

TempSight AI Enterprise Platform

Transforming Cold Chain Monitoring with
TempSight AI, Intelligent Sensors and
Indicator Labels for Temperature-Sensitive
Supply Chains



TempSight
Supply Chain Visibility

Seerion AI: Vision-Based Cold Chain Compliance

Universal Connector for Intelligent Sensors and Indicator Labels



Reveal heat excursions and freeze events accurately via color changing indicators to provide users with actionable insights.

Fresh-Check Food Freshness Indicator

The Fresh-Check Indicator is an intelligent companion to product date codes on the package. It contains a reactive material that changes color irreversibly — faster at higher temperatures and slower at lower temperatures — so it’s easy to see when the specified time and temperature limit for a product has been reached or exceeded.

Performance and Use	
Response Temperatures:	8°C (46F) / 26.7°C (80F) / 60°C (140F)
Response Time:	5.4 to 1,096 days, determined by category
Storage Temperature:	Below -18°C and protected from light
Shelf Life:	45 days to 1 year, determined by category
Usage:	Single use
Temperature Monitoring:	Continual
Device Size:	11mm x 16mm (most common) 19mm x 19mm and 27 x 22mm available in some categories
MSRP:	\$0.05- \$0.10 each

Unified Dashboard: Real-Time Cold Chain Visibility

Single-pane Live Overview

Provides a consolidated single-pane view of warehouses, restaurants, sensors, and critical inventory with live statistics for immediate operational insight.

Instant Core Functions

Instant access to three core functions—Route Optimization, Temperature Alerts, and Predictive Analytics—accessible directly from the dashboard for rapid response.

Mobile-first Field Management

Designed for mobile-first use, enabling field teams to manage operations, view telemetry, and execute tasks from any location with minimal latency.

Action-oriented One-tap Workflow

Action-oriented interface with one-tap access to key workflows and blue call-to-action buttons that streamline dispatch, alert handling, and analysis tasks.

Real-time Synchronization

Ensures real-time synchronization across distributed teams and locations so all stakeholders share the same live data and event context.



20
Warehouses



100
Restaurants



60
Sensors



12
Critical Items

Route Optimization

Optimize delivery routes based on spoilage priority and distance.

Calculate Routes

Temperature Alerts

Set up automated alerts for temperature violations.

Configure Alerts

Predictive Analytics

Predict spoilage patterns and optimize inventory management.

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Proactive Alert Management: Three-Tier System

Critical Alerts

Immediate temperature violations requiring urgent action, automated escalation to on-call staff, and clear remediation steps to prevent product loss.

Warning Alerts

Approaching threshold notifications and sensor connectivity issues indicating potential risk; recommends inspection and threshold adjustment to avoid escalation.

Normal Status

Continuous tracking across 50+ monitored zones with baseline metrics, historical context, and health indicators to confirm stable operations.

Zone Notifications

Zone-specific messages with exact sensor locations, error descriptions, and real-time push notifications to mobile devices for targeted resolution.

20
Warehouses

100
Restaurants

Temperature Alerts

Configure and monitor temperature violation alerts

3
Critical

7
Warning

50
Normal

Recent Alerts

Warehouse A - Zone 3

Temperature exceeded 8°C

5 min ago

Warehouse C - Zone 1

Sensor disconnected

12 min ago

Warehouse B - Zone 2

Approaching threshold (6.5°C)

25 min ago

Configure Alert Rules

Predictive Analytics

Predict spoilage patterns and optimize inventory management.

Set up automated alerts for temperature violations.

Predictive Analytics ×

AI-powered spoilage predictions and inventory insights

 **Waste Reduction**

23%

vs. last month

 **Prediction Accuracy**

94%

Last 30 days

Upcoming Spoilage Risk

Fresh Berries - 250 units

Warehouse B, Zone 4

High Risk

Leafy Greens - 180 units

Warehouse A, Zone 2

Medium Risk

Dairy Products - 500 units

Warehouse C, Zone 1

Low Risk

Generate Full Report

Predictive Analytics: 23% Waste Reduction

94% Prediction Accuracy

Achieves 94% prediction accuracy for upcoming spoilage events using machine learning models trained on historical and real-time data.

Risk Stratification

Risk tiers identify High Risk: Fresh Berries (250 units), Medium Risk: Leafy Greens (180 units), Low Risk: Dairy Products (500 units) for targeted actions.

Temperature Pattern Analysis

Combines historical temperature pattern analysis with inventory metadata to detect degradation trends and improve forecasting robustness.

Proactive Intervention

Enables proactive interventions before product loss occurs and supports continuous model improvement through feedback loops and new data.

Distribution Network Monitoring



Interactive Map

Interactive map displaying all warehouses and delivery endpoints across regions, enabling zoom, filter by status, and region-based routing visualization for operations teams.



Temperature Compliance

Real-time status indicators for each location's temperature compliance with color-coded alerts and historical trend snippets to quickly identify out-of-range readings.



Spoilage Priority

Spoilage Priority List identifying expired or at-risk products immediately, highlighting critical items like expired Cheddar Cheese and Atlantic Salmon with severity tags.



Product Cards

Detailed product cards showing stock quantity, current temperature readings, and expiration dates for rapid identification and prioritized handling by logistics staff.



Sensor Integration: Enterprise IoT Hardware



Environmental Telemetry

Purpose-built temperature and humidity sensors for cold chain applications with high precision



Wireless Connectivity

Seamless data transmission to TempSight platform without infrastructure requirements



Battery Powered

Flexible installation enabling deployment in any location including mobile assets



Continuous Monitoring

Real-time environmental monitoring with configurable sampling intervals for compliance



Proven Reliability

Tested performance in refrigerated, frozen, and ambient environments

Centralized Sensor Fleet Management

Complete visibility of sensor status

Real-time temperature readings, battery levels, and last sync timestamps for each Intelligent sensor, enabling full operational transparency across the fleet.

Environment-specific monitoring

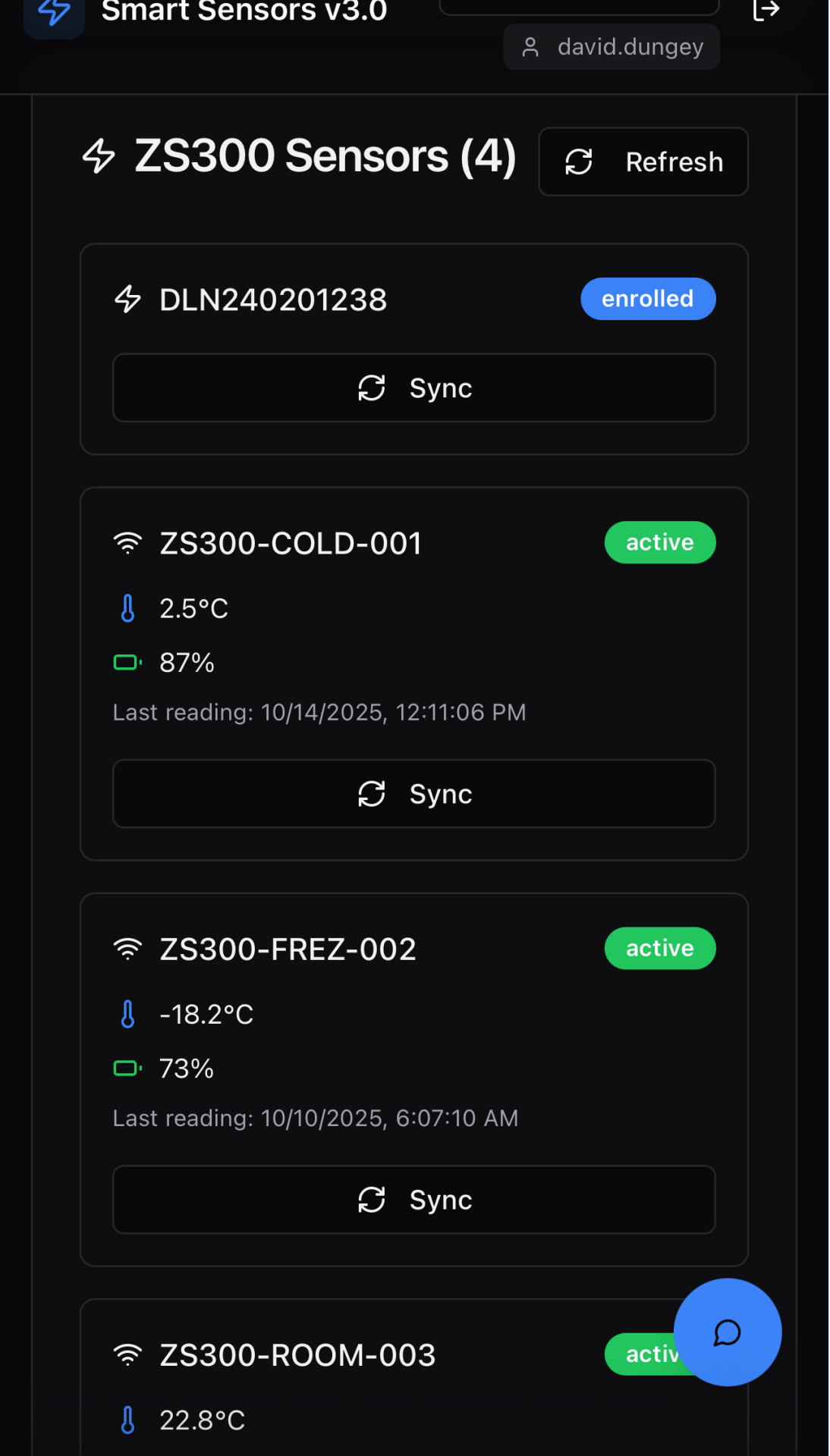
Support for Cold Storage (0-4°C), Freezer (-25 to -15°C), and Room Temperature profiles with tailored thresholds and alerts.

Proactive maintenance alerts

Automated notifications trigger when battery levels drop below operational thresholds, reducing downtime and ensuring continuous monitoring.

Scalable enterprise architecture

Scales to hundreds of sensors per deployment with one-tap sync functionality for rapid fleet-wide updates and management.



Comprehensive Value Delivery: End-to-End Cold Chain Assurance



Unified Platform

Eliminates fragmented monitoring tools with single integrated solution



23% Waste Reduction

Through predictive spoilage prevention and proactive intervention



87% Logistics Efficiency

Via AI-driven route optimization and dynamic recalculation



Seamless Integration

Intelligent sensors providing reliable environmental data



Mobile-First Architecture

Enabling real-time decision-making across distributed teams



Proven ROI

Reduced loss, improved compliance, and optimized distribution

Understanding FSMA Section 204: The Food Traceability Rule



FDA Mandate

FDA Food Safety Modernization Act
Section 204 requires enhanced traceability for high-risk foods to rapidly identify and remove contaminated products from market.



Compliance Deadline: July 2028

Companies must implement electronic recordkeeping systems and train supply chain partners on new traceability requirements.



Food Traceability List (FTL)

Covers high-risk foods including leafy greens, cheeses, shell eggs, nut butters, cucumbers, herbs, melons, peppers, sprouts, tomatoes, tropical fruits, finfish.



24-Hour Response Requirement

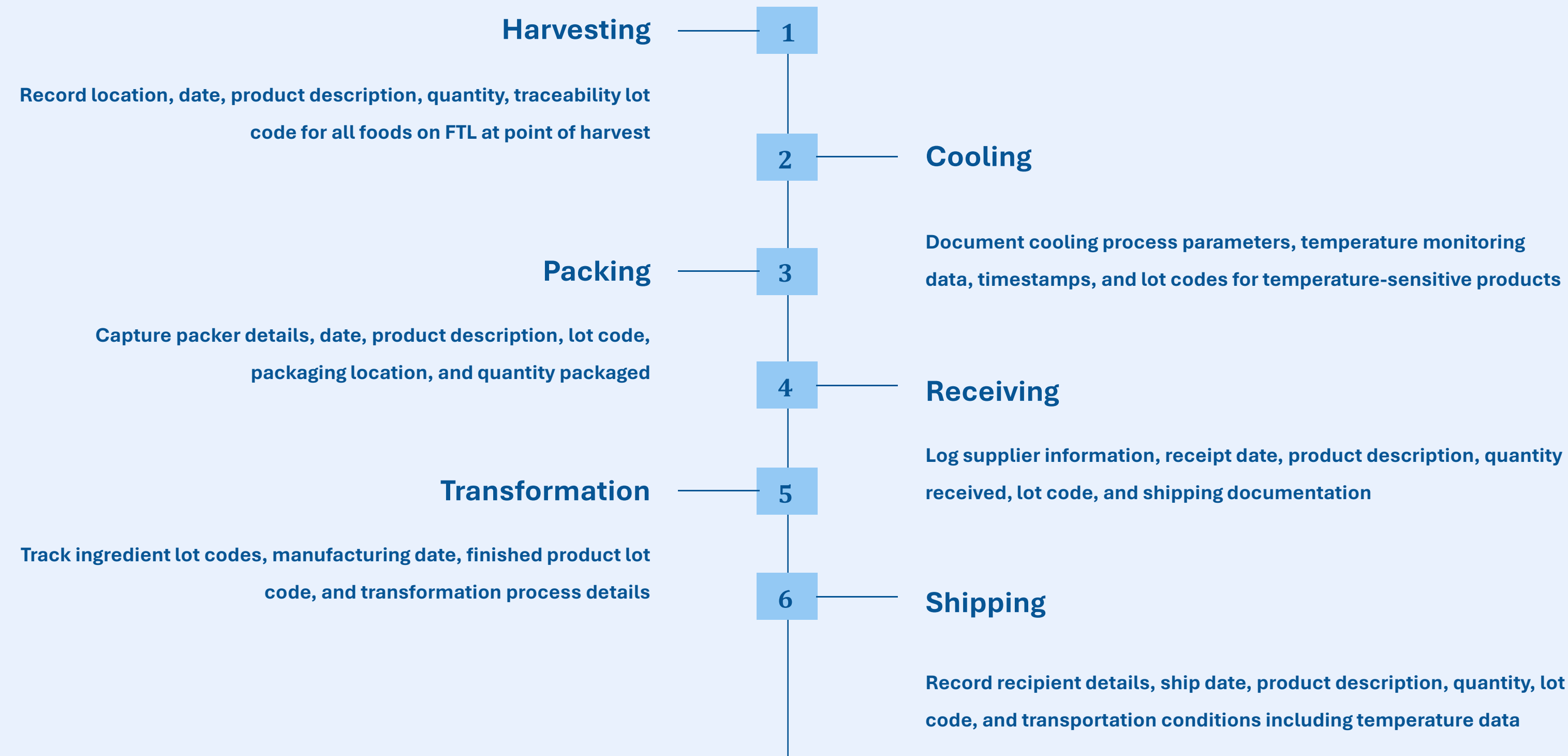
Companies must provide complete traceability data to FDA within 24 hours upon request in electronic sortable spreadsheet format.



Non-Compliance Risks

Failure to comply results in broader recalls, supply chain disruptions, regulatory penalties, and severe reputational damage.

Critical Tracking Events (CTEs) and Key Data Elements (KDEs)



How TempSight Enables FSMA 204 Compliance



Automated KDE Capture

TempSight automatically records all required Key Data Elements at each Critical Tracking Event without manual data entry.



Temperature Documentation

Continuous temperature monitoring provides required cooling and shipping CTE data with precise timestamps and lot code linkage.



Lot Code Traceability

Intelligent sensors link temperature data directly to traceability lot codes enabling complete forward and backward tracking.



Electronic Recordkeeping

All traceability records maintained in FDA-required electronic format with 24-month retention and instant export capability.



24-Hour Response Ready

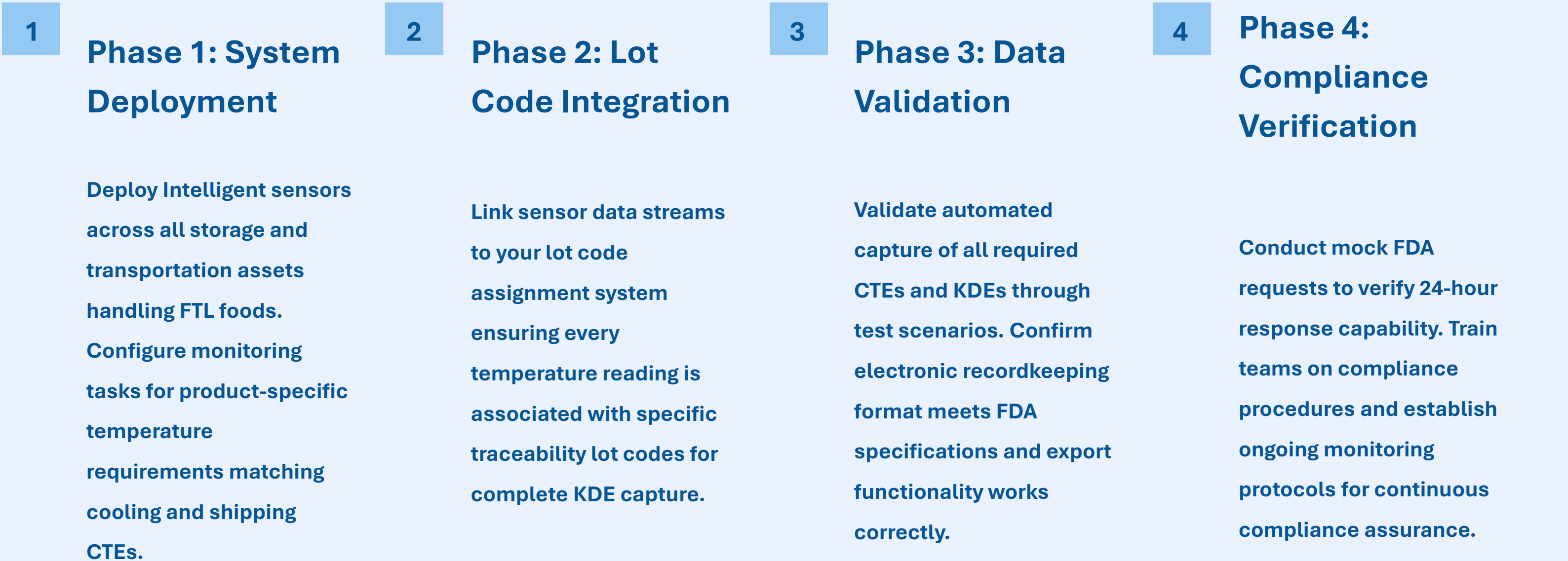
Pre-configured reports enable instant FDA response within required 24-hour window; many retailers demand 2-hour turnaround.



Audit Trail Protection

Immutable timestamped records provide defensible audit trail for regulatory inspections and compliance verification.

TempSight FSMA 204 Compliance Pathway



TempSight transforms FSMA 204 from compliance burden to competitive advantage through automated defensible traceability



TempSight FSMA 204 Compliance Pathway

FOR MORE INFORMATION OR TO VIEW A DEMONSTRATION, REACH OUT TO GLACIER COMPUTER AND WE CAN SET UP A LIVE MEETING FOR YOU AND YOUR TEAM

GLACIER CONTACT INFORMATION



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