



European Cluster EMF and Health

Deliverable Policy Strategy of the Cluster

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Executive Summary

The current document describes the objectives of the policy strategy on electromagnetic fields (EMF) and health, which is going to be supported by the CLUE-H. It also contains the structure of the Policy Briefs that will be produced in the lifetime of the cluster, the methodology (procedural cycle) that will be followed for their production, as well as the timeline for their delivery.



1 Introduction

This is the first deliverable of Working Group 1 (WG1) “Science translation for policy and practice” of the European CLUster on EMF and Health (CLUE-H), which is responsible for the production of the policy strategy and the policy briefs of the research projects’ cluster.

Based on the objectives and work carried out in this deliverable, the document starts with the Executive Summary followed by the introduction of the document in Section 1. Section 2 provides the description of policy process and Section 3 describes the Policy Strategy of the CLUE-H. Finally, Section 4 concludes the deliverable.



2 Policy Process

Policy stands for the substantive dimension of politics and takes the form of a law, regulation, procedure, administrative action, incentive or voluntary practice of governments and other institutions. Health can be influenced by policies in many different sectors, e.g., transportation policies can encourage physical activity (pedestrian- and bicycle-friendly community design); policies in schools can improve nutritional content of school meals. These are good examples of health co-benefits of policies.

Public health policies are materials, methods and tools intending to improve the conditions under which people live, such as secure, safe, adequate and sustainable livelihoods, lifestyles and environment (housing, education, nutrition, access to information, transportation, health, social and community services care).

In the ideal scenario, a health-related issue is identified, potential policy solutions are evaluated and prioritized and the selected solution is adopted, implemented and monitored. To achieve an optimal result, all policy actors need to be considered in the process, policymakers, stakeholders and groups directly impacted by the proposed policy.

2.1 Policy Strategy

A typical policy strategy refers to a planned approach or framework that outlines the objectives, principles, and actions to be taken to achieve specific policy goals. It provides a structured roadmap for policymakers and decision-makers to address societal challenges, implement reforms, or accomplish desired outcomes.

A policy strategy typically involves several key components:

- **Policy Objectives**: Clearly defined goals or outcomes that the strategy aims to achieve. These objectives should be specific, measurable, achievable, relevant, and time-bound (SMART).
- **Policy Analysis**: An examination of the current situation, including an assessment of existing policies, identification of key stakeholders, and consideration of potential risks and opportunities.
- **Policy Options**: Generation of various alternatives or courses of action to address the identified challenges. These options should be based on evidence, research, and consultation with experts, and should consider the potential impacts (health impact, morbidity, mortality) and feasibility (political and operational factors associated with the implementation).
- **Policy Prioritization**: Evaluation and selection of the most effective and efficient policy options based on predefined criteria such as cost-effectiveness, societal impact, political feasibility, and alignment with overarching goals. Identification of possible obstacles to the practical implementation of a recommended policy option.
- **Policy Communication**: Clear and transparent communication of the policy strategy to stakeholders, including the public, government agencies, civil society organizations, and other relevant actors. Effective communication ensures understanding, buy-in, and support for the policy strategy.

It is clear from the above that, except for the policy objectives that need to be set from the beginning, all other components of the policy strategy are closely related to the policy topic/issue that needs to be addressed.

2.2 Policy Brief

A policy brief is a concise document that presents information, analysis, and recommendations on a particular policy issue to policymakers, government officials, or other relevant stakeholders. It is designed to provide a clear overview of a policy problem and propose potential solutions or courses of action. Therefore, a policy brief is a tool that belongs to the last component of a typical policy strategy, that of policy communication.



Policy briefs are typically used to inform decision-makers about the complexities and implications of specific policy challenges. They aim to bridge the gap between research and policy by translating complex information into accessible language and actionable recommendations. Policy briefs are commonly utilized in the fields of public policy, government, international relations, and advocacy.

The overall goal of a policy brief is to present a compelling case for action and to guide policymakers in making informed decisions. By condensing complex information into a concise format, policy briefs can facilitate understanding, dialogue, and the formulation of effective policies.



3 Policy Strategy of the CLUE-H

3.1 Working Group

The Policy Strategy and the Policy Briefs of the CLUE-H will be delivered by Working Group 1 (WG1) “Science translation for policy and practice”. WG1 will be chaired by Project SEAWave for its duration, followed by Project GOLIAT. All WG participants have agreed to continue with their contribution to the work after the end of their projects, until the delivery of the last deliverable (see paragraph 2.3 below). The WG will meet regularly every two months or extraordinarily, if there is a request by the CLUE-H management to deal with a policy issue/topic. All meetings will be by video conference.

Table 1. Representation of the CLUE-H projects in WG1

Name	Project	Expertise
Alberto Rocamora	GOLIAT	EU policy-making and advocacy
Anke Huss	ETAIN	Environmental epidemiology
Efthymios Karabetsos	SEAWave	Exposure assessment, risk communication, risk management
Emmanuelle Conil	SEAWave	Exposure assessment
Francisco Vargas	NextGEM	Epidemiology
Jens Kuhne	SEAWave	Biophysics, dosimetry and exposure assessment
Mats Olof Mattsson	NextGEM	Biological EMF effects, risk assessment
Maarten Velghe	NextGEM	Exposure assessment
Mathieu Pruppers	NextGEM	Risk assessment and communication, policy advice
Theodoros Samaras	SEAWave	Medical physics, dosimetry and exposure assessment, risk assessment

3.2 Objectives

In the current document, only the objectives of the policy strategy on electromagnetic fields (EMF) and health are described. Policy analysis and options (including prioritization and communication) depend on the issue in focus, and, therefore, will be given in each of the policy briefs.

Clearly, any policy strategy on EMF and health should aim to protect health while promoting technological advancements and innovation for all categories of exposure and exposure situations. The policy strategy should align with the key ethical values in public health, like beneficence and non-maleficence, justice, individual autonomy, privacy and confidentiality, transparency and accountability, as well as cultural sensitivity. The main objectives of the CLUE-H policy strategy are given below:

1. **Health Protection:** The policy strategy will prioritize the protection of public health by addressing potential risks associated with EMF exposure. CLUE-H members will stay updated with scientific research, identify potential health effects, and propose appropriate measures to minimize or eliminate detected risks.



2. **Risk Assessment:** The policy will emphasize the importance of ongoing research to understand the potential health effects of EMF exposure better. Not only will it support the high quality epidemiological studies, animal and laboratory experiments, and systematic reviews to gather evidence foreseen within CLUE-H to improve our understanding of the risks involved, but it will also support monitoring of the national and international research to enable early detection of emerging risks and fill essential knowledge gaps. When considering health effects from exposure to EMF, an interdisciplinary approach is needed. Experts from various disciplines of science participate in CLUE-H and will be involved in identifying possible adverse health effects and in providing information on the need for, and approaches to, protection.
3. **Information and Education:** The policy strategy will prioritize the dissemination of accurate and accessible information to the public. Proper risk communication tools will be used, such as educational campaigns, webinars, open events, and resources that explain the potential risks associated with EMF exposure, practical ways to reduce exposure, and measures to address concerns but also misinformation. Provision of information will be tailored to consider the different audiences that are likely to have different interests, values, education and understanding.
4. **Industry Cooperation and Compliance:** Collaboration between policymakers, regulatory agencies, and industry stakeholders is crucial. The CLUE-H will encourage and assist the industry to develop robust safety standards and adhere to them, disclose information about EMF emissions, and support research efforts. The CLUE-H will also support governments and regulatory agencies that enforce regulations and monitor compliance to ensure protection of the public and workers, as this category of stakeholders is well represented among CLUE-H members.
5. **Occupational Safety and Worker Protection:** The policy strategy will align with European law and the national governments' approach for employers to provide and maintain safe working environments. Employers are assigned responsibility for the protection and safety of workers and need to ensure that protection and safety are optimised. They are required to establish policies and procedures to minimize EMF exposure for workers in industries where EMF exposure is common, such as telecommunications, power utilities, or healthcare facilities. They are also expected to make suitable arrangements to provide workers with the information, instruction, and training necessary to restrict potential high exposures, in addition to providing them with protective equipment, and regular health monitoring. The CLUE-H policy aims to facilitate the role of employers by providing data and tools for assessing occupational exposure from emerging wireless technologies and ensuring workers' protection.
6. **Community Engagement:** Any policy on EMF and health should emphasize the importance of engaging with citizens and communities affected by EMF sources, implementing proper citizen participation processes. This includes addressing their concerns, providing opportunities for public input in decision-making processes, and involving community representatives in discussions related to the placement and design of infrastructure like power lines or cell towers. The CLUE-H intends to provide risk communication tools to support the implementation of this policy aspect.
7. **Technology Development and Innovation:** The policy on EMF and health should encourage responsible technological advancements and innovation while considering potential health impacts. The CLUE-H policy strategy will promote the integration of safety considerations in the design and development of new technologies, ensuring that health aspects are adequately addressed.
8. **International Cooperation:** Collaboration with international organizations, research institutions, and other countries is important for harmonizing standards, exchanging research findings, and addressing global challenges related to EMF and health. Sharing knowledge, best practices, and experiences can contribute to the development of effective policies and guidelines. CLUE-H members will collaborate with each other and with associated project partners at the international level, providing a global research approach to assess current and new evidence and scientific data on health risks, as well on the success of applied protection measures and policies. This objective is inherent to the concept of the research cluster.



9. **Regular Policy Review:** The CLUE-H will regularly review its policy strategy to ensure its effectiveness and responsiveness to new scientific knowledge. As research progresses and new technologies emerge, mechanisms for policy adjustments may be necessary to address emerging issues and align with societal needs.

3.3 Deliverables

The deliverables of WG1 include the current document (“Policy strategy of the cluster”) with delivery date M12 (i.e., end of August 2023) and three (3) Policy Briefs with delivery dates M18 (end of February 2024), M36 (end of August 2025), M54 (end of February 2027).

The format of the Policy Briefs will be as follows (where applicable):

- Executive Summary: Provides a concise overview of the policy issue, key findings, and recommendations.
- Introduction: Defines the policy issue and its significance, explaining why or if action is needed.
- Background/Context/Issue statement: Provides relevant background information, historical context, main actors and current situation.
- Analysis/Evidence/Research findings: Presents evidence, data, research, and analysis related to the policy issue.
- Policy Options: When applicable, this section outlines different policy options or approaches that could be considered.
- Recommendations: Offers specific, actionable recommendations for policymakers to address the issue.
- Implementation and Challenges: When applicable, this section discusses the practical aspects of implementing the recommended policies and potential obstacles.
- Conclusion: Summarizes the main points and, when applicable, emphasizes the importance of taking action.
- References: Includes a list of sources cited in the brief.

3.4 Methodology

Below are the steps to consider when preparing the Policy Briefs (Figure 1):

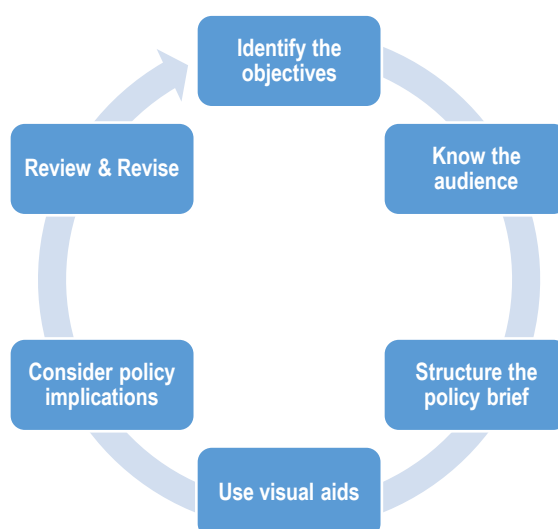


Figure 1. The production cycle of a Policy Brief in the CLUE-H



- 1 Identify the objective (see paragraph 3.2 above): Clearly define the objective/purpose of the policy brief. What specific policy issue/topic or problem does it address? Determine the key message or recommendations to convey.
- 2 Know your audience: Understand the background and knowledge level of the policy makers and stakeholders who will be reading the brief. Tailor the language and content to their level of expertise, ensuring it is accessible and understandable.
- 3 Structure the Policy Brief: Use the structure defined above (see paragraph 3.3). Policy briefs are typically short, precise and visual, usually ranging from 2 to 6 pages. The information included should focus on the most relevant and impactful aspects of the research results.
- 4 Visual aids: The use of visual aids, such as charts, graphs, or infographics to present complex information in an easily understandable format is warranted.
- 5 Consider policy implications: Highlight the potential impacts of implementing the recommended policies. Discuss any anticipated challenges, opportunities, costs, or benefits to aid policy makers in decision-making.
- 6 Review and revise: Seek feedback from colleagues or experts to ensure quality. Consult policy makers (the identified audience of the Policy Brief) in the framework of online meetings/interviews/workshops, where applicable. In the case of CLUE-H, policy makers to consult will include experts of the European Commission services and the respective European Agencies.

The content of the Policy Briefs will be agreed by the coordinators of the four projects of the CLUE-H.

3.5 Potential Policy Issues/Topics

WG1, through its chair, will receive information from the CLUE-H management, WG4 (“Experimental studies”) and WG5 (“Exposure Assessment”) on the research output of all projects. It will then meet to decide which will be the subject of the next Policy Brief. Some of the policy issues-topics that can be addressed are listed below. The items of this indicative list are not ranked according to priority, and they do not make a comprehensive list; neither do they commit the WG to include any of them in the three policy briefs that it will eventually prepare. The items of the list were suggested by WG1 members, who are partners in several of the projects, because they are being intensively discussed in several scientific and political fora.

1. Standardization for consumer devices making use of EMF
2. Latest evidence on health effects of radiofrequency EMF (RF-EMF)
3. Technical updates on appendices of EU Council Recommendation and Workers Directive
4. Implementation at a national level of exposure guidelines stricter than those recommended by the EU (impacts on public perception, common market, and technological advancement)
5. Scientific advice mechanisms in the EU and exposure guidelines (e.g., ICNIRP, IEEE)
6. Opposing truth claims, scientific uncertainty, community engagement and communication with the public
7. Awareness about emerging wireless technologies
8. Environmental Foresight System for predicting changes in the electromagnetic environment and their potential impact on human health
9. Research funding on EMF and health

The research work performed in the framework of CLUE-H will provide an evidence-based, multidisciplinary-derived basis for policy recommendations. The CLUE-H will contribute to the reduction of bias in the recommendations and their applicability in all settings and contexts.