



# Communication of uncertainty

## Why communicate ?

Uncertainty used not to exist. Or, if it did, it was never taken into account in decision making. Or, if it was taken into account, it was never discussed openly because the general public would panic and lose faith in the authorities. Perhaps this is a little unfair, but there remains an impression that historically there has been an almost Victorian reticence in dealing with and communicating with the public about the unsettling phenomena that is uncertainty.

Maybe it would be equally unrealistic to portray the current era as one of complete openness and rationality, but there has undoubtedly been something of a shift in the attitudes concerning the extent to which uncertainty should be acknowledged and explained. There are many reasons for this, including a trend towards transparency in the provision of information and in decision making generally, and a change in perception of the effect of acknowledging uncertainty. People nowadays take more responsibilities for their own choices, and are less willing to let the authorities decide matters for them. They therefore need to be convinced of the arguments being put to them and this requires discussion of uncertainty.

There is also more of a 'blame culture' and (rightly or wrongly) a perceived willingness to pillory individuals or organisations whose judgements turn out to have been wrong, even if they were 'good' judgements in the light of the evidence available at the time. And finally, there is increasing use of systematic risk management within government and regulators, which inevitably includes systematic assessment and management of uncertainty.

## What to communicate

All this places a premium on effective communication about uncertainty. The internal project briefly reported here analysed existing guidance and several nuclear-related public meeting transcripts to identify the key questions that people want answering in that context:

- Why should we listen to you in the first place?
- How certain are you of what you are saying?
- Why should we believe your judgement?
- How are you going to manage the uncertainty after implementation?

Some of the communication principles that follow from this are listed overleaf. The main point to note, however, is that to gain acceptance of something that is uncertain you have to do much more than simply tell people how big the uncertainty is. Uncertainty has to be discussed in a holistic risk management context and never just presented as a matter of statistics. The audience will, of course, also have to be convinced of the merits of the project in the first place.

## How to communicate

The following is meant as a checklist – not as a script suitable for all occasions !

### **Why should we listen to you in the first place?**

People do understand that there is rarely any such thing as a risk- and uncertainty-free enterprise. If they appear to be demanding absolute certainty, pay attention to values, corporate motives, fairness etc.

- Many ‘fright factors’ are linked to uncertainty – don’t dismiss them as irrational
- Be realistic about your state of knowledge
- Acknowledge the existence of uncertainty
- Acknowledge the importance of resolving uncertainties that can be resolved, and monitoring and managing what cannot

### **How certain are you of what you are saying?**

Move on to discuss the nature and extent of the various sources of uncertainty. Most audiences can understand different types of uncertainty from their everyday life, including variability, but probabilistic data often proves problematic.

- Unpack and explore uncertainty in a qualitative way
- Present quantitative information, but beware – there are many pitfalls and materials should be pre-tested

### **Why should we believe your judgement?**

*“We understand what you are saying about the nature and extent of the uncertainty – now convince us that your analysis is realistic and that you have not missed anything significant.”*

- Explain how the analysis was done, emphasise any conservatism
- Communicate the credibility of the organisation in this area
- Being proved right on previous occasions is a great help – validates model and competence
- Emphasise independent review, stakeholder input, exposure to pressure group comment

### **How are you going to manage the uncertainty after implementation?**

*“Looking to the future, what confidence can we have that uncertainty will be managed and assumptions validated, and tough action taken if necessary?”*

- We have robust and independent regulatory arrangements
- Independent monitoring to ensure predictions are matched by reality is important
- Tell people how they will be kept informed
- If practicable, involve communities in resolving uncertainties and in monitoring
- People need confidence that action will be taken if assumptions are proven wrong