



FIGHTING WITH FACTS: THE FUTURE OF SCIENCE COMMUNICATION

**Moving beyond deficit thinking and dialogue:
a plea for participatory, reflexive practice**

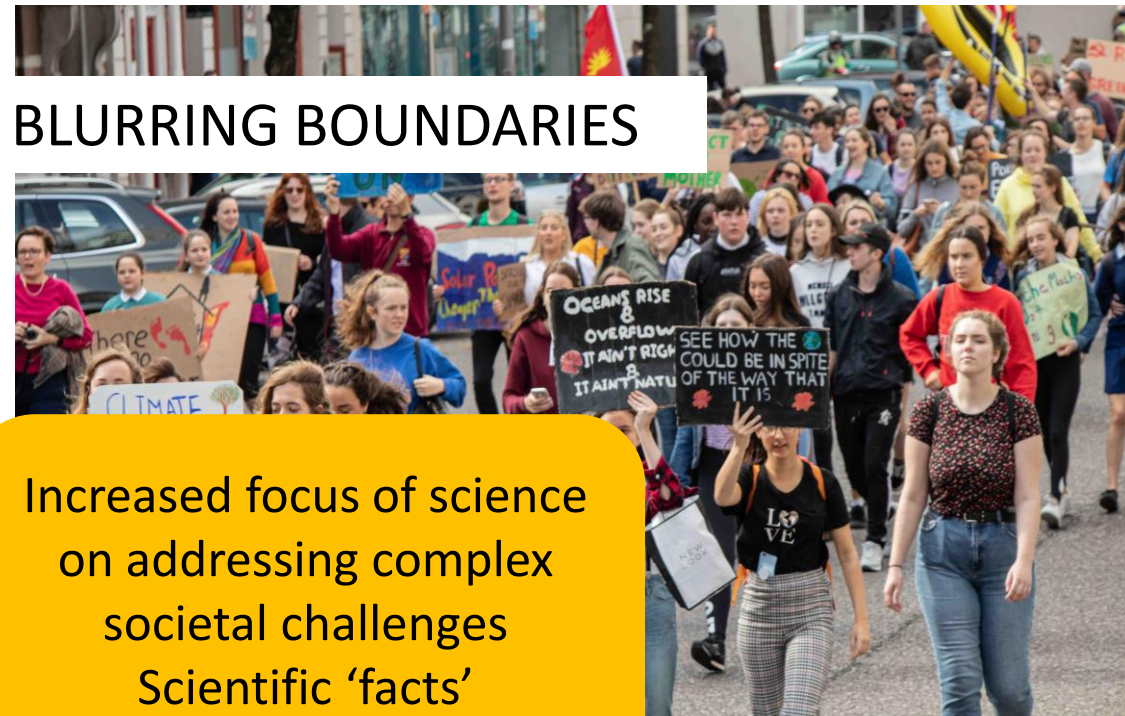
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IS VERDER KIJKEN

SCIENCE COMMUNICATION - INCREASED COMPLEXITY

Communicating about science in society has become increasingly complex & challenging



BLURRING BOUNDARIES

Increased focus of science on addressing complex societal challenges
Scientific 'facts' increasingly challenged



DIGITAL REVOLUTION

Wide range of digital communication platforms enables all stakeholders to access and **generate** information themselves

HOW CAN CONSTRUCTIVE SCIENCE-SOCIETY INTERFACES BE SHAPED?

Two ideologies

DEFICIT MODEL

- Scientific expertise
- Negative reaction/concerns → public ignorance
- Need to educate the public
- Receivers do not always trust science and government

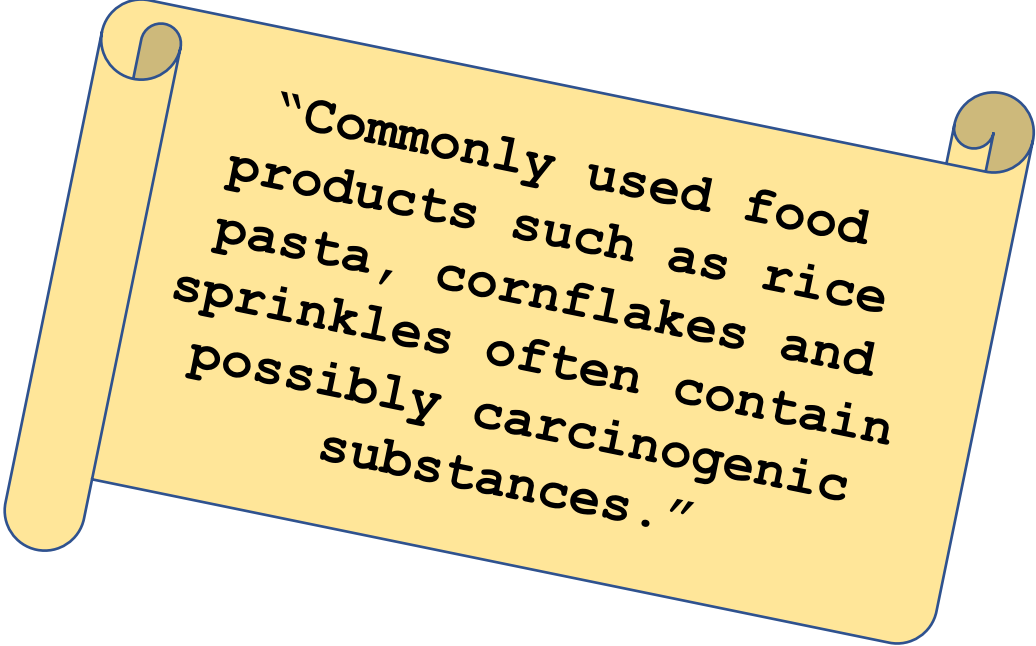
DIALOGUE

- Different forms of expertise
- Public participation
- Deliberation about perceptions, values
- Dealing with 'alternative facts'
- Often no commitment/ connection to decision-making

NEEDS AND BARRIERS IN RISK COMMUNICATION (DUTCH EXAMPLE)

Public feels at a distance:

- Unclear language in public communication
- Perceived defensive behavior risk authorities (avoidance, pacification)
- Most risk authorities are not active on *social media*

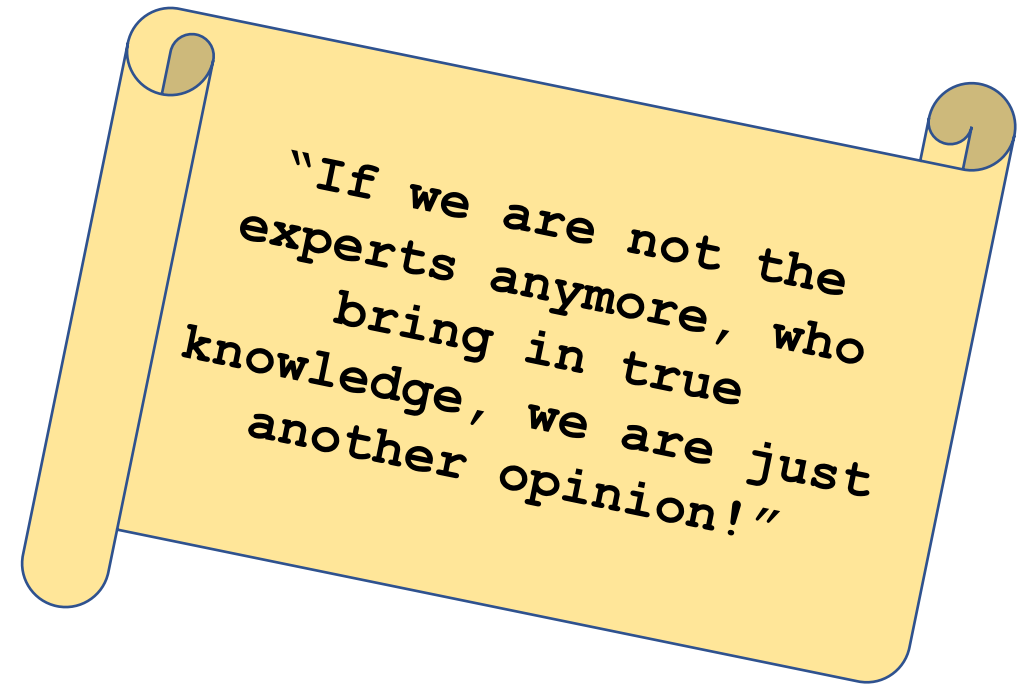


"Commonly used food products such as rice pasta, cornflakes and sprinkles often contain possibly carcinogenic substances."

NEEDS AND BARRIERS IN RISK COMMUNICATION (DUTCH EXAMPLE)

Public authorities don't feel at ease:

- Relationship of risk authorities with general media is tense – sensationalism
- Can't freely operate in the public domain
- Limited knowledge on science communication and diversity of publics
- Risk of giving up the expert role



ACKNOWLEDGE SCIENTIFIC UNCERTAINTY

Uncertainty about facts and numbers

Inexactness
Statistical error

Uncertainty about models and assumptions

Lack of understanding
Inappropriate use models

Uncertainty about the future

Indeterminacy of complex system

ACKNOWLEDGE SENSE-MAKING PRACTICES

- Process by which we develop an understanding of complex reality
- Based on individual situation, context, emotions and worldviews
- Understanding sensemaking is key to improving quality of interactions

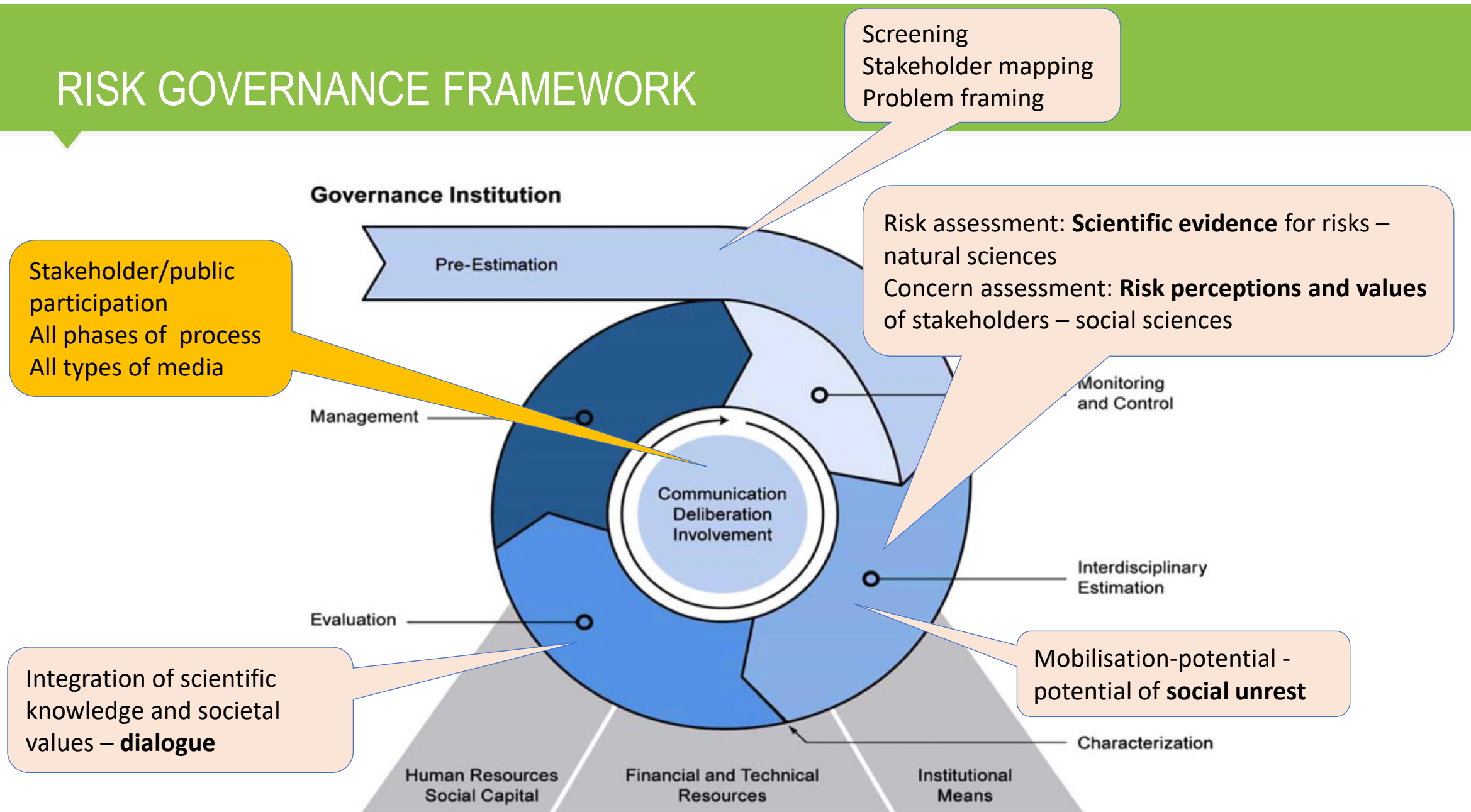
**What's going
on here?**

RISK GOVERNANCE FRAMEWORK

- Novel risk analysis framework (around 2010)
- Risk as *social construct* – more interpretations of risk analysis outcomes – *sense-making*
- Involvement of stakeholders and the public throughout process to bring in
 - Relevant knowledge, values and concerns, leading to
 - **Socially robust knowledge and legitimate decisions**



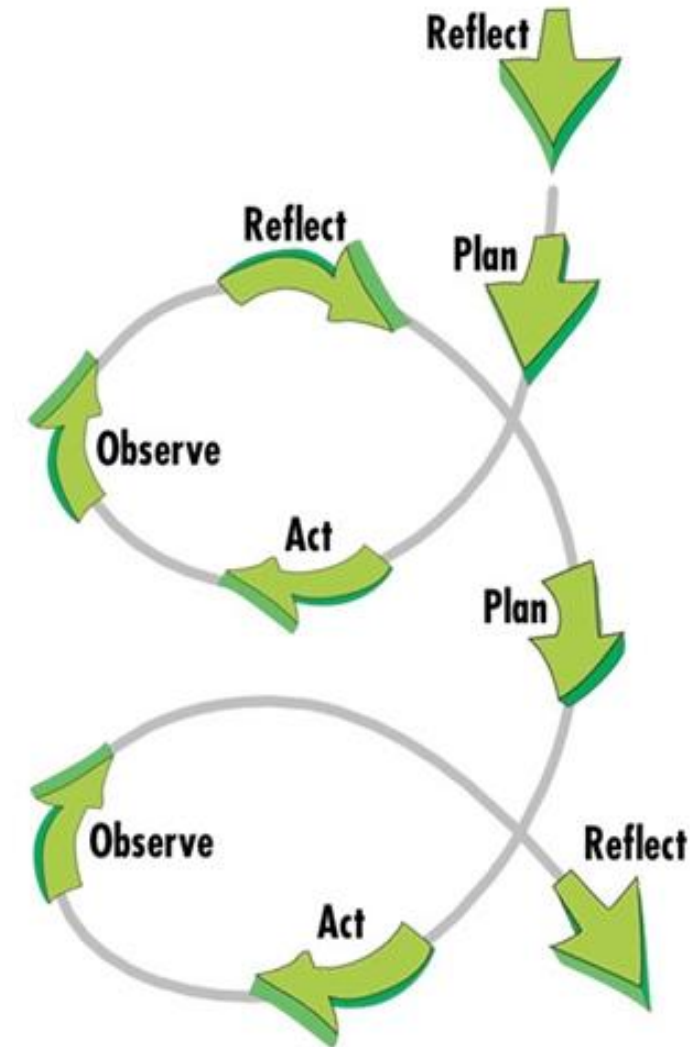
RISK GOVERNANCE FRAMEWORK



Source: O. Renn & A. Klinke (2013)

RISK GOVERNANCE FRAMEWORK – CHALLENGES

- Implementation of Risk Governance Framework requires an **infrastructural, and cultural transition**
- Need for new staff **competences**
- Need to experiment with new ways of working – **reflexive action-learning cycles**



THANK YOU!



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PRECURSOR Project