

Scientific Committee on Health, Environmental and Emerging Risks (SCHEER)

Technical advice for an amendment of Annexes to Council Recommendation 1999/519/EC (on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz))

European Commission Department requesting the Amendment: Directorate-General for Health and Food Safety (SANTE) Unit B1

1. BACKGROUND

Council Recommendation of 12 July 1999¹ (hereafter Recommendation) on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz) sets out basic restrictions and reference levels for the exposure of the general public to electromagnetic fields (EMFs). These restrictions and reference levels are based on the guidelines published by the International Commission on Non-Ionizing Radiation Protection in 1998 (ICNIRP)². In response to the Recommendation, all Member States have implemented measures to limit the exposure of the public to EMF, either by implementing the provisions and reference levels and limits proposed by the Recommendation, or by implementing more stringent provisions³. In particular, twenty (20) Member States follow the Recommendation/ICNIRP Guidelines, while seven (7) impose stricter limits than those of the Recommendation.

The Recommendation also invites the Commission to "*keep the matters covered by this recommendation under review, with a view to its revision and updating, taking into account possible effects, which are currently the object of research, including relevant aspects of precaution (paragraph 4)*". The ICNIRP guidelines were endorsed by the Scientific Steering Committee (SSC)⁴ in its Opinion on health effects of EMFs of 25-26 June 1998. The Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE) prepared an update of the Scientific Steering Committee's Opinion and concluded in its Opinion on "*Possible effects of Electromagnetic Fields (EMF), Radio Frequency Fields (RF) and Microwave Radiation on human health*", of 30 October 2001, that the information that had become available since the SSC Opinion of June 1999 did not justify revision of the exposure limits recommended by the Council⁵. The Opinions delivered by the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) in March 2007⁶, January 2009⁷, July 2009⁸ and January 2015⁹ and by the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) in April 2023¹⁰ confirmed the earlier conclusion of the CSTEE and again highlighted the need for additional data and research on this issue and recommended that specific research areas should be addressed.

¹ OJ L 199/59, 30.7.1999

² <http://www.icnirp.de/>

³ http://ec.europa.eu/health/electromagnetic_fields/role_eu_ms/index_en.htm

⁴ http://europa.eu.int/comm/food/fs/sc/ssc/index_en.html

⁵ The main frequencies in the ELF frequency range are 50 Hz in Europe and 60 Hz in North America. The RF and lower microwave frequencies are of particular interest for broadcasting, mobile telephony. The 2.45 GHz frequency is mainly used in domestic and industrial microwave ovens

⁶ http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_007.pdf

⁷ http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_022.pdf

⁸ http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_024.pdf

⁹ https://ec.europa.eu/health/scientific_committees/emerging/docs/scenihr_o_041.pdf

¹⁰ [SCHEER Opinion on radiofrequency EMF \(europa.eu\)](#)

In the last Opinion, of April 2023, the SCHEER was consulted on the need of a (technical) revision of the Council Recommendation 1999/519/EC annexes and of the annexes of Directive 2013/35/EU in view of the latest scientific evidence available, in particular the ICNIRP guidelines updated in 2020 with regard to radio frequency (100 kHz to 300 GHz). As stated in the Opinion, the SCHEER could not identify moderate or strong level of evidence for adverse health effects resulting from chronic or acute radiofrequency electromagnetic fields exposure from existing technology at levels below the limits set in the annexes of Council Recommendation 1999/519/EC and Directive 2013/35/EU.

However, the SCHEER acknowledged that the latest (2020) exposure guidelines issued by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) introduced new dosimetric quantities and limits to them, that can protect humans more effectively from emerging technological applications. The SCHEER Committee, therefore, advised positively on the need for a technical revision of the annexes in Council Recommendation 1999/519/EC and Directive 2013/35/EU regarding radiofrequency electromagnetic fields (100 kHz to 300 GHz).

2. Terms of reference

The SCHEER Scientific Committee is mandated to propose a technical update of the Annexes to Council Recommendation 1999/519/EC with respect to radio frequencies (100 kHz to 300 GHz), in the light of the latest available scientific evidence, including the ICNIRP guidelines updated in 2020. The update proposed should aim at maintaining the safe limits of exposure of the general public to electromagnetic fields by describing the technical measures to secure these limits in view of the deployment of new wireless technologies.

3. Deadline

Preliminary draft document: July 2024