



EM Radiation Research Trust Conference, 8-9 September 2008

Electromagnetic Radiation and the
Precautionary Approach

***Precaution in the context of mobile
phones and base stations – an
industry perspective***

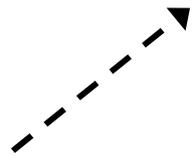
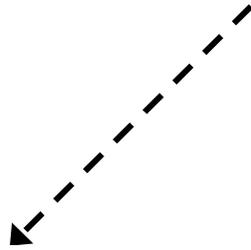
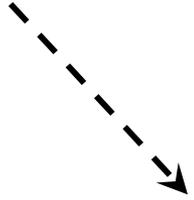
Mike Dolan

Executive Director

Mobile Operators Association

London, UK





Outline

- Background to the precautionary principle
- When and how to apply the PP
- The PP in the UK political system
- The PP in the courts
- Precautionary approach to mobile telephony
- Risk perception and precaution
- MOA and the precautionary approach



Background

- Ongoing calls for the precautionary principle to apply to mobile phone use and radio base station siting
- No health hazard from mobile telephony has been established (30+ UK and international reviews published since 2000)
- Gaps in scientific knowledge narrowing but some still exist – ongoing research has been recommended by the review bodies
- Invoking PP needs more than mere suspicion
- Some evidence of a possible hazard is required – the key question is how much?



UK RF Scientific Reports

- IEGMP (Stewart) Report (2000)
- AGNIR Report (2003) (published 2004)
- NRPB Report (2004) (published 2005)
- MTHR Summary Report (2007)
- BMA Reviews (2001, 2005)
- Institution of Engineering and Technology (IET) Reviews (2006, 2008)



Defining the Precautionary Principle

- Several definitions have been suggested – but a common theme runs through them
- Take action now to avoid future damage to the environment or human health
- In its extreme form the PP may mean a halt to all activity, it may also mean not very much action is warranted
- Key question for policymakers: “How much precaution is precaution?”
- When and how to apply the PP was addressed in 2000 by a Communication from the European Commission



When and how to apply PP (1)

- **EC Communication (2000)**
- First step – formal risk assessment based on known science
- Hazard identification
- Hazard characterisation
- Appraisal of exposure
- Risk characterisation



When and how to apply PP (2)

EC criteria when implementing PP:

1. Proportional
2. Non-discriminatory
3. Consistent with similar measures
4. Cost/benefit analysis required
5. Subject to ongoing review
6. Assign responsibility for ongoing review



PP and the UK Government (1)

UK Government response to Royal Commission on Environmental Pollution, Defra (2000):

“Precautionary action must be based on objective assessments of the costs and benefits of action. The Government is committed to acting proportionately.”



PP and the UK Government (2)

UK Government ILGRA Group (2002):

“There is good reason to believe that harmful effects may occur...and the level of scientific uncertainty about the consequences or likelihood of the risk is such that the best scientific advice cannot assess the risk with sufficient confidence to inform decision making.”



PP and the UK Government (3)

Health and Safety Executive statement published by Ministerial authority following receipt of ILGRA Report:

“The Precautionary Principle:

- *is narrower than “being cautious”;*
and
- *is not relevant unless scientific uncertainty is a significant factor and there is good reason to expect harmful effects.”*



PP and the UK Parliament

- **House of Commons Select Committee on Science and Technology Report (2006)**

*“We believe it is best to use the term **precautionary approach**, but with a consistent explanation of the degree and nature of the risks, benefits and uncertainty and an explanation of the concept of proportionality.”*

- Accepted by the UK Government (2007)



The PP in the courts (1)

Pfizer Animal Health SA (European Court of First Instance, 2002)

“A preventive measure cannot properly be based on a purely hypothetical approach to the risk, founded on mere conjecture which has not been scientifically verified...A preventive measure may be taken only if the risk, although the reality and extent thereof have not been fully demonstrated by conclusive scientific evidence, appears nevertheless to be adequately backed up by the scientific data available at the time when the measure was taken.”



The PP in the courts (2)

- *“Whilst the Commission's exercise of public authority is rendered legitimate, pursuant to Article 155 of the EC Treaty (now Article 211 EC), by the European Parliament's political control, the members of SCAN, although they have scientific legitimacy, have neither democratic legitimacy nor political responsibilities. Scientific legitimacy is not a sufficient basis for the exercise of public authority.” **Pfizer***



The PP in the courts (3)

- **Shirley Primary School v Telecom Mobile Communications Limited (New Zealand Environment Court, 1999)**
- Base station siting case - school grounds
- Conflicting scientific evidence before court
- Court: no-one can guarantee zero risk
- Risk of adverse health effects from base station exposure judged to be very low
- Base station siting proposal allowed



The PP in the courts (4)

Telstra v Hornsby (NSW Land & Environment Court, 2006)

- Mobile phone base station siting case
- PP should not be used to avoid all risks
- “Zero risk” standard is inappropriate
- PP and preventative action cannot be based on a purely hypothetical approach
- Scientific verification of the likelihood of risk is required
- Precautionary response must be proportional



The PP in the courts (5)

- Large number of legal cases in Australian States where administrative tribunals have allowed mobile phone base stations to be built provided that Australian RF exposure guidelines (similar to ICNIRP) are met.
- Similar approach in the UK where central government planning guidance on ICNIRP compliance has been upheld by the Court of Appeal (T-Mobile Harrogate case)



A Precautionary Approach to Mobile Telephony in the UK

- “Precautionary Approach” rather than PP
- PA adopted by Stewart Report (2000)
- PA accepted by UK Government and UK mobile phone network operators (2000)
- PA endorsed by NRPB Report (2004)
- Stewart Report set out the detail of what it meant by a precautionary approach
- PA remains in place as appropriate public policy for mobile telephony in the UK



PA for mobile telephony in the UK– what does it entail? (1)

- Compliance with **ICNIRP guidelines** (move in 2000 from the 5X higher NRPB exposure guidelines)
- Operation of networks at **lowest efficient power**
- Agreed cross industry **signage** at base station sites
- **Ofcom audit** of radio base station RF emissions - 500 + sites assessed and all well below ICNIRP RF public exposure guidelines
- **“Sitefinder” database** of all UK radio base stations (including Airwave and Network Rail sites) which is searchable by postcode or area on Ofcom website (<http://www.ofcom.org.uk/sitefinder/>)



PA for mobile telephony in the UK – what does it entail ? (2)

- Government/industry funded RF **research** (MTHR 1 & 2) – **independent** Programme Management Committee (chaired by Professors William Stewart, Lawrie Challis, and David Coggon)
- Government/agency **communication activities** (DH/BERR/CLG, Ofcom, and HPA literature and websites)
- MOA/operator **communication activities** (website, fact sheets, e-letter, risk communication manual)
- Handset **SAR information** provided for customers by manufacturers in manuals and on websites



PA for mobile telephony in the UK – what does it entail ? (3)

- Mobile network operators' "**Ten Commitments to best siting practice**" (2001) (now in Government codes of best practice in England and Wales)
- All operators' **network rollout plans** sent by MOA to all 431 UK local planning authorities **every autumn** with offer of face to face meetings to discuss
- Use by all operators of MOA **site selection and planning model** based on **traffic light rating**
- **Pre-application consultation** (including schools and colleges) is a key part of site selection model
- Ongoing **information seminars** for LPA councillors and planning officers (200+ held since 2001)



Risk perception and precaution

- Research in Germany and the UK has suggested that adopting a ***precautionary approach*** may send out ***mixed messages*** on safety and alarm people (Wiedemann et al, 2005 and Barnett et al, 2006, 2008)
- This research needs to be considered by policymakers (Barnett et al, 2006)



Public Policy and the Precautionary Approach

- Science is international
- Public policy is national/regional/local
- National/regional/local cultural and other issues will influence public policy
- Public policy tools such as the PA may be subject to those influences and political approaches, eg. what works in Europe may not work in Asia or Africa



MOA and the Precautionary Approach

- MOA and its members are not opposed to a ***precautionary approach*** on RF health issues
- MOA accepted Stewart Report PA in 2000
- MOA and its members respond to advice and guidance from HPA, DH, and WHO
- MOA “***Ten Commitments***” published in 2001 are kept under review as part of that precautionary approach



Thank you for listening

Questions?





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