

Public confidence and the  
importance of trust in nuclear  
regulators the Why, the What and the  
How

Ray Kemp

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- **Member: UK Committee on Radioactive Waste Management (CoRWM) – [Independent Advisors on GDF programme]**
- **Member: UK Committee On Medical Aspects of Radiation in the Environment (COMARE)**
- **Hon. Member: Royal College of Radiologists (RCR)**
- **Expert Advisor to IAEA Mission to Fukushima Prefecture on Radioactive Waste Management**
- **Previously:**
- **Chair, Radiation Health & Safety Advisory Council, ARPANSA**
- **Hon. Visiting Professor, University of Swinburn, Melbourne, Australia**
- **Expert Advisor to WHO on risk communication and EMF**

# Format of Presentation

- Background
- Influences on perceptions of risk
- Who should we be thinking about?
- What are the issues?
- How can we be more effective?

# **Risk and risk perception factors – why are people concerned?**

- Fear of Radioactivity and Cancer
- Lack of Knowledge and No Personal Control
- Lack of Trust in Those Responsible
- Risk communication aims to:
  - Establish the communicator as a Trusted source of information
  - Establish means for the effective exchange of information

# **Risk and risk perception factors – why are people concerned?**

## **Why is trust important?**

- People will not accept information from people they do not trust
- Trust – hard to earn, easy to lose
- People will place more weight on information that confirms their existing views

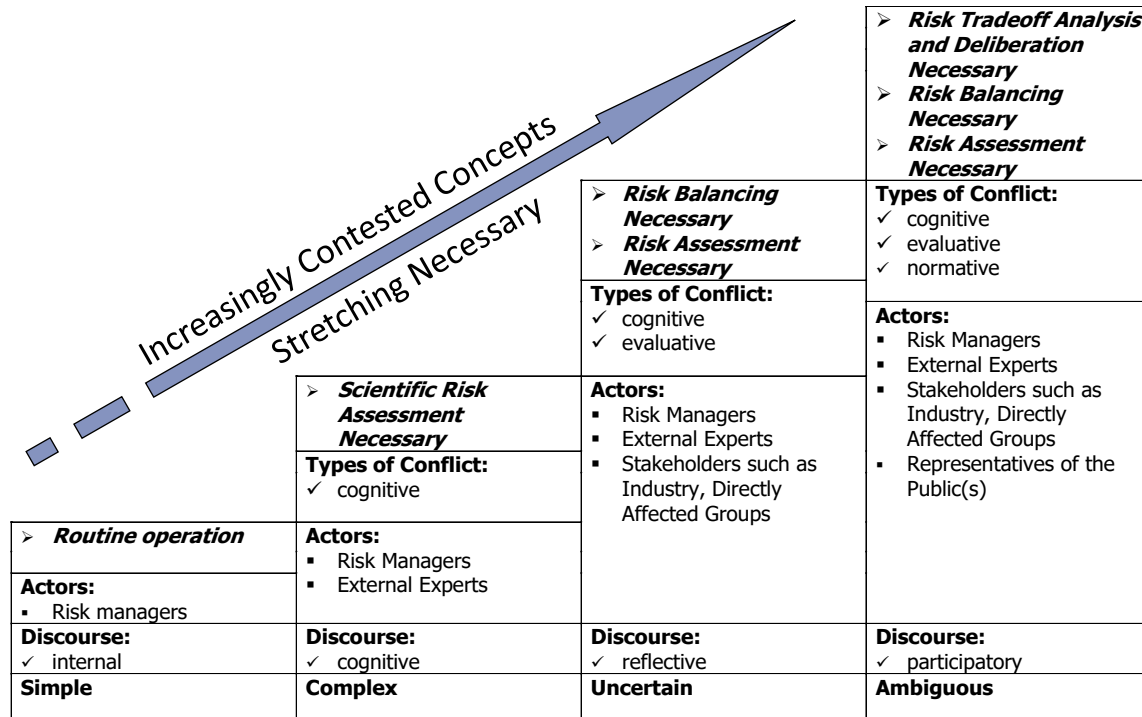
# What's the issue with radioactivity?



- Concern is to protect present and future generations and the environment in the near and far term
- Scientists disagree in public
- Government advice often not trusted on public health issues
- History of major events – TMI, Chernobyl, Fukushima
- History of bad practice
- Secrecy, security and the unseen
- Media and social media attention

# The Risk Management Escalator

(from simple via complex and uncertain to ambiguous phenomena)<sup>1</sup>



<sup>1</sup> After Renn, O. 2005. *Risk Governance – Towards an Integrative Approach*, White Paper No. 1. Geneva: International Risk Governance Council Figure 4 p 59.

# The Risk Management Escalator

(from simple via complex and uncertain to ambiguous phenomena  
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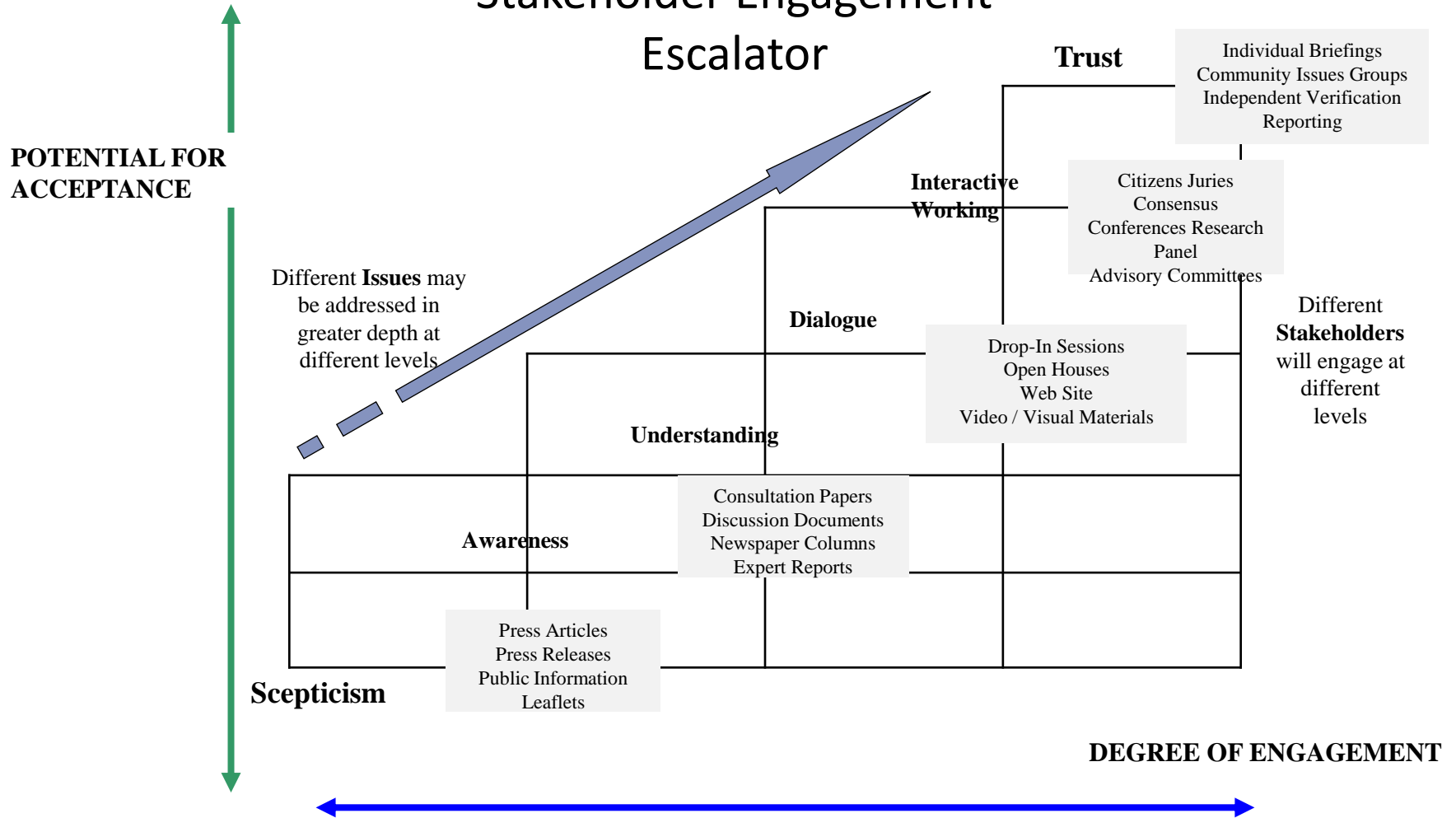
Addressing uncertainty in  
radioactive waste  
management



		<ul style="list-style-type: none"> <li>➤ <i>Risk Tradeoff Analysis and Deliberation Necessary</i></li> <li>➤ <i>Risk Balancing Necessary</i></li> <li>➤ <i>Risk Assessment Necessary</i></li> </ul>
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		<b>Types of Conflict:</b> <ul style="list-style-type: none"> <li>✓ cognitive</li> <li>✓ evaluative</li> <li>✓ normative</li> </ul>
		<b>Actors:</b> <ul style="list-style-type: none"> <li>▪ Risk Managers</li> <li>▪ External Experts</li> <li>▪ Stakeholders such as Industry, Directly Affected Groups</li> <li>▪ Representatives of the Public(s)</li> </ul>
		<ul style="list-style-type: none"> <li>➤ <i>Scientific Risk Assessment Necessary</i></li> </ul>
		<b>Types of Conflict:</b> <ul style="list-style-type: none"> <li>✓ cognitive</li> </ul>
		<b>Actors:</b> <ul style="list-style-type: none"> <li>▪ Risk Managers</li> <li>▪ External Experts</li> <li>▪ Stakeholders such as Industry, Directly Affected Groups</li> </ul>
<ul style="list-style-type: none"> <li>➤ <i>Routine operation</i></li> </ul>	<b>Actors:</b> <ul style="list-style-type: none"> <li>▪ Risk Managers</li> <li>▪ External Experts</li> </ul>	
<b>Actors:</b> <ul style="list-style-type: none"> <li>▪ Risk managers</li> </ul>		
<b>Discourse:</b> <ul style="list-style-type: none"> <li>✓ internal</li> </ul>	<b>Discourse:</b> <ul style="list-style-type: none"> <li>✓ cognitive</li> </ul>	<b>Discourse:</b> <ul style="list-style-type: none"> <li>✓ reflective</li> </ul>
<b>Simple</b>	<b>Complex</b>	<b>Uncertain</b>
		<b>Discourse:</b> <ul style="list-style-type: none"> <li>✓ participatory</li> </ul>
		<b>Ambiguous</b>



# Stakeholder Engagement Escalator



# Key steps in applying effective risk communication

## Step 1

### Consider the Issues

- How important is the site?
- Are there sensitive local siting issues?
- Are there any other local community concerns?

## Step 2

### Identify your audiences

- Who is directly affected?
- Who else will take an interest: the media; politicians; regulators?

## Step 3

### Identify their concerns

- Do they understand the need?
- Do they have concerns about alleged health issues?
- Is the site intrusive?

## Step 4

### Develop a communications approach and methods

Employ communications methods based on

- Notification;
- Consultation; or
- Dialogue

## Step 5

### Apply good practice risk communication methods

Follow the 10 Golden Rules

- 1 Choose Words Carefully
- 2 Use Three Key Messages
- 3 Guarantee Compliance
- 4 Use Simple Language
- 5 Empathise
- 6 Use Pictures
- 7 Listen Actively
- 8 Timing
- 9 Consider Appearances
- 10 Be Careful about Talking to Larger Groups



## Step 6

### Consider the Issues and Respond

- Are the proposals:
  - acceptable; or
  - in need of amendment?
- Keep people informed of the outcome

# Summary Lessons

For many radioactive waste management issues, key lessons from experience are:

1. DAD  NIMBY, NOTE, BANANA  DADA
2. “Abandon” carries significant national social and economic costs with long term negative public, stakeholder and media reactions
3. A better approach is to engage openly with your different audiences
4. Listen to their concerns and offer a solution
5. Manage the process by mitigating the impacts

# Planning your risk communication approach

Which is Better?

■ **D**ecide

■ **A**nnounce

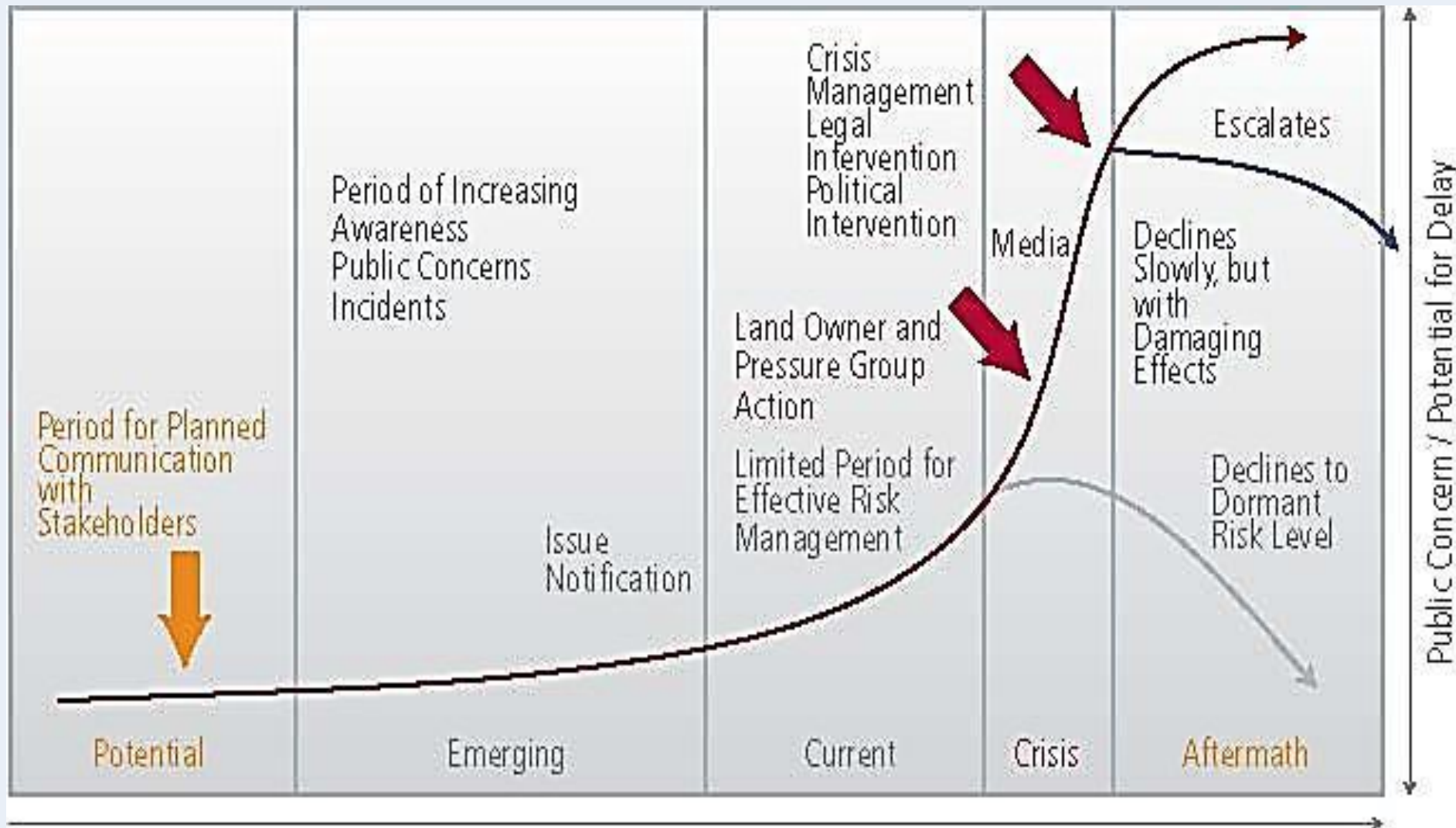
■ **D**efend

■ **M**eet

■ **O**ffer a Solution

■ **M**itigate

# Issues lifecycle and risk communication



# Conclusions

- The world has changed - trust of scientific information is at an all time low amongst many communities and so the ability to communicate effectively about health and environment issues is more important than ever
- The risk numbers are necessary, but not sufficient – risk communication requires transparency and engagement
- It is essential to generate confidence in the management of risk, this requires:
  - corporate governance with appropriate standards, procedures, checks and balances
  - skill, tools and training in effective risk communication
  - consistency, transparency and accountability in addressing uncertainty in a proportionate manner

**Ray Kemp's  
Ten golden rules for effective  
risk communication**

# Effective risk communication (1 of 2)

1. Risk Communication is about *Process* and *Content*
2. It requires Planning, Preparation, Practice.
3. Remember the difference between risk management and crisis management – early engagement works!
4. Know your audience, empathize with and acknowledge people's concerns
5. Guarantee transparency in regulatory compliance



## Effective risk communication (2 of 2)

6. Use three key messages, choose your words carefully, and use simple language
7. Remember a picture is worth a thousand words
8. Non-verbal communication is important - listen actively; be timely; appearances can be important
9. Talking to larger groups of people: *Public meetings are the least effective forum for dealing with high concern, low trust issues*
10. Good Governance builds Confidence and Trust

**Thank You**