SSAFE

Global Conference on Biological Threat Reduction

by Quincy Lissaur
Executive Director
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Members

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Select Partners

World Organisation for Animal Health

CODEX International Food Standards ALIMENTARIUS

FAO FIAT PANIS

STDF STANDARDS and TRADE DEVELOPMENT FACILITY

ISO

FIA FOOD INDUSTRY ASIA

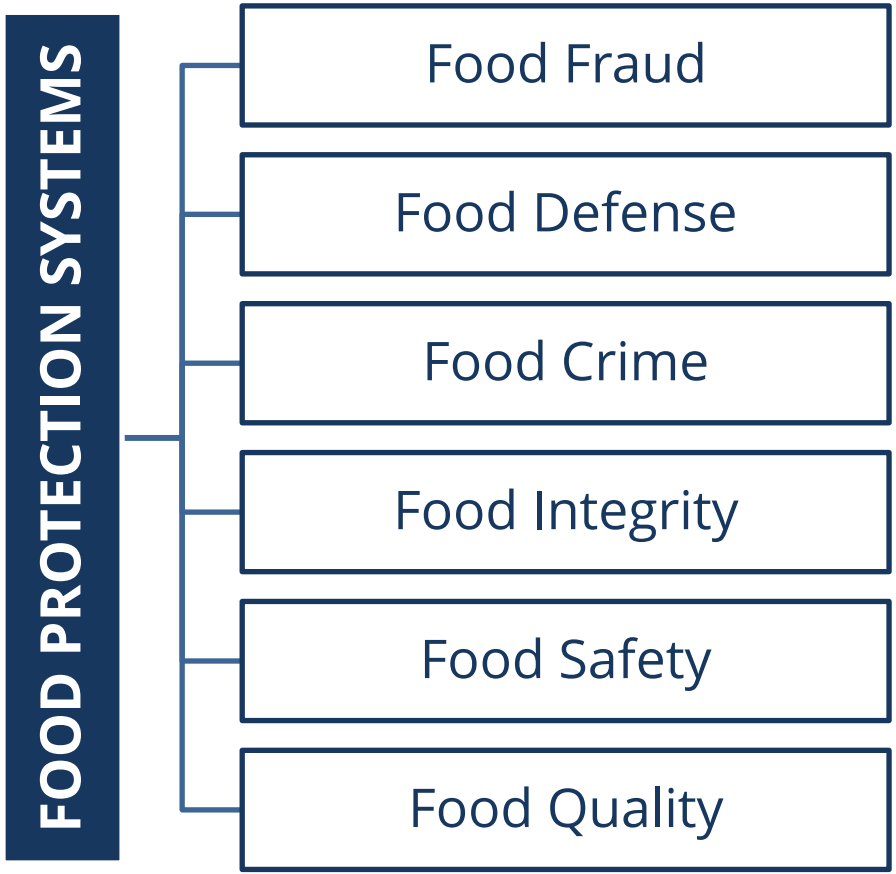
IICA

The Consumer Goods FORUM

GFSI Global Food Safety Initiative

MICHIGAN STATE UNIVERSITY

RIKILT WAGENINGEN UR


FOOD PROTECTION SYSTEMS
Food Fraud
Food Defense
Food Crime
Food Integrity
Food Safety
Food Quality

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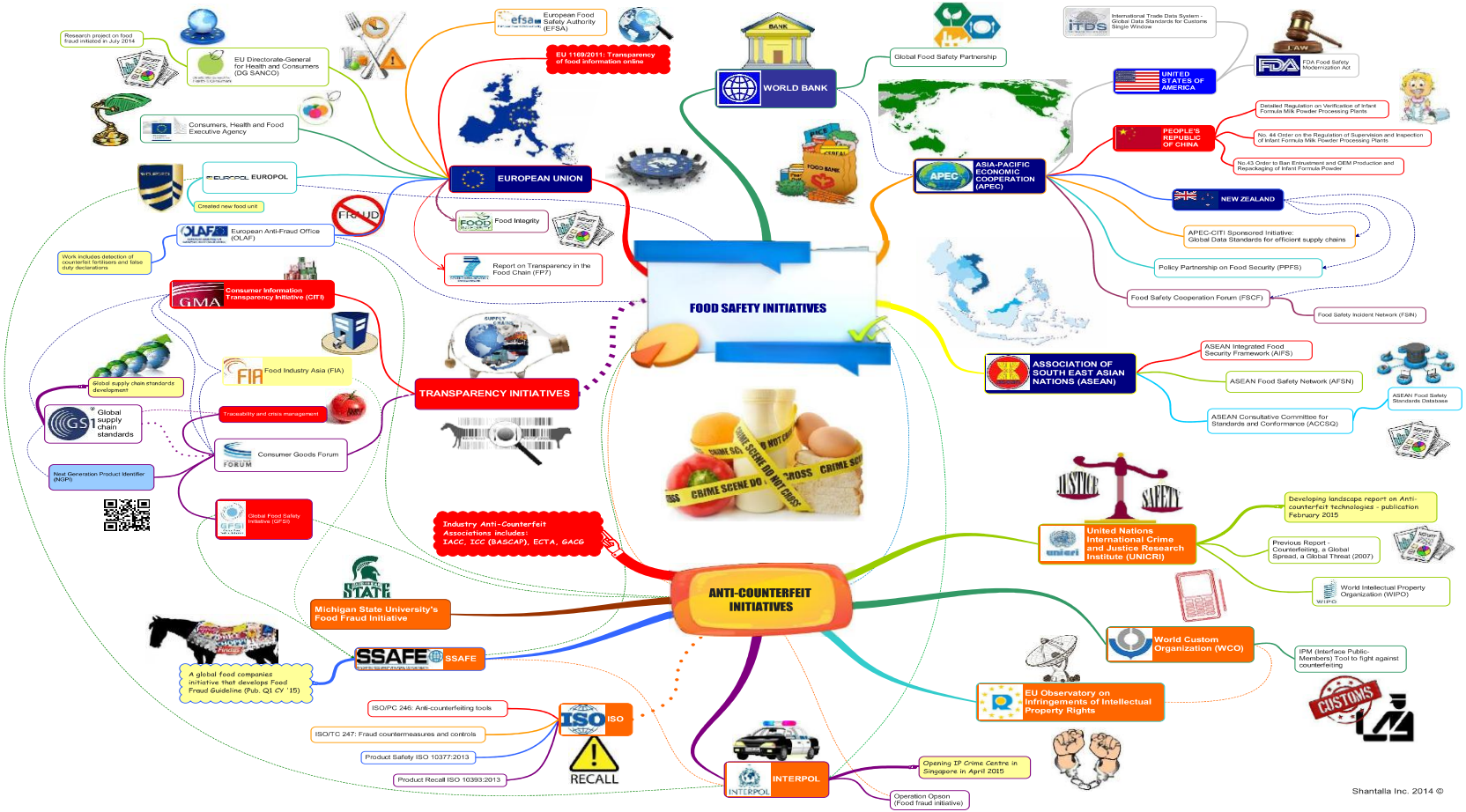

- Courtesy of John Keogh, Shantalla Inc.

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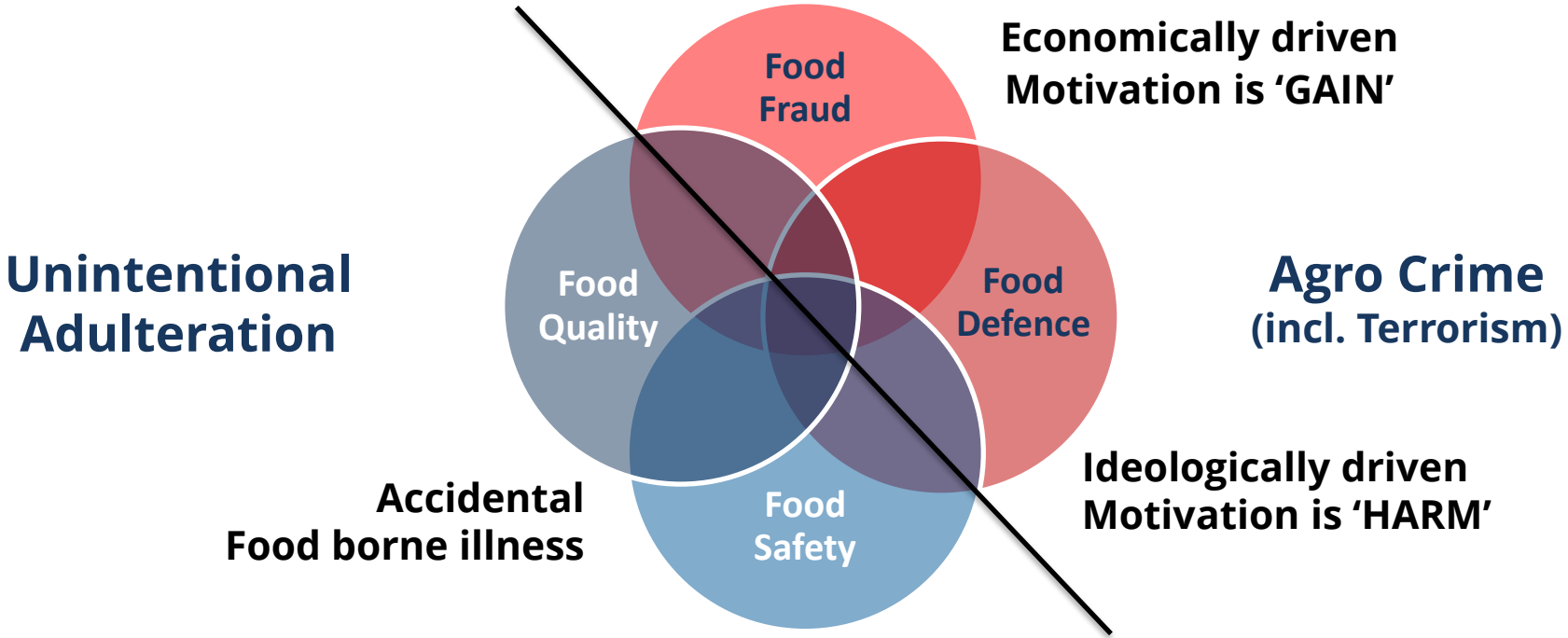
Economically driven
Motivation is 'GAIN'
Food Fraud
Unintentional Adulteration
Food Quality
Food Defence
Agro Crime
(incl. Terrorism)
Accidental
Food borne illness
Food Safety
Ideologically driven
Motivation is 'HARM'

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Substituting high protein milk with regular milk
SUBSTITUTION
Milk diluted with water or other liquid substances
DILUTION
Blending milk with Starch, Wheat Flour or Rice Flour to reduce cost
CONCEALMENT
TYPES OF FOOD FRAUD
Copies of popular milk brands
COUNTERFEITING
Changing the expiry date
MISLABELLING
Adding melamine to baby formula
UNAPPROVED ENHANCEMENTS
Sale of excess unreported product
GREY MARKET PRODUCTION/ THEFT/ DIVERSION

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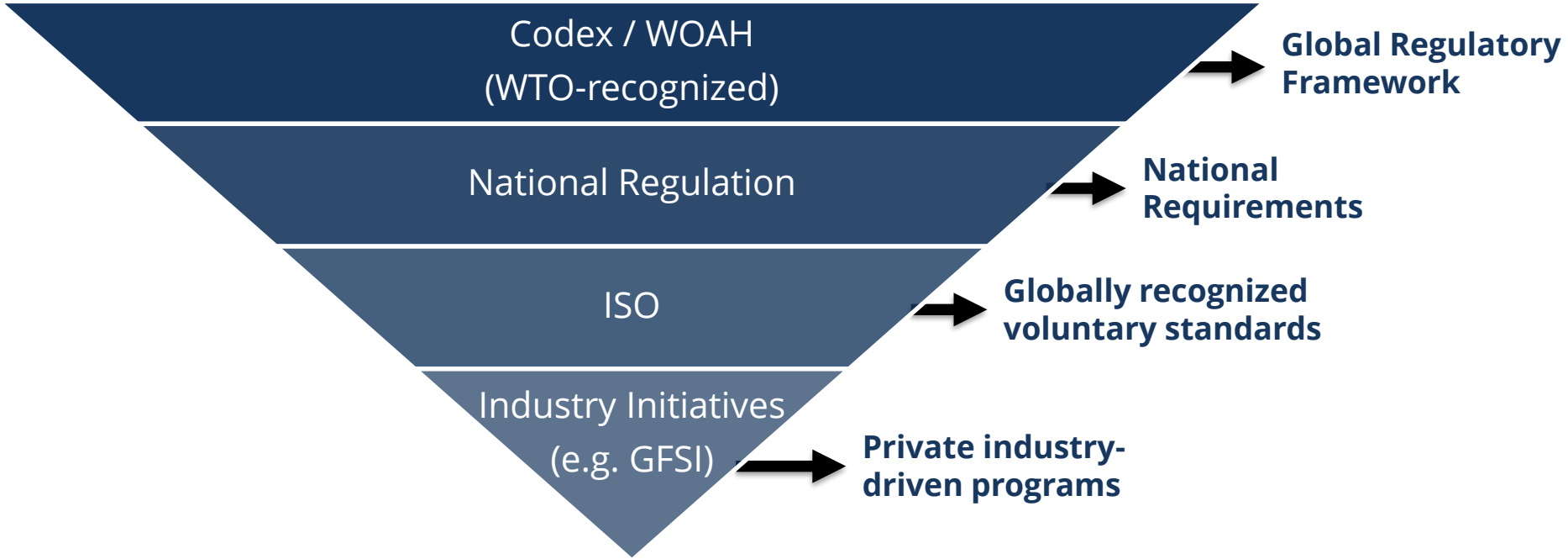
Codex / WOAH
(WTO-recognized)
Global Regulatory Framework
National Regulation
National Requirements
ISO
Globally recognized voluntary standards
Industry Initiatives
(e.g. GFSI)
Private industry-driven programs

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Vulnerability Assessments
Testing
Mitigation Plans
Culture
Legal Interventions
ACTIONS

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GOAL

Protect critical global food infrastructure and public health!

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Economic impact

- The agrifood sector is of great economic importance, representing a large share of global GDP and employment
- Attacks can cause large scale economic damage to export markets, culling of food producing animals, result in long-term recovery costs and damage rural livelihoods
- Increased costs for consumers caused by shortages

Public health & Social Stability

- Contamination can cause foodborne illnesses in animals and humans
- Food shortages can lead to social unrest and hunger
- Loss of trust in public institutions and supply chains undermines resilience

National Security & Trade

- Animal/plant disease outbreaks trigger trade bans and quarantine measures
- Critical infrastructure vulnerabilities can be exploited beyond any outbreaks
- Agro incidents can be used as tools by rogue states and non-state actors

SURVEY RESULTS

Agro-crime	Agro-terrorism	Level of Preparedness
“Somewhat concerned” to “Very concerned” (4.5/5.0)	“Neither concerned nor unconcerned” to “Somewhat concerned” (3.5/5.0)	“Poor” (3) to “Adequate” (2) to “Good” (1)

HIGH PRIORITY

- Agro-crime considered high priority
- Agro-crime is a medium to high-priority issue: already ongoing, widespread, and costs billions globally
- Ag and food systems are critical: farms, livestock, and food supply chains are “soft targets” as they are widely dispersed, difficult to monitor, and often have limited biosecurity
- High priority for quality of medicines and disease control measures
- Difficult to monitor

LOW PRIORITY

- Low priority for Agro-terrorism
- Agro-terrorism is low likelihood but with potential high consequence

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Major threats…

1. Main issues would be related to misrepresentation, animal health risks, animal activism
2. Import FMD through deliberate smuggling
3. Quality of vaccines and biological medicines
4. Major agro-crime threats in poultry meat sector:
   - Illegal trade and smuggling of poultry and products
   - Food fraud and product adulteration
   - Counterfeit or substandard veterinary medicines/vaccines
   - Illegal use of growth promoters or banned substances

   Major agro-terrorism threats in poultry meat sector:
   - Deliberate introduction of pathogens (HPAI, Newcastle disease)
   - Targeting poultry feed supply
   - Intentional use of zoonotic pathogens (Salmonella, Campylobacter)
   - Coordinated cyber-attacks on poultry supply chain infrastructure

What is being done…

Most organizations invest in preparedness measures against Agro-crime and Agro-terrorism

50% conduct formal risk assessments for biological threats

Collaboration between the private sector and public authorities (government officials, local police) as well as regional / international level (incl. WOAH)

What more can be done…

Better scanning tools

Greater understanding and insight into threats that are known but not in the public domain

Human resource commitment

More insight into the main specific threats

Higher public prioritization with better enforcement

A more global approach

SUMMARY & CONCLUSIONS

What is/can be done to prevent or reduce the threat of agro-crime and bio-terrorism

Public Sector

- Standardize definitions globally
- Surveillance for early detection
- Global collaborative laboratory networks
- Border controls, import/export checks, and quarantines
- Veterinary and phytosanitary services (diagnosis, vaccination programs)
- Intelligence, law enforcement, and legal frameworks
- Emergency response planning, compensation schemes and decontamination protocols
- International cooperation (WOAH, FAO, WHO, Codex, Interpol)
- Outreach: capability development for the agro/farming sector, public awareness campaigns

Private Sector

- On-farm biosecurity including controlled access / visitor management
- Traceability systems and quality assurance
- Business continuity planning and insurance (i.e. risk mitigation)
- Collaboration and partnerships with customers, suppliers, competitors and authorities
- Staff training, background checks, and cyber security for operational technologies
- Continuous improvement to meet the SDGs, in particular food security (zero hunger)

COLLABORATION

We are in this together and only through partnerships can we address the challenge

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THANK YOU
www.ssafe-food.org