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PRELIMINARY REPORT

on preoccupations concerning the effects on human health
of electromagnetic fields
(2008/2211(INI))

Commission on the Environment, Public Health and Food Safety

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Proposed Resolution of the European Parliament

on preoccupations concerning the effects on human health of electromagnetic fields (2008/2211(INI))

The European Parliament,

- Having regard to articles 137, 152 and 174 of the EC treaty which aim at a high level of protection of human health and of the environment,
- Having regard to the recommendation 1999/519/EC of the Council of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)¹ and the reports of its implementation of 1 September 2008 (COM(2008)532 final),
- Having regard to the directive 2004/40/EC of the European Parliament and the Council of 29 April 2004 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields),²
- Having regard to the directive 1999/5/EC of the European Parliament and the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity³ and harmonised safety standards for mobile telephones and base stations,
- Having regard to the directive 2006/95/EC of the European Parliament and the Council of 12 December 2006 on the harmonisation of the laws of member States relating to electrical equipment designed for use within certain voltage limits,⁴
- Having regard to the resolution of 4 September 2008 on "the evaluation at mid-term of the European Plan of Action for the Environment and Health 2004-2010",⁵
- Having regard to the resolution of 10 March 1999 on the proposed recommendation of the Council on the limitation of exposure of the public to electromagnetic fields 0 Hz-300 GHz,⁶
- Having regard to article 45 of its treaty,
- Having regard to the report of the Commission on the Environment, Public Health and Food Safety (A6-0000/2008),

A: whereas electromagnetic fields (EMF) exist in nature and have therefore always been present on earth; whereas in the course of recent decades, however, the exposure in the environment to sources of EMFs created artificially by man has been in continual augmentation as a result of the demand for electricity, of increasingly sophisticated wireless technologies and of changes which have come about in social organization, with the result that nowadays every citizen is being exposed to a complex mix of electrical and magnetic fields of different frequencies, at home and at work,

¹ JO L 199 of 30.7.1999, p. 59.

² JO L 159 of 30.4.2004, p. 1.

³ JO L 91 of 7.4.1999, p. 10.

⁴ JO L 374 of 27.12.2006, p. 10.

⁵ Texts adopted on this date, P6_TA-(2008)0410.

⁶ JO C 175 du 21.6.1999, p. 129.

B: whereas the technology of wireless devices (mobile phone, wi-fi, wi-max, Bluetooth, cordless phone) is considered a 'clean' technology that cannot be subjected to proof that it is harmless to human health,

C: whereas, while a majority of European citizens, in particular young people between the ages of 10 and 20, use a mobile phone - a useful, practical and fashionable object - nevertheless there are persistent doubts about possible health risks,

D: whereas the controversy among scientists concerning the potential health risks from EMFs has intensified since 12 July 1999 and the setting of limits for the public of exposure to EMFs (0 Hz–300 GHz) by the recommendation 1999/519/CE,

E: whereas the absence of formal conclusions by the scientific community has not hindered certain national and regional governments, in at least 9 member States of the European Union, but also in China, Switzerland and Russia, from setting exposure levels as a preventive measure which are lower than those put forward by the Commission and the Scientific Committee for Emerging and New Health Risks (SCENIHR),⁷

F: whereas it is necessary to find a balance between actions intended to limit the public's exposure to electromagnetic fields and the improvement of the quality of life, in terms of safety and security, provided by devices that emit electromagnetic fields,

G: whereas among the scientific studies that arouse as much interest as polemic is the Interphone epidemiological study, for which the Union has provided funding of 3,800,000€⁸ and the conclusions of which have been awaited since 2006,

H: whereas there seems nevertheless to be a certain consensus of informed opinion, in particular on the issue of the variation in the way people react to exposure to microwaves, on the need to carry out large-scale tests of exposure, primarily to evaluate the non-thermic effects associated with radio-frequency fields (RF), and on the particular vulnerability of children when exposed to electromagnetic fields,⁹

I: whereas it appears paradoxical to say the least that the Union should have authority to legislate and set thresholds of exposure to the effects of EMFs for workers but not for the public in general,

⁷ Motion of 21 March 2007 adopted in the 16th plenary session.

⁸ Quality of Life Programme, contract number QLK4-1999-01563.

⁹ STOA study of March 2001 on 'the physiological and environments effects of non-ionising electromagnetic radiation', PE no. 297.574.

- 1: reiterates its demand made to the Council in its resolution of 4 September 2008 already mentioned to update its recommendation 1999/519/CE in favour of more stringent exposure limits for all devices that emit electromagnetic radiation in the frequencies between 0.1 MHz and 300 GHz, taking into account the best available technology on the market (BAT);
- 2: emphasises that, in parallel or as an alternative to this modification of the European standards, it would be advisable for the Commission to prepare, in coordination with experts of member States and the industrial sector concerned (electricity companies, telephone operators), a guide to the technological options available which are effective in reducing exposure to electromagnetic radiation in a particular place;
- 3: points out that the industries concerned could already take action on certain factors such as the distance between the place in question and the sources of emission, or the elevation of the place in relation to the height of the relay antenna, and the direction of the emitting antenna relative to the living space, with the clear intention of reassuring people living near these installations and protecting them more effectively;
- 4: acknowledges the efforts undertaken by the mobile communication companies and those using other wireless technologies that emit electromagnetic fields to avoid damage to the environment and in particular to respond to climate change;
- 5: considers that, in the face of the proliferation of legal actions and even certain moves towards imposing a moratorium by the public authorities, it is in the general interest to encourage solutions based on a dialogue between those in the industry, public authorities and neighbourhood action groups on the subject of the criteria for installing new mobile phone antennas and high-voltage power lines, and to see that at least schools, crèches, homes for the elderly and health establishments are kept at a reasonable distance from this type of installation;
- 6: calls on the Commission to initiate during the legislature of 2009-2014 an ambitious programme of electromagnetic biocompatibility between the radiation created artificially and that emitted naturally by a living human body, which would ultimately make it possible to determine if microwaves have undesirable consequences for human health;
- 7: asks the Commission to find a way to accelerate the enactment of the directive 2004/40/CE and thus to ensure that workers are protected effectively from EMFs, as they are already from noise and vibration by two other Community regulations;
- 8: notes with bitterness the systematic postponement since 2006 of the publication of the conclusions of the international Interphone epidemiological study, the purpose of which is to ascertain whether there is a connection between the use of a mobile phone and certain types of cancer, in particular tumours of the brain, of the auditory nerve and of the parotid gland;
- 9: in this context draws attention to the appeal for prudence made by the coordinator of the Interphone study, Mme Elisabeth Cardis, who, on the basis of current knowledge, recommends that children should not make unreasonable use of a mobile phone and should preferably use a landline phone;

10: considers in any case that it is the duty of the Commission, who contributed the sum of 3,800,000€ to the funding of this worldwide study, chiefly through the 5th Framework Programme for Research and Development (FP5), to ask those in charge of the project the reasons for the absence of final publication, and if they have an answer to inform Parliament and the member States immediately;

11: suggests also to the Commission, prompted by their concern for political and budgetary efficiency, a re-routing of the Community funding devoted to the study of EMFs towards a far-reaching campaign to educate young Europeans in the best ways to use a mobile phone, such as using a 'hands-free' kit, making only short calls and using a phone in the areas where the reception is good;

12: proposes an addition to the mandate of the European Group for Ethics in Science and New Technologies (EGE): the task of evaluating scientific integrity in order to help the Commission forestall possible situations of risk, conflicts of interest or even the frauds which tend to arise in a context of heightened competition among researchers;

13: asks the Commission, in reply to the anxieties of the public in a great many member States, to work with all the parties concerned, such as national experts, non-governmental organizations and those in industry, so as to improve the availability and accessibility of up to date information, in terms the layman can understand, on wireless technologies and the standards of protection;

14: condemns certain marketing campaigns by the phone operators, which are particularly strident in the year-end holiday period, such as the sale of mobile phones designed exclusively for children, or the 'free minutes' deals aimed at adolescents;

15: proposes that the Union includes in its policy regarding the quality of indoor air the study of wireless devices used in the home, such as wi-fi for Internet access and cordless phones, which have multiplied these last few years in public places and in homes, exposing people to continuous microwave emission;

16: makes an emphatic request, from its continuing concern to improve the information available to consumers, that changes be made to the technical standards of the European Committee for Electrotechnical Standardization (CENELEC) so as to make it compulsory to provide a ticket indicating the emission level and stating on every wireless device that it emits microwaves;

17: calls on the Council and the Commission, in coordination with member States and the Committee for the Regions, to work towards putting in place a single standard in order to minimize the exposure of those living nearby if there is an extension to the network of high-voltage power lines;

18: is very struck by the fact that the insurance companies tend to exclude cover for risks linked with electromagnetic fields from their policies of public liability, which means evidently that European insurers are already acting on the principle of precaution;

19: charges the President to transmit the present resolution to the Council, to the Commission, to the governments and parliaments of member States, to the Committee for the Regions and to the World Health Organisation.

EXPLANATION OF REASONS

The impact of electromagnetic waves on health – what are we talking about?

Among the surprises the human body has in store for us, one of the most original is certainly its natural capacity to emit electrical fields, due principally to our biological functioning. It's because of this that the electrical activity of the heart as well as that of the brain can be recorded, by an electrocardiogram and an electroencephalogram respectively. Does this natural electrical activity interact with the electromagnetic fields generated by human activity? How does the human body absorb the electromagnetic radiation emitted by devices as diverse as the radio, the television, the microwave oven, the mobile phone, phone antennas or high-voltage power lines?

These are all questions that bring to light numerous scientific uncertainties of which the authorities have not yet grasped the full significance. This is the whole point of this preliminary report, prepared in complete independence without taking sides in the scientific controversy that is raging on the subject of electromagnetic fields. Its primary objective is, through a dozen practical propositions, to supply answers to the public, whether they are simply users of these devices or living near phone antennas or high-voltage power lines. More and more members of the public are expressing concern about the impact on their health of this continuous exposure to microwaves.

European recommendations that are rarely followed by member States

For lack of any authority granted by previous agreements, no European law obliges the member States to take any measures with regard to low and very low frequency wavelengths, those that are emitted nowadays mainly by mobile phone antennas and wireless technologies.

That is why throughout the European Union (EU) the statutory exposure limits for the public are determined by the Council recommendation of 12 July 1999 relating to the limitation of exposure of the public to electromagnetic fields (from 0 Hz to 300 GHz).

These limits follow exactly the standard recognised by the International Commission for Non-Ionising Radiation Protection (ICNIRP), a non-governmental organisation recognised officially by the World Health Organisation (WHO), taking into account scientific results from all over the world.

The EU Council recommendation cited above specifies the following limits:

1. GSM (900 MHz): 41.25 Volts/metre
2. DCS (1800 MHz): 58.33 Volts/metre
3. UMTS (2100 MHz): 61 Volts/metre

On the other hand there is nothing to prevent the member States from adopting stricter standards of protection: no less than 9 member States have already done this on a national or regional scale, including Greece, Poland and, more recently, Belgium.

In the Grand Duchy of Luxemburg, which the present writer knows well, the government has since the end of 2000 tended towards the application of the principle of precaution with a statutory maximum for an electromagnetic field of 3 volts/metre for a source of emission near a place where people may be living. The population of Luxemburg is almost 14 times better protected with regard to electromagnetic fields than other citizens of the EU.

This absence of coordination of national policies on the subject within the EU is not good news. And the writer considers that it is the duty of the Commission to put in place a clear policy in the domain of electromagnetic radiation (covering the topics of competitiveness, innovation, health and consumer information), which could not be reduced to the present sprinkling of a few projects financed by the Department of Research.

In the opinion of the writer, from the present situation there is one way forward: the truth surely lies in a political solution where the statutory limits would be regularly adapted (in the light of new technologies put on the market, the results of new epidemiological studies) and would guarantee a high level of protection for consumers, and for children in particular, without however preventing the mobile phone networks from functioning.

This is the approach chosen by the European Agency of Copenhagen which in September 2007 courageously advised the public authorities of the 27 member States to take measures to provide better protection for the public, *"measures that are appropriate and in proportion in order to avoid serious dangers in the future."* This represents a significant move forward on this issue, a call for action that contrasts with the status quo favoured by the WHO.

In fact the WHO seems to want to play for time, offering us an appointment in 2015 for a full estimate of the impact of electromagnetic radiation on human beings!

Votes on 10 March 1999 and 4 September 2004: the European Parliament gives its verdict

It is already 10 years since the Parliament delivered a message of prudence with regard to the statutory limits fixed by Europe in order to protect its citizens from microwaves. This was a scarcely veiled criticism addressed to the European Commission and the Council, since the reporter Gianni Tamino recommended neither more nor less than the application of the principle of precaution and that called 'alara', by virtue of which exposure to radiation should be 'as low as reasonably achievable'.

This was a clear pointer in the right direction, which the European Parliament as a whole endorsed on the sensitive subject of statutory limits of exposure by its vote on 4 September last on the evaluation at mid-term of the European Plan of Action for the Environment and Health 2004-2010.

The vote was passed by the members almost unanimously (522 for, 16 against). In it the Council was asked *"to modify its recommendation 1999/519/CE to take account of better national practice and to set more rigorous exposure limits for the whole range of devices that emit electromagnetic radiation in the frequencies between 0.1 MHz and 300 GHz."*

The writer is aware that the question of thresholds is a matter for the States and regions to decide for themselves, and prefers here to insist on the temporary solutions that are available to the industry to avoid any health risks: for example following the Austrian authorities, who have had relay antennas made higher in order to transmit the broadcast frequency more efficiently.

And how can we not recognise that during this last ten years the daily surroundings of European citizens has changed considerably, since the time when the use of wireless technologies became the norm (cordless phones, mobile phones, emissions from UMTS, wi-fi, wi-max, Bluetooth, baby intercoms, etc.)! To acknowledge the contribution of these new technologies as well as their pervasive presence in the workplace and in the library as in the home, is also to admit that these devices should be subjected to an evaluation before being put on the market, and that in general thresholds should be set for the level of microwave radiation in the home. Without this, there would be a risk of non-assistance to consumers in danger!

It is this climate of trust that is currently lacking and that it would be good to restore in the coming years among consumers and among people living near major sources of emission. But also in the midst of the scientific community itself - for if the writer has deliberately chosen not to cite any study or document already published except those issued by the European Parliament, it is because on the subject of electromagnetic radiation and its potential health risks the scientific community is obviously guilty of persistent disagreement.

The Interphone study: a classic example

The writer knows well that the fact that there are controversies on the subject is a part of normal life in the world of science; the polemic on climate change and its causes that has divided opinion for years is there to remind us of it!

However it is difficult to accept that scientific studies should be put on ice just because the experts are unable to come to an agreement on their conclusion, especially when the money of the European public is at stake.

The Interphone study is for this reason a classic example. Initiated in 1998, launched in 2000, and trumpeted as the most comprehensive research project ever because it involved no less than 12 States on the world stage with an exemplary protocol intended to maximise the capacity for revealing the risks of certain types of cancer, its conclusions are still awaited, and have been so since 2006. In fact one might wonder whether it will ever produce a clear answer.

It is indeed because the writer is aware of the intense pressure brought to bear on scientists that she would like to support them, in the present context of heightened competition where a discovery is not worth anything unless it leads to innovation and is published in the most prestigious scientific journals. She considers it important to reform the working methods of the scientific committees associated with the Commission.

To do this there are two simple ideas: the first is to ensure that the committee includes a fair representation of all the parties concerned, including therefore those from NGOs and consumer groups. The second is to propose, in the interests of transparency and effective checking procedures, an addition to the mandate of the European Group for Ethics in Science and New Technologies (EGE): the task of evaluating scientific integrity. Procedures of this kind, which are already in place in national scientific institutions, would be a great help to the Commission in forestalling possible situations of risk, conflicts of interest or even the frauds that tend to arise in this sector of research.

In conclusion the writer wishes to draw attention to the numerous documents which she has been able to consult and which indicate that insurance companies generally refuse to cover risks linked with electromagnetic fields in their policies of public liability. Knowing the expertise of insurers in assessing all types of risk and in making bets on the future, we have the right to ask ourselves what reasons they have for applying the principle of precaution in this particular way.