

WHO NIR IAC Committee - EMF

Germany - National Report 2023

1. Legislation and supplementary measures

In the mobile communications sector in Germany, clear legal requirements are supplemented by voluntary commitments by operators. This benefits environmental, health and consumer protection and helps public acceptance of mobile communications technology. Mobile network operators in Germany agreed in 2022 on a new voluntary self-commitment to the federal government, which replaced a preceding self-commitment originating in 2001. The companies confirm their commitment to comply with the limits for the public, which are legally required for base stations, also for small cells - both indoors and outdoors.

2. Competence Centre on Electromagnetic Fields (BfS)

Since the foundation of the KEMF at BfS in 2020 the research activities as well as communication activities have been intensified.

In a national public workshop in May 2022 all recently finalized and currently ongoing projects (appr. 70) covering all frequency ranges were presented and discussed. Most of the projects, around 45, are part of the research programme on "Radiation Protection in the Process of Power Grid Expansion" addressing knowledge gaps regarding static and low frequency fields www.bfs.de/EN/bfs/science-research/bfs-research-programme/grid-expansion/grid-expansion_node.html.

To strengthen the exchange between disciplines, BfS organized three international workshops in 2022 :

1) The „Workshop on the Impact of Electric, Magnetic and Electromagnetic Fields on Oxidative Stress“ (Feb 2022) was of special importance as oxidative stress is often considered as the mechanism affecting human health. However, the quality of studies on EMF varies significantly, especially in view of the validity of the detection method chosen.

https://doris.bfs.de/jspui/bitstream/urn:nbn:de:0221-2023032336903/4/BfS_2023_3621EMF104_Anlagen.pdf

2) The Workshop on „Interaction Mechanisms of Magnetic Fields with Biological Systems – from Molecular Dynamics Simulations to Experiment“ covered all scales, from whole body down to quantum effects.

3) BfS had started a series of workshops on the causes of childhood leukemia with the final goal of clarifying the statistical association observed on childhood leukemia and low level of magnetic fields. In Nov 2022 already the 7th International Workshop took place dealing among other topics with infections and inflammation as the immune system plays a crucial role in the onset of the disease.

Regarding research, a multinational collaboration on comparative risk communication and activities has been initiated, including JEIC/Japan, PIIT/PTZE/Poland and BfS/Germany. A comparative risk awareness survey is planned for 2024.

3. Dialog on 5G

The German government founded the dialog initiative Deutschland spricht über 5G. The initiative informs the population about the various steps in the expansion of mobile networks and the introduction of 5G. The health effects of electromagnetic fields is a key topic here.

<https://www.deutschland-spricht-ueber-5g.de>

BMUV and BfS face a constantly high public demand for information regarding RF-EMF and LF-EMF, though currently significantly more for RF-EMF and in 2022 especially on 5G. Thus, several new communication activities were set up by BfS: Regular online information events take place for local/regional public servants as well as for citizens (LF-EMF and RF-EMF). In addition, on site events in cooperation with state-sponsored intermediary organisations are organized to facilitate the public discourse regarding mobile communication and power grid expansion. Usually these events are prompted by actual local concern if new base stations or new power lines are planned. In addition to these ad-hoc events a „Tiny House“ as mobile exhibition is currently produced serving as an easily accessible interactive learning platform on EMF. These activities are complemented by regular social media information (mostly Instagram, Twitter, Mastodon).