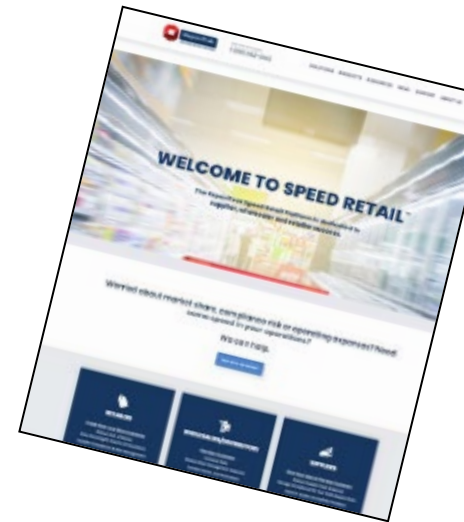


Quarterly Trends Update for Food Fraud: Managing Information in the FFPC/ 2019-Q1

Webinar: Wednesday, March 20, 2019
2:00 to 3:00 PM ET

John Spink, PhD & Douglas C Moyer, PhD

Director & Assistant Professor, Food Fraud Initiative
College of Veterinary Medicine/



WWW.FoodFraud.MSU.edu Twitter @FoodFraud and #FoodFraud



Food Fraud Curriculum

Massive Open Online Course (MOOC – pronounced /moōk/)

<http://foodfraud.msu.edu/mooc/>

Free, open, online, open to anyone, with an optional Certificate of Completion

Format: Typically monthly with two webinars that also on-demand

1. Food Fraud Overview MOOC
2. Food Fraud Audit Guide MOOC
3. Food Defense Audit Guide MOOC
4. Food Fraud VACCP MOOC
 - Vulnerability Assessment and Food Fraud Prevention Strategy Development

Executive Education (Short-Course)

- Food Fraud Strategy, Quantifying Food Risk with Vulnerability Assessments

Graduate Courses (Online, Three Credits)

1. Food Fraud Prevention
2. Anti-Counterfeit & Product Protection (Food Fraud)
3. Quantifying Food Risk (including Food Fraud)
4. Packaging for Food Safety

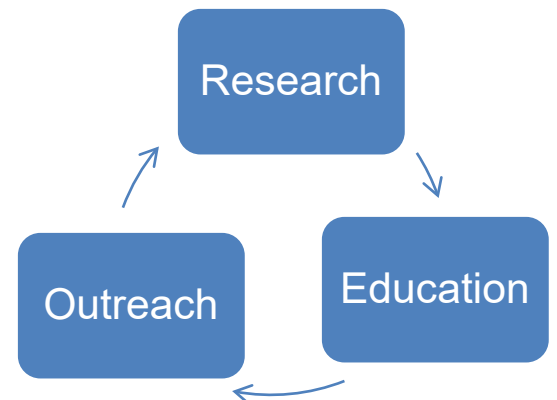
Graduate Certificate (Online, Four Courses Each)

- Certificate in Food Fraud Prevention (Food Safety)

www.FoodFraud.msu.edu

Certificate in International Food Law

<https://www.canr.msu.edu/iflr/>



Quarterly Trends Update Webinars Series

- 2018-3Q
- Non-conformity
- 2018-4Q
- GFSI FF Document



Quarterly Trends: 2019-1Q

Three Main Topics

- (1) Are you really compliant?
 - Three types of audits: none, some, full
- (2) “All” NOT “Every” assessment
- (3) Demonstrate knowledge (assessment)
- Focus: Managing information

Food Fraud Activities

- Incident Review/ Data Gathering
- Food Fraud Vulnerability Assessment/
Food Fraud Initial Screening
- Food Fraud Prevention Strategy
 - Food Fraud Prevention Cycle (FFPC)
 - Reference: Spink, John; Zhang, Guangtao; Chen, Weina; & Speier-Pero, Cheri. (Working Paper). Introducing the Food Fraud Prevention Cycle (FFPC): A Dynamic Information Management and Strategic Roadmap [Update 12/2/2018]; Co-author Affiliation: Zhang & Chen – Mars Incorporated (China), & MSU Supply Chain Management, Business School.



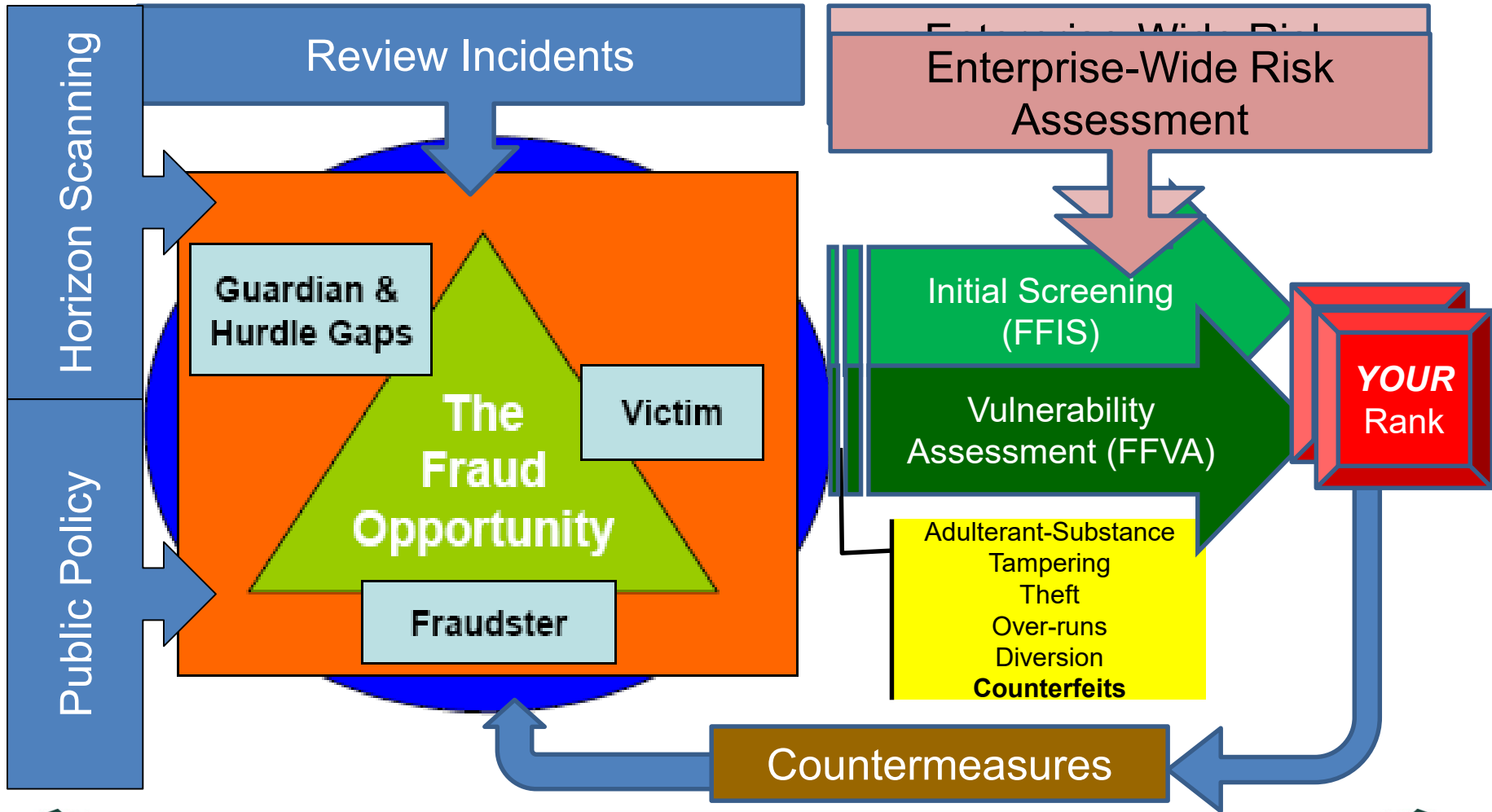
FF VULNERABILITY ASSESSMENT (FFVA) & FF PREVENTION STRATEGY (FFPS)

FFVA: How much is enough? Corkscrew.



- Limited direction on “how much is enough”
- Start light but a complete assessment
 - <GFSI requires all types of fraud and all products
- Go as deep as you need go to – determined by your resource-allocation decision-maker and auditors/investigators
- COSO/ERM (Sarbanes-Oxley Act) defines a “two-stage assessment” with the first being an “initial screen.”
 - <E.g. “Introducing the Food Fraud Initial Screening Tool (FFIS)”

Food Fraud Prevention Cycle (FFPC)



Food Fraud Prevention System

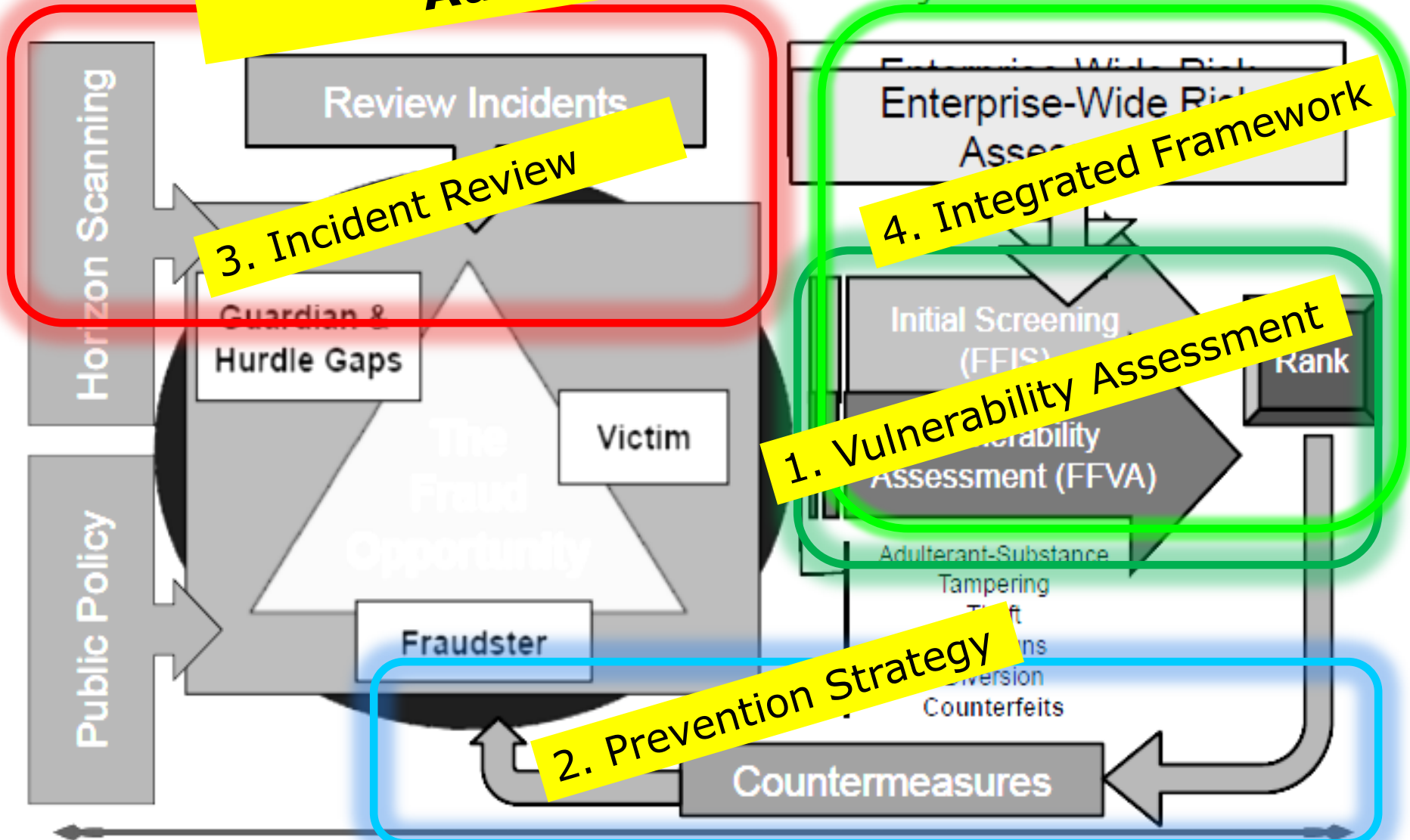
Audit Requirements

3. Incident Review

4. Integrated Framework

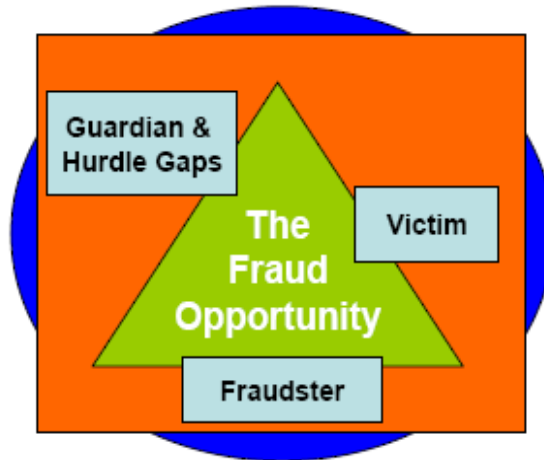
1. Vulnerability Assessment

2. Prevention Strategy



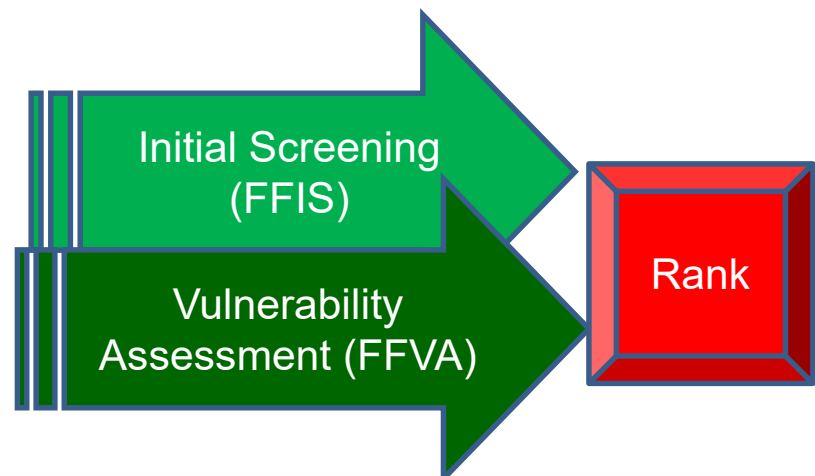
Criminology: Situational Crime Prevention

- Focus on motivation
- Factors that lead to system weakness
- Detect > Deter > Prevent

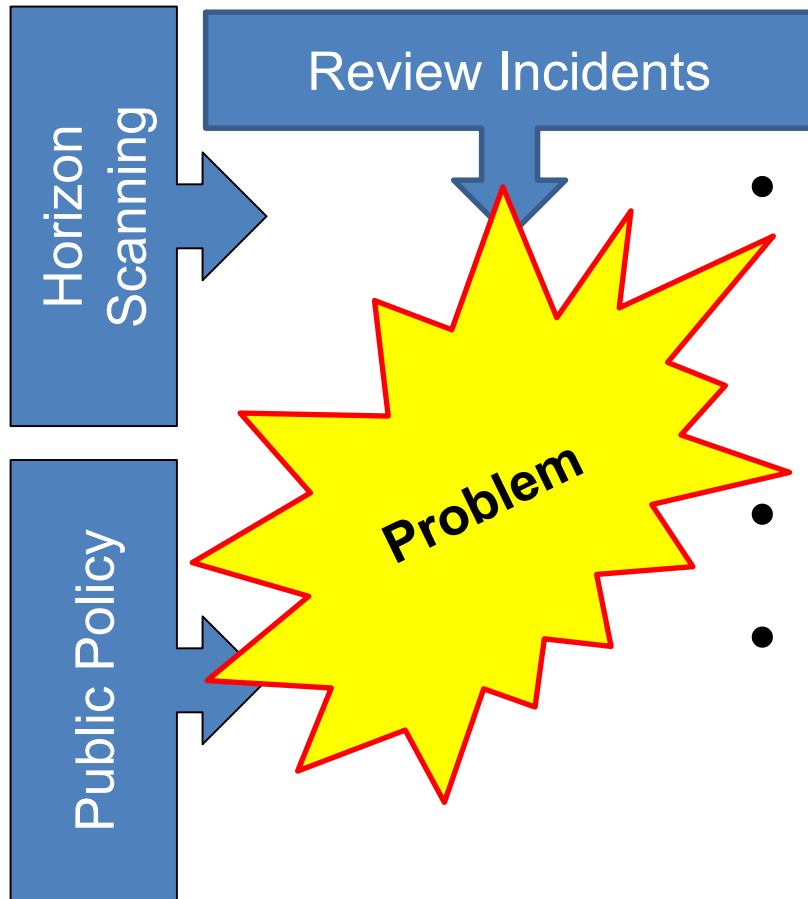


Risk Assessment & Decision Sciences

- Is it a problem?
- How much of a Problem?
- First a quick review then detailed



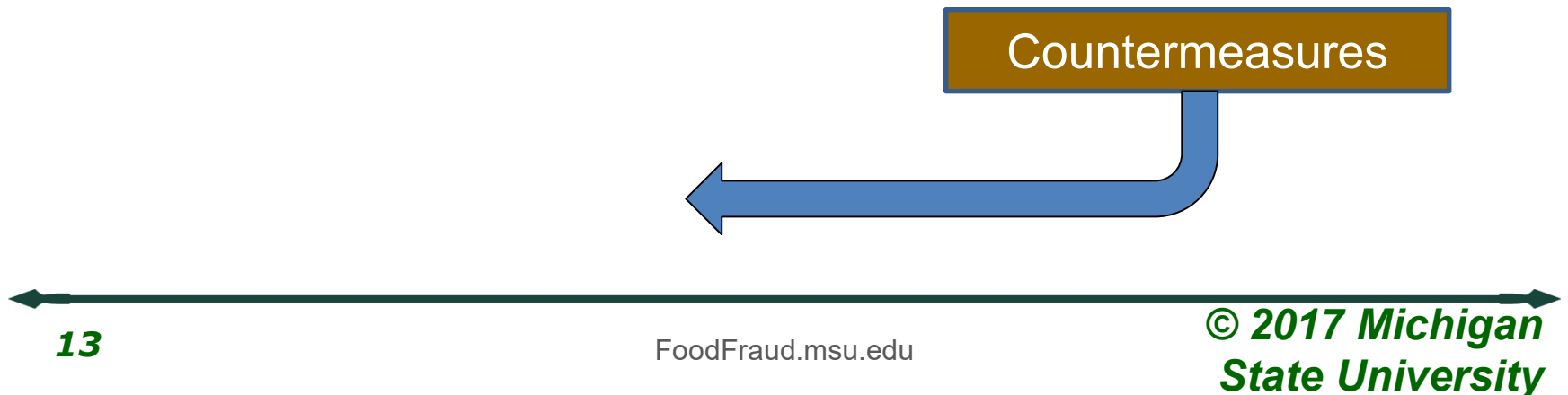
Intelligence Analysis




- Systematic gathering and analysis of raw data.
- Monitor changes
- Filter and process into actionable intelligence

Countermeasures and Control Systems

- Support: Detect > Deter > Prevent
- Current and new technologies
- “Interoperable Enhanced Traceability”
- Enforcement and prosecution



How much is enough?



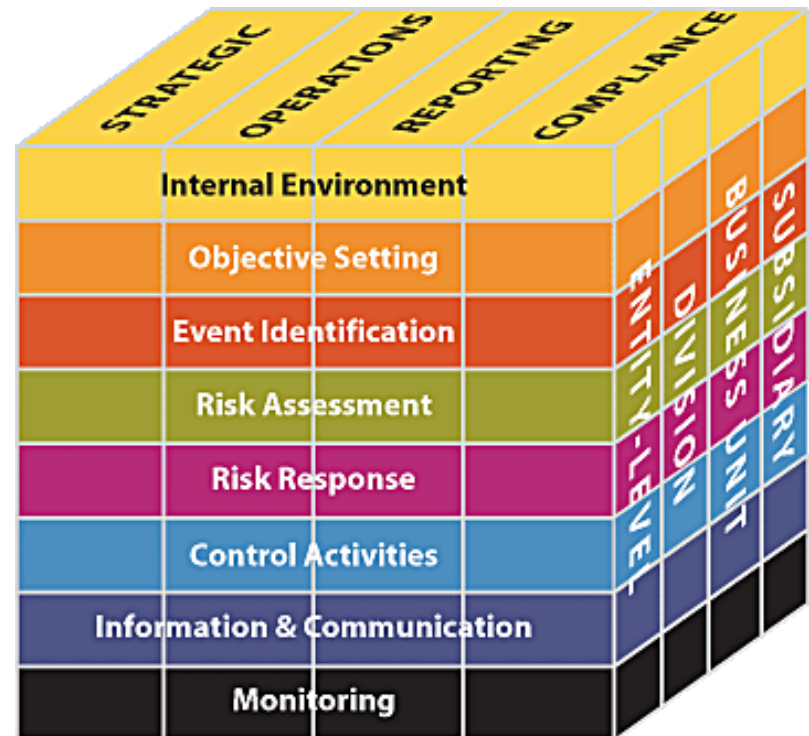
Enterprise-Wide Risk
Assessment

- ROI is only project decision
- Is the current situation unacceptable...
 - compared to all other risks?
- Industry: Enterprise Risk Management, COSO Managerial Accounting Practices (regulatory compliance)

Enterprise Risk Management ERM (Financial and Managerial Accounting)

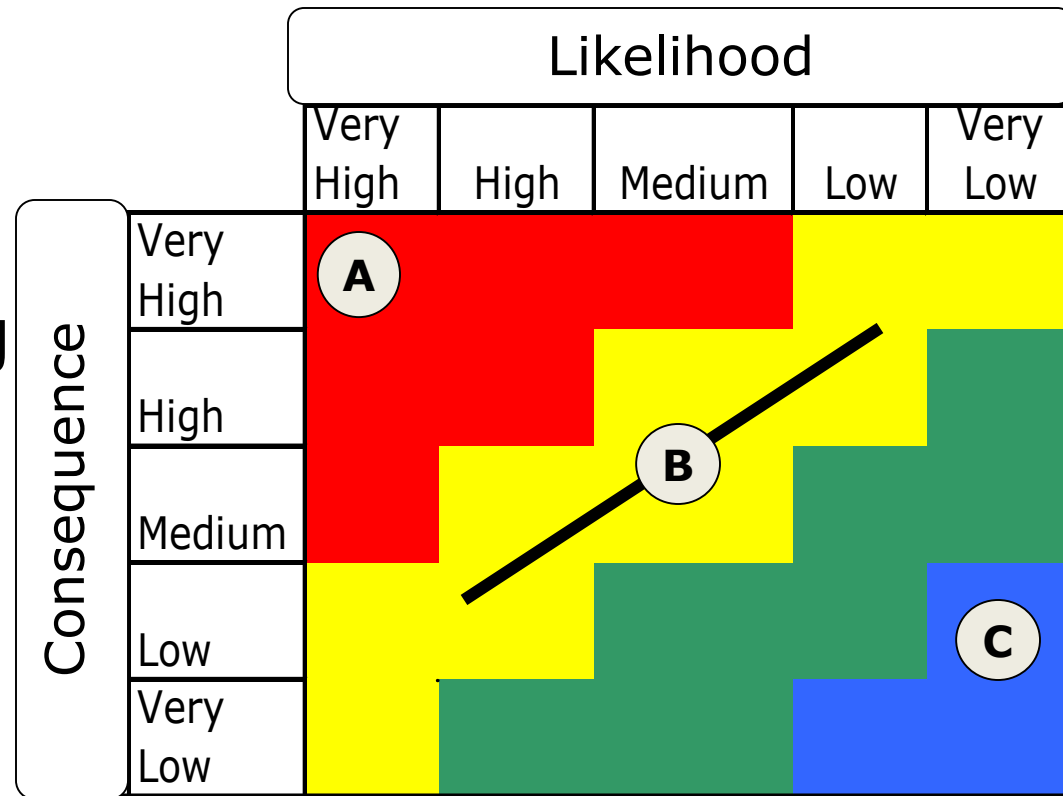
Committee of Sponsoring
Organizations of the Treadway
Commission

- *A US regulatory requirement for the insurance and finance industry.*
- *Becoming standard financial reporting practice*
 - *Reducing operational surprises and losses*
 - *Identifying and managing multiple and cross-enterprise risks*
 - *Improving deployment of capital*
 - Reference: www.COSO.org



Enterprise Risk Map

- Risk Analysis
 - Hazard Identification
- Risk Decision-Making
- “Risk Tolerance”
- “Risk Appetite”
- Reference: www.COSO.org, ISO 31000



* ISO 31000

ERM/ COSO Application: Corporate Risk Map - Company

Likelihood		VH	H	M	L	VL
Consequence		1	2	3	4	5
VERY HIGH	A					
HIGH	B					
MEDIUM	C	2,A 1,B		5,C,G		
LOW	D	D	4,E,F, H			
VERY LOW	E	3				

Detail

Incoming

1-VH*M: text

2-VH*M: text

Outgoing

A-VH-M: text

B-VH-M: text

D-VH-L: text

Case Study: Conducted with public information for an entire company.

Required Documents

- Food Fraud Vulnerability Assessment
 - Clarify details: at least annual, etc.
- Food Fraud Prevention Strategy
 - Clarify details: covers all fraud and all products, etc.

Plus:
FF
Policy

FFVA:
Rank

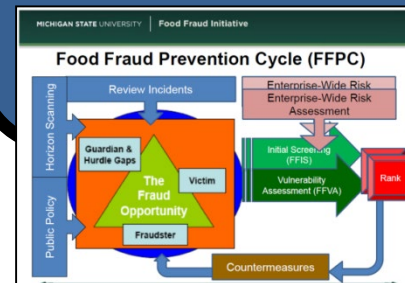
FFPS:
Method

Plus:
FF Audit
Results

MICHIGAN STATE UNIVERSITY | Food Fraud Initiative

Case Study: Corporate Risk Map

	Likelihood	VH	H	M	L	VL	Detail
Consequence		1	2	3	4	5	Incoming 1-VH*M: xxx 2-VH*M: yyy Outgoing A-VH-M: zzz B-VH-M: aaa D-VH-L: bbb
VERY HIGH	A	1	2	3	4	5	
HIGH	B	1	2	3	4	5	
MEDIUM	C	1	2	3	4	5	
LOW	D	1	2	3	4	5	
VERY LOW	E	1	2	3	4	5	



REQUIREMENTS AND CALL-TO-ACTION

REVIEW: Food Fraud Compliance Requirements: Scope

“Food Fraud Compliance Requirements — The general compliance requirements for Food Fraud prevention are:

1. Conduct a Food Fraud Vulnerability Assessment (Y/N)
2. Written (Y/N)
3. Implement a Food Fraud Prevention Strategy (Y/N)
4. Written (Y/N)
5. Minimally conduct an annual Food Fraud Incident Review (Y/N)
6. Note: Address all types of Food Fraud (Y/N)
7. Note: Address all products from both incoming goods (e.g., ingredients) and outgoing goods (e.g., finished goods) through to the consumer.” (Y/N)

• Reference:

- Food Safety Magazine, Feb 2017, “*Food Fraud Vulnerability Assessment and Prefilter for FSMA, GFSI and SOX Requirements*”, <http://www.foodsafetymagazine.com/magazine-archive1/februarymarch-2017/food-fraud-vulnerability-assessment-and-prefilter-for-fsma-gfsi-and-sox-requirements/>
- New Food Magazine, Feb 2017: *Food Fraud Prevention – how to start and how much is enough?*, <http://www.newfoodmagazine.com/33890/new-food-magazine/past-issues/issue-1-2017/issue-1-2017-digital-version/>



Call to Action

1. Review the GFSI requirements
2. Review your current certification status AND report to see if the auditor asked the full set of questions.
3. Consider the “7 Questions” – if any “no” then get education on next steps.

MSU Engagement 2019

	Outcome	Benefit	Commitment
Graduate Course	Share your knowledge and set direction of research	Plus <i>Graduate Certificate in Food Fraud Prevention</i>	14 Weeks, online, May to August, ~\$2200
Executive Education	Share your knowledge and set direction of research	Develop the internal talent to support initiatives in the AC space, meet other thought leaders (“invitation only” sessions for brand owners)	2 Days on-campus (\$1950) 2019 dates TBD
Multi-Client Studies	Research the why’s of AC/D, understand underlying drivers	Uncovering the drivers may lead to new strategies to combat Counterfeiting	Teleconference Meetings with option for on-campus e.g. Veterinary and Animal Product Fraud
MOOC	Engage global network of Food Fraud thinkers..	Two, 2-hour on-line webinar format with assessment. Students earn an MSU “credential”.	Overview: Open; self-paced FF Audit Guide: Monthly FFVA & PS: Monthly Food Defense Audit Guide: Monthly

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- **The Citadel:** Dr. Roy Fenoff



Discussion

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