

# Risk Assessing Your Food Supply Chain



## Software Platform

Comprehensive platform covering all aspects of food industry compliance:

- SaaS Solution
- Web Access
- 30+ Modules
- Compliance Software

## Domain Expertise

World class knowledge of food safety and compliance provided by a team of experienced food industry experts:

- IT developers led by food safety experts
- Experienced team
- Food safety product – not an IT project

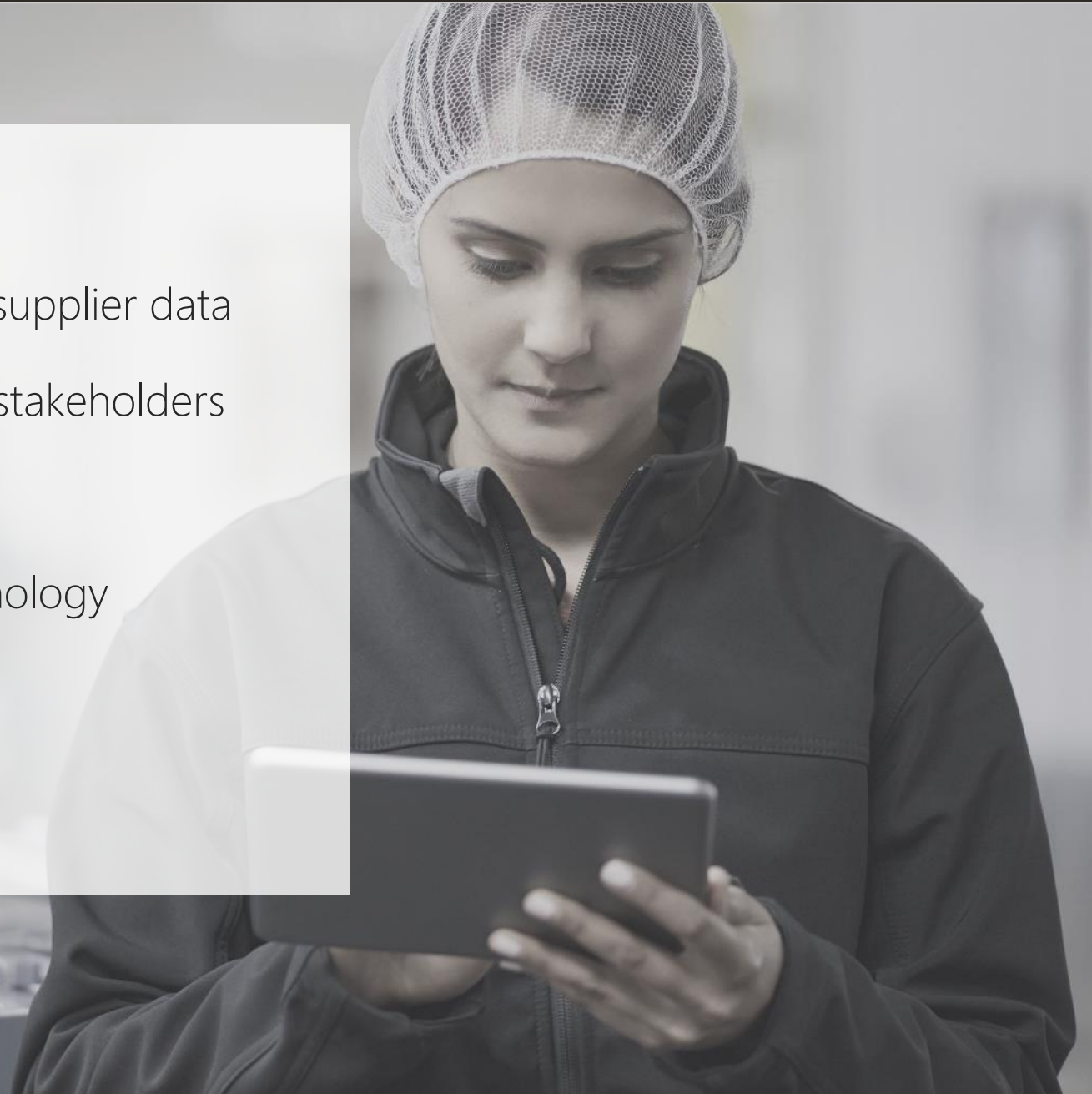


- Globally 1 in 10 people affected and >420,000 die from foodborne illness every year (WHO, 2015)
- Food fraud costs UK food industry £12bn pa
- Food recalls increasing
- Food recall processes inefficient
- Learnings rarely shared

- Increasing dependence on a global supply chain to source raw materials/partially processed product
- Increasing food trade volume/pace
- Complexity of trade borders/barriers
- Varying country food safety standards and capability
- Food chain operators >95% SME



- Full visibility of supply chain data – flow of supplier data
- Cooperation across interested parties and stakeholders
- Secure permissioned systems
- Interoperable, usable, and affordable technology



*“The scientific evaluation of known or potential adverse health effects resulting from human exposure to foodborne hazards” - WHO*



## GFSI Standards

“The company shall undertake a documented risk assessment of each raw material...” BRC I7 3.5



## FDA – FSMA Rules

Supplier Verification - risk assess individual suppliers, supplier facilities and products



## Retailers

“All suppliers to the site must be assessed to determine the overall potential risk associated with their materials on an ongoing basis”TFMSv6Sec 3



# Scope of Risk Assessments Required On Your Supply Chain

## Suppliers

Supplier entity with title of ownership

## Facilities

Individual facilities accounting for local objective risks

## Agents / Brokers

Assessed as a supplier

## 3<sup>rd</sup> Party

Must be within the scope of assessment and addressed as a facility

## Raw Materials

Individual raw materials, ingredients, packaging

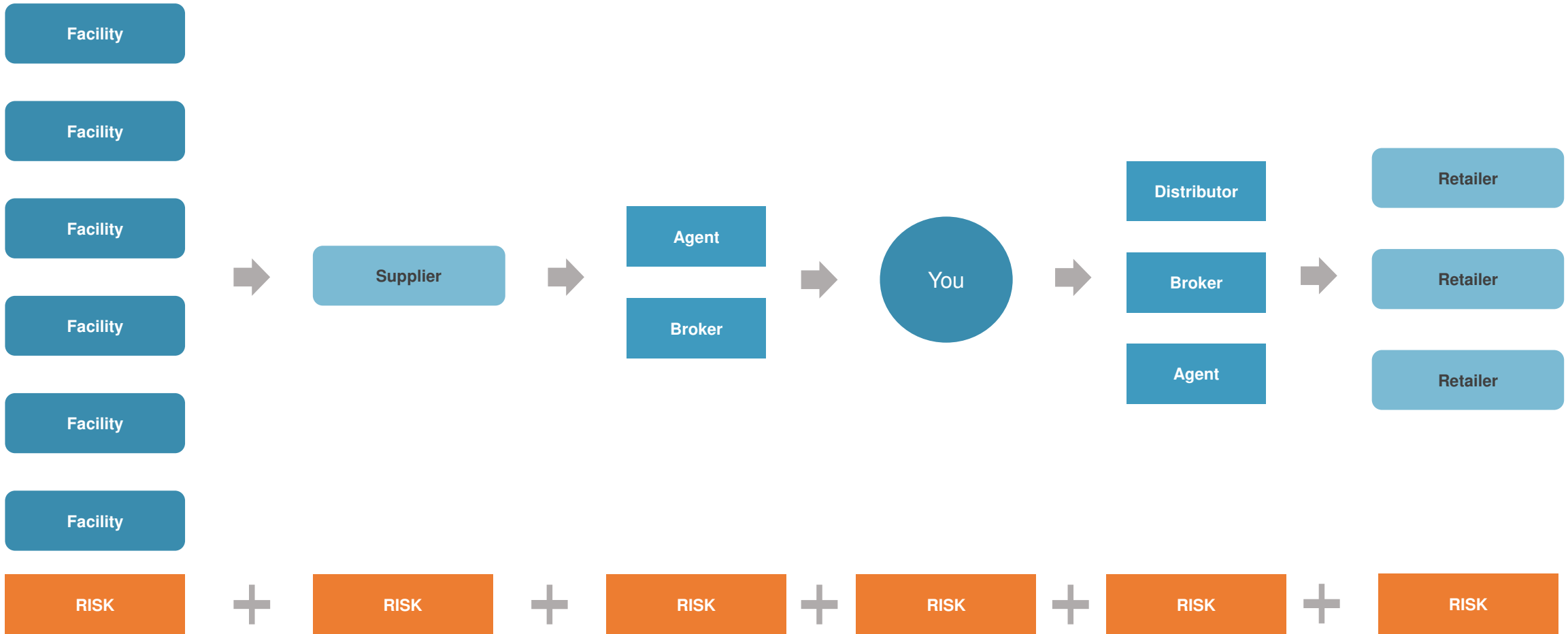
## Products

Traded products where title of ownership is assumed - FSMA



1. Nature of supplier's operation and compliance with requirements
2. Intrinsic hazard to the material supplied

Companies should identify suppliers that drive the greatest level of risk. The lack of visibility through the overall supply chain and amount of information required are the main challenges that a company needs to face.



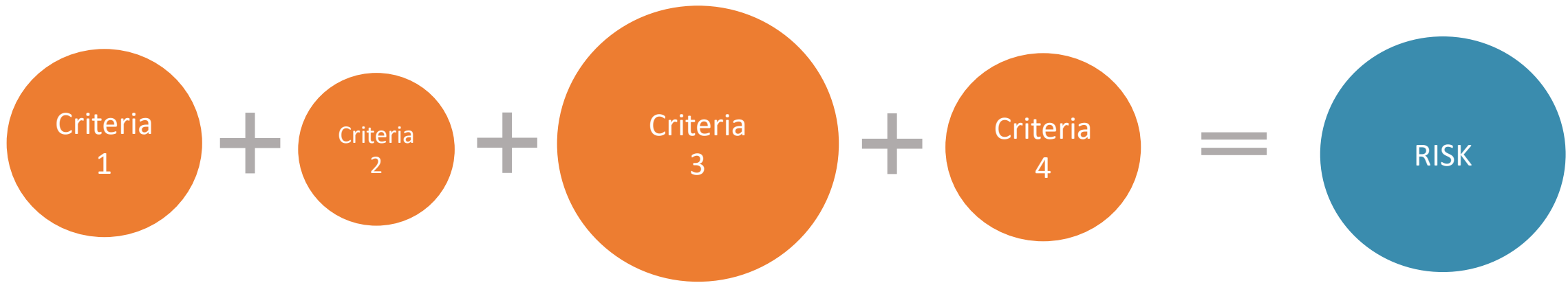
*Potential risk added as complexity of chain increases*

More appropriate for HACCP based assessments focusing on a specific hazard at a specific process step or stage.



Risk Assessment Matrix				
		Probability		
		1	2	3
Severity	1	1	2	3
	2	2	4	6
	3	3	6	9

More appropriate for Supply Chain risk assessments looking at various risk factors contributing to supplier or material risk.



**Risk Weighting**

Some risk criteria will contribute more to the overall risk value – some will contribute less

# Type of Sample Criteria Being Used by Companies

GFSI / Other Certification	Has the supplier / facility achieved some 3 <sup>rd</sup> party certification standard?
COA / COC	Does the company issue certificates of analysis or conformance?
Country of Origin	This criteria involves referring to public databases on the history of food safety from particular countries or regions including likelihood for food fraud
Recall / Alerts in Last 24 Months	Measuring the number of recalls, alerts, notifications, withdrawals, sanctions over a recent period may indicate the level of risk with a particular supplier
Threat / Food Defense	A measure of the potential level of threat in the supply chain – food fraud / adulteration etc
Volume of Supply	Integrating exposure into the RA. The greater the volume the greater the exposure should an issue arise

Assign risk values to criteria

Weight criteria



Pre-Assess before engaging activities



Determine whether you wish to invest more time



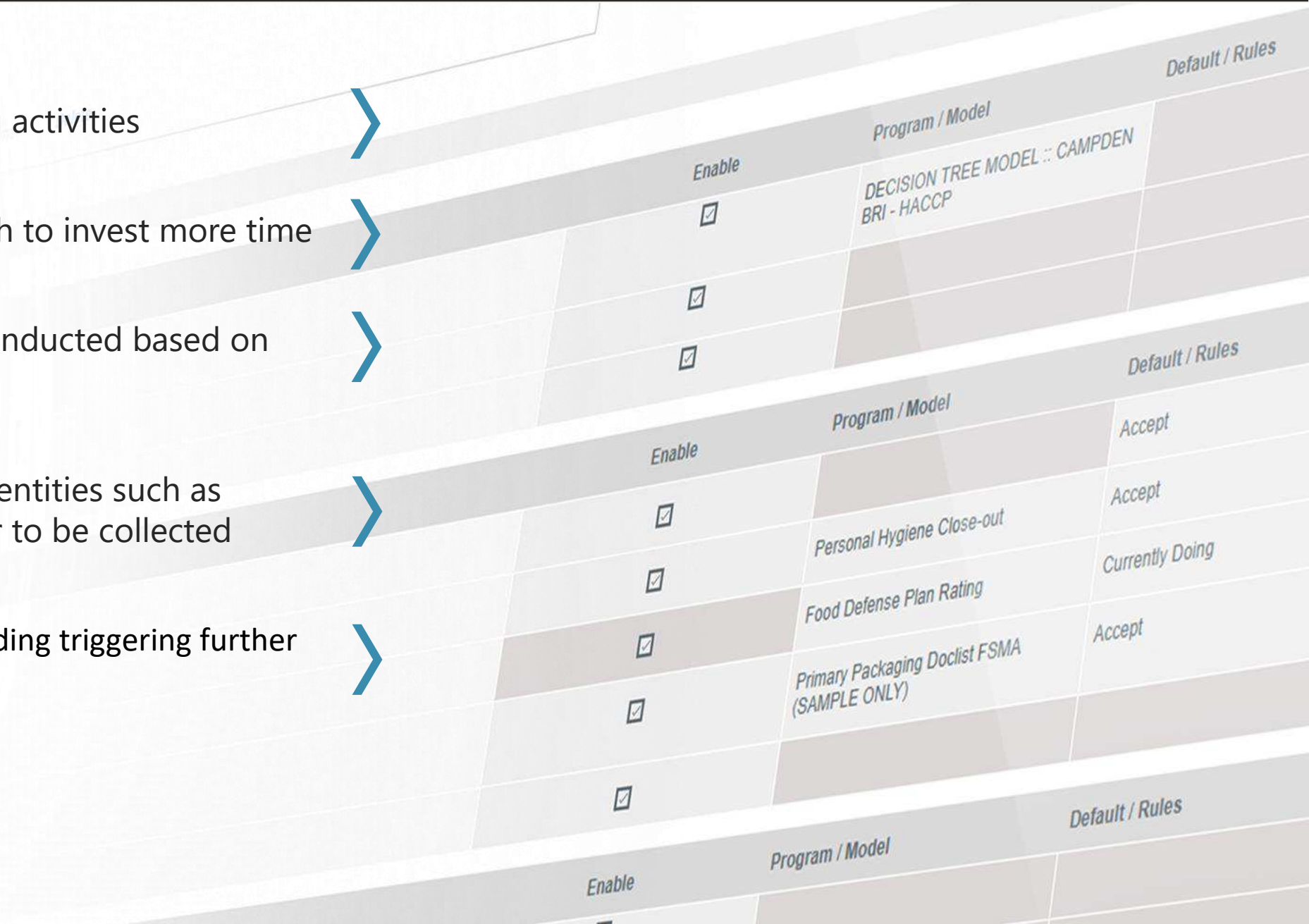
Initial assessment can be conducted based on basic data collection



Will allow data on all other entities such as facilities, agents, and broker to be collected



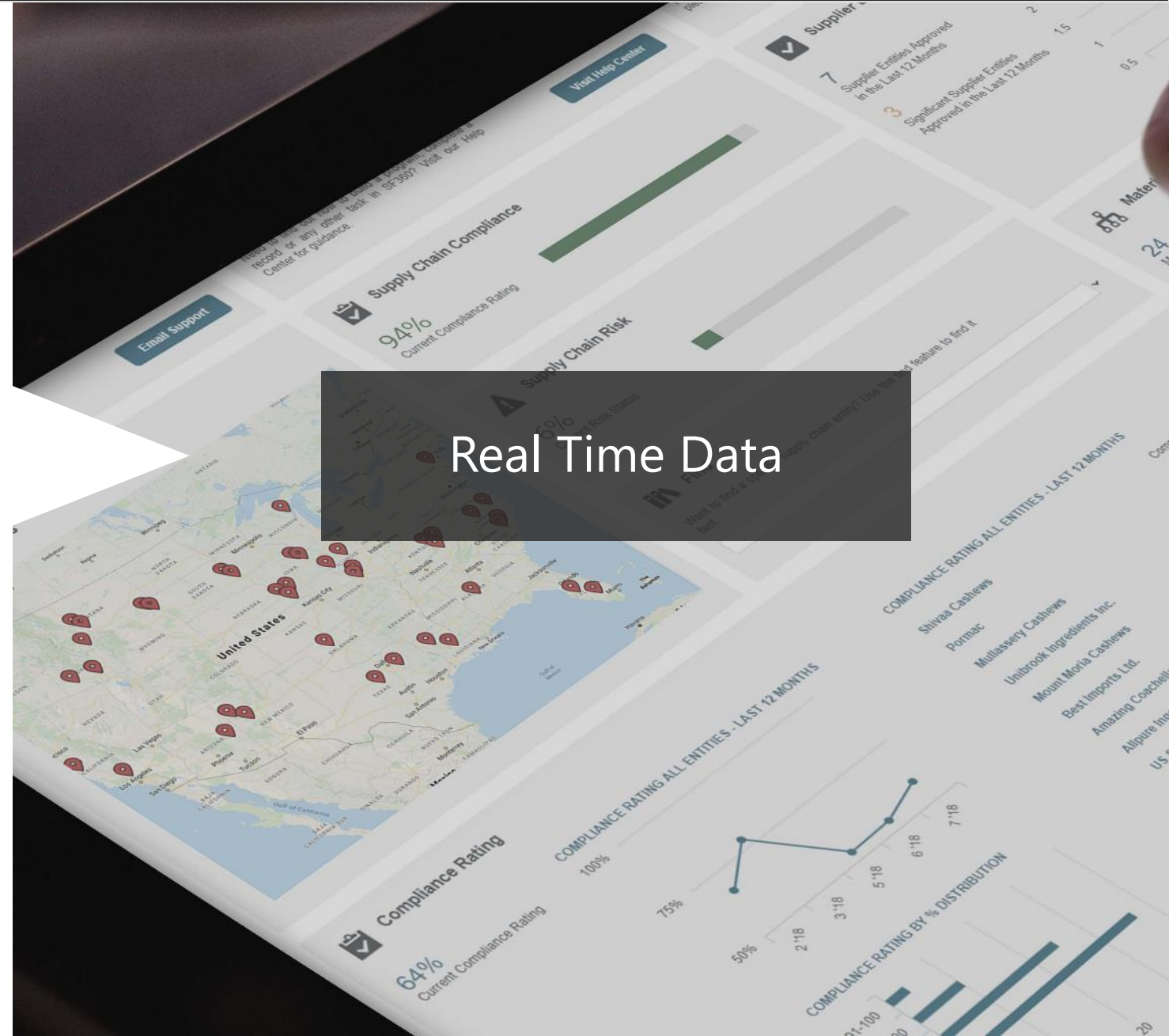
A decision can be made regarding triggering further assessment of these entities



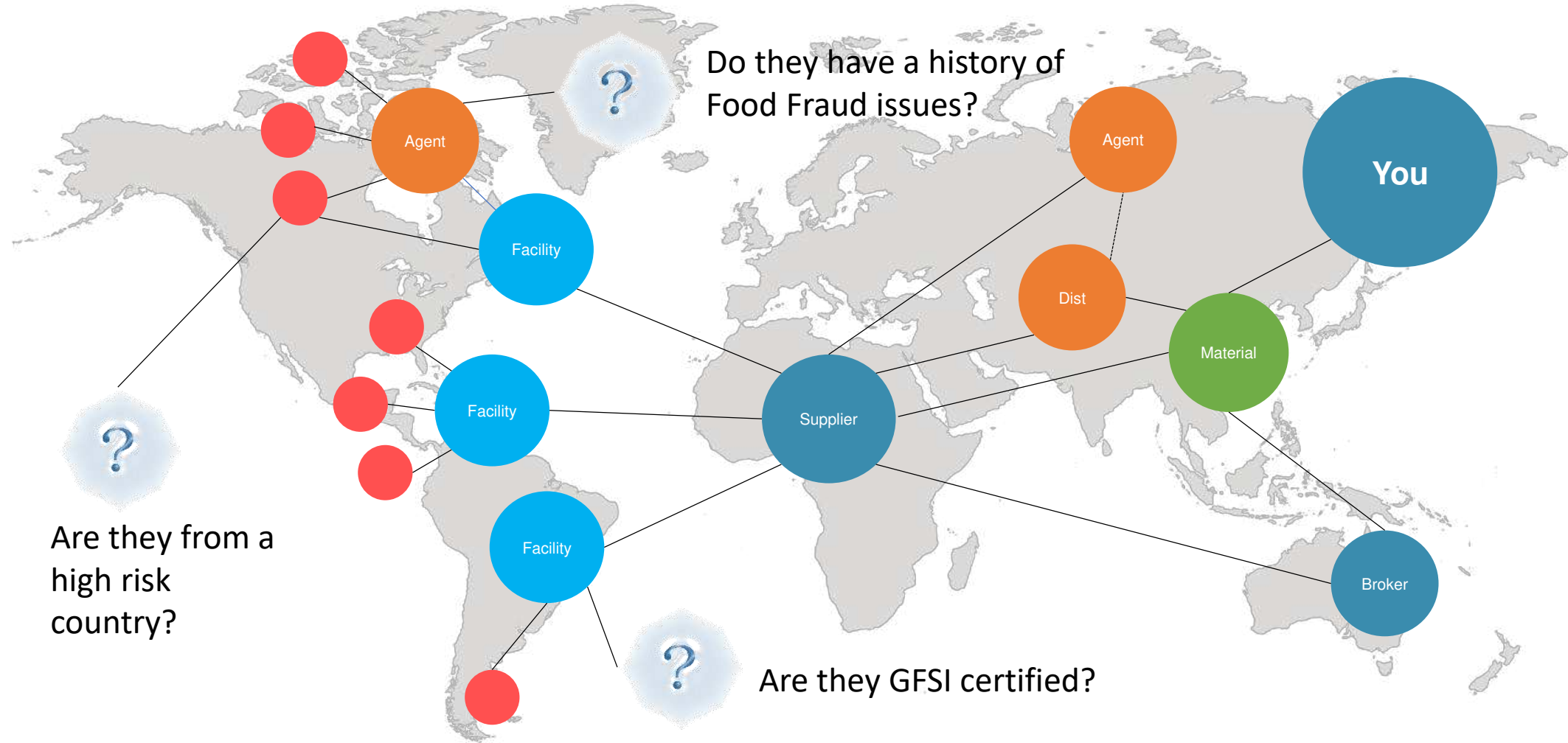
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Enable	Program / Model	Default / Rules
<input checked="" type="checkbox"/>		Accept
<input checked="" type="checkbox"/>	Personal Hygiene Close-out	Accept
<input checked="" type="checkbox"/>	Food Defense Plan Rating	Currently Doing
<input checked="" type="checkbox"/>	Primary Packaging Doclist FSMA (SAMPLE ONLY)	Accept
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You need to know WHO at various Tiers in your supply chain [MAPPING]

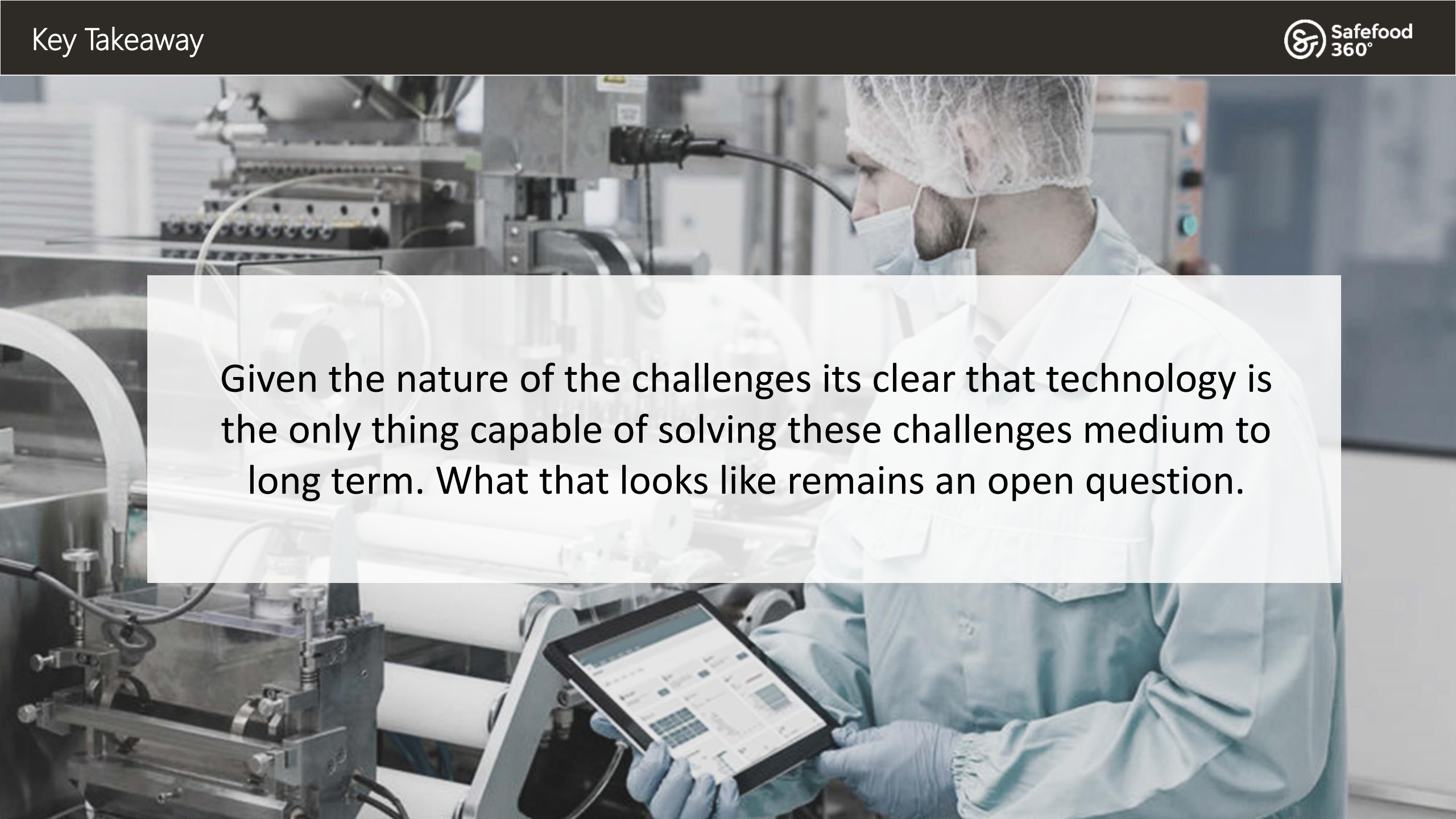
You need to know WHAT for individual supply chain entities and any given moment in time [INTELLIGENCE]







- Distributed ledger technology (Blockchain)
- Secure cloud technologies and platforms
- Smart contracts (payment on evidence of compliance)
- Internet of Things
- Big data analysis/modelling
- Smart manufacturing
- Tagging and tracking, holographic labels, smart packaging
- Sensors –temperature
- Whole genome sequencing and DNA speciation / Stable isotope



Given the nature of the challenges its clear that technology is the only thing capable of solving these challenges medium to long term. What that looks like remains an open question.



# Questions?

# Thank you!

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