

The main objective and activities of the “European Cooperation in the Field of Scientific and Technical Research” on Potential Health Effects from Emerging Wireless Communication Systems - Emerging EMF Technologies and Health Risk Management (COST- Action BM0704)

**BTA WORKSHOP**

**“THE HUMAN EXPOSURE TO ELECTROMAGNETIC FIELD (EMF)  
FROM WIRELESS TECHNOLOGIES”**

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## Overview

- The EMF case
- What is needed
- COST approach
- A package solution

## Overarching message

EMF is not only a scientific issue, it is a social issue too.  
Don't forget to manage a the social issue!

A package solution is Needed.

# The EMF case





# The EMF case

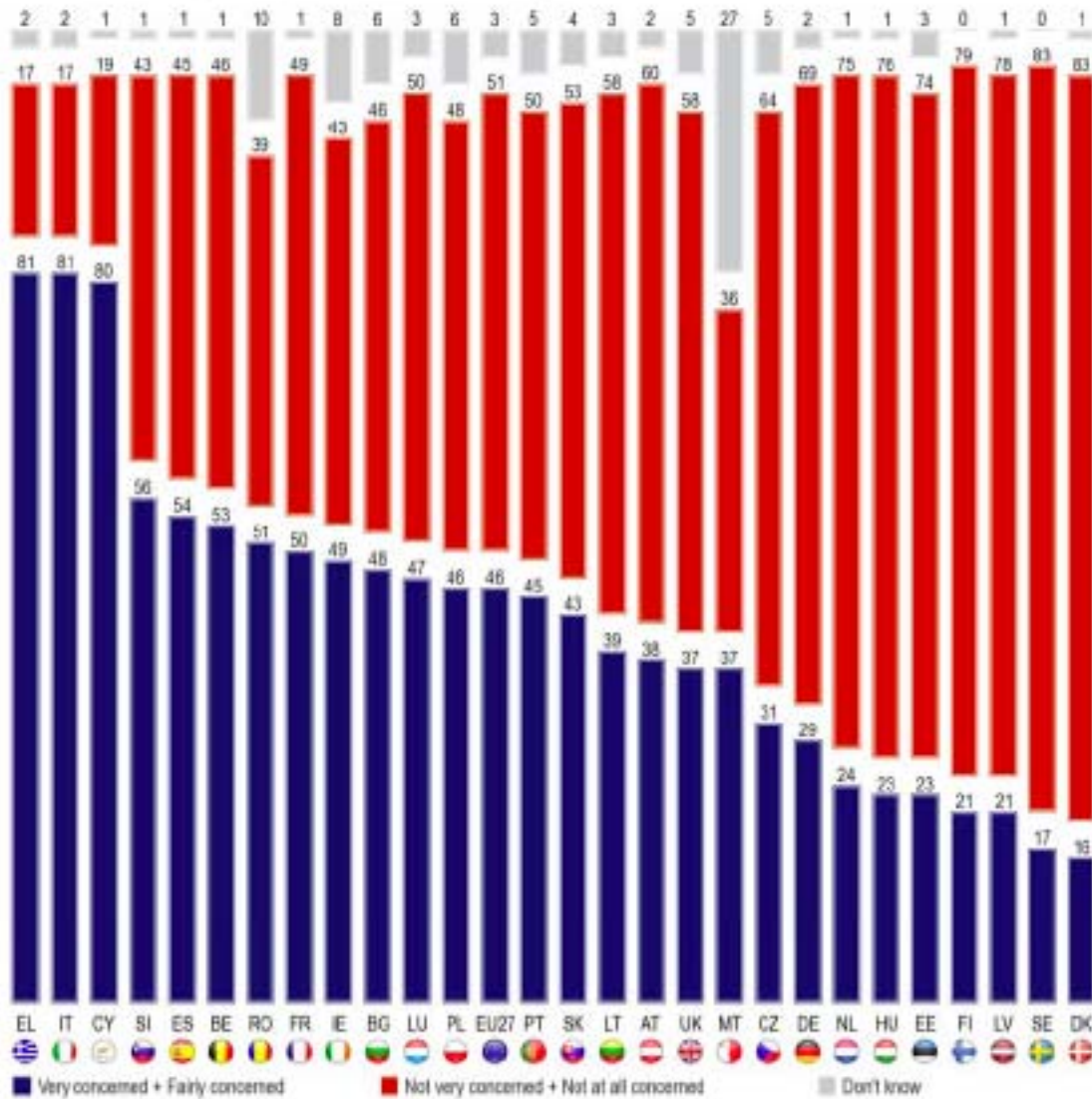
## Social Worries

- Base stations
- Cell Phones



# The EMF case: Perceived EMF Risks

How concerned are you about the potential health risks of electromagnetic fields?



Eurobarometer 2010

- Insights from science are the same in all EU countries!
- So, what are the reasons for the differences?
- And even more important, what are potential solutions?

What is needed



# What is needed

- Using the right science in a right way to improve risk assessment
- Applying a proper right risk management framework
- Tailoring the right messages
- Putting the right people at right places to get your messages across



# What is needed

Package solution „EMF policy“

AMC<sup>2</sup>

- Assessment
- Management
- Cooperation
- Communication



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# What is COST?

- European **Co-operation in the Field of Scientific and Technical Research**
- Has 35 member countries (plus 23 collaborating countries) and enables scientists to collaborate in a wide spectrum of activities in research and technology
- COST is based on 'Actions'. These are networks of national research projects.
- Action funding is used to cover workshops & conferences, travel costs, contributions to publications and short term scientific missions of researchers to visit other laboratories



- Biomedical Simulations and Imaging Unit- BIOSIM, Denmark
- France Telecom, France
- Federal Agency for Radiation Protection, Germany
- FESB, University of Split, Croatia
- Health Protection Agency, UK
- Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Italy
- Polytechnic University of Bucharest, Romania
- School of Electric and Computer Engineering, National Technical University of Athens, Greece
- Sør-Trøndelag University College, Norway
- Swiss Federal Office of Public Health, Switzerland

- BEMS - Bioelectromagnetics Society
- EBEA - European BioElectromagnetics Association
- ICNIRP - International Commission on Non-Ionizing Radiation Protection
- WHO - World Health Organisation

# What is COST?

Primary objective is to create a structure in which researchers in the field of EMF can share knowledge and information - covering

- Identifying new technologies
- How existing EMF-technologies change and novel applications are developed
- New emission characteristics – potential exposures
- Possible health effects – what concerns might arise
- How such concerns might be addressed – scientific evidence!
- What tools are effective in communicating such evidence

COST Action BM 0704

Emerging EMF Technologies: Health  
Risk Management

### **Working groups**

EMF Measurement and monitoring

EMF computational dosimetry

Epidemiology

Biology

Risk communication and management

Evidence-based information in policy  
development

Researchers

Risk managers and communicators

EU, national and local officials and  
representatives

Advisory and standards development  
bodies

Industry and commerce

The media

The general public



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# EMF Policy

- Using the right science in a right way to improve risk assessment
- **Applying the right risk management framework**
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# FRAMEWORK FOR DEVELOPING HEALTH-BASED EMF STANDARDS



## Procedure

Select  
**Scientific Database**

Perform  
**Risk Assessment**

Determine  
**Threshold Levels**

Select  
**Safety Factors**

Set  
**Exposure Limits**

Ensure  
**Overall Practicability**

**Section 3**

**Section 4**

**Section 5**

## Considerations

- › Types of studies
- › Criteria for inclusion

- › Hierarchy of studies
- › Criteria for evaluation
- › Weight-of-evidence

- › Interpretation of threshold
- › Biological effects
- › Interaction mechanisms

- › Multiple tiers/different populations
- › Level of scientific uncertainty

- › Basic restrictions
- › Reference levels
- › Frequency extrapolation

- › Explanatory supporting document
- › Compliance measures
- › Monitoring system

# EMF Policy

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- “ Risk communication is not just a matter of good intentions ... Risk messages must be understood by the recipients, and their impacts and effectiveness must be understood by communicators. To that end, it is not longer appropriate to rely on hunches and intuitions regarding the details of message formulation. ”

Morgan & Lave, 1990, 358

# Quality of information

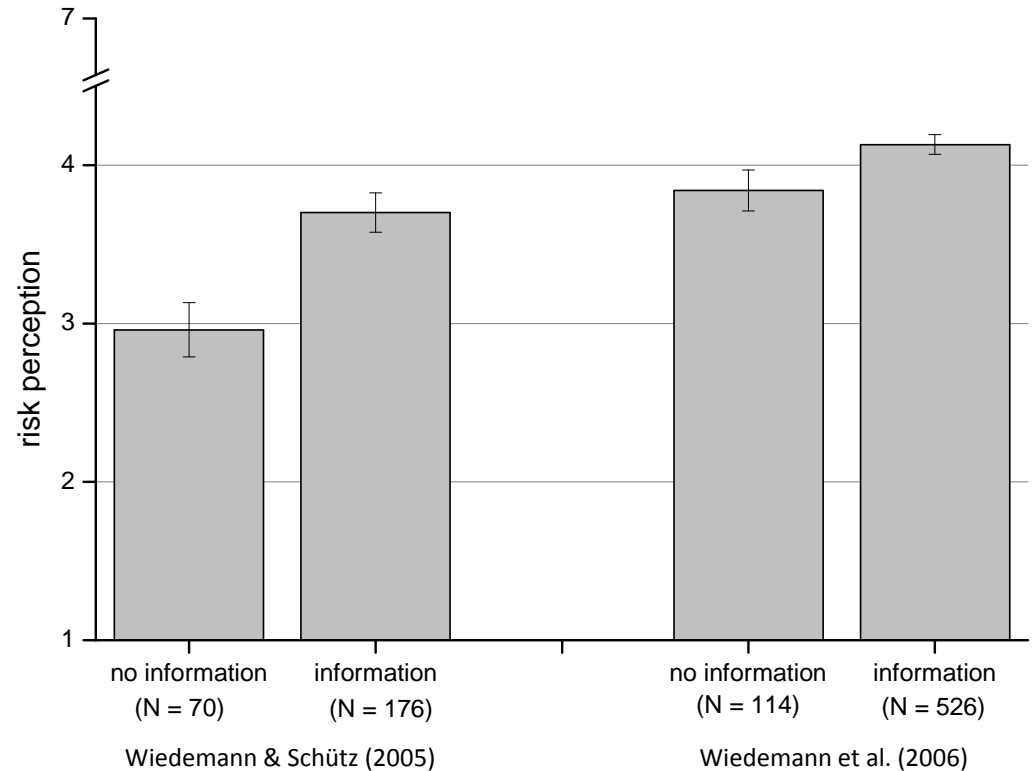
## What counts in information policies

- Impartiality
- Expertise
- Transparency
- Simplicity
- Proactivity



# Effects of informing about precautionary measures

- Wiedemann, P. M., & Schütz, H. (2005). The Precautionary Principle and Risk Perception: Experimental Studies in the EMF Area. *Environ Health Perspect*, 113, 402-405.
- Wiedemann, P. M., Thalmann, A. T., Grutsch, M. A., & Schütz, H. (2006). The impacts of precautionary measures and the disclosure of scientific uncertainty on EMF risk perception and trust. *Journal of Risk Research*, 9(4), 361-372.
- Barnett, J., Timotijevic, L., Shepherd, R., & Senior, V. (2007). Public responses to precautionary information from the Department of Health (UK) about possible health risks from mobile phones. *Health Policy*, 82(2), 240-250.



# EMF Policy

- Using the right science in a right way to improve risk assessment
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Develop strong  
community ties



## The Ten Commitments

WORKING WITH THE

# COMMUNITY

- 1** Develop, with other stakeholders, clear standards and procedures to deliver significantly improved consultation with local communities.
- 2** Participate in obligatory pre-rollout and pre-application consultation with local planning authorities.
- 3** Publish clear, transparent and accountable criteria and cross-industry agreement on site sharing, against which progress will be published regularly.
- 4** Establish professional development workshops on technological developments within telecommunications for local authority officers and elected members.
- 5** Deliver, with the government, a database of information available to the public on radio base stations.
- 6** Assess all radio base stations for international (ICNIRP\*) compliance for public exposure, and produce a programme for ICNIRP compliance for all radio base stations as recommended by the Independent Expert Group on Mobile Phones.
- 7** Provide, as part of planning applications for radio base stations, a certification of compliance with ICNIRP public exposure guidelines.
- 8** Provide specific staff resources to respond to complaints and enquiries about radio base stations, within ten working days.
- 9** Begin financially supporting the government's independent scientific research programme on mobile communications health issues.
- 10** Develop standard supporting documentation for all planning submissions whether full planning or Prior Approval.

Peter Wiedemann

NOTE: \* International Commission on Non-Ionising Radiation Protection



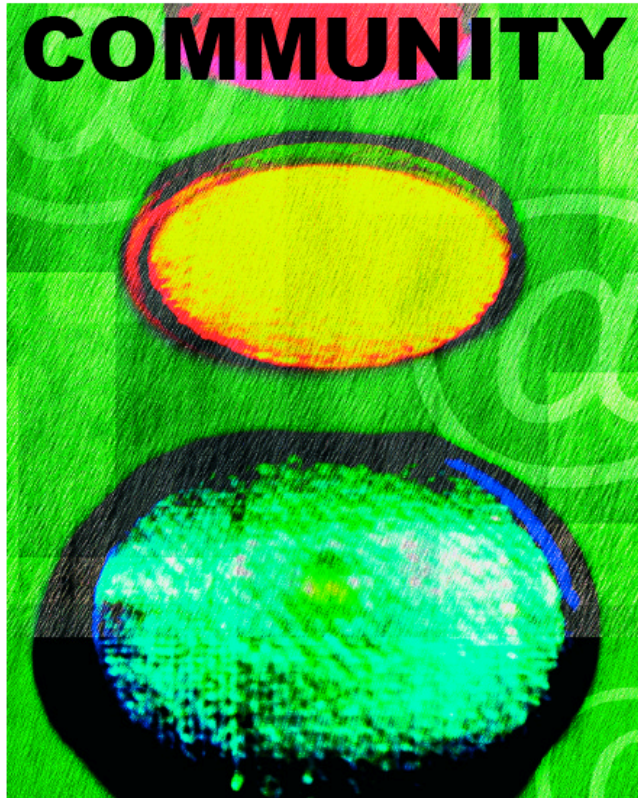
**Handbook on mobile telecoms community  
consultation for best siting practice**



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Handbook on mobile telecoms community consultation for best siting practice

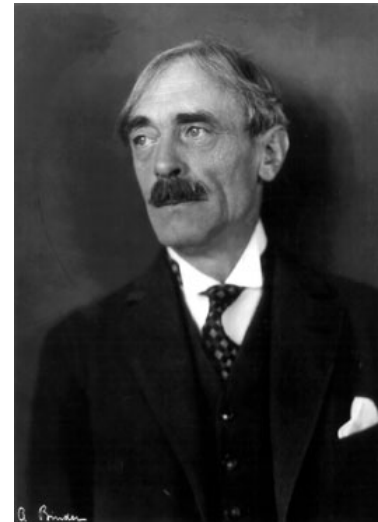
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# Overall message

“What is simple is wrong,  
what is complex is useless.”

Paul Valéry



Thank you very much for your attention!