# Risk Perception and Risk Communication

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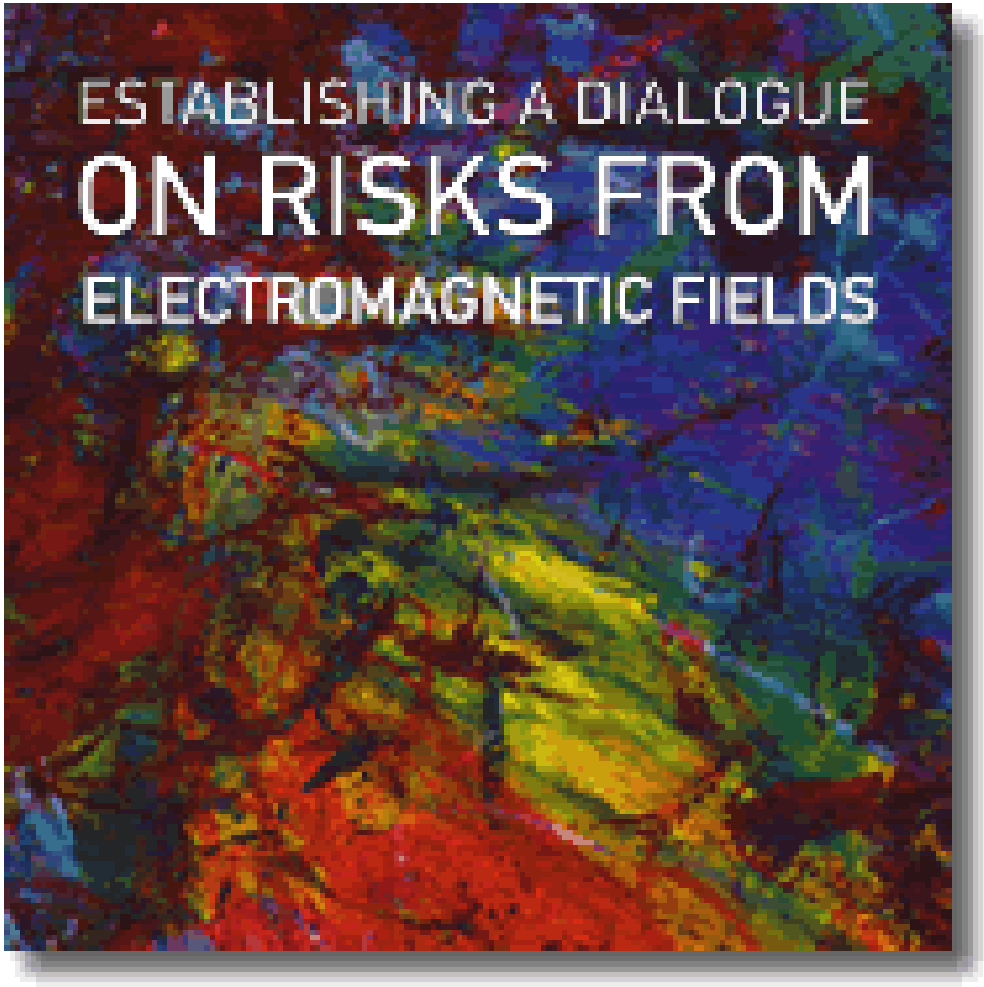
# Risk Perception and Communication

## *WHO Risk Handbook*




- For programme managers who need basic information on EMF risk perception, communication and management
- Available in English
- Translated into Spanish, Italian, German, French, Russian, Bulgarian, Dutch, Polish, Portuguese, Hungarian, Chinese and Japanese

http://www.who.int/peh-emf/publications/risk_hand/en/



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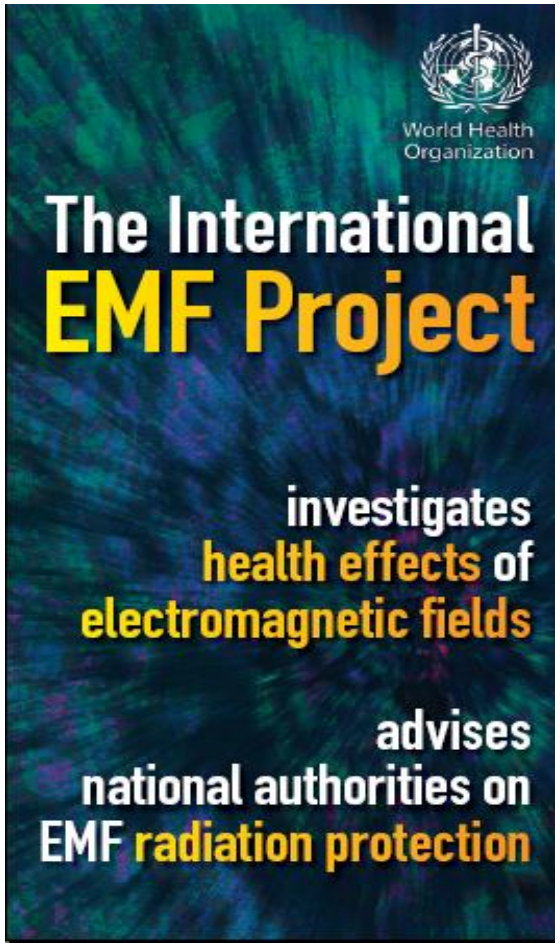
# WHO International EMF Project

- Established in 1996
- Coordinated by WHO HQ
- A multinational, multidisciplinary effort to create and disseminate information on human health risk from EMF



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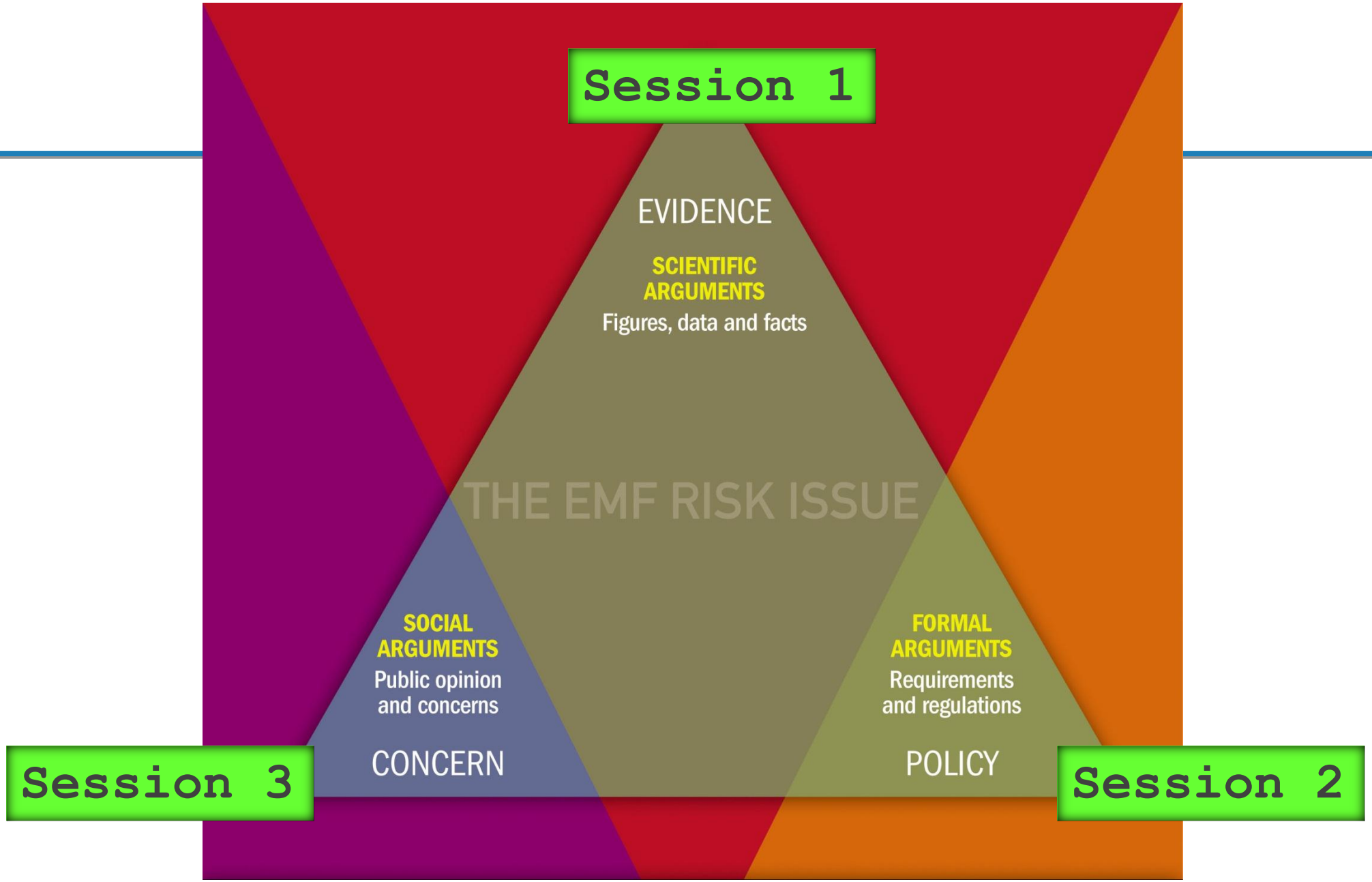




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# Some definitions

**Driving a car is a potential *health hazard***

**Driving a car fast presents a *risk*. The higher the speed, the more risk is associated with the driving**

**Every activity has an associated risk. In the real world, *there is no such thing as a zero risk***

# Risk perception

- The public does not perceive risk the same way experts do
- The danger posed by a hazard is not the only important factor in risk perception
- Risk perception is directly proportional to the levels of emotional response evoked in the public (e.g. outrage, fear, apathy)
- Many cultural, personal and subjective factors affect risk perception




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# Risk Perception


- New technologies alarm people
  - Affecting children,
  - influencing future generations
  - Potentially disastrous consequences
  - Cannot be seen or smelt
  - Unfamiliar
  - Cannot be controlled



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# Measuring risk perception


- EMF Barometers (2006, 2010)
- Public perception of the potential health effects of EMFs
  - Awareness and concerns
  - Satisfaction with information
  - Role of public authorities and the EU
  - ….



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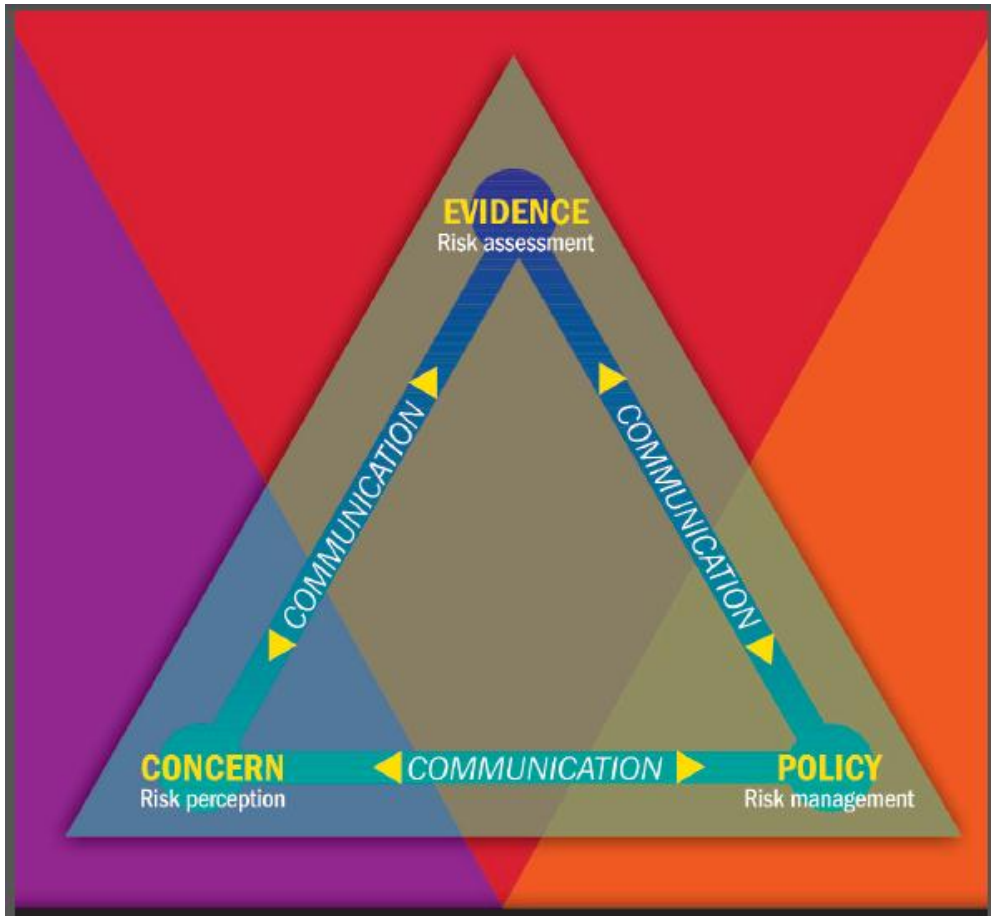
# Risk communication

- Risk communication is about two way communication between experts, policy makers and the public
- Risk communication should enable stakeholders to take informed decisions to protect themselves
- In today's reality, and in communicating about technological threats
  - Multi-directional communications
  - Multi-stakeholder involvement: champions and blockers; active and passive
  - "Loss of control" of communications
  - Coloured by outrage, fear and emotions



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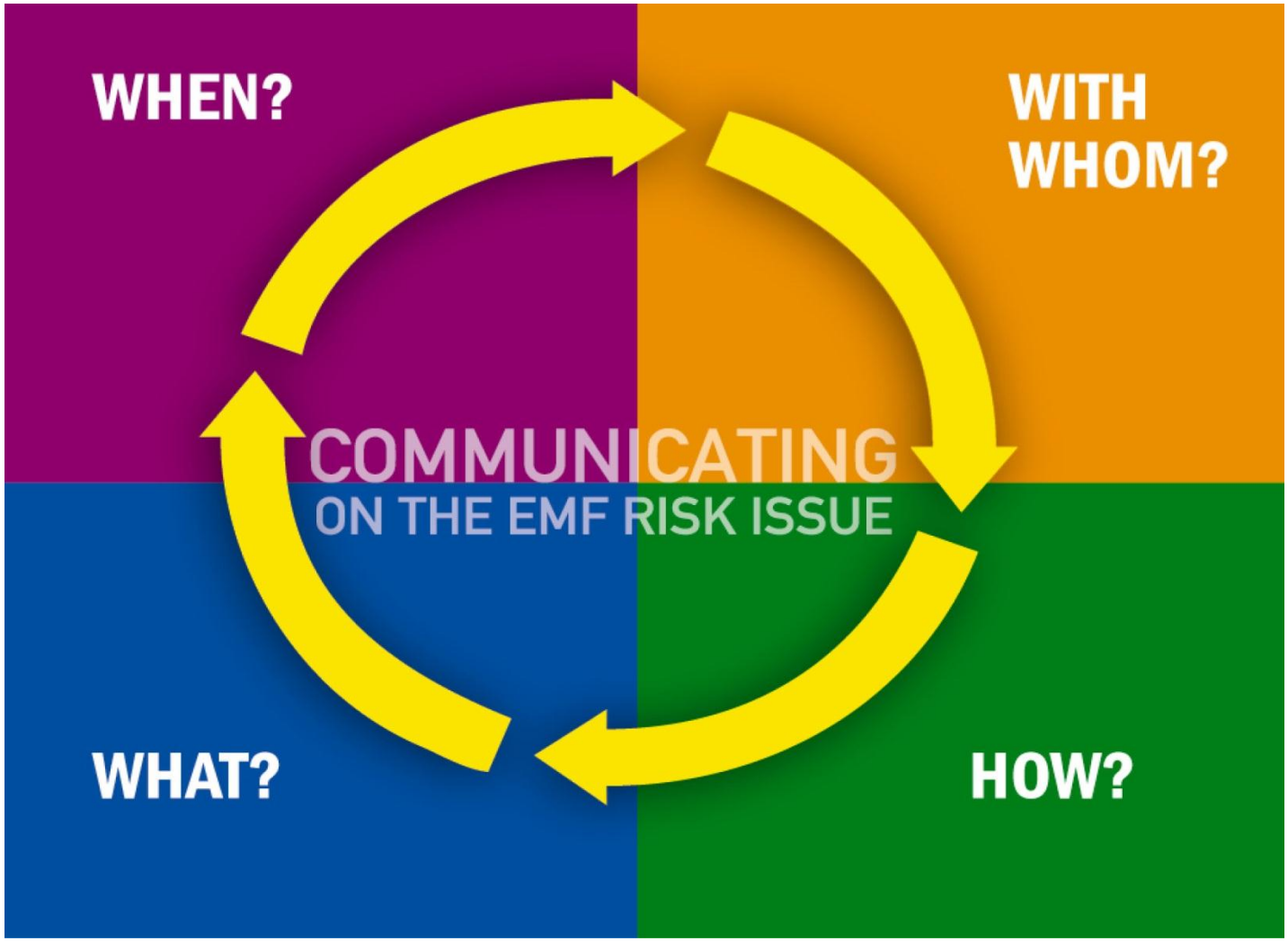
# Managing EMF Risk Communication



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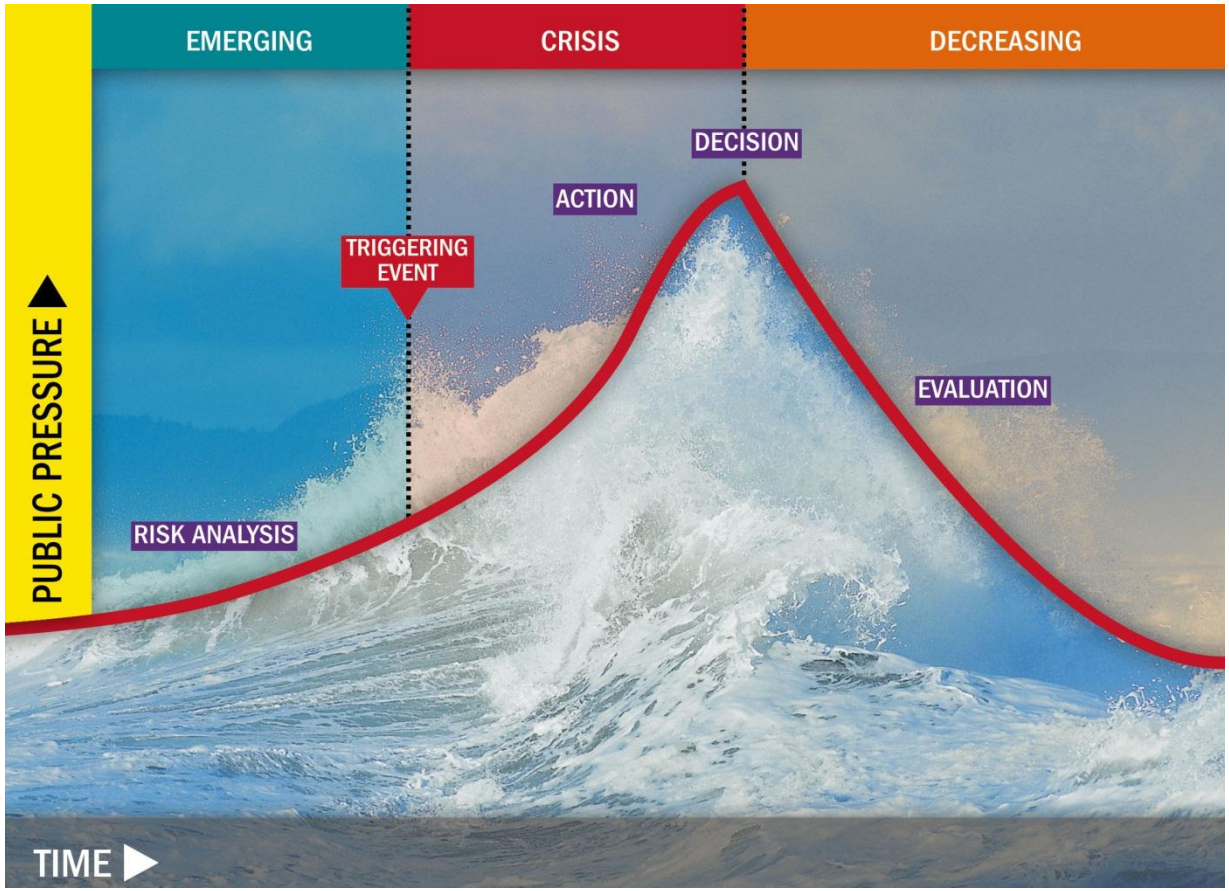
# When to Communicate?




- Need to provide **information** and knowledge
- Develop **communication** through an open dialogue with all parties involved before setting policies
- **Risk surveillance**



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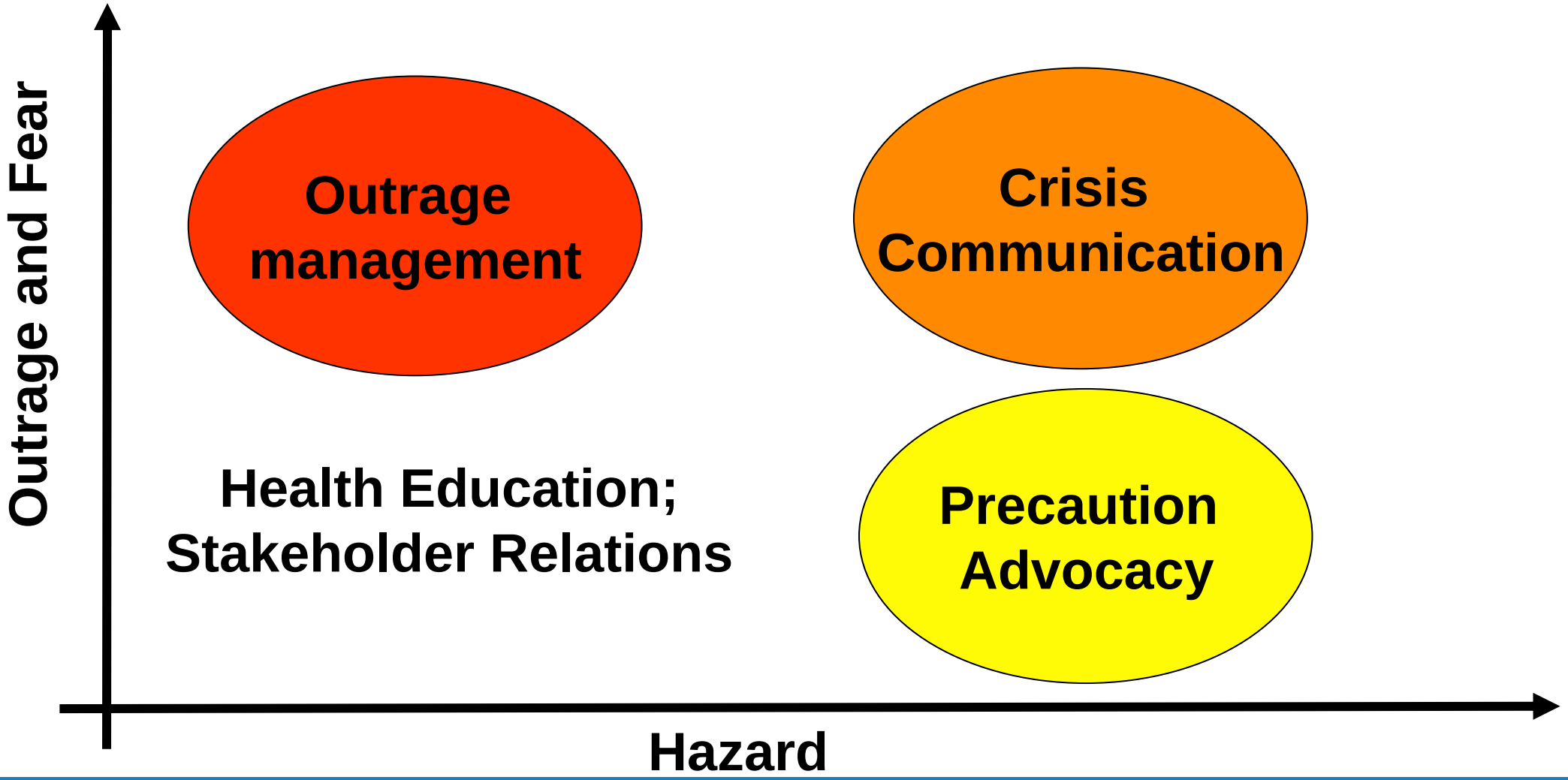
# Four Risk Communication Strategies



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Daily Mail
24 October 2002
Page 43

# Mobiles 'boost cancer'

## Radiation may make tumours

use are still unclear.

The biggest British study, led by Sir William Stewart two years ago, could find no evidence of a risk to health. But Sir William still recommended a precautionary approach, particularly in children.

The World Health Organisation has called for more research and has urged people to limit mobile use.

Now Italian scientists believe they could be closer to the truth.

Cancer develops when control signals in a normal cell go wrong and an abnormal cell results. Instead of destroying itself the mutant cell keeps on dividing and forms a lump or tumour.

The results of the Italian study support the belief of some scientists who say radiation can damage DNA and destroy the cell repair system – making tumours more deadly.

Dr Peter de Pomerai of the


# Stop Smart Meters!

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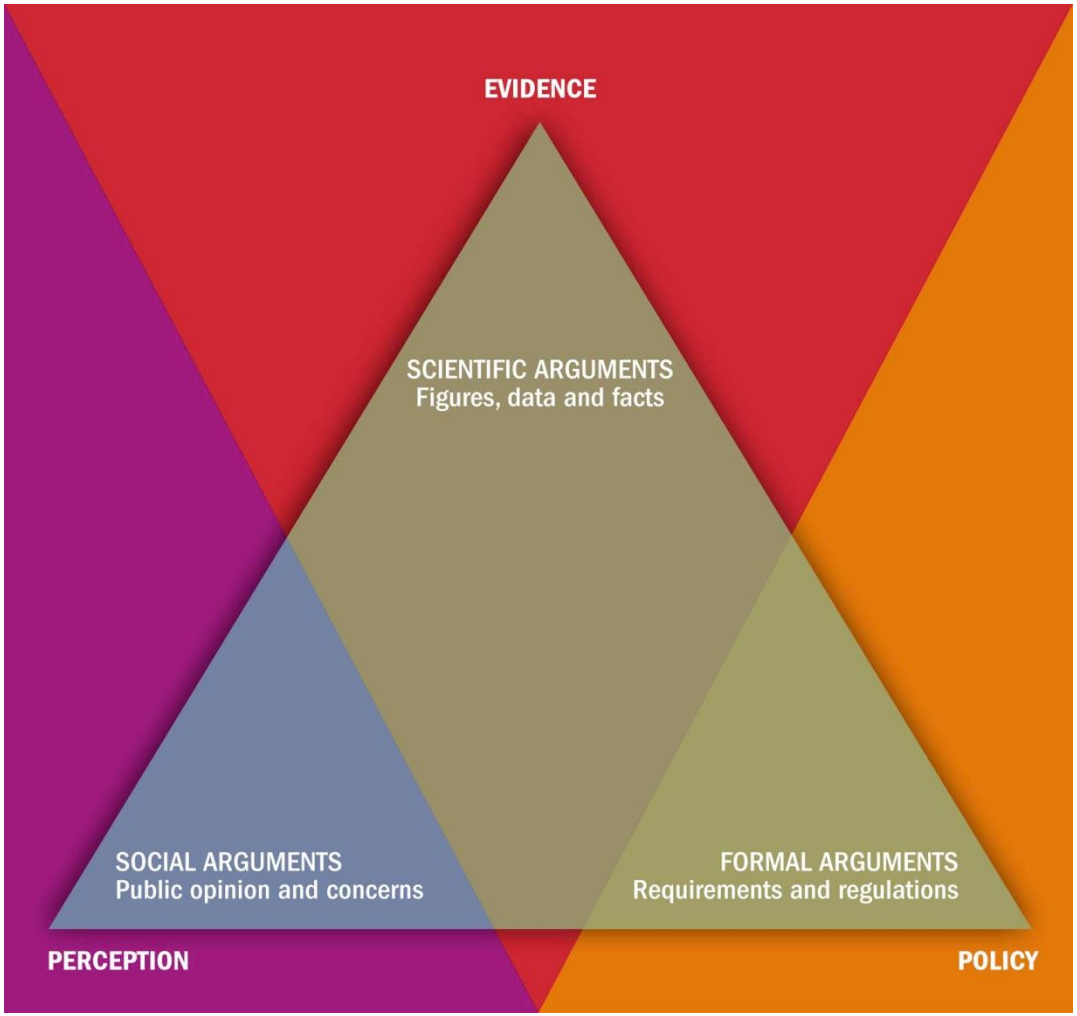
# What to Communicate?




- Communicating the science
  - Simplify the message
  - Explain scientific uncertainty
  - Present all the evidence
  - Provide inclusion/exclusion criteria
- Explaining policy measures
- Putting the risk in perspective



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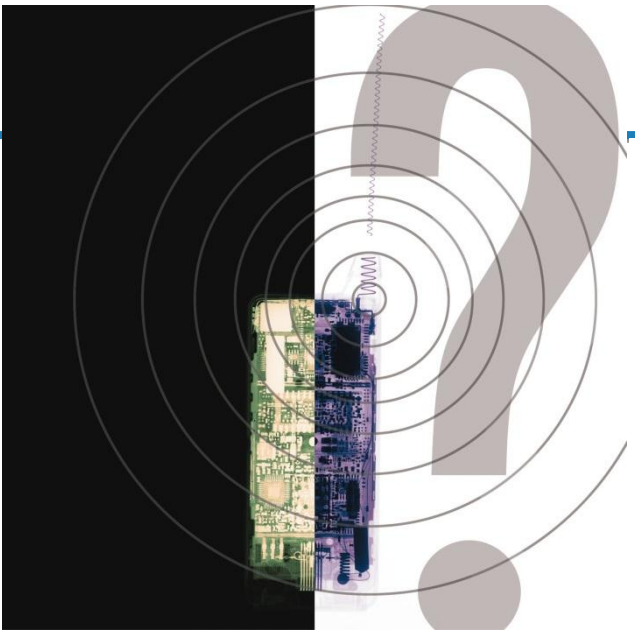
# IARC Classification of RF fields (June 2011)



## Carcinogenicity of radiofrequency electromagnetic fields

In May, 2011, 30 scientists from 14 countries met at the International Agency for Research on Cancer (IARC) in Lyon, France, to assess the carcinogenicity of radiofrequency electromagnetic fields (RF-EMF). These assessments will be published as Volume 102 of the IARC Monographs.[1]

Human exposures to RF-EMF (frequency range 30 kHz–300 GHz) can induced electric and magnetic fields and associated currents inside tissues. The most important factors that determine the induced fields are the distance of the source from the body and the output power level. Additionally, the efficiency of coupling and resulting field distribution inside the body strongly depend on the frequency, polarisation, and direction

regarding associations between use of wireless phones and glioma.

The cohort study[4] included 257 cases of glioma among 420 095 subscribers to two Danish mobile phone companies between 1982 and 1995. Glioma incidence was near the national average for the subscribers. In this study, reliance on subscription to a mobile phone provider, as a surrogate for

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## Children may be twice as exposed to cancer from mobiles

## Innovative hands-free device can reduce risk of cancer from cell phone radiation

Published on June 9, 2011 at 3:06 AM · No Comments

## Canada says Wi-Fi safe despite cancer warning

BY KRISTY KIRKUP ,PARLIAMENTARY BUREAU
FIRST POSTED: TUESDAY, JUNE 28, 2011 07:16 PM EDT



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# With Whom to Communicate?




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# The media

- The media still has influence but has changed
  - Horizontal journalism
  - 24-hour journalism
  - Lack of funds


- Social media
  - 1 in 5 minutes on internet spent on social networks (Facebook, twitter, ..)
  - 35% of the world uses internet



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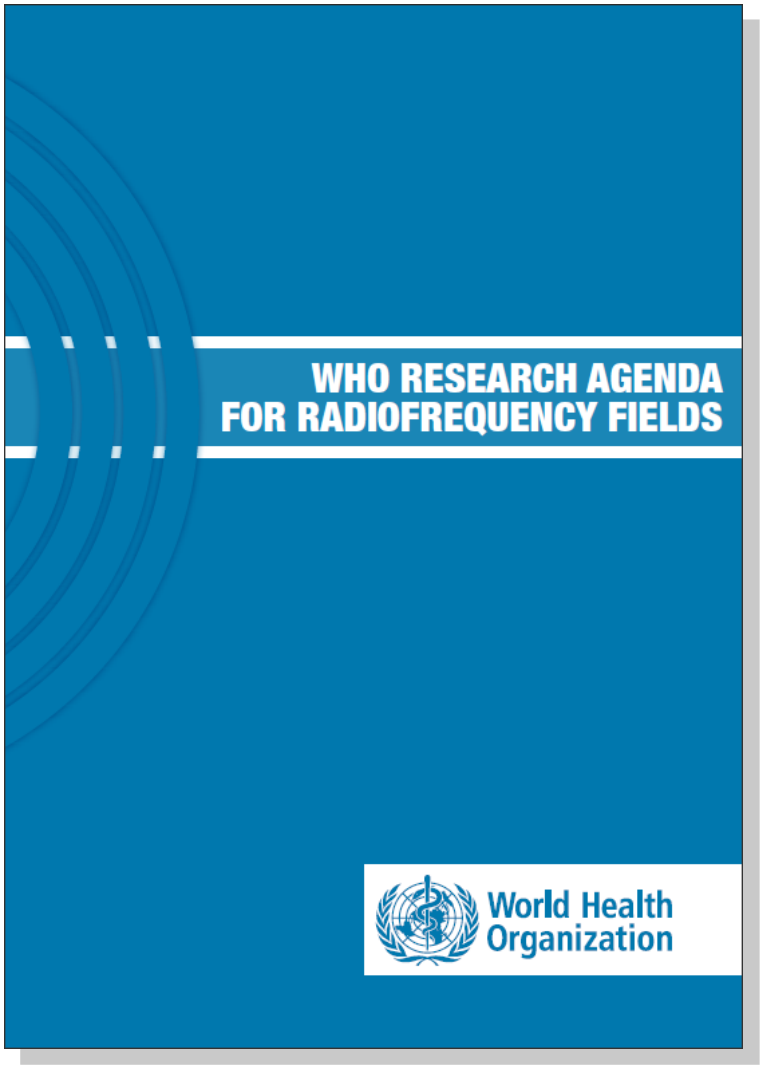
# How to Communicate?

- Setting the tone
  - How to work with distrust
  - Building effective communication skills
- Selecting tools and techniques
  - Passive vs. active engagement techniques
- Use the platforms and channels that your audience uses, use multiple channels

# WHO Research Agendas




- To promote research areas that have relevance to public health, and can
  - reduce scientific uncertainties: health effects research
  - respond to public concern through better risk communication: social science research
- Useful to researchers and funding agencies



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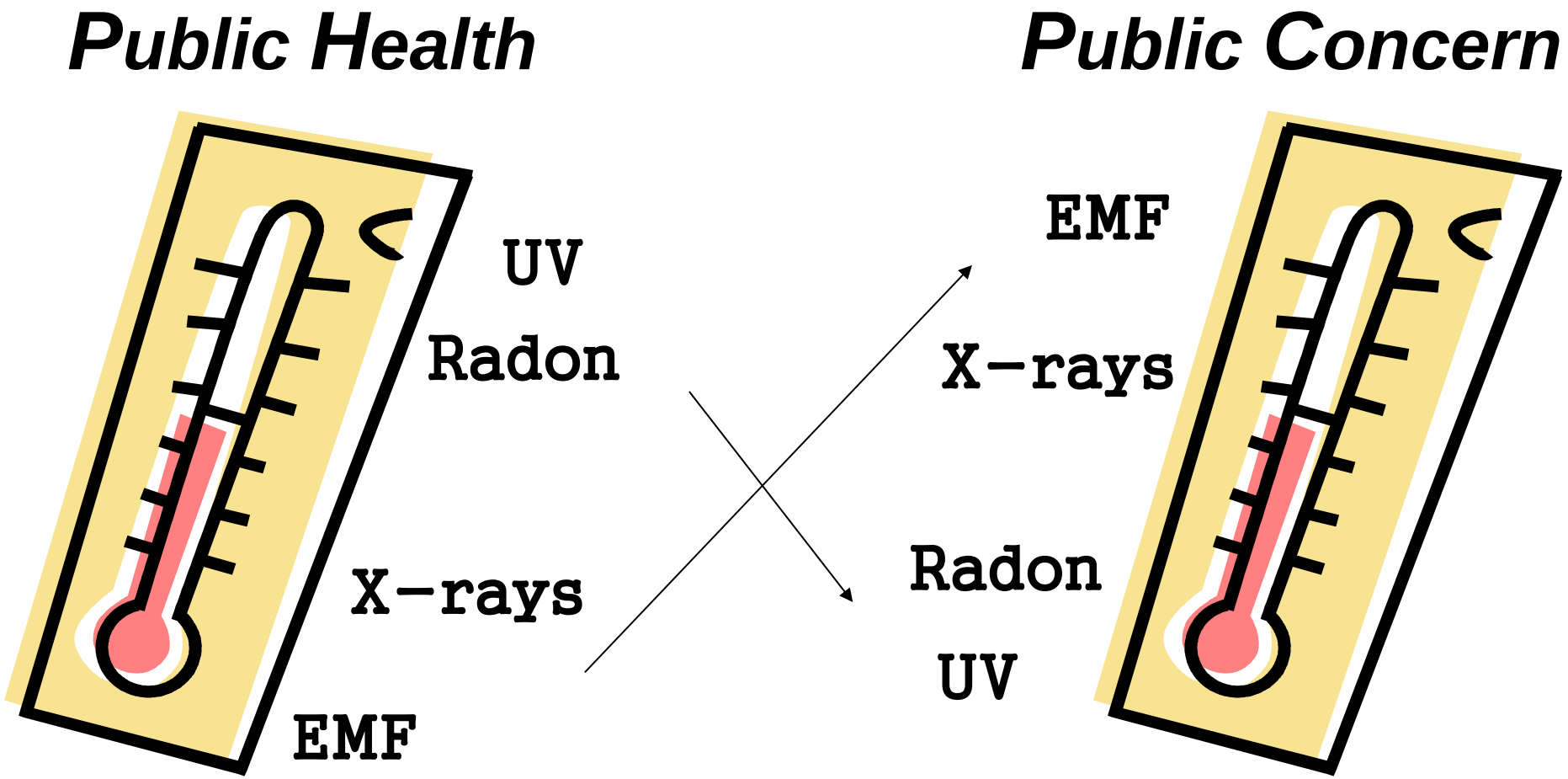
# Social science research

| RF Research Agenda recommendations |
| --- |
| **Social science research** |
| Investigate the determinants and dynamics of RF EMF-related health concern and perceived health risks |
| Investigate the effectiveness of different formats for communicating scientific evidence regarding health effects of RF EMF exposure and risk information to the public |
| Investigate whether and how people's perception of RF EMF health risks can affect their well-being |
| Investigate how RF EMF technologies have been handled in a larger social context |

# Radiation



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