# **Risk Communication in the 21<sup>st</sup> Century**

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## In this talk I will:

Provide a definition of Risk perception and communication and put it in context with examples
Discuss why risk communication is important ;

## Risk perception 1

- Importance of heuristics and biases (Kahneman and Tversky)
- Anchoring effect;
- Simplifying heuristic;
- Availability heuristic;
- Understanding base rates;
- Hindsight bias

## **Introduction to Risk perception 2:**

Work of Kahneman and Tversky influenced others: Fischhoff, Slovic, Lichtenstein

People viewed risks differently:

- Natural Technological
- Voluntary Involuntary
- Familiar Non Familiar
- Control Non Control
- High Frequency/Low Consequence Risk <u>VS</u> Low Frequency/High Consequence Risk
- Female Male

- Based on these findings, regulators and industry took the view that one should develop risk communication programmes
  - Build nuclear power plants
  - Site nuclear waste facilities
  - Build waste incinerators
  - Convince publics that certain foods are safe

Three risk communications strategies put forward:

Top-downDialogue

Bottom-up

Risk communication still difficult to do!

(Kasperson, Pidgeon, Renn, Slovic, Weinstein)

- Social / Amplifications / Attenuations
- Narrative
- Deliberation
- Optimistic bias
- Trust / No trust

Over the years, risk communication efforts have experienced both successes and failures:

- Failures
  - Swedish (2002) acrylamide scare
  - Shell Brent Spar oil storage buoy
  - US Dept of Energy siting nuclear waste storage facility
- Successes
  - UK FSA building trust post-BSE
  - Johnson & Johnson Tylenol scare
  - Sweden-EON Barseback nuclear power plant incident