



Global Food Regulatory Perspective on Food Fraud Management

- Food Fraud, A Global Insight -

Global Food Regulatory Science Society, Webinar Series
24 May 2022 -

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24 May 2022

Background

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Food Fraud is as old as
Food Production for
Commercial Purposes



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Food Fraud : An Attempt to Define the Issue

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- ❑ No formal definition in most regulatory frameworks... to date – Codex has worked on a unifying one
- ❑ Notions included in Food Fraud:
 - Deliberate act
 - Aims for economic gain in an illicit manner
 - Meant to be hidden / not to be discovered
 - Misrepresents the food product to consumers



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Heightened Interest Resulting from High Visibility Incidents⁴

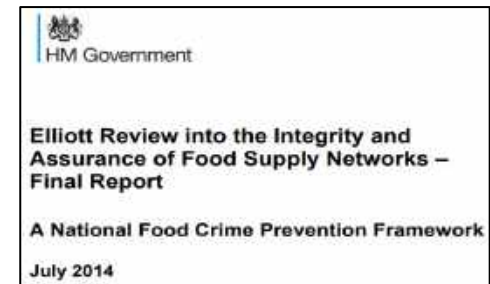
Melamine Incident

- ❑ 2007 (Feed, Companion Animal Food)/2008 (Dairy Products)
- ❑ Leading to over **300,000 illnesses** (Kidney stones and renal lesions)
- ❑ **6 deaths (infants/babies)** in 2008



2013 Horsemeat Scandal

- ❑ Some 2700 samples tested in 28 European countries
- ❑ **16 countries connected to the scandal**
- ❑ Some “**beef**” products contained as much as **100% horsemeat**
- ❑ 2017 – EU police arrest and charge 65 individuals

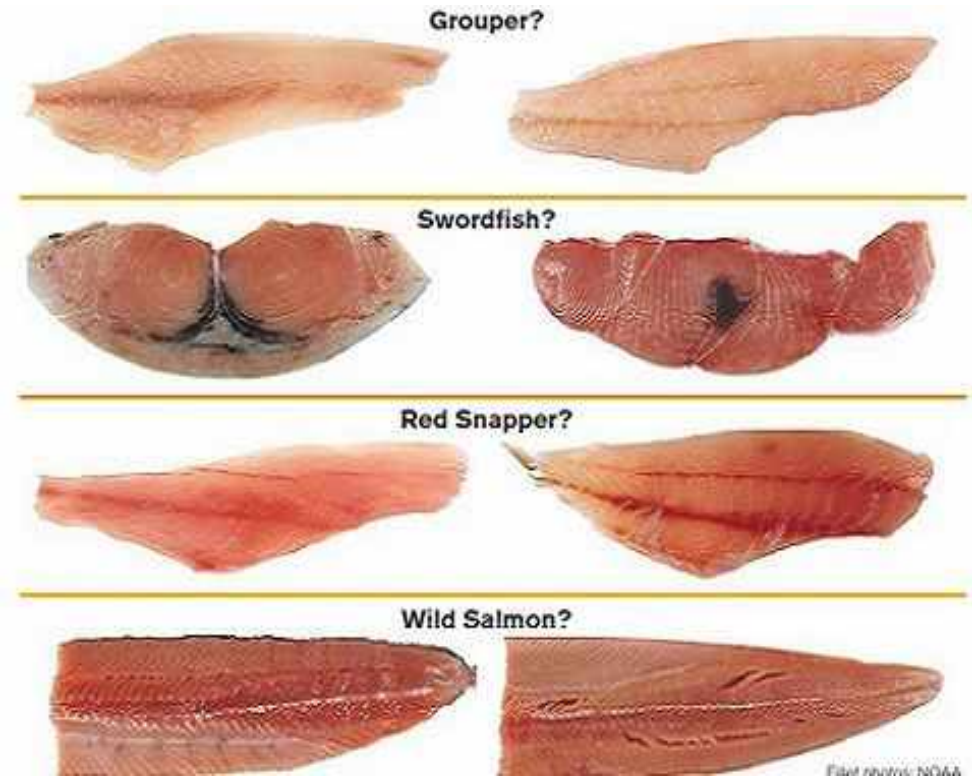


Some Manifestations of Food Fraud

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❑ Misrepresentation / mislabeling (intentional)

- Different origin of food
- Different species of meat/fish
- Fraud on weight/volume



Generally no public health impacts

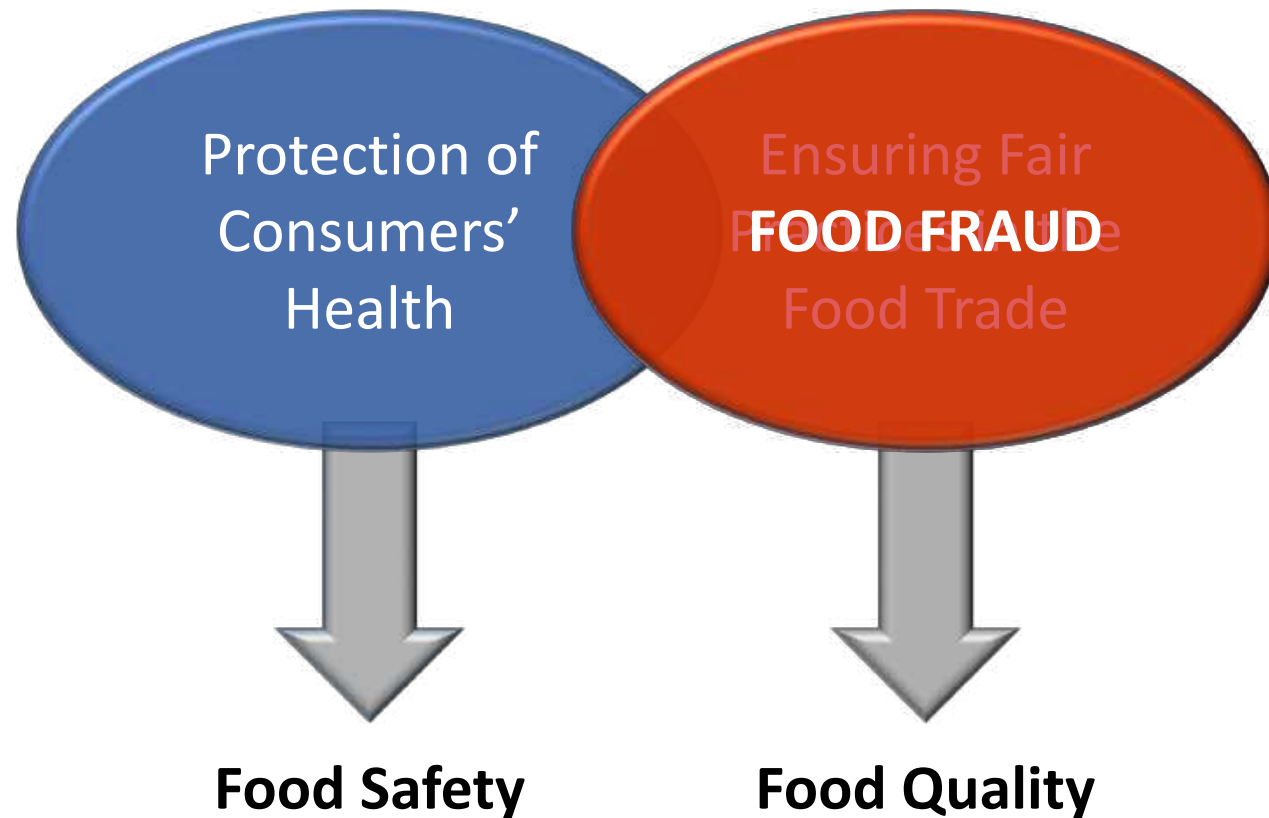
❑ Substitution / Dilution / Addition to mask dilution

- Dilution with water – dilution with less costly ingredient (with or without substitution)
 - Addition of food grade / harmless food ingredient = ***no introduction of hazard***
 - ***Addition / introduction of new hazard***
 - (peanut)E.g. allergenic ingredient added where not expected = ***acute risk***
 - Introduction of a “silent” hazardous substance, e.g. Sudan dyes in spices = ***chronic risk***



Food Fraud within the “Codex Mandate”

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- ❑ Food Fraud is meant to impact food quality but can have significant impacts on food safety
- ❑ It ceases to be “hidden”

CODEX 50
ALIMENTARIUS 1963-2013



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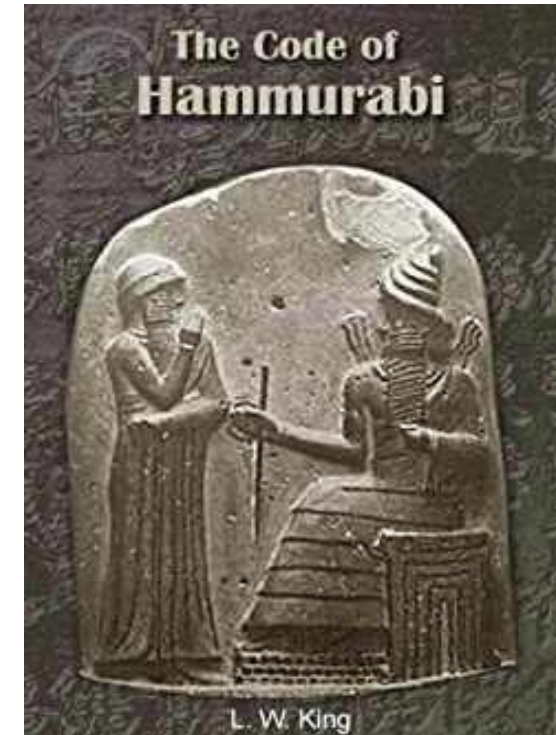
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Origin of Food Fraud Regulatory Management

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- ❑ Food Laws historically aimed primarily to address and prevent food fraud issues
- ❑ Historical food laws in the Antiquity (1750 BC – Hammurabi Code) addressed food fraud incidents to protect consumers and trade
- ❑ Even contemporary food laws in the West were initiated to prevent and manage food fraud incidents, e.g. alcoholic beverage adulteration



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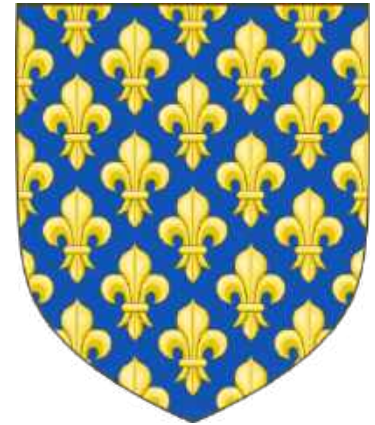


Start of Food Fraud Regulatory Requirements...

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European Laws ... Middle Ages

- ❑ The Assize of Bread of 1266 in England regulated price, **weight of** a bread loaf as well as sales requirements (minimum amount to be sold)
 - Fines and prison / medieval penalties for fraudsters
 - Extended to Beer, Fish and Meat during the same century
- ❑ Ordinance of John the Good (John II of France) ruled France from 1351: Bread Standard, Wine standard (quality requirements)



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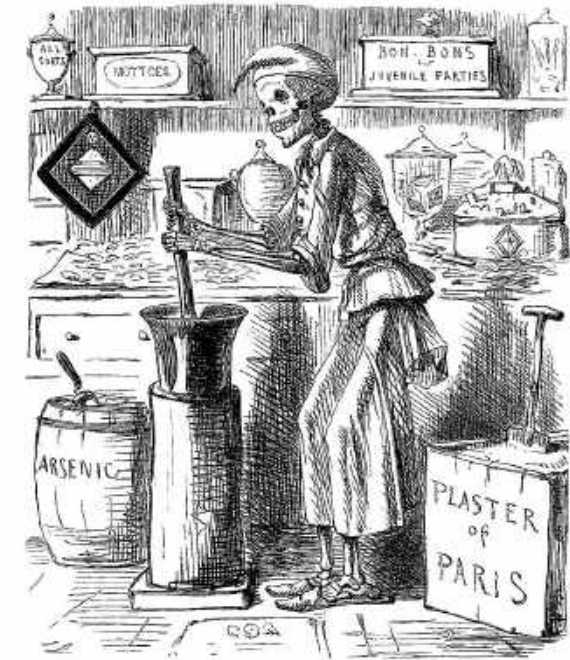
Moving to the Contemporary Period

1860: The Adulteration of Food and Drinks Act:

- ❑ To protect consumers from imported products
- ❑ Not necessarily applicable to producers and wholesalers

1872: The Adulteration of Food and Drugs Act:

- ❑ Ability/Authorities to take Samples
- ❑ Responsibility attributed to Producers and Wholesalers



THE GREAT LOZENGE-MAKER.
A Hint to Paternfamilias.

Standards of Identity are a tool to preserve authenticity

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❑ 1890 Amendment permitting Government created Standards to become Regulations

❑ 1894 : First Canadian Standard



Could not afford others!

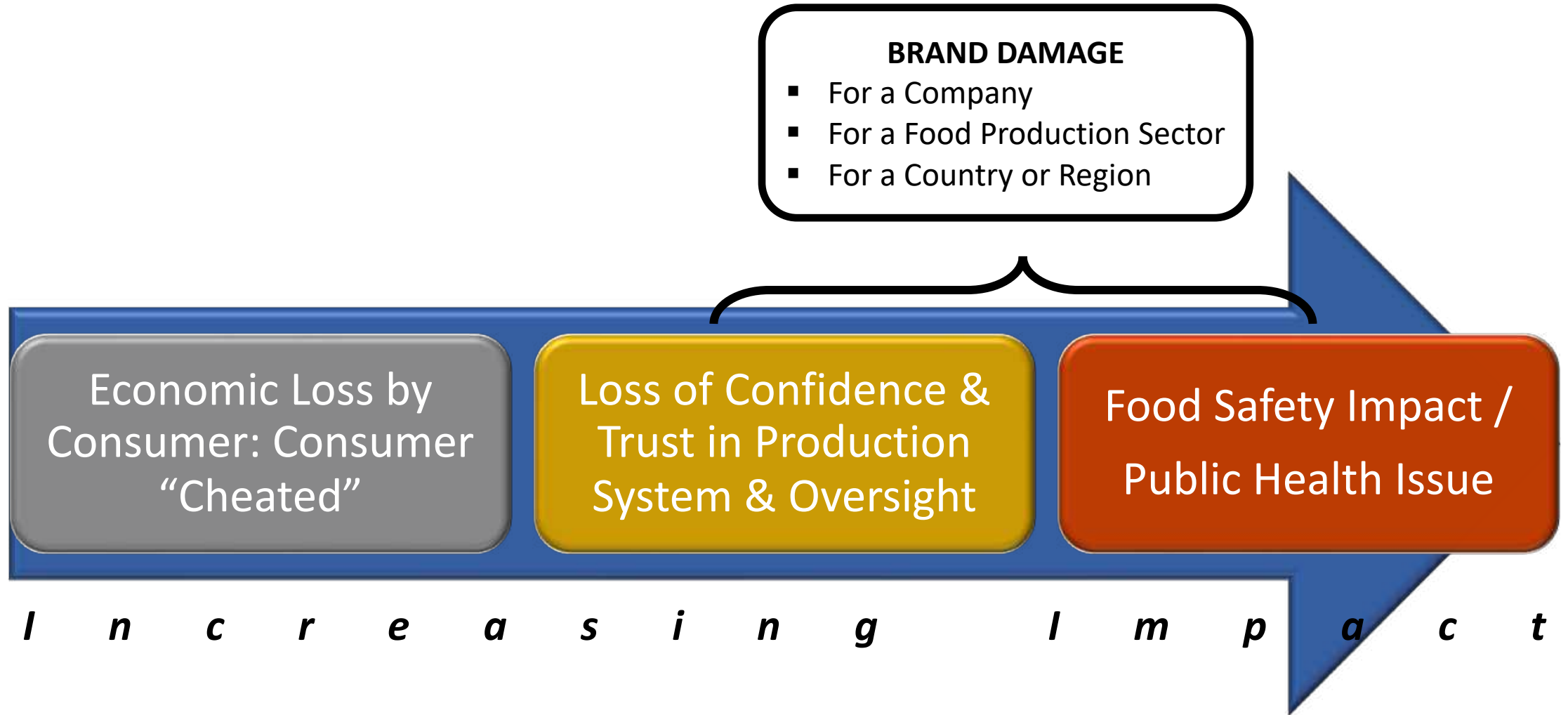


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Food Fraud Impacts

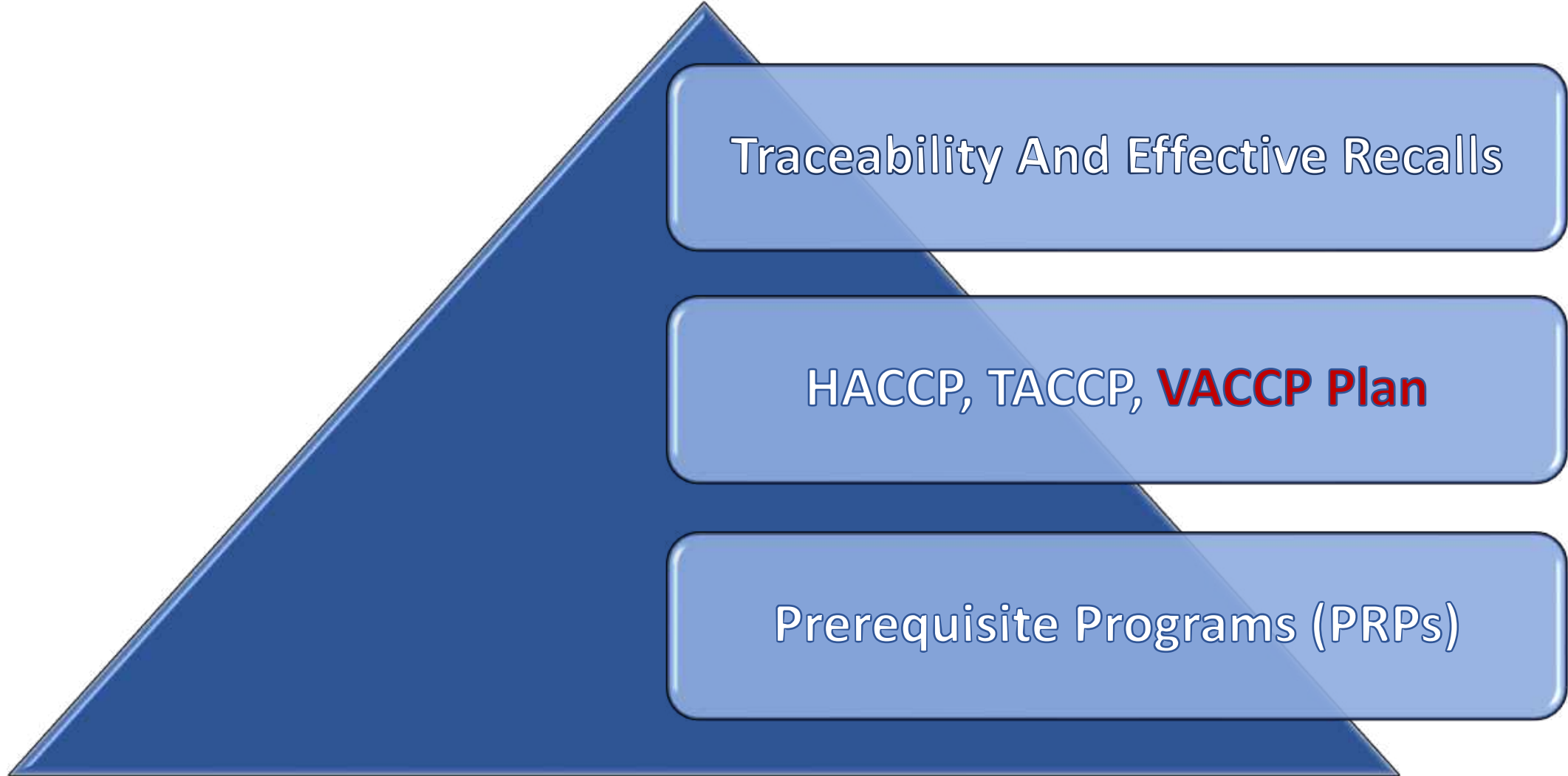


Overlaying Regulatory Policy Approach (Risk-based) ¹³



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Focus on Prevention

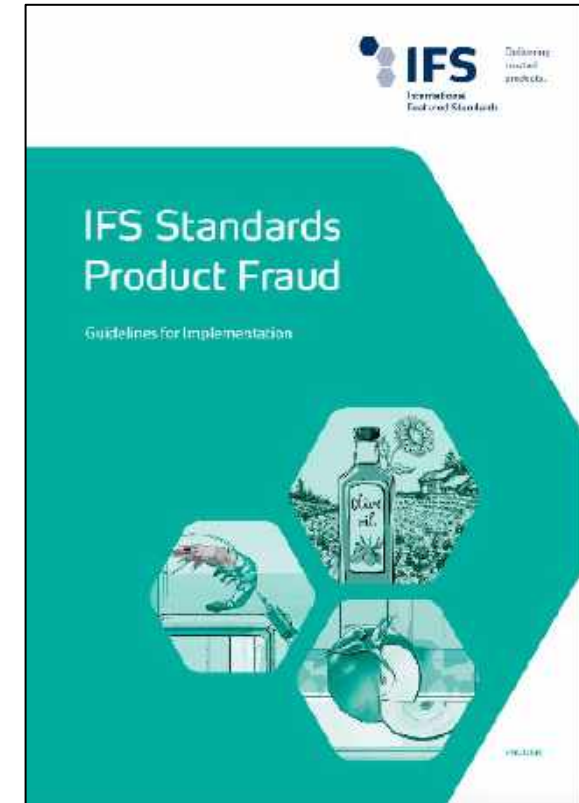
Several Tools Developed by Industry to Support Food Fraud Prevention and Mitigation

❑ Tools useful for vulnerability assessments as part of food safety management systems:

- International Featured Standards (IFS) – **IFS Standards Product Fraud**
 - Guidelines for Implementation
- **BRC Global Standards for food safety**
- **SSAFE Food Fraud Tool** (Netherlands)

❑ Global Food Safety Initiative (GFSI) requirements for food fraud prevention and mitigation

- **United States Pharmacopoeia (USP) Food Fraud Mitigation Guidance Document**



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Food Fraud Analytical Environments

Analytical Methods are Key to Support:

- ❑ Assurance of food authenticity
- ❑ Detection of food fraud targeted adulterants in priority food commodities



AOAC International Established a Taskforce on Food Fraud:

- ❑ Led to the creation of 2 Working Groups:
 1. Development of **SMPRs for non-targeted testing methods**:
 - Methods to assess the authenticity of priority ingredients without targeting an adulterant – WG1
 2. Mapping existing **targeted testing methodologies** (known adulterant in priority ingredient) and suggest adapted **AOAC processes** to address large scale incidents when needed

- ☐ Methods and Approaches for Vulnerability Assessment and Mitigation:
 - Multiple options.
 - Not necessarily open access.
- ☐ Tools Adapted to SMEs
- ☐ Laboratory Methods for Non Targeted Testing Not Harmonized
- ☐ Effective Sharing Amongst Food Regulators
- ☐ Harmonized Measures : Codex Leadership



Global Understanding of Food Fraud 2018

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FOOD FRAUD 2018 GLOBAL UNDERSTANDING



Towards
collaborative
leadership to
counter food fraud



2017
QUÉBEC



2017
BEIJING

2018
DUBAI



OCTOBER

- 28 - To follow up on GUFF Conference series' commitments (by invitation/upon request)
- 29 - Plenary session-DIFSC
- 30 - Open sessions dedicated to food fraud

THEMES

- 1 - Harmonization of food fraud regulatory policies
- 2 - Preventive measures for the food industry
- 3 - Risk communication, information sharing and capacity building

OCTOBER 28-30 Dubai World Trade Centre

foodsafetydubai.com

Organizers



Partners



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Towards a Global Coalition of Thought Leaders

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Areas of Focus...

Collaborative
Leadership Amongst
Food Regulators

Reviewing Existing
Tools / Guidance to
Industry

Analytical Methods:
AOAC Leadership on
Food Authenticity
Assurance

Shaping an Agenda for International Collaboration



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Hoping to Shape Direction for ...

- ❑ Better Clarity and Availability in Food Fraud Prevention Tools
- ❑ Updated Food Regulatory Frameworks Tackling Food Fraud, focused on prevention

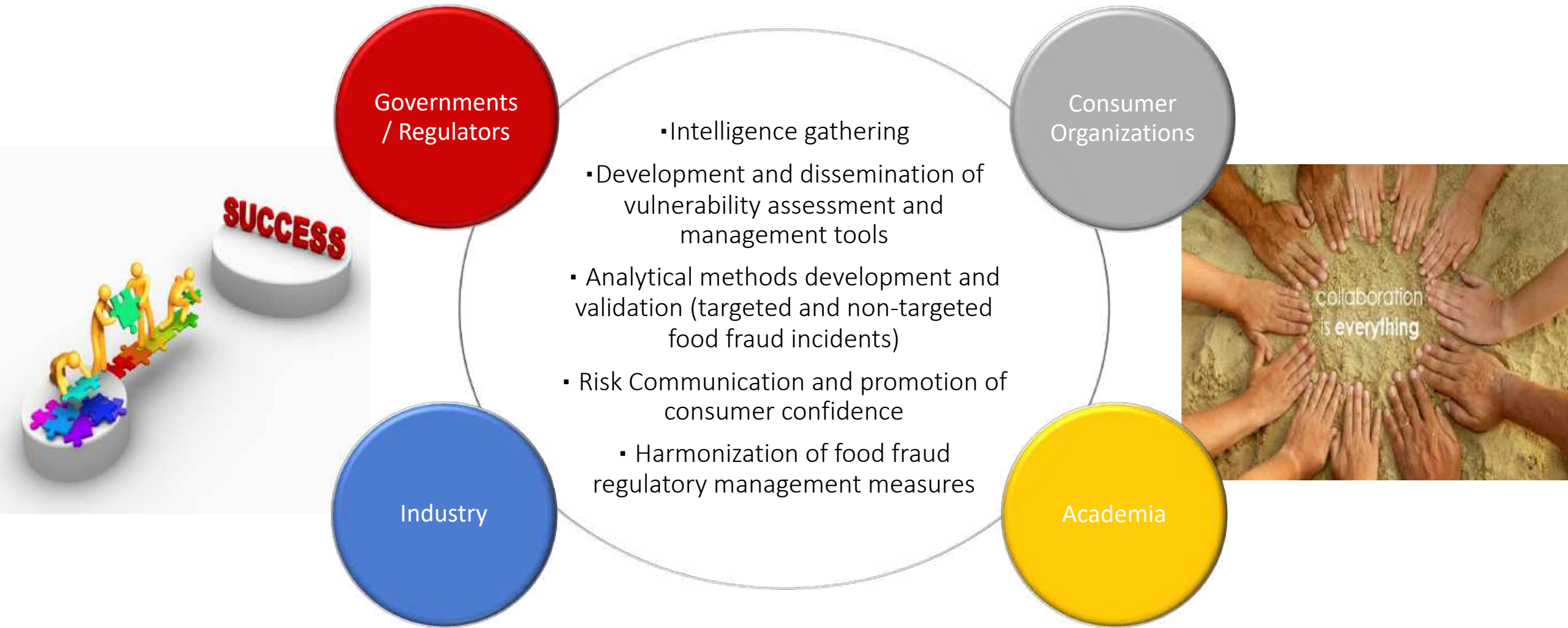


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Collaboration is Needed for Future Developments

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