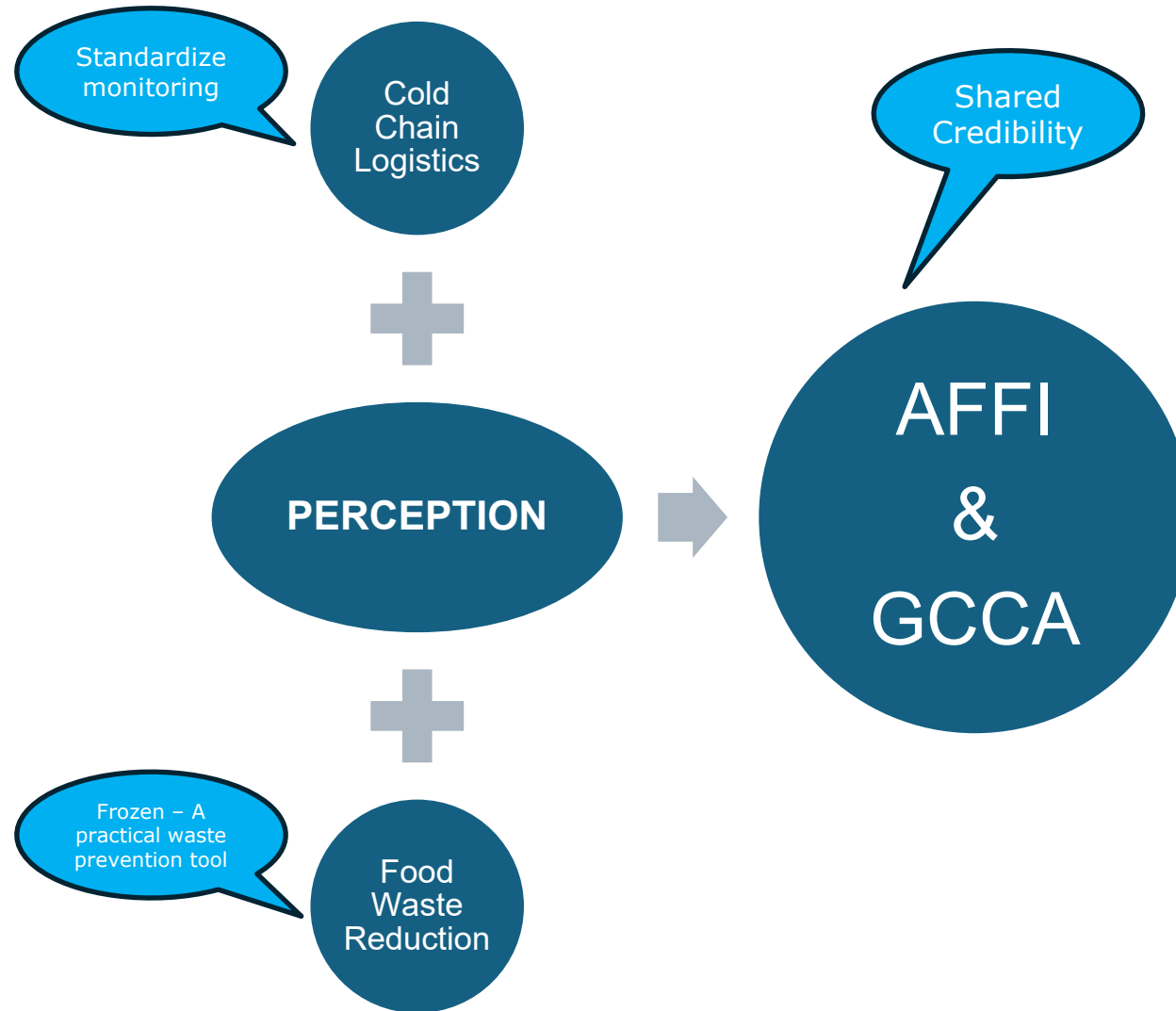




'Freezing is Nature's Pause Button'

Sustainability: Levers to Build Trust + Momentum



AFFI AMERICAN
FROZEN FOOD
INSTITUTE

 **GLOBAL COLD CHAIN**
ALLIANCE®

Initiatives and Projects – Validate and Scale What Works!



Infrastructure

- Freezer Capacity (bottlenecks)
- Food banks/pantries
- Access to frozen foods in the hunger-relief supply chain



Tools and Guidance

- Industry guide on FLW reduction in frozen operations
- Food rescue toolkit
- Policy atlas
- Donation partnerships



Perception

- Food waste narrative
- Advocacy
- Stakeholder engagement





Sustainability in the Frozen Food Cold Chain

(Baseline – Science – Operations – PERCEPTION)

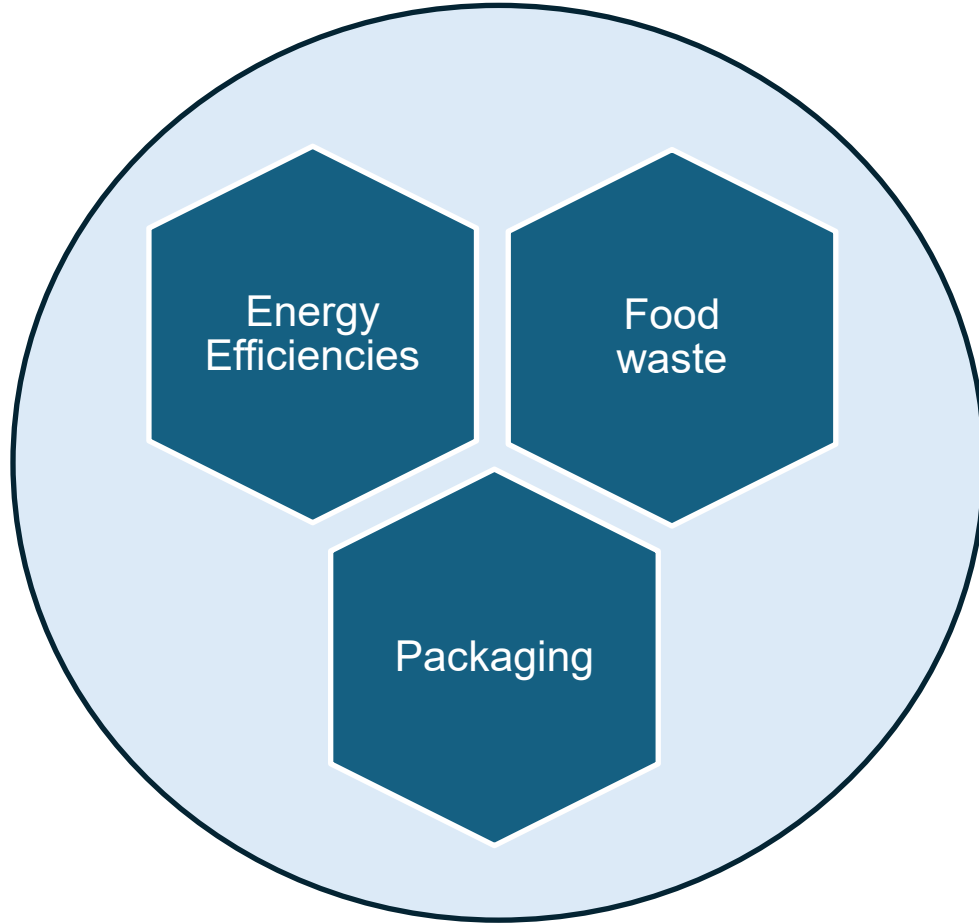
February 20, 2026

Supply Chain Forum

AFFI-CON 2026
San Diego, CA

Frozen Food Perception

Efficient, Reliable, and a Food Waste Solution



Energy Efficiency

- AFFI Decarbonization Network Share Group
- Guidehouse GHG Protocol Training
- Cold Chain Temperature Set Point

Food Waste Reduction

- Advocacy and Recovery
- Food Loss & Waste in Operations

Packaging Recyclability and Circularity

- Monitoring State & Local Developments
- Innovation

Discipline, Set Points, and Control – Cold Chain Logistics

Key Considerations for Frozen Food Shelf Life

- Initial Freezing Quality – Frozen Food Processors
- Temperature Discipline – Storage and Distribution Logistics
- Frozen Foods in the Home – Consumers (Perception)



"Food Waste Reduction Starts with Temperature Discipline"



Our Guardrails

What Can We Do!

- Convene members/partners around shared data and protocol
- Translate science into practical guidance on safety and quality
- Elevate credible proof points on food waste and access



Can't Do!

- Promise category-wide outcomes on timelines we don't control
- Ask industry to trade away quality trust for energy claims



How AFFI is Approaching This Opportunity

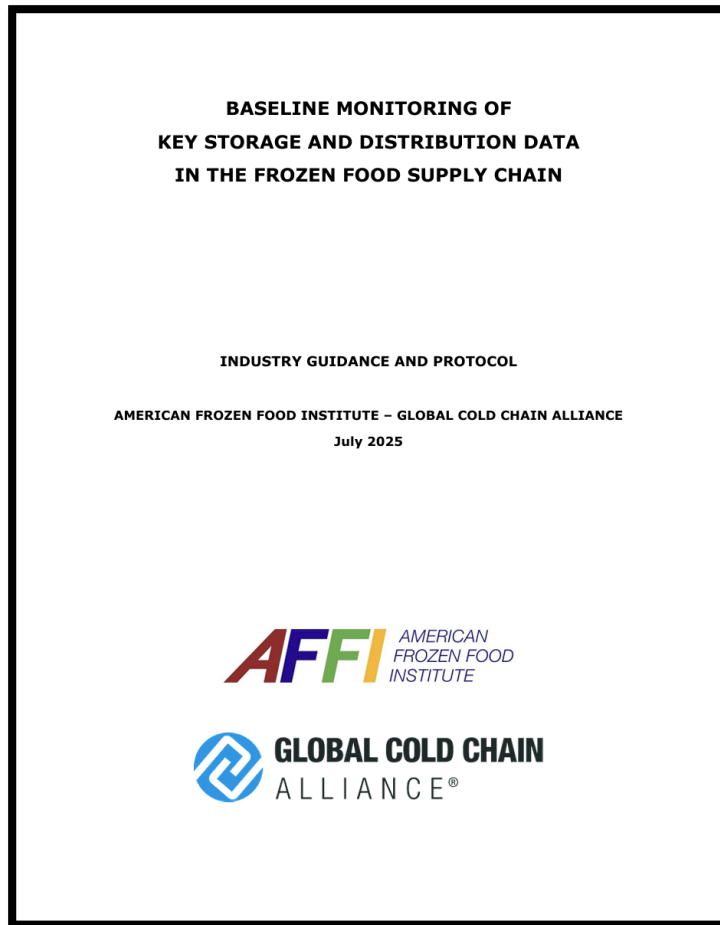
Standard Temperature Set Point (0°F/-18°C)

- Baseline Temperature Monitoring Protocol for the Cold Chain
- Frozen Food Safety
- Frozen Food Quality



AFFI – GCCA Baseline Temperature Monitoring

Shared Operational Standard - Palletized Product Temperatures in Cold Chain

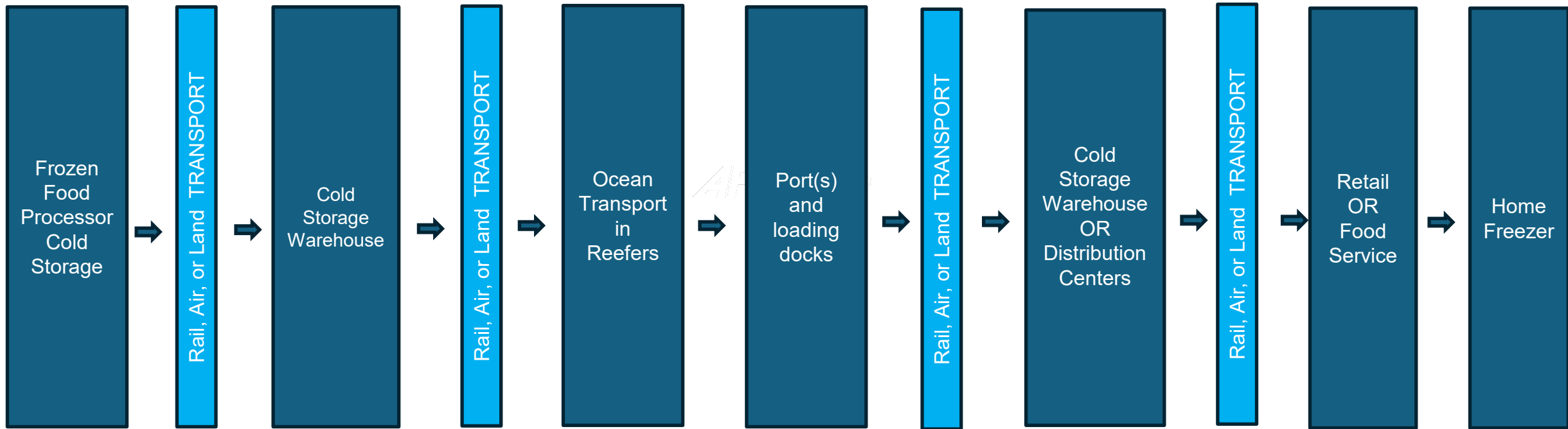


- International Frozen Food Network
- A major frozen food business and its food service customer used the protocol for a cold chain product temperature monitoring exercise in 2025. (Simplot/Sysco – Pilot trials)
- “Temperature awareness” initiatives among AFFI members, to investigate temperatures in their frozen supply chains.
- Work with the Coalition to conduct trials and collect results

[AFFI-GCCA Baseline Monitoring Protocol](#)

Mapping the Cold Chain

Palletized Product Temperatures in the Cold Chain



"A Shared Baseline Reduces Friction, Enhances Comparability, and De-Risks Future Change"



Frozen Food Safety – ‘The License to Operate’

Examining the implications of growth and survival of various pathogens during storage and distribution of frozen foods



Frozen Foods - Pathogens

An Expert Panel Scientific Literature Review – Q1/Q2 2026

Occurrence

Inactivation

Growth

Survival

Bottom Line: "Frozen Storage Prevents Growth, Abuse Happens During Thawing/Misuse"



Frozen Food Quality

Expert Consultative Group on the Quality and Shelf-life of Frozen Foods

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"Frozen Foods have a Memory for Adverse Experiences"
Van Arsdel. W

What Does Success Look Like

Baseline, Science, Practical Guidance



Call TO ACTION: Bring Your Data, Pilots, Bottlenecks



Cold Chain Study

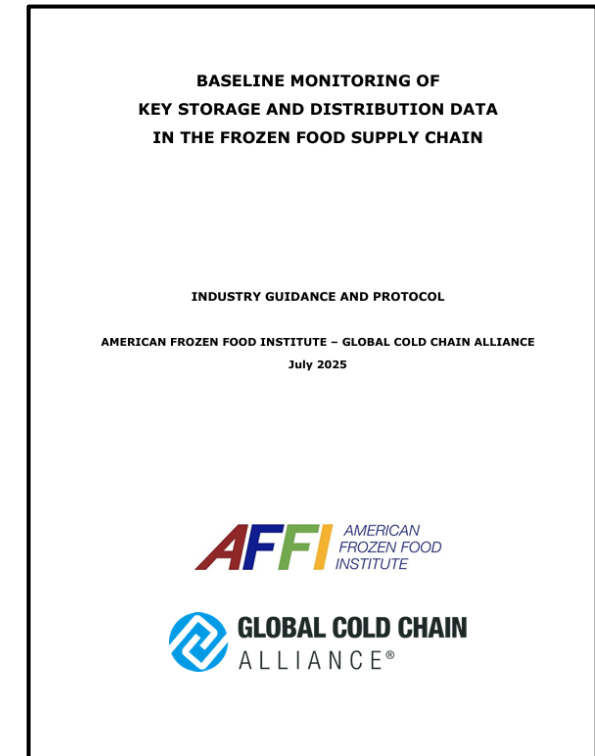
- A frozen food industry collaboration

Background

- There is global momentum in the frozen food industry to challenge the existing norm of the 0°F frozen product storage and transport temperature setpoint ; with the goal of reducing energy usage, cost and emissions, improving supply chain efficiency and reducing food waste.
- It has been hypothesized that frozen food set points can be elevated to +5° F in storage and transport, without impacting product quality or food safety, or needing to reformulate products.
- It has been estimated this could save 2% in energy use per degree of temperature increase in the frozen food chain.
- AFFI decarbonization share group members are always looking for areas where we can create efficiency, reduce energy usage, demand and carbon emissions.
- **The first step that member organization, Simplot took was to partner with a like minded supply chain partner to understand baseline temperature data to help inform the industry and next steps.**

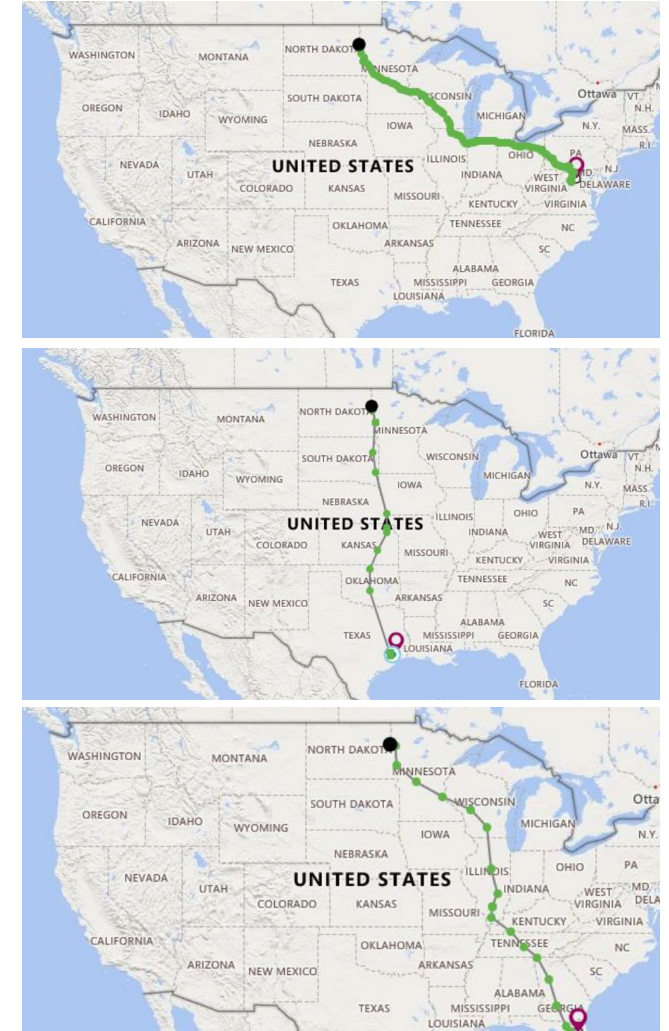
Objective

- Using the AFFI protocol for baseline monitoring in the frozen food supply chain, Simplot partnered with supply chain partner, Sysco to conduct current state temperature trials.
- The purpose of these trials was to understand what existing temperature variation occurs in the shared cold chain to identify opportunity to stabilize temperature as a starting point.



Cold Chain Data Logging Trials

- Different frozen potato products with varying densities and surface areas were selected to conduct the trials.
- Multiple destinations were selected to develop the data sets.
- Data loggers were strategically placed in cartons in various pallet locations.
- Under the guidance of Sensitech, Simplot & Sysco collected cold chain data for their shared supply chain – from factory through to customer DC.



Learnings

- Data indicated there is some temperature fluctuation in the frozen supply chain ; some of which is expected and difficult to address (e.g., opening of doors).
- Product temperature at the periphery (top and bottom) of the pallet performed significantly better than that of product at the core.
- It is important to evaluate actual temperature data against set points as these vary across the frozen food supply chain.
- Collaboration across the frozen food chain is the only path to whole of system change.

Unknowns & Next Steps

- It is still unclear whether there is opportunity to remove fluctuation in the frozen food chain and the value this may bring (many considerations including operational capability, financial, **product quality impacts**).
- Removing or minimizing any temperature variation is a critical step prior to considering altering set points.
- Simplot and Sysco are continuing discussions on next steps and how this data may be used for future studies/initiatives.
- Research continues globally on the impact that elevating frozen temperature set points may have across product categories.





Questions?