

Developing a Food Fraud Prevention Program

- Assessing Food Fraud vulnerabilities and how to develop Food Fraud prevention strategies***

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Presentation Agenda

- MSU Food Fraud Curriculum
- Definition of Food Fraud
- Food Protection Matrix
- Food Safety Management System
- Multidisciplinary Approach
- Fraud and Fraudster Typologies
- Cluster Analysis Tool
- Food Fraud Prevention System
- Public Private Partnerships
- Acknowledgements
- Discussion



Presentation PDF at:
www.FoodFraud.msu.edu

Food Fraud Curriculum

Massive Open Online Course (MOOC – free, open, online)

- May 19 & 26; November 2 & 6 **Bi-Lingual English-Mandarin**
- Free, open, online, open to everyone, includes a 'certificate of completion'
www.FoodFraud.msu.edu

Executive Education (Short-Course)

- **Food Fraud, Quantifying Food Risk with Vulnerability Assessments**
- **June 15-16/ 17-18; September 21-22/ 23-24**

Graduate Courses (Online, Three Credits)

- Anti-Counterfeit & Product Protection (Food Fraud)
- Quantifying Food Risk (including Food Fraud)
- Global Food Safety (including Food Fraud)
- Food Protection and Defense (Packaging Module)
- Packaging for Food Safety

Graduate Certificate (Online, Four Courses Each)

- Certificate in Food Fraud Prevention (Food Safety)

Master of Science in Food Safety (Online)

- www.online.FoodSafety.msu.edu

What is Food Fraud?

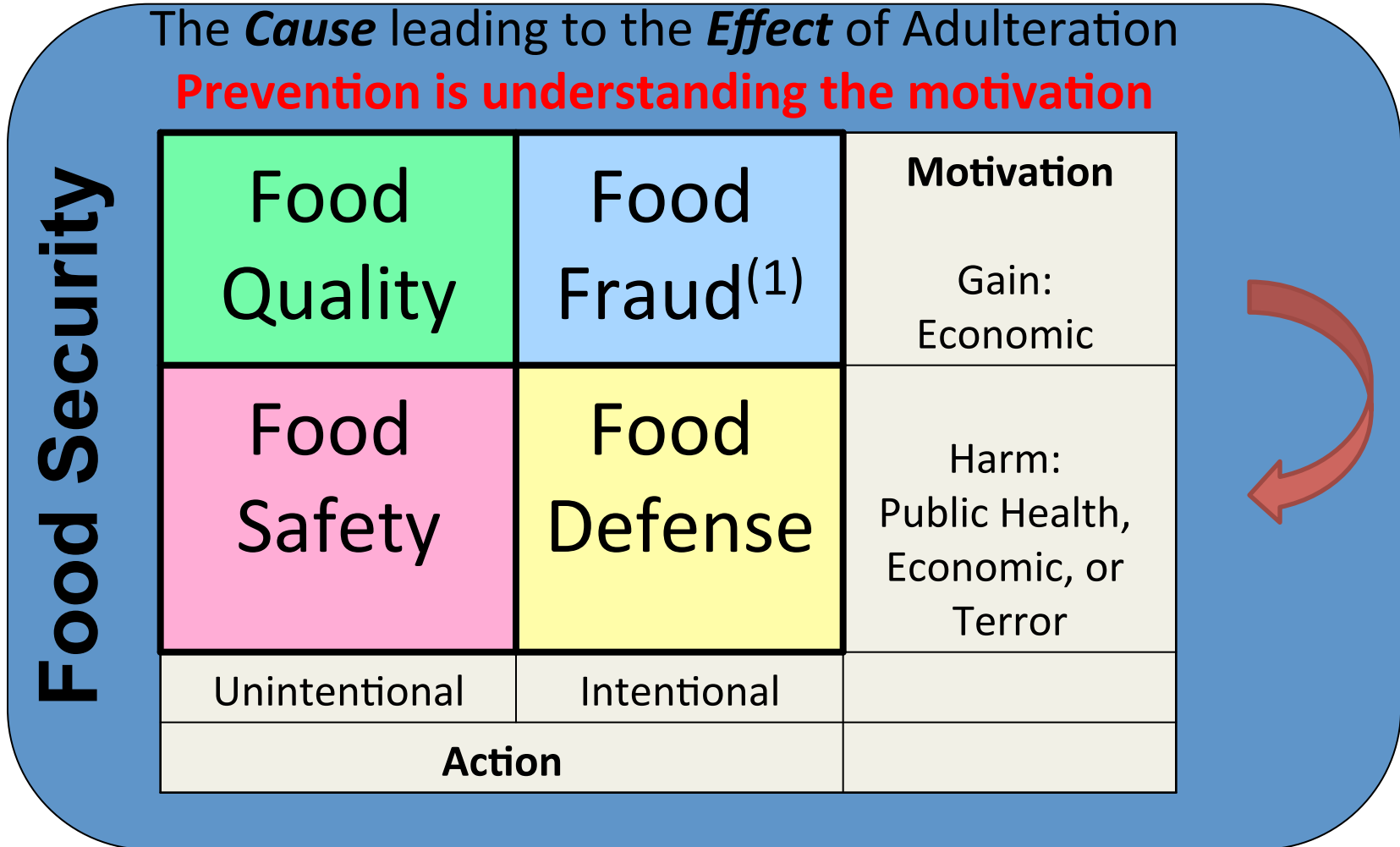
Food fraud is a collective term used to encompass...

- the deliberate and intentional...
- substitution, addition, tampering, or misrepresentation of...
- food, food ingredients, or food packaging;
- or false or misleading statements made about a product,
- for economic gain.

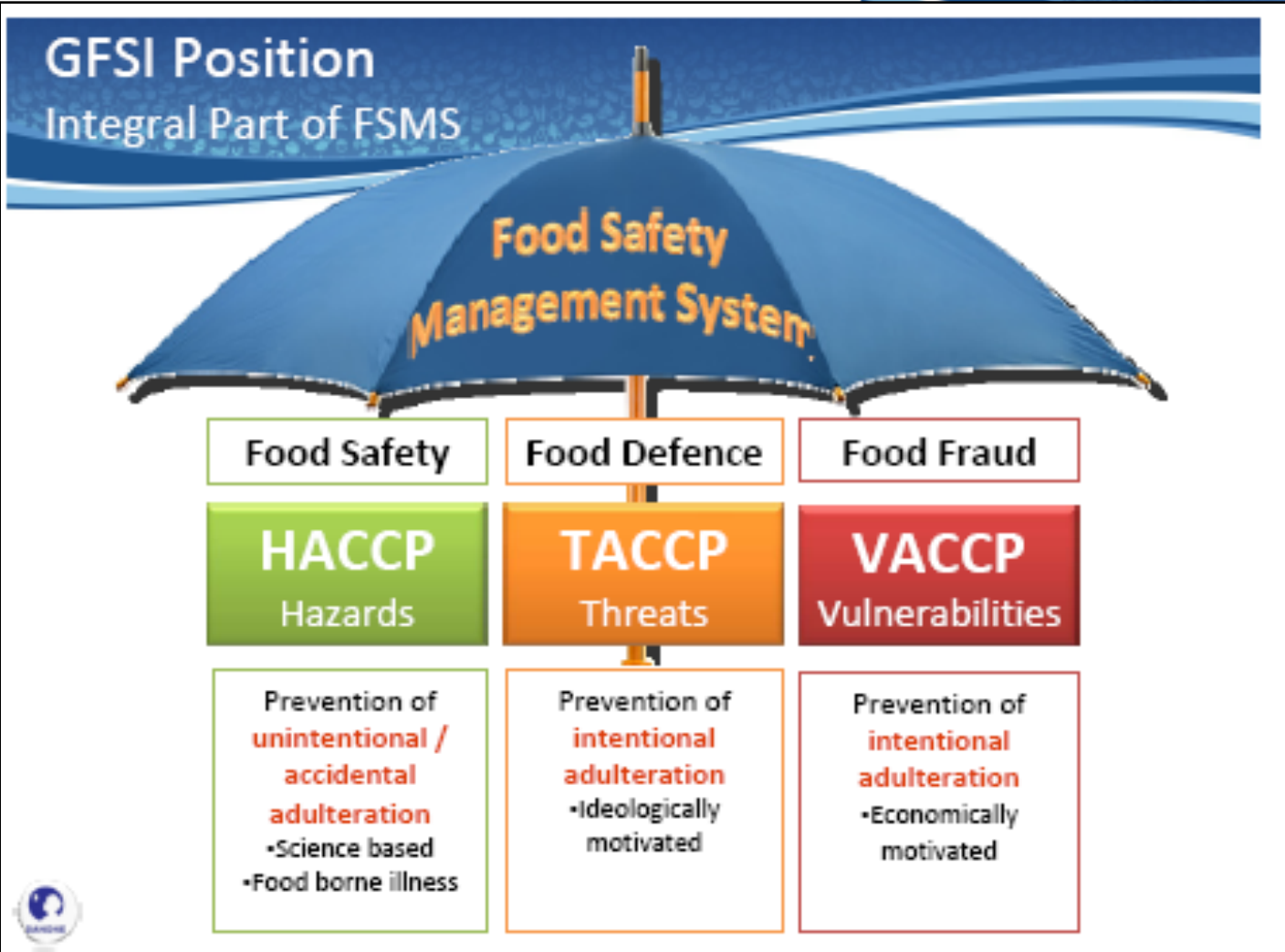
Spink, John, & Moyer, Douglas C. (2011). Defining the Public Health Threat of Food Fraud. *Journal of Food Science*, 76(9), R157-162.

Food Protection Matrix

The *Cause* leading to the *Effect* of Adulteration Prevention is understanding the motivation



Source: Adapted from: Spink (2006), The Counterfeit Food and Beverage Threat, Association of Food and Drug Officials (AFDO), Annual Meeting 2006; Spink, J. & Moyer, DC (2011) Defining the Public Health Threat of Food Fraud, Journal of Food Science, November 2015



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Multidisciplinary Approach to Food Fraud

- Food Science
- Crime Science (Criminology)
- Packaging Science
- Supply Chain Management (Logistics)
- Business Decision-Sciences and Enterprise Risk Management

Types of Food Fraud

Term	Definition	Example
Adulteration	A component of the finished product is fraudulent	Melamine added to milk
Tampering	Legitimate product and packaging are used in a fraudulent way	Changed expiry information, product up-labeling, etc.
Over-run	Legitimate product is made in excess of production agreements	Under-reporting of production
Theft	Legitimate product is stolen and passed off as legitimately procured	Stolen products are co-mingled with legitimate products.
Diversion	The sale or distribution of legitimate products outside of intended markets	Relief food redirected to markets where aid is not required
Simulation	Illegitimate product is designed to look like but not exactly copy the legitimate product	“Knock-offs” of popular foods not produced with same food safety assurances
Counterfeiting	Intellectual Property Rights infringement, which could include all aspects of the fraudulent product and packaging being fully replicated	Copies of popular foods not produced with same food safety assurances

Types of Counterfeiter Criminals

- Recreational
- Occasional
- Occupational (Employee)
- Professional
- Ideological

(Spink, Adaptation from Haskins, 2003 and Lockhart, 1996)

Food Fraud Cluster Analysis Tool

Type of counterfeiting		Type of counterfeiters			
		Recreational	Occasional	Occupational	Professional
Type of offense	Adulteration				0(1)
	Tampering				
	Substitution				
	Over-run				
	Theft				
	Diversion		0(1)		
	Simulation				
	Counterfeiting (IPR)		0(1)	4(3)	2(4)

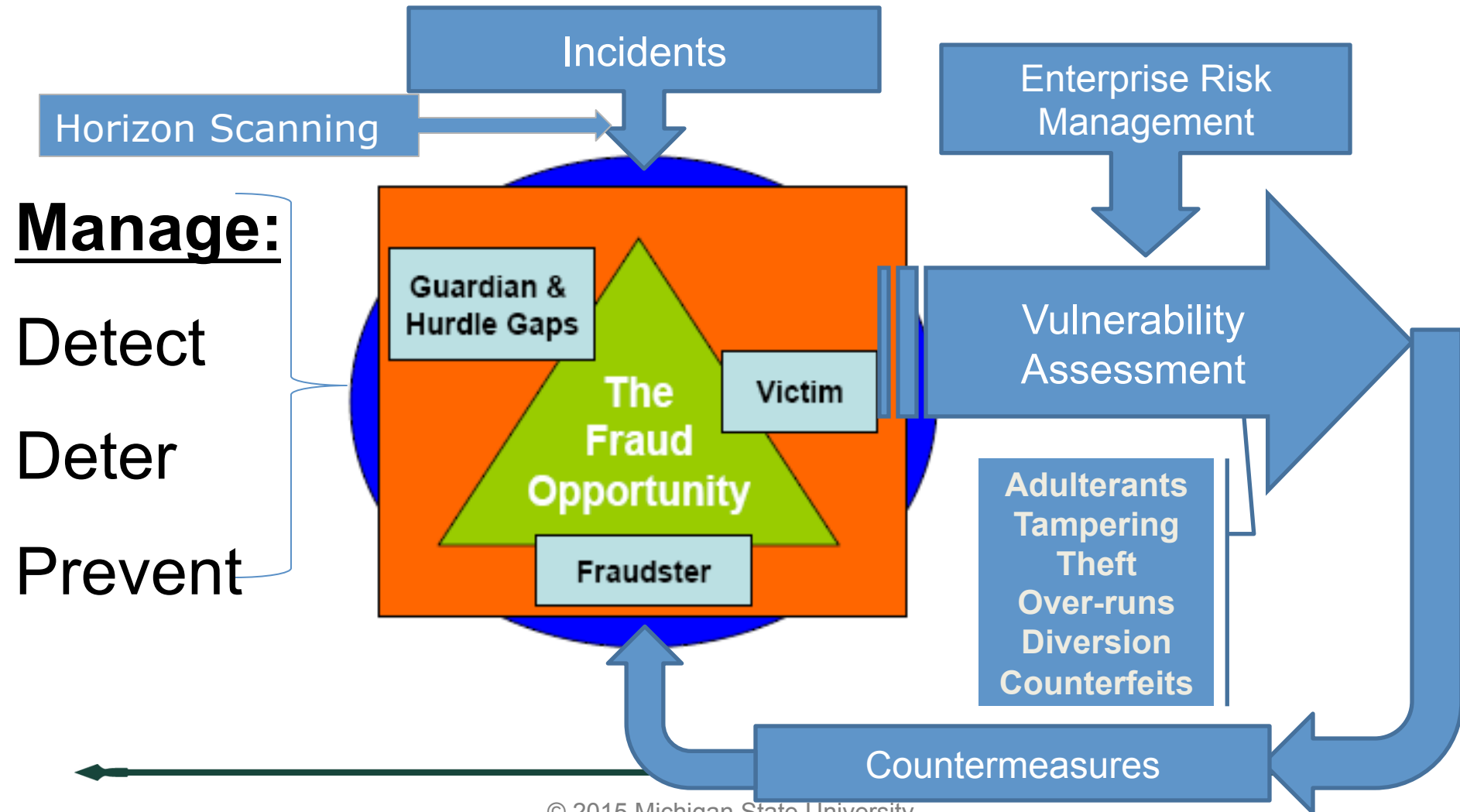
Spink & Moyer, *Development of a Product Counterfeiting Incident Cluster Tool*, Crime Science 2014, 3:3

Incident Clustering: Top-Down Estimate

- A top-down, qualitative estimate of the types of fraud, fraudsters, and offender organizations.
- More detailed assessments include actual incident data (i.e. internal confidential and external public sources).

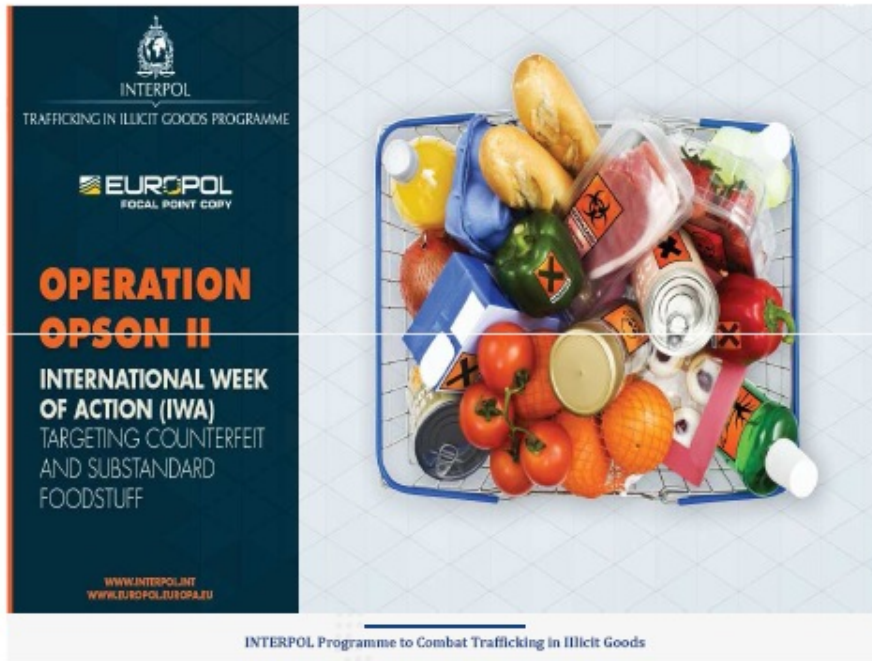
Type of counterfeiting		Type of Counterfeiter			
		Recreational	Occasional	Occupational	Professional
Type of offense	Adulteration			X	
	Substitution			X	
	Tampering			X	X
	Over-run			X	
	Theft			X	X
	Diversion		X	X	X
	Simulation				X
	Counterfeiting (IPR)			X	X
Type of offender	Individual/Small groups			X	
	General criminal enterprise				X
	Organized crime members				X

Food Fraud Prevention System

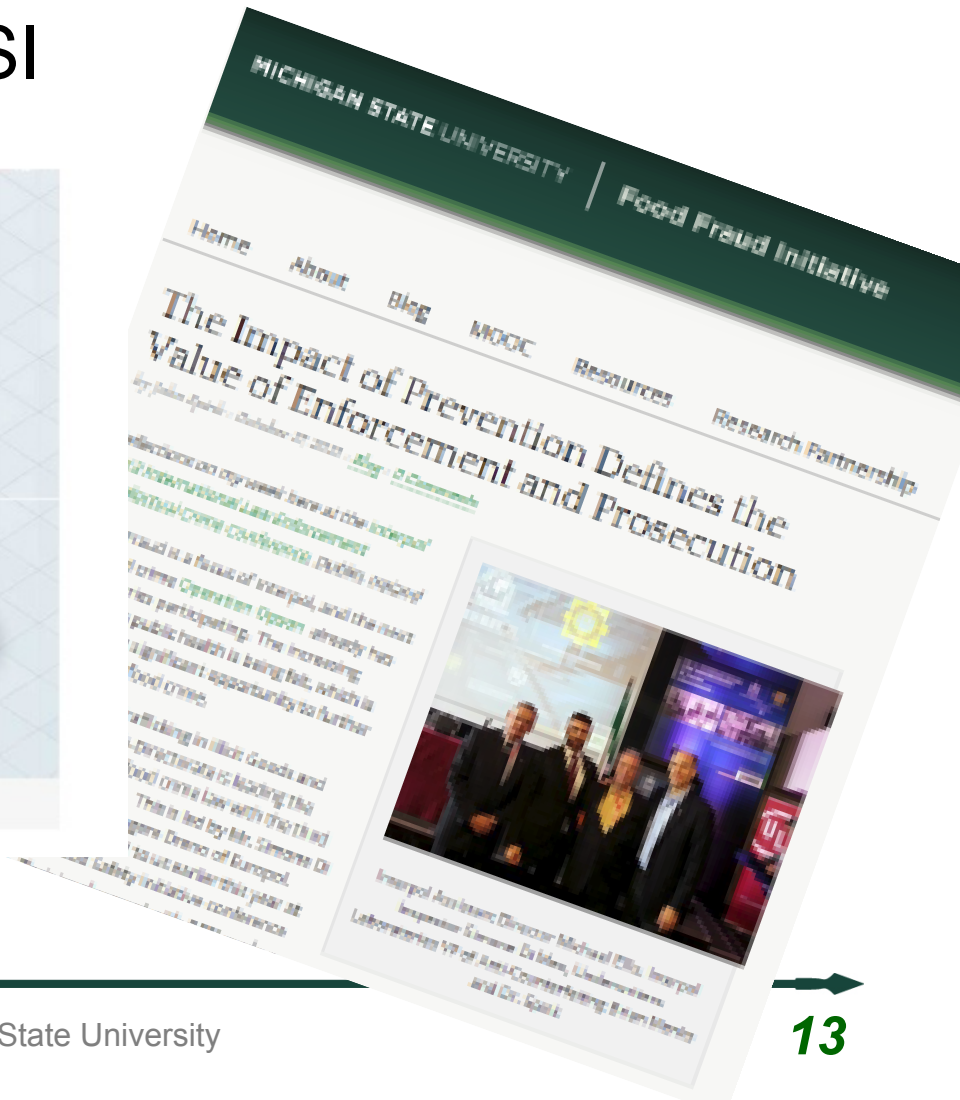


Public Private Partnership

- Interpol/ Europol & GFSI

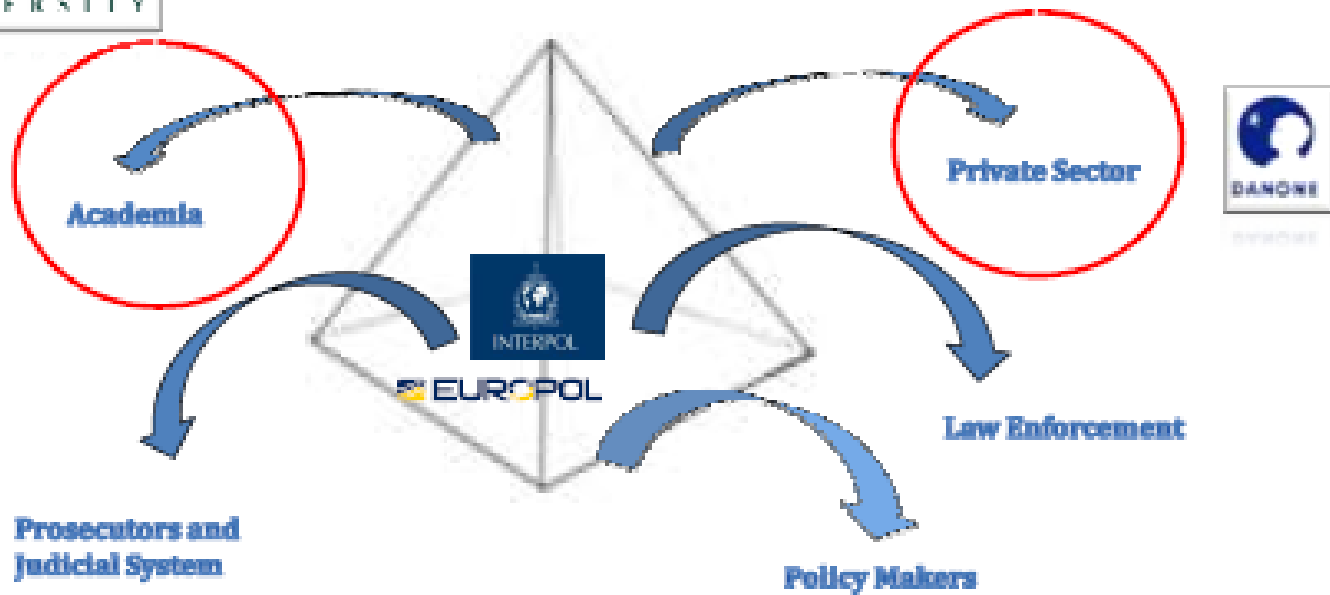


<http://www.interpol.int/Crime-areas/Trafficking-in-illicit-goods-and-counterfeiting/Operations/Operations/Operation-Opson-II>



Public Private Partnership and beyond

MICHIGAN STATE UNIVERSITY



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Discussion

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