Risk Communication
Rapporteur's report

E. van Deventer
Radiation Programme
World Health Organization
How to get there
From the airport:
Take the suburban railway S-Bahn (line S1) to Feldmoching, from there take the underground UBahn (line U2/U8) to "Am Hart" stop, then take bus 294 (Garching-Hochbrück, 20 minute service, between 10 a.m. und 3 p.m. hourly service) to stop "Neuherberg, Forschungszenrum".
Or take the suburban railway S-Bahn (line S8) to Central Station. From Central Station take the underground U-Bahn (line U2/U8 towards Feldmoching) to the stop "Am Hart", then take bus 294 (see above).

Location:
The Neuherberg research centre is located in the north of Munich, approximately 800 m beyond the city boundary.
Distance from city centre approximately 12km. Distance from airport approximately 30km.
Objective

• The aim of this workshop was to discuss the results of the risk communication projects conducted within the research programme

• [http://www.emf-forschungsprogramm.de/abschlussphase/KP_intFG_Risiko.html](http://www.emf-forschungsprogramm.de/abschlussphase/KP_intFG_Risiko.html)
Programme
Wednesday, 18th October

10:30 Introduction / Welcome by BfS and BMU

Session 1
Risk perception EMF

11:00 Identifying the general public’s fears and anxieties with regard to the possible risks of high frequency electromagnetic fields of mobile telecommunications (annual surveys since 2003) (J. Belz)

11:35 Analysis of target groups for differentiated information (C. Poelzl)

12:10 Lunch break 12:10 – 13:30

13:30 A socio-psychological analysis of the characteristics and needs for information and communication of electromagnetic hypersensitive persons (S. Ulmer)

14:05 Panel Discussion to Session 1

14:45 Coffee break 14:45 – 15:15

Session 2
Information and communication measures

15:15 Examination of the knowledge and effects of information activities in the field of mobile telecommunications and determination of further approaches to improve information of different population groups (U. Pfennings)

15:50 EMF-Portal: Internet Information System and Literature Database on Biomedical Effects of Electromagnetic Fields (R. Wienert)

16:25 Panel Discussion to Session 2

17:00 End of Day 1

Programme
Thursday, 19th October

Session 3
Site acquisition in Germany - Risk communication in local settings

09:30 Introduction: Site acquisition process in Germany – Framework, Regulation, Practice (D. Gerhardt)

09:55 Realisation of the self commitment (A. Seidel-Schulze)

10:25 Discussion

11:00 Coffee break 11:00 – 11:30

11:30 Support of the co-operation between the mobile telecommunication actors by the local agenda 21 (A. Hoffmann)

12:10 Lunch break 12:15 – 13:30

13:30 Development of an online manual for successful siting processes and risk communication in the field of mobile phone conflicts (O. Renn)

14:05 Mediation as a possible alternative

14:35 dispute resolution method in the site acquisition process (K. Winkler)

14:40 Panel Discussion to Session 3

15:15 Final Discussion

16:00 Close of Workshop

Rapporteur: Emilie van Deventer
Session 1: Risk Perception EMF

• Identifying the general public’s fears and anxieties with regard to the possible risks of high frequency electromagnetic fields of mobile telecommunications

Janina Belz, Institute for Applied Social Sciences (Infas), Bonn
## Mobile Telecommunication Compared to Other Risk Factors

<table>
<thead>
<tr>
<th>source/risk factor</th>
<th>no concerns</th>
<th>a little concerned</th>
<th>quite strong concerns</th>
<th>strong concerns</th>
<th>&quot;does not apply&quot;, no contact with this factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>air pollution</td>
<td>11%</td>
<td>33%</td>
<td>30%</td>
<td>26%</td>
<td>-</td>
</tr>
<tr>
<td>consumption of meat of unknown origin</td>
<td>17%</td>
<td>29%</td>
<td>23%</td>
<td>30%</td>
<td>1%</td>
</tr>
<tr>
<td>genetically modified food</td>
<td>18%</td>
<td>32%</td>
<td>23%</td>
<td>28%</td>
<td>-</td>
</tr>
<tr>
<td>UV-radiation</td>
<td>17%</td>
<td>36%</td>
<td>25%</td>
<td>20%</td>
<td>-</td>
</tr>
<tr>
<td>side-effects of medication</td>
<td>23%</td>
<td>34%</td>
<td>22%</td>
<td>20%</td>
<td>1%</td>
</tr>
<tr>
<td>heavy cigarette smoking</td>
<td>36%</td>
<td>17%</td>
<td>16%</td>
<td>26%</td>
<td>4%</td>
</tr>
<tr>
<td>participation in road traffic</td>
<td>29%</td>
<td>43%</td>
<td>17%</td>
<td>11%</td>
<td>-</td>
</tr>
<tr>
<td>mobile telecommunication transmitters</td>
<td>33%</td>
<td>40%</td>
<td>14%</td>
<td>12%</td>
<td>-</td>
</tr>
<tr>
<td>radiation of electrical equipment</td>
<td>30%</td>
<td>45%</td>
<td>16%</td>
<td>9%</td>
<td>-</td>
</tr>
<tr>
<td>traffic noise</td>
<td>35%</td>
<td>41%</td>
<td>14%</td>
<td>10%</td>
<td>-</td>
</tr>
<tr>
<td>immoderate consumption of alcohol</td>
<td>46%</td>
<td>9%</td>
<td>9%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>use of mobile phones</td>
<td>41%</td>
<td>40%</td>
<td>11%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>high-voltage lines</td>
<td>41%</td>
<td>41%</td>
<td>8%</td>
<td>8%</td>
<td>1%</td>
</tr>
<tr>
<td>radio and television transmitters</td>
<td>48%</td>
<td>48%</td>
<td>9%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>use of cordless landline telephones</td>
<td>45%</td>
<td>40%</td>
<td>9%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Concern and Impairment Regarding Electromagnetic Fields of Mobile Telecommunication

**Proportion: Respondents who are concerned with regard to their health due to EMF caused by mobile telecommunication transmitters, mobile phones or cordless telephones**

- **2006:**
  - Yes, concerned: 27%
  - No, not concerned: 72%
  - Don't know: 1%

- **2005:**
  - Yes, concerned: 30%
  - No, not concerned: 69%
  - Don't know: 1%

- **2004:**
  - Yes, concerned: 30%
  - No, not concerned: 69%
  - Don't know: 1%

- **2003:**
  - Yes, concerned: 31%
  - No, not concerned: 69%
  - Don't know: 1%

**Proportion: Respondents who feel impaired with regard to their health due to EMF caused by mobile telecommunication transmitters, mobile phones or cordless telephones**

- **2006:**
  - Yes, impaired: 9%
  - No, not impaired: 90%
  - Don't know: 1%

- **2005:**
  - Yes, impaired: 9%
  - No, not impaired: 90%
  - Don't know: 1%

- **2004:**
  - Yes, impaired: 9%
  - No, not impaired: 90%
  - Don't know: 1%

- **2003:**
  - Yes, impaired: 8%
  - No, not impaired: 90%
  - Don't know: 2%
Session 1: Risk Perception EMF

- Identifying the general public’s fears and anxieties with regard to the possible risks of high frequency electromagnetic fields of mobile telecommunications
  Janina Belz, Institute for Applied Social Sciences (Infas), Bonn

- Analysis of target groups for differentiated information
  C. Pölzl, BfS

- A socio-psychological analysis of the characteristics and needs for information and communication of electromagnetic hypersensitive persons
  Svend Ulmer, Katalyse e.V., Institute for applied environmental research
5 Target groups - proportion in population

- Target group 1: unconcerned interested frequent users (23%)
- Target group 2: worried information-demanding users (17%)
- Target group 3: unconcerned uninterested unfrequent users (24%)
- Target group 4: unconcerned uninterested frequent users (12%)
- Target group 5: moderately concerned unfrequent users (24%)
Session 2: Information and Communication Measures

- Examination of the knowledge and effects of information activities in the field of mobile telecommunications and determination of further approaches to improve information of different population groups
  
  *Uwe Pfenning, Dialogik gGmbH*

- EMF-Portal: Internet Information System and Literature Database on Biomedical Effects of Electromagnetic Fields
  
  *Roman Wienert, Aachen University*
http://www.emf-portal.org
Session 3: Site Acquisition in Germany - Risk Communication in Local Settings

- Introduction: Site acquisition process in Germany – Framework, Regulation, Practice  
  Dietmar Gerhardt, E-Plus Mobilfunk GmbH & co. KG
- Realization of the self commitment of mobile network operators  
  A. Seidel-Schulze, German Institute of Urban Affairs (Difu), Berlin
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• Support of the co-operation between the mobile telecommunication actors by the local agenda 21
  A. Hoffmann, agenda-transfer Agency for Sustainability, Bonn

• Development of an online manual for successful siting processes and risk communication in the field of mobile phone conflicts
  Ortwin Renn, Dialogik gGmbH
Traffic Light Model

GREEN
Sites with low potential for conflict
Information measures (e.g. flyers, press releases, site inspections, radiation measurements)

YELLOW
Sites with intermediate potential for conflict
Information + communication measures (e.g. additional panel discussions, open houses, public expert hearings)

RED
Sites with high potential for conflict
Information, communication + participation measures (e.g. additional round tables, citizens' panels, mediation)
# Startseite

**Ratgeber: Planung von Mobilfunksendeanlagen**  
Abstimmungs- und Kommunikationsprozesse mit Netzbetreibern und Bürgern

Dieser Ratgeber verfolgt das Ziel, Ihnen schnell und direkt auf die Situation in Ihrer Kommune abgestimmte Informationen bereitzustellen.

**Konkrete Hilfestellungen:**

- **[Selbstdiagnose]**  
  Nach dem Ausfüllen eines Fragebogens erhalten Sie konkrete Hinweise zu Maßnahmen und Kommunikationsstrategien

**Allgemeine Informationen:**

- **[Standortplanung]**  
  Messverfahren / Konzepte / Verträge / Vereinbarungen mit Betreibern / Intra- und interkommunale Abstimmung

- **[Kommunikation]**  
  Adressatengerechte Kommunikation / Risikokommunikation / Konfliktbearbeitung

- **[Rechtliche Grundlagen]**  
  Gesetzlich festgeschriebene Vorgehensweisen

- **[Gesundheit]**  
  Wirkungsweise elektromagnetischer Felder / Risikoeinschätzung / Öffentliche Debatte / Beratungseinrichtungen

- **[Technik]**  
  Funkwellen und elektromagnetische Felder / GSM und UMTS Netze
Session 3: Site Acquisition in Germany - Risk Communication in Local Settings

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- Support of the co-operation between the mobile telecommunication actors by the local agenda 21
  A. Hoffmann, agenda-transfer Agency for Sustainability, Bonn
- Development of an online manual for successful siting processes and risk communication in the field of mobile phone conflicts
  Ortwin Renn, Dialogik gGmbH
- Mediation as a possible alternative dispute resolution in the site acquisition process
  Klaus Winkler, Sumbiosis GmbH
Discussion

1. What has been achieved by the projects? What are the lessons learned?

2. Where do we still have knowledge gaps?

3. What practical impact do the findings have in the field of information and risk communication?

4. Are there lessons learned that could be transferred to similar situations in the future?
Lessons learned

- Rich database on risk perception within the general public and certain sub-groups
- Magnitude of public concern in the general public rather stable over the years.
- Strong stability in the comparative risk perception
- Need to target information to specific groups
- Municipalities can provide a valuable contribution to solve local conflicts during site acquisition process
Gaps in knowledge

- Communication measures specific to different target groups
- Development of concern and the role of emotions in risk perception
- Importance of trust, credibility and acceptance
- Communicating scientific uncertainties
- Need to involve the medical professionals
- Use has to be made of knowledge acquired so far
- Develop international collaboration on risk communication and risk perception
Practical impact for information and risk communication

- Information requirements have to be met in a more differentiated fashion (content, format and medium)
- Inherent evaluation of risk communication measures
- Municipalities face the need to practice risk communication at the local level and to solve local conflicts emerging during the site acquisition process.
  - assistance for smaller and rural municipalities respective
  - not the municipalities’ task to deal with the risk/health issue
  - Monitoring of field levels
- Use of the media for information about EMF
Electromagnetic Fields

Fieldwork: October - November 2006
Publication: June 2007

Report

Acute vs. chronic...

• 11 May 2006 media reports of a ‘cancer cluster’ on the top two floors of RMIT University’s building caused widespread concern

UNI HEALTH ALARM

SEVEN RMIT staff working just metres underneath two mobile phone towers in a CBD building have been diagnosed with brain tumours.

Kate Jones, Kate Rose and Ellen Whinnett

the 17-storey building that are used to route mobile phone calls.
Acute vs. chronic (cont'd)

Launch of information campaign on mobile telephony Bucharest, April 15, 2008
**German version**

**Download the whole handbook**

- [Herstellen eines Dialogs über die Risiken elektromagnetischer Felder](#) [pdf 254kb]

**Note regarding the translation**

This work was originally published by the World Health Organization in English as *Establishing a Dialogue on Risks from Electromagnetic Fields* in 2002. This German translation was arranged by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, who is responsible for the accuracy of the translation. In case of any discrepancies, the original language will govern. The WHO EMF Project would like to thank Dr. Axel Böttger for this translation.

**Deutsch - Information zur Übersetzung**

• 2nd Workshop on EMF risk communication on "Effective Risk Communication in the context of uncertainty" (Stresa, Italy, May 2-4 2007)

2006 WHO Research Agenda for Radio Frequency Fields

Introduction

In 1997, the WHO International EMF Project developed a Research Agenda in order to facilitate and coordinate research worldwide on the possible adverse health effects of electromagnetic fields (EMF). In subsequent years, the agenda has undergone periodic review and refinement.

In June 2003, a major update to the Research Agenda of the Research Agenda was undertaken with the input of an ad hoc committee of scientific experts. Since then, several of the research needs have been identified as revised. The revision was therefore deemed necessary. Also, three specialized workshops on the EMF field since 2003, where research

Social Issues

There are public concerns about possible adverse health effects of RF fields from mobile communications technology. These concerns influence risk management and public acceptance of scientific health risk assessments. Rational risk management should build on evidence stemming from both scientific risk assessments and insights from social studies that investigate this concern through well formulated research.

Relatively few studies exist on RF risk perception and risk communication. The published studies have investigated impacts of risk management and risk communication strategies on
Radiation

Public Health

Radon
UV
X-rays
EMF

Public Concern

EMF
X-rays
UV
Radon
Thank you!!