitive industry initiative built by organizations that believe fresh produce supply chain problems are best solved together. The International Fresh Produce Association convenes the industry. The Collaboratory for Open Software and Systems in Ag & Food (COSSAF) builds the open infrastructure. TOTEM runs the operating layer. Together we are doing something none of us could do alone: getting the industry to act on shared challenges in a way that actually works.

This is not another white paper. It is a working document. Pilots are scoped and running. Companies have stepped up and put their names on them. The infrastructure is being built in the open, under standards that already exist, on commercial terms that reward quality performance. The purpose of this report is to show you what progress has been made, what gaps remain, and where interested organizations can meaningfully plug in.

[Visit www.supplychainofthefuture.org](http://www.supplychainofthefuture.org)

What retailers told us in October



On October 15, 2025, we convened a closed-door forum with retail leaders from independent specialty chains, regional operators, and enterprise retailers across North America. We operated under Chatham House Rules so people could speak plainly. They did.

Four findings came out of that conversation and shaped everything we have done since.

The supply chain stops at the store door, and nobody is watching. Retailers described investing heavily in cold chain optimization only to discover through detailed analysis that their stores were eroding shelf life at the last handoff. Coolers not maintained at temperature. Staff lacking the expertise to handle berries on arrival. Produce professionals increasingly rare in retail environments. One retailer said it bluntly: *the supply chain had done its job, and the store had failed to complete the final step.*

FIFO and freshness are being forced into a false binary. Strict first-in, first-out protocols, designed for food safety and operational discipline, routinely push older product forward when quality-based routing would send fresher product out the door first. Store teams face a daily choice between compliance and customer experience. The current system forces an either-or decision where a both-and answer exists, if the data were available at the point of decision.

Quality is rewarded with words, not money. A supplier can deliver exceptional product for years and still walk into the same price negotiation as a supplier who cuts corners. No standardized metrics. No data layer that translates performance into commercial terms. Quality becomes anecdotal, and when budgets tighten, lowest price wins. Retailers were clear this is a structural problem, not a relationship one.

Data standardization is an organizational problem, not a technology one. The technology to share data securely, analyze it, and integrate it into decision-making already exists. What is missing is agreement on what data to share, in what format, at what frequency, and through what commercial relationships. Department-level initiatives have repeatedly stalled in the face of competing priorities. Without executive alignment, nothing moves.

Retailers also said, repeatedly, that they were tired of supply chain solutions designed without them. Previous initiatives had been built technology-forward rather than retailer-reality-forward. They wanted innovation that acknowledged store-level constraints, worked with existing WMS systems, and connected to measurable business outcomes. They were not skeptical of change. They were skeptical of promises.

What the industry said back

Between March 31 and April 16, 2026, the Fresh Futures Global Collabathon brought nearly 200 participants from 6 continents into two sessions designed to test whether and how the industry would respond. This was not a presentation. It was a working session. Participants reviewed pilot concepts in pairs, voted on which to advance, then built out process flows on shared boards, mapping events, people, and unanswered questions in sequence.

The room was global: growers, distributors, retailers, logistics providers, standards organizations, technology companies, and food service operators from Australia, Belgium, Canada, Chile, China, Colombia, El Salvador, Germany, India, Ireland, Israel, Mexico, the Netherlands, New Zealand, Peru, Qatar, Rwanda, South Africa, Spain, Turkey, the United Kingdom, and the United States.

GLOBAL REACH

~200
PARTICIPANTS

22
COUNTRIES

2
GLOBAL SESSIONS

THE AMERICAS

Canada · Chile · Colombia · El Salvador · Mexico · Peru · United States

EUROPE

Belgium · Germany · Ireland · Netherlands · Spain · Turkey · United Kingdom

ASIA & MIDDLE EAST

China · India · Israel · Qatar

AFRICA

Rwanda · South Africa

OCEANIA

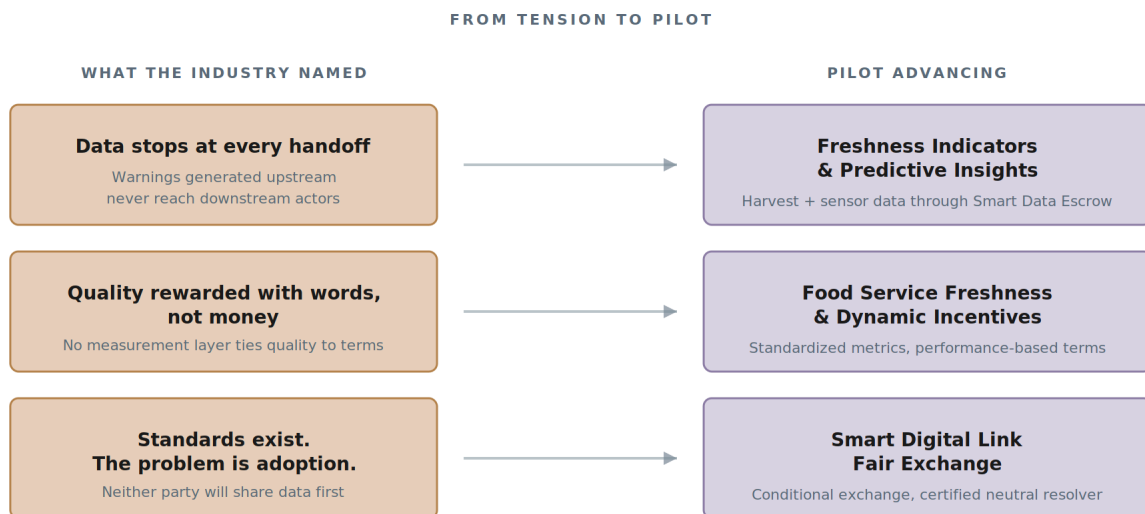
Australia · New Zealand

One framing from the planning team is worth naming here, because it shaped how we ran the sessions. The Collabathons were a gut-check: would what retailers named as the hard problems hold up when put in front of hundreds of practitioners from every corner of the supply chain? They did. Across every time zone and every room, three tensions kept resurfacing – the same ones retailers named in October, now validated by the global industry.

Data stops at every handoff. Every actor generates it. Growers capture maturity and handling data at harvest. Sensor providers track temperature, humidity, and shock events through transit. Distributors log receipt conditions. Retailers record what sold and how long it lasted. None of it connects. Across retail, logistics, and growing operations, the same pattern emerged:: the warning signs were there, earlier in the chain, but nobody downstream ever saw them.

Quality is acknowledged, but rarely compensated. The food service participants were most pointed on this. A supplier delivers exceptional produce, on spec, handled correctly. The operator appreciates it. At contract renewal the conversation is still about price. There is no shared data, no consistent measurement, and no system that converts performance into financial outcomes. The incentives are not broken because people do not want to do the right thing. They are broken because there is no measurement system that makes doing the right thing financially visible.

Standards exist. The problem is adoption. This came up with some force, more than once. Participants pushed back on the idea that the industry needs new standards. The question, fairly put, was: if stakeholders are not following the standards we already have, why would something new be any different? The group worked toward an answer: the limitation is not the standards themselves.. It is that "good" means something different depending on who is buying, what region you are in, and what the commercial relationship looks like. Harmonization needs to be practical, getting existing standards followed consistently, not adding another layer.



Three pilots the industry voted to advance

Freshness Indicators and Predictive Insights. The most broadly voted pilot across both sessions. Connect harvest and IoT sensor data through Smart Data Escrow so every actor in the chain receives predictive information before product arrives, not after it is rejected.

The scenario that landed hardest was the two pallets, same truck, same grower, different outcome. This pilot closes that loop. Participants spent the build rounds mapping the full journey from harvest to retail receiving and landed on one insight that came up repeatedly: the technical work is only part of it. The harder work is trust. Getting trading partners to share data they have always treated as proprietary. Getting growers credit for quality, not just volume, was named as the real incentive for participation on the supply side.

Smart Digital Link Fair Exchange. The familiar standoff: growers want point-of-sale data from retailers, retailers want harvest and handling data from growers, neither shares first. The pilot's answer is conditional exchange. Both parties commit to terms before either reveals anything. A certified neutral resolver ensures no one can game the system. Verifiable credentials let both sides trust what they receive. No one goes first. No one controls everything. One participant said plainly that there is no such thing as a neutral party. The answer, worked out in the room, was that neutrality does not require impartiality; it requires certification. Escrow in real estate works the same way. This pilot is building that infrastructure for data.

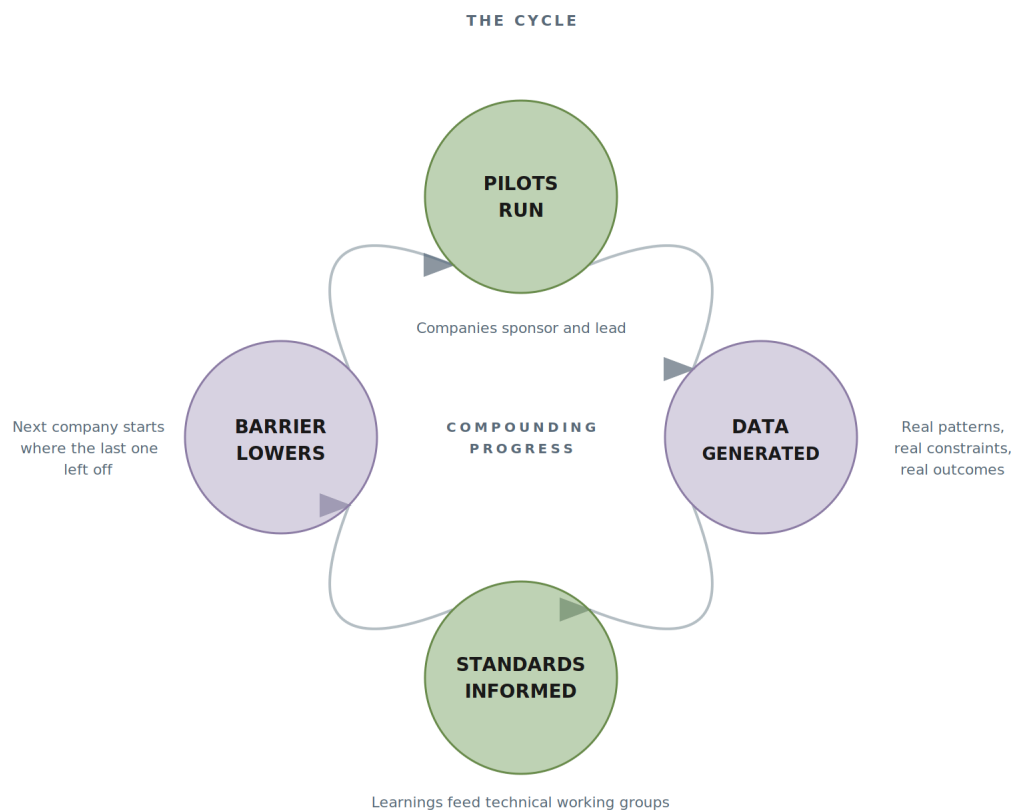
Food Service Freshness and Dynamic Incentives. Food service has different quality expectations than retail and commercial dynamics that make consistent quality hard to sustain. This pilot creates the measurement layer that makes incentive alignment possible. Quality data from the field, sensor data from transit, and receipt data from the operator all flow into a shared insights platform that calculates performance against agreed metrics. The output: standardized quality metrics, incentive calculations showing whether the supplier hit the targets, and commercial terms that can reflect actual performance. The room's hardest question was also the most important: what is quality, exactly, in food service? The answer the group worked toward was that the pilot has to answer that question by running it, not by resolving it in theory first.

The infrastructure underneath

These pilots share a common architecture — meaning a grower or retailer who participates in one pilot is not starting from scratch when the next one opens. The technical layer underneath is built on GS1 identifiers, GS1 Digital Link, and Smart Data Escrow, a protocol that lets participants share data with specific parties without sharing it with everyone. Each participant controls who sees what, under what conditions, without giving up ownership. That architecture is what makes the pilots interoperable.

None of these pilots is a closed design. They are templates. The point of running them is to generate specific learnings, what data actually matters at each handoff, what triggers an alert, where trust breaks down, which commercial terms can realistically tie to quality data, and then feed those learnings back into the technical working groups so the next company to run a pilot does not start from scratch.

The cycle



Pilots generate real data. Real data informs standards. Standards lower the barrier to entry for the next pilot. It only works if the pilots run, and the pilots only run if companies step up to sponsor, lead, and participate in them.

This is the mechanism the industry has been missing. Not another white paper. Not another working group that produces recommendations no one acts on. A working cycle, funded by sponsors who see commercial return, governed by a steering committee that sets direction, supported by technical working groups that do the detailed work.

The October 2025 Retail Issues Forum set the direction. The March and April 2026 Collabathons validated it with expert voices from 22 countries. The three pilots are in flight. The cycle is live. What it needs now is more companies actively engaged in co-creating solutions.

What retailers asked for, and what has not been picked up

OCTOBER RECOMMENDATION	STATUS	WHAT IT MAPS TO
High-shrink, high-perishability commodities first	CARRIED FORWARD	All three pilots; berries first, asparagus and leafy greens next
Data standardization as organizational change	CARRIED FORWARD	Smart Digital Link Fair Exchange + Freshness Indicators
Connect quality to commercial terms	CARRIED FORWARD	Food Service Freshness & Dynamic Incentives pilot
Store-level execution and training	NOT PICKED UP	No pilot. No champion. Needs funding and leadership.
FIFO intelligence and quality-based routing	NOT PICKED UP	Data architecture will enable it; retail-side implementation open.
Internal retail incentive alignment	PARTIAL	Supplier side addressed; retailer internal alignment open.

The industry's direction follows the companies who lead. Three gaps remain.

This is honest accounting. When you line up the October retail recommendations against what the industry has funded and moved forward, three of them are carried forward in the pilots. Two are not. One is partially addressed.

Carried forward:

- Focus on high-shrink, high-perishability commodities. All three pilots explicitly name berries as the starting category. Vegetables are in the expansion plans.
- Treat data standardization as organizational change. Smart Digital Link Fair Exchange and Freshness Indicators both address the permissions and commercial frameworks that make data sharing actually happen, not just the technology.

- Connect quality to commercial terms. Food Service Freshness and Dynamic Incentives is a direct answer to the supplier-side incentive problem.

Not yet picked up:

- **Store-level execution and training.** No pilot. No champion. No funding. This was the recommendation retailers were most emphatic about in October. Equipment standards, handling protocols, produce-operations certification programs for store teams, reinforcement training for staff turnover. All of it sits unclaimed. One retailer in October described partnering with a premium supplier, delivering excellent shelf life, and watching their own stores erode it at the last mile. That gap is not being closed by anything currently in flight.
- **FIFO intelligence and quality-based routing.** The October working group that tackled this produced specific, implementable recommendations: rules-based routing logic within WMS systems, in-field and in-transit shelf-life assessment, vendor accountability scorecards. No pilot is carrying this forward. The data architecture being built under the three current pilots will eventually enable quality-based routing, but the retail-side implementation, the part that actually changes what happens at the warehouse and on the store floor, needs its own champion.

Partially addressed:

- **Internal retail incentive alignment.** The Food Service pilot tackles supplier-side incentives and commercial terms between suppliers and buyers. It does not touch what is happening inside the retailer: sales managers compensated on margin dollars, buyers pressured to hit gross profit targets, district managers evaluated on sales per labor hour rather than shrink reduction. Retailers said clearly in October that dynamic pricing and quality-based routing will not work without aligning internal incentives. That work has not started.

If your organization has been trying to solve one of these gaps on its own, this report is a signal. The industry has validated the problem. The infrastructure is being built. What is missing is a company willing to lead.

Where the industry goes from here

This work exists on three tiers. They are not just different ways to participate. They are different commitments to the industry's future.

Pilot sponsor. A funded program that runs a pattern in a real operating environment and feeds the learnings back into the industry. First-mover advantage on a pattern the whole category will eventually adopt. Named recognition in the report that follows. A pilot learning loop that compresses two or three years of industry knowledge into six months of real data. Pilots are funded commitments, scoped and priced based on scope and participant count. Organizations ready to sponsor a pilot, or to be considered for participation when a relevant pilot opens, can start the conversation at info@scotf.org.

 *Sponsor a Pilot : <https://bit.ly/supplychainleaders>*

Steering committee member. A paid governance position for organizations ready to set the direction of this work. Steering committee members decide which pilots get funded, which standards get ratified, and what the initiative prioritizes over the next two to three years – the decisions that determine whether a category's problems are on the roadmap or waiting for someone else to fund them. Organizations that want their interests represented at the level where commitments are made will find this is the seat for that.

 *Demonstrate Thought & Industry Leadership : <https://bit.ly/supplychainleaders>*

Technical working group member. Free and open. The detailed technical work happens here. Shelf Life Prediction and Dynamic Incentives and Harmonized Standards and Smart Data Escrow are active and accepting members now. Full Circle Integration and Innovation and Technical Programs are forming, with waitlists open. Organizations whose expertise belongs in one of these conversations are encouraged to join.

 *Join The Working Groups And Make Things Come to Life: <https://bit.ly/supplychainteam>*




For those who attended the October 2025 forum or either of the Spring 2026 Collabathons: this is what happened with that input. Three pilots are running because the industry showed up.

The unclaimed recommendations above – store-level execution, FIFO intelligence, internal retail incentive alignment – will be filled by organizations that step into them. The industry's direction follows the companies that lead. Those conversations can start at info@scotf.org.

Appendix: Pilots in flight and in design phase

Short-form videos on each of the three advancing pilots are available on www.supplychainofthefuture.org. Each runs approximately three minutes and includes the participant experience, the data architecture, and the commercial framework.

Advancing to Pilot:

Pilot Name	Description	Video
<p>Freshness Indicators – Predictive Insights for Fresh Produce</p> <p>(03:05)</p>	<p><i>What if you knew a pallet was going to be rejected before it ever left the cooler? This pilot connects harvest data with IoT sensors to predict quality before arrival. Participants include grower-shippers, sensor providers, logistics partners, distributors, and retailers. A Supply Chain of the Future pilot.</i></p>	
<p>Smart Digital Link Fair Exchange</p> <p>(03:14)</p>	<p><i>Retailers want data from growers. Growers want data from retailers. But neither shares first. This pilot creates conditional data exchange: "I'll tell you X if you tell me Y." A Smart Data Resolver enables fair exchange with no single party controlling all information. A Supply Chain of the Future pilot.</i></p>	
<p>Food Service Freshness and Dynamic Incentives</p> <p>(03:19)</p>	<p><i>Everyone talks about quality. But in food service, does quality actually pay? This pilot creates the measurement layer that makes incentives possible. Field quality data, transit sensors, and delivery receipts converge into an insights platform that calculates performance against agreed metrics. Quality that pays. A Supply Chain of the Future pilot.</i></p>	

In design, opening for sponsorship in Spring/Summer 2026:

- Leafy Green, and Tropical Fruit Shelf-Life Prediction & Modeling
 - Complete Quality Visibility - Pre-farm gate and beyond
 - 2D Barcode at POS
 - Goods Movement Process and Transportation Unit Identifiers (TUIDs)
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Get involved at scotf.org. Contact us at info@scotf.org.

The Supply Chain of the Future is a pre-commercial, non-competitive, industry-owned initiative stewarded by the International Fresh Produce Association, the Collaboratory for Open Software and Systems in Ag & Food (COSSAF), and TOTEM.