



# European Citizens' Initiative "Electromagnetic Radiation"

## EUROPEAN MANIFESTO IN SUPPORT THE ECI

1. **APPLICATION OF THE PRECAUTIONARY PRINCIPLE AND THE ALARA (As Low As Reasonably Achievable) AND ALATA (As Low As Technically Achievable) PRINCIPLES FOR EMF EXPOSITION (INMISSION)**, in accordance with the European Environment Agency (1) and items 5, 8.1.2 and 8.4.3 of Resolution 1815 (2011), of the Parliamentary Assembly of the Council of Europe -PACE- (2), and with its constant update on the basis of the latest knowledge on biological effects.

2. **REVISION AND MINIMIZATION OF EMF EXPOSURE (INMISSION) LIMITS (3), WITH MONITORING FOR ITS COMPLIANCE**, on the basis of existing knowledge about biological and adverse health effects (thermal and non-thermal), as requested by items 8.1.1 and 8.1.2 of the PACE Resolution 1815 (2), and the various declarations of the European Environment Agency (1) on the basis of the Bioinitiative Report (4) and 2010 ICEMS Monograph on non-thermal effects of electromagnetic fields (5), and by the ICEMS resolutions since 2002 (6).

### RADIO-FREQUENCY ELECTROMAGNETIC FIELDS (RF-EMF):

- **Starting** with the maximum exposure limit for the sum of RF-EMF exposures, on the basis of bio-effects and adverse effects listed in the Bioinitiative Report 2007, which reviews over 2000 studies:

<b>Indoors</b> , recommended in item 8.2.1 of the 1815 PACE Resolution 2011 (1):		
<b>0.01 <math>\mu\text{W}/\text{cm}^2</math></b>	<b>0.1 milliwatt/m<sup>2</sup></b>	$\cong 0.2 \text{ V/m}$
... And <b>outdoor equivalent</b> :		
<b>0.1 <math>\mu\text{W}/\text{cm}^2</math></b>	<b>1 milliwatt/m<sup>2</sup></b>	$\cong 0.6 \text{ V/m}$

- **Real-time comprehensive monitoring** of compliance with the exposure limit through continuous monitoring areas with public information in real time over the Internet covered by some regulations (7), in accordance with item 8.4.3 of the PACE Resolution 1815 (2), item 9 of the European Parliament resolution P6\_TA (2009) 0216 (8) and Article 5 of the Aarhus Convention (9).

### EXTREMELY LOW-FREQUENCY ELECTROMAGNETIC FIELDS (ELF-EMF):

- **1 milligauss (0.1  $\mu\text{T}$  -microtesla-) in living areas as a maximum exposure limit for the ELF/CEM of the power grid (power lines, substations, transformers, ...)**, that is secured by a urban planning a safe distance from inhabited areas of 1 m for each Kilovolt rated voltage covered by some regulations (10), in accordance with items 8.4.1 and 8.4.2 of the PACE Resolution 1815 (2), and items 8 and 26 of the European Parliament resolution P6\_TA (2009) 0216 (8) ("to minimize the exposure of residents in the case of extension of a network of high-voltage power lines"), based on scientific bibliography supported by the EEA for the PACE in 2011 (1, 4 and 5) and the recommendation of the Seletun Scientific Panel 2009 (11). These exposures limits must be considered a minimum agreement since has been reported about bioeffects in limits lower than 1 mg (4 and 5).

**PROGRESSIVE REVIEW/UPDATE OF THOSE LIMITS**, on the basis of the latest scientific studies and publications on bio-effects as already included in the Bioinitiative 2012 Report updates, review of more than 1,800 new studies (4), and raised at the Potenza Picena Resolution 2013 (12), and the future studies.

### 3. INFORMATION AND EDUCATION:

- **Information campaigns, with the participation of organizations of concerned citizens in accordance with the Convention of Aarhus (9), to raise public awareness on the basis of the European Parliament resolutions 2008 and 2009 (3 and 8) -to minimizing exposure to EMF-, of the item 8.2.4 of PACE Resolution 1815 (2) -reporting of potential risks-, recommended by various resolutions European health agencies, professional associations and scientific (13). Recommend the promoting wired instead of wireless connections and teaching to recognize. Minimize the risks involved in the use of cell phones and other wireless devices (reduce the time in use, Increase the distance between wireless devices and the head and the body in general, avoid the moments of maximum exposure, use of the cable phones for long calls, ...), especially for higher risk populations (14), as well as the risks of using wireless devices to access data networks (15). These awareness campaigns should also include health risks associated with household appliances (and how to minimize them), as requested in item 18 European Parliament resolution P6\_TA (2009) 0216 (8), and the lamps (CFL).**

**Report the effects described in medical bibliography (4, and 5) on active or passive exposure (as in the case of tobacco) to EMF short to medium term [headache, insomnia, anxiety; altered cognition, memory and learning, behavior, reaction time, attention and concentration, brain activity (altered EEG), ...] and long term [EHS, chronic fatigue, fertility problems, vascular disease, degenerative and oncological (16), ....]**

- **Schools as Healthy Zones EMF-FREE, in the same category as the existing "Smoke-Free Zones":**

**Protection and education for children and young people given their special vulnerability (higher risk) in their growing years (crucial time for the acquisition of habits), ensuring the internet wiring (neither Wi-Fi nor the other wireless devices), as requested in item 8.3.2 the PACE Resolution 1815 (2).**

**Health education for education related agents about the risks of radiation from wireless devices, given the higher vulnerability of children and young people to EMF exposure and the peer and advertising pressures (addictive behaviors), urging a delay of the start-up age in children and adolescents. Establish and strengthen health and environmental education programs on specific risks of EMF. As requested in item 8.3.1 the PACE Resolution 1815 (2), item 17 of the European Parliament P6\_TA(2009)0216 (8) and numerous recommendations of health agencies, professional and scientific associations (13). And on another, the participation of stakeholders is contemplated by the Aarhus Convention (9).**

### 4. RECOGNITION OF EHS, PROTECTION OF EHS PEOPLE AND ZONES PROTECTED FROM EMFS

- **Official recognition of the existence of the "electro-hypersensitivity" syndrome as an environmental disease and – as it is done in Sweden- as a Functional Disability (functional disorders and their resultant disabilities), including both adaptation of the work environment and work disability compensation. Within the meaning of item 8.1.4 of the PACE Resolution 1815 (2), and item 28 of the European Parliament P6\_TA(2009)0216 (8).**

- **Establishing health screening and intervention protocols, already made by institutions such as the College of Physicians of Austria (17). Educating health professionals about the existence of this syndrome and promoting their learning about environmental diseases.**

- **Public places as WHITE ZONES, EMF-FREE: schools and kindergartens, hospitals and health care facilities in general, governmental buildings and others (such as post-offices, libraries, etc) attending the public, public transport, community centers and residences for the aged, shopping centers, ...; in compliance with the general principles of **International Convention on the Rights of Persons with Disabilities**, of non-discrimination, full and effective participation and inclusion in society, equality of opportunity, accessibility, ... (18)**

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- **Ensuring livable housing for EHS people:** establishment of WHITE ZONES in towns and cities, as an emergency measure for people at increased risk, and the granting of state aid for the protection of their homes. All this in the line with item 8.1.4 of the PACE Resolution 1815 (2) and in compliance the International Convention on the Rights of Persons with Disabilities (18)

### 5. MEASURES FOR INDUSTRY AND PUBLIC AUTHORITIES:

- **Public participation in the process of implementation and monitoring of mobile phone base stations and terminals and high-voltage lines**, as requested in 8 of the European Parliament resolution P6\_TA (2009) 0216 (8), item 8.4.4 of the PACE Resolution 1815 (2) and Article 6 of the Aarhus Convention (9).

- **Regulation of advertising promoting microwave emitting devices**. Prohibition of advertising promoting an excessive use of wireless devices and prohibition of advertising of these devices aimed specifically at children and adolescents (most vulnerable), as denounced in Item 23 of the European Parliament Resolution P6\_TA(2009)0216 (8). This regulation follows the footsteps of the European Directive on publicity of tobacco 2003 (19)

- **Mandatory labeling of wireless devices**, in accordance with the item 8.2.3 of the PACE Resolution 1815 (2) and Following the steps of the measures labeling applied by the European Directive 2001 on tobacco products (20). Print an alert of potentially **“injurious to health”** next to the classification as **carcinogenic, category 2b** by IARC/WHO (16), with the disclosure of health potential risks associated with their use and tips to minimize those risks. Mandatory information on SAR printed on the packages of cell-phones and on their selling outlets.

- **Withdrawal from the market of cell phones and wireless devices specifically intended for children**, which are in contradiction with items 8.1.1 and 8.3 of the PACE Resolution 1815 (2), **well as the withdrawal of ordinary DECT cordless phones** –which should be replaced with wired phones or lower emission ZERO DECT phones: Eco-DECT Plus and Eco-Full (21). On the line specified in item 8.1.5 (promoting “technologies which are just as efficient but whose effects are less negative on the environment and health” -or that do not have them-) of Resolution 1815 of the PACE (2).

- **Installation of warning devices the conversation after 3 minutes**, in prevention of the increased incidence of brain tumors, as recommended by the Russian National Committee on Non-Ionizing Radiation Protection (22), on the line specified in item 8.1.1 of Resolution 1815 of the PACE (2). See note and classification of IARC / WHO (16)

- **Health standards of living** to discourage talk on the cellphone about pregnant women, children and adolescents and anyone who requires their right not to become passive user, in compliance with the International Convention on the Rights of Persons with Disabilities. (18) and in according to protection standards of passive smokers of tobacco smoke (especially in childhood and maternity) listed in the WHO Framework Convention on Tobacco Control, 2003 (23).

- **Withdrawal from the market of incubators whose engines expose infants to the ELF-EMF**, enhancing the design of incubators with the engine away from the baby or using suitable ELF-EMF absorbing panels to protect your body (like Mu-metal) (24), within the meaning of item 8.1.5 of Resolution 1815 of the PACE (2) of promoting technologies which are just as efficient but whose effects are less negative on the environment and health.

- **Moratorium** on the use and deployment of "Smart Meters" (25) and 4G networks, on the line specified in item 8.1.1 (“take all reasonable measures to reduce exposure to electromagnetic fields”) and item 8.1.5 (promoting “technologies which are just as efficient but whose effects are less negative on the environment and health” -or that do not have them-) of Resolution 1815 of the PACE (2).

- **Mandatory liability insurance covering also health damages** for the cell-phone and other wireless devices industry, whose absence is evidenced in item 26 of the European Parliament resolution P6\_TA (2009) 0216 (8).

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- **Promotion of independent research and studies**, as requested in items 8.5.4-8.5.7 of Resolution 1815 of the PACE (2). Increased public funding, independent commissions for the allocation of public funds, mandatory transparency in lobbying, incompatibility of participation and funding from foundations supported by the telecommunications and energy sectors in public agencies (26) with the obligation to report the source of funding of the studies included in the risk assessments of these bodies.
- **Ensure transparency, impartiality and plurality of expert assessments** on health risks of non-ionizing electromagnetic fields (EMF), within the meaning of item 7 Resolution 1815 of the PACE (2), at all levels of decision including the appointment of experts, the presentation of alternative scientific interpretations, the inclusion of the "views" of citizenship with the presence of the relevant groups in this area in implementation of the Aarhus Convention (9), ...
- **Replacement of wireless networks by wired connections wherever possible**. Establishment of a European network of coaxial / optical fiber cable (27), on the line specified in item 8.1.1 ("take all reasonable measures to reduce exposure to electromagnetic fields") and item 8.1.5 (promoting "technologies which are just as efficient but whose effects are less negative on the environment and health" -or that do not have them-) of Resolution 1815 of the PACE (2).
- **Promotion of technologies and techniques biocompatible and sustainable future** from the point of view of environmental and human health, within the meaning of item 8.1.5 of Resolution 1815 of the PACE (2) and item 7 of the European Parliament resolution P6\_TA (2009) 0216 (8).

### NOTES:

1.- See communications from the European Environment Agency (EEA) in support Bioinitiative Report in 2007 (<http://www.eea.europa.eu/highlights/radiation-risk-from-everyday-devices-assessed>), in 2008-2009 (in the Committee on the Environment, Public Health and Food Safety of the European Parliament) in 2011 (Speech of Director of the EEA: [http://latelessons.eea.europa.eu/fo572324/statements/Benefits\\_of\\_mobile\\_phones\\_and\\_potential\\_hazards\\_of\\_EMF.doc/download\\_d](http://latelessons.eea.europa.eu/fo572324/statements/Benefits_of_mobile_phones_and_potential_hazards_of_EMF.doc/download_d)), and their participation in the Committee on the Environment, Agriculture and Local and Regional Affairs of the Parliamentary Assembly of the Council of Europe - see section B, point 4.21 of document 12608: <http://www.assembly.coe.int/ASP/Doc/XrefViewPDF.asp?FileID=13137&Language=EN>) and in 2013 ("late lessons from early warnings" Volume 2: <http://www.eea.europa.eu/publications/late-lessons-2>)

2.- Resolution 1815 of the Parliamentary Assembly of the Council of Europe (PACE) on potential hazards of electromagnetic fields and their effects on the environment (27.05.2011): <http://assembly.coe.int/Mainf.asp?link=/Documents/AdoptedText/ta11/eRES1815.htm>

3.- The limits set by the ICNIRF are INSUFFICIENT and IRRELEVANT: never have protected the biological effects and chronic exposure to long-term, only have been based on the thermal effects of short term exposure -6 minutes exposure-(<http://www.icnirp.de/documents/emfgdl.pdf>), along the lines set in paragraphs 21, 22 and 23 of the European Parliament Resolution of September 2008 on Mid Term Review of Environment and Health Action Plan (2004-2010): <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2008-0410+0+DOC+XML+V0//EN>, and item 8.1.2 of the PACE Resolution 1815.

4.- Bioinitiative Report 2007/2012. August 2007 Edition: review of over 2,000 studies. Update December 2012: a review of more than 1,800 new studies.

BioInitiative Working Group, Cindy Sage and David O. Carpenter, Editors. BioInitiative Report: A Rationale for Biologically-based Public Exposure Standards for Electromagnetic Radiation at [www.bioinitiative.org](http://www.bioinitiative.org), December 31, 2012.

BioInitiative Working Group, Cindy Sage and David O. Carpenter, Editors. BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF) at [www.bioinitiative.org](http://www.bioinitiative.org), August 31, 2007.

5.- The ICEMS Monograph, "Non-Thermal Effects and Mechanisms of Interaction Between Electromagnetic Fields and Living Matter", edited by Livio Giuliani and Morando Soffritti for the "European Journal of Oncology" - Library Vol. 5 of the National Institute for the Study and Control of Cancer and Environmental Diseases "Bernardo Ramazzini", Bologna, Italy, 2010, Part I and Part II: <http://www.icems.eu/papers.htm>, [http://www.icems.eu/papers/ramazzini\\_library5\\_part1.pdf](http://www.icems.eu/papers/ramazzini_library5_part1.pdf), [http://www.icems.eu/papers/ramazzini\\_library5\\_part2.pdf](http://www.icems.eu/papers/ramazzini_library5_part2.pdf)

6.- [www.icems.eu/](http://www.icems.eu/)

7.- Real-time monitoring detects the instantaneous peak values (based on the existence of non-thermal effects), unlike the means (based only on the thermal effects). In Spain, a Municipal Ordinance of Leganés (temporarily suspended by court order) involves the development of these control systems that focus on the real exposure (the sum of emissions from various Wireless transmitters in different parts of town): [http://oa.upm.es/13170/1/INVE\\_MEM\\_2011\\_109836.pdf](http://oa.upm.es/13170/1/INVE_MEM_2011_109836.pdf)

8.- European Parliament resolution of 2 April 2009 on health concerns associated with electromagnetic fields (P6\_TA(2009)0216: <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2009-0216+0+DOC+XML+V0//EN>

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- 9.- Aarhus Convention, of the Economic Commission for Europe United Nations (1998), on access to Information, public participation in decision-making and access to justice in environmental matters: <http://www.unece.org/environmental-policy/treaties/public-participation/aarhus-convention.html>
- 10.- See Article 52 of the General Municipal Management Plan of the Jumilla Council (Spain): <http://www.borm.es/borm/documento?obj=bol&id=11833>
- 11.- The Seletun Scientific Panel 2009, on electromagnetic fields health risks: consensus points, recommendations and rationales: <http://emfsafetynetwork.org/wp-content/uploads/2011/02/Scientific-panel-on-EMF-Health-Risks.pdf>
- 12.- The Potenza Picena Resolution 2013. <https://www.dropbox.com/s/kojii5i6al3uy72/POTENZA%20PICENA%20SCIENTIFIC%20RESOLUTION%202013.pdf>
13. - In line with the numerous recommendations against immoderate use of mobile phone and / or protection of wireless technologies in children and young people, from the public administrations (in particular the health administrations) and / or the health professional associations (in states such as Germany, Austria, Belgium, Canada , Spain, USA, Finland, France, India, Israel, Italy, Ireland, Russia, Switzerland, ...) or internationally (e.g. the International Commission for Electromagnetic Safety, ICEMS). In Russia, the health standard SanPiN-2003 (2.1.8/2.2.4.1190-03, item 6.9) recommended to restrict mobile phone use in children under 18 years: <http://www.icems.eu/docs/Russian%20statement.RNIRP.MAR09.pdf>
- 14.- fetus, Pregnant women, children and youth, holders of electronic implants, ...
- 15.- Continuous connection = continuous radiation.
- 16.- The WHO/International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as possibly carcinogenic to humans (Group 2B), based on an increased risk for glioma, a malignant type of brain cancer, associated with wireless phone use: [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), <http://monographs.iarc.fr/ENG/Monographs/vol102/index.php>
- 17.- As in Austria: Guidelines of the College of Physicians of Austria for the diagnosis and treatment of EMF syndrome. EMf Working Group, March 2012: <http://www.magdahavas.com/wordpress/wp-content/uploads/2012/06/Austrian-EMF-Guidelines-2012.pdf>
- 18.- Convention on the Rights of Persons with Disabilities 2006: <https://www.un.org/disabilities/default.asp?id=150>
- 19.- DIRECTIVE 2003/33/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 May 2003 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the advertising and sponsorship of tobacco products. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:152:0016:0019:EN:PDF>
- 20.- DIRECTIVE 2001/37/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 June 2001 on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and sale of tobacco products: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:194:0026:0034:EN:PDF>
- 21.- Since constant exposure to a small base station of a DECT cordless phone at home can be hundreds of times greater than that received by the mobile phone masts outside EMF.
- 22.- The Russian National Committee of Non-Ionizing Radiation Protection (RNCNIRP) in its recommendations about the use of mobile phones in September 2001 and advises "The duration of phone calls should be limited to a maximum of three minutes, and after make a, you should wait at least 15 minutes before making another ": <http://www.vrednost.ru/docrnk.php>, <http://www.vrednost.ru/docvip.php>, <http://www.zakairan.com/CosmicCookies/HealthCookies/EMR%20Russian%20Report.pdf>.
- 23.- WHO Framework Convention on Tobacco Control: [http://www.who.int/fctc/text\\_download/en/index.html](http://www.who.int/fctc/text_download/en/index.html)
- 24.- Bellieni CV et al 2008. Electromagnetic fields produced by incubators influence heart rate variability in newborns. Arch Dis Child Fetal Neonatal Ed 93(4):F298 - 301 PMID: 18450804: <http://www.avaate.org/IMG/pdf/incuvadorafn132738.pdf>. See also: [http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec19\\_2012\\_Fetal\\_neonatal\\_effects\\_EMF.pdf](http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec19_2012_Fetal_neonatal_effects_EMF.pdf), [http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec16\\_2012\\_Plausible\\_Genetic\\_Metabolic\\_Mechanisms.pdf](http://www.bioinitiative.org/report/wp-content/uploads/pdfs/sec16_2012_Plausible_Genetic_Metabolic_Mechanisms.pdf) <http://www.avaate.org/IMG/pdf/incuvadorafn132738.pdf>
- 25.- Moratorium requested, among others, by the Austrian Medical Chamber: <http://www.apdr.info/electrocontaminacion/Documentos/Artigos/OAK20120118.pdf>
- 26.- Public agencies such as the Executive Agency for Health and Consumers (EAHC), The Committee on Environment, Public Health and Food Safety (ENVI), Scientific Committee on Emerging and Newly Identified Health Risks (SCHENIR), etc.
- 27.- The wired connections would entail no emissions of electromagnetic radiation and would permit a high speed Internet connection, improving as well the health of the whole population.