



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORKS, CONTENT AND
TECHNOLOGY

Electronic Communications Networks and Services
The Director

Brussels,
CNECT.B/AW

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Subject: 5G Developments and EMF

Dear Jeremy,

As requested, please find attached an update with regard the Electromagnetic Fields (EMF). It contains a number of useful public links that should help Member States in their discussions at national level. You are welcome to share, as appropriate.

Best regards,

Anthony WHELAN
(e-signed)

5G development and its effects on health

- Protection of public health is of paramount importance and the safety of citizens is put first. Any risks posed by new technologies to the health and safety of citizens need to be properly weighed up, and appropriate mitigating steps taken. This precautionary approach is already being taken into account in all European Commission initiatives, including those on 5G. To do so, the Commission also relies on the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER)¹.
- There are recommended exposure limits in place at EU level. The [Council Recommendation 1999/519/EC](#)² sets out strict limits for exposure of the public, which apply to all frequency bands, including those envisaged for 5G, which are, however, not binding for the EU Member States. At the international level, research in this field is led by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), and the Council Recommendation reflects the EMF limits recommended by the ICNIRP.
- A factsheet on the health effects of exposure to electromagnetic fields is available [here](#)³. This factsheet is based on the [Opinion](#)⁴ of the SCENIHR Committee: «Potential health effects of exposure to electromagnetic fields (EMF)», adopted on request of the Commission on 20 January 2015. This Opinion examines evidence regarding all sources of exposure to EMF (i.e. not just mobile communications systems taken in isolation, but also other sources such as terrestrial broadcasting, electrical installations, etc.) and a wide variety of possible health effects (cancers, reproduction, cognitive and sleep effects, etc.) and concludes in favour of maintaining the current guidelines limiting exposure to EMF in the entire frequency range from static fields to 300GHz.
- The European Commission is committed to the constant update of scientific knowledge, which must also be taken into account in the development of the 5G technology. This was recalled by Commissioner Gabriel in a recent joint [reply](#)⁵ to parliamentary questions dated 20 May 2019. The SCHEER Committee has a standing mandate to provide an independent review of the latest scientific evidence available, including the assessment of health risks that may be associated with exposure. The Committee has already produced five relevant opinions, the latest being that of 2015 cited above, which have not provided any scientific justification to revise the limits set by Council Recommendation

¹ SCHEER is the successor of the Scientific Committee on Emerging and Newly identified Health Risks (SCENIHR)

² OJ L 199 of 30.7.1999, p.59:
(<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31999H0519&from=EN>)

³ https://ec.europa.eu/health/scientific_committees/docs/citizens_emf_en.pdf

⁴ https://ec.europa.eu/health/scientific_committees/emerging/docs/scenihr_o_041.pdf

⁵ http://www.europarl.europa.eu/doceo/document/P-8-2019-001526-ASW_EN.html

1999/519/EC. The ICNIRP is currently concluding a review, and the European Commission will consider carefully its findings once they are published.

- The European Commission’s Directorate-General for Health and Food Safety has responded to two scientists that sent a letter on this topic to Commissioner Andriukaitis. This correspondence [[1](#)⁶, [2](#)⁷] is in the public domain.
- It is worth noting that in late 2018, the European Parliament and the Council adopted the [European Electronic Communications Code \(EECC\)](#)⁸. Article 45 of the EECC calls for consistency and predictability throughout the Union regarding the way the use of radio spectrum is authorised in protecting public health on the basis of the Council Recommendation and ensuring more consistent deployment conditions for 5G across the Union.
- Exposure to EMF at the limits currently recommended at international and EU level has been classified by the WHO [International Agency for Research on Cancer \(IARC\)](#)⁹ as “possibly carcinogenic”, in an earlier 2011 report. To put this in perspective, it puts such exposure in the same category as pickled vegetables and makes it less risky than eating red meat, night shift work or drinking hot coffee, which are all assessed by the IARC as being “probably carcinogenic”. The report also distinguishes between different sources of EMF exposure, pointing out, for example, that typical environmental exposures to the brain from mobile-phone base stations on rooftops and from television and radio stations are several orders of magnitude lower than those from [2G] GSM handsets. Moreover, the SCENIHR Opinion of 2015 was able to take into account additional studies conducted in the intervening period.

⁶ http://www.5gappeal.eu/wp-content/uploads/2018/06/reply_vinciunas.pdf

⁷ <https://www.environmentandcancer.com/wp-content/uploads/2018/04/letter.pdf>

⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L1972&from=EN>

⁹ <http://publications.iarc.fr/126>