

CA18105



RIBMINS

Risk-based meat inspection and
integrated meat safety assurance

Introducing the concepts of risk communication

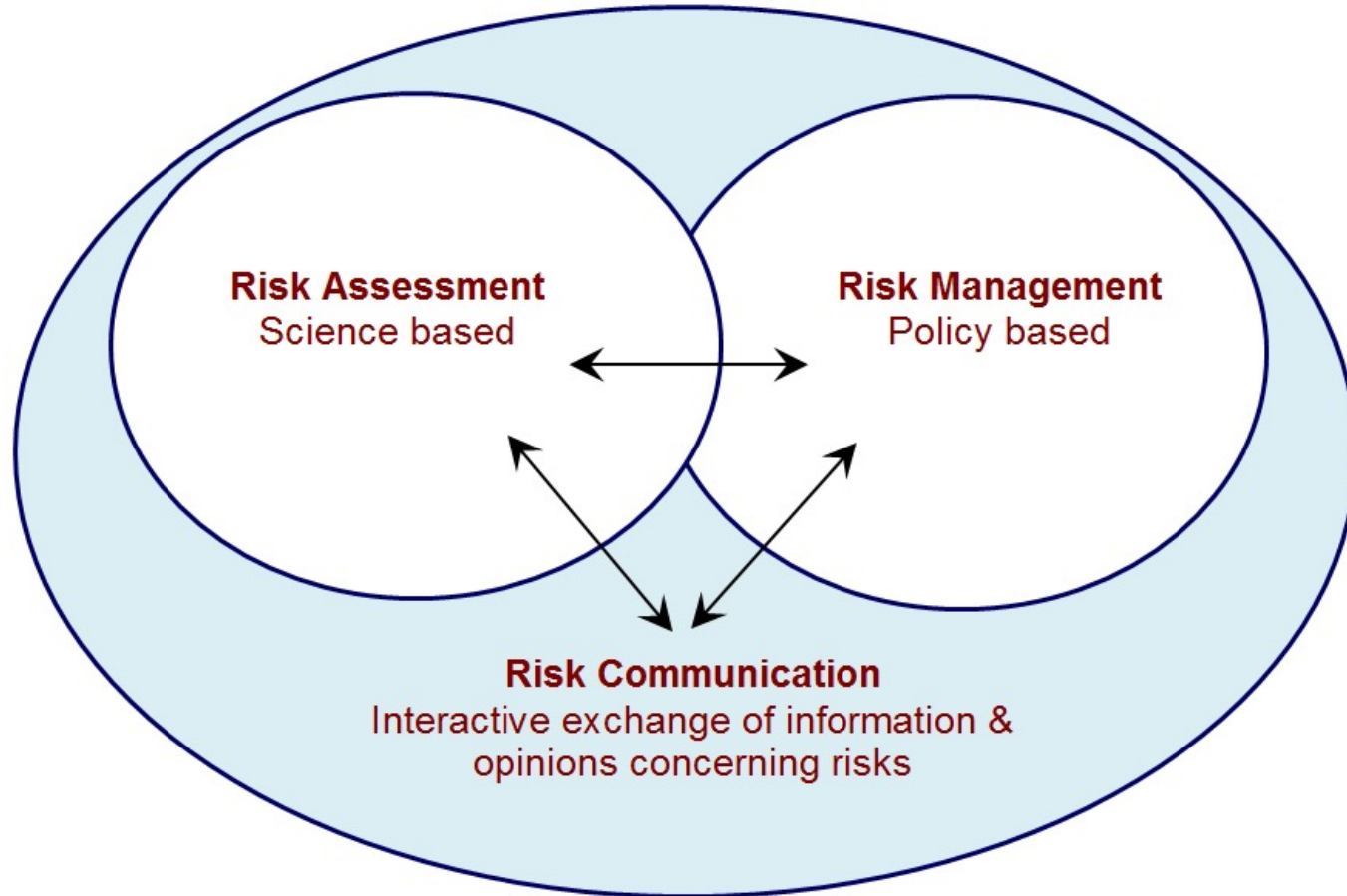
Prof.Ph.D. Boris Antunovic, D.V.M.

RC - the main issues to be considered

- Misunderstanding regarding risk
- Risk & hazard
- Acceptability of risk
- Consumer perception of risk



What is risk communication?



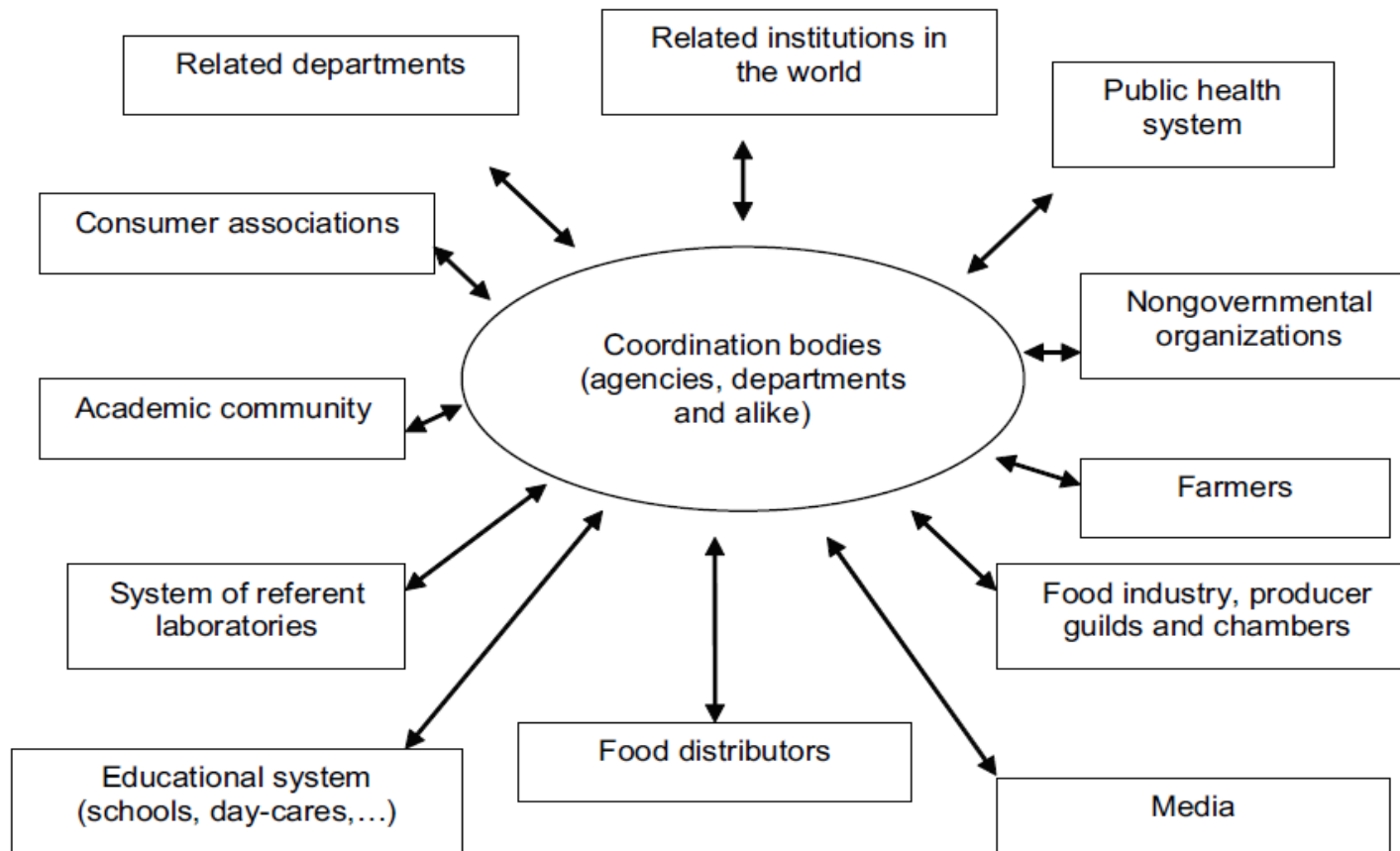
Who is doing what on the EU level... your national level?

Traditional Risk Communication

- Traditional models of risk communication rest on three assumptions (Scherer, 1991, pp. 91-93):
 - Science alone can provide 'objective' truths.
 - Scientific and technical experts are the only possible sources of 'correct' risk information.
 - The public is a passive receiver of risk information.

Interactive communication

▼ **Scheme 1.** Model of the interactive communication of the risks in food – a coordination body collects, processes, analyzes and interprets data, and makes the information available to the interested parties



Which players do you recognise in your country?

Internal risk communication



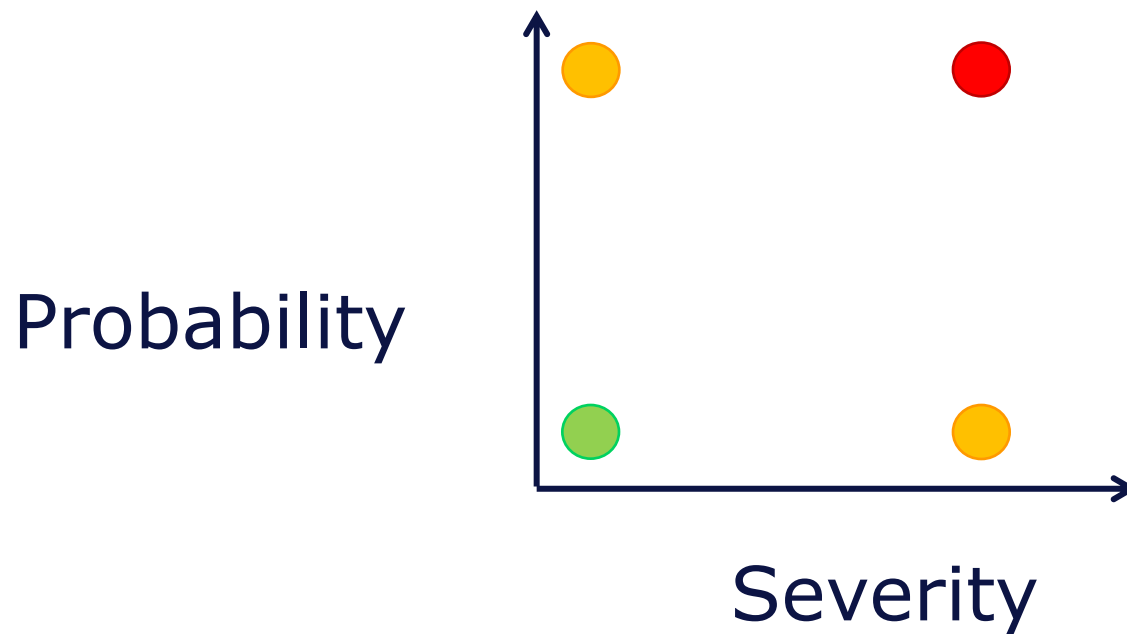
- takes place within the team among team members.
- is ordinary an essential part of any organization.

External risk communication



- takes place among the team and the stakeholders in a risk analysis.
- is the open, **two-way exchange** cited in the formal characterizations.

What is risk?



Risk estimation:
● low
● moderate
● high

Let us try to roughly calculate some risk... from salmonella... GMO... flying by plane...

Risk has two elements: **chance** and a **bad thing**

HAZARD

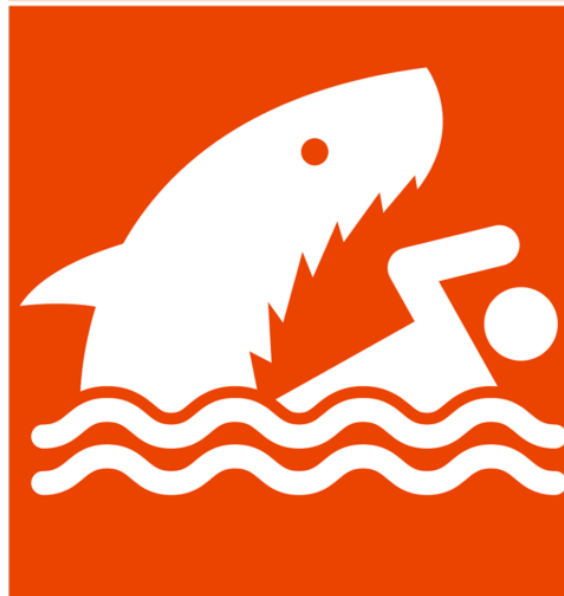
VS

RISK

A **HAZARD** is something that has the potential to harm you



RISK is the likelihood of a hazard causing harm

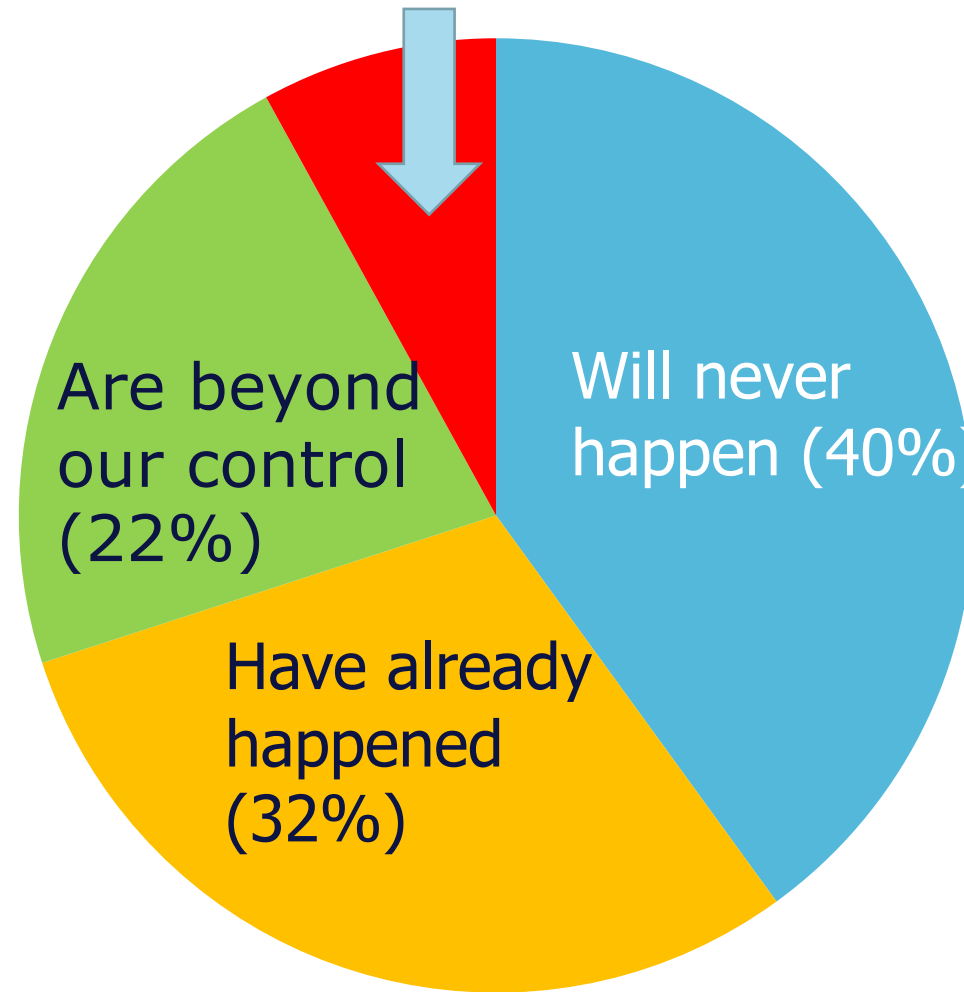
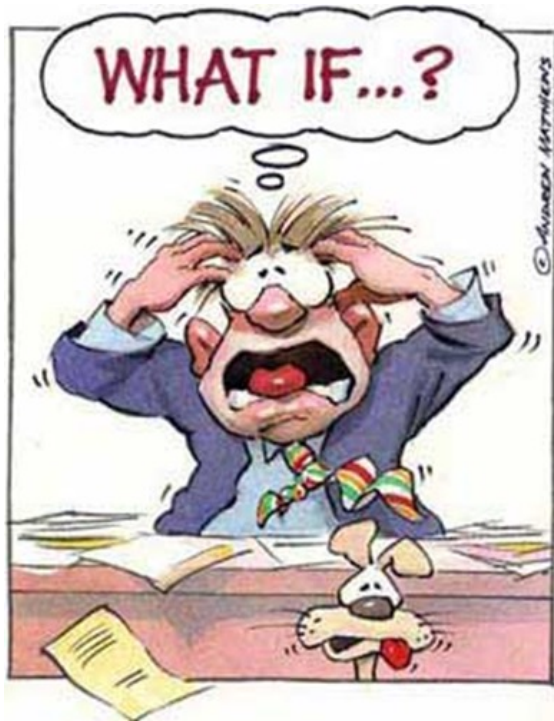


Which hazards and risks can you think of in food safety?

<http://www.reidmiddleton.com/reidourblog/hazards-vs-risks-whats-the-difference/>

The risks that we worry about...

Are worth to be worried about (we can influence!) (8%)



Perceived risk formula (by P. Sandman)

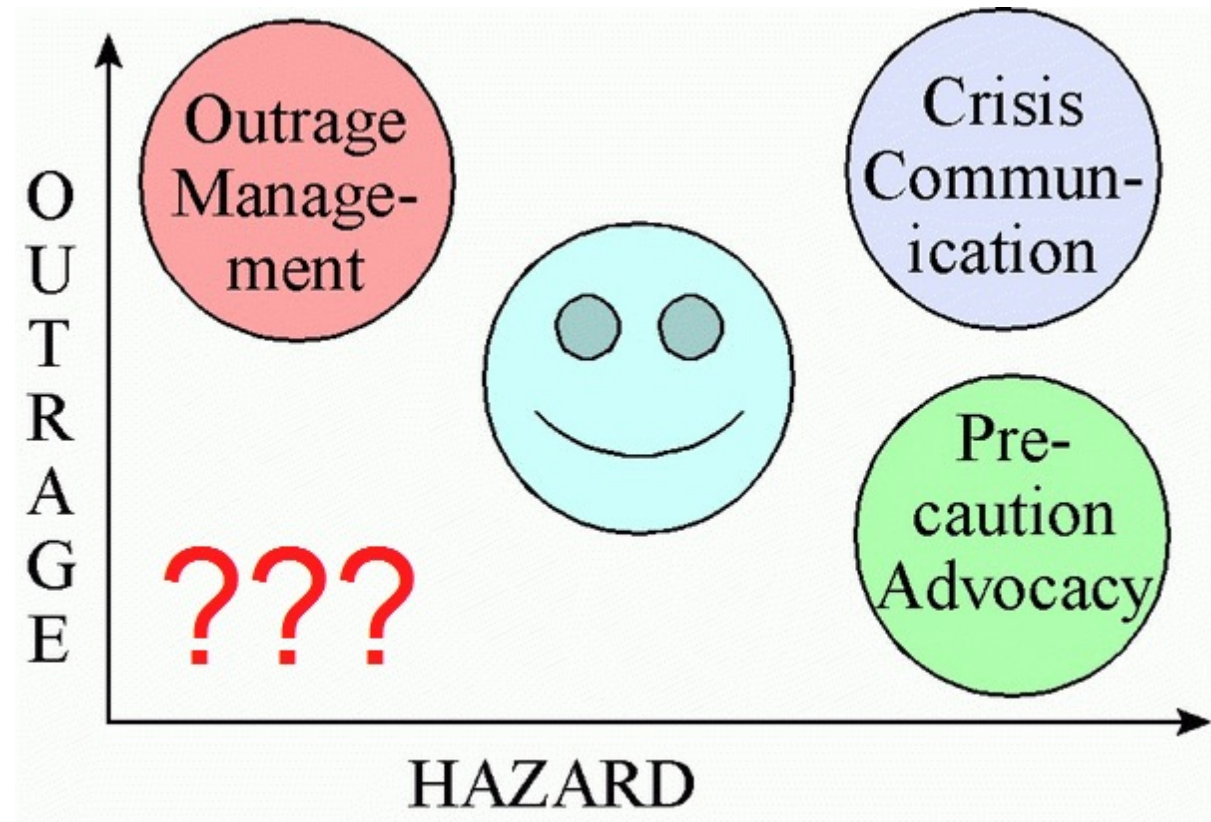
$$\text{Risk} = \text{Hazard} + \text{Outrage}$$



Safety/risk assessments



Emotional responses



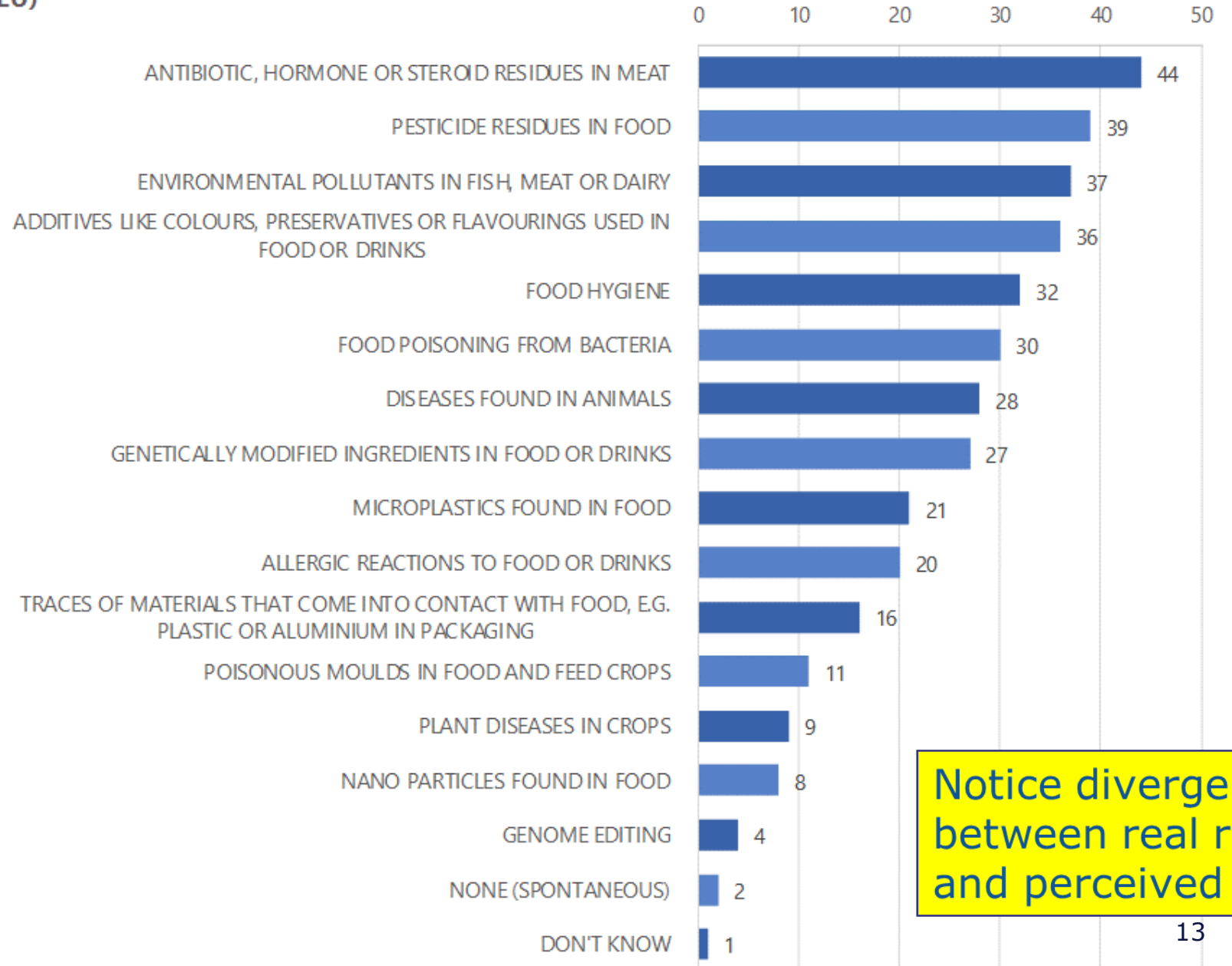
<https://www.psandman.com/col/lower-left.htm>

Risk formula

$$\begin{aligned} \text{Risk} \\ = \\ \text{Likelihood} \times \text{Impact} \\ + \\ \text{Perceived risk (hazard + outrage)} \end{aligned}$$

Special Eurobarometer (EFSA, EC, 2019)

QD4T Please tell me which of these topics you have heard about concern you most when it comes to food? Firstly? And then? TOTAL (MAX. 5 ANSWERS)
(% - EU)



Notice divergence between real risk and perceived risk.

Brain storming - online survey 😊

- Take your smartphone
- Go to **mentimeter.com**
- Use the code indicated on the screen
- Read the question and vote for your opinion



Brain storming - online survey 😊

- Questions:
 - What is the main aim of a communicator?
 - What drives risk communication?
 - It is possible to satisfy the public's concerns with a single well-designed risk communication message?
 - Who is better reacting to risk communicators' messages by changing behavior?

Facts vs. beliefs

- When facts conflict with our beliefs we are **more likely to ignore the facts than to change our beliefs.**



<https://me.me/i/you-really-expect-me-to-believe-that-hasahotdog-com-by-be-66db62a295ed4a8fa970faee607d70a7>

Take away points

- Risk assessment is to be based ON FACTS.
- Risk management is to be based on risk assessment, consequently, on facts.
- But risk managers must also take OTHER VALUES into account and these other values need not be based on facts.

Risk Communication Science

- 8000 articles in peer reviewed scientific journals
- 2000 books
- Reviews of the literature by major scientific organizations (e.g., Royal Society of Great Britain; US National Academy of Sciences)

References:

- Antunović, B., Rubil, R., Poljak, V. Dobranić, V. (2008): Interactive communication – a new model of communication on risks in food. *Meso*, 6(10), 474-479. Available on: https://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=71104

SCIENTIFIC OPINION

Scientific Opinion on Risk Assessment Terminology¹

EFSA Scientific Committee^{2,3}

European Food Safety Authority (EFSA), Parma, Italy

1 On request from EFSA, Question No EFSA-Q-2010-00705, adopted on 18 April 2012.

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Thank you for you
attention 😊

Any questions?