Report to the IAC on EMF
W.H.O., Geneva, June 18 - 19, 2007

Since 2006, the same research teams continued to work on the same projects. The updated report of activity is not yet available

ELF - EMF RESEARCH ACTIVITIES IN BELGIUM.

M. Hinsenkamp

During the last year, the research on EMF in Belgium was actively carried out in the field of ELF (50 Hz) supported by a grant from ELIA (there is no governmental support). This grant is given to an interdisciplinary and interuniversity group of laboratories called The Bioelectromagnetic Group (BBEMG) created in 1995.

The orientation of the work is focussed on the research of mechanisms of action at cellular or tissular levels, on the effects on expression of genomic expression, on psychological and neuroendocrinal modification in human as well as epidemiological study, with the technical support of electrical engineers.

BBEMG management committee: President: Prof. J.J. Legros, Coordination: M. Crasson (mcrasson@ulg.ac.be); Members: Prof. M: Hinsenkamp, Prof. M: de Ridder

RESEARCH TEAMS

- **M. Hinsenkamp, J.-F. Collard** (Université Libre de Bruxelles)

In vitro study of the effects of electromagnetic fields on cell sensitivity (differentiation/proliferation)

- **L. Verschaeve, A. Maes** (VITO, Mol)

Study of the effects of electromagnetic fields on biological markers in patients complaining about electrosensitivity (genetic study)

- **M. Crasson, J.J. Legros** (University of Liège)

Electrosensitivity: Psychological and psychophysiological approach of people complaining about electrosensitivity

- **J.L. Lilien, V. Beauvois** (University of Liège)

Contact current perception and electrosensitivity / Characterization of typical contact currents in dwellings in Belgium / Electrical support of the BBEMG team

- **G. Decat** (VITO, Mol)

Characterization of typical contact currents in dwellings in Belgium / Determination of the proportion of children living in Belgium who are exposed to a 50 Hz magnetic induction field of 0,4 microtesla

- **M. De Ridder, L. Braeckman** (Ghent University)

Literature review / Analysis and risk assessment

R-F RESEARCH ACTIVITIES IN BELGIUM

L. Verschaeve

- **D. Adang**[1,2]**, C. Remacle**[1]**, A. Vander Vorst**[1] ([1]UCL, Louvain-la-Neuve, Belgium, [2] Defence, ACOS Well Being, Belgium)

A long-term epidemiological study concerning the biological effects of microwaves (radar, cellular phone)

- **Gilbert Decat** (VITO, Mol, Belgium)

The group is performing an extended exposure assessment study on, among others (static, ELF, VLF, IF-fields) the RF-radiation of wireless applications, pico-cells and micro-cells in public places, public transport and shopping streets.

- **G. Vandenbosch** (Katholieke Universiteit Leuven)

The research group ESAT-TELEMIC of the K.U. Leuven is involved in the modeling, design, and measurement of antennas dedicated to operate in the presence of or even inside the human body. The group also performs a project to model shielding textiles. They are to be used in future wireless Body Area Networks. The group also cooperates in projects to illuminate human tissue, where it takes care of the technical aspects. It provides general information about electromagnetic radiation to the general public at many occasions.

- **L. Verschaeve et al.** (VITO, Mol, Belgium)

Last activities were the involvement in the EU-5th framework program "CEMFEC" and a number of meetings and advises given for local authorities and the layman. They also participated in the activities of standing committee II of ICNIRP (biology).

- **Luc Martens (**Wireless and Cable group, Department of Information Technology, Ghent University)

  - Dosimetry for body-mounted and portable wireless devices (Eureka SARSYS-BWP project)(Chapter dosimetry handbook)
  - Safety aspects of non-Ioninising radiation in house (Report for the Flemish Parliament).
  - Procedures for measurement of exposure of current and future telecommunication systems (GSM, UMTS, WiMAX)
  - In-the field measurements around GSM and UMTS base stations
  - Mobile phones and children (COST281 project)