



## SCIENTIFIC COMMITTEE ON EMERGING AND NEWLY IDENTIFIED HEALTH RISKS SCENIHR

# PRELIMINARY OPINION POTENTIAL HEALTH EFFECTS OF EXPOSURE TO ELECTROMAGNETIC FIELDS (EMF)

## SUMMARY RECORD OF THE PUBLIC HEARING HELD ON 27 MARCH 2014, ATHENS GREECE

**Commission:** Stefan Schreck, Donata Meroni, Giulio Gallo (SANCO.DDG1.C.2),

**SCENIHR experts:** Philippe Hartemann, Chair of the SCENIHR, Theodoros Samaras,

SCENIHR member and Chair of the EMF Working Group since April 2013; Norbert Leitgeb, SCENIHR member; Mats-Olof Mattsson, Chair until April 2013 and rapporteur of the EMF Working Group; Joachim Schüz member of the EMF Working

Group.

**Excused:** Maria Rosaria Scarfí, member of the EMF Working Group

**Participants:** The list of participants can be found in the Annex

#### 1. WELCOME AND OPENING (GAEC AND DG SANCO)

Christos Housiadas, Chairman, Greek Atomic Energy Commission (GAEC) and Stefan Schreck (European Commission - DG SANCO) welcomed the participants. Mr Schreck stressed the role of the SCENIHR committee as an independent advisory body on scientific matters to the Commission. He reminded participants that this preliminary opinion is the fourth review produced by the Committee on this subject. The objective of all these reviews is to ensure that the current legislative framework at the European Commission is still adequate and in line with major research results. He also stressed that the public hearing is part of the public consultation, which is intended to receive contributions on the scientific evidence and conclusions of the preliminary opinion, as well as any other relevant scientific information regarding the subject matter of the opinion in order to enable the Scientific Committees to focus on issues which need to be further analysed. However, comments need to be provided in writing during the public consultation process, which is open until 16 April 2014.

Philippe Hartemann, chair of the SCENIHR also welcomed the participants. He invited participants to take part in the current public consultation. He assured participants that all contributions provided in the public consultation will be carefully examined and considered by the SCENIHR in the finalisation of the opinion. All contributions and related responses provided by the SCENIHR will be publicly available on the website at

the same time as the final opinion. He stressed that the Committee follows principles of excellence, independence, transparency and confidentiality.

MEP Harkin, present at the hearing, also welcomed the participants. She talked on the importance of the public consultation and she also stressed that the principles of transparency and accountability are key to building trust in the scientific opinions. She stressed that it is important to declare the criteria for exclusion or inclusion of studies and that the Committee should ensure a balance of different views. She asked the Commission to work in full transparency and to publish all contributions received in the public consultation.

#### 2. Presentation of the Mandate

The Commission explained that the SCENIHR has a standing mandate to periodically review all new scientific evidence and to advice if the current legislative framework at the European Union is still adequate and in line with new research findings.

#### 3. PRESENTATION OF THE PRELIMINARY OPINION

Theodoros Samaras, presented the preliminary opinion, its scope (mandate), structure and major conclusions in response to the different questions of the mandate. He also explained the criteria used for the selection of relevant studies.

#### 4. QUESTION AND ANSWER SESSION

For this session, the discussion was structured according to the main blocks of the opinion. For each block a group of questions was collected and the responses were shared among SCENIHR members and members of the Working Group according to their main fields of expertise. Participants were allowed to ask questions in all blocks but they were asked to limit the time for each question in order to give to everyone the chance to participate. Below is a short summary of the most debated topics in the hearing.

**Inclusion/exclusion of studies**: some participants stated that scientific papers providing results for a positive effect or negative effects were not handled in the same way. Other participants asked how SCENIHR will take into account missing papers. In particular it was stressed that important papers, e.g., from Prof. Lennart Hardell's group, on mobile phones and cancer which have been published in 2013, have not been included in the preliminary opinion. It was also asked how members of the Committees and the Working Group have been selected.

The SCENIHR explained that papers have been selected according to the SCENIHR "Memorandum on the use of the scientific literature for human health risk assessment purposes – weighing of evidence and expression of uncertainty" (2012) as described in the methodology chapter. This approach applies to studies with both positive and negative results. It was also explained that the scope of the public consultation is to gather new evidence or evidence which has not been considered in the preliminary opinion (the timeframe for studies considered in the opinion was from 2009 to beginning 2013, that explains why a number of studies published in 2013 and 2014 which were mentioned by participants have not been included). However, SCENIHR assured that all studies which are received through public consultation will be assessed according to the described rules and considered for the finalization of the opinion. Rules governing the selection of committee's member and working group members were explained (see Rules of Procedure of the Scientific Committees http://ec.europa.eu/health/scientific committees/docs/rules procedure 2013 en.pdf).

**Exposure to EMF:** the difficulties in measurements of EMF were stressed by many participants. The discussion also concentrated on the need to research separately each new wireless technology with different frequency and/or modulation or if it is possible to use already acquired knowledge to perform risk assessment. It was noticed that the opinion was not particularly focused on WiFi and children. Furthermore, it was mentioned that the opinion should more emphatically stress that there is no proven biophysical mechanism that can result in adverse health effects other than those considered in the exposure guidelines and that given this fact, SCENIHR should use the knowledge and studies that had been published before its previous opinion.

**Radiofrequency (RF) fields:** discussion was dominated by possible association of RF with symptoms and an increased cancer risk.

It was stressed that the association with symptoms could not be demonstrated in many new studies. With regard to the association with an increased cancer risk it was explained that these results originate from epidemiological studies but were never supported by animal or in vitro studies. Epidemiological studies have to be considered with caution as the outcome might be a result of bias in the methodological approach or even chance. It was noted for instance that, based on the cancer registry in the Nordic countries, observed glioma incidence rate does not suggest an increase in brain tumours in the last decades. This would indicate that epidemiological studies suggesting an increased risk for this tumour have to be carefully (re)considered. Moreover, as a response to a comment about studies on deaths in specific areas attributed to base stations (case clustering), it was reported that such studies are generally not useful for establishing a statistical or aetiological association between an exposure agent and a specific endpoint.

**Extremely low frequency (ELF) fields**: It was noticed that the conclusions on ELF EMF and their association with childhood leukaemia are not fully consistent with the findings and need rewording.

**Research recommendations:** It was suggested that epidemiological studies of occupationally exposed persons could be informative as to the potential health effects from either combined EMF exposure or co-exposure with other agents, like ionizing radiation.

**Guidance on research methods:** SCENIHR was asked to give more detailed guidance on the methodology of bio-electromagnetics experimentation. The point of technical integrity and dosimetry as criteria for the quality of a study and its usability for risk assessment was raised and discussed.

#### 5. CLOSING (DG SANCO)

Mr Schreck thanked participants for their constructive attitude and their contributions and re-iterated the deadline for the submission of written contributions through the public consultation process (16 April 2016).

### PUBLIC HEARING OF THE SCENIHR NEW OPINION ON EMF AND POTENTIAL HEALTH EFFECTS

### 27 March 2014, Cotsen Hall, Athens, Greece List of participants\*

	Surname	First name	Organization	Position	Country
Mr	Agnani	JeanBenoit	Agence nationale des fréquences (France)	Head, exposure of the general public to EMF	France
Mr	Alexandridis	Antonis	NCSR Demokritos	Research Director	Greece
Mrs	Alexandridou	Eleni	Vodafone	Medical Physicist/Radio Engineer	Greece
Mrs	Arsenopoulou	Ioanna	Expert scientist		Greece
Mrs	Arvanitaki	Stavroula	Hellenic Telecommunications and Post Commission	-	Greece
Mr	Augustsson	Torsten	Swedish Radiation Safety Authority	Analyst	Sweden
Mr	Barmueller	Thomas	Mobile Manufacturers Forum		Belgium
Mr	Belesiotis	Georgios	Vodafone Greece	Regulatory - Public Policy	Greece
Mr	Bhikha	Tilluck			Malta
Mr	Casabielhe	Jeremie	General Directorate of Labour - Ministry of Labour	Expert on Health and safety at work	France
Mrs	Christopoulou	Maria	University of Patras, NTUA, GAEC	Research Fellow	Greece
Mr	Cortel	Albert	Orange France	External relations manager	France
Mrs	Crnić	Ana Marija	Ministry of Health	Head of Sector for State and Border Sanitary Inspection	Croatia
Mr	Daskalou	Thomas	Vodafone Greece	Radio Engineer	Greece
Mr	DeRidder	Maurits	FOD WASO Belgium	Attaché	Belgium
Mr	Diegues	Paulo	Directorate General of Health	Head of Environmental and Occupational Health	Portugal
Mr	Dimitrakopoulos	Dimitrios	Mechanical Engineer, MSc "Environment and Health. Capacity Building for Decision Making", Employee OTE		Greece
Mr	Dimitriou	Panayotis	Associate Professor of Medical Physics		Greece

Mr	Economides	Sotiris	Medical Physicist, GAEC	_	Greece
Mrs	Estenberg	Jimmy	Swedish Radiation Safety Authority	Senior Specialist	Sweden
Mr	Exarchos	Dimitrios	University of Ioannina		Greece
Mrs	Farmaki	Danai	General Secretariat for Research and Technology		Greece
Mr	Federov	Kirill	IFTI		
Mrs	Fragopoulou	Adamantia	University of Athens, Department of Cell Biology and Biophysics		Greece
Mrs	Gaitanidou	Dimitra	Deutsche Telekom	EMF Manager	Germany
Mr.	Gallo	Giulio	DG SANCO		
Mr	Gourzoulidis	George	Ministry of Labour	Physical Agents Department	Greece
Mrs	Govari	Chrysa	Greek Atomic Energy Commission	Scientific personnel	Greece
Mrs	Halmoy	Sissel		Chair International EMF Alliance	
Mrs	Harkin	Marian	MEP		
Mr	Hartemann	Philippe	SCENIHR	Chairman	Luxembourg
Mr	Housiadas	Christos	Greek Atomic Energy Commission	Chairman	Greece
Mr	Israel	Michel			Bulgaria
Mr	Jelinek	Lukas	National Institute of Public Health	Head of the National Reference Laboratory for Non-Ionizing Radiation	CZ
Mrs	Kalampaliki	Efthymia	Greek Atomic Energy Commission	Scientific personnel at the Non-Ionizing Radiation Office	Greece
Mr	Kappas	Kostas	Medical School Larissa	Professor	Greece
Mr	Karabetsos	Efthimios	Greek Atomic Energy Commission	Head of the Non Ionizing Radiation Office	Greece
Mr	Katsouvas	George	Vodafone	Radio Engineer	Greece
Mr	Kladouras	Konstantinos	OTE	Regulatory Policy	Greece
Mr	Kondylis	Vassilios	GAEC Board member	-	Greece
Mrs	Kopel	Alice			FRANCE
Mrs	Kottou	Sofia	Athens University	Associate professor	Greece

Mr	Koulouris	Charalampos	Medical Physics, AUTH		Greece
Mr	Kourmpetis	Nikiforos	Vodafone Greece	Medical Physicist	Greece
Mr	Koutounidis	Dimitrios	Greek Atomic Energy Commission	Non Ionizing Radiation Office	Greece
Mrs	Kropik	Margit	Forum Mobilkommunikation		Austria
Mrs	Kyritsi	Dora	Greek Atomic Energy Commission	Scientific personnel at the Non-Ionizing Radiation Office	Greece
Mr	Lambrozo	Jacques	EDF	Head Medical Studies Department	France
Mr	Leitgeb	Norbert	SCENIHR		
Mr	Letsas	Vassileios	1st Radiology Department, Medical Physics Unit, University of Athens, Aretaieion Hospital	MSc Medical Physics	Greece
Mrs	Liapi	Magdalini	EEKT- Greek Mobile Operators Association	Communications Manager	Greece
Mrs	Lobnig	Sabine	Mobile Manufacturers Forum (MMF)		Austria
Mrs	Lukovnikova	Marina	Ministry of Public Health	Senior attaché Non-ionizing radiation	Belgium
Mrs	Magne	Isabelle	EDF	Research engineer	France
Mrs	Malatara	Georgia	UNIVERSITY HOSPITAL PATRAS		Greece
Mrs	Manetou	Ageliki	Army Shared Found Hospital (NIMTS)	Medical physicist	Greece
Mr	Mann	Simon	Public Health England	Head of Physical Dosimetry Department	UK
Mrs	Manta	Areti	University of Athens, Department of Cell Biology and Biophysics		Greece
Mr	Margaritis	Lucas	University of Athens, Department of Cell Biology and Biophysics	Professor of Radiobiology	Greece
Mr	Matikas	Theodoros	GAEC Board member		Greece
Mr	Mattson	Mats-Olof	SCENIHR		
Mr	Miyagi	Hiroaki	Japan NUS Co., Ltd., Social & Environmental Design Unit	Senior Consultant	Japan
Mrs	Moraiti	Aspa	VODAFONE-PANAFON SA	Corporate Communications & Public Affairs	Greece

Mrs	Mylonaki	Kallia	V+O	ACCOUNT MANAGER	Greece
Mrs	Nikolaou	Magda	Greek Atomic Energy Commission	Medical Physicist	Greece
Mrs	O'Connor	Eileen	Radiation Research Trust		
Mr	Ohkubo	Chiyoji	Japan EMF Information Center	Director	Japan
Mrs	Papadopoulou	Eugenia	THE GREEK OMBUDSMAN		Greece
Mr	Petkaris	Marios	Vodafone Greece	Network Licensing and MPMH Manager	Greece
Mrs	Petri	Aspasia	Greek Atomic Energy Commission	Non Ionizing Radiation Office	Greece
Mrs	Podniece	Zinta	DG EMPL		
Mr	Raptis	Christos	COSMOTE	EMF Section Manager	Greece
Mr	Rowley	Jack	GSMA		UK
Mr	Ruttner	Manfred	A1 Telekom Austria AG	Service Network Planning Leitung EMF & Business Administration	Austria
Mr	Samaras	Theodoros	Aristotle University of Thessaloniki	Associate Professor	Greece
Mr	Schuz	Joachim	International Agency for Research on Cancer	Head of Environment and Radiation Section	France
Mr	Siountas	Anastasios	Medical Physics Lab	Associate Professor	Greece
Mrs	Skouroliakou	Katerina	Technical Educational Institute of Athens		Greece
Ms	Stefi	Katerina	University of Athens		Greece
Mrs	Tafili	Vasiliki	Greek Atomic Energy Commission	International and Public Relations Office	Greece
Mr	Tejedor del Real	Purificacion	European Parliament, Directorate General for Internal Policies, Directorate A: Economics and Scientific Policy		Belgium
Mr	Thomopoulos	Stelios	NCSR Demokritos	-	Greece
Mr	Thuroczy	Gyorgy	Natl.Res.Inst. for Radiobiology and Radiohygiene	Head of dept.	Hungary
Mrs	Tsapaki	Virginia	Konstantopoulio General Hospital	Medical Physicist	Greece
Mr	Tsiafakis	Vassilis	DIGEA S.A.	Senior Network Engineer	Greece
Mr	Valais	Ioannis	Technological Educational Institute (TEI) of Athens	Associate Professor	Greece
Mrs	van Deventer	Emilie	WHO		

Mr	Vergriette	Benoit	ANSES	Head of risks and society unit	France
Mrs	Vlachou	Anastasia Anna	RAYMED EPE	Sales Manager	Greece
Mr	Wiedemann	Peter	Science Forum EMF		
Mr	Woolmer	Terence	EEF - the manufacturers' organisation	Head of Health and Safety Policy	UK
Mrs	Wylie	Sarah	Vodafone Group	Group EMF Manager	UK
Mrs	Xirafi	Eirini	General Hospital "Evangelismos"	Medical Physicist	Greece

 $<sup>\</sup>ensuremath{^{*}}$  Three participants did not want their names to be published.