



Food Authenticity Network



Tools to reduce the risk of falling victim to food fraud

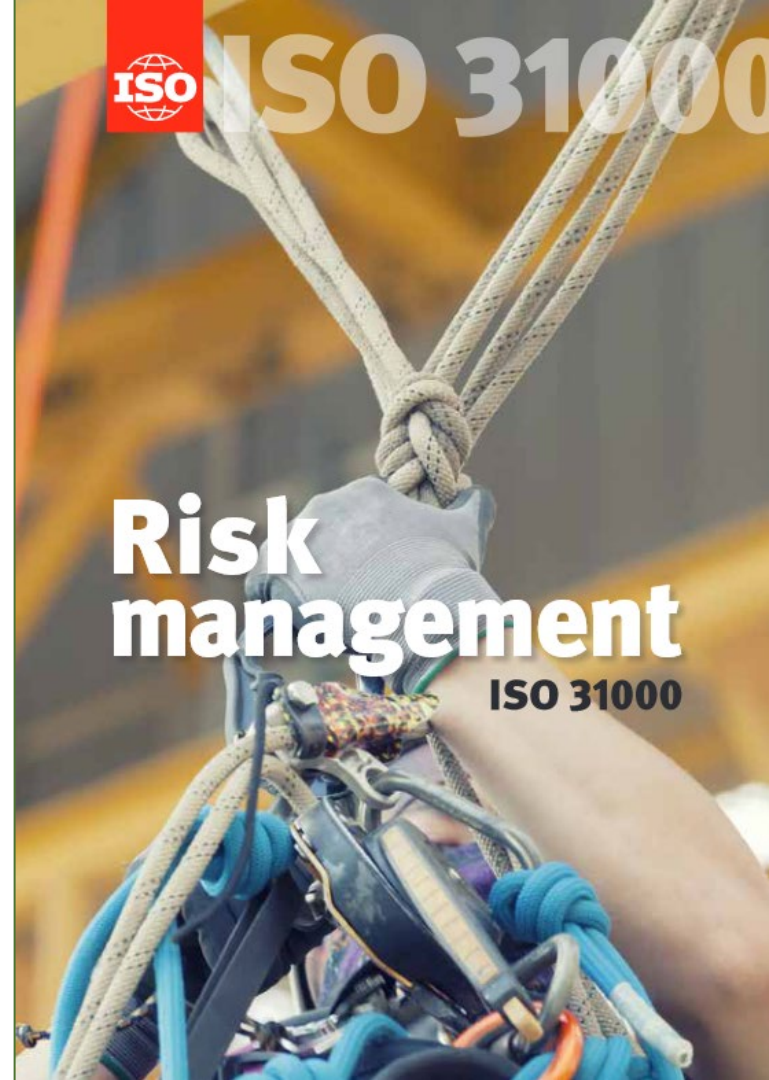
John Points

RISK

“The effect of uncertainty on objectives”
(ISO 31000)

Need to consider

- The Risk Source (“hazard”, in old money)
- The Potential Event (*i.e.* a fraud)
- The Likelihood (which can be controlled)
- The Consequences (also which can be controlled)



FRAUD RISK – WHAT DRIVES THE LIKELIHOOD?

- The “Risk Source” is a **PERSON**
 - Culture – normalization of minor transgressions?
 - Motive – economic or supply pressures?
 - Opportunity?
 - Chances and consequences of getting caught?
- Bad Apple vs Bad Barrel vs Bad Orchard ? Need to consider all three scenarios.

Does any of this have anything to do with GFSI certification?

“50% of frauds are committed by an employee”

Wim Huisman, Professor of Criminology, VU University of Amsterdam cited in the SSAFE food fraud vulnerability assessment tool



[HOME](#) [ABOUT US](#) [OUR PROJECTS](#) [OUR MEMBERS](#) [OUR PARTNERS](#) [Q](#)



FOOD FRAUD VULNERABILITY ASSESSMENT TOOL

Food fraud is a growing issue facing the food industry today, especially in the current challenging economic times and with food supply becoming ever more global. Whereas the driver might be economic gain, food fraud incidents can lead to a serious public health threat. Therefore the Global Food Safety Initiative (GFSI), a key partner of SSAFE, has recently included new requirements in its Guidance Document that require organizations to have a documented food fraud vulnerability assessment procedure in place and implement measures to mitigate against the identified vulnerabilities.

In response, and in order to support the entire food industry, SSAFE has developed a **FREE TOOL** to help any food business, irrespective of size or geographic location, identify how they may be vulnerable to fraudulent activity and prepare mitigation plans, and can be used to determine the vulnerability of an ingredient, product, or your entire company.

Although the tool is made available for free to the user, SSAFE's members and its partners dedicated **more than 18 months and significant financial resources to develop this science-based tool**. Working in partnership with the University of Wageningen RIKILT and the Vrije Universiteit Amsterdam we have prepared a robust, flexible, easy to use tool that has already been downloaded by 50,000+ users in a variety of languages.



WHERE DO FRAUDSTERS COME FROM?

ORGANISED CRIME



Macro-economic opportunities?

- Price volatility/differentials
- Supply shortages
- Low chance of detection
- Low penalties

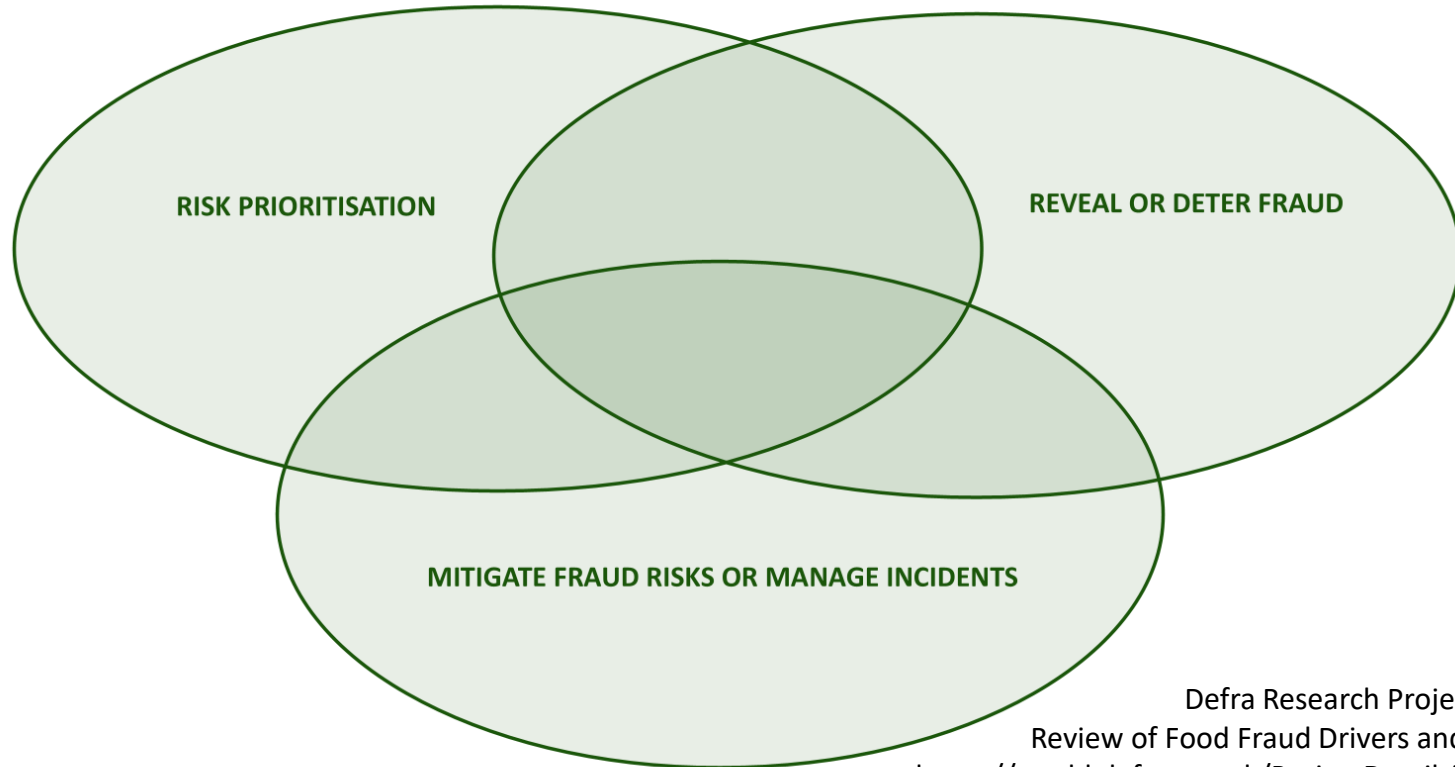
GOOD APPLE/BARREL GONE BAD



Financial or timeliness stress?

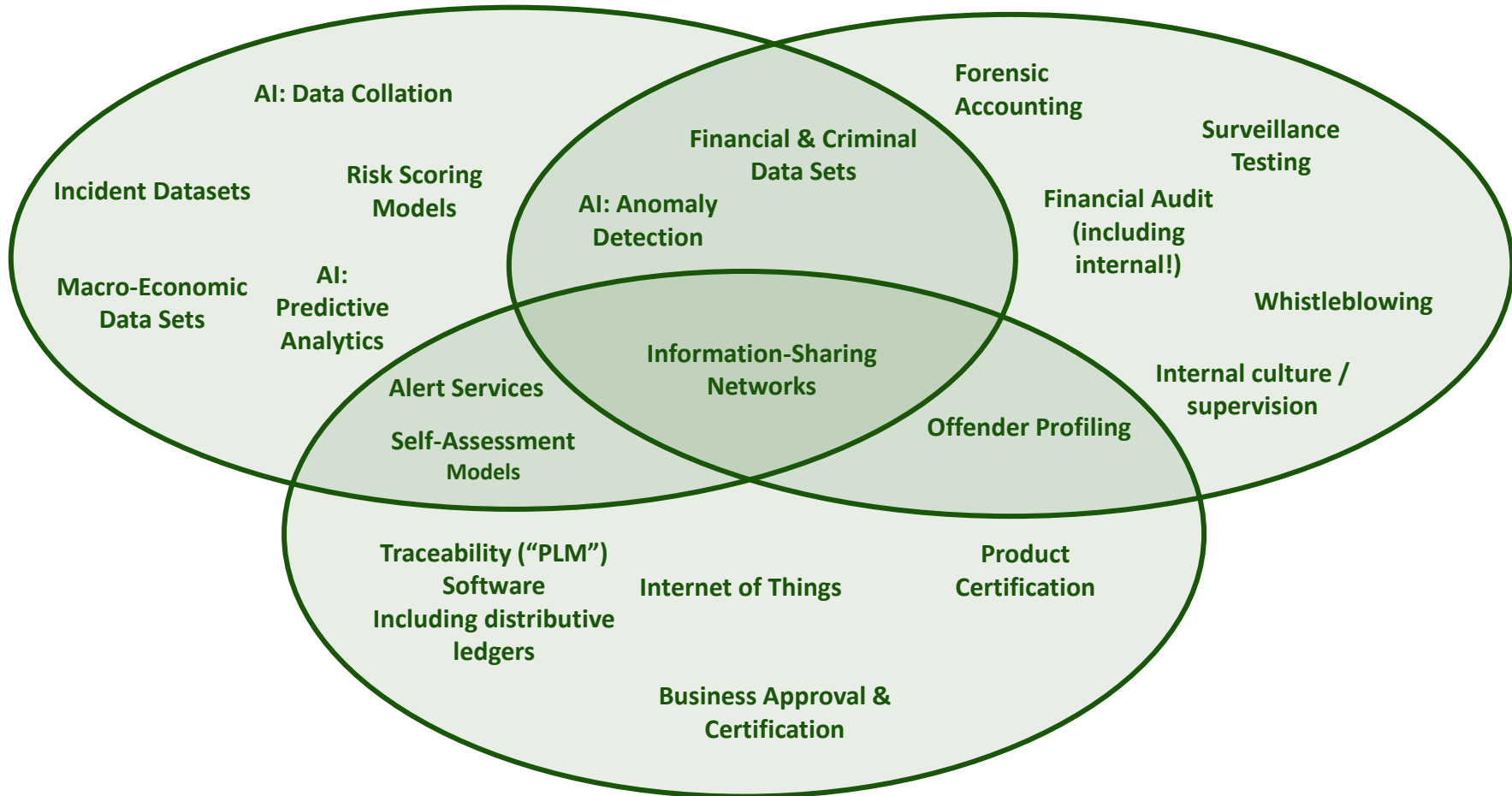
- Gradual normalization of low-level wrongdoing
- Tend to stay within their business comfort zone – same customers and suppliers, “stay local”

FRAUD RISK ASSESSMENT/MITIGATION NEEDS A BIGGER TOOLKIT THAN FOOD SAFETY



RISK PRIORITISATION

REVEAL OR DETER FRAUD



MITIGATE FRAUD CONSEQUENCES

FOOD INDUSTRY: CURRENT BALANCE OF EFFORT



External factors:

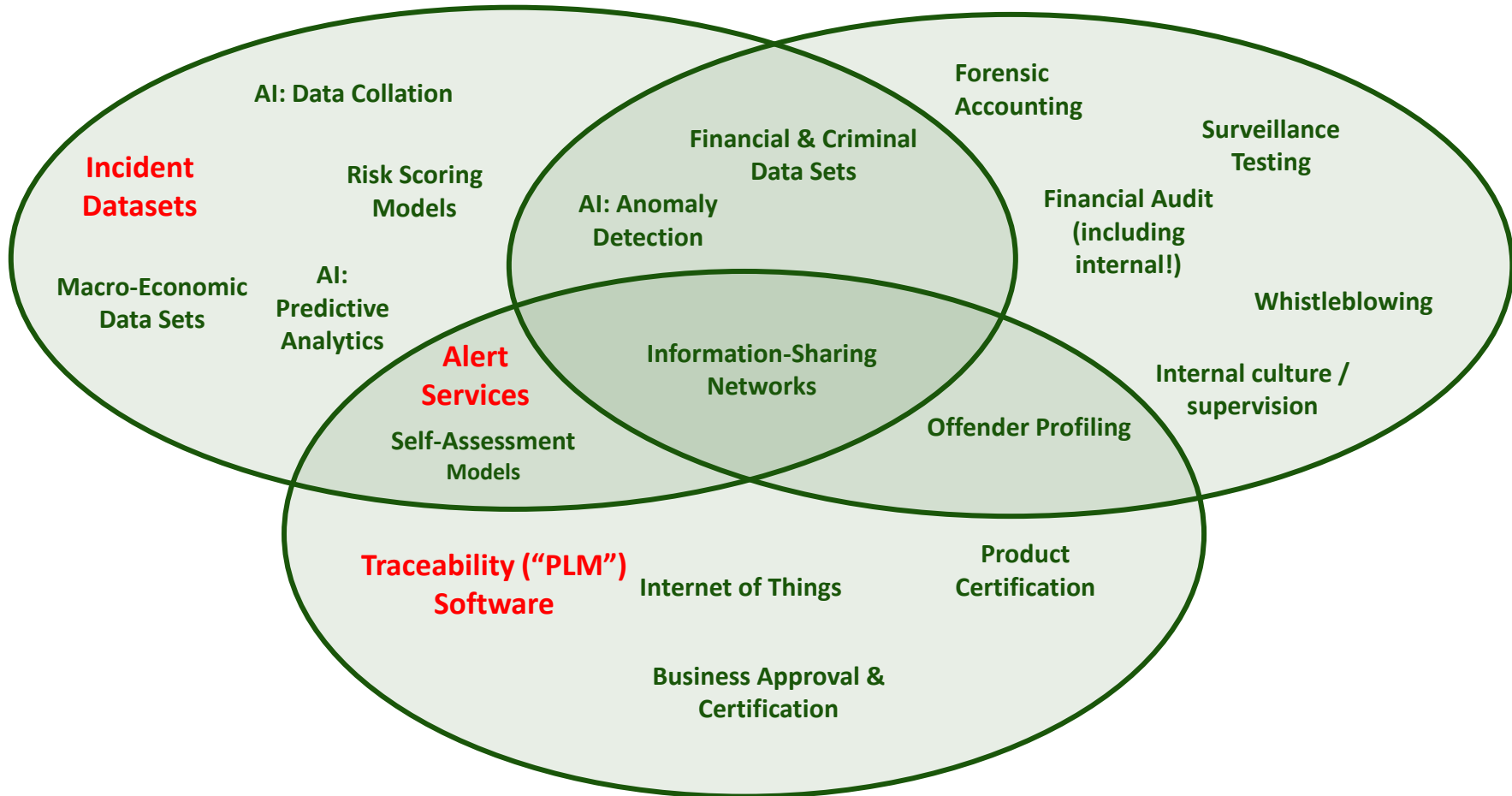
- Previous incident collation
- Price differentials
- Supply shortages

Internal vulnerabilities:

- Culture / lack of supervision
- “Just get it out of the door”
- Race to the bottom on price

RISK PRIORITISATION

REVEAL OR DETER FRAUD



MITIGATE FRAUD RISKS OR MANAGE INCIDENTS

HORIZON SCANNING

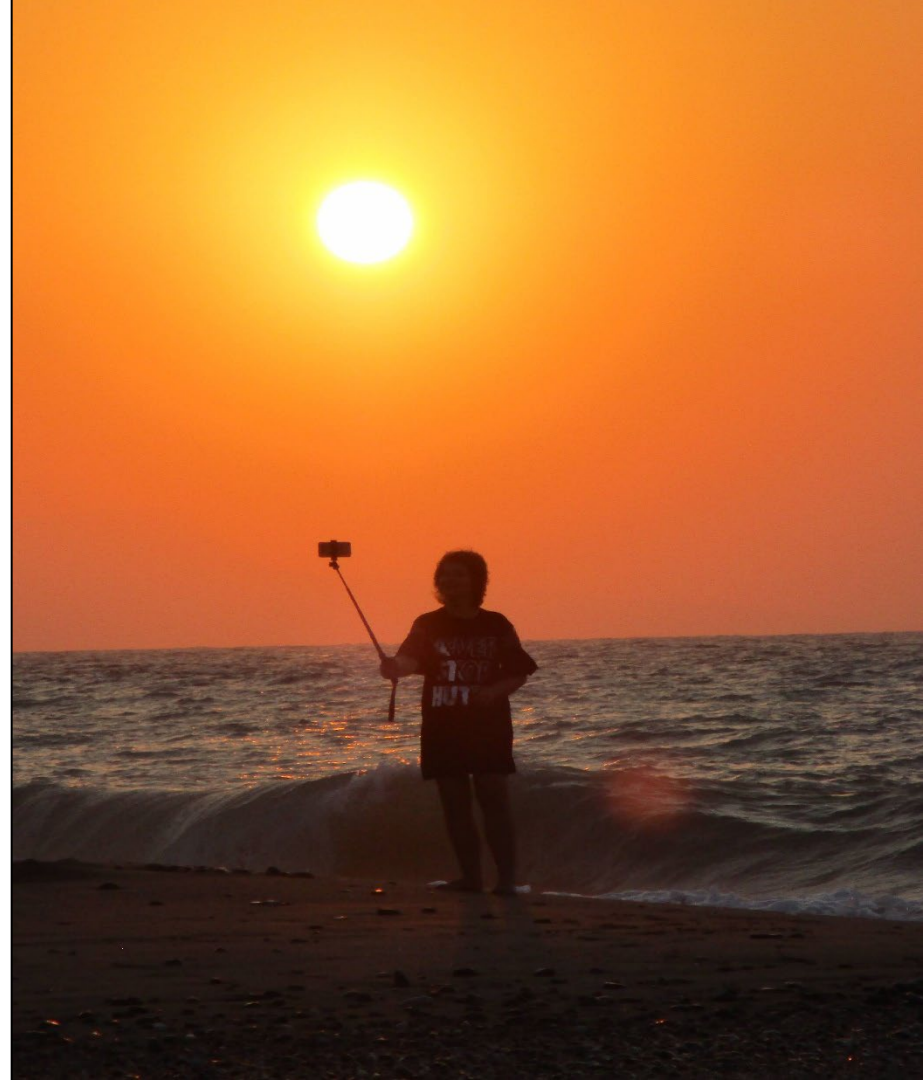
What have others reported?

What drives temptation?

- **Price volatility/differentials**
- **Supply shortages**

This is the easiest bit

(although you are looking at the wrong horizon!)



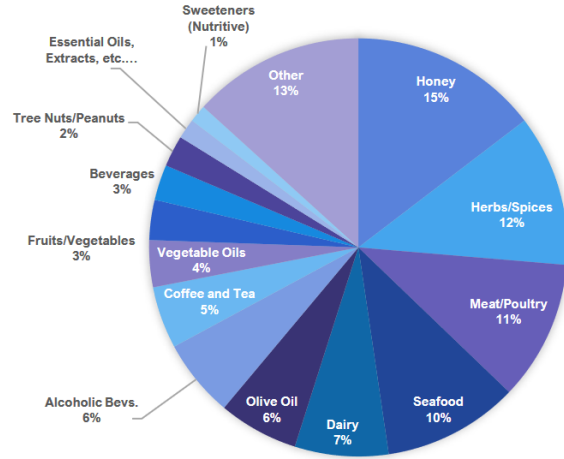


CURRENT WATCH-OUTS

The usual suspects



Commodity groups, Global data 2023



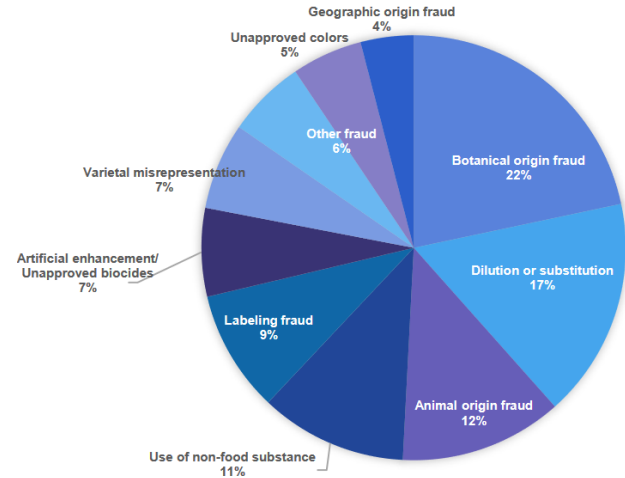
Commodity groups (percent of total records)
Global data 2023

Source: FoodChain ID Food Fraud Database

Herbs & spices
Dairy
Alcohol

Vegetable Oils
Seafood
Honey

Fraud types, Global data 2023



Fraud types (percent of total records)
Global data 2023

Source: FoodChain ID Food Fraud Database

Dilution / substitution
Animal species
Adulteration (non-food substances)

YOUR HORIZON SCANNING FLAGS A RISK: THE 5 SO-WHATs



Should this worry me?

So what? Motivation/
opportunity in my own
organisation?

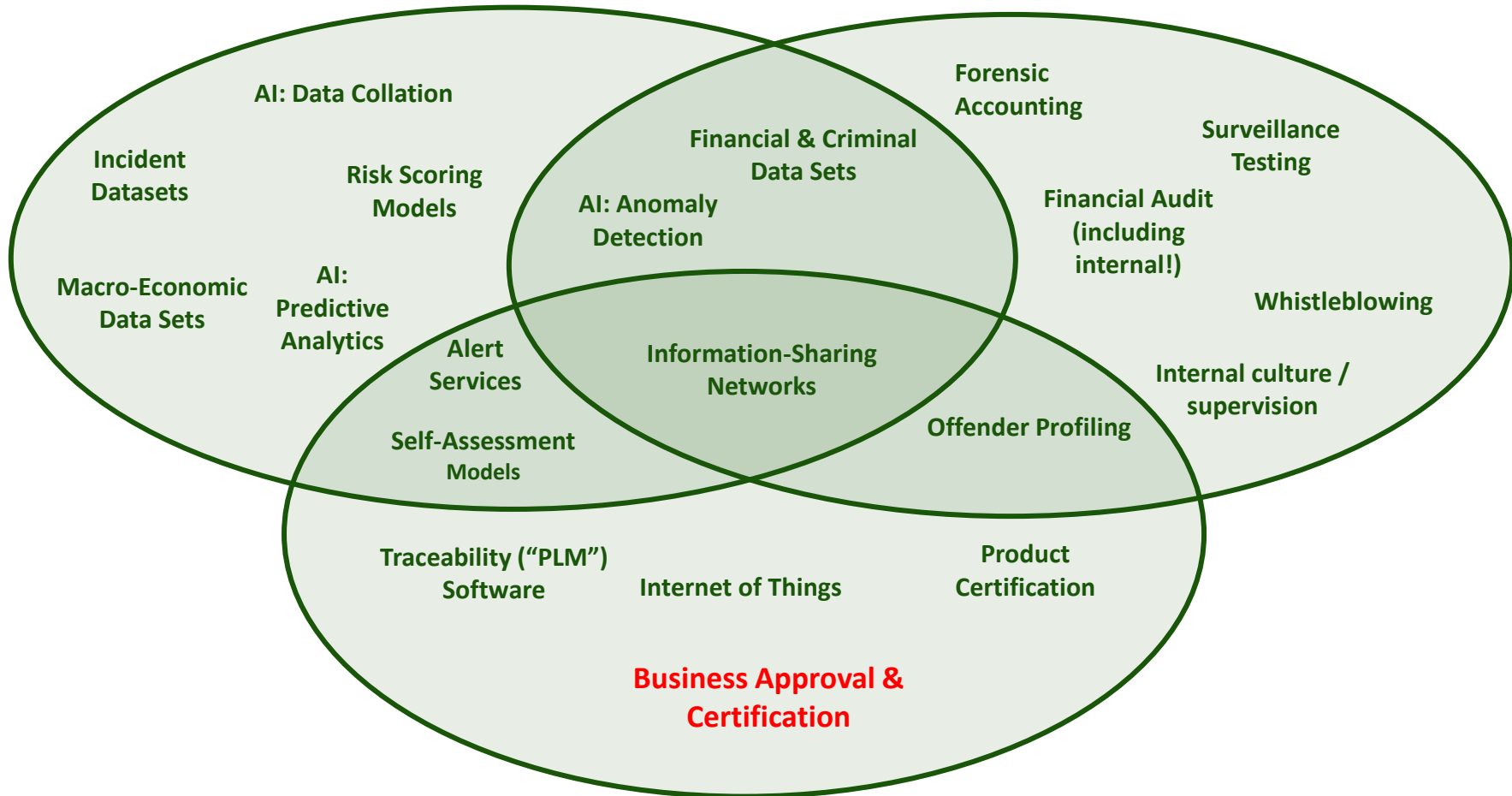
So what ? Opportunity in my
own supply chain?

So what? Motivation in my
own supply chain?

“Horizon Scanning”

RISK PRIORITISATION

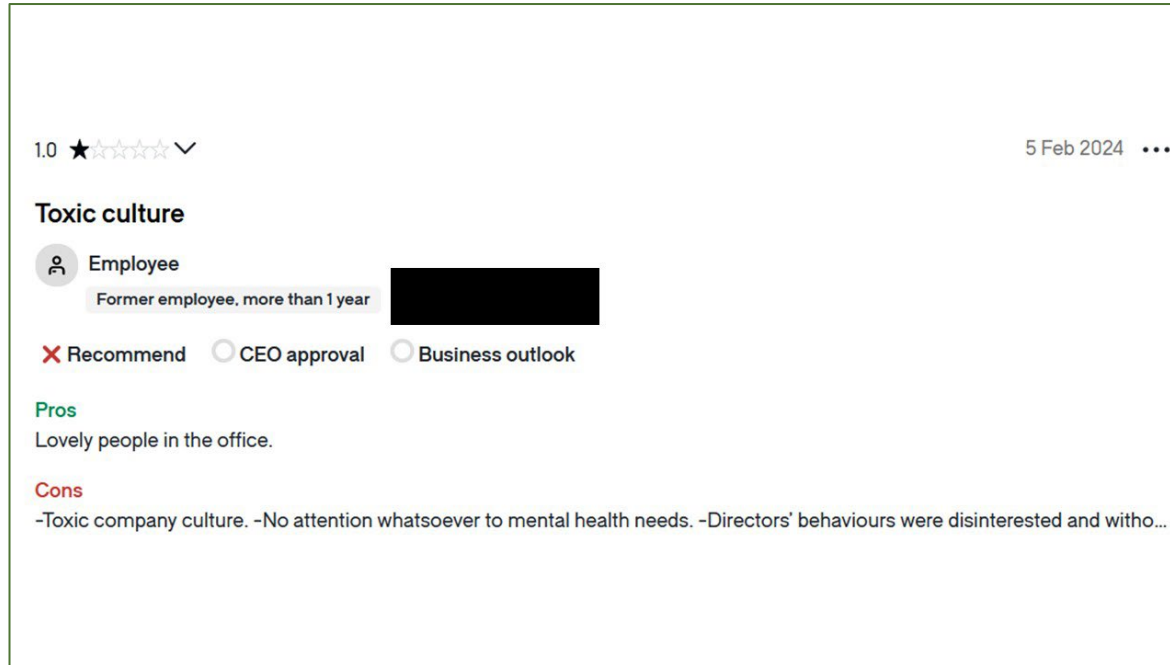
REVEAL OR DETER FRAUD



MITIGATE FRAUD RISKS OR MANAGE INCIDENTS

TRY AND THINK BEYOND THE “GFSI-STYLE” SCORECARD

e.g. look at Glassdoor – ex-employee rating of a BRC A* rated site, 2024 (this verdict was not untypical!)



1.0 ★☆☆☆☆

5 Feb 2024 ...

Toxic culture

Employee
Former employee, more than 1 year

Recommend CEO approval Business outlook

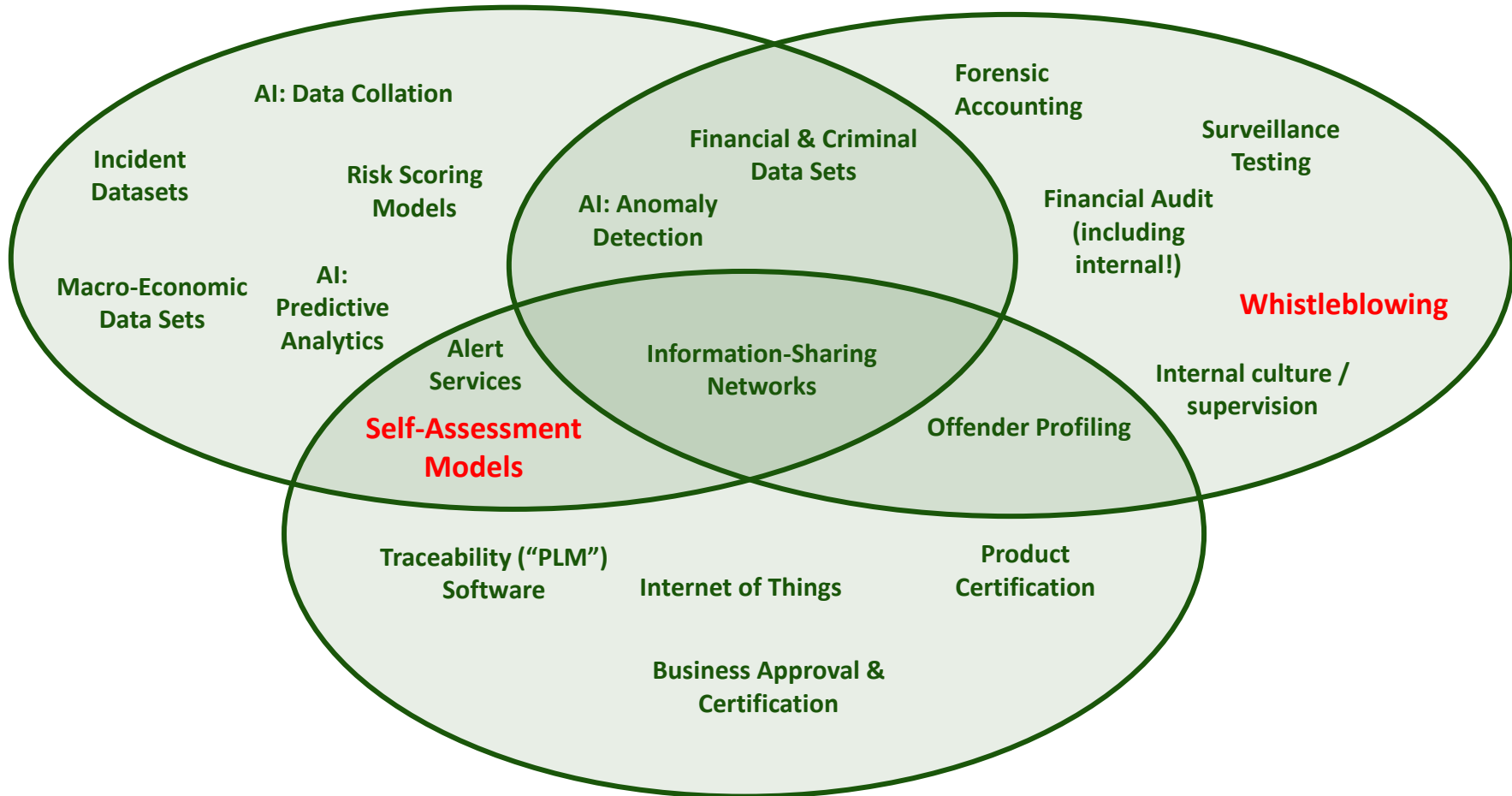
Pros
Lovely people in the office.

Cons
-Toxic company culture. -No attention whatsoever to mental health needs. -Directors' behaviours were disinterested and witho...

e.g. look at Companies House red flags – Directors with history of closing/opening companies

RISK PRIORITISATION

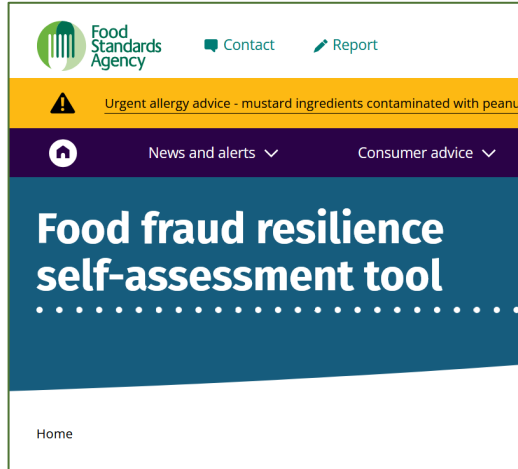
REVEAL OR DETER FRAUD



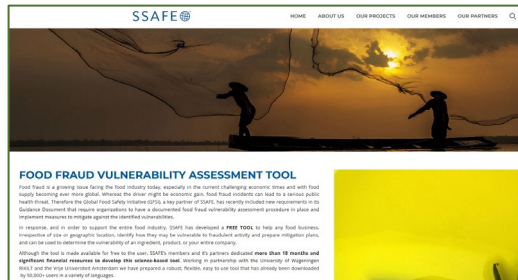
MITIGATE FRAUD RISKS OR MANAGE INCIDENTS

TEND TO BE UNDERUSED – PARTICULARLY FOR SME'S

Self assessment tools



The screenshot shows the top navigation of the Food Standards Agency website. It includes the agency logo, 'Contact', and 'Report' links. A yellow banner displays an urgent allergy alert: 'Urgent allergy advice - mustard ingredients contaminated with peanut'. Below this are navigation menus for 'News and alerts' and 'Consumer advice'. The main heading reads 'Food fraud resilience self-assessment tool' with a dotted line underneath. A 'Home' button is visible at the bottom left.



The screenshot shows the SSAFE website. The header includes the SSAFE logo and navigation links: HOME, ABOUT US, OUR PROJECTS, OUR MEMBERS, OUR PARTNERS, and a search icon. The main image shows silhouettes of people working in a field at sunset. Below the image is the heading 'FOOD FRAUD VULNERABILITY ASSESSMENT TOOL' followed by a paragraph of text describing the tool's purpose and availability.

Whistleblowing lines / systems

Reporting a food crime

If you are a whistleblower or wish to report a food crime, please click on the start button on this page and complete the webform. Alternatively, contact the National Food Crime Unit confidential hotline on **0800 028 1180**. For non- UK mobiles or calls from overseas please use 0207 276 8787.

Your details will be kept confidential and will not be disclosed to any third party.

The hours between which the confidential hot line will be answered are 9am to 4pm, Monday to Friday. Outside of these hours, please use the online service on this page to submit your report.

Suspected food crime committed in Scotland should be [reported to Food Standards Scotland](#).

Start



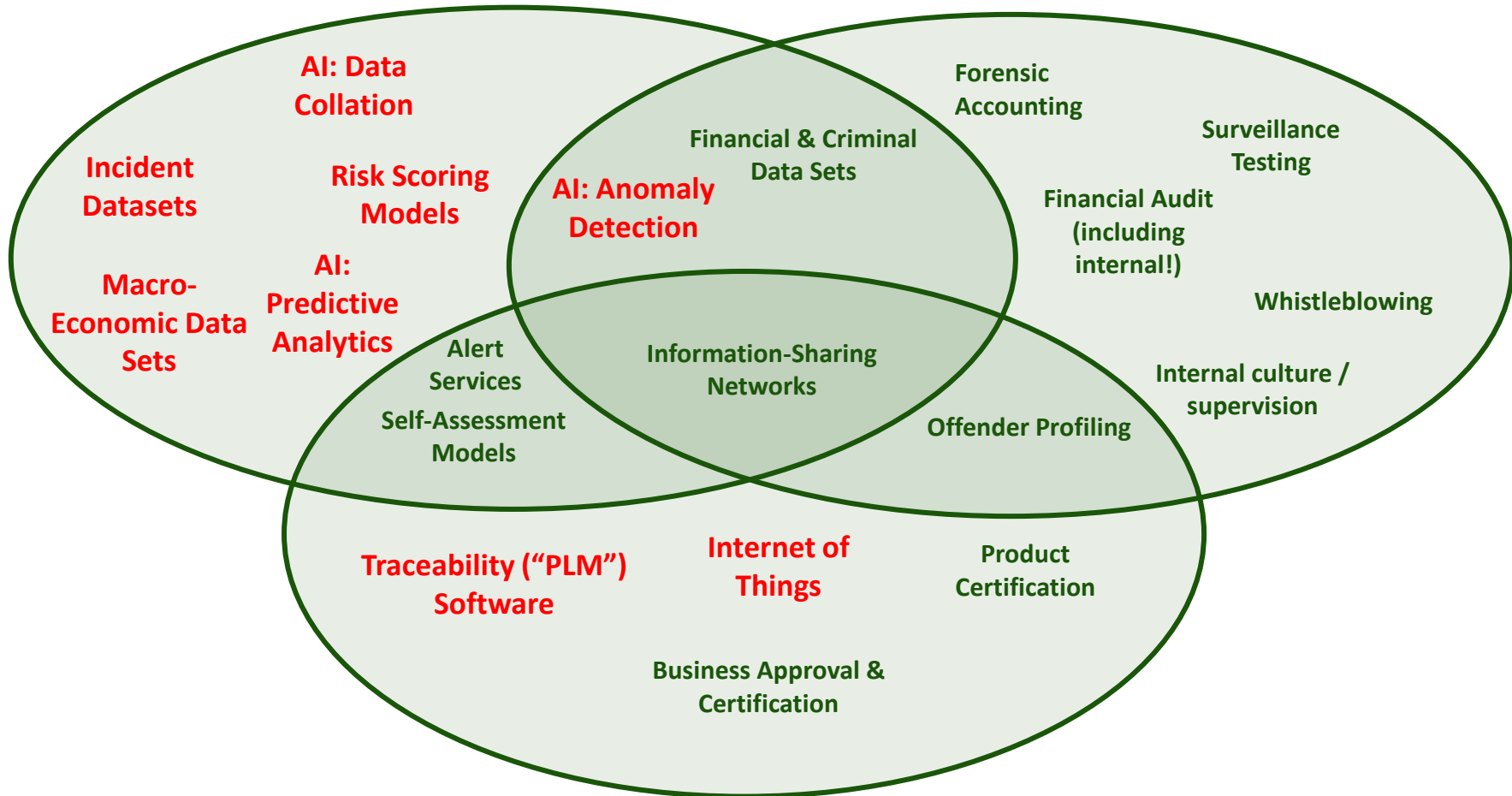
The screenshot shows the Protect website. The header includes the Protect logo with the tagline 'Speak up, stop harm' and contact information: 'Free, confidential whistleblowing advice. Call us on 020 3117 2520 or email us'. Navigation links include 'Advice for individuals', 'Support for Employers', 'Law & Policy', and 'News'. The main heading is 'Protect is the UK's leading whistleblowing charity'. Below this is a paragraph: 'We aim to stop harm by encouraging safe whistleblowing. Our Advice Line supports more than 3,000 individuals each year and we have handled more than 50,000 cases since'.



The screenshot shows the BRCS website. The header includes the BRCS logo and navigation links: 'About BRCS', 'Our Standards', 'Digital Solutions', and 'Training'. The main heading is 'Confidential reporting'. Below this is a paragraph: 'Confidential Reporting Benefits Help and Guidance Next Steps'. At the bottom, it says 'Easily comply with regulations such as the EU Whistleblowing Directive and the PwB'.

RISK PRIORITISATION

REVEAL OR DETER FRAUD



AI: Data Collation

Incident Datasets

Macro-Economic Data Sets

AI: Predictive Analytics

Risk Scoring Models

Alert Services
Self-Assessment Models

Traceability ("PLM") Software

AI: Anomaly Detection

Financial & Criminal Data Sets

Information-Sharing Networks

Internet of Things

Business Approval & Certification

Forensic Accounting

Surveillance Testing

Financial Audit (including internal!)

Whistleblowing

Offender Profiling

Internal culture / supervision

Product Certification

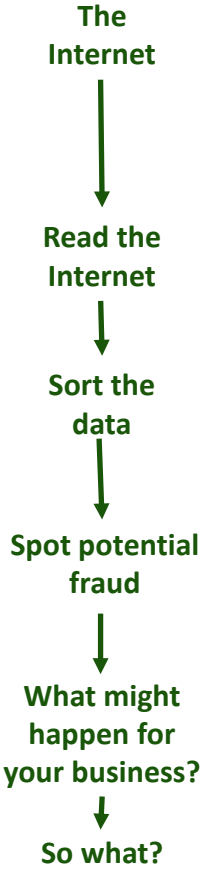
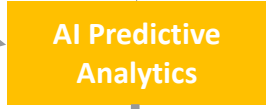
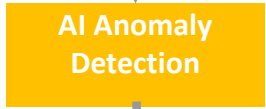
MITIGATE FRAUD RISKS OR MANAGE INCIDENTS

**CAN WE
OUTSOURCE
FOOD FRAUD
DEFENCE TO
AI?**

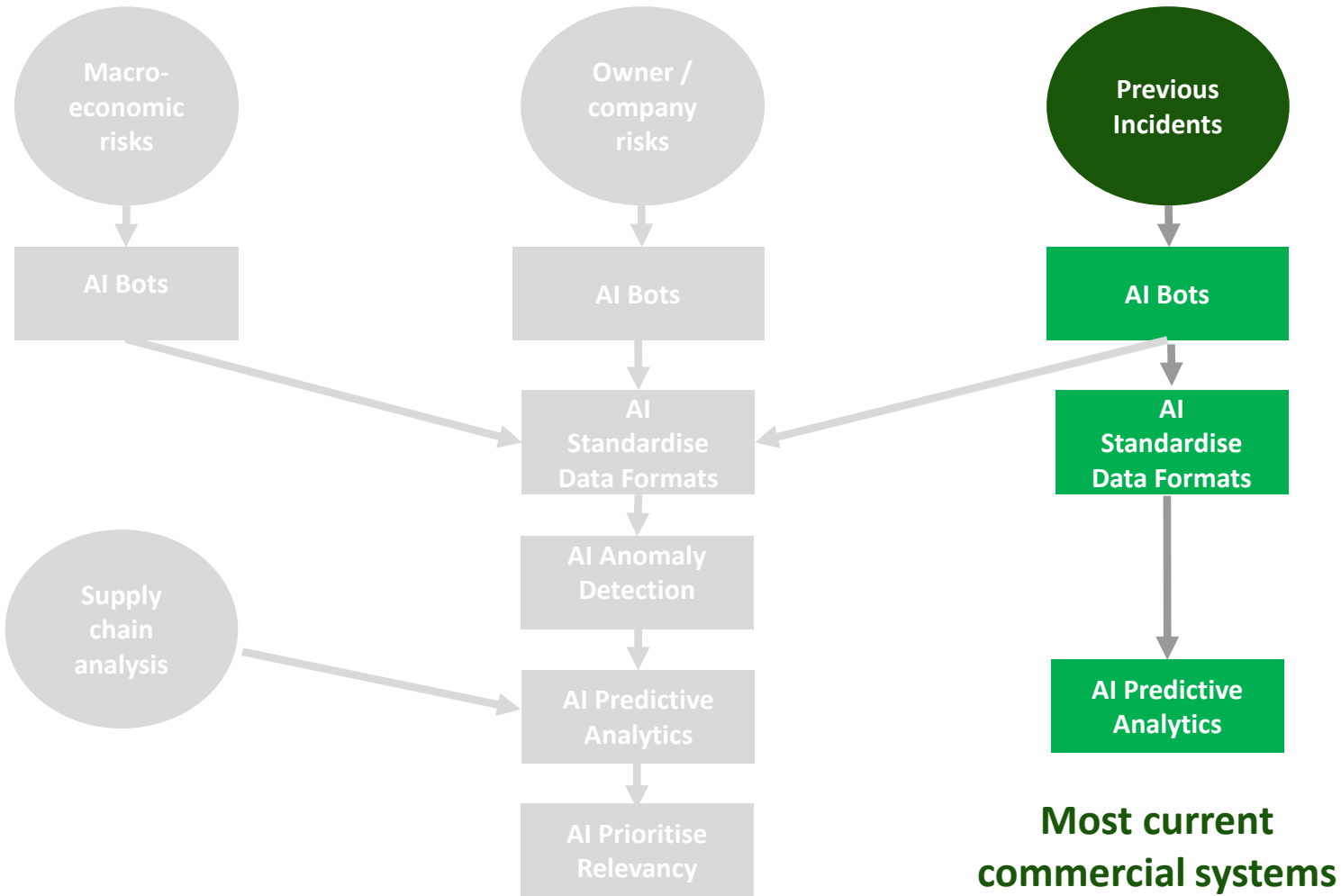


BASICALLY READ & DIGEST THE INTERNET



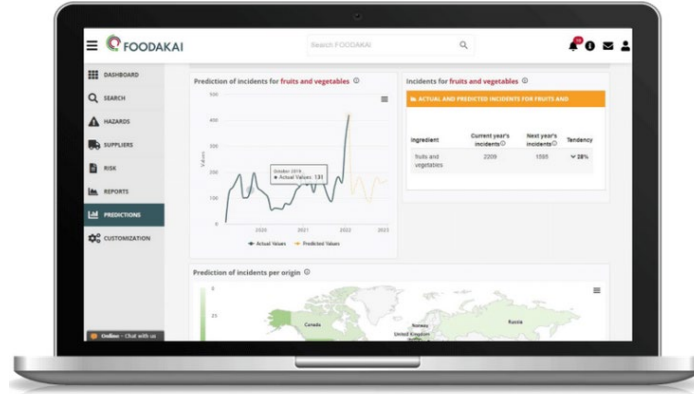
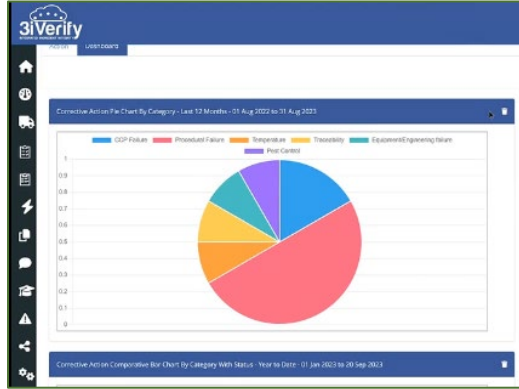


-  Already in use
-  Not far off
-  Still a lot of work needed



Most current commercial systems

IT WILL STILL NEED THE HUMAN “SO WHAT?”



FOODCHAIN ID

Services Solutions

Home / Products / Regulatory Trends

Our solutions

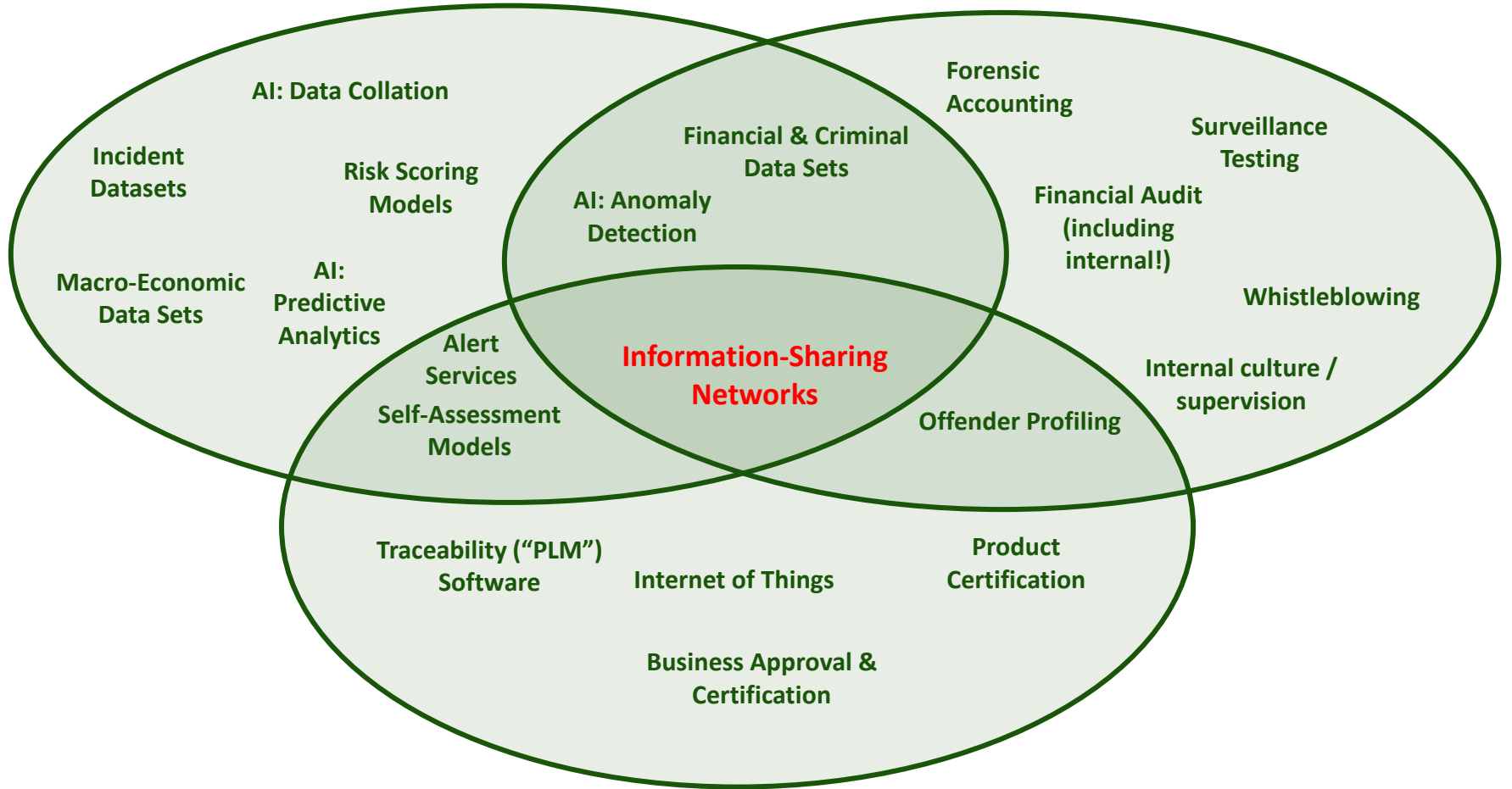
Regulatory Trends

Big data to monitor and support compliance



RISK PRIORITISATION

REVEAL OR DETER FRAUD



**Information-Sharing
Networks**

MITIGATE FRAUD RISKS OR MANAGE INCIDENTS



Food Authenticity Network



Food Authenticity Network
www.foodauthenticity.global



Food Authenticity Network

Expert laboratories

Food industry professionals

Experts in fraud mitigation

Regulators





Food Authenticity Network

Resources

Index of authenticity databases

Monthly bulletin

Mitigation tools

MONTHLY SUMMARY
September 2023

NEW THIS MONTH

Upcoming Issues

1. [Chaperones add to list](#) - [View article](#)

Recent Alerts (Security Updates Available)

1. [Critical CVE for open source library](#) - [View article](#)
2. [Critical CVE for open source library](#) - [View article](#)
3. [Critical CVE for open source library](#) - [View article](#)

Food Resilience and CyberRisk

1. [Supply chain risk assessment](#) - [View article](#)
2. [Supply chain risk assessment](#) - [View article](#)
3. [Supply chain risk assessment](#) - [View article](#)

Analytical Methods and Research

1. [Analytical methods for detecting adulteration](#) - [View article](#)
2. [Analytical methods for detecting adulteration](#) - [View article](#)
3. [Analytical methods for detecting adulteration](#) - [View article](#)
4. [Analytical methods for detecting adulteration](#) - [View article](#)
5. [Analytical methods for detecting adulteration](#) - [View article](#)
6. [Analytical methods for detecting adulteration](#) - [View article](#)
7. [Analytical methods for detecting adulteration](#) - [View article](#)
8. [Analytical methods for detecting adulteration](#) - [View article](#)

OUR COMMUNITY

Thank you to everyone who completed the Resilience survey. Your views matter - it's better to know than not to know. Congratulations to those who completed the survey. We'll be using the data to inform our work.

SPONSORSHIP

We have recently updated the list of reference databases that support our mitigation. We have added new databases that support our mitigation.

OUR PARTNERS

Tools | Guidance | Reports

Edit

1. **Horizon Scan - Food Integrity Horizon Scanning**
2. **Decernis Food Fraud Database**
3. **Food Industry Intelligence Network (FIIN)**
4. **The Food Protection and Defense Institute & Economically Motivated Adulteration Databases**
5. **The Food Protection and Defense Institute's World Factbook of Food**
6. **SSAFE food fraud vulnerability assessment tool**
7. **Food Integrity Knowledge Base**
8. **Food Authenticity Research Network Hub (FARNHub)**
9. **IFT's Global Food Traceability Center - Demystifying Traceability**
10. **Muddy Boots**
11. **MEDISYS**
12. **FADB-CHINA**
13. **FoodExperts**
14. **NFCU food fraud resilience self-assessment tool**
15. **Safety HUD**
16. **BaTAns**
17. **Food fraud screening model (FFIS)**
18. **GHI Whistleblower Food Safety Incident Report Site**
19. **EDF Checklist**
20. **FSS Food Crime Risk Profiling Tool**

Who can tell Vanilla from Vanilla?

Food Authenticity Databases

The searchable list provides a collection of known databases of commodities, assembled for use in classifying authentic and fraudulent products.

Using the search box will refine the list - just enter a word and click 'Search'. Searching is not case-sensitive. Clicking on a letter will limit the list to titles beginning with that letter (for example, clicking on 'V' will show entries for Vanilla, among others).

Click on a particular entry to view more information, including the responsible URL, and on whether the database is proprietary or public.

Search: All Fields... Search... Reset...

A B C D E F G H I J K L M N O P Q R S
T U V W X Y Z All

Our Partners

This project was only possible through the generosity of our partners. To become a FARN partner please get in touch.

“Centre of Expertise” laboratories list

Food Authenticity Centre of Expertise

Minerva Scientific
Food Authenticity Centre of Expertise – Honey

Mr Jay Madden, Minerva Scientific
Address: Stone Gate Road, Spondon, Derby, DE21 7RY
Tel: +44(0)1132 890384
Email: jay@minervascientific.co.uk

Introduction

Minerva Scientific is a specialist analytical testing laboratory established in 2002. We are recognized as a leading authority on honey testing with over a decade of experience in the field.

We provide a range of honey specific relevant ISO17025 UKAS accredited testing and consultancy services.

Minerva Scientific has MHRA GMP approval for the chemical

Minerva Scientific has provided consultancy and advice to the UK honey industry on wide ranging issues including authenticity and adulteration for over a decade.

We also offer testing for 'active' honeys, including verification tests for New Zealand Manuka honey, and are currently heavily involved in work relating to additional novel adulteration testing approaches for honey.

Individuals - Join for free



Organisations can become a Partner

Our Partners

