



NextGEM Practical Guidelines for RF-EMF exposure awareness and preventive actions: goals, definitions, and procedure

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The European Union (EU) Horizon Europe project NextGEM provides a framework for generating health-relevant scientific knowledge and data on new exposure scenarios to Radio-Frequency Electromagnetic Fields (RF-EMFs) and developing and validating tools for evidence-based risk assessment. Practical guidelines for different societal stakeholders for RF-EMF exposure awareness and preventive actions will be created. This abstract outlines the goals of these guidelines, the definitions used to keep the guidelines specific and practical and the procedure that will ultimately generate the guidelines.

This abstract will be limited to guidelines addressed to two types of stakeholders: **citizens** and **public authorities**. Citizens are defined as the aggregate of the general public, activist groups, workers, and the vulnerable. Public authorities are the accumulation of administrators, policy makers, and inspectors. NextGEM is a project funded by the EU, with partners also from countries outside of the EU. One of the project's challenges are the large differences between the participating countries in terms of legislation, the presence of activist groups, workers' organizations, etc. Therefore it is important that the guidelines can be implemented in all different countries.

The goals of the proposed guidelines are (a) to properly inform all stakeholders on RF-EMF exposure – i.e., the current exposure levels and how they are measured, the different exposure scenarios, and the potential health risks – (b) create awareness on exposure prevention measures, and (c) disseminate tools to communicate precisely about RF-EMF exposures. Among the focus points for citizens we consider differentiating between what is known, what is uncertain, and what can be controlled by the user's own behavior (auto-induced exposure), and what cannot (environmental exposure). For public authorities, careful attention will be given to potential regulations and how to monitor the compliance therewith (using measurement and monitoring tools) as well as to communication towards other stakeholders.

The end-products of this project will be a blueprint of the practical guidelines in English, containing the ingredients (scientific information) and instructions on how to implement this information, and one or more national implementations. The procedure will start with a literature review on risk communication in. Based on this a draft of the practical guidelines will be drawn up, which will then be updated through a series of feedback loops: first a panel of national experts on risk communication in the Netherlands (where there is a lot of expertise on interacting with multiple societal stakeholders through for example the Knowledge platform Electromagnetic Fields and Health) will be consulted. Next, a panel of international experts will give their input, followed by multiple panels of end-users from the relevant stakeholders. Finally, end-users can give feedback on the different platforms where they encounter these guidelines (workshops, websites, smartphone application, etc.).

In NextGEM, we strongly believe these guidelines will help to put excellent scientific research on RF-EMF exposure and its health risks to good use and ensure societal stakeholders to make well-informed decisions.

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