Agroknow

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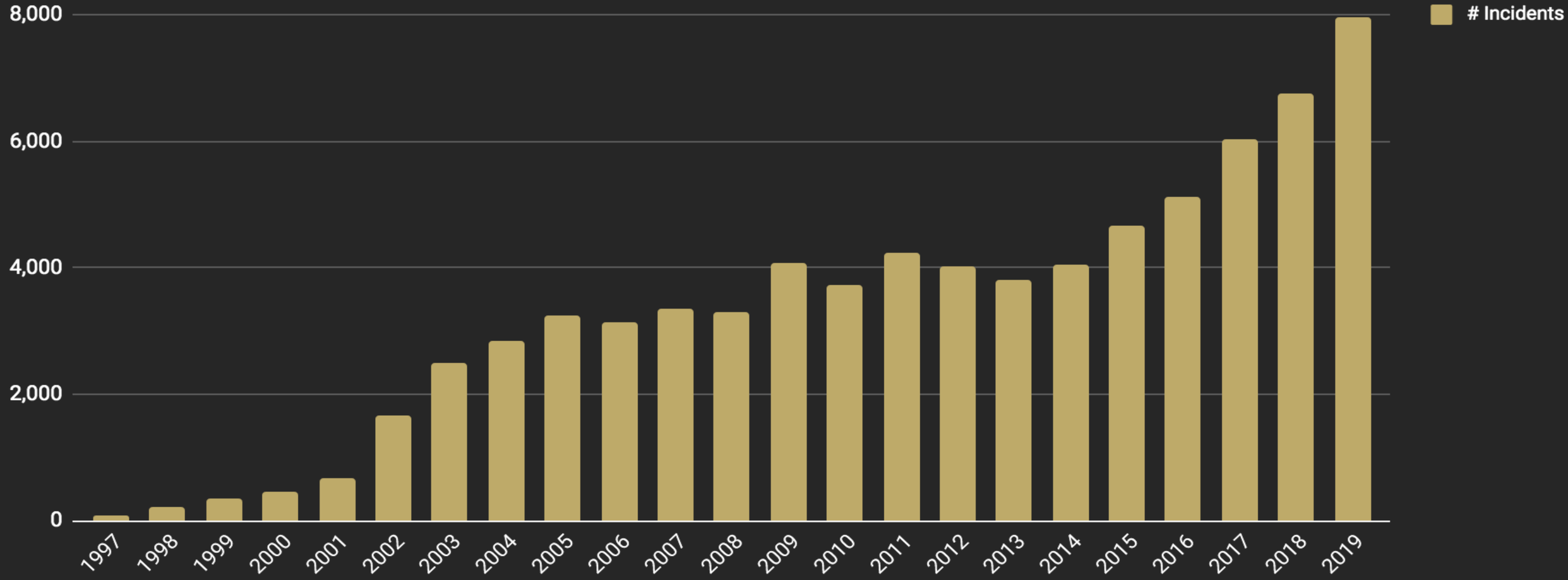
The use of relevant technology, data and strategies for risk mitigation

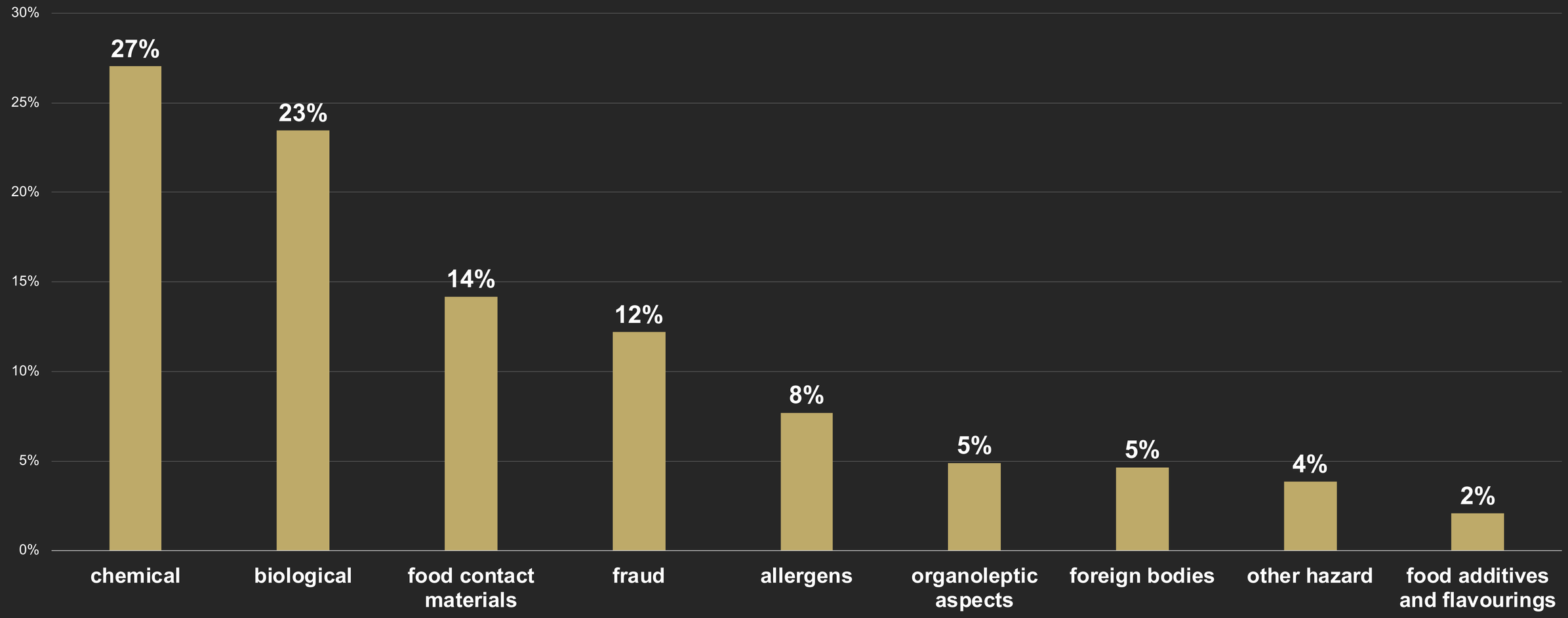
Standards, Systems, Certifications, Audits, Risk Assessment

The Recalls Challenge



Data provided by FOODAKAI

Top Hazards reported in last 3 years



Data provided by FOODAKAI

Risk is often a checklist compliance task, is static, not helping to identify emerging & increasing issues

Post COVID-19 industry bottleneck

Disturbed, changing supply chains

Alternative sourcing, from shorter supply chains

Less budget, less travels

Moving towards remote supplier & risk assessment

LEVELS TO CONSIDER IN RISK ASSESSMENT

PRODUCTION

LAB TESTING & FARMING DATA

INCOMING MATERIALS

BORDER REJECTIONS, LAB TESTING & SUPPLIER'S DATA

PROCESSING & MANUFACTURING

ENVIRONMENTAL, LAB TESTING & INTERNAL RECALLS DATA

STORAGE, DISTRIBUTION & SERVICE

BORDER REJECTIONS & FOOD RECALLS DATA

Scattered, Heterogenous, Multilingual & Disconnected Data

MY INGREDIENTS

MY SUPPLIERS

CONTROLS

LEGISLATION

MARKET

AVAILABLE DATA FOR RISK ASSESSMENT

FOOD RECALLS	46.655
BORDER REJECTIONS	284.000
LAB TESTING DATA	101.000.000
COUNTRY RISK DATA	904
INSPECTIONS	216.000
PRICE DATA	367.000
OUTBREAKS	462

AVAILABLE TOOLS AND SYSTEMS FOR RISK ASSESSMENT

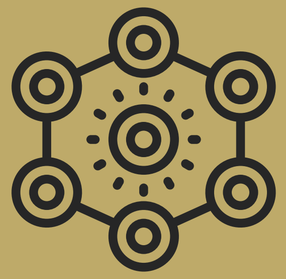
ACCESS ACCURATE AND TIMELY DATA ABOUT REPORTED INCIDENTS IN THE GLOBAL SUPPLY CHAIN

WEB-BASED SYSTEMS DESIGNED TO ANALYZE DATA CONCERNING MICROBIAL AND CHEMICAL HAZARDS

ONLINE TOOLS THAT CAN PREDICT THE BEHAVIOUR OF A SPECIFIC MICROORGANISM UNDER A VARIETY OF CONDITIONS

SUPPLIERS & INGREDIENTS MANAGEMENT SOFTWARE SYSTEMS

SYSTEMS THAT MONITOR ENVIRONMENTAL DATA IN PLANTS



Going beyond the mere compliance

Combine relevant Technologies & Data

Risk assessment step	How a system and/or tool can help	System or tool
1. HAZARDS MONITORING	Collect the right data for incidents reported in the global supply chain about new hazards that may affect your products, ingredients, raw materials, facilities	**HorizonScan** **FOODAKAI** **FDA Data Dashboard**
2. HAZARD IDENTIFICATION	For each ingredient and finished product perform a hazard analysis to identify known and foreseeable risks	**HorizonScan** **FOODAKAI**
3. HAZARD CHARACTERIZATION	For each hazard estimate the chemical and micro risk based on the conditions and processing steps	**FDA-iRisk** **ComBase** **CB Premium**
4. RISK CHARACTERIZATION	Characterize and rank the risk based on the hazard's probability and severity. Define the required verification measures for emerging and increasing risks.	**HorizonScan** **FOODAKAI** **SafeFood360**
5.FOOD SAFETY DATA MANAGEMENT	Efficiently manage all the food safety records of your ingredients and suppliers. Notify the affected suppliers that they need to take action	**SafeFood360**
6. RISK UPDATES	Continuously monitor risk changes to identify increasing and emerging risks. For each hazards that has increased risk repeat steps 4 and 5	**FOODAKAI**

Set up live and automated risk assessment

INTEGRATE SYSTEMS

INTEGRATE LIVE DATA

- MONITOR HAZARDS IN GLOBAL SUPPLY CHAIN
  - FOODAKAI
- LAB TESTING DATA
- INTERNAL LAB TESTING & NON CONFORMITIES
- ENVIRONMENTAL DATA IN PLANT

- INGREDIENTS & PRODUCTS MANAGEMENT SYSTEM
- SUPPLIERS MANAGEMENT SYSTEM

RISK ASSESSMENT MODULE

1. IDENTIFY HAZARDS IN INGREDIENTS
2. IDENTIFY INGREDIENTS WITH HIGH RISK
3. IDENTIFY PRODUCTS AT RISK & ACTIVATE MITIGATION ACTIONS
4. IDENTIFY SUPPLIERS AT RISK
5. NOTIFY SUPPLIER FOR REQUIRED ACTION

HELP EXPERTS TO MITIGATE RISK

FS & QA EXPERTS

Can we prevent a recall of a product with a live and automated risk approach?

The case of a almond drink

Almond drink

INGREDIENTS

- WATER
- **ALMONDS**
- SALT
- LECITHIN
- SODIUM BICARBONATE
- STEVIOLE GLYCOSIDES
- VITAMIN D
- VITAMIN B12
- CALCIUM PHOSPHATE

Company setting

INTEGRATE SYSTEMS

INTEGRATE LIVE DATA

INGREDIENTS & PRODUCTS MANAGEMENT SYSTEM

SAP

SUPPLIERS MANAGEMENT SYSTEM

HELP EXPERTS TO MITIGATE RISK

RISK ASSESSMENT

FOODAKAI

MONITOR HAZARDS IN GLOBAL SUPPLY CHAIN

FOODAKAI

LAB TESTING DATA

IDENTIFY HAZARDS IN INGREDIENTS

IDENTIFY INGREDIENTS WITH HIGH RISK

IDENTIFY PRODUCTS AT RISK & ACTIVATE MITIGATION ACTIONS

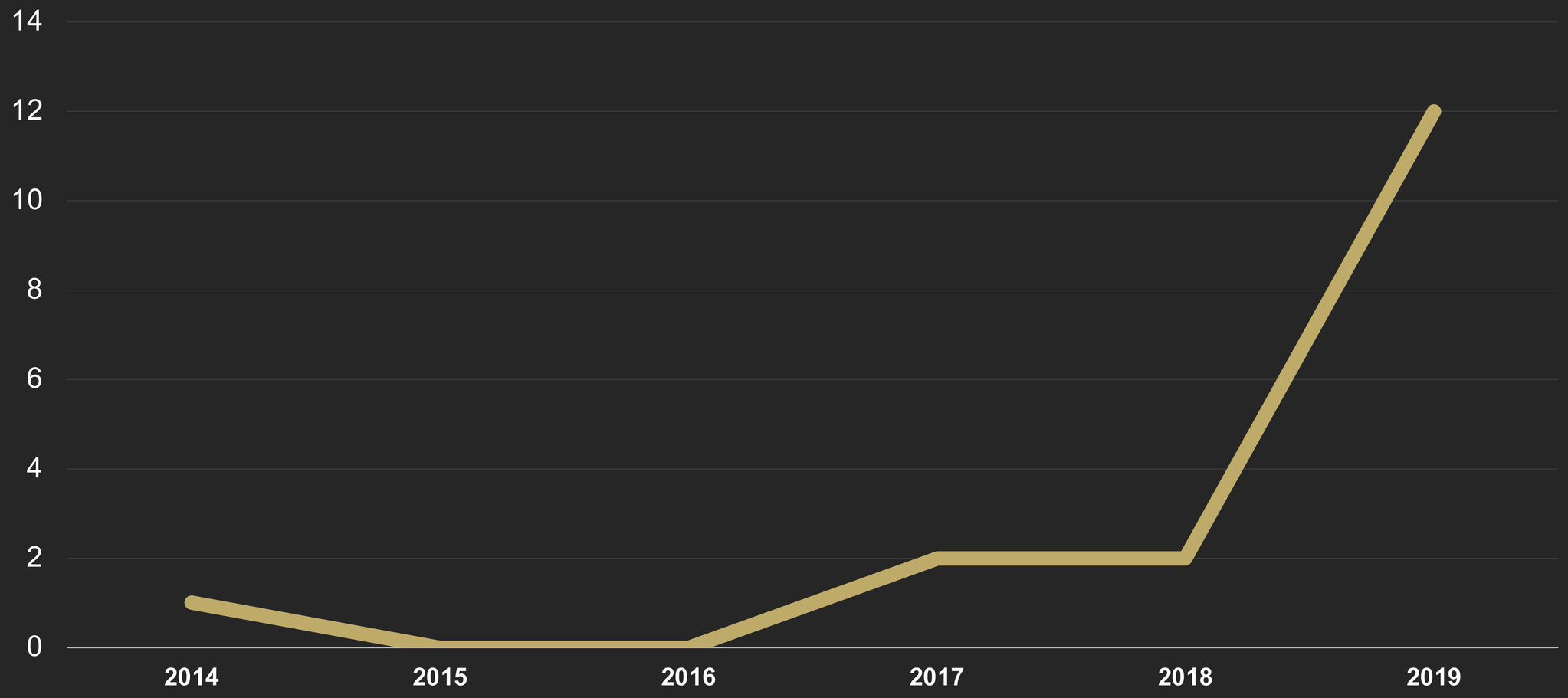
IDENTIFY SUPPLIERS AT RISK

NOTIFY SUPPLIER FOR REQUIRED ACTION

FOODAKAI

FS & QA EXPERTS

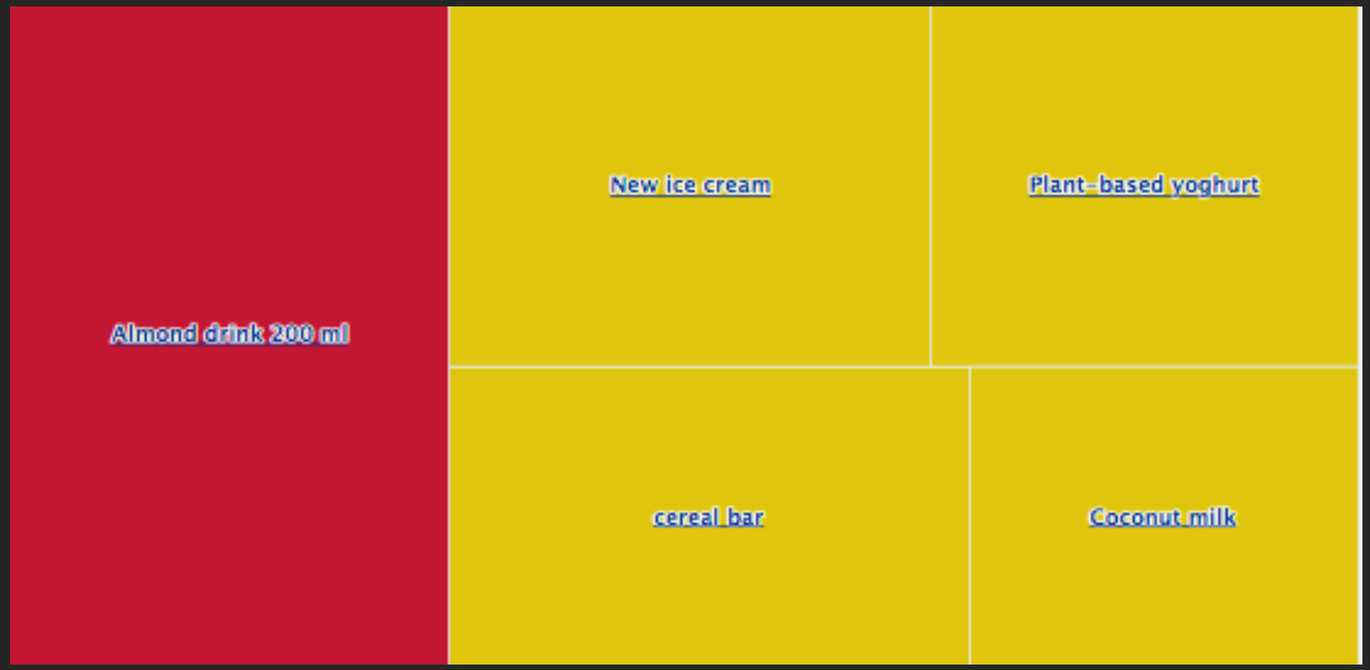
INCREASING TREND FOR SALMONELLA IN ALMONDS IDENTIFIED



Data provided by FOODAKAI

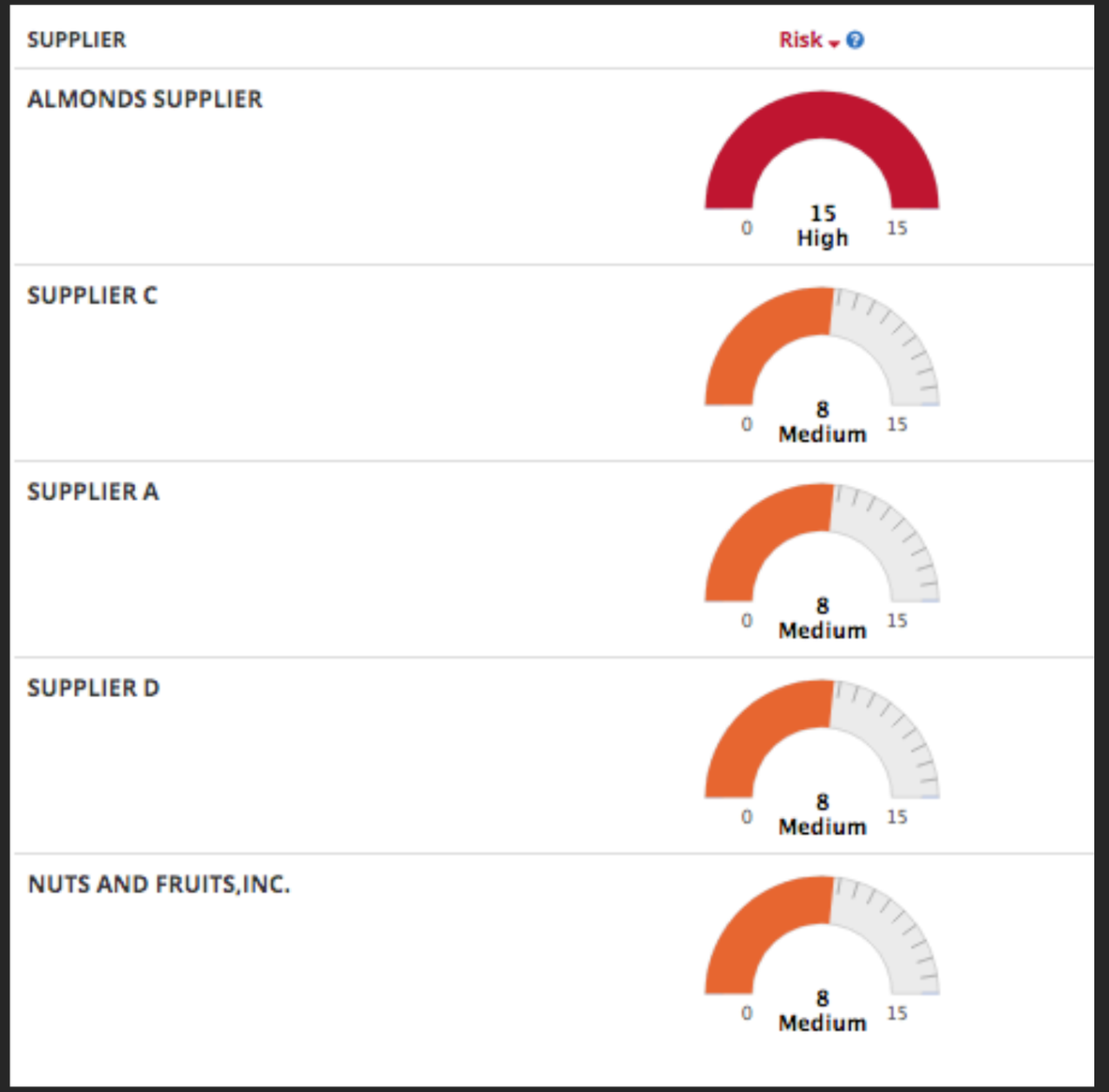
Risk module identifies products at risk

HEATMAP OF PRODUCTS RISK



Provided by FOODAKAI

Risk module identifies affected suppliers



Provided by FOODAKAI

EXPERTS ACTIVATE PREVENTIVE MEASURES

STEP 01

Identify the risky points of the supply chain

STEP 02

Activate early the corrective measures for the risky points of the supply chain

STEP 03

Ask supplier to take action by investigating internally the root cause of the trend and to inform them about the mitigation action.

STEP 04

Supplier reviews the food safety system and adds a new control point in the production line and notifies the company about the action

Benefits

1. Save time devoted to risk assessment

2. Move from reaction to prevention

Key points of a strategy for risk mitigation

Establishing a robust risk assessment approach

- Take advantage of all the available data from different stages of the supply chain
- Combine & integrate different tools and software systems that can estimate risk at different stages of the supply chain
- Do not rely on static risk but continuously monitor the risk
- Automate the approach by connecting risk systems with your internal systems

Thank you

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ACCESS GLOBAL FOOD SAFETY DATA: www.agroknow.com/