

Evaluation et gestion du risque des champs radiofréquences: Une perspective de l'OMS

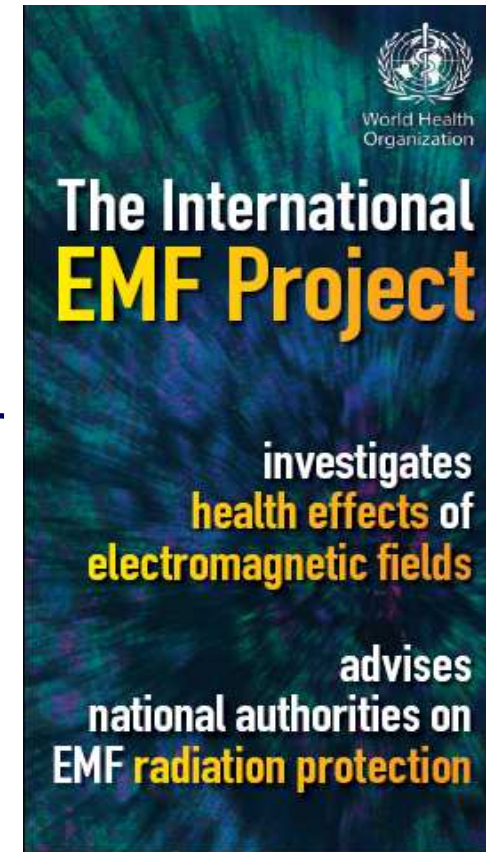
Dr E. van Deventer
HSE/PHE/IHE



World Health
Organization

Le Projet International EMF

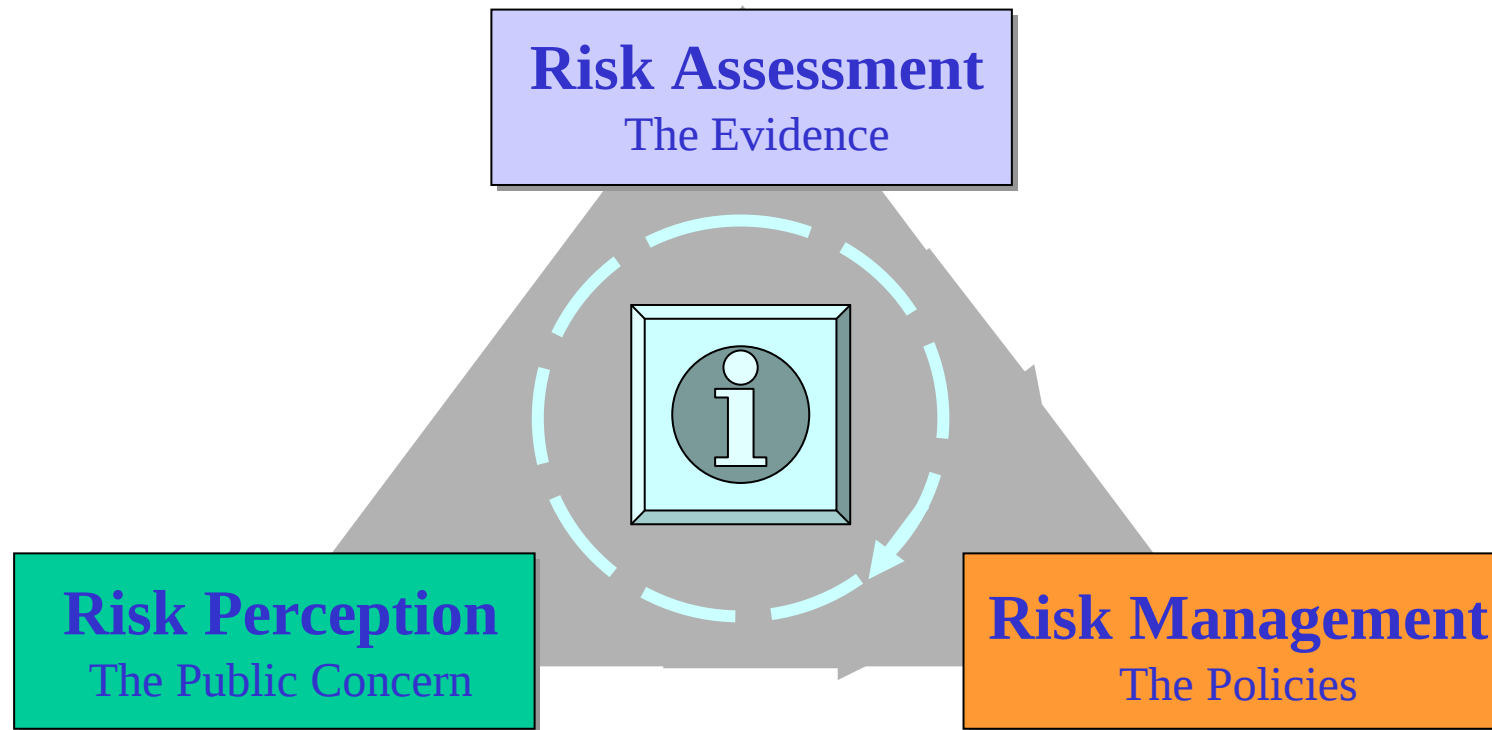
- Etabli en 1996
- Coordonné au siège de l'OMS
- Un effort multinational et multidisciplinaire pour créer et diffuser des informations sur la santé humaine des risques d'EMF



Partenaires



Les EMFs posent-ils un risque sanitaire?



Les EMFs posent-ils un risque sanitaire?



OUTLINE

- Introduction
- Evaluation du risque sanitaire

WHO | Environmental Health Criteria - Microsoft Internet Explorer provided by WHO

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Address <http://www.who.int/ipcs/publications/ehc/en/index.html> Go Links >>

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Environmental Health Criteria

Environmental Health Criteria (EHC) documents provide international, critical reviews on the effects of chemicals or combinations of chemicals and physical and biological agents on human health and the environment.

Each EHC follows a standard outline or format, and you can expect to find a summary of the whole document followed by information on identity, sources of exposure, environmental transport, distribution and transformation, environmental levels and human exposure, kinetics and metabolism in laboratory animals and humans, effects on laboratory animals and in vitro test systems. Effects on humans; effects on other organisms in the laboratory and field. An overall evaluation and conclusions for the protection of human health and the environment is found at the end of each document together with needs for further research and details of previous evaluations by international bodies e.g. IARC, JECCA.

Two different series of Environmental Health Criteria (EHC) documents are available: (1) on specific chemicals or groups of related chemicals; and (2) on risk assessment methodologies. Both are accessible from the numerical listing below. In addition the EHCs on risk assessment methodologies are accessible from the listing of all IPCS methodology publications and projects.

ACCESS TO ENVIRONMENTAL HEALTH CRITERIA DOCUMENTS

[List of EHCs in numerical order](#)
[List of EHCs \(on chemicals or groups of chemicals\) in alphabetical order](#)
[List of EHCs and other IPCS publications and projects on risk assessment methodologies](#)

NEW PUBLICATIONS

CICADS

CICAD 68
Tetrachloroethene
[Download \[pdf 1.20Mb\]](#)

CICAD 67
2-Butoxyethanol
[Download \[pdf 784kb\]](#)

PESTICIDES

[The WHO Recommended Classification of Pesticides by Hazard](#)

PREVENTION

[Guidelines on the prevention of toxic exposures](#)

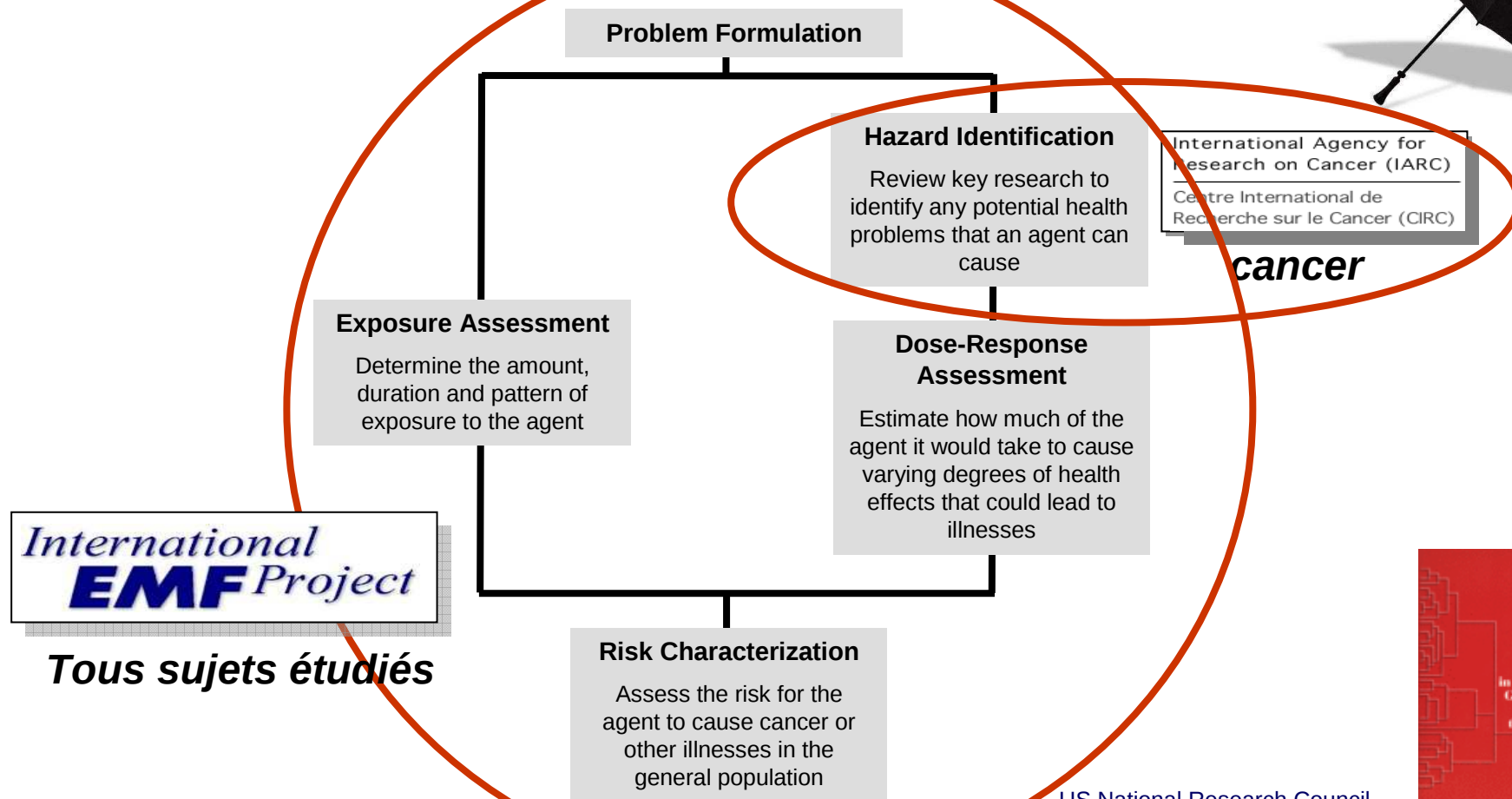
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IPCS

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Evaluation du risque sanitaire (Health Risk Assessment)

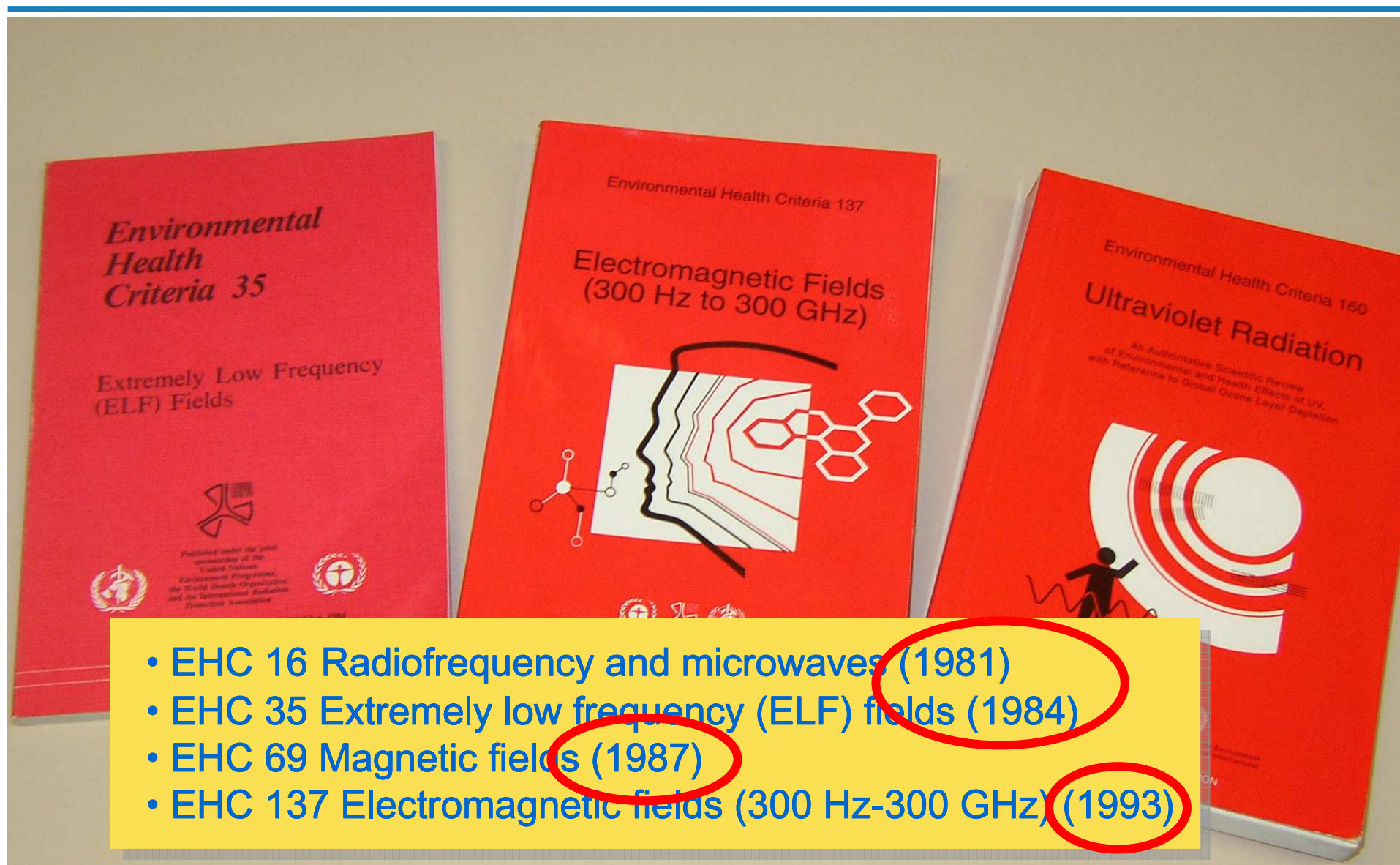


US National Research Council,
Risk Assessment in the Federal Government: Managing the Process. 1983, Washington, DC: National Academy Press



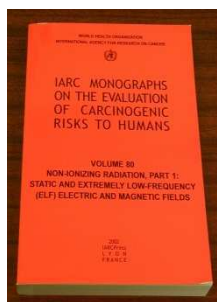
Environmental Health Criteria

Electromagnetic Fields



Environmental Health Criteria

Electromagnetic Fields



2002



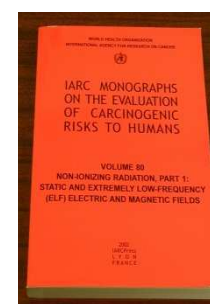
2006



2007

Static and ELF fields

RF fields



2012?



2013-14?



RF EHC

INTERPHONE multinational
epidemiologic study (**May 2010**)

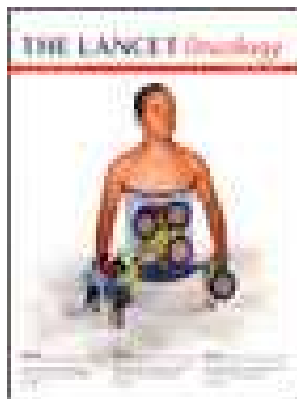
IARC evaluation of **carcinogenic**
risks to humans from RF (**May 2011**)

WHO assessment of all
health risks to humans from RF
(**now**)



Evaluation du CIRC

Volume 102 – Champs radiofréquences



The Lancet Oncology
Volume 12, Issue 7, pp. 624 - 626,
July 2011
doi:10.1016/S1470-2045(11)70147-4
Published Online: 22 June 2011

Carcinogenicity of radiofrequency electromagnetic fields

In May, 2011, 30 scientists from 14 countries met at the International Agency for Research on Cancer (IARC) in Lyon, France, to assess the carcinogenicity of radiofrequency electromagnetic fields (RF-EMF). These assessments will be published as Volume 102 of the IARC Monographs.¹

Human exposures to RF-EMF (frequency range 30 kHz–300 GHz) can

induced electric and magnetic fields and associated currents inside tissues. The most important factors that determine the induced fields are the distance of the source from the body and the output power level. Additionally, the efficiency of coupling and resulting field distribution inside the body strongly depend on the frequency, polarisation, and direction

regarding associations between use of wireless phones and glioma.

The cohort study⁴ included 257 cases of glioma among 420 095 subscribers to two Danish mobile phone companies between 1982 and 1995. Glioma incidence was near the national average for the subscribers. In this study, reliance on subscription to a mobile phone provider, as a surrogate for



Published Online
June 22, 2011



Environmental Health Criteria sur les champs RF

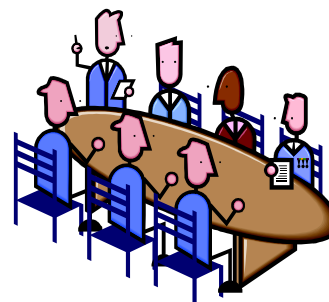
- L'OMS fournira une revue scientifique critique des effets des champs RF sur tous les sujets étudiés pertinents pour la santé humaine, mais à l'exclusion de l'utilisation pour fins de diagnostic médical et thérapeutique
- Le but est de soutenir les autorités nationales et internationales dans leurs politiques et décisions sur les champs RF et la santé
- La revue sera menée en utilisant le format standard et les critères de qualité de la série de documents EHC, et complétera la série existante EHC de documents couvrant les CEM à la lumière de nouvelles études et d'informations

Environmental Health Criteria Procedures

1. Développement d'une ébauche du document
 - Réunions thématiques

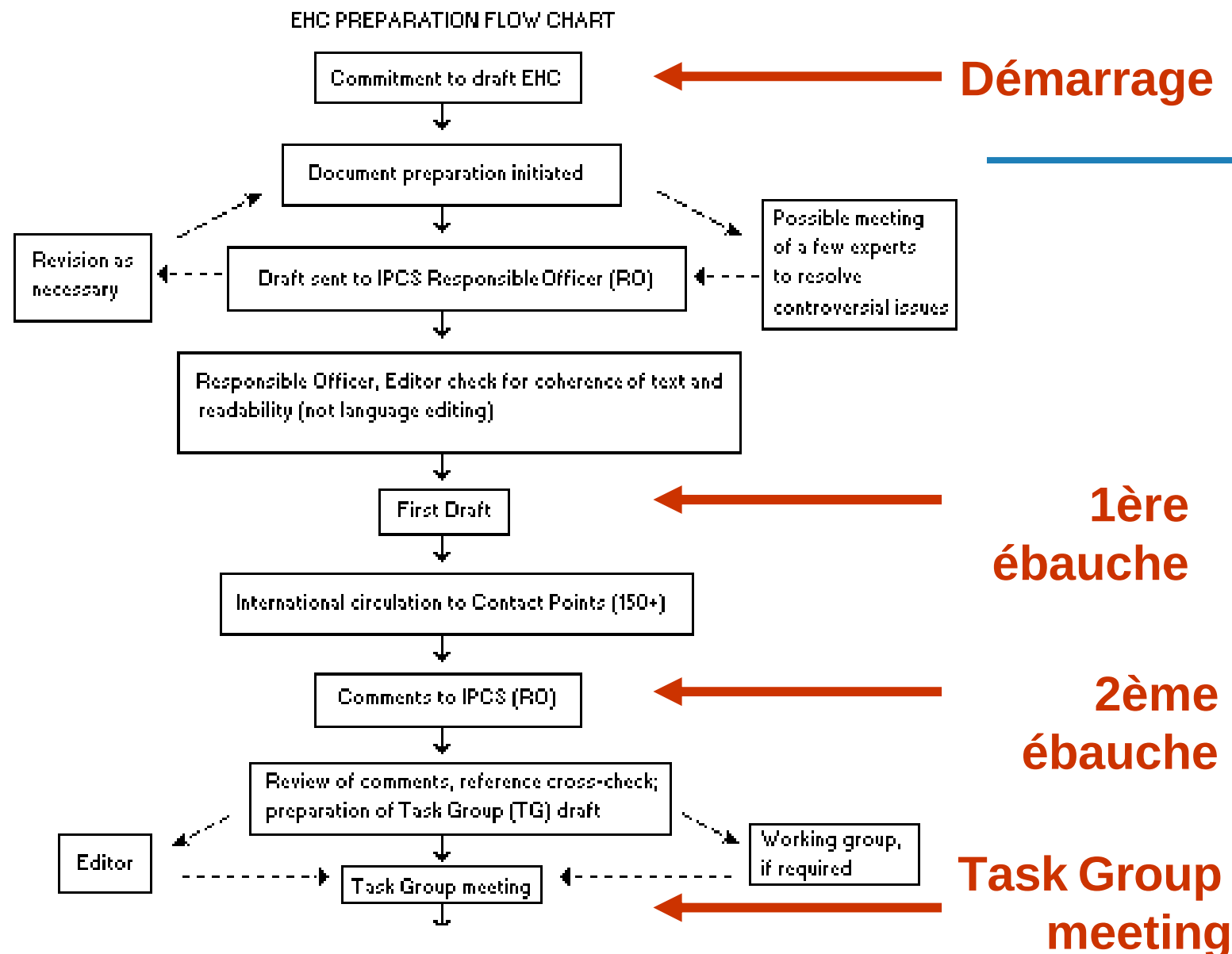


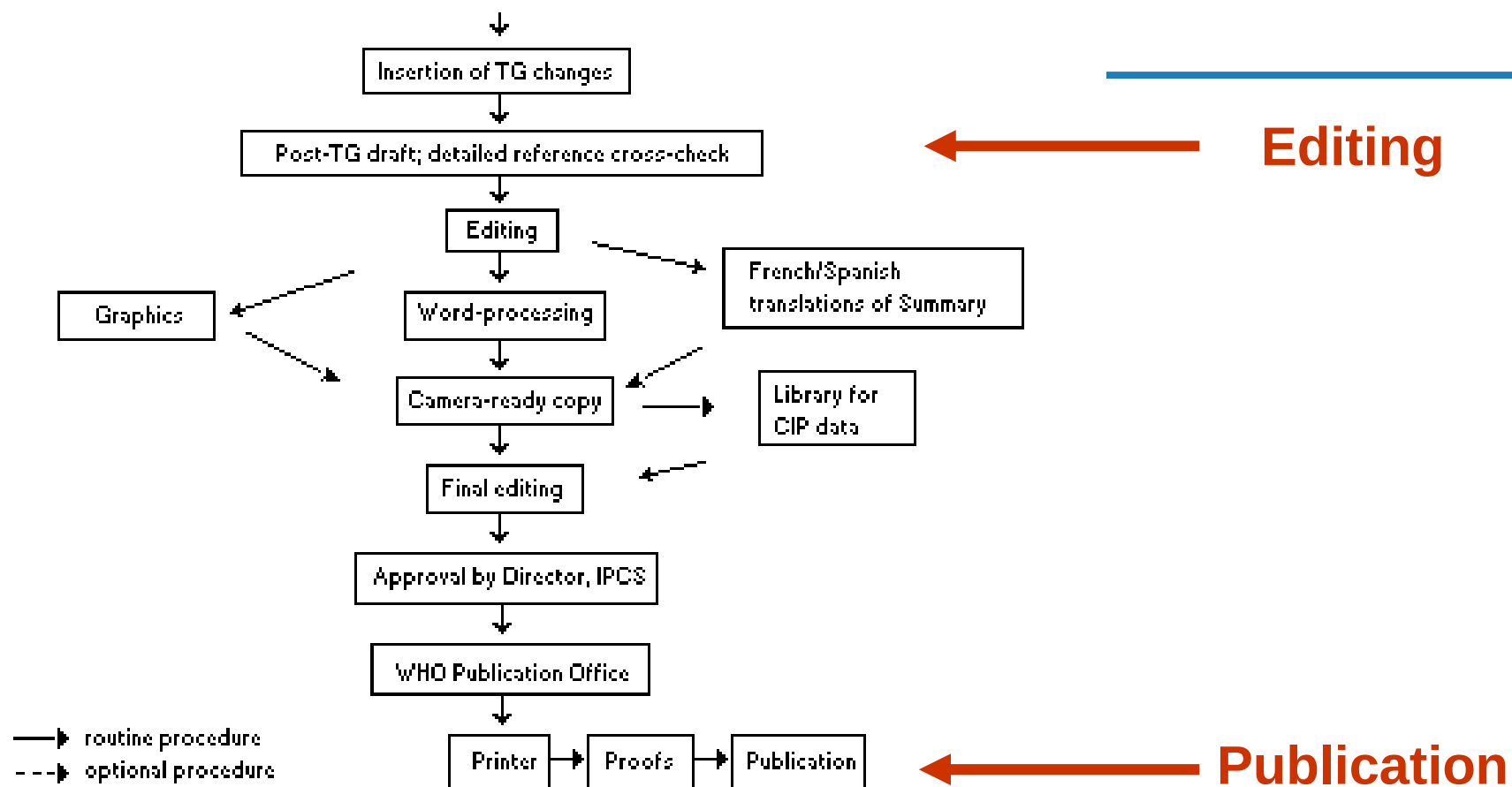
2. Réunion du Task Group (5 jours)

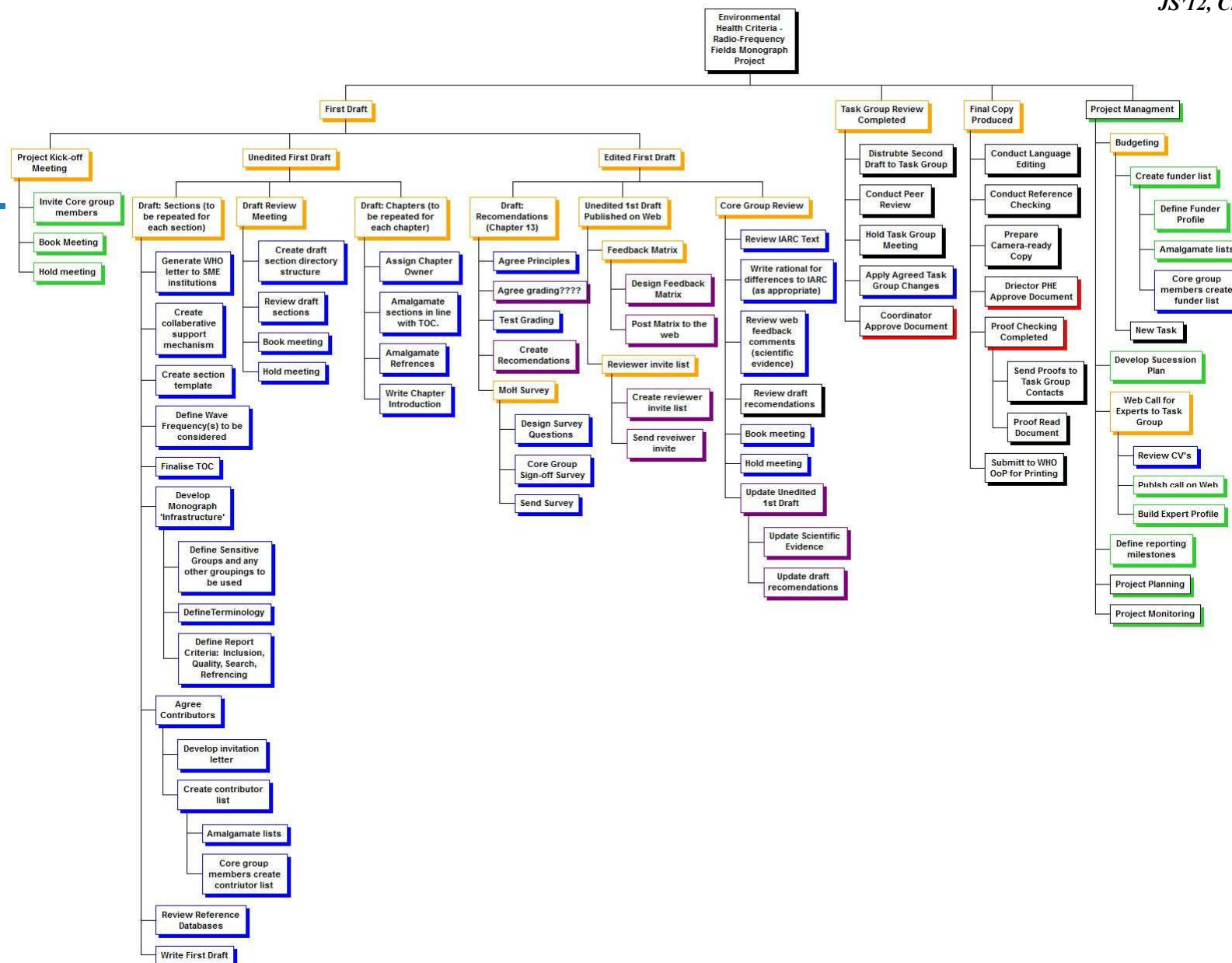


3. Révision scientifique et linguistique









Rôle du Core Group

- Élaborer le plan de projet, y compris les étapes de processus et bornes (milestones) du projet, table des matières et calendrier
- Coordonner l'élaboration et la révision des chapitre ébauchés
- Assister aux réunions du groupe de base des téléconférences de progresser le document
- Assister à la réunion du Task Group

Contributeurs

- Experts du **Core Group** (6)
- Auteurs d'ébauche de chapitres
- Membres du **Task Group** (environ 20-30)
 - Scientifiques individuels (ne représentants pas leurs organisations)
 - Composition dictée par gamme de compétences et de points de vue et répartition géographique
 - Rôle: évaluer les risques pour la santé, conclure des accords par consensus, de tirer des conclusions et recommandations finales qui ne peuvent pas être modifiés après la réunion du Groupe de travail
- Observateurs
- Secrétariat



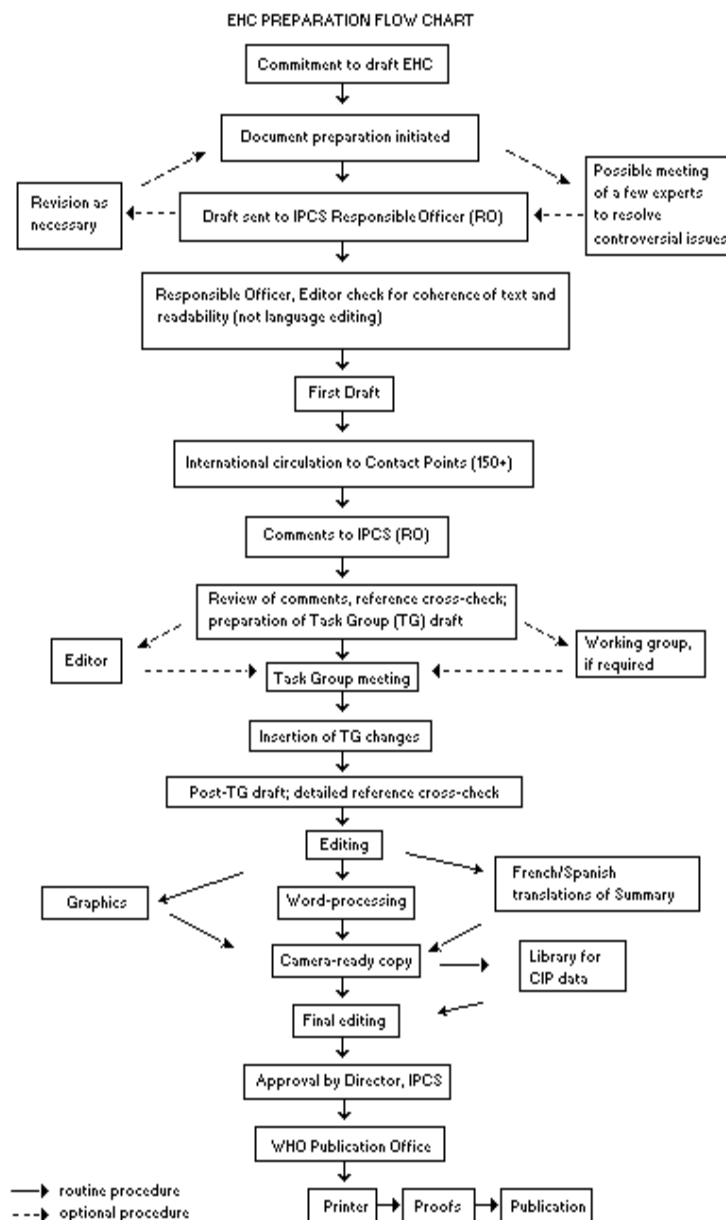
This report contains the collective views of an international group of experts and does not necessarily represent the decisions or the stated policy of the International Commission of Non-Ionizing Radiation Protection, the International Labour Organization, or the World Health Organization.

Environmental Health Criteria 238

EXTREMELY LOW FREQUENCY FIELDS

Published under the joint sponsorship of the International Labour Organization, the International Commission on Non-Ionizing Radiation Protection, and the World Health Organization.



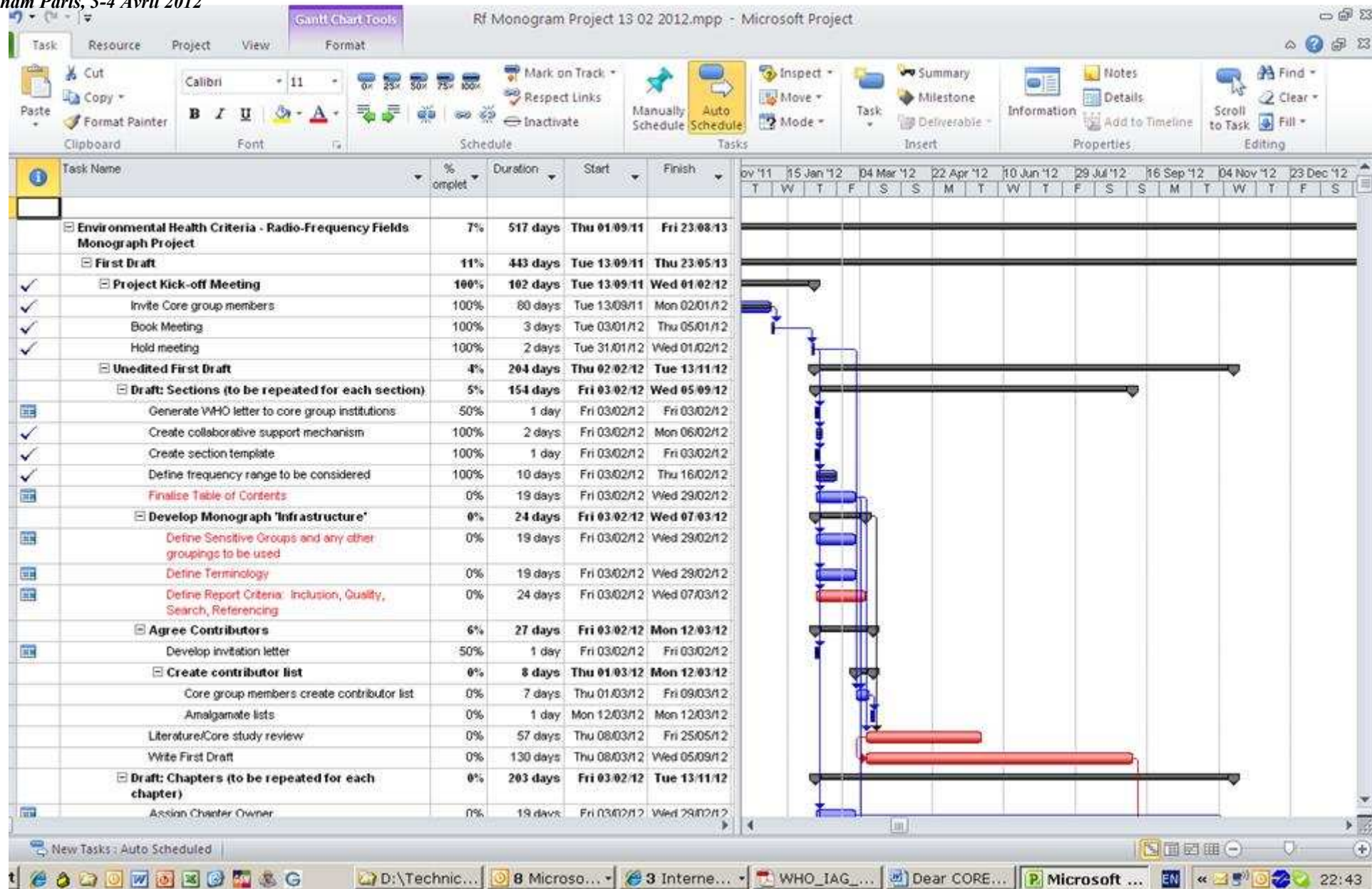


2002

Octobre 2005

Juin 2007





Base de données de références

- Publications dans journaux scientifiques avec comité de lecture (Medline, PubMed)
- Etudes sociales
- Inclusion géographique (autant que possible)
- Utilisation de rapports non publiés
- Revues d'expertises nationales et autres (ex. AFSSET, AGNIR, ICNIRP,...)

EHC on Static Fields

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Preamble

1. Summary and recommendations for further studies
2. Physical characteristics
3. Natural background and human-made sources of exposure
4. Measurements of static electric and magnetic fields
5. Interaction mechanisms
6. Dosimetry
7. Cellular and animal studies
8. Human responses
9. Health risk assessment
10. Recommendations for national authorities



**par
approches**

References

Glossary

Appendix



EHF on ELF Fields

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5. Neurobehaviour
6. Neuroendocrine system
7. Neurodegenerative disorders
8. Cardiovascular disorders
9. Immune system and haematology
10. Reproduction and development
11. Cancer
12. Health risk assessment
13. Protective measures

Appendix



par thèmes



EHC on ELF Fields

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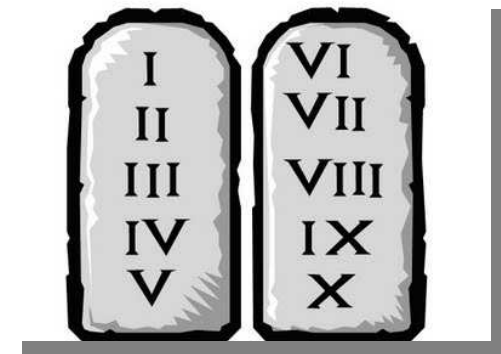
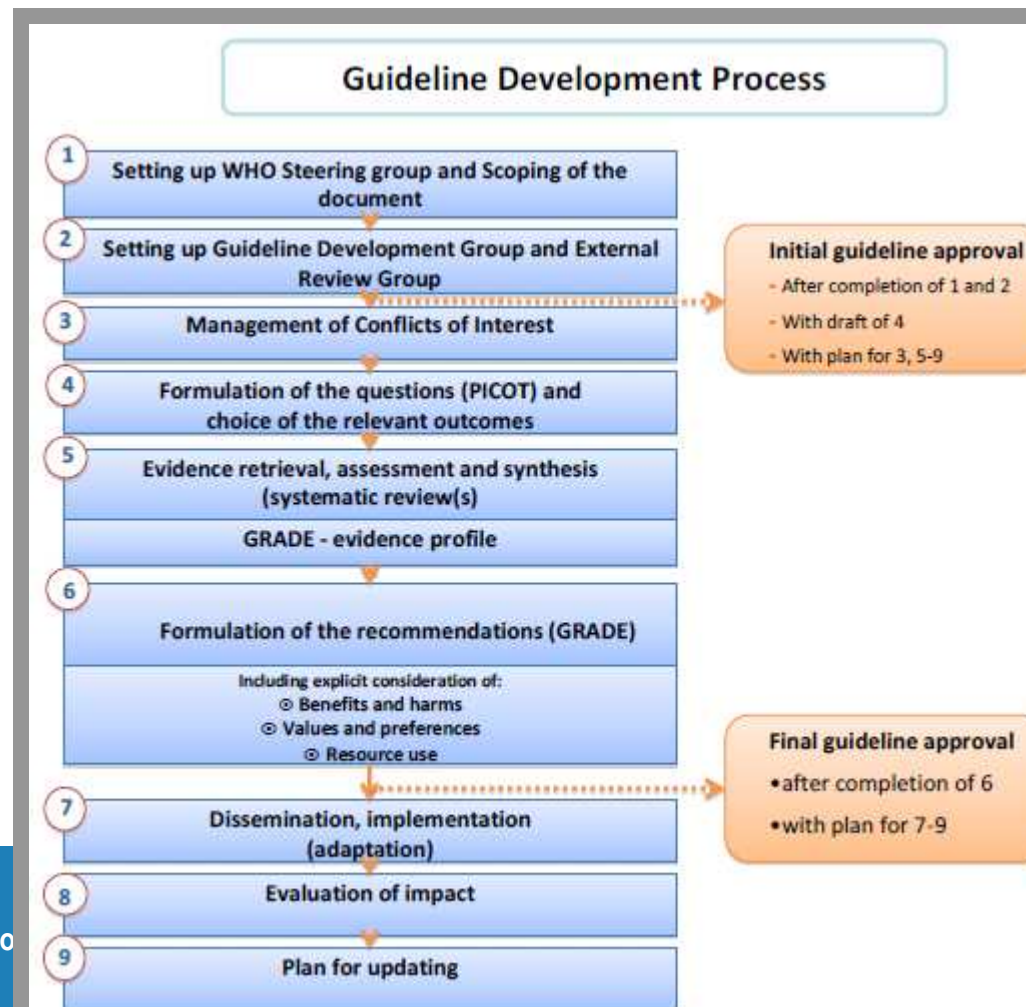
13. Protective measures

Appendix



Recommendations de l'OMS

- Et l'OMS dit: "Though shall"



Des rôles différents

- Rôle de l'OMS
 - **Recommandations basées sur l'évidence**
 - Vision de santé publique globale
 - Stratégie de prévention

- Role des autorités nationales
 - **Recommandations basées sur les circonstances locales**
 - Economie
 - Valeurs et préférences
 - Dimension politique
 - Approche de précaution

Options de gestion

Réduire l'incertitude

Réduire l'exposition

Réduire les craintes

- Research
- Exposure limits
- Planning measures
- Engineering measures
- Communication
- No action
-



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website: www.who.int/emf

Journée mondiale de la Santé 2012 (7 Avril)

"Une bonne santé pour mieux vieillir"

