

*Radiation Research Trust Conference*  
*8-9 October 2008, London*

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# **The WHO International EMF Project: The road ahead**

**Dr E. van Deventer**

Team Leader

Radiation Programme



**World Health  
Organization**

# Outline

- Who we are ...
- What we do ...
  - Completed work
  - Ongoing work
- What we intend to do ...





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## HIGHLIGHTS



WHO/Jonathan Perugia

### Inequities are killing people on a "grand scale"

28 August 2008 -- Differences in mortality between - and within - countries result from the social environment where people are born, live, grow, work and age. These "social determinants of health" have been the focus of a three-year investigation. The recommendations from this investigation, released today, focus on policies to redress social inequalities globally, nationally and locally.

[Read the news release](#)

### The face of cancer is changing

27 August 2008 -- Of the millions of deaths from cancer each year, 72% are in low- and middle-income countries. "This is a shocking statistic, with huge implications for human suffering, health systems, health budgets and the drive to reduce poverty," says the DG at the opening of the UICC World Cancer Congress which opens Wednesday in Geneva. "It is also a strong call to action."

[Read the Director-General's speech](#)

[Maternal health](#)  
Facts and figures



[Food safety](#)  
A public health priority



60 [WHO 60th anniversary](#)

## KEY WHO INFORMATION

[Director-General](#)  
Director-General and senior management

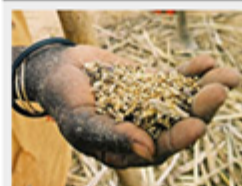
[Governance of WHO](#)  
WHO Constitution, Executive Board and World Health Assembly

[Media centre](#)  
News, events, fact sheets, multimedia and contacts

[International travel and health](#)  
Publication on travel risks, precautions and vaccination requirements

[World Health Report](#)  
Annual report on global public health and key statistics

## Environment and health



[Inter-Ministerial Conference](#)

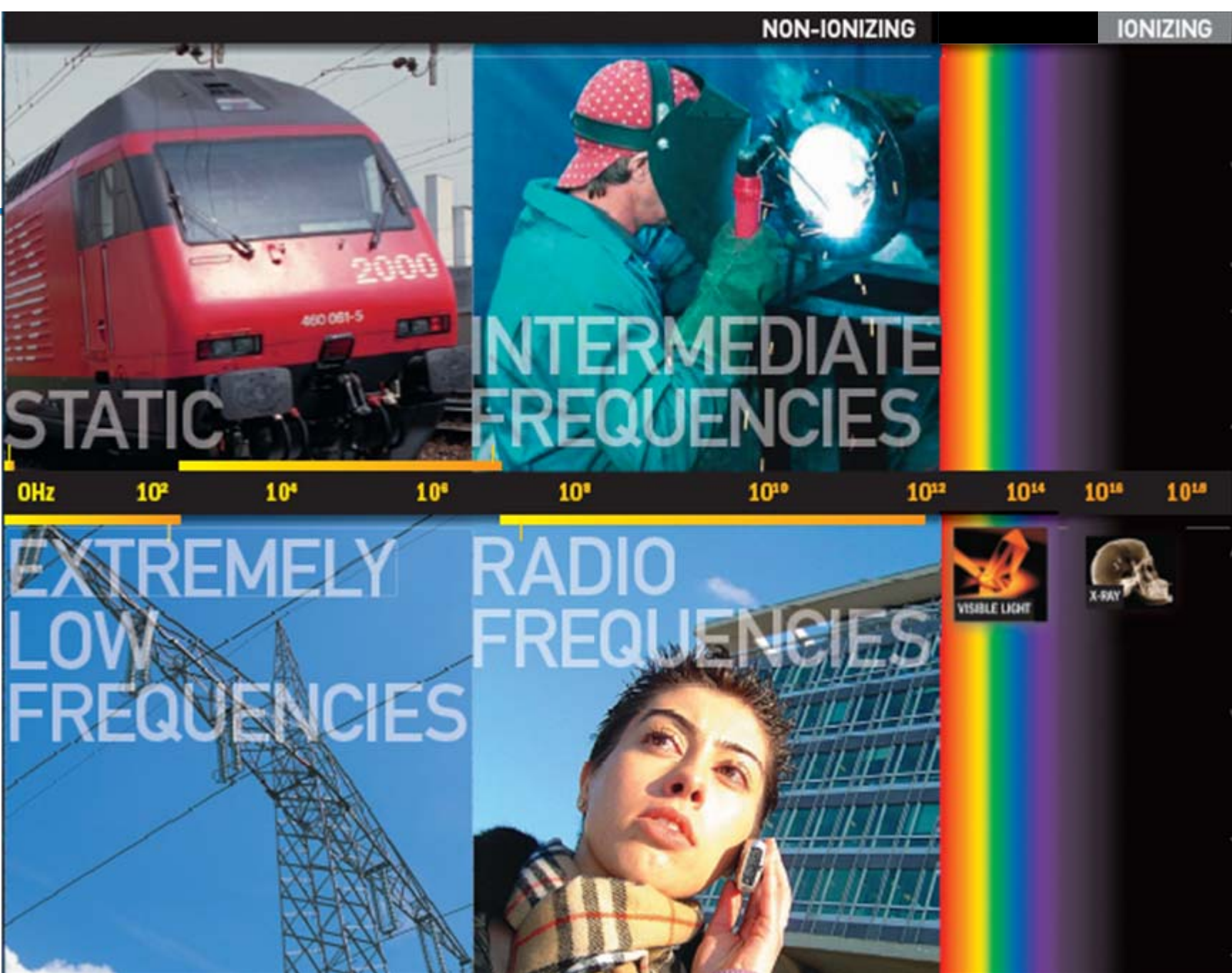


[Global environmental change](#)



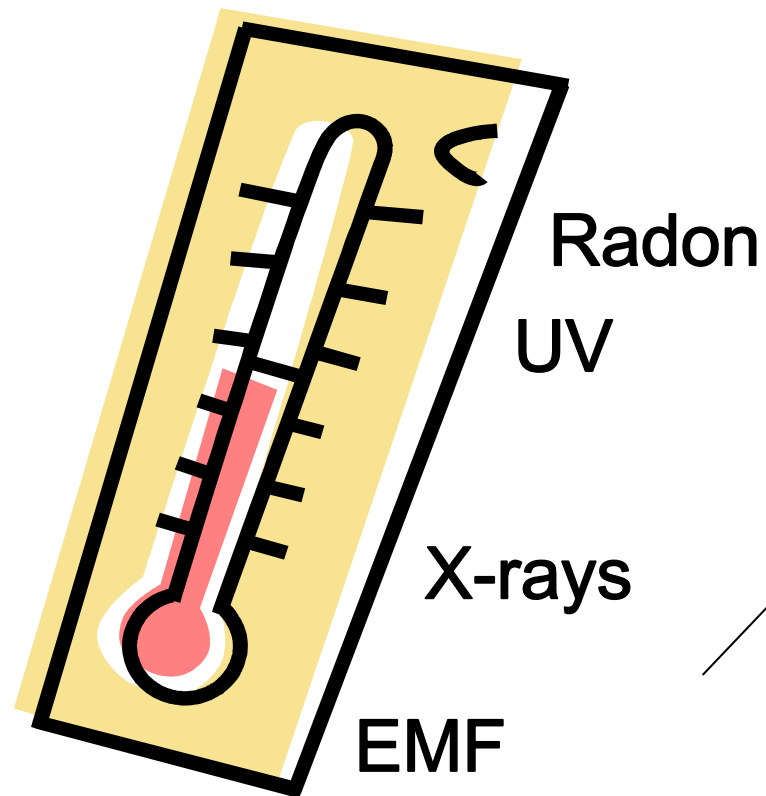
[Water and sanitation](#)



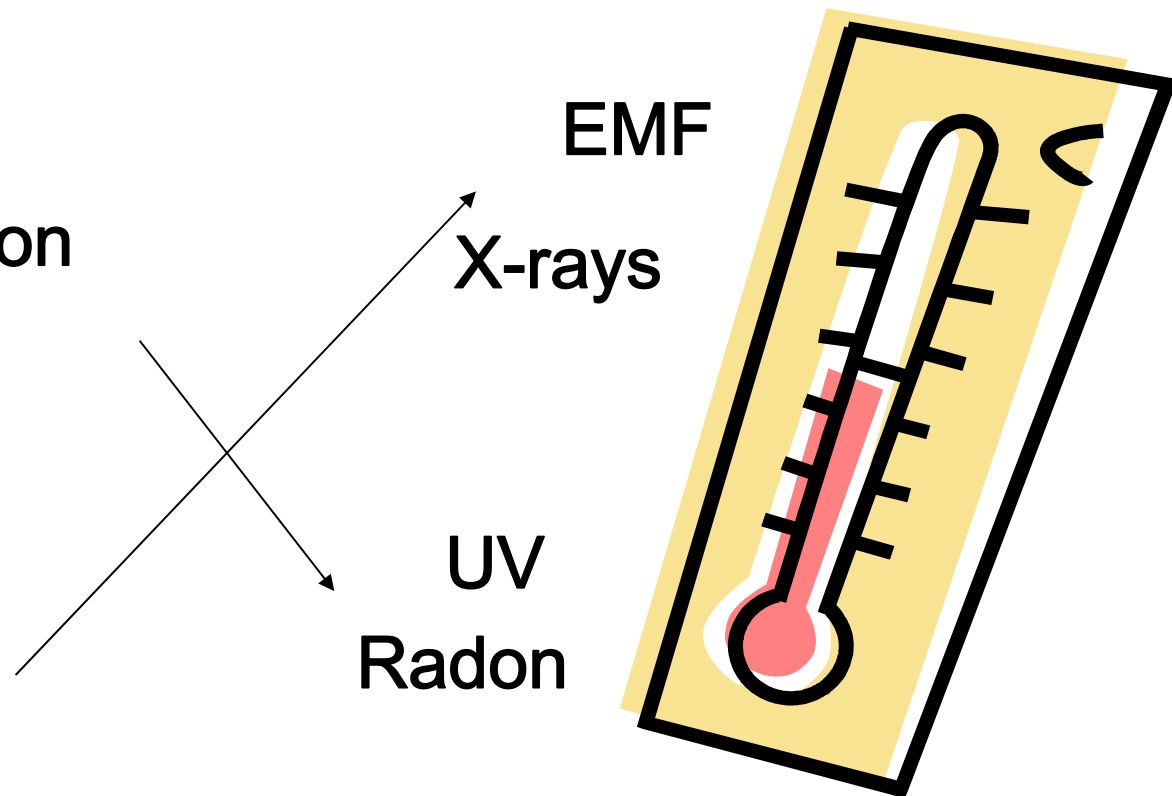


# Radiation

## *Public Health*



## *Public Concern*





# *International* **EMF** *Project*

- Established in 1996
- Coordinated by WHO HQ (HSE/PHE/RAD)
- A multinational, multidisciplinary effort to create and disseminate information appropriate to human health risk assessment for EMF

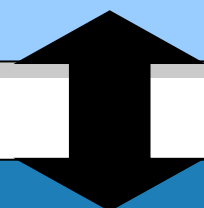
- To **assess health effects** of exposure to non-ionizing radiation (0-300 GHz)
- To **provide technical assistance** in strengthening national capacities for the sound management of EMF



# Structure



**International EMF Project**  
Secretariat



**International Advisory Committee**



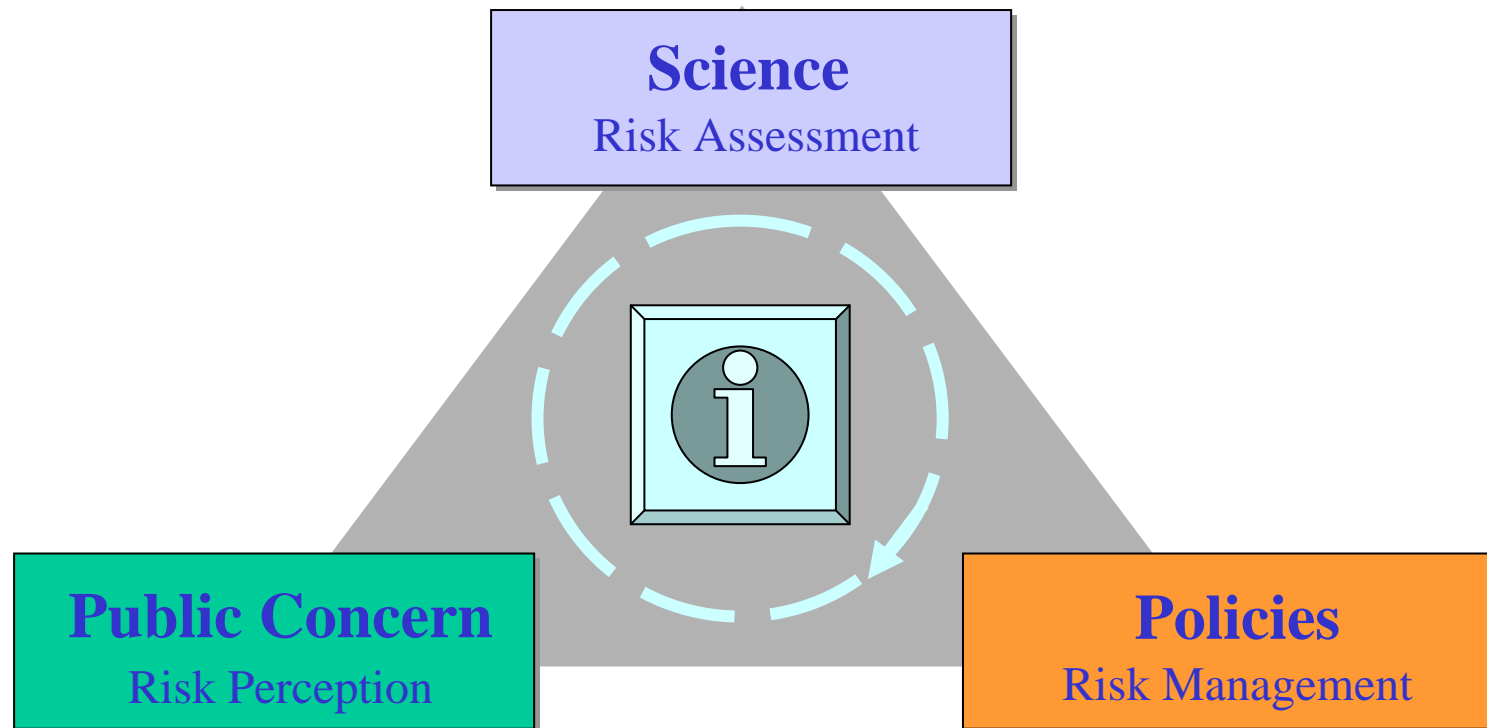
**International  
Organizations**

**Collaborating  
Institutions**

**National  
Authorities**



# EMF: An environmental risk?





# EMF Project Objectives

- ✓ Review the scientific literature on biological effects of EMF exposure;
- ✓ Identify gaps in knowledge requiring research that will improve health risk assessments;

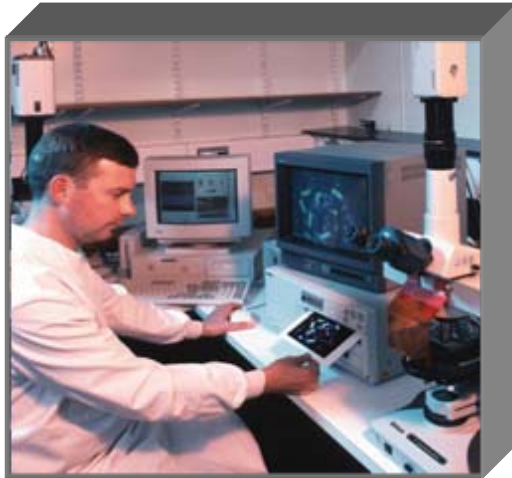


# EMF Project Objectives

- ☑ Review the scientific literature on biological effects of EMF exposure;
- ☑ Identify gaps in knowledge requiring research that will improve health risk assessments;
- ☑ Encourage a focused agenda of high quality EMF research;



# EMF Research Agenda



## *Funding Agencies*



Sixth Framework Programme  
2002 - 2006

**MTHR**

Mobile Telecommunications and Health Research



## World Health Organization

### Research agenda

#### Introduction

This Introduction is followed by the definitions used by WHO International EMF Project. The next section of the agenda is a list of needed EMF research that still needs to be co-assessments of any health risks from exposure to EMF.

The list of required research is followed by a set of general guidelines for quality EMF research that includes resources for further investigation of the characteristics of good EMF research.



RF Research agenda  
updated periodically  
(1997, 2003, 2006)



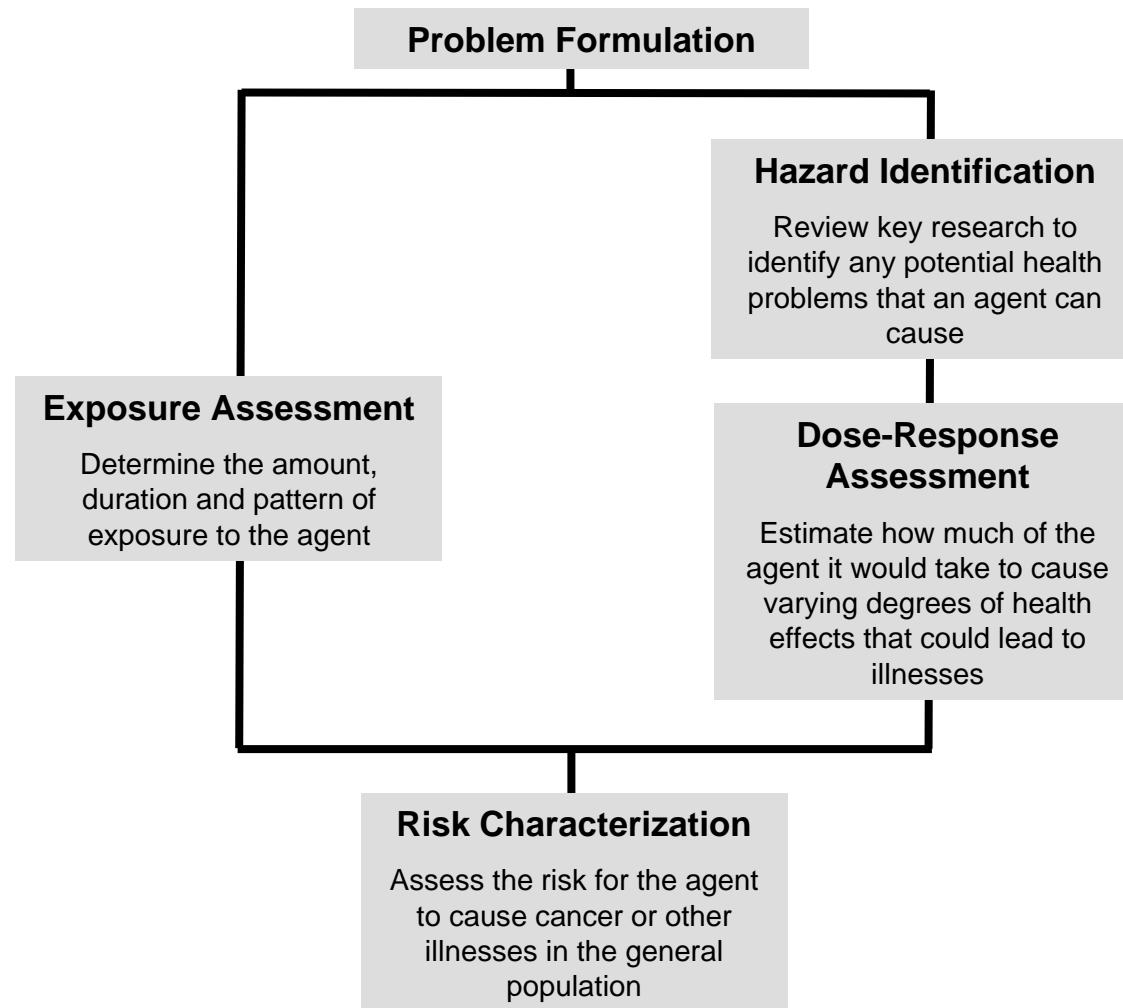
**World Health  
Organization**

# EMF Project Objectives

- ☑ Review the scientific literature on biological effects of EMF exposure;
- ☑ Identify gaps in knowledge requiring research that will improve health risk assessments;
- ☑ Encourage a focused agenda of high quality EMF research;
- ☑ Formally assess health risks of EMF exposure,



# Health Risk Assessment







# WHO Health Risk Assessment

Risk assessment  
of **all health outcomes**  
(*Environmental Health Criteria*)

*International*  
**EMF** *Project*



Hazard identification and classification  
of possible **carcinogens**  
(*Monographs*)

International Agency for  
Research on Cancer (IARC)

Centre International de  
Recherche sur le Cancer (CIRC)



# Environmental Health Criteria

- Development of an extensive database
  - Peer-reviewed scientific publications (Medline, PubMed)
  - Geographical inclusion
  - Use of unpublished reports
  - Use of reviews by other national and international expert review bodies
- Draft document
- Task Group meeting
- Editing



# Environmental Health Criteria Contributors

- Chapter authors, expert working group members
- Task Group members
  - Individual scientists, not representatives of their organizations
  - Composition dictated by range of expertise and views, gender and geographical distribution
  - Membership approved by Assistant Director General
  - Role: assess risks to health, reach agreements by consensus, make final conclusions and recommendations that cannot be altered after the Task Group meeting
- Observers
- Secretariat

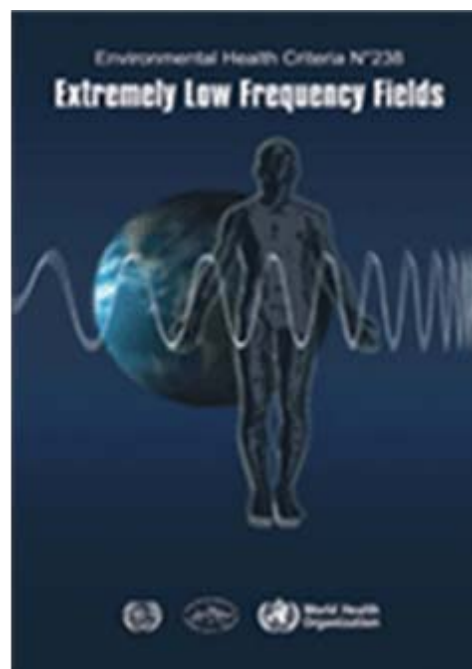




# Health Risk Assessments



**2006**



**2007**

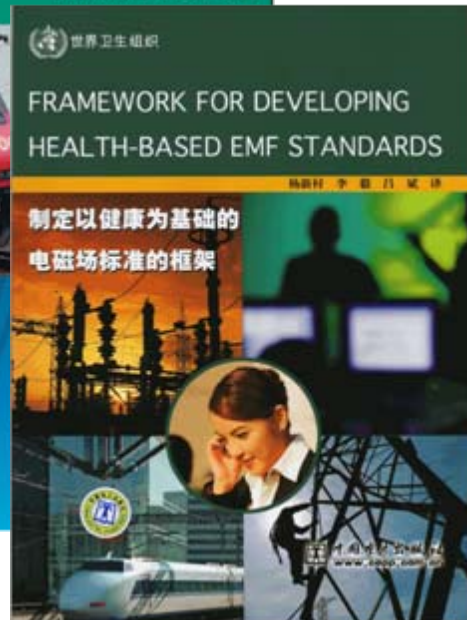
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- ☑ Review the scientific literature on biological effects of EMF exposure;
- ☑ Identify gaps in knowledge requiring research that will improve health risk assessments;
- ☑ Encourage a focused agenda of high quality EMF research;
- ☑ Formally assess health risks of EMF exposure,
- ☑ Encourage internationally acceptable harmonized standards;





# Policy documents ....



<http://www.who.int/peh-emf/standards/>

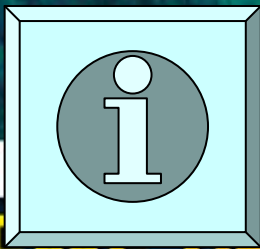


# EMF Project Objectives

- ☑ Review the scientific literature on biological effects of EMF exposure;
- ☑ Identify gaps in knowledge requiring research that will improve health risk assessments;
- ☑ Encourage a focused agenda of high quality EMF research;
- ☑ Formally assess health risks of EMF exposure,
- ☑ Encourage internationally acceptable harmonized standards;
- ☑ Provide information on risk perception, risk communication, risk management



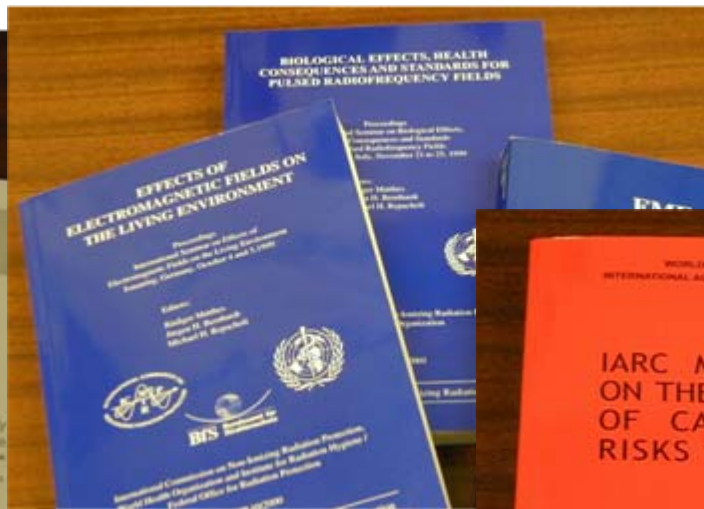




# ESTABELECENDO UM DIÁLOGO SOBRE RISCOS DE CAMPOS ELETROMAGNÉTICOS



ORGANIZAÇÃO MUNDIAL DE SAÚDE



WORLD HEALTH ORGANIZATION  
INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IARC MONOGRAPHS  
ON THE EVALUATION  
OF CARCINOGENIC  
RISKS TO HUMANS

VOLUME 80  
NON-IONIZING RADIATION, PART 1:  
STATIC AND EXTREMELY LOW-FREQUENCY  
(ELF) ELECTRIC AND MAGNETIC FIELDS

Electromagnetic fields (EMF) - Microsoft Internet Explorer provided by WHO

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<http://www.who.int/emf/>

www.who.int/emf



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Electromagnetic fields (EMF)



Electromagnetic fields of all frequencies represent one of the most common and fastest growing environmental influences, about which anxiety and speculation are spreading. All populations are now exposed to varying degrees of EMF, and the levels will continue to increase as technology advances.

As part of its Charter to protect public health and in response to public

WHAT'S NEW!

Sensitivity of  
children to EMF  
exposure, June '04  
Istanbul, Turkey  
[Abstracts deadline 30  
April 2004, more  
information](#)

New RF research  
agenda - July 2003  
[More information](#)

Recent Powerpoint  
Presentations  
[Click here](#)

Framework for  
developing EMF  
Standards  
We invite public  
comment on the draft



# EMF Project Objectives



# Ongoing RF Activities

- Promotion of model legislation
- Redesign of EMF standards database
- Guide on RF installations for local authorities
- Guide of good practice on EMF occupational exposure





# Upcoming RF Activities

- Revision of RF research agenda (2008)
- RF health risk assessment

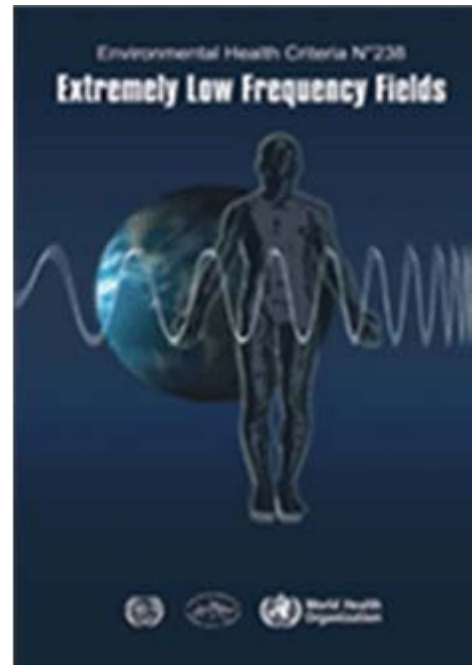


# Environmental Health Criteria

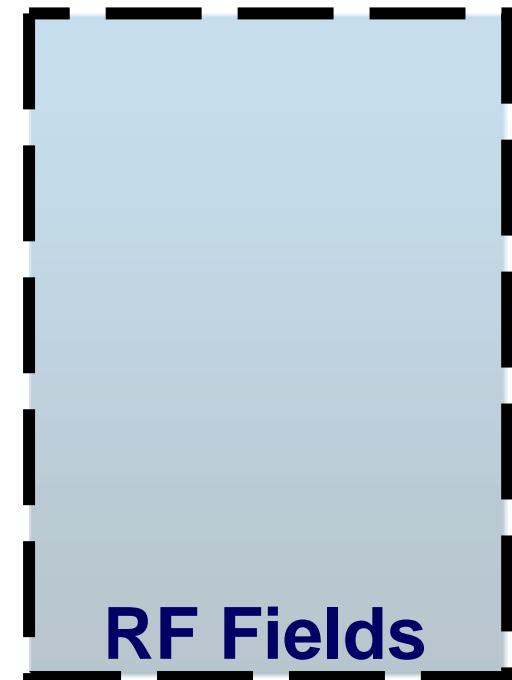
## Electromagnetic Fields



**2006**



**2007**



**RF Fields**

**20..?**

# Timing

**INTERPHONE** multinational  
epidemiologic study

**IARC** evaluation of **carcinogenic**  
risks to humans from RF

**WHO** assessment of all  
health risks to humans from RF



# The road ahead

## Smooth surfaces

- The WHO comparative advantage
- Dissemination of outputs
- Outreach function to countries

## Challenges

- Canvas stakeholder opinions
- WHO priorities
- Funding





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