

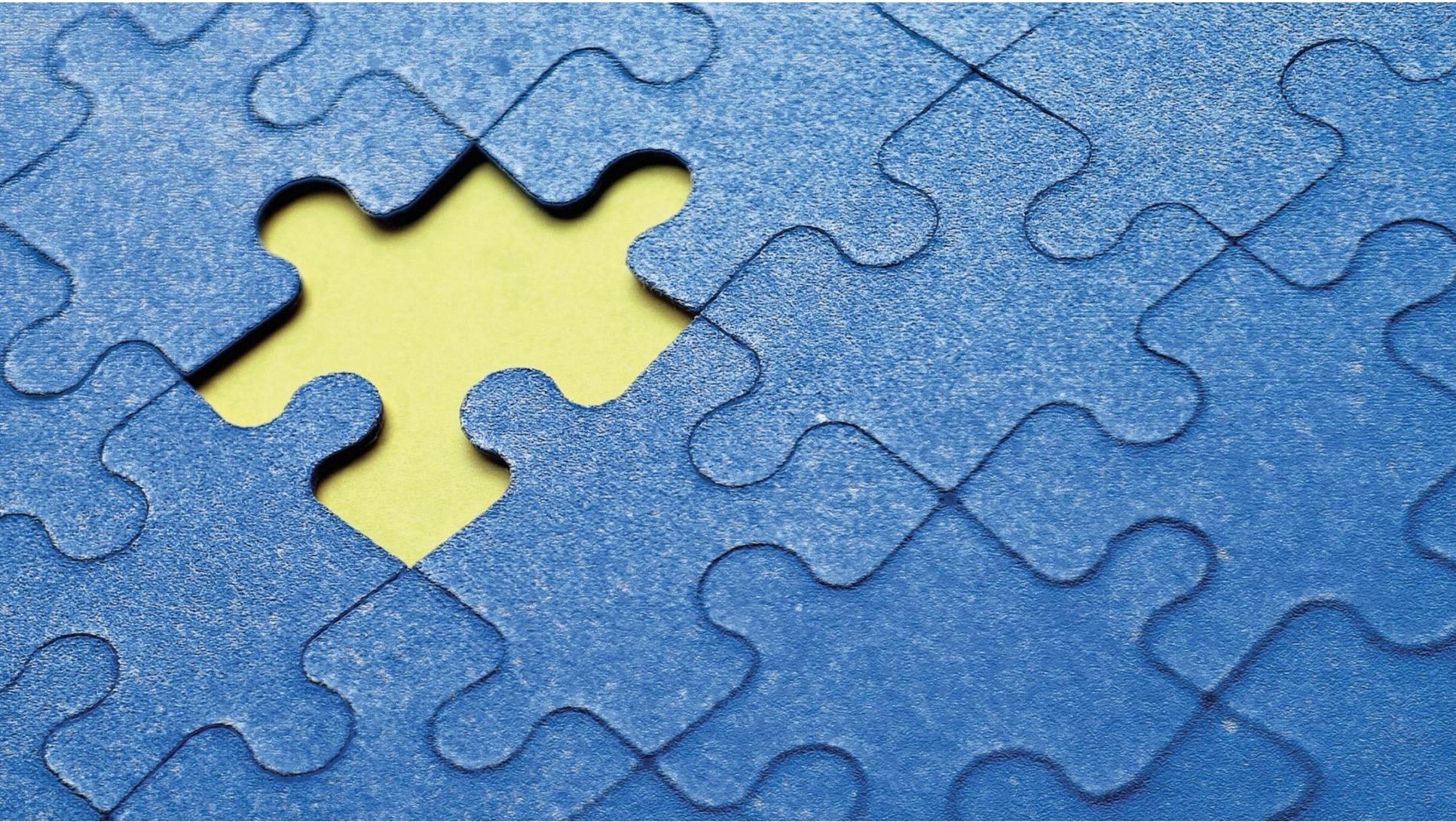


Should we communicate about emerging risks?

Lucia de Luca
Tony Smith

Parma Summer School 2018
15-17 May 2018

Want to know how to best
communicate on an emerging
risk?





INTERACTIVE, PARTICIPATORY SOCIETY



AT THE END OF THIS TALK

- ✓ Should we communicate on emerging issues?
- ✓ Effective communication

AGENDA

- Risk Communication
- Emerging risks
- Case studies
- Conclusions

Risk Communication

RISK COMMUNICATION



PURPOSE OF RISK COMMUNICATION – FOOD SAFETY

IMPROVE PEOPLE'S HEALTH STATUS AND LIFE

- Providing the public **appropriate information** to make **sound choices**
- **Being Consistent** with the science
- **Being Accurate** – benefits and risks



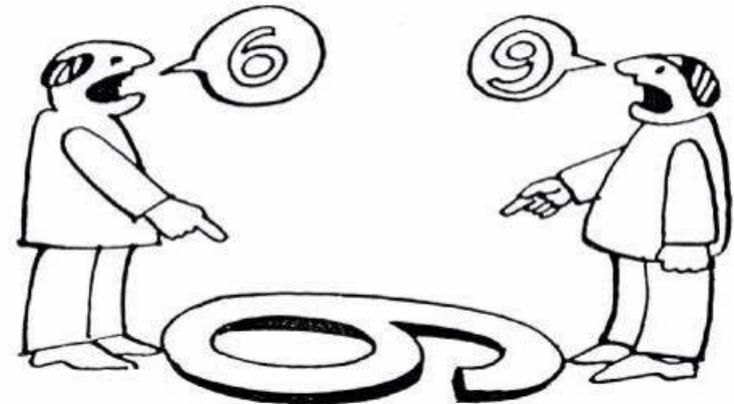
TWO WORLDS, TWO LANGUAGES

Facts

Science
Data
Rationale
Methodologies
.....

Perception

Culture
Beliefs
Behaviors
Faith
Vested interest
Not logical...



KEY ACTORS INVOLVED



RISK COMMUNICATION A RISKY MIX?



SCIENTIFIC ASSESSMENT TODAY



- **More complex** problem formulation
- **More sensitive** detection equipment
- **More options** alternative testing
- **More refined** tiered assessment approaches
- **More** demands for openness & transparency
- **Higher degree** of uncertainty

RISK TODAY

- **More** questions to address
- **More** types of expertise required for the assessment
- **More** components measured in less time at ultra-trace levels
- **Big** datasets for assessment of exposure and toxicity
- **More** evidence to evaluate dose-response
- **Open science, open data, crowdsourcing literature review**

CONFUSION: MORE HAS NOT ALWAYS MEANT BETTER

Scientists, themselves,
don't always agree
on what constitutes
scientific evidence sufficient
to warrant changing recommendations
to the public

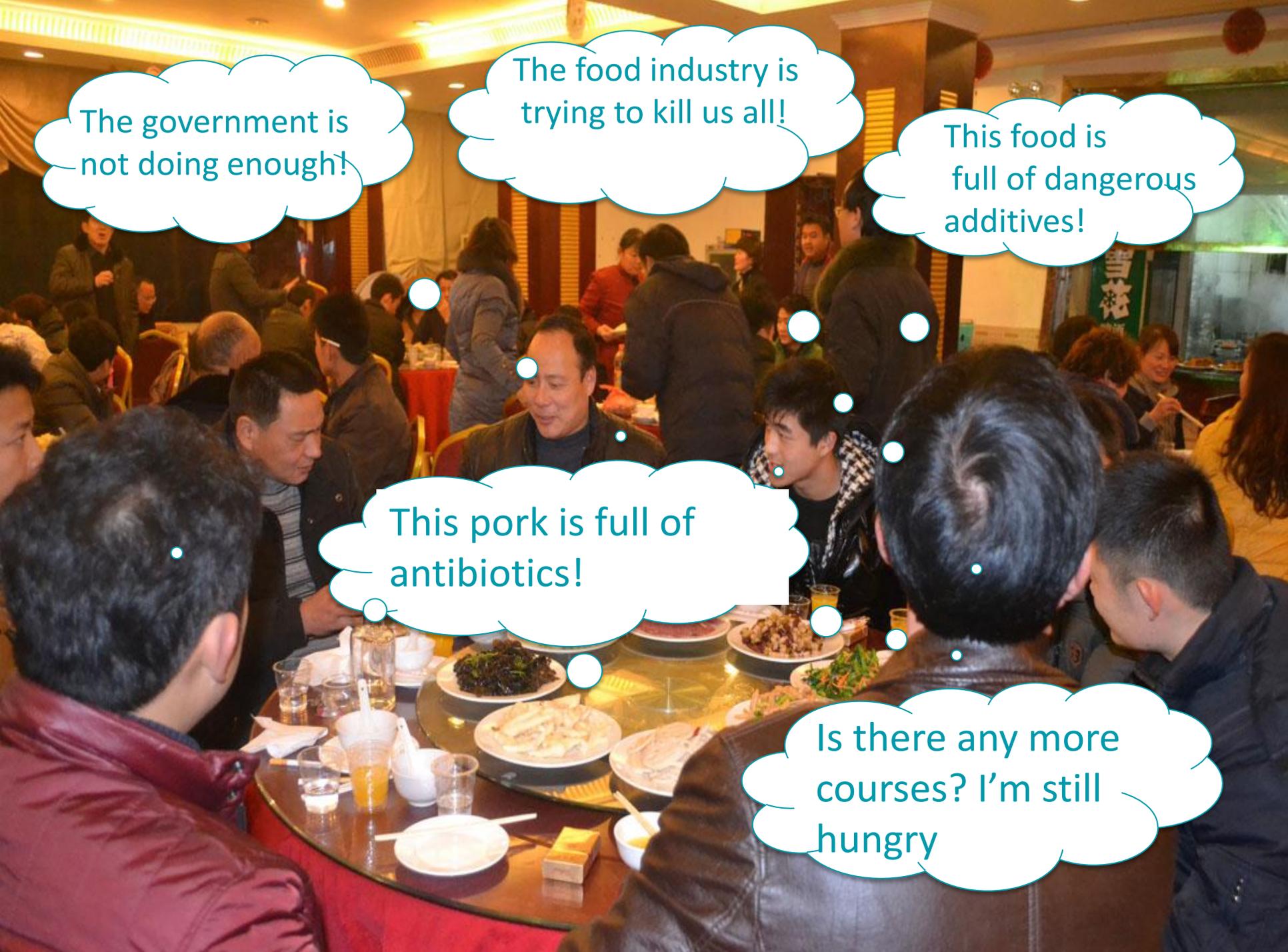
RISK PERCEPTION

**“The risks that kill you
are not necessarily the
risks that anger and
frighten you.”**

Peter M. Sandman

THERE IS NO DEMOCRACY IN RISK PERCEPTION

Personal experience
affects
people's assessment
of the severity of diseases and
importance of prevention



The government is not doing enough!

The food industry is trying to kill us all!

This food is full of dangerous additives!

This pork is full of antibiotics!

Is there any more courses? I'm still hungry

GOALS

Understand
consumer
perception of
food and food
safety risks

**Bridge the
gap**
between
science and
the consumer

Synergic
promotion and
dissemination
consistent
messages



THE GOOD NEWS!!!! TRUST THE LAB COAT



BRIDGE - CLARIFY YOUR LANGUAGE



Glossary

All A B C D E F G H I L M N O P Q R S T U V W Z

acceptable daily intake

An estimate of the amount of a substance in food or drinking water that can be consumed over a lifetime without presenting an appreciable risk to health. It is usually expressed as milligrams of the substance per kilogram of body weight and applies to chemical substances such as food additives, pesticide residues and veterinary drugs.

active substance for pesticides

A substance that acts against harmful organisms, such as pests or diseases, which affect plants.

acute exposure

A one-off or very short term exposure to a substance, usually less than 24 hours.

adequate intake

A dietary recommendation used when there isn't enough data to calculate an average requirement. An adequate intake is the average nutrient level consumed daily by a typical healthy population that is assumed to be adequate for the population's needs.

Emerging risks

EMERGING RISKS

EMERGING

FOREIGN

NEW

UNKNOWN

RISK

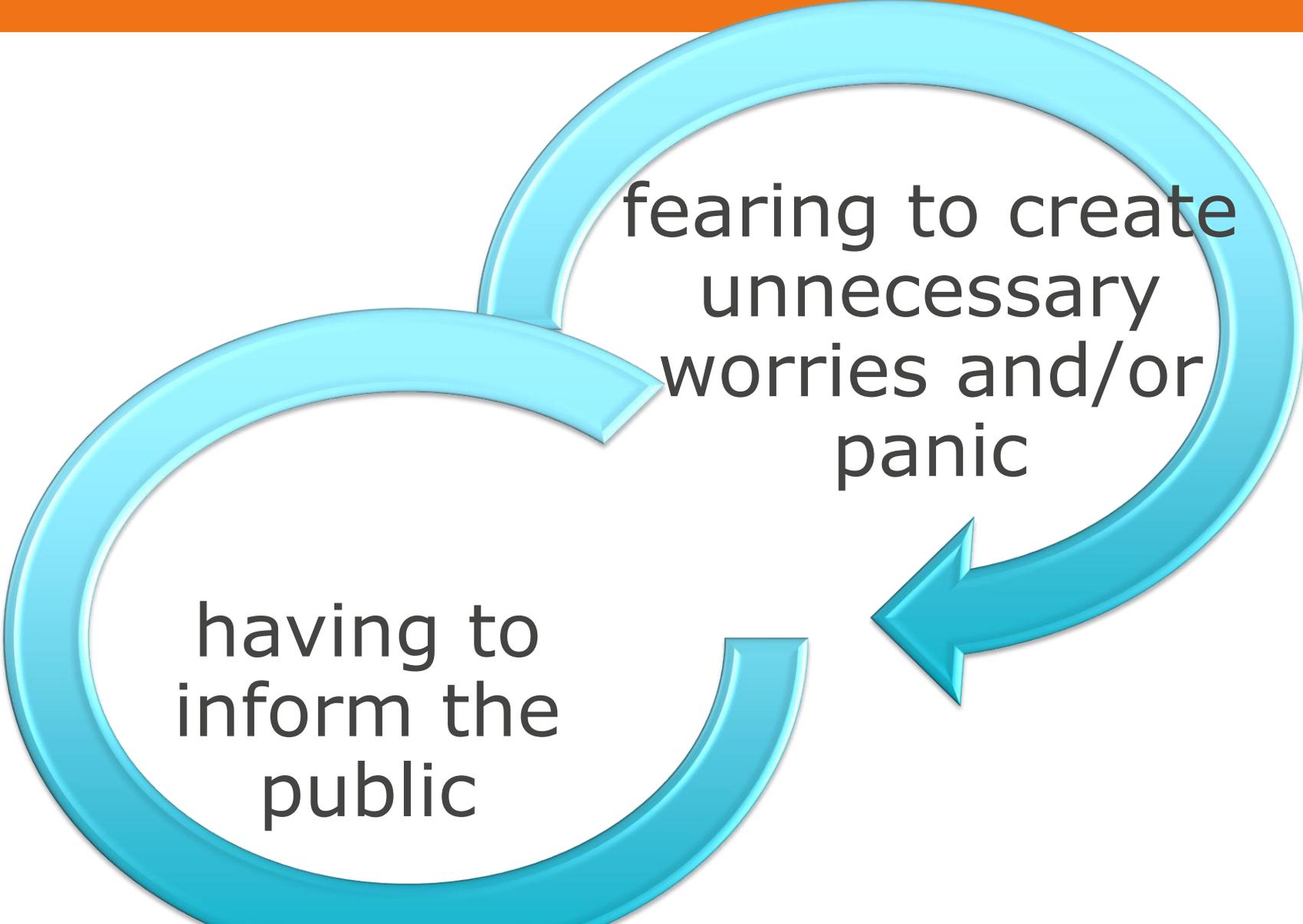
PROBLEM

DANGER

OUTBREAK

FRAUD

THE RIDDLE

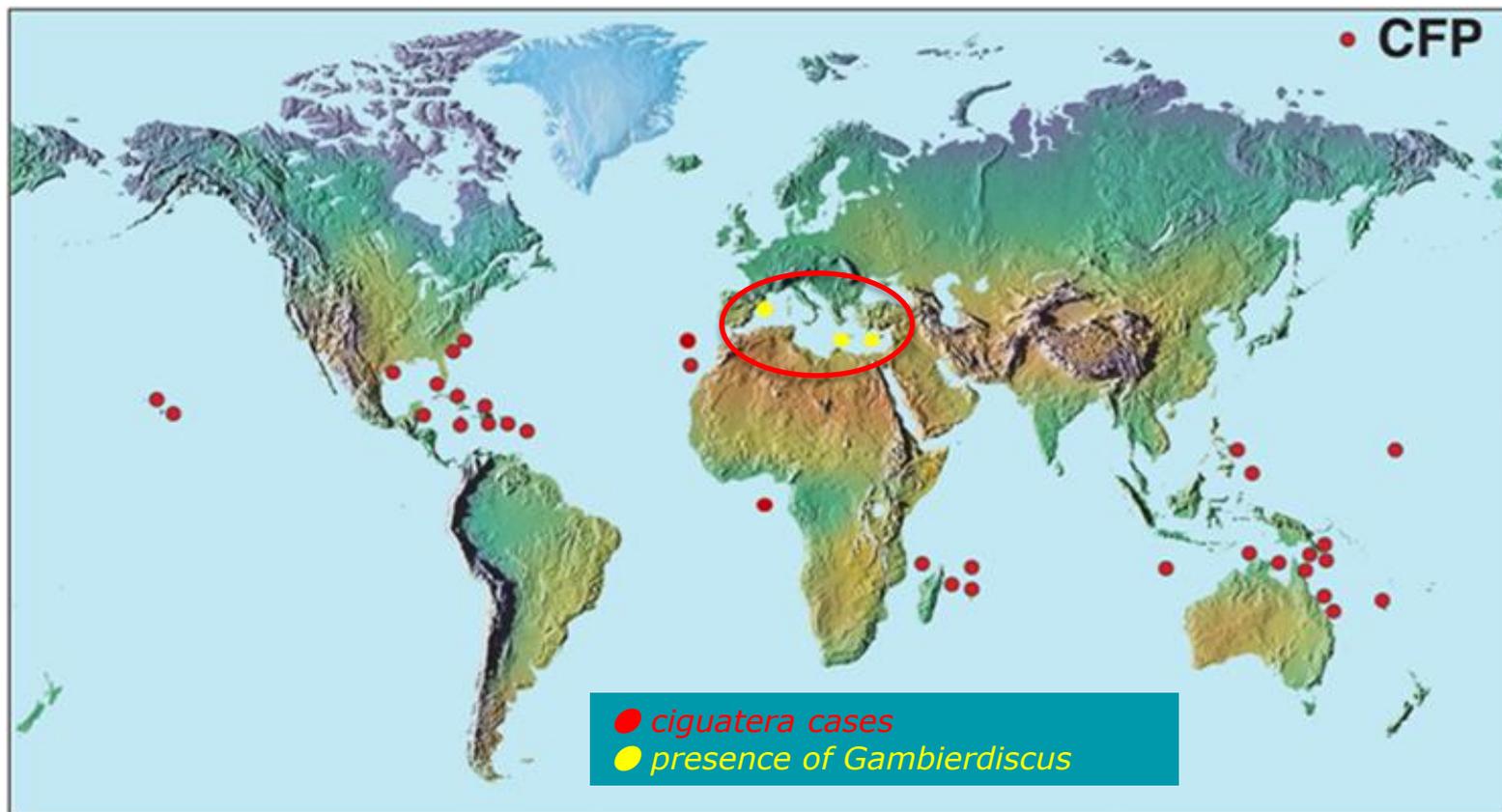


fearing to create
unnecessary
worries and/or
panic

having to
inform the
public

Case studies

CASE STUDY 1 : CIGUATERA – A MARINE TOXIN



Mainly in warm coral reefs waters. Increasing incidence in non-endemic areas → tropicalisation scenario of the Mediterranean Sea?

COMMUNICATIONS: PARTNERS AND STAKEHOLDERS

PARTNERS

- Member States
- Emerging Risks Exchange Network
- International partners

STAKEHOLDERS

- Industry, Consumers, Scientific fora

KEY MESSAGE - PUBLIC AND MEDIA

**FIGHTING CIGUATOXIN FOOD POISONING –
EUROPEAN SCIENTISTS JOIN FORCES**

EUROPEAN SCIENTISTS JOIN FORCES

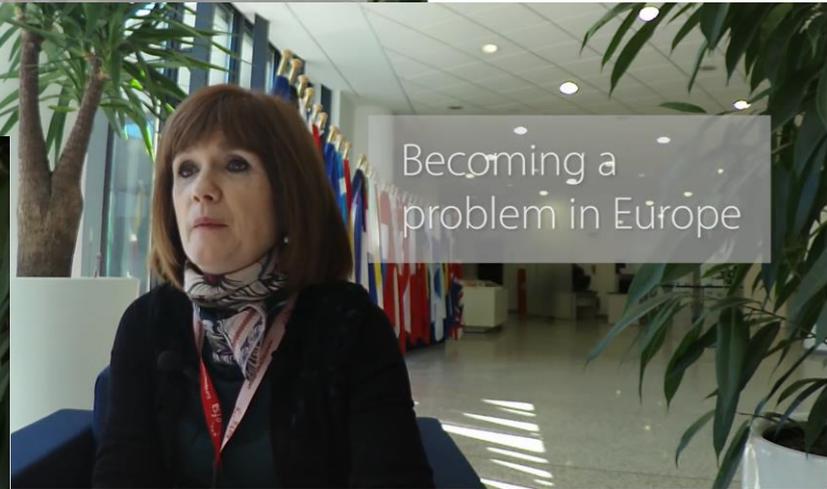
FIGHTING CIGUATOXIN FOOD POISONING



COMMON GOAL



SOME FACTS



LOOKING AT THE COMMUNICATION ASPECT

FRAMING RISK PERCEPTIONS : THE MEDIA

FoodQuality
news.com

EFSA signs 4-year project to combat ciguatoxin food poisoning

El Confidencial

España lidera convenio europeo para ver riesgo de intoxicación por ciguatera

europa **press**

España trabajará para determinar el riesgo de intoxicación por ingesta de peces que viven en arrecifes coralinos

Institute of
Food Science
+ Technology **ifst**

SCIENTISTS JOIN FORCES TO TACKLE CIGUATOXIN FOOD POISONING

EcoDiario.es

Casi 100 personas se han intoxicado en España en los últimos seis años por ingerir peces que se alimentan de coral

Canarias7.es

España trabajará para determinar el riesgo de intoxicación por ingesta de peces que viven en arrecifes coralinos

aecosan

agencia española
de consumo,
seguridad alimentaria y nutrición

En marcha el Proyecto de EFSA relacionado con la presencia de Ciguatoxinas en Alimentos

SOME FIGURES

General stats on the webpage

Top country

Spain (22%)

Italy (14.18%)

Portugal (14.18%)

Social Media



809 views (avge 354)

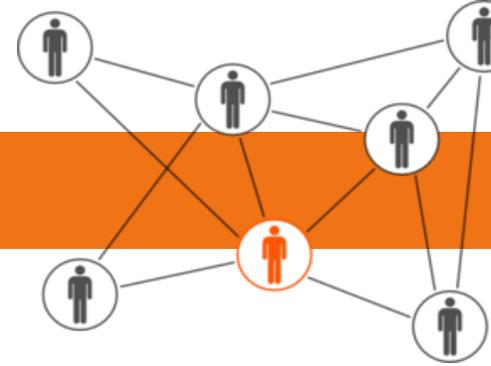


1.78%



0.92%

WHAT WE HAVE LEARNED SO FAR

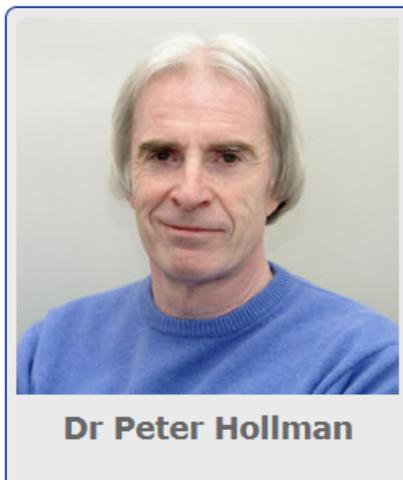


- Nurture **relations** with Member States, stakeholders, academia and international partners
- Use **appropriate tools**
- Develop **international guidance** for effective communication on emerging issues
- Use of **ambassadors** - face

CASE STUDY 2: MICRO- AND NANO-PLASTICS IN FOOD

Microplastics and nanoplastics in food – an emerging issue

There is global interest in the impact of plastic waste in seas and waterways on natural habitats and wildlife. EFSA has taken a first step towards a future assessment of the potential risks to consumers from microplastics and nanoplastics in food, especially seafood.



Dr Peter Hollman was a member of the working group that helped EFSA's Panel on Contaminants in the Food Chain (CONTAM) to draft its [Statement on microplastic and nanoplastic particles in food](#). Dr Hollman is senior researcher at RIKILT research institute and associate professor for Nutrition and Health, both at Wageningen University in The Netherlands. His

research includes work on the occurrence, analysis and toxicity of micro- and nanoplastics.

Subject area

 [Chemical contaminants](#) >

CONTAM

[Panel on Contaminants in the Food Chain](#) >

Related topics

[Contaminants in food and feed](#) >

[Nanotechnology](#) >

Related News

[Furan in food – EFSA confirms health concerns](#)

MICRO- AND NANOPLASTICS: SOCIAL & MEDIA COVERAGE



Stats (since 23/06/16)

Website: 9k sessions

USA (15%)

**Traffic: 40% Google
30% EFSA newsletter, 20%
direct links (e.g. EC website)**

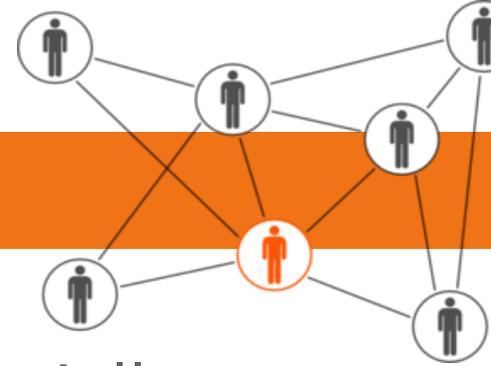
**Social: 40% Twitter,
retweeted e.g. World Oceans
Day (June 2017)**

fishfarmingexpert

FOOD
navigator.com

sky news

MICRO- AND NANO-PLASTICS: IMPACT



- Establishing **research needs** especially regarding data on nanoplastics for **future assessment**
- Creating **awareness** for risk managers and the public that EFSA is a source of expertise
- Clarify **scope of EFSA's work** on microplastics and nanoplastics in food
- Use of **ambassadors** - expert/face

CASE STUDY 3: RISKS FROM APRICOT KERNELS

Apricot kernels pose risk of cyanide poisoning

“Eating more than three small raw apricot kernels, or less than half of one large kernel, in a serving **can exceed safe levels**. Toddlers consuming even one small apricot kernel risk **being over the safe level.**”

RISKS FROM THE CONSUMPTION OF APRICOT KERNELS

theguardian

Apricot kernels could be 'hidden health hazard'

Europe's food safety watchdog warns the latest 'superfood' contains a compound that is converted to cyanide in the body at harmful levels



**The
Telegraph**

Eating apricot kernels can kill you, Government warns

l'observatoire des
aliments
BIEN CHOISIR SES ALIMENTS, BIEN SE NOURRIR

Amandes d'abricot : le risque d'empoisonnement au cyanure

MICROPLASTICS AND NANOPLASTICS IN FOOD



EFSA 
@EFSA_EU Following

#Apricot kernels pose risk of cyanide poisoning bit.ly/24jxxW0



3:41 am - 27 Apr 2016

9 Retweets 3 Likes

1 9 3

Gıdacı @gidadunyasi · 2 May 2016
Replying to @EFSA_EU
@EFSA_EU Here is the Turkish version of your report



Kayısı çekirdeği zehirlenmeye neden olabilir
EFSA'ya göre kayısı çekirdeğinde doğal olarak bulunan amıgdalin isimli bir madde, yedikten sonra siyanüre dönüşerek siyanür zehirlenmesine neden olabilir.
gidahatti.com

1

Stats (since 26/04/16)

English: **USA** (spike in Sep '17)

Website: 30.1k sessions

**Traffic: 70% Google
20% EFSA newsletter**

French: **France** (Jun-Aug '17)

Website: 42.4k sessions

**Traffic: 90% Google
10% Facebook**

CASE STUDY 4: EDIBLE INSECTS

Insects as food and feed: what are the risks?

EFSA **risk profile** of potential biological and chemical hazards as well as allergenicity and environmental hazards associated with the **use** of farmed insects as food and feed.

EDIBLE INSECTS: MEDIA COVERAGE



EFSA on insects: Pathogens harmful to humans most likely from farming
By Annie-Rose Harrison-Cunniff
08-Oct-2015
Last updated on 08-Oct-2015 at 16:03 GMT

EFSA DELIVERS LONG-AWAITED SAFETY ASSESSMENT DESPITE DATA CRATERS

1 3 ways 'shocking' Italian bota...
2 EU Parliament votes in new r...
3 Porridge's probiotic potential...
4 Prebiotics could be used to b...
5 EFSA: Pregnant women need...

TV: RAI TG1 (Italy)



Feature: Why insects could be the ideal animal feed

By Kai Kupferschmidt | 14 October 2015 12:15 pm | 3 Comments

Mick Grant is a farmer in Roos, U.K., a burly fellow with strong hands and a quick smile. His great-grandfather started out with a shop and two cows. Out of that grew Elm Farm, a 450-hectare estate on which Grant is raising pigs and growing wheat, peas, and oil seed rape.

Science
AAAS
LONDON UNIVERSITY

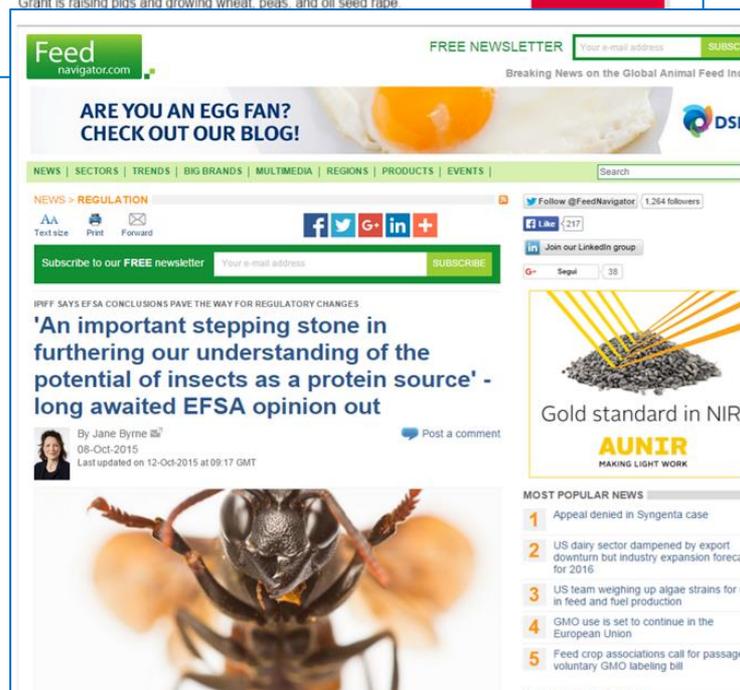


EFSA report considers risks of eating insects
By Mark Kinver
Environment reporter, BBC News
© 8 October 2015 | Science & Environment

Top Stories
Russia urges caution on jet crash cause
Voices heard in Lahore collapse rubble
Suu Kyi 'would be above president'

Features & Analysis
Journey through a town
A Burmese landscape of rivers and political battles

The United Nations estimates that 2.5 billion people eat insects each day



ARE YOU AN EGG FAN? CHECK OUT OUR BLOG!

'An important stepping stone in furthering our understanding of the potential of insects as a protein source' - long awaited EFSA opinion out
By Jane Byrne
08-Oct-2015
Last updated on 12-Oct-2015 at 09:17 GMT

Gold standard in NIR
AUNIR
MAKING LIGHT WORK

MOST POPULAR NEWS
1 Appeal denied in Syngenta case
2 US dairy sector dampened by export downturn but industry expansion forecast for 2016
3 US team weighing up algae strains for use in feed and fuel production
4 GMO use is set to continue in the European Union
5 Feed crop associations call for passage voluntary GMO labeling bill

Radio Spain - Nuria Sans

EDIBLE INSECTS: SOCIAL COVERAGE



EFSA @EFSA_EU
Following

#Insects as food and feed: #EFSA looks into possible risks bit.ly/1L1Iani

8:10 am - 8 Oct 2015
51 Retweets 20 Likes

EFSA @EFSA_EU
Following

Have you ever eaten insects? Considered #TraditionalFood in many countries. For many they are #NovelFood bit.ly/2rRqA3G

insects to the European market.
429 views 0:18 / 0:19

2:19 am - 20 Jun 2017
13 Retweets 13 Likes

Stats (since 08/10/15)

Website sessions: English 13.1k and Italian 4.1k

UK, Italy

Source: 70% Google, 20% direct links (e.g. other websites)

Social: 40% Twitter

Re-promoted July 2017 with EFSA video on novel foods

 3,6k views

Conclusions

IT'S A CONVERSATION, NOT A BROADCAST

Engage in conversation and people might change their minds

Engage with communities/citizens

Avoid one-way evidence-based communication

Build relationships with people who already have trust/channels into your audience (including your own staff)

Fail to engage, and you lose credibility

THE SOLUTION?

TIMELINESS

Silence and failing to engage creates a vacuum

Rumor and false information create panic

Use the opportunity to speak

Fill the vacuum

Do not allow others to spread miss-truths/ speculate

The **real risk** is **doing nothing**

TO BUILD THE BRIDGE



Understand the perception of your target audience



Contextualise, clarify, use the same language



Build a bridge science- citizens
create **synergies**

REMEMBER, FILL THE GAP



WHY ?

Evading science communication simply because it is difficult, time-consuming or not important enough reflects more on how much scientists value their own work and its place in posterity.