



Developing Policy

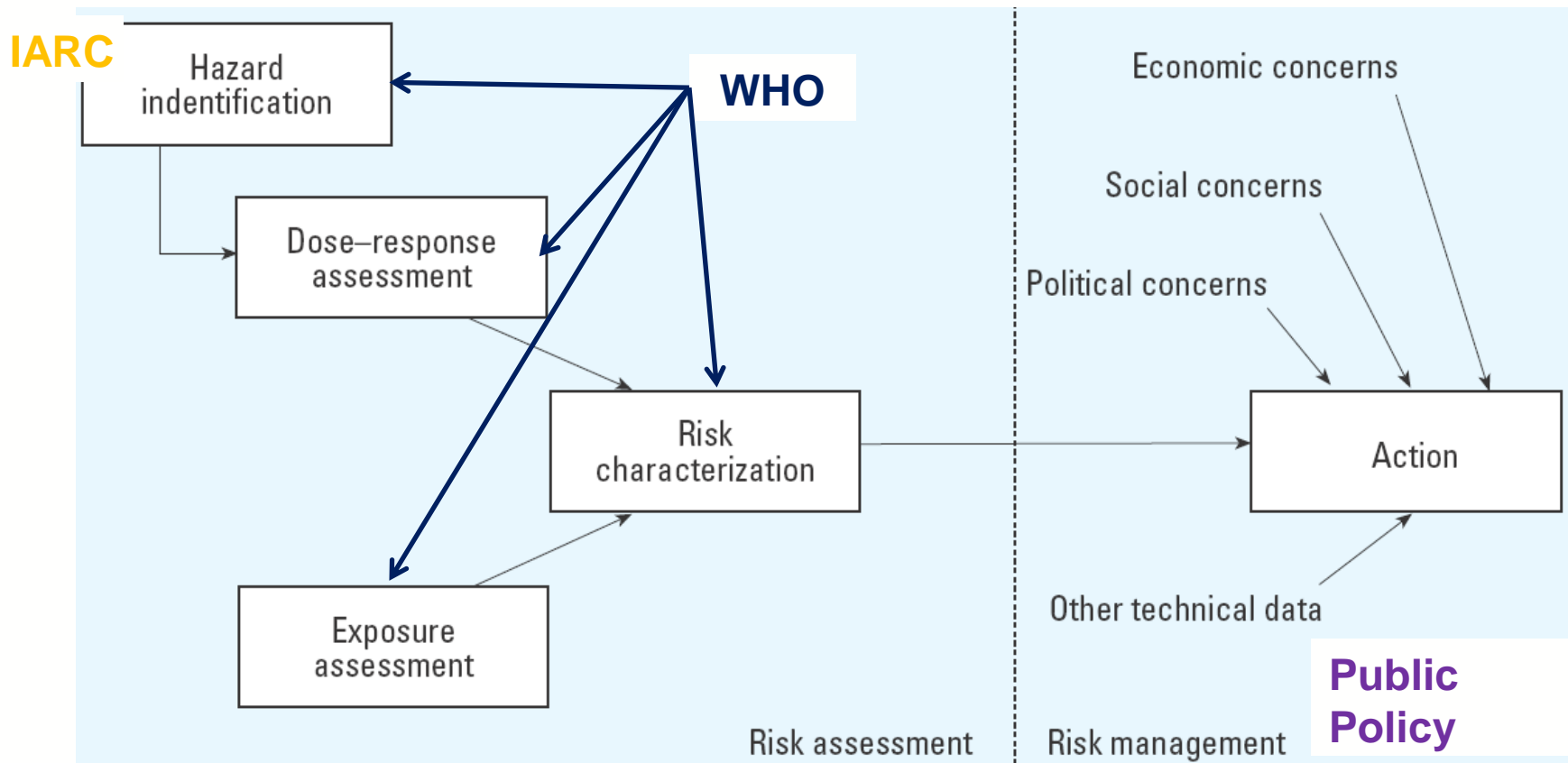
Session 4

Learning objectives

In this session we will:

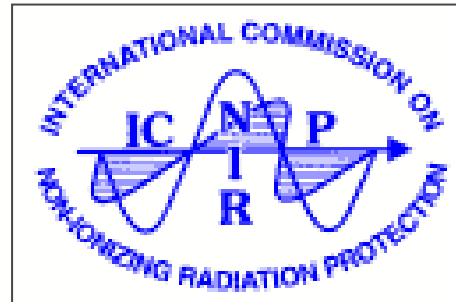
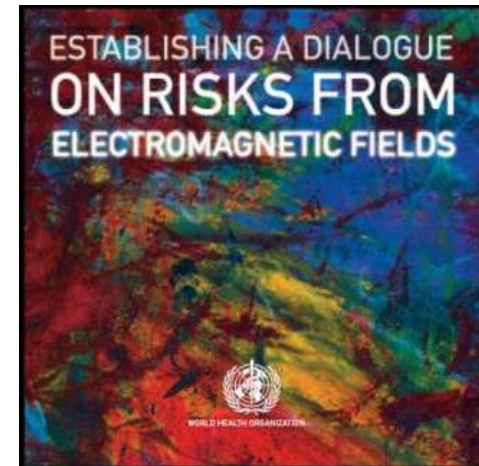
- Learn about the value of harmonisation of policy with international recommendations
- Learn about good practice policy for mobile devices
- Learn about good practice policy for antenna sites
- Learn about management of site compliance

Risk assessment and risk management



[Adapted from Coglianò et al., 2004](#)

Harmonise with international EMF policy



Key technical documents



- K. 52 – compliance
- K.61 – assessment
- K.70 – mitigation
 - EMF estimator
- K.83 – monitoring
- K.90 – power frequency
- K.91 – management

<http://www.itu.int/>



- 62209 – assess devices
- 62232 – assess antennas

<http://www.iec.ch/>



- C95.1 - limits
- C95.3 - assessment
- C95.5 – RF program

<http://standards.ieee.org/>

RF policy principles

Governments:

- Evidence-based limits and national mast policy
- Avoid policies that create alarm
- Communicate using trusted health agencies

Industry:

- Declarations of compliance
- Improve consultation and design practices
- Active partner in communication

Community:

- Health and environment protected
- Improved access to mobile services



Policy for mobile devices

Harmonise with international exposure limits

Accept declarations of compliance through type approval procedures

- Use existing resources for compliance information
- www.sartick.com
- Differences in SAR **do not** mean differences in safety

Avoid policy advice that generates concern

Provide practical and useful information for concerned members of the public



National policy for mobile networks

National policy protects the public and supports the rollout

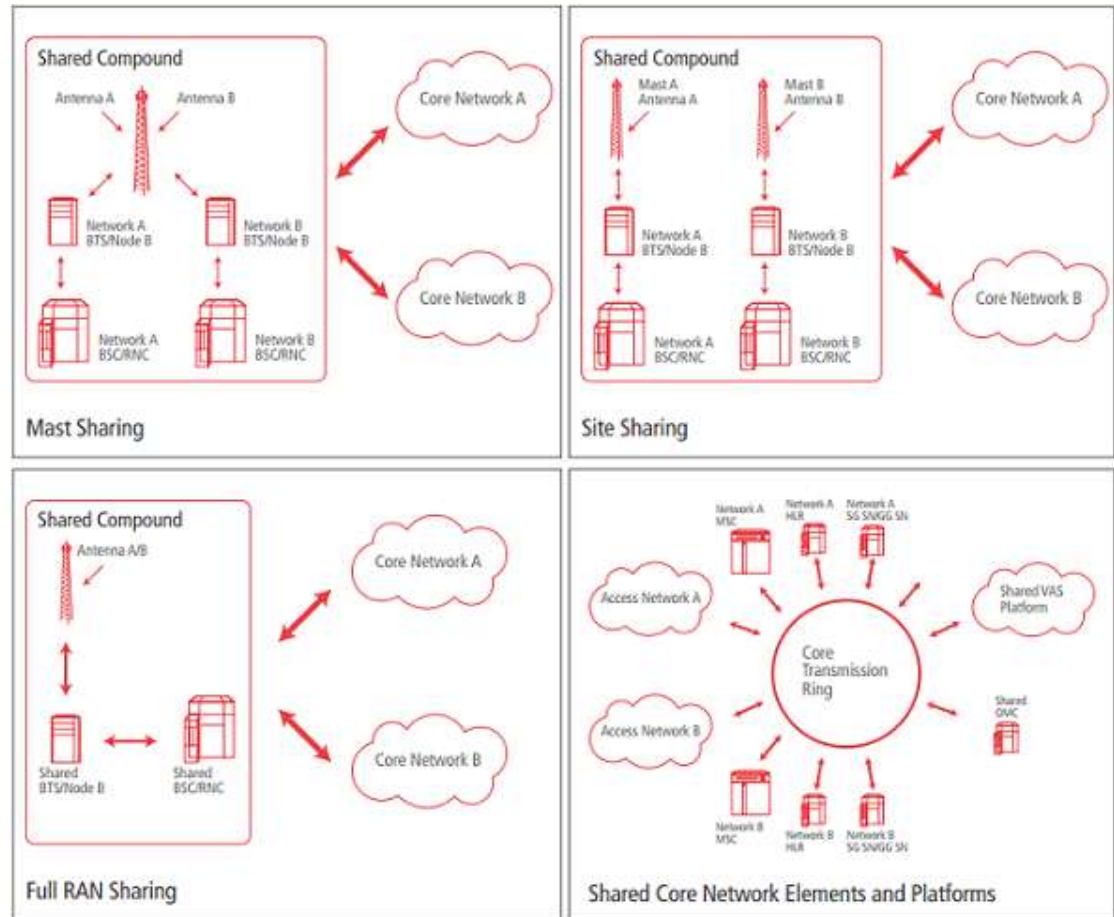
- Clear criteria for site assessment with health concerns addressed by national limits based on WHO recommendations
- Support municipalities through policy that specifies:
 - Information, consultation and visual integration requirements
 - Mandatory decision period for site applications
 - Simplified procedures for small antennas, low power sites and modifications
 - Non-political decision making

Allow site sharing where it is technically and commercially feasible

Grant access to government buildings and land for antennas

Network antenna sharing

- Active or passive
- Save costs, save energy, fewer sites
- Technical limits including stronger structures
- Commercial



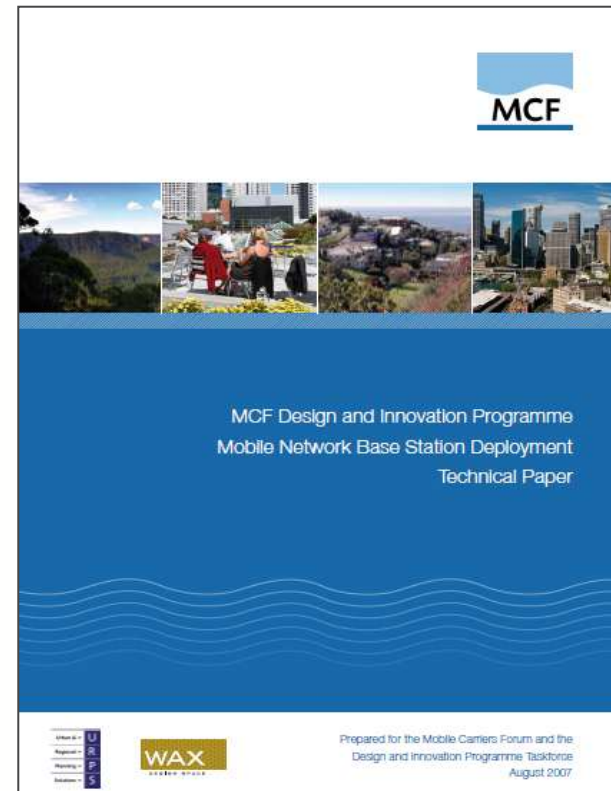
Visual integration with the environment

Antennas need to be where people make calls

Design to be compatible with environment

- Colour
- Integration
- Screening
- Public art

Some people fear 'camouflage'



<http://www.mcf.amta.org.au/>

Integration does not mean invisible



Planning exclusion zone policies are unworkable

Arbitrary distances

Political response

GSMA supported hypothetical analysis based on Melbourne (Australia)

If 500 m zone applied:

- Across whole urban area would affect >50% of antennas
- Rises to 90% in dense urban area



Some US initiatives on antenna siting

FCC 'shot-clock' ruling (2009)

- 90 days for co-location, 150 days for other

Co-location by right (2012)

- '...local government may not deny, and shall approve, modification...'

Federal working group addressing access to government facilities (2012)

FCC excluded certain small cells; exempted temporary towers and adopted a "deemed granted" for co-locations meeting specified criteria (2014)

Many state initiatives to improve antenna siting

Base-station planning in Europe

Mixed picture

Poor practice

- Bureaucratic procedures
- Lack of cooperation
- Local obstruction

Good practice

- Exemptions for small installations, site upgrades
- 'One-stop shop'
- Tacit approval



<http://www.gsma.com/gsmaeurope/>

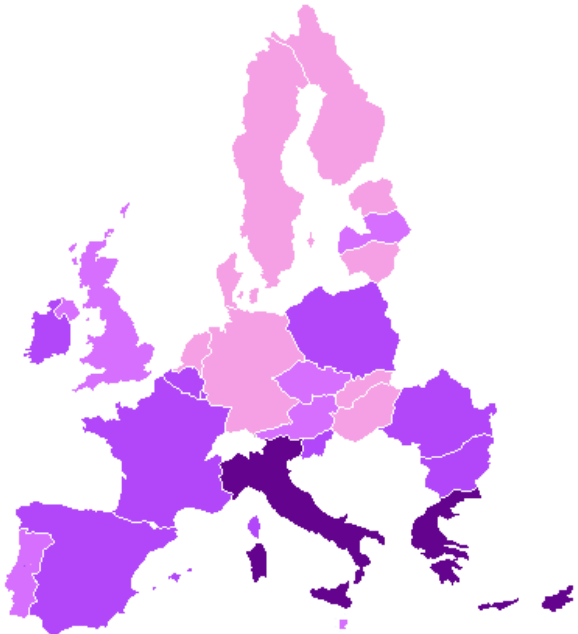
Policies and public concern

EL	81%
IT	81%
CY	80%
SI	56%
ES	54%
BE	53%
RO	51%
FR	50%
IE	49%
BG	48%
LU	47%
PL	46%
EU27	46%
PT	45%
SK	43%
LT	39%
AT	38%
UK	37%
MT	37%
CZ	31%
DE	29%
NL	24%
HU	23%
EE	23%
FI	21%
LV	21%
SE	17%
DK	16%

Stricter legal safety standards (limits, exclusion zones)

Strong precautionary advice by governments

ICNIRP ✓
Compliance ✓
Communications ✓



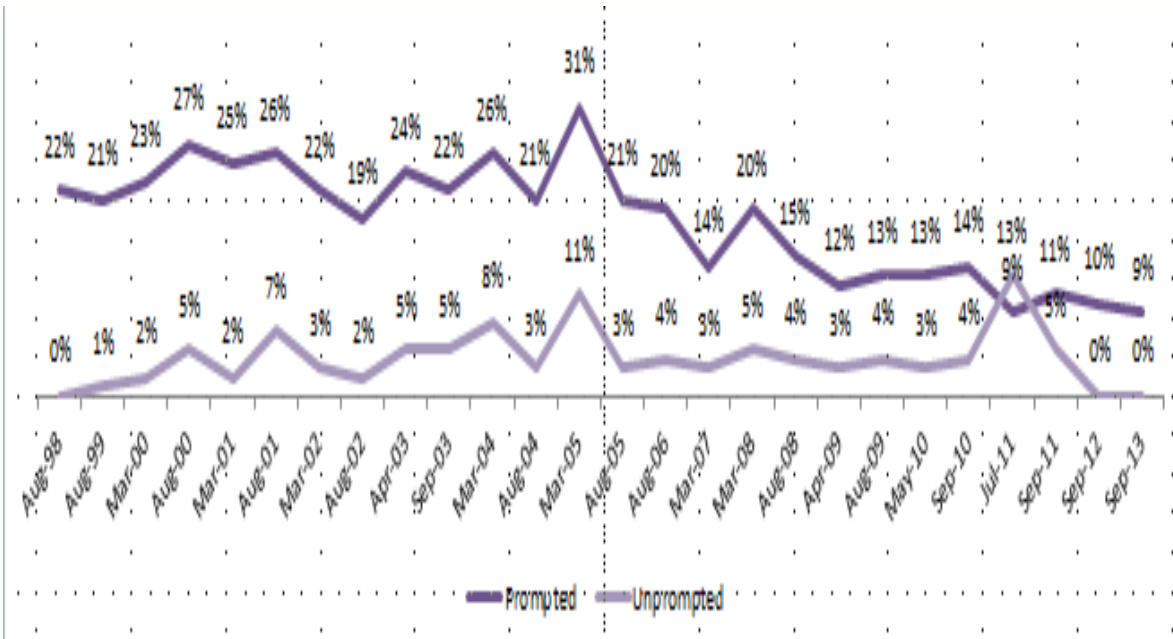
2010

- 66% - 100%
- 46% - 65%
- 31% - 45%
- 0% - 30%

Data-source: Special Eurobarometer 347, 2010, p. 66; presentation by GSMA Europe

Question QC3: How concerned are you about the potential health risks of electromagnetic fields?
Answers: Very concerned + fairly concerned

Good policy and practice reduces public concern



- International limits
- National mast policy
- Code of practice
- Sample audits
- Information
- Research support

- 70% own smartphone.
- 78% understand masts = service

Percentage mentioning handsets/masts as a concern. ns has been charted on.



Base: All GB adults (2,164)
 P10Q1: What, if any, health-related dangers concern you most nowadays? Please type in the box below.
 P15Q1: And which other health-related dangers are you also seriously concerned about? Please tick all that apply.

this slides (due to the question being a multiple choice) In this wave of research. For full breakdown, please see next chart)



<http://www.mobilemastinfo.com/>

Need for compliance with RF limits

Occupational health and safety legislation

Specific regulatory requirements in some countries

Develop management program

- Human RF exposure limits
- Other risks from RF fields:
 - Interference
 - Fuels and flammable gases
 - Electroexplosive devices (EEDs)

Outline RF hazards management program

Assess risk to workers and public

Identify areas where limits exceeded

Control of RF hazards

- Best done at the source:
 - Design to avoid access to hazardous areas
 - Suitable barriers to restrict access
- In cases where access is required:
 - Development of safe working procedures
 - Provision of appropriate safety equipment
 - Suitable training for RF workers

Management of RF Compliance

- Evaluate exposure
- Implement controls
- Shared sites



www.gsma.com/health

Antennas not accessible



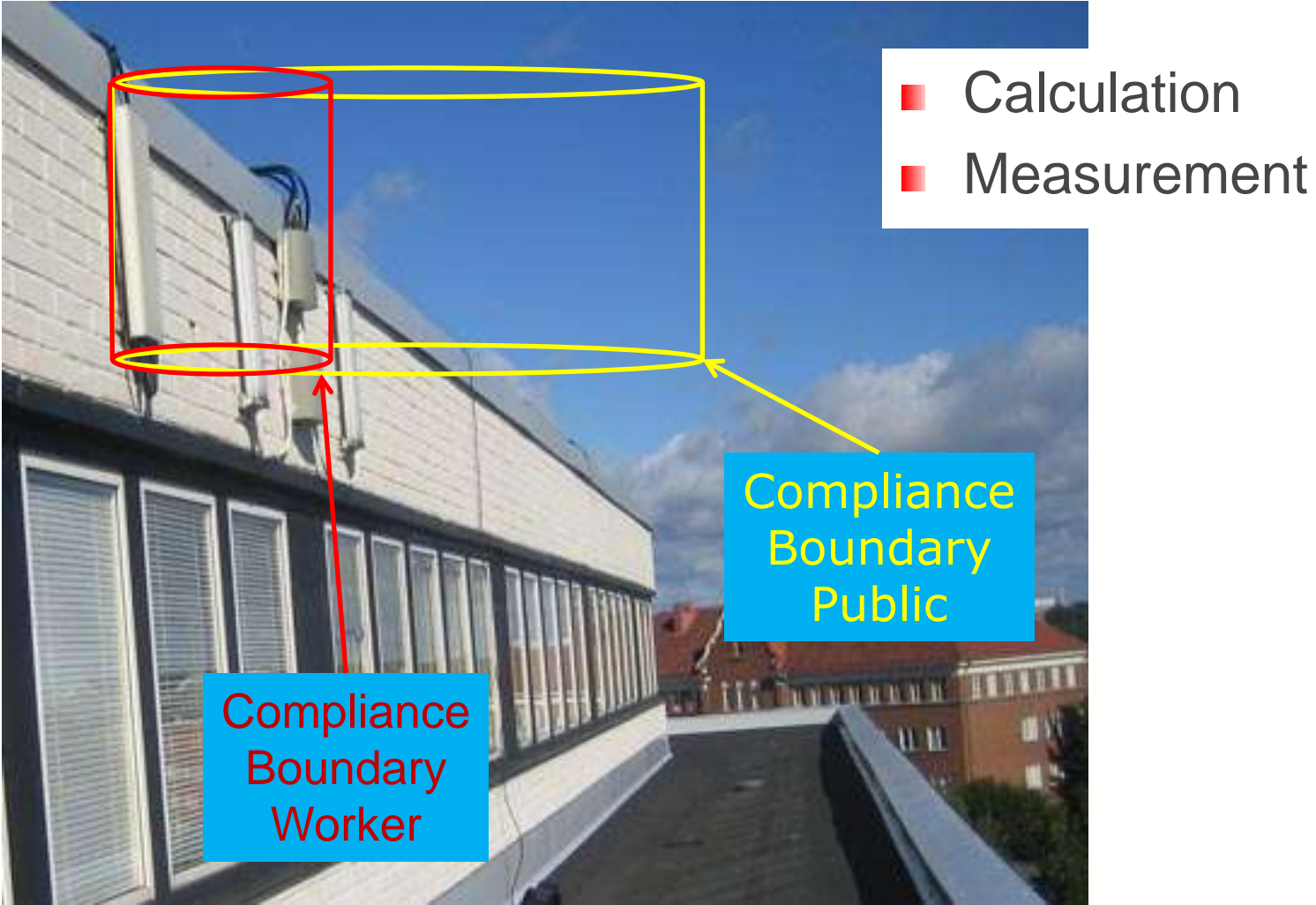
■ Simplified evaluation

Antennas possibly accessible



- Compliance zones

Compliance boundaries



Summary: Developing Policy

In this session we have:

- Learned about the importance of harmonisation of policy with international recommendations
- Learned about good practice policy for mobile devices
- Learned about good practice policy for antenna sites
- Learned about management of site compliance

Group exercise: Review quiz



Q&A – open discussion

- Is anything unclear?
- Did the course meet your expectations?
- What could be done better?
- What will you do with the information?

Thank you

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The screenshot displays the 'Health and Environment News' website interface. At the top, there is a navigation bar with the title 'Health and Environment News'. Below this is a search section with the prompt 'Browse resources by category, country, year or month.' and several dropdown menus for 'All Category', 'All Country', 'All Year', and 'All Month', along with 'Find' and 'Clear' buttons. The main content area features a news article titled 'European experts find no increased brain cancer risk in children from mobiles - but warn cancer rates should be continually monitored'. The article text states: 'A review of all available studies and brain cancer rates in children by three European experts, has found there is no increased risk from using mobile phones, but they warn because even a small increase in risk would have a significant public health impact, brain cancer rates need to be continually monitored. "Overall these data do not suggest an increased brain tumor risk from using mobile phones," the researchers said in the paper published online in the journal Tumors of the Central Nervous System. "However, some uncertainties remain with respect to heavy mobile phone use, with ...'. A 'Read more' button is located at the bottom right of the article text. To the right of the main content is a 'Recent updates' sidebar with three news items: 'European experts find no increased brain cancer risk in children from mobiles - but warn cancer rates should be continually monitored', 'Expert committee finds no evidence of health effects and that more needs to be done to reduce community concerns in India', and 'Health Canada busts myths about wireless signal safety'. Below the sidebar is a 'HEALTH AND ENVIRONMENT NEWS TAGS' section with a list of tags including 'Wi-Fi', 'WHO', 'Scientific Expert Group', 'Scientific Evidence', 'SAR', 'Safety', 'Risk Perception', 'Recycling', 'Precautions', 'Policies', 'Mobile Network', 'Mobile Device', 'LTE', 'ITU', 'ICNIRP', 'IARC', 'GSMA', 'Green Energy', 'Exposure Standards', 'Exposure Levels', 'EWaste', 'Epidemiology', 'Energy', and 'EHS'.