The WHO International EMF Project

IRELAND
Report of National EMF Activities in 2021-2022
July 2022

Policy and Legislative

In May 2019, Radiological Protection Act 1991 (Non-Ionising Radiation) Order 2019 (S.I. 190 of 2019) was signed into national law to extend the functions of the Environmental Protection Agency (EPA) to include responsibilities related to public exposure to non-ionising radiation in the frequency range 0 Hz to 300 GHz, commonly known as electromagnetic fields (EMF). The main functions assigned to the EPA include providing advice and information to the public, stakeholders and the Government on public exposure to EMF, as well as monitoring public exposure to EMF to inform our advisory role.

Previously, responsibilities in relation to public exposure to EMF in Ireland rested with the Department of Communications, Climate Action and Environment[1]. This Department retains responsibility for setting policy in this area and is also currently responsible for national policy on mobile connectivity. The Health and Safety Authority (HSA) has responsibility for occupational EMF exposure, while the Health Service Executive (HSE) has responsibility with regards to public exposure to optical radiation, including UV.

Research

During 2021, a research project submitted to the EPA Research Programme 2021-2030 was selected and granted EPA funding (€100,000). This project aims to assess issues related to extremely-low frequency (ELF) EMF emissions from major electricity infrastructure in Ireland, such as the Celtic Interconnector between Ireland and France. In April 2022, an (on-line) kick-off meeting took place between the Research team Principle Investigator at UCD and EPA staff, including the Research Project manager. The project aims to perform systematic, umbrella and/or state-of-the-art reviews of the most updated available literature on:

1) ELF EMF exposure of the population from major electricity infrastructures (AC, DC and hybrid systems), including monitoring and modelling of field strength and exposure;
2) Epidemiological studies on health risks associated with exposure to ELF EMF at the levels encountered at major electricity infrastructure;
3) Current EU policies and best practices to control public exposure to ELF EMF;
4) Science communication and public engagement strategies for ELF EMF exposure risks.

The work is currently undergoing and is likely to be completed by February 2023. Project deliverables include several technical and summary reports, public communications, and, if so agreed with the Research team, one or more peer-reviewed publications.

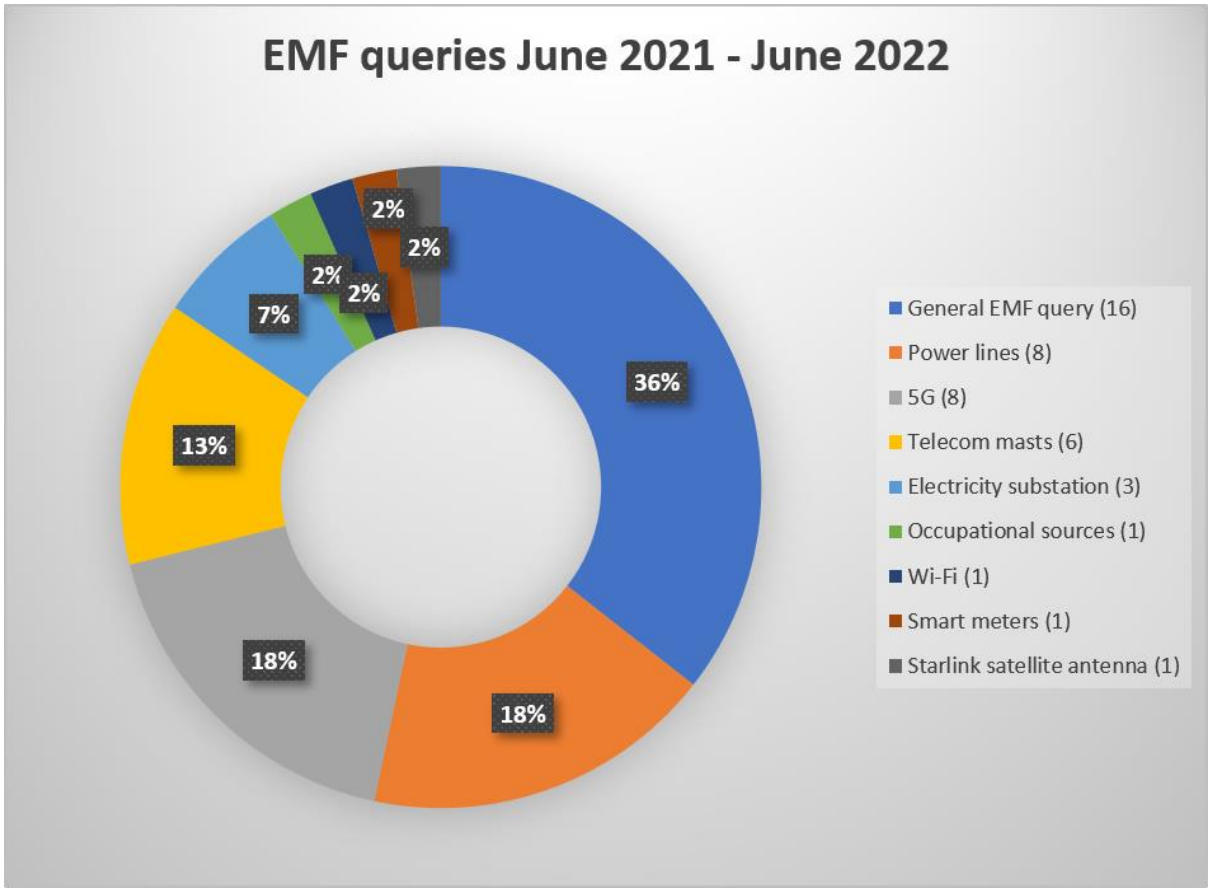
[1] As of 22nd September 2020, the Department of Communications, Climate Action and Environment became the Department of Environment, Climate and Communications.

During 2021-2022, the most recent RF EMF measurement data obtained by ComReg near telecommunication sites throughout Ireland, which are publicly available on ComReg's website, were extracted and analysed with the help of a statistician from UCD. The results of this analysis are being used to support our advisory and monitoring roles.

In 2022, the EPA contributed to the WHO EMF Project research efforts with €20,000, which adds to three previous grants (2019, 2020, 2021) of the same amount previously allocated for this purpose. Additionally, EPA staff collaborated as members of the WHO International Advisory Committee, by participating and contributing to WHO meetings in 2021 and 2022.

Public Concern

In previous years (2019-2020), over half of our queries related to 5G. However, during the second half of 2021 and the first half of 2022, the number of queries on 5G and power lines have paired off, following the trend already seen in early 2021. During the last year (June 2021 – June 2022), most queries were on EMF in general (36%), while only 18% were on 5G. Queries on 5G and telecommunication towers and base stations ("masts") in general taken together comprised 31% of all queries received during this period, while the number of queries on power lines remained stable (18%). A small number of queries were received on other EMF sources, including electricity substations, Wi-Fi, smart meters and satellite antennas.



Public Information

Responses to queries from the public, stakeholders and the Government are based on the findings of the RIVM review as well as on the official positions of WHO, ICNIRP, IARC and other public health agencies worldwide (e.g. PHE, ARPANSA).

As part of our role to provide information to the public, several EMF webpages are available and regularly updated within the main EPA website. These cover general and detailed information on EMF exposure, and EMF and health issues. All EMF webpages were reviewed and updated during 2021-2022 as part of a process to improve the entire EPA website.

Our EMF monitoring programme was approved in 2020 and aims to assess population-based exposure to EMF in Ireland. Broadband and frequency-specific radiofrequency (RF) EMF measurement surveys in outdoor public locations with high footfall (n=56) were performed between March 2021 and May 2022. Measurement data collected will be made available on our website via summary reports, graphs and maps.