What we need from our energy industries

- Secure supplies
- Economic supplies
- Environmentally acceptable supplies

BUT ALSO

- Politically (and socially) acceptable supplies.
Getting the politics wrong

- Since 1978, some 25 nuclear power plants (and one MOx fuel production plant) have been closed or halted in advanced stages of construction for non-economic reasons in six OECD countries (Austria, Germany, Italy, Spain, Sweden and the USA), some as a direct result of referenda.

- Italy has phased out nuclear power, Germany and Sweden have adopted formal phase-out policies by law, Switzerland adopted a ten-year moratorium on new construction in 1990 (later abandoned), and Belgium has taken a policy decision to phase out nuclear power.

- A number of countries which do not have operating nuclear power plants, such as Australia, Austria, Denmark, Greece, Ireland, Norway and Poland, have put in place legal or policy obstacles to nuclear power.
Progress of a public controversy

- Media-inspired panic based on a small number of alleged cases.
- Scientists misquoted or misinterpreted as saying ‘there is no risk’.
- Politicians making unequivocal statements of ‘comfort’ and criticising ‘scaremongering’.
- A few anomalies in the research, often based on analysis of casual clusters.
- Political panic.
- Commissioning of a Report.
- Report published – ‘No real evidence of risk, almost certainly no significant problem … but new data may come along, science can’t prove negatives etc.’
- Media covers BUT and ignores the rest of the Report.
- More research called for, resulting in increased public concern.
Two themes

- The philosophical and practical mismatch between political and technical mindsets threatens the quality of decision-making.

- The periodic changes in societal ethics between utilitarian and Kantian (rights-based) approaches threatens the ability to make decisions at all.
Politicians (and most people) think scientists

... are sources of ‘facts’ and ‘truth’;
\* can prove a negative;
\* if their pronouncements should prove to be ‘wrong’, must be either knaves or fools;
\* are all in it together.

\* For the scientist, the past is relatively well-known, the future inherently uncertain.
\* For the politician, the future is certain (nice if you vote for us, nasty if you vote for the other lot) but what happened ten years ago and whose fault it was is a source of constant dispute.
The difference between politicians and scientists (by a serving politician!)

- Speed.
- Superficiality.
- Spin.
- Secrecy.
- Scientific ignorance.

(Dr Vince Cable MP, 2003)
Role of science

- Science has lost its (proper) unique position as a guide to action because it is (correctly) no longer perceived as being infallible.

- Current obsession with social context for science is ‘elevating public opinion over professional expertise and subordinating science to prejudice’. (Durodié, 2003).

- ‘In its rush to be open about communicating risk to the public, the government has simply forgotten that there was no risk to communicate.’ (Kaplinsky, 2000, re mobile phone masts.)
Changing societal ethics

Utilitarian (at times of societal stress)
- Greatest good for greatest number.
- ‘Strong’ and decisive (as opposed to weak) leadership required.
- Radical (something has to be done), collective (e.g. high voter turnout, ‘don’t you know there’s a war on’), deferential.

- Rights-based
- Individual rights outweigh public good.
- ‘Consensual’ (as opposed to ‘autocratic’) leadership required.
- ‘Steady as she goes’, ‘middle ground’, non-interventionist, single-issue (low voter turnout).
Changing societal ethics

May be at the tipping point between a long period of comfort and a sense that things are going wrong – mortgage market, economy, food crisis?

Shift away from being able to take things for granted towards feeling something radical has got to be done?

Return to utilitarian ethic, demand for firm action?

But we’ve tied ourselves into dreadful legal knots!
Constant levels of anxiety

- Each of us tends to live our life at a constant long-term level of unhappiness irrespective of external events.
- ‘Risk perception’ more a matter of finding risks to justify our anxiety than actually being frightened by a particular risk.
- Times of ‘real’ threats to safety and security e.g. wartime often result in considerable societal comfort – low suicide rates etc. – as a ‘solution’ can be imagined.
- Times of real safety cause us to find more nebulous justifications for our anxiety with no clear solutions.
- But politicians feel they have to respond to society’s anxieties, without realising that removing one risk as a candidate for people’s anxiety ‘source’ does not reduce anxiety, simply causes it to be transferred to another risk.
Timescales

Why not just wait until things get tough and swap our politicians for ‘strong’ ones, then put the ‘consensus-builders’ back when the problem is solved?

- Very long timescales involved in energy investment.
- ‘Strong’ decisions on nuclear newbuild etc needed before the real crisis hits.
- Politicians need to take on short-termism.
- Scientists need to explain more clearly what they are and are not about (and perhaps be more clear that they are not the ‘new priesthood’).
- New relationship between science and politics which is neither over-deferential nor suspicious.