



FRAUDULENT ACTIVITIES AND CORPORATE BUSINESS CULTURE IN FOOD SUPPLY CHAINS

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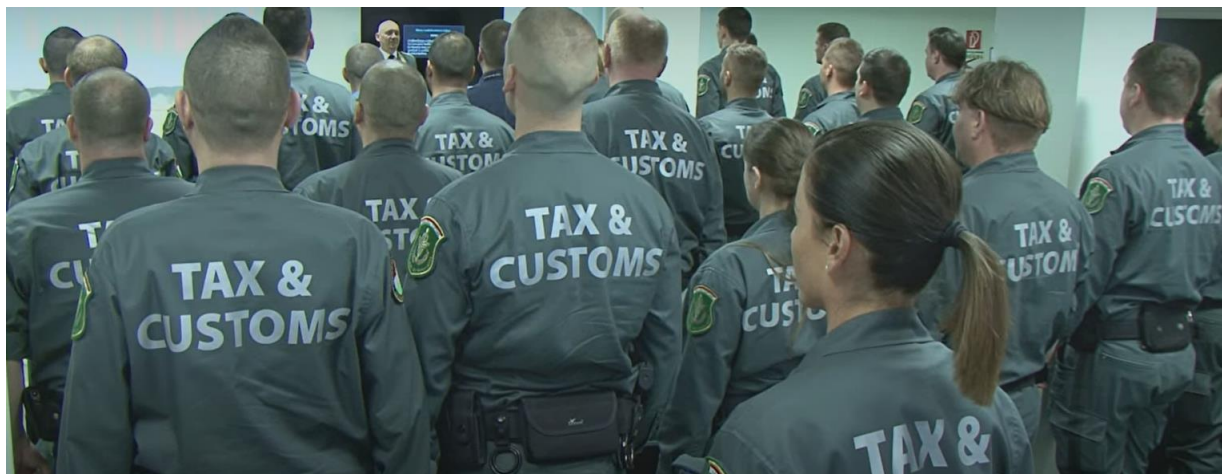
40

US\$40 billion

Annual loss globally
due to food fraud

Accounts for
5-25% of food safety
incidents

Fraud on a plate: over 3 600 tonnes of dangerous food removed from consumer market



 **EUROPOL**



***“Reputation damage,
the Nr. 1 ranked risk in
the 2015 survey”***

**IT TAKES
MANY GOOD DEEDS
TO BUILD
A GOOD REPUTATION,
AND ONLY ONE BAD ONE
TO LOSE IT.**

Benjamin Franklin





<https://www.youtube.com/watch?v=vckz6EAn30Y>

WHICH IS THE REAL NUTMEG?

1



Spent

2



Real
nutmeg

3



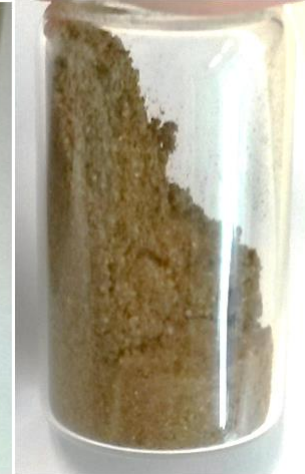
Spent

4



Fruit pulp

5

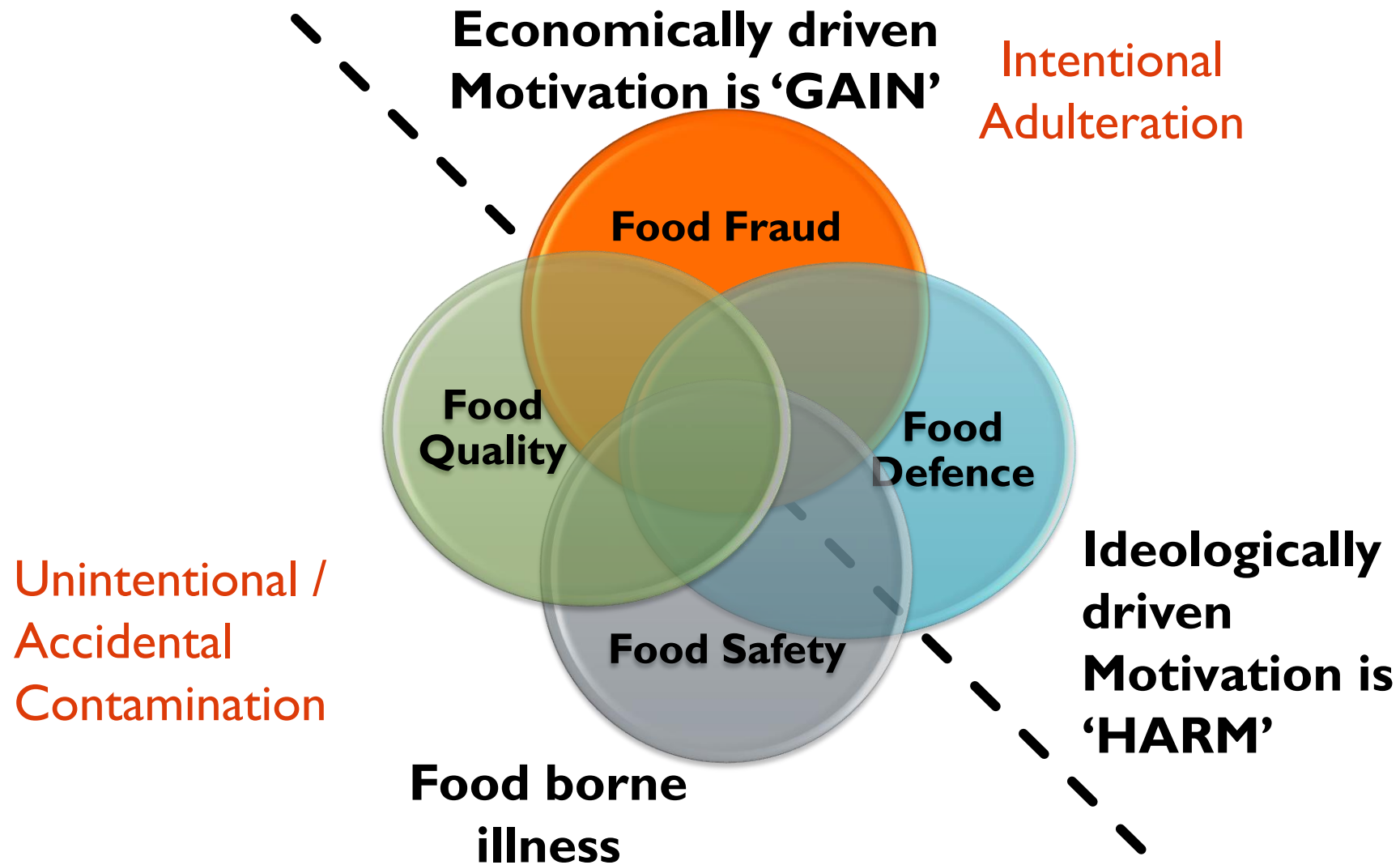


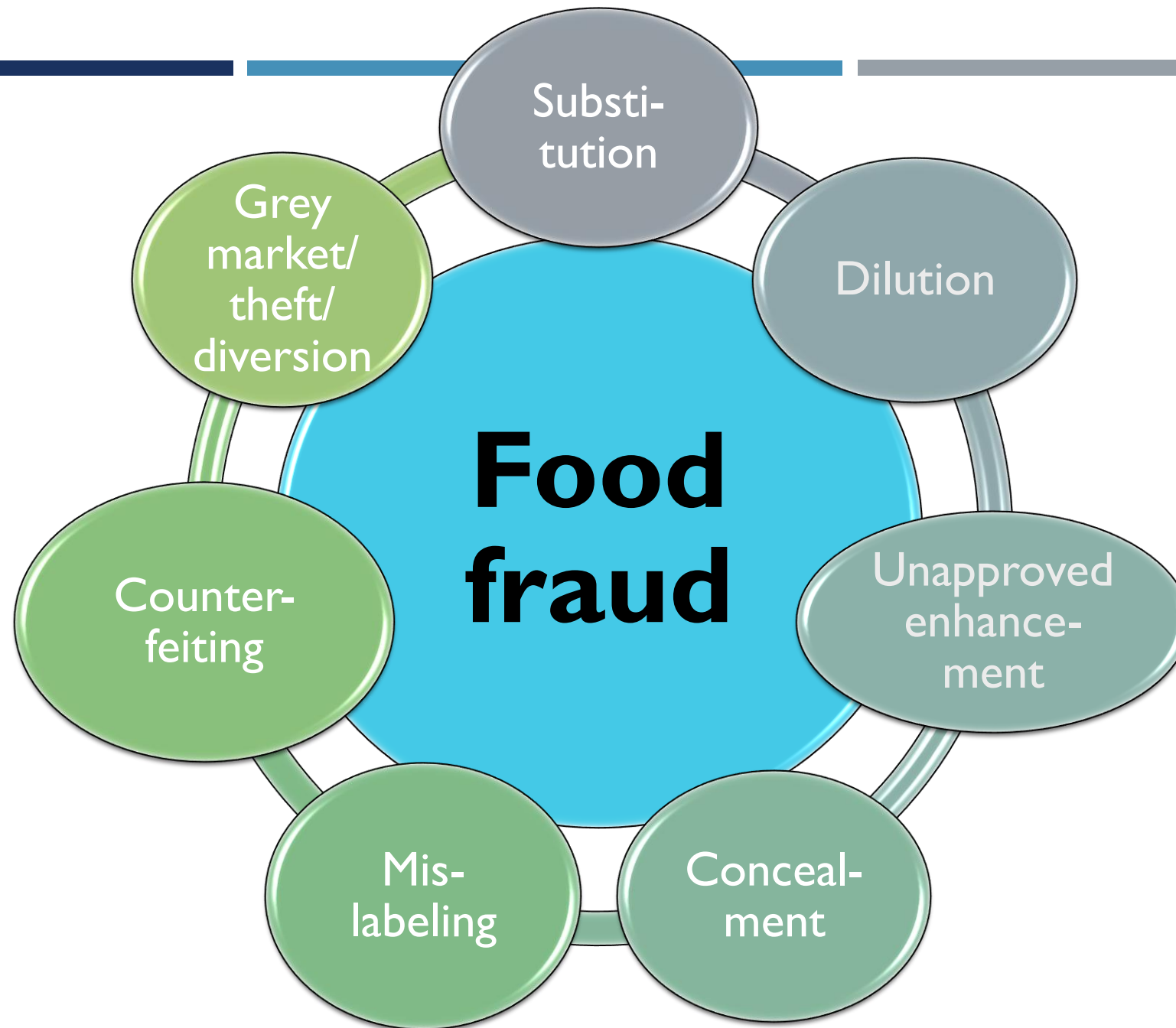
Shell

FOOD FRAUD, THE GLOBAL FOOD SAFETY INITIATIVE DEFINITION

‘A collective term encompassing the **deliberate and intentional** substitution, addition, tampering, or misrepresentation of food, food ingredients or food packaging, labelling, production information, or false or misleading statements made about a product **for economic gain** that could impact consumer health’









SUBSTITUTION - SPECIES ADULTERATION



WHAT IS THE CHEAPEST ADULTERANT?

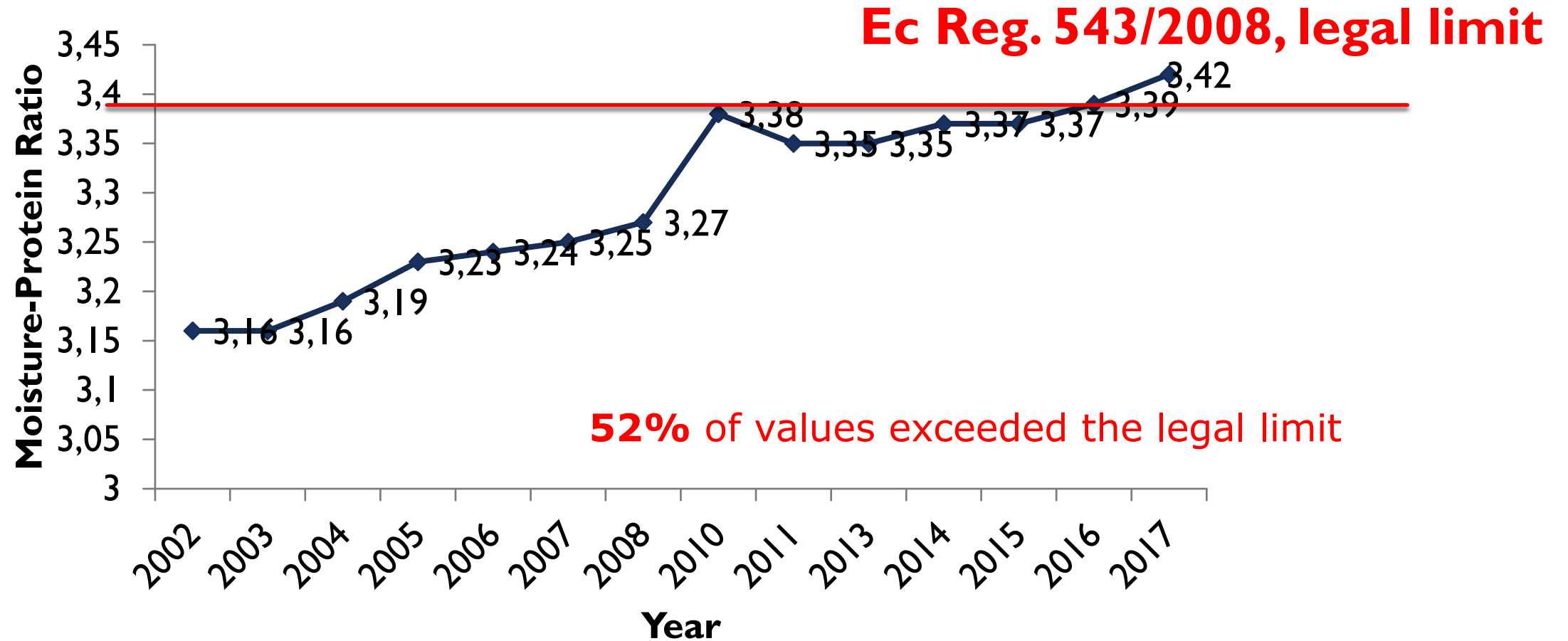


A PERSISTENT PROBLEM WITH A LONG HISTORY

‘De Agri Cultura’ (169 BC):
Marcus Cato, stating about
wine fraud: must is being
watered with sea water to
meet production quota



CHICKEN BREAST IMPORTED INTO NETHERLANDS



Ingredients and constituents

Geographical origin

Production system

Processing

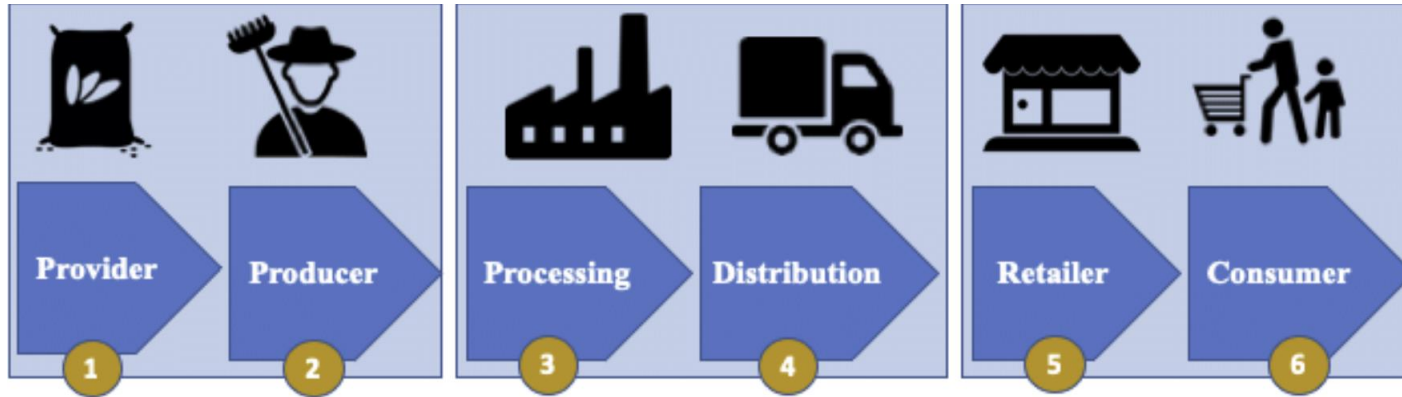


GREEN WASHING – THE NEW TYPE OF FOOD FRAUD

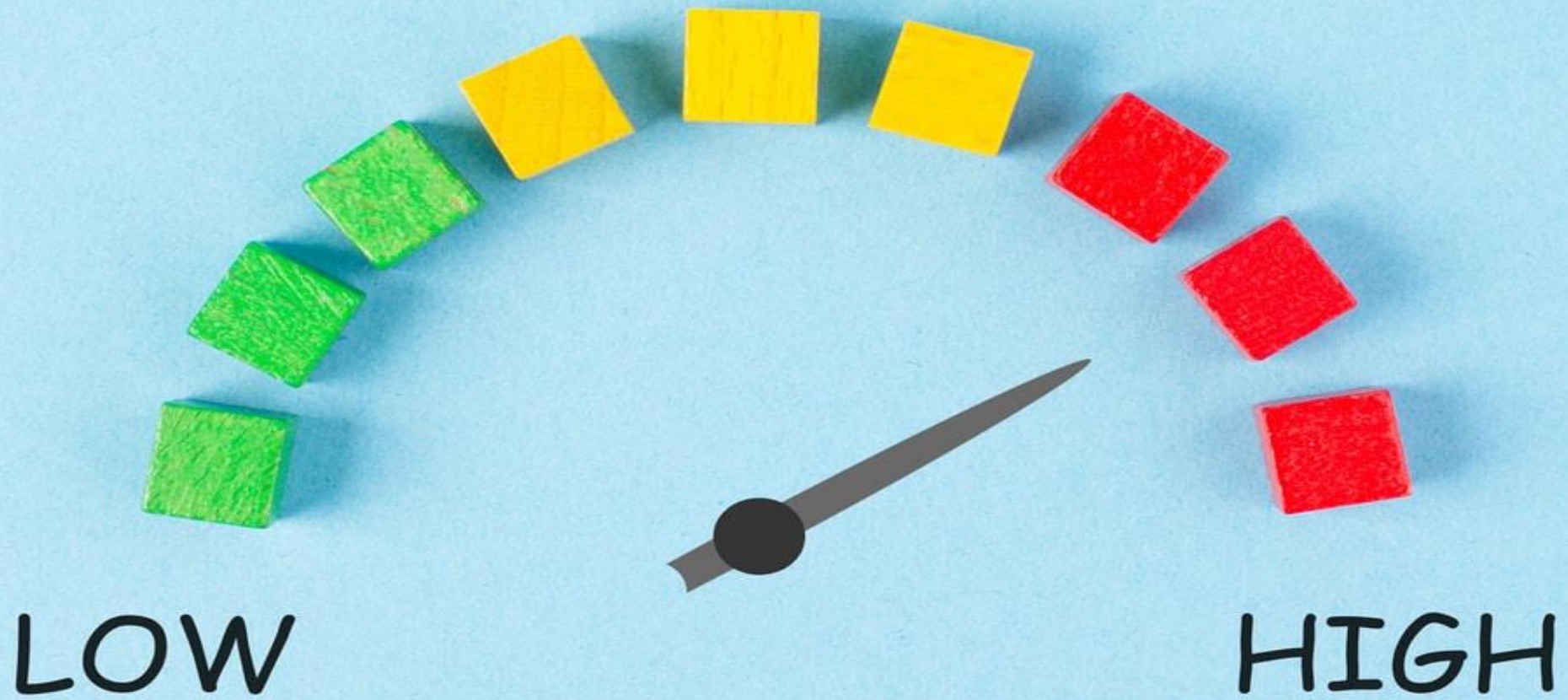
Greenwashing

Greenwashing is an unsupported claim to deceive consumers into believing that a company's products are environmentally friendly or have a greater positive environmental impact than what is true.

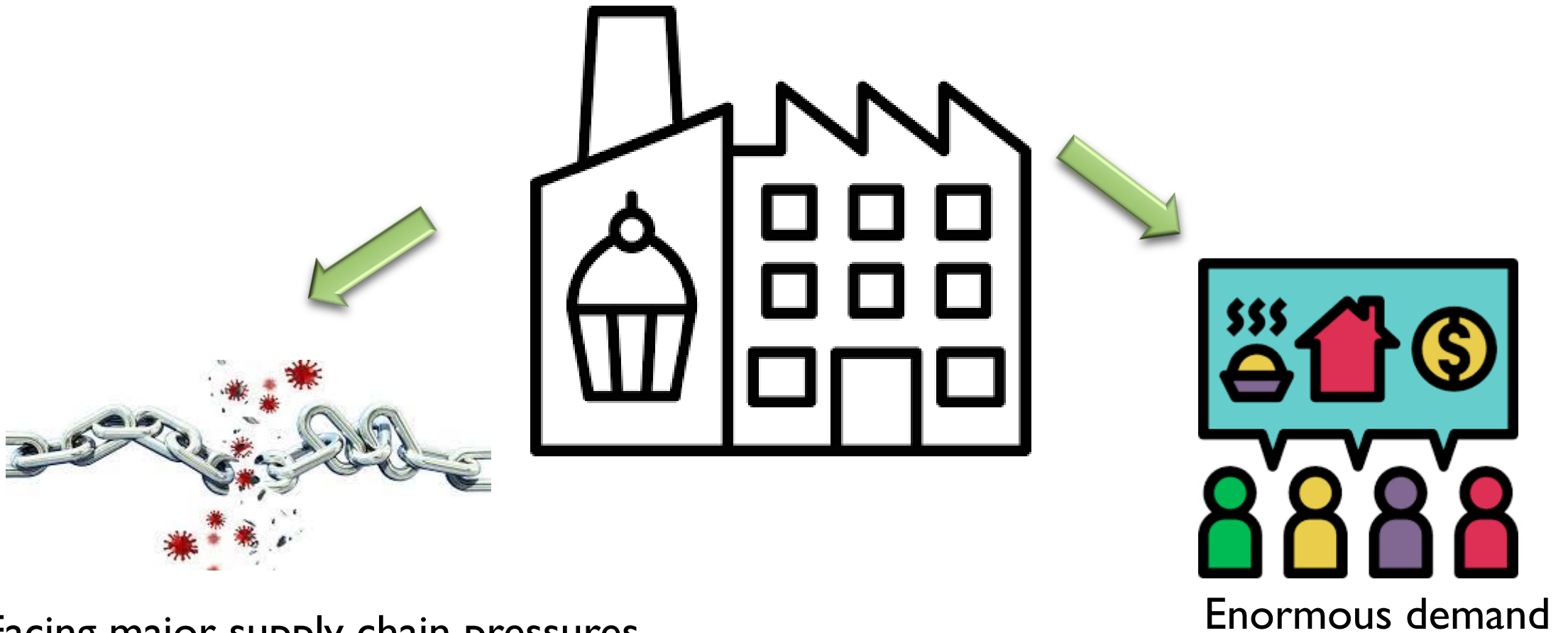




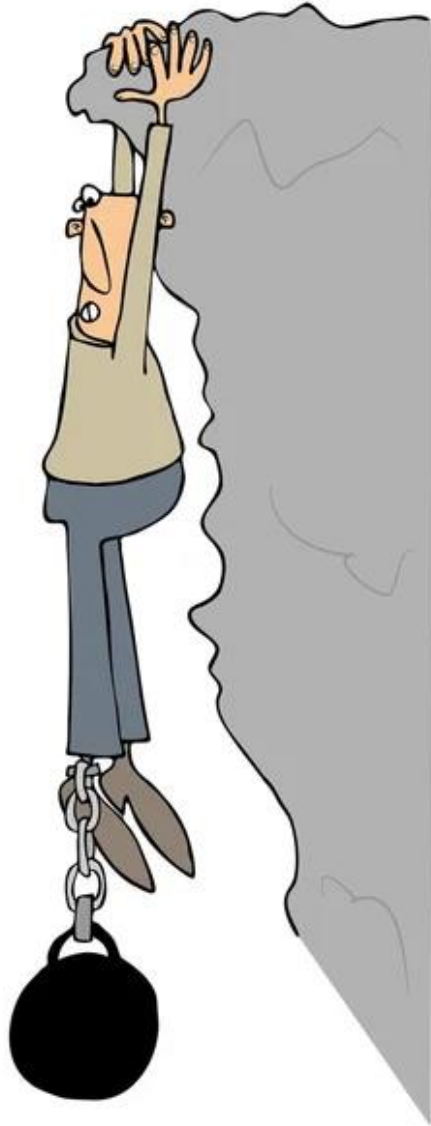
STRESS



CURRENT CHALLENGES GLOBAL FOOD INDUSTRY



PRESSURE ON THE WHOLE SYSTEM: FALLING OFF THE CLIFF TO NEW FOOD FRAUD EQUILIBRIUM



Due to social, political, and economic changes
resulting in pressures and shifts



MICROBES



POLLUTANTS

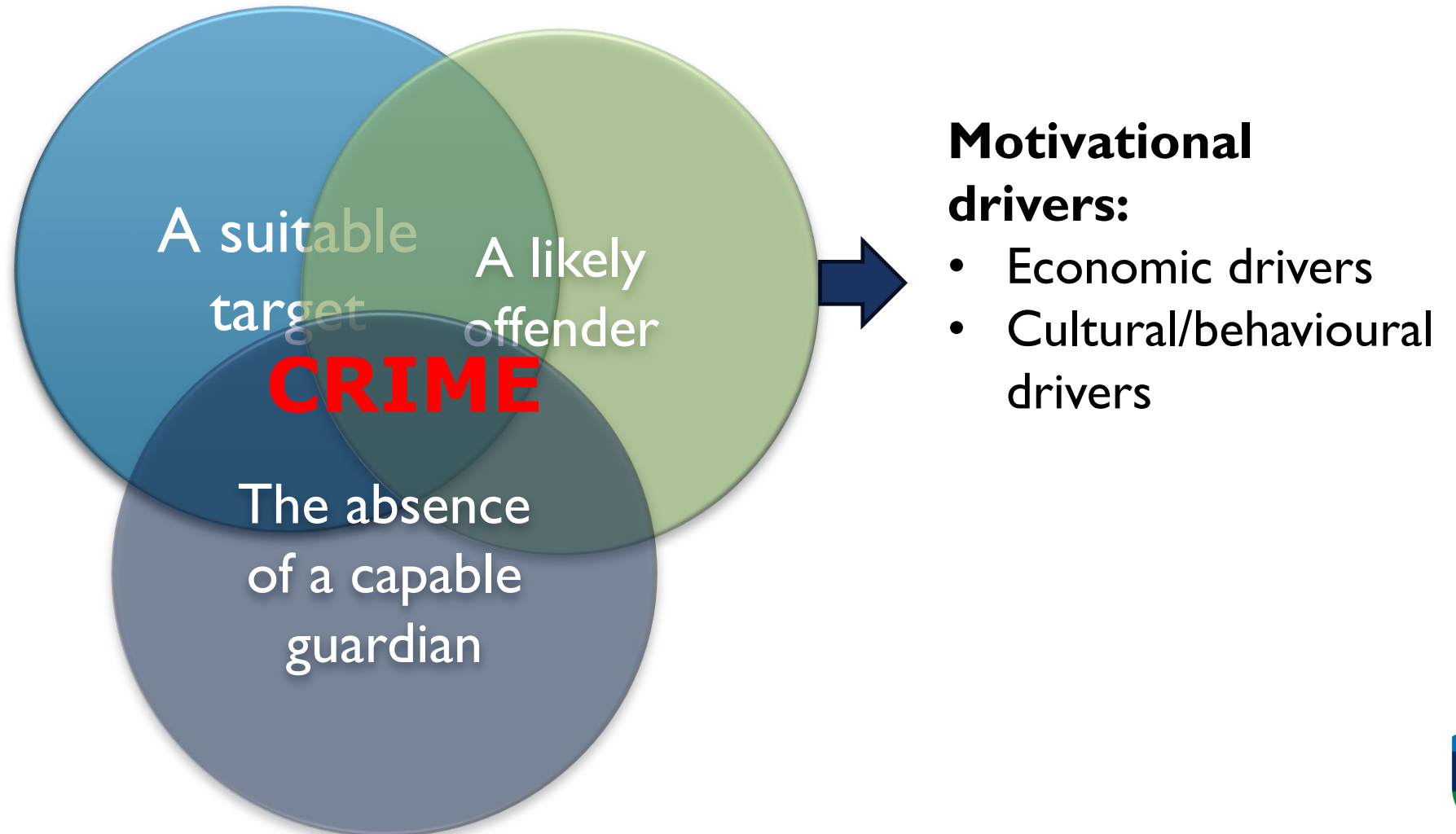


PLANT TOXINS



HUMAN ADVERSARY

FOOD FRAUD DECONSTRUCTION: ROUTINE ACTIVITIES THEORY (COHEN & FELSON)



WHY?





WHITE LIES IN THE PAST THREE MONTHS?



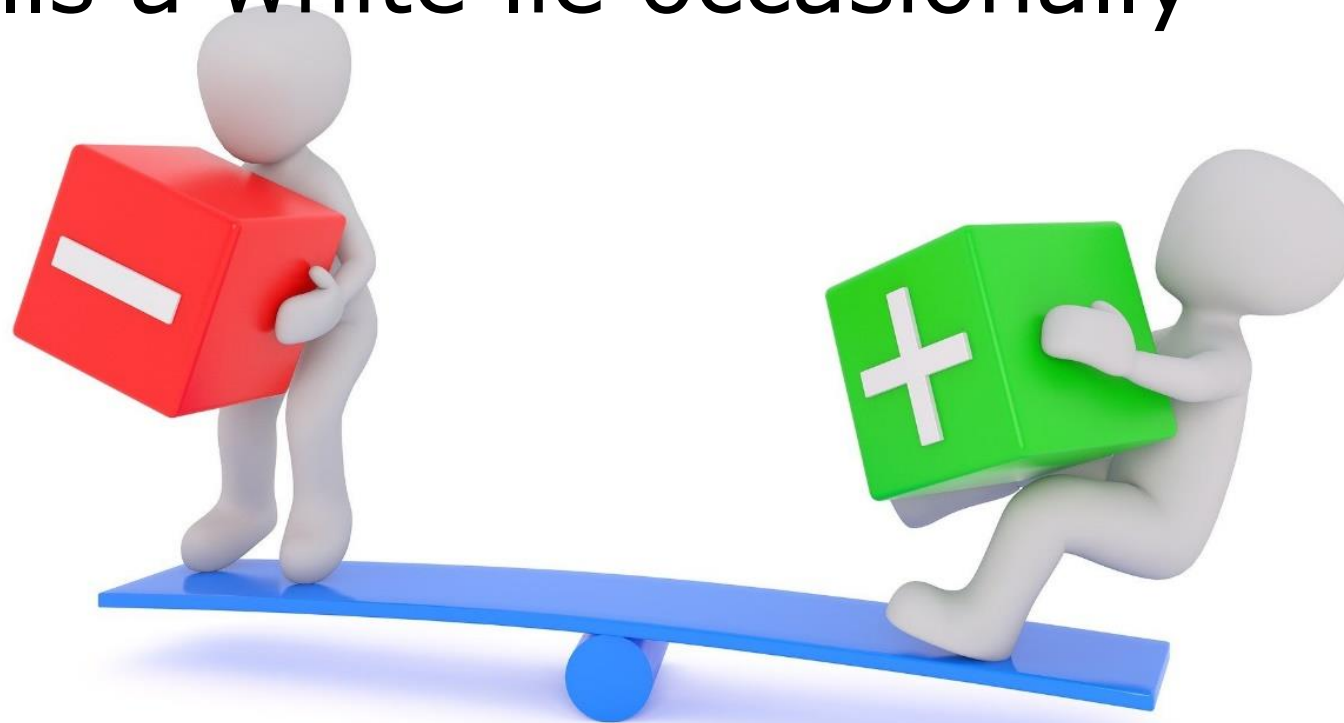
Common white lies:

- Yeah, I listen...
- You look great!
- I was just about to call you...
- This is delicious!
- Sorry I am late, traffic was terrible
- I have been so desperately busy

80%

considers themselves honest and admits
telling a white lie occasionally (LinkedIn
survey)

Survey: 80% considers themselves honest
and tells a white lie occasionally



Why good people do bad things?

HOW DOES IT WORK?



Short-term economic incentives



Long-term psychological incentives



INFLU



SLIPPERY
SLOPE





People differ in their levels of personal integrity

BUT

Everyone is susceptible to environmental influences

Most people cheat under certain circumstances



(DIS)HONESTY TEST AMONG STUDENTS



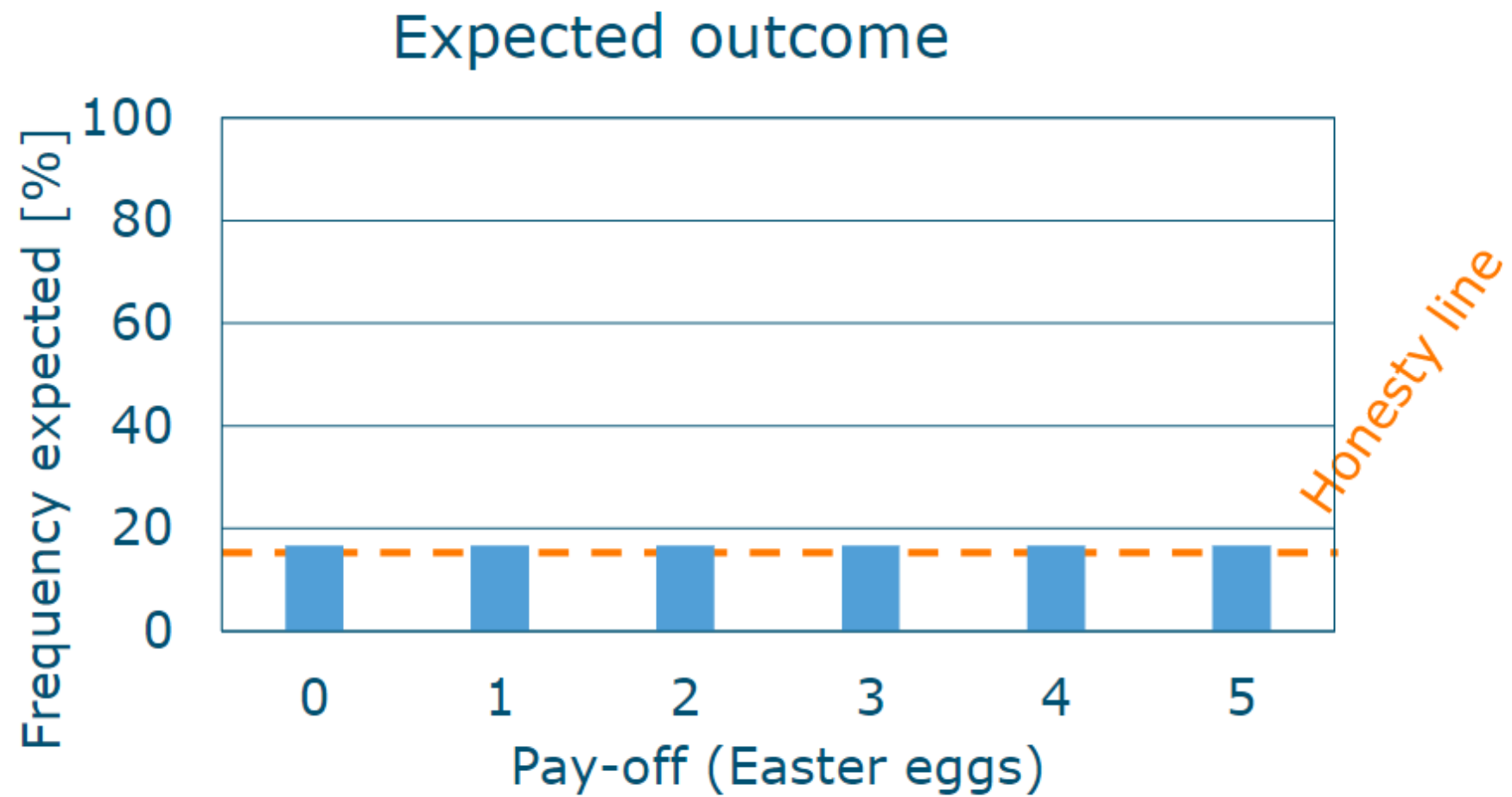
REWARDS

- Roll the dice outside the room
- Tell me the number you scored and pick up your reward

Chocolates!

- 1=1
- 2=2
- 3=3
- 4=4
- 5=5
- 6 = NOTHING





Cumulated responses of 404 participants





20%
lied



Loss: 200
chocolates



Dishonesty is everywhere



Personal integrity
(internal
motivation)



Personality traits

STUDY PERSONAL INTEGRITY VS PERSONALITY CHARACTERISTICS

- Indicators extracted from comprehensive, structured literature review
- 305 participants (178 students)
- 14 indicators, 28 questions (positively and negatively phrased)
- 100 points anchored line-scales

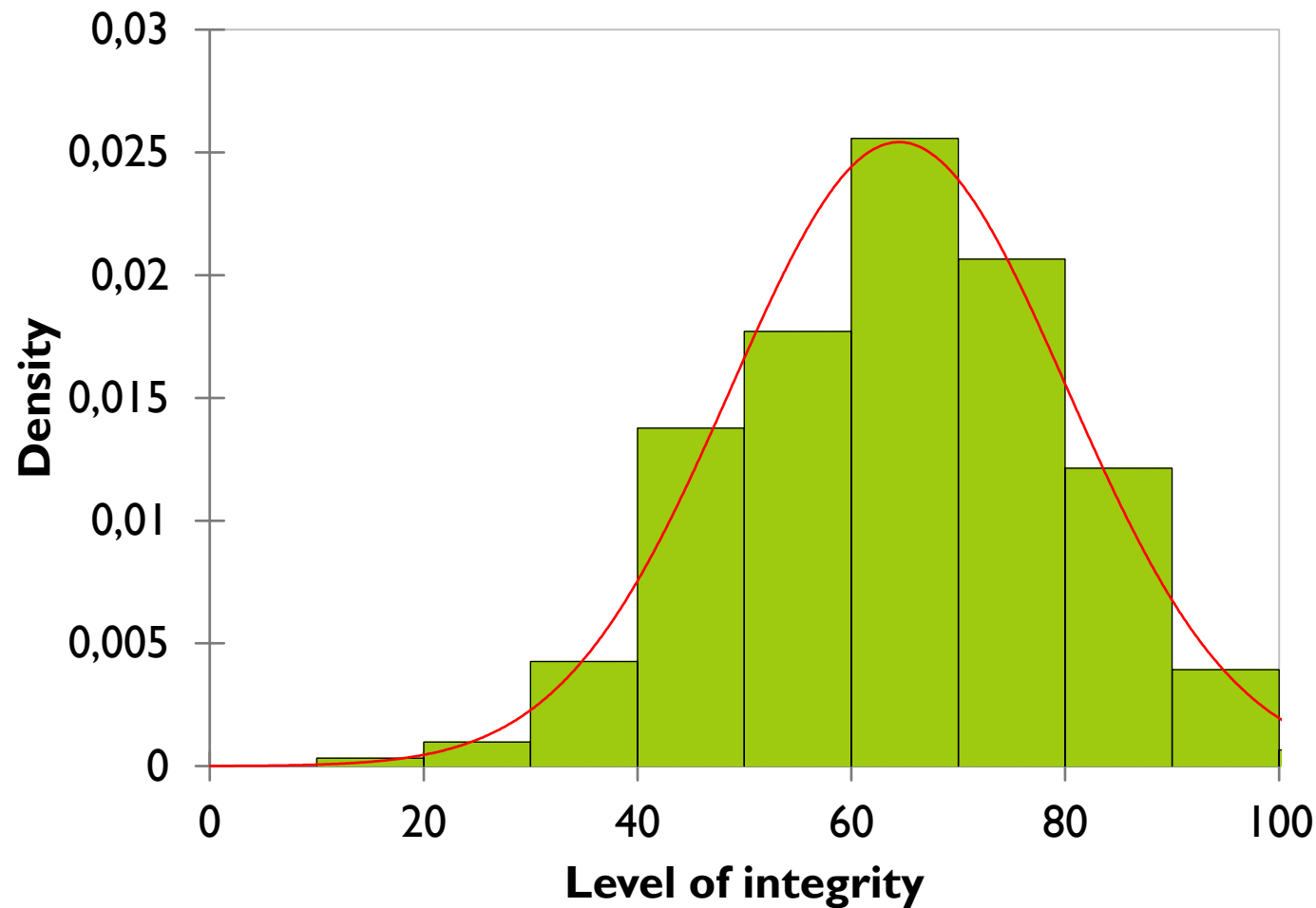


QUESTION EXAMPLES

- Integrity: I took something (small) from someone without permission in the last year
- Personality: I like to do risky/frightening things

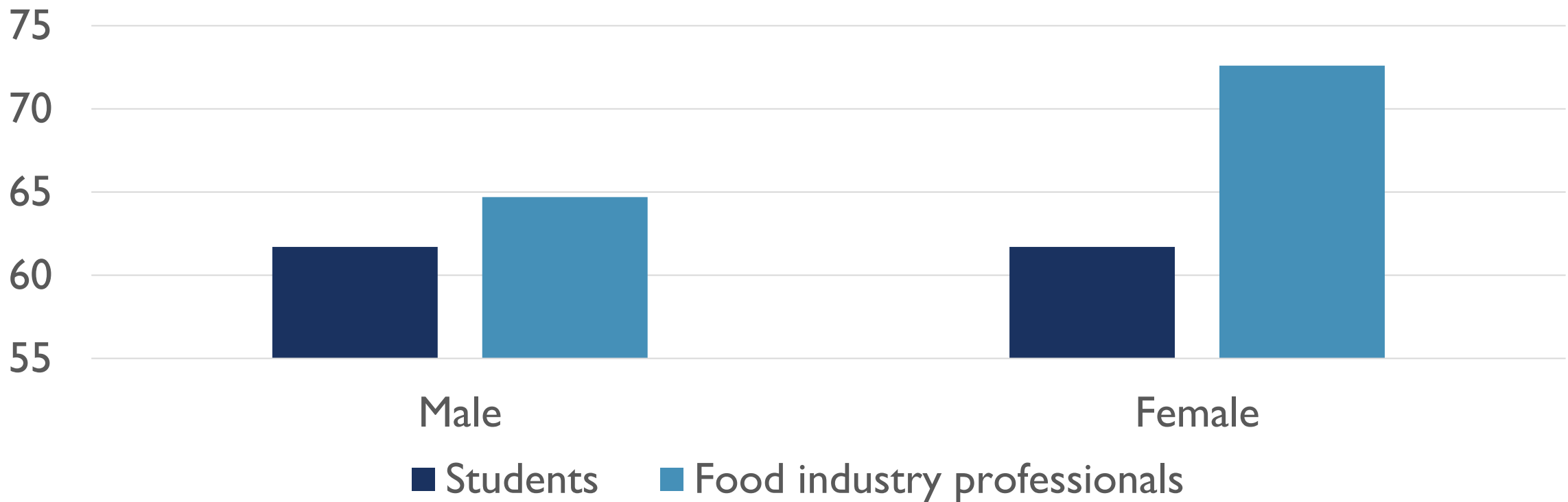


LEVEL OF INTEGRITY DISTRIBUTION



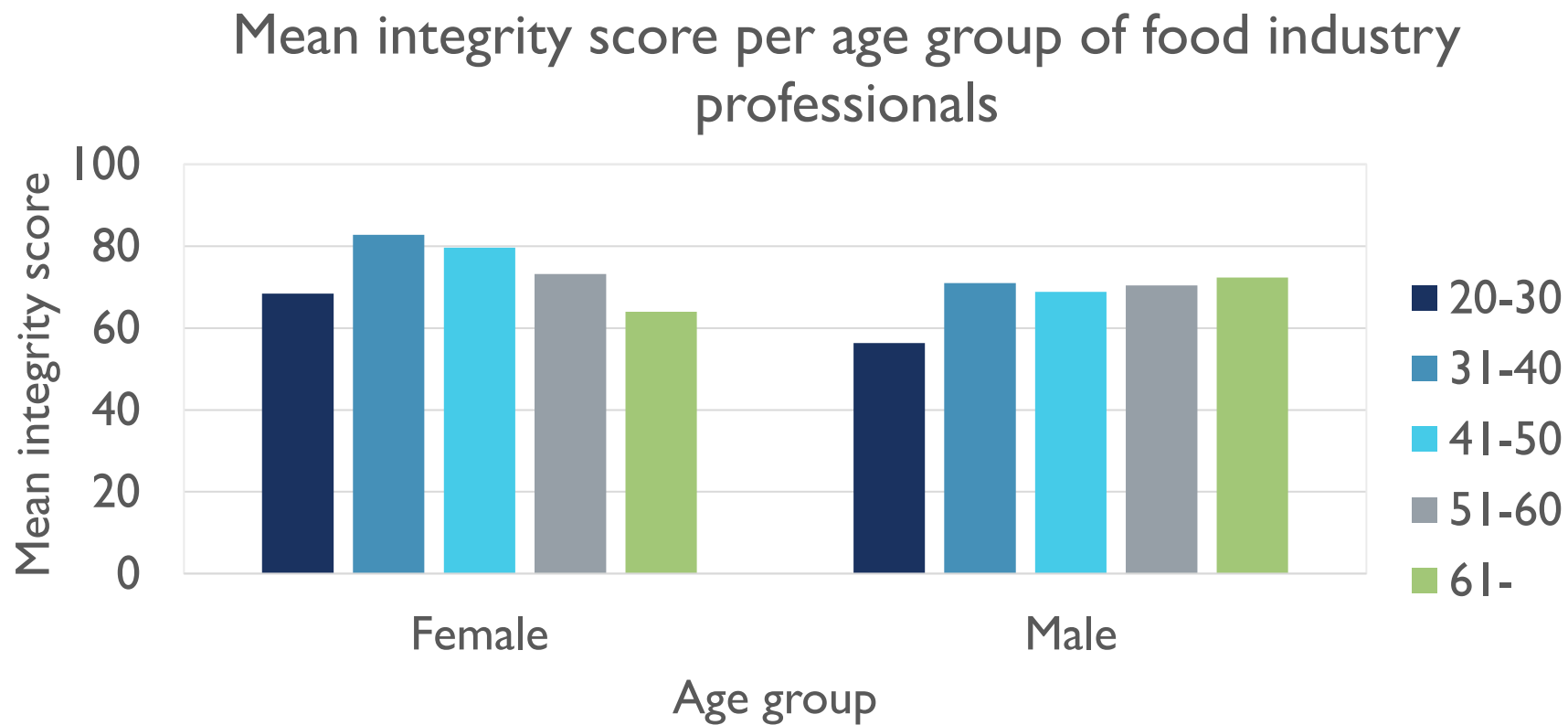
Personal integrity (scale of 0-100): 6 questions (Kassabian, 2020)

PERSONAL INTEGRITY SCORES: FOOD SCIENCE STUDENTS AND FOOD INDUSTRY PROFESSIONALS



Personal integrity (scale of 0-100): 6 questions (Kassabian, 2020)

AGE AND GENDER EFFECTS



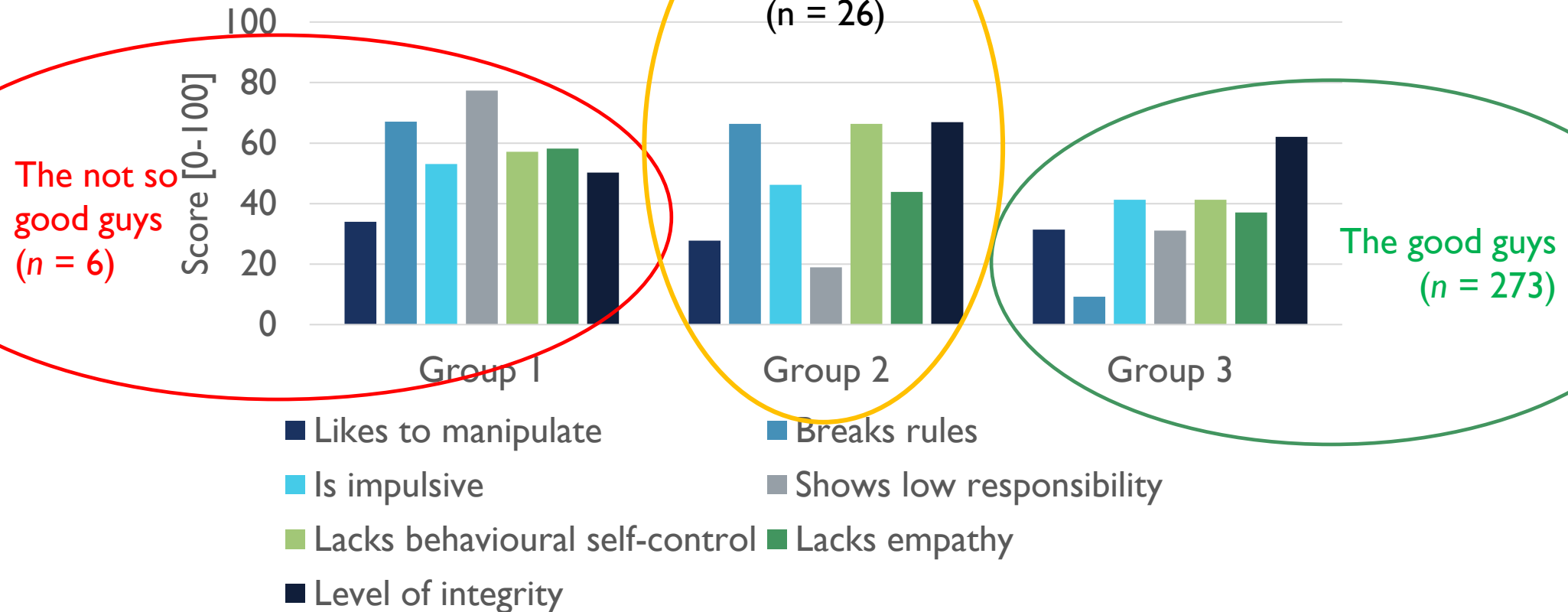
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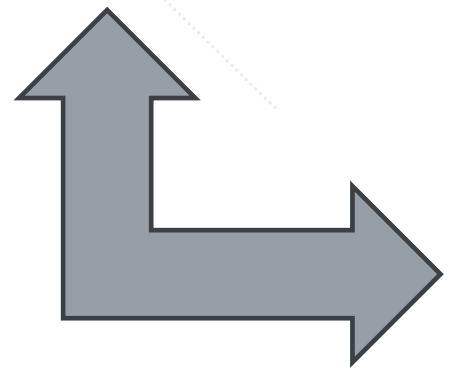
PERSONALITY CHARACTERISTICS CORRELATING WITH LOW LEVEL OF PERSONAL INTEGRITY

- Shows low responsibility
- Likes to manipulate
- Breaks rules
- Is impulsive
- Lacks behavioural self-control
- Lacks empathy



AGLOMERATIVE HIERARCHICAL CLUSTER ANALYSIS





WHO
WANTS
TO
FO K OW
A
DISHONEST
LEADER
?

CULTURE HORSE/BEEF MEAT BUSINESS IN THE NETHERLANDS

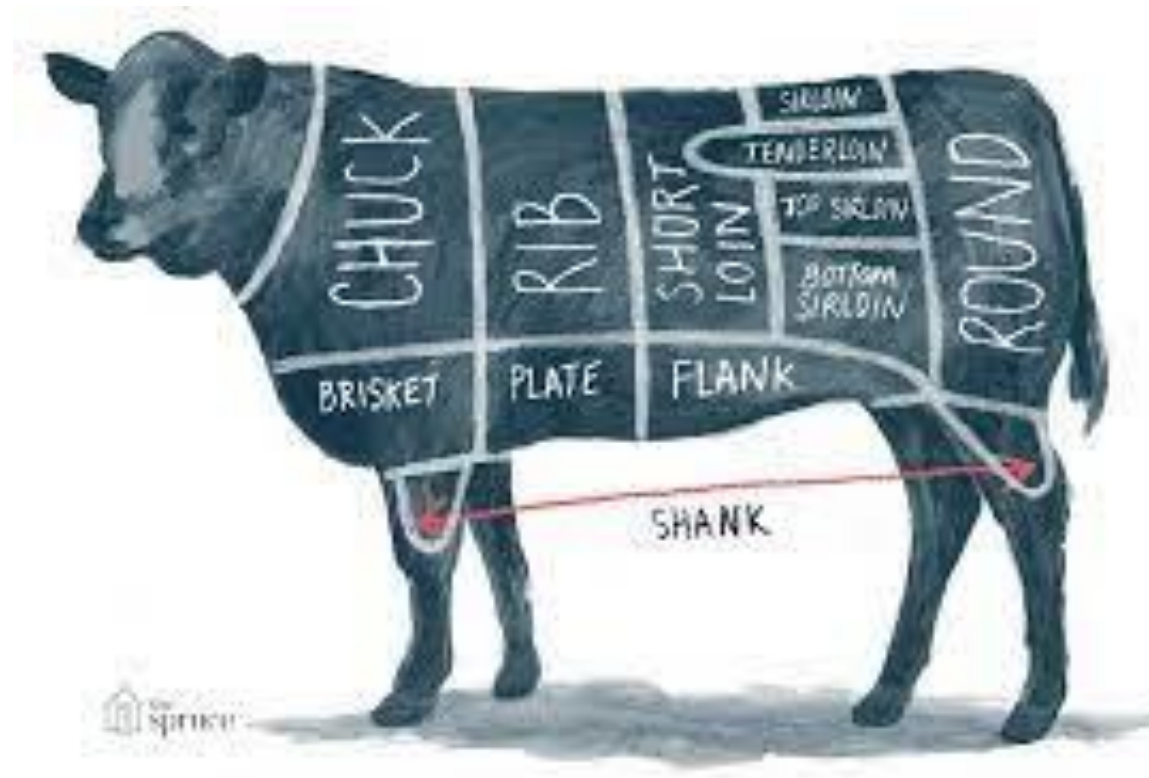
Interview employees in the news:

- ‘Everybody knew that there was mixed, that was no secret in the company’
- ‘Most went in as shreds, but we have also sold steaks of horsemeat as beef steaks. Then we put a sticker with ‘beef’ on them. Those were the only stickers we had anyway.’



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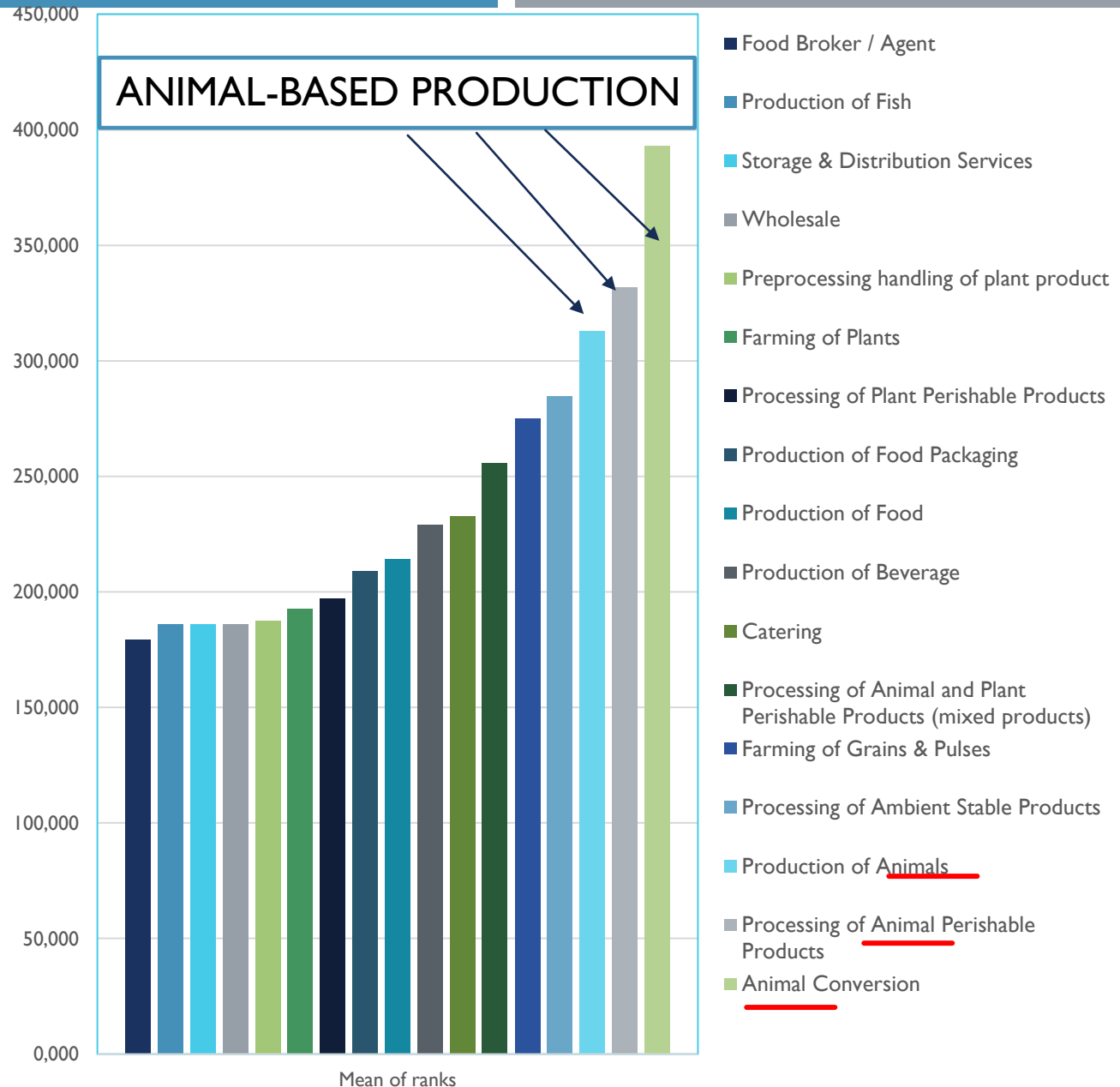
ETHICAL BUSINESS CULTURE IN BEEF INDUSTRY IN THE NETHERLANDS



Comparison of 452 businesses' ethical business culture scores in food fraud vulnerability assessments

From data: van Ruth & Nillesen, 2021:
<https://www.mdpi.com/2304-8158/10/4/844>

Higher fraud risk from poor corporate culture



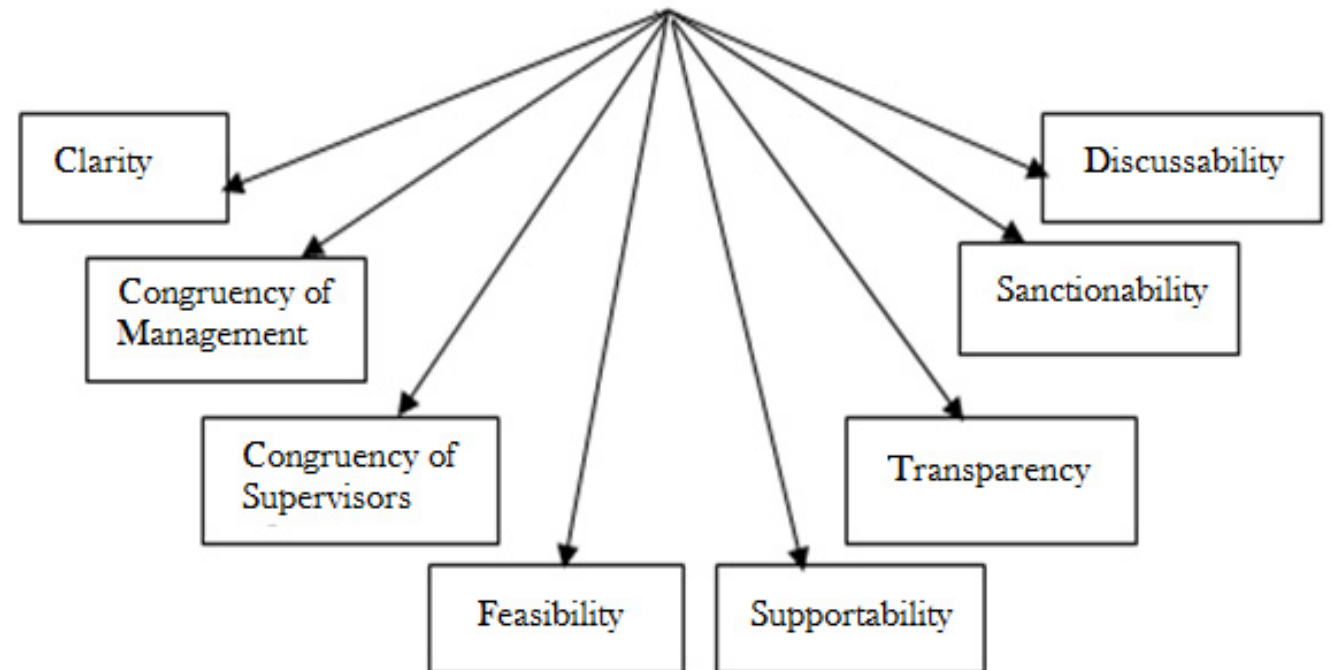
CORRELATION

- Significant correlation between poor ethical business culture and criminal offences demonstrated in food fraud vulnerability assessments



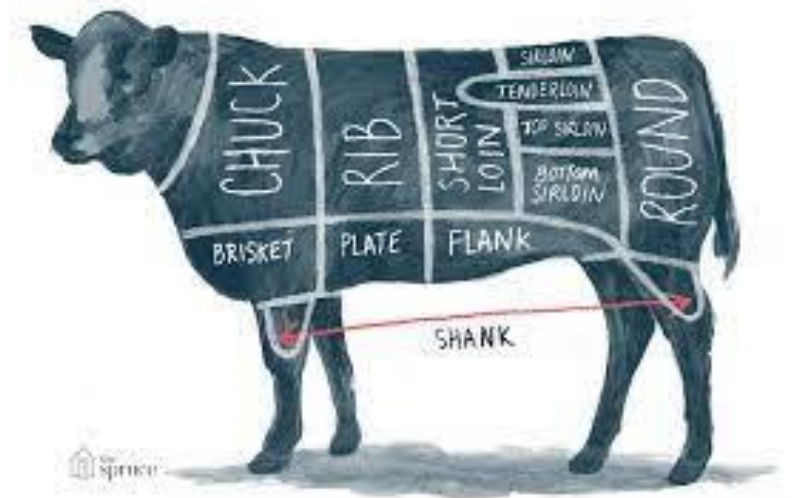
ZOOMING IN ON ETHICAL BUSINESS CULTURE

- Ethical business culture assessment (6-point Likert scale: strongly disagree to strongly agree): Corporate Ethical Virtues Model (short version: CEV-S) with 8 virtues, 4 questions each (deBode, 2013)



DUTCH BEEF INDUSTRY

- Corporate culture CEVs value for **Dutch beef industry** is similar to those for **brokers** in literature





The corporate business culture / moral compass is a vital risk factor to be considered in food crimes committed by criminal professionals in regular food supply chains

- Correlation between staff's personal and business integrity levels
- Personal integrity levels correlate with certain personality traits



MITIGATION

- Tools to assess the vulnerability of food businesses to food fraud, and to develop control plans
 - Implementation in Food Safety Management Schemes (BRC, IFS, FSSC22000)
- Tools to assess the corporate ethical climate, and means to improve it
- If it cannot be mitigated => avoid it!
- But.... view on incidents happening in the world is limited



OCCURRENCE?



COLLABORATIONS AUTHORITIES

The EU Food Fraud Network and the Administrative Assistance and Cooperation System

**Operation OPSON X: Seizure of illicit food and beverages
with a value of about € 53.8 million**

COLLABORATIONS FOOD INDUSTRY – DATA SHARING



Food
Industry
Intelligence
Network

About fiin

Our object

Protecting the
integrity of your
food supply chain

GENERAL CONCLUDING REMARKS

- The human component in food fraud is often overlooked
- Corporate moral compass = key factor of food fraud
- Only together we can combat against food crimes





THANK YOU

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