

France

Report on EMF Activities

10th International Advisory Committee on EMF

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1 Ministries and agencies dealing with the issue of EMF and Health

- **DiGITIP** (General Directorate of Industry, Information Technologies and Postal Services) within the Ministry of Economy, Finances and Industry (www.industrie.fr / www.telecom.gouv.fr)

- **Information Technologies and Communication Department** within the Ministry for Research (www.recherche.gouv.fr)

- **DGS** (General Directorate of Health) within the Ministry of Solidarity, Health and the Family (www.sante.gouv.fr)

- **ANFR** (National Frequencies Agency / www.ANFR.fr)

The ANFR is a public administrative institution created by the Telecommunications Regulation Act of 26 July 1996. It took up its duties on January 1, 1997. The Agency checks that transmitters operate in the frequency bands that they have been allocated and that they respect exposure limits. For each new site, the operator must file a statement of compliance concerning threshold values for public exposure with the ANFR.

- **ART** (Telecommunication Regulation Authority / www.art-telecom.fr)

Since January 5, 1997, the ART has been responsible for the implementation of all legal, economic and technical provisions governing telecommunication activities.

- **AFSSE** (French Agency for Environmental and Health Safety / www.afsse.fr)

The agency is a state administrative institution that was created in May 2001. It is under the supervision of the ministers in charge of health and the environment. With the aim of protecting human health, the agency's role is to contribute to health safety in the environmental domain. On April 16, 2003, at the request of Parliament and the Government, AFSSE published an opinion on mobile telephony and health.

- **UTE** (Electricity and Communication Technical Union / www.ute-fr.com)

This association is in charge of the standardization of electrical equipment, in cooperation with CENELEC (European Committee for Electrotechnical Standardization) at the European level for the preparation of harmonized European standards, and in cooperation with the CEI (International Electrotechnical Commission) for the preparation of international standards. Aspects related to the preparation of standards concerning public exposure to electromagnetic fields are ensured by the Technical Committee 106.

2 Industry (telecommunications, mobile telephony, power grid operators, etc.)

- **AFOM** (French Mobile Operators Association / www.afom.fr)

- French Mobile Operators:

Orange (www.orange-entreprises.com)

SFR (www.sfr.com)

Bouygues Télécom (www.bouyguestelecom.fr)

3 NGOs and academic institutions (consumer associations, citizen advisory and special interest groups, research institutions, etc)

- **CSC** (Consumers Safety Commission / www.securiteconso.org / www.cscnet.org)

- **Union Fédérale des Consommateurs – Que choisir** (Consumer association : www.quechoisir.org)

- **AMF** (Association of French Mayors / www.amf.asso.fr)

4 Information sources: Publications and documents

- DGS (General Directorate of Health)

Report: "Mobile phones, base stations and health" (January 2001)

http://www.sante.gouv.fr/htm/dossiers/telephon_mobil/2tele.htm

- OPECST (Parliamentary Office for the Evaluation of Scientific and Technical Choices)

Report on the possible impact of mobile telephony on health (November 2002)

<http://www.senat.fr/rap/r02-052/r02-052.html>

- CSSPPT (High Commission for the Postal and Telecommunications Public Utilities)

Report: "Radio frequencies and health" (December 2002)

http://www.afom.fr/v2/FILE_DOWNLOAD.php?doc_ID=382&mode=directOpen

- ART

INERIS study: "Telephony and health" (November 2002)

<http://www.art-telecom.fr/publications/etudes/tel-sante-nov02.htm>

- ANFR

Report: "Overview of electromagnetic radiation in France. Current situation and the precaution principle" (2001)

<http://www.ANFR.fr/index.php?cat=sante&page=panorama>

- Academy of Sciences (Institute of France)

Report: "Mobile communication, biologic effects" (proceedings of the April 2000 international symposium)

http://www.academie-sciences.fr/publications/colloques/colloque_mobile.htm

- AFSSE

Report of an independent group of experts from the AFSSE: "Mobile telephony and health" (March 2003)

http://www.afsse.fr/documents/AFSSE_TM_experts.pdf

AFSSE opinion on mobile telephony (April 2003)

<http://www.afsse.fr/documents/AvisDef.pdf>

At the request of the ministries in charge of health and the environment, the AFSSE will produce a new expert report and a new opinion early 2005.

- National Health and Environment Plan: A report by the steering committee of this programme (interdepartmental commission) was published in February 2004. It offers various recommendations about research, evaluation and risk management. A large part of the report relates to radio frequencies.

- The Conseil Supérieur d'Hygiène Publique de France (Higher Council for Public Health in France) has issued in March 2005 an opinion on ELF and health based on a report commissioned by the DGS (January 2005, www.sante.gouv.fr/htm/dossiers/cshpf/r_mv_1104_champs_ebf.pdf).

5 Legislation & Regulations

Departmental order dated May 17, 2001 (Article 17 bis) concerning the technical conditions under which electric power is distributed. It transposes into French law the recommendation dated July 12, 1999 concerning electrical power lines.

Circular dated October 16, 2001 concerning the implantation of mobile radiotelephony base stations.

Decree no. 2002-775 dated May 3, 2002: Implementation of Article L. 32 of the Posts and Telecommunications Code concerning threshold values for public exposure to electromagnetic fields emitted by telecommunication networks equipment and wireless installations. It transposes into French law the July 12, 1999 recommendation concerning all types of radio frequency transmitters.

Decree no. 2003-293 dated March 31, 2003 concerning road safety, and modifying the Code of Criminal Procedure and the Highway Code.

Decree no. 2003-961 dated October 8, 2003 concerning the evaluation of the conformity of terminal telecommunication equipment and wireless equipment, as well as conditions for start-up and use. It modifies the Posts and Telecommunications Code and transposes into French law the 1999/5 CE Directive.

Departmental order dated October 8, 2003 setting technical specifications applicable to final wireless installations.

Departmental order dated November 3, 2003 concerning *in situ* measurement protocol for checking that broadcast transmitting stations are in compliance with in terms of reference levels and public exposure to electromagnetic fields authorized by Decree no. 2002-775 dated May 3, 2002.

Law no. 2004-669 of July 9, 2004 concerning electronic communications and audio-visual communications service. The law introduces health safety into telecommunications legislation.

Decree of January 10, 2005 recognizing a foundation as a public utility institution (Health and Radio Frequencies Foundation).

6 Risk Communication: resources and strategies

6.1 Public perception of the risk of EMFs, studies, publications, and monitoring activities

The public still expresses concern in France about the possible risks related to mobile telephony, and in particular about radio frequency radiation emitted by base stations. These concerns seem to be diminishing. Several lobbying groups are very active at the local level and in the media.

6.2 Risk communication tools and initiatives: information campaigns, workshops, studies, leaflets, newsletters, etc.

The AFSSE and the DGS are public institutions which inform the public mainly via reports, informational documents and their web sites (www.afsse.fr ; www.sante.gouv.fr).

The three French operators have created an association, AFOM. One of the principal objectives of this association is to inform the public about mobile telephony and health. It publishes documents on its web site (www.afom.fr). In addition, the association publishes informational documents for the general public which are available at mobile telephony points of sale. In addition, the operators signed an agreement with major French cities in order to define conditions under which base stations may be deployed and how the public is to be informed. AFOM signed a protocol of agreement with the Association of French Mayors (AMF) that defines, for all three operators, conditions under which networks may be deployed and how the public is to be informed.

Base stations requiring a work declaration or a building permit will be subject of a notice posted in the town hall and at the worksite. In addition, information related to the proposed siting of an installation can be consulted at the town hall.

Base station locations and the results of electromagnetic field measurements can be consulted on a site run by the ANFR (www.cartoradio.fr).

At the initiative of either the mayor or the operators, informational meetings can be organized when new base stations are installed.

Finally, the operators commit themselves to respond by mail to requests for information related to base stations, proposed sitings and topics related to health and the environment.

An exhibition "Loud and Clear" (Mobile telephony: history, techniques, and uses) was at the Cité des Sciences et de l'Industrie until June 5, 2005.

6.3 Academic and research institutions: risk perception and risk communication studies and research

The newly founded "Health and Radiofrequency Foundation", created at the initiative of the Ministry of Research, is responsible for managing public and private research funds for studies of the biological and medical effects of mobile telephony. These studies are carried out by research laboratories in universities and research institutions. The foundation also has a major role in informing the public about radio frequencies and health.

In addition, a CNRS research unit, the Centre for Organizational Sociology, is particularly interested in the public perception of risks related to mobile telephony base stations. It

published a report in 2004 entitled "Controversies and mobilizations concerning mobile telephony base stations".

(http://www.cso.edu/upload/pdf_breves/Mobilisations%20Antennes%20Relais%20-%20Rapport%20final.pdf).

7 Overview of research support for EMF and health. Main research topics

Research on very low frequency issues is currently funded entirely by France's electric companies (EDF, RTE), whereas research on RFR is funded by several sources — European programmes, the MMF and the GSM Association, the French military research agency (DGA), the Ministry of Research, and the three French mobile telephony operators. Total funding for electromagnetic field research is around € 2 million per year (including research in dosimetry, sociology, etc.)

Currently in France, two public research teams are working on health risks related to exposure to electromagnetic fields — a 15-person team at the PIOM laboratory at Bordeaux University and three people at the INERIS. The international cancer research centre in Lyon is coordinating the international epidemiological study Interphone. In addition, several research laboratories devote part of their time to researching the effect of electromagnetic fields on health within the framework of national or international programs.

In terms of ELF, there is not much activity at present. There are two projects on a leukaemia rat model, and on the serotonin receptor 5HT1B. For RF, most research activity is devoted to mobile telephony.

There is currently a great deal of research activity in dosimetry, both on exposure systems for biological research and exposure assessment (ADONIS programme).

Epidemiological research connected with the Interphone project in its final phase, and there is an ongoing epidemiological study on radar within the military research establishment.

Laboratory research on humans, animals and cells is active, with twenty current projects, including seven studies within COMOBIO+ and several other within ongoing European programmes (see above).

7.1 Government supported research

COMOBIO bis (Mobile Communication and Biology), is a research program that includes:

ADONIS: a research program that brings together academics and industry. Its goal is to increase knowledge and to draw up compliance verification methods for the third generation telecommunication systems (dosimetry). This program was approved in 2002 by the National Telecommunication Research Network (RNRT).

Simulation of electromagnetic fields near radio transmitters (RNRT).

A Priority Concerted Action (ACI), launched by the Ministry of Research, on biological and health effects of mobile radio-telephony, including epidemiology (results expected in 2006). Seven research projects are financed within this framework.

A call for a targeted research project (ARC) on "Exposimetry and radiofrequency" (results expected in 2006) was launched by the AFSSE in order to improve understanding of the

exposure of various population groups to radio frequency electromagnetic fields. Some projects are currently under evaluation.

7.2 National research and academic institutions

RNRT (National Telecommunication Research Network (<http://www.telecom.gouv.fr/rnrt/>) Launched in 1998, the RNRT brings together representatives of the main players in the field of telecommunications (public laboratories, equipment suppliers, operators and authorities). It deals with questions concerning technological innovations and usage studies for the creation of new services. This network is funded by the ministries in charge of industry and research, as well as the French Agency for Innovation (ANVAR).

The Health and Radiofrequency Foundation

A foundation dedicated to research into health and radio frequencies was created in January 2005 with the support of the Ministry of Research. Its activities extend to every radio frequency application, not simply mobile telephony. It is financed by the French government and industry (operators, manufacturers, broadcasters).

7.3 Industry supported research

France Telecom's Research and Development Department has a research team, directed by J. Wiart, that is solely devoted to the health effects of radio frequency fields. This team works in connection with mobile telephony manufacturers and operators.

8 Data and databases on EMF sources and exposure

8.1 EMF source and exposure data across the full range of frequencies

The National Frequencies Agency (ANFR) has created a web site with maps and data about radio frequency transmitters (www.cartoradio.fr).

Cartoradio indexes and locates on a map the 86,000 radio frequency transmitters present in France (except those for civil aviation and defence). It represents 37,000 mobile telephony base stations, 14,000 broadcasting antennas and 35,000 other stations (such as weather radar). It also contains complete results of the measurement of wireless fields (over 5,000 at present).

8.2 Exposure monitoring and compliance measurements

Approximately one thousand site measurements are carried out each year by independent inspection laboratories, according to a measurement protocol defined by the ANFR, in compliance with recommendation ECC 02(04) related to the measurement of non-ionizing electromagnetic radiation between 9 kHz and 300 GHz.

<http://www.ero.dk/documentation/docs/doc98/official/Word/REC0204.doc>

The ANFR is the recipient of all these results, which are then published on the Cartoradio site and accessible to the public. These measurements are carried out either at the request of the public or randomly, within the framework of protocols of agreement between operators and municipalities.

Upon written request by anyone, the operators agree to carry out estimates of the level of electromagnetic fields created by the antenna in question.