

Ms. Emily O'Reilly  
European Ombudswoman

Madrid, 5 November 2013

We, the undersigned health, environmental, citizens and occupation/workers organisations are writing to express our concerns about a **matter of urgency for the health of EU citizens and wildlife** of the **unprecedented global exposures to artificial electromagnetic fields (EMF) classified as possible carcinogenics type 2B by the World Health Organisation (WHO)**, and to kindly ask you to ask **the EU Commission to actively protect people and the environment from this potential danger** based on the following facts:

1. The EU Commission is responsible to protect, preserve and improve the environment for present and future generations and to make Europe a healthier, safer place, where consumers can be confident that their health is protected.

2. Artificial electromagnetic fields : EMF (1) have been classified by WHO as possible carcinogenics type 2B in [2002](#) and [2011](#) (2), respectively.

3. Most EU national policies follow [Council Recommendation of 12 July 1999](#) which is based on a Commission proposal that used the ICNIRP Guidelines -([International Committee on Non-Ionising Radiation Protection](#)) "Guidelines for Limiting Exposure to Time-varying Electric, Magnetic, and Electro-magnetic fields (up to 300 GHz)" - [as the scientific basis.](#)

- **The ICNIRP-Guidelines do not take into account exposure of children or women to electromagnetic fields (EMF) (3)**
- **The ICNIRP-Guidelines only consider acute effects of the instantaneous exposure and not biological effects. (4)**
- **It has been demonstrated that exposure to EMF have biological effects [such as disruption of memory, decline of attention, diminishing learning and cognitive abilities, increased irritability, sleep problems, blood brain-barrier disruption, increase in sensitivity to stress and cancer \(DNA breakage\).](#)**
- **The basic principles used as the scientific basis, could be shown to be either unsubstantiated or wrong. (5)**
- **Since 2002 there are studies that confirm that Childhood leukemia is [possibly linked](#) with close high-voltage power lines. Kheifets et al. 2010**
- **Since 2007 there are studies that confirm that brain tumours are [possibly linked](#) with mobile phone use. IARC monograph vol. 102**
- **In October 2012 the Italian Supreme-Court (employment section) recognized with Sentence no. 17438, 3.12.10.12. **the relation between long term use of cordless and mobile phone and tumor at the trigeminus** (causa Marcolini).**

4. According to the [European Parliament](#) (European Parliament resolution of 2 April 2009 on **health concerns associated with electromagnetic fields** (2008/2211(INI)-PE416.575v2/00) and the [Council of Europe](#) (Resolution 1815 (2011) on *The potential dangers of electromagnetic fields and their effect on the environment*) **current exposure limits to EMF are too high and there is a need for public Information Campaigns, public Education Campaigns and a need to protect vulnerable populations.**

5. According to the [European Commission](#), the [Council of Europe](#) and [the EEA](#), **when there is sufficiency of evidence** (rather than conclusive scientific evidence) **that an agent can negatively affect people's health or the environment, we should apply precautionary actions to avoid any possible harm** (and so to avoid what happened with agents such as asbestos, X rays or lead in petrol).

6. According to [Article 191 of the Treaty on the Functioning of the European Union](#), the precautionary principle 'may be invoked when a phenomenon, product or process may have a dangerous effect, identified by a scientific and objective evaluation, when this evaluation does not allow the risk to be determined with sufficient certainty.'

7. Various international scientific resolutions and expressions of concern have been asking public institutions since 1997 to actively protect people and the environment from the effects of artificial EMF (6)

8. Insurance and Re-insurance companies consider EMFs as emerging risks and exclude, especially due to their asbestos-experience in the past, since years and on-going, coverage of EMF-damages in their business liability insurance-contracts. (7)

9. According to a recent study from August 2013, the world's Information- Communication- Technologies (ICT) system uses about 1,500 TWh of electricity annually- [the equivalent to all the electric generation of Japan and Germany combined](#)- (8)

For all these reasons, we, the undersigned health, environmental, citizens and occupation/workers organisations, believe **it is time for the EU Commission to actively protect people/public health and the environment from this potential danger** and therefore kindly ask Ms. Emily O'Reilly, our European Ombudswoman, to:

1. **Ask the European Commission to recognize that the [Council Recommendation of 12 July 1999](#) is actually not able to protect people/public health** and the environment from the current exposure to EMF and their potential dangers as populations potentially at risk are very large - just at the end of 2012, there were [6.8 billion mobile subscriptions](#).

2. **Ask the European Commission to recognize the overwhelming evidence of the potential dangers of EMF and acknowledge the conclusions from the WHO/IARC reports from [2002](#) and [2011](#), the [Council of Europe's \(PACE\) Committee Resolution 1815](#), and the [European Parliament Resolution](#) (European Parliament resolution of 2 April 2009 on health concerns associated with electromagnetic fields (2008/2211(INI) PE416.575v2/00) and that therefore this sufficiency of evidence (rather than conclusive scientific evidence) warrants **PRECAUTIONARY MEASURES.****

3. **Ask the European Commission to take the necessary steps to reflect this PRECAUTIONARY MEASURES in EU-EMF-Policy** as the consequences of doing nothing in the short term may cause irreparable public health harm and to actively ensure that European health and environmental protection and not undermine them by policies which disproportionately address the short term interests of telecommunication industries.

4. In particular call on the EU Commission **to implement specific precautionary measures at three levels** through a Council Recommendation addressing:

- levels of maximum exposure
- exposure-monitoring (area monitoring)
- precautionary information campaigns
- precautionary measures for hot spots and vulnerable populations

Through the following:

a) To recommend member states to limit the maximum exposure of RF- EMF to 0.6 V/m, ensuring continual monitoring of this limit, providing continual public information on current exposure levels and doing progressive review of this limit on the basis of the latest scientific publications, and to limit the maximum exposure of Magnetic fields (ELF) to 0.1 $\mu$ T, doing also progressive review of this limit on the basis of the latest scientific publications. Both these limits have already been demonstrated to be practicable in some areas of the EU (0.6 V/m in parts of the city of Salzburg and in the city of Feldkirch/Austria and Varades/France) and are compatible with technology (following the ALATA principle: As Low As Technically Achievable).

b) To recommend member states to create national Information Campaigns and Education Programmes at national level for vulnerable populations (children, parents, pregnant women, the elderly and the ill), professionals (health professionals, teachers, etc.) and the general population to raise public awareness on minimizing exposure to EMF and potential associated risks for both RF and MF-ELF. Promoting wired (instead of wireless) connections, promoting flat rates for wired instead of actually only for wireless connections, minimizing the risks involved in the use of cell phones and other wireless devices (reduce time of exposure, increase distance between wireless devices and the head and the body, have them switched-off when close to the body, choose mobile phones with lowest SAR shown on the package and at the point of sale, avoid its use by children or pregnant women, use of cable phones for long calls, etc.).

c) To recommend member states to establish public places free from EMF: such as schools, kindergartens, hospitals and health care facilities, governmental buildings and others (such as post-offices, libraries, etc.), public transport (trains, airplanes, buses, taxis etc.), community centers and residences for the elderly, shopping centers, etc., withdrawing from the market all cell phones and wireless devices specifically intended for children including the so called Mosquito alarm, ordinary DECT cordless phones, technologies that expose infants to the RF-EMF and ELF-MF (such as incubators, baby monitors, toys etc.) and ensuring adequate protections for vulnerable populations, including pregnant women, children and hot spot communities as the third crucial step in achieving adequate regulation of EMF with possible carcinogenic properties.

Yours sincerely,

Irina de la Flor  
Director HDO  
**Foundation Vivo Sano**

## ANNEX

1. Both MF-ELF: Magnetic Fields, Extremely Low Frequency Fields - such as the fields created through power lines, and RF: Radiofrequency - such as the fields created through wireless communications of mobiles and their antennas, wifi etc-
2. [http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208\\_E.pdf](http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf)
3. The model only studied effects of [Reference man ICRP 1994 exposed](#) to EMF: Reference man is defined as being between 20-30 years of age, weighing 70 kg [154 pounds], is 170 cm [5 feet 7 inches] in height, and lives in a climate with an average temperature of from 10o to 20oC. He is a Caucasian and is a Western European or North American in habitat and custom and therefore, this definition leaves out the vast majority of people, [including substantial numbers of workers, women \(including pregnant women\) and children](#). Although ICNIRP claims that there is a safety factor of 50 which accounts for these differences, there is not [substantial evidence](#) that these populations are correctly protected. **It is known as a fact that populations exposed to EMF currently** include babies, children, women, pregnant women and foetus, the elderly and the ill.
4. According to ICNIRP there are no long term effects. They reviewed studies of long term exposures and claim that these studies are insufficient to provide a basis for the derivation of exposure standards. It is known as a fact **that all populations are exposed chronically to EMF** (both RF and MF- ELF) through mobile antennas and mobile phones, wifi networks, power lines, cordless phones and other electrical and wireless devices etc. and that this exposure is raising dramatically during the last years. Especially in urban areas there are often dozens of simultaneous emissions in the RF/MW range. If the problem is mentioned at all, additivity is assumed, often referred to as a worst-case scenario (see e.g. ICNIRP, 1998, p.514).
5. Given the following points:
  - The assessment of epidemiological evidence is severely biased and does not conform to the state of the art
  - In general all evidence challenging the thermal effects principle is either neglected, distorted or reinterpreted, without any scientific justification
  - EMF positive results from cellular and animal studies are discarded on the only ground that they have not been replicated even if these studies give support to each other
  - It is falsely claimed independent replications of findings were unsuccessful
  - A considerable proportion of literature that demonstrates positive effects is not even mentioned and
  - The principles on which the derivation of ICNIRP- guidelines are based have not been explicitly stated thereby obscuring the weakness of its fundament.
  - The results obtained by Repacholi et al. (1997), a more than 2-fold increase of lymphoma, were consistent with previous findings from Chou et al. (1992) and from Szmigielski et al. (1982, 1988), and give support to the observations of DNA damages after short term exposure by Sarkar et al. (1994) and Lai & Singh (1995, 1996). This evidence together with the findings from epidemiological studies definitely ask for a very cautious approach, and should revive the recommendation of WHO from 1981 that exposure “should be kept as low as readily achievable” (UNEP/WHO/IRPA 1981, p.108)”. The predominantly negative findings in long-term animal experiments since then are mainly due to methodological flaws (confinement stress, animal strains with unlikely responsiveness to EMF etc.) and cannot be used as evidence against a causative role of EMFs.
  - It has been proposed by Frey et al. (1975) that the **permeability of the blood-brain barrier** might be altered by pulsed EMFs. A number of experiments seem to support this hypothesis (e.g. Oscar & Hawkins 1977; Neubauer et al. 1990; Salford et al. 1994). None of these findings are mentioned in the ICNIRP paper.
6. The [Vienna](#) resolution, [Salzburg](#) resolution, [Catania](#) resolution, [Freiburger Appeal](#), [Helsinki](#) resolution, [Irish Doctors](#) (IDEA) resolution, [Benevento](#) resolution, [Venice](#) resolution, [London](#) resolution, [Porto Alegre](#) resolution, [Helsinki Appeal](#), the [Russian National Committee](#) on Non-Ionizing Radiation Protection (RNCNIRP) resolution, [Seletum](#) resolution, the [Stewart Report](#), and the well-known “Late lessons from early warnings vol. 2” from the European Environment Agency.
7. “The need for insurance protection against EMF has been recognized. Under present conditions, insurers are bound by narrow under-writing limits because the legal systems are still caught up in a gradual process of change with an uncertain outcome, and while the insurance industry has a responsibility in helping shaping this change, it must not allow itself to be misused as a financier for funding this societal process”. Source: Swiss Re- insurance- Electromog a phantom risk 1996.
8. [http://www.tech-pundit.com/wp-content/uploads/2013/07/Cloud\\_Begins\\_With\\_Coal.pdf](http://www.tech-pundit.com/wp-content/uploads/2013/07/Cloud_Begins_With_Coal.pdf)