



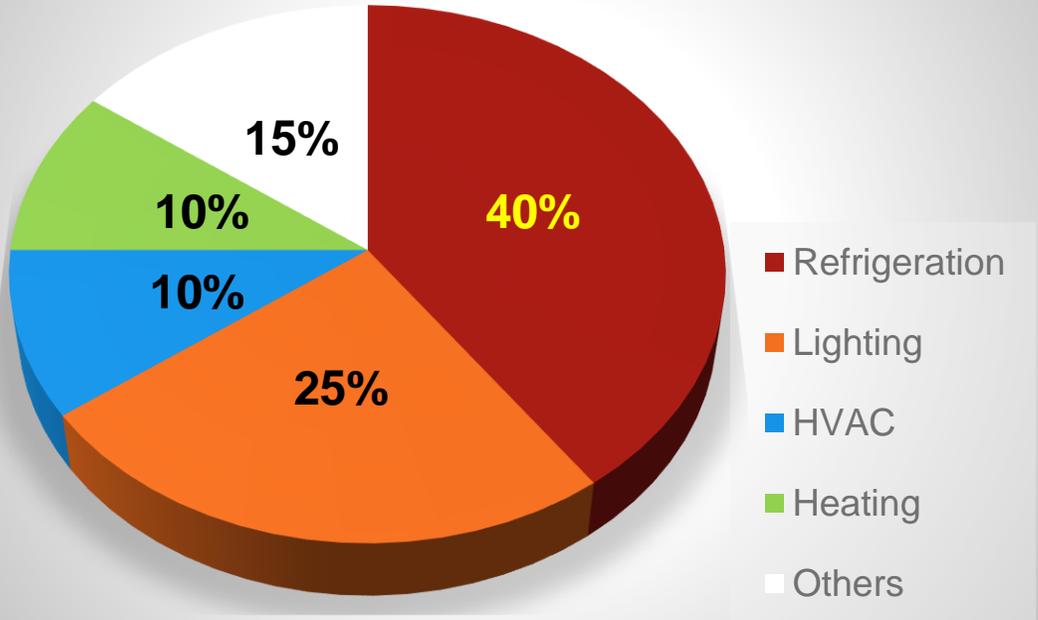
Amad M. Hafez,  
Honeywell

# IMPROVE REFRIGERATION SYSTEM PERFORMANCE IN SUPERMARKET CHAINS

**Honeywell**

# Challenges

Average Energy Consumption\*

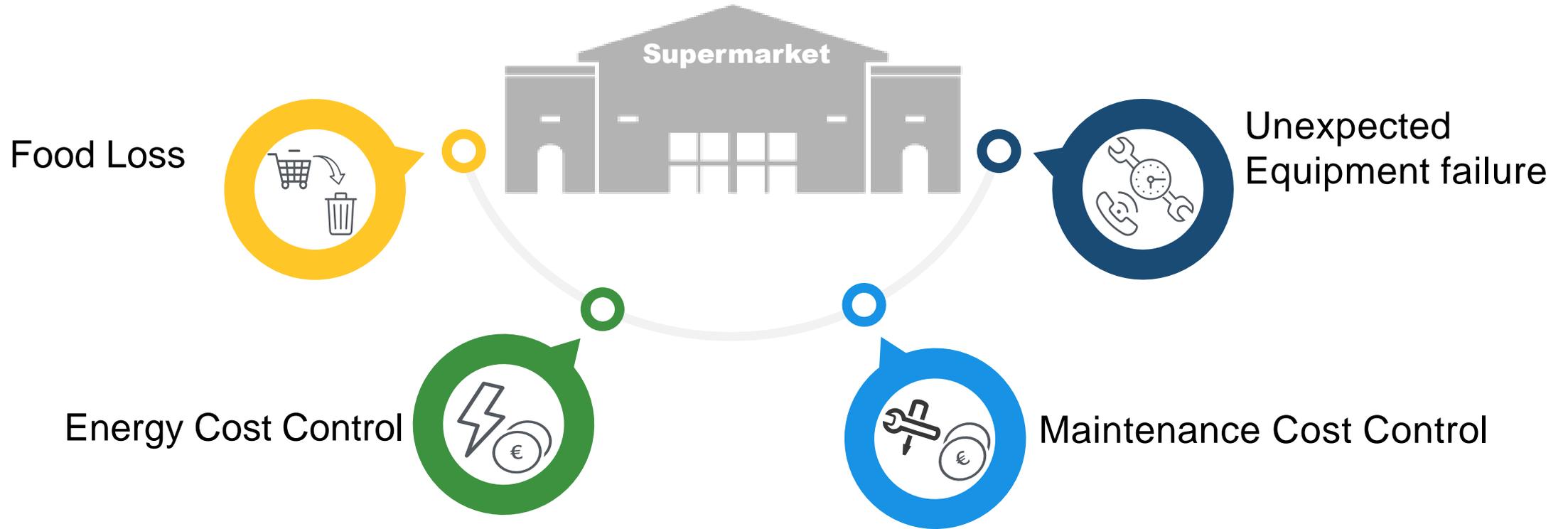


**€80-120K**  
IN REFRIGERATION  
ENERGY SPENT  
PER YEAR  
PER STORE



**Refrigeration energy is the single largest energy spend**

# Global Supermarket Chains Challenges



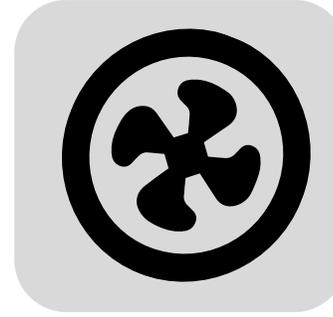
# Opportunities: Smart Refrigeration Solution Enables...



Reduce Energy Consumption



Maintain Food Freshness



Reduce Unplanned Maintenance

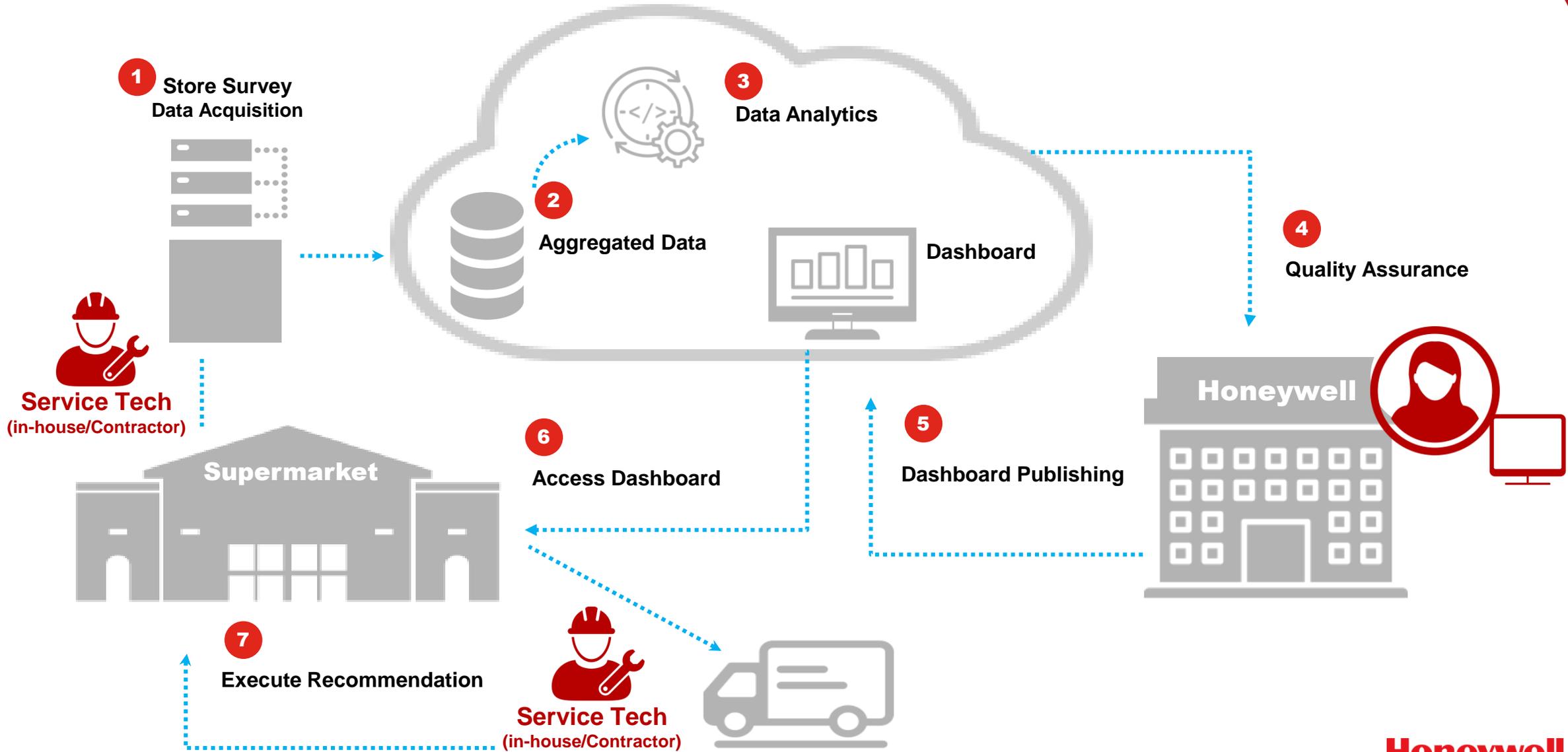


Control Maintenance Spend/Quality of Work



**Clear Actionable Insights**

# How SRS Works



# SRS - A Differentiated Offering

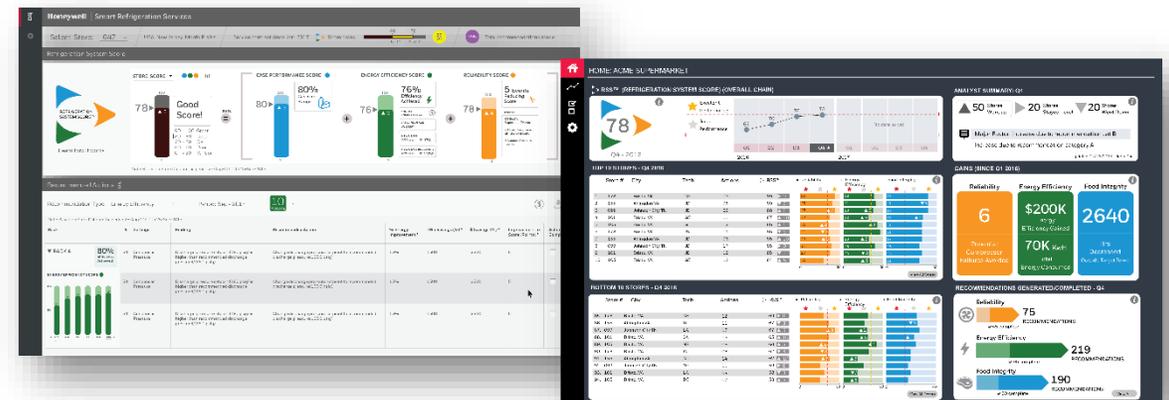
## Current Offerings

1. 100's of alarms per day
2. Real time energy monitoring
3. High upfront capex



## HON SRS Offering

1. 20 - 30 actionable insights
2. Monthly recommendations
3. Minimal upfront investment



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***SRS optimizes your refrigeration system at a lower cost***

# RSS: Honeywell's Proprietary Refrigeration System Score



- **Combines Three Separate Scores:**



**Energy Efficiency  
Score**



**Case Performance  
Score**



**Reliability**

# SRS - Online Dashboard

**1 Store Profile and progress**

**2 Refrigeration System Score (RSS)**

**3 Performance Indicators**

**4 Insights and Recommendation**

**5 Problem Location**

**6 Issues Identified**

**7 Required Actions**

**79** Sep-2017

**72%** Cases in Range

**72%** Efficiency Achieved

**92%**

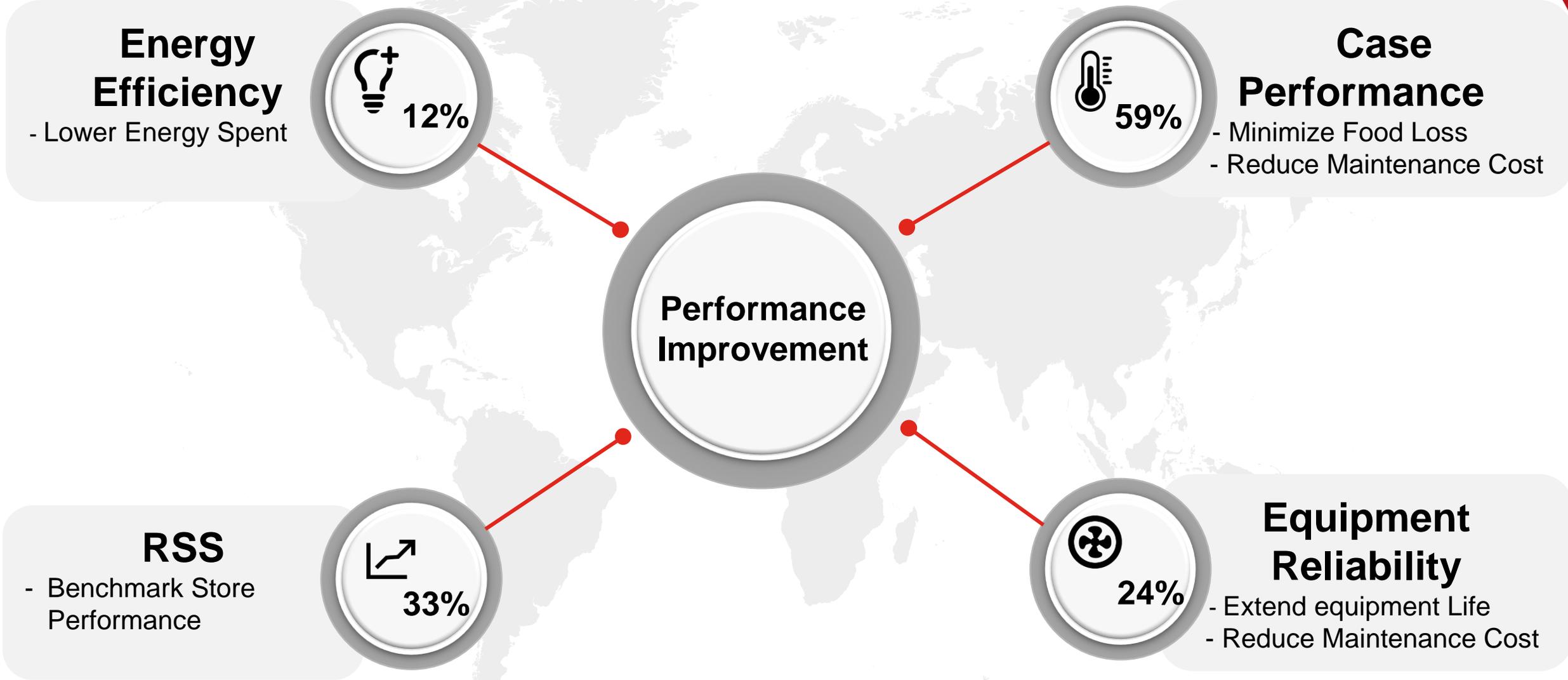
**63%** Cases in Range

| #  | Case  | Target Temp | Deviation From Target | Case Score | Case Status | EEPR | Total # of Events | Finding                               | Recommended Action   | Action Complete?         |
|----|---|-------------|-----------------------|------------|-------------|------|-------------------|---------------------------------------|--|--------------------------|
| C4 | Name: 13C<br>Type: Multi Deck<br>Goods: Frozen Food | -5 F        | 3 F                   | 30         | Poor        |      | 0                 | Poor performance (Deviation = 3.0 F). | 1. Check case for superheat, excessive ice, overloaded shelves, or if the air grill is blocked.<br>2. Adjust superheat to 4 F-6 F. After adjusting superheat, reduce EPR setting until case target temperature is reached. | <input type="checkbox"/> |
| C1 | Name: 14<br>Type: Multi Deck<br>Goods: Frozen Food  | -8 F        | 9.2 F                 | 0          | Poor        |      | 19                | Poor performance (Deviation = 9.2 F). | 1. Check case for superheat, excessive ice, overloaded shelves, or if the air grill is blocked.<br>2. Adjust superheat to 4 F-6 F. After adjusting superheat, reduce EPR setting until case target temperature is reached. | <input type="checkbox"/> |
| C7 | Name: 4S<br>Type: Island<br>Goods: Dairy            | 18 F        | 6.4 F                 | 0          | Poor        |      | 2                 | Poor performance (Deviation = 6.4 F). | 1. Check case for superheat, excessive ice, overloaded shelves, or if the air grill is blocked.<br>2. Adjust superheat to 4 F-6 F. After adjusting superheat, reduce EPR setting until case target temperature is reached. | <input type="checkbox"/> |
| C3 | Name: 13A<br>Type: Multi Deck<br>Goods: Frozen      | -5 F        | 2.8 F                 | 37         | Poor        |      | 0                 | Poor performance (Deviation = 2.8 F). | 1. Check case for superheat, excessive ice, overloaded shelves, or if the air grill is blocked.<br>2. Adjust superheat to 4 F-6 F. After adjusting superheat, reduce EPR setting until case target temperature is reached. | <input type="checkbox"/> |

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Insights, Performance Scores & Actions at your fingertips

# SRS Improves Refrigeration System Performance



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**Come try SRS in your store today!!**

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Honeywell is building a smarter, safer,  
and more sustainable world

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THAT'S THE POWER OF **HONEYWELL**

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Connected Plant • Connected Supply Chain • Connected Worker

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