



President José Manuel Barroso

Cc: Vice-President Antonio Tajani, EU Commissioner for Industry and Entrepreneurship

Cc: Commissioner Janez Potočnik, EU Commissioner for Environment

Cc: Commissioner Tonio Borg, EU Commissioner for Health and Consumer Policy

Madrid, 12th September 2013

Dear President Barroso,
Dear Commissioners Tajani, Potočnik, and Borg,

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)** (both RF: Radiofrequency and MF-ELF: Magnetic fields, Extremely Low Frequency), which the World Health Organisation (WHO) have classified as possible carcinogenics type 2B.

You will soon be taking key decisions on public health implications for significantly reducing exposure to these toxicants which low-intensity (non-thermal) bioeffects and adverse health effects are demonstrated at levels significantly below to existing EU exposure recommendations and guidelines (1), that will improve EU citizens health and the protection of EU wildlife, increase health and consumer information aspects, promote innovative technologies, reduce European health costs and ultimately ensure EU leadership in strengthen the competitiveness of Europe's telecommunications industry.

With the Europe 2020 strategy, the EU has set itself the goal of becoming a smart, sustainable and inclusive economy. We believe that precautionary actions (2), given the existing evidence for potential global risks of EMF, will make a significant contribution to greater sustainability, lead to a more efficient use of resources through the development of safer and greener technologies and will bring significant health benefits that will contribute to a healthy population.

The weight of scientific evidence, as outlined in the recent review by the WHO and the IARC (3), tells us that the European population are not sufficiently protected from EMF as they are possibly linked to serious irreversible impacts on human health. Recent EU co-funded research programmes show that EMF have a stronger impact on sensitive populations (such as fetuses, children, pregnant women, the elderly and the ill). It is therefore important that the EU ensures that European health and environmental protection is not undermined by policies which disproportionately address the short term interests of telecommunication industries. **Exposure minimization** should become the key goal of the new EU EMF policy.

In particular we call on the EU Commission to work in the coming weeks:

1) **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 μ T**, doing also progressive review of this limit on the basis of the latest scientific publications as the first two crucial steps in achieving adequate regulation of EMF with possible carcinogenic properties in order to position the EU at the head in the protection of people and the environment (4).

2) **To create European Information Campaigns (5) and Education Programmes for professionals to raise public awareness on minimizing exposure to EMF and potential associated risks** promoting wired (instead of 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.) (6) , targeting especially vulnerable populations as the second crucial step in achieving adequate regulation of EMF with possible carcinogenic properties.

3) **To develop a strategy 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. (7)

As the existing legislation is not able to do this currently, we call on you **to recognise the overwhelming evidence of the potential dangers of EMF and acknowledge the conclusions from the WHO/IARC reports and the Council of Europe's (PACE) Committee Resolution 1815 (8) and to take the necessary steps to reflect this knowledge in EU EMF Policy.**

We also call on you to ensure European leadership in the global context as EMFs have become a **priority health issue in international discussions** on the safe use of technology. Recent reports from the European Environment Agency (EEA) and UNEP have demonstrated the costs of inaction associated with health and environmental effects of EMF exposure and how much more expensive it is to take action later after there have been early warnings.

In view of the public interest in this matter, we aim to make the matters of this letter widely available.

Yours Sincerely,

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Supported by the following organisations:

Ärztelammer für Wien (Medical Association of Vienna)

AerztInnen fuer eine gesunde Umwelt AeGU (ISDE Austria)

A.P.P.L.E. Associazione Per la Prevenzione e Lotta all'Elettrosmog

Asociación nacional Española de Juristas contra el Ruido

Association québécoise de lutte contre la pollution atmosphérique (AQLPA)

Associazione Elettrosmog Volturino

Beperk de Straling

Bio Electromagnetic Research Initiative (BEMRI)

Citizens for Safe Technology Society

EMF Safety Network

European Academy of Environmental Medicine EUROPAEM

Fondo para la Defensa de la Salud ambiental (FODESAM)

Foundation for Gaia

Fundación Alborada

Fundación para la Salud Geoambiental

Health and Environment Alliance (HEAL)

h.e.s.e.-project

Instituto Español de Baubiologie (IEB)

International Campaign for Responsible Technology

International Coalition for an Electromagnetic Safe Planet (IC-ESP)

International Institute for Sustainable Development (IISD)

Irish Doctor's Environmental Association (IDEA)

Mast Victims

Planetary Association for Clean Energy

Robin des Toits

Teslabel asbl

Annex

1) Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) (Official Journal L 199 of 30.7.1999). Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic and Electromagnetic Fields – up to 300 GHz 1998.

2) Communication from the Commission on the precautionary principle COM (2000) 1 final 02.02.2000 COM (2000).

3) WHO-fact-sheet 193 revised 2000.

4) EMF proposed limits for controlling EMF with possible carcinogenic properties are justified based on a prudent public health planning principles (sufficiency of evidence) rather than conclusive **scientific evidence** (causation or scientific certainty) founded on five facts:

a) The consequences **of doing nothing in the short term may cause irreparable public health harm as the populations potentially at risk are very large.**

b) The **proposed limits have been already established in some areas of the EU** (as 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).

c) In the case of mobile-phone-antennas, **most population across Europe are exposed 24/7** involuntarily for many years and vulnerable population are mostly unprotected including people who are electrosensitive.

d) The **conclusions of various international scientific resolutions and expressions of concern** including the Vienna, Salzburg, Catania, Freiburger Appeal, Helsinki, Irish Doctors (IDEA), Benevento, Venice, London, Porto Alegre and Seletum Resolutions and Bionitiative Report (1998-2011) and as well as “Late lessons from early warnings vol. 2”.

e) The **existing body of evidence:**

e1) EMF policies and recommendations outside the EU:

China: From the total of 383 Chinese papers investigating EMF biological effects in the China National Knowledge Infrastructure (CNKI) databank, it is stated that there were 109 epidemiological studies. 108 of these noted biological effects as a result of exposure. In the epidemiological studies reviewed, 32 were for exposure levels higher than EMF exposure limits for members of the general public in China. The other 77 papers were for exposure levels lower than public exposure limits in China. Details of these exposure limits provided by Chiang (2009) are given below (Table 1).

Table 1: General Public Exposure Limits to RF/microwave radiation in China

Frequency 1st class exposure limits 2nd class exposure limits

0.1-30 MHz	10 V/m	25 V/m
>30-300 MHz	5 V/m	12 V/m
>300-300.000 MHz	10 μ W/cm ²	40 μ W/cm ²

Source: Chiang (2009).

India: Cell phone technology has grown rapidly in India, and currently there are more than 90 crores cell phone subscribers and nearly 5.0 lakhs cell phone towers. Cell operators are allowed to transmit 20W of power per carrier from individual cell tower antenna. One operator may have 4 to 6 carrier frequencies and there may be 2 to 4 operators on the same roof top or tower. Thus, total transmitted power may be 100 to 400W. From Sep. 1, 2012, India has adopted 1/10 of ICNIRP Guidelines, which implies safe power density of 470 milliWatt/m² for GSM900 and 920 milliWatt/m² for GSM1800 after Inter-Ministerial Committee (IMC) report came out in Jan. 2011, which mentioned several health hazards due to radiation. Source: Kumar (2013)

Australia: Radiation Protection and Nuclear Safety Agency (ARPANSA) is preparing a standard for low frequency fields up to 3 kilohertz. The draft document includes an increase in the public reference level for

magnetic flux density to three times the reference level in the European Recommendation. On the other hand, more attention is paid to precautionary measures such as an obligation to investigate the possibility and cost effectiveness of minimising exposure. The draft standard is still under review. RIVM 118/2011 LSO Sta Page 4 of 13. Source: "Comparison of international policies – National Institute for Public Health, The Netherlands" – RTVM 118/2011

Russia: The SanPiN 2.1.8/2.2.4.1190-03 safety standard on mobile communications states that in the Russian Federation the maximum permissible exposure for the general public in the 300 MHz to 300 GHz range is 10 $\mu\text{W}/\text{cm}^2$. It also recommends: "Use of mobile telecommunication devices should be restricted for those under 18 years of age and pregnant women" (SanPiN 2003). The motivation for this is to prevent biological effects that are not seen as health risks in Western countries. Source: Jamieson (2013)

Switzerland: an Ordinance on Non-ionising Radiation has been in force since 1999. Exposure limits identical to the reference levels in the European Recommendation apply to all areas accessible to the public. A stricter, precautionary limit on magnetic flux density of 1% of the reference level applies to new installations, unless the owner can prove that the phase order has been optimised and all technically possible and economically viable measures to reduce exposure have been taken. For existing installations, the phase order has to be optimised when the precautionary limit on magnetic flux density is exceeded. Source: "Comparison of international policies – National Institute for Public Health, The Netherlands" – RTVM 118/2011

United States: US FCC Guidelines for 60 GHz Radiation. The FCC Code of Federal Regulations guidelines stipulate that in the 57-64 GHz frequency range emissions "shall not exceed 9 $\mu\text{W}/\text{cm}^2$, as measured 3 meters from the radiating structure, and the peak power density of any emission shall not exceed 18 $\mu\text{W}/\text{cm}^2$, as measured 3 meters from the radiating structure" (FCC 2007).* That value is far more onerous than that presently stipulated by ICNIRP for this frequency range. Source: Jamieson (2013)

e2) Insurance and Re-insurances 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. *"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- Electrosmog a phantom risk 1996

e3) Mobile phone companies are patenting systems to reduce electrosmog in wireless networks based on the negative demonstrated effects of EMF in human health. Source: Swisscom patent, World Intellectual property Organisation WO 2004/075583A1

5) EU Transparency & Communication: The Communication Campaigns should ensure transparency of existing data and provide incentives for more data generation. It is vital to provide transparency on what findings already exist, and to encourage manufacturers to provide further data. Outstanding scientific questions should not lead to inaction. The criteria must be applied in individual pieces of EU legislation (e.g. workers, general population) and the United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters adopted on 25 June 1998 must be respected. Examples of public information systems on RF-EMF-exposure can be similar to the one developed by Comune di Venezia and ARPAV – Rapporto annuale CEM <http://www.comune.venezia.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/33125>

6) See recommendations from Ärztekammer für Wien http://www2.aekwien.at/dlcentre/uploads/Handyplakat_EN-1372920488.pdf

7) According to the UN's Protect, Respect and Remedy Framework sets out standards for businesses to avoid infringing human rights, inclusive of the right to health, and to address and remedy negative impacts.

8) <http://assembly.coe.int/Mainf.asp?link=/Documents/AdoptedText/ta11/ERES1815.htm>