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on consumer products
on emerging and newly identified health risks
on health and environmental risks

The SCENIHR Assessment on EMF - Methodology

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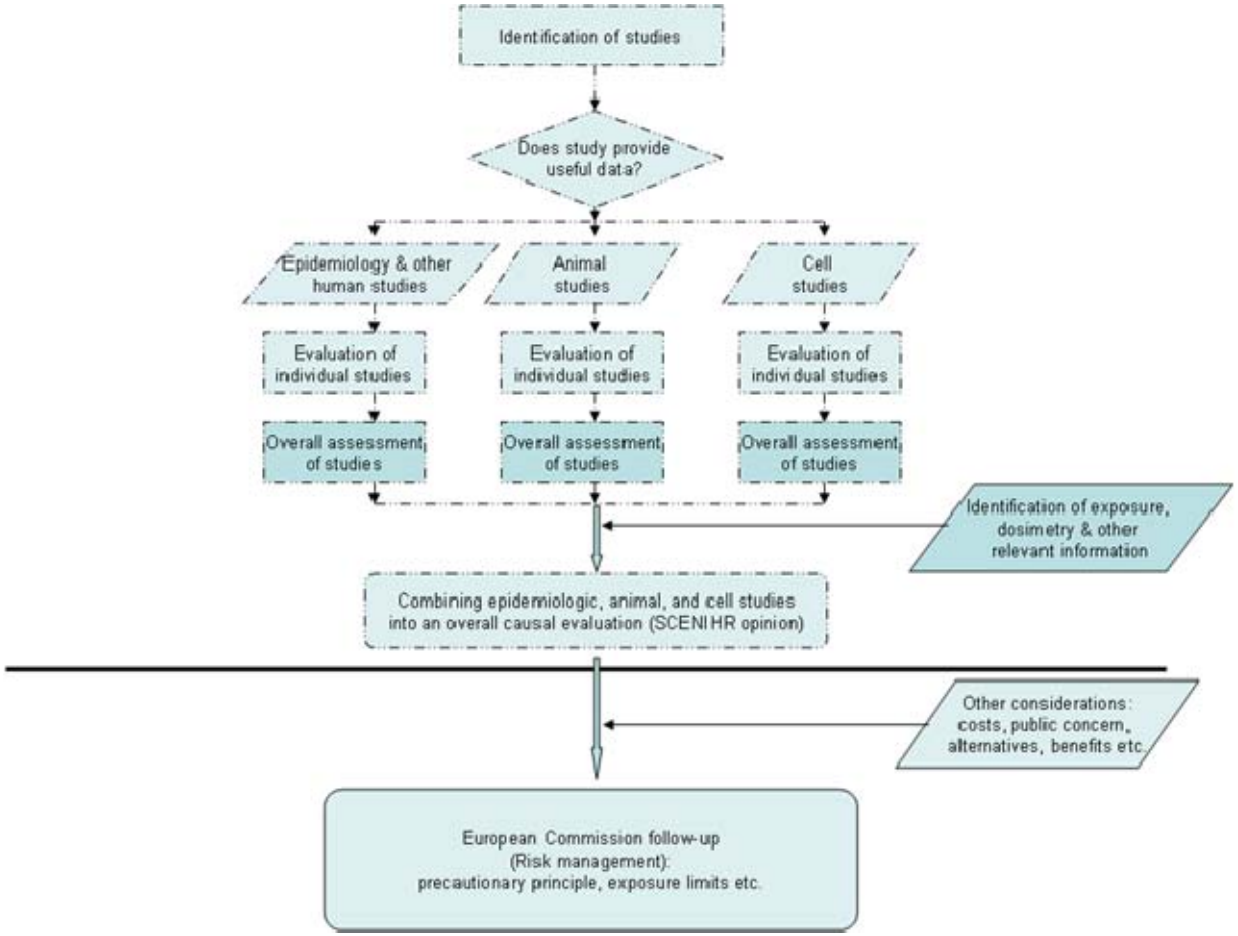
Development of the scientific rationale



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General considerations

- Search for exposure measurements, epidemiology and experimental studies (human and animal in vivo and in vitro) relating to RF, IF, ELF and Static fields.
- Primary source peer reviewed full papers in scientific journals, principally in the English language.
- Focus on papers that contribute new information since the previous opinion.
- Both the methodology used and the findings are assessed.
- Good studies with positive or negative findings are given equal weighting.
- Opinions not supported by data that can be assessed by the WG not considered.

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The health risk assessment

- Hazard identification of EMF
- Examine relationship between exposure and hazard
- Identifying uncertainties in determination of hazards and dose-response relationships
- To evaluate the plausibility of possible models/mechanisms for each hazard of concern

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Dosimetry and exposure assessement

- Measurement vs calculations of exposure
- Broadband vs frequency specific measurements
- Continuous monitoring vs spot measurements
- Exposimeters
- Uncertainty of assessment

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Epidemiology

- Descriptive cross-sectional studies, case-control studies, cohort studies
- Criteria:
  - Confounding and bias
  - Temporality of association
  - Dose-response
  - Consistency and specificity of association
  - Relation to disease rates over time
- Meta-analyses

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Human laboratory studies

- Controlled conditions
- Double-blind, randomized cross-over design
- Habitation
- Choice of study group
- Objective measurement vs self-reporting

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In vivo studies

- Living organisms with all organ systems
- Species differences and extrapolation to human situations
- Criteria:
  - Number of animals and their age, sex etc
  - Randomization
  - Exposure levels and duration
  - Observation times
  - Adequate controls and measurements
  - Dose-response relationships

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In vitro studies

- Hazard identification and mechanistic understanding
- Genotoxicity studies and non-genotoxic end-points
- Extrapolation
- Criteria:
  - Appropriate cell types
  - Proper controls
  - Multiple end-points and analyses
  - Observation times
  - Dose-response relationships