

MMF Mobile Manufacturers Forum











MOTOROLA NOKIA Panasonic



PHILIPS



SAGEM



SIEMENS Sony Ericsson

tcl&alcatel







MMF/Perfil

- MMF is an international association of wireless telecommunications equipment manufacturers.
- Based in Belgium since 1998.
- Representing around 90% of world cellular telephones sales and the majority of global network infrastructure providers.
- ✓ "Hub" for Latin America since January 2003 (Sao Paulo, Brazil).

Alcatel
BenQ
Ericsson
Mitsubishi
Motorola
Nokia

Panasonic

Philips
Sagem
Samsung
Siemens
Sony-Ericsson
tcl&Alcatel



MMF/Profile

Focal point for telecommunications, EMF, and health, with particular emphasis on:

- Assistance for scientific research
 - Independent organizations.
 - Partial financial support.
 - WHO research agenda.
- Guidelines and harmonization of standards
 - Support for governing agencies and bodies worldwide.
- Communication of reliable, up-to-date information on the issue, targeting interested segments (business associations, specialized press, government officials, etc.) as well as the general public.





Communication and Controversy





EMF and Health: Why the controversy?

- Electromagnetic fields are invisible, which generates concern.
- The difference between verification of a biological effect and injury to health.
- It is normal for scientific results and procedures not to be perfectly understood.
- Negative effects reported often are not replicable, but the original scientifically unproven information remains for the public.
- Technical information on ionizing radiation (such as radioactivity), is mistakenly associated with the (non-ionizing) radio frequency of mobile telephones.







EMF and Health: Why the controversy?



The comments of "experts" may not represent a scientific truth.



 Weight of the evidence – All existing scientific evidence should be considered as a whole. Scientifically, an isolated study cannot be regarded as definitive.



Conclusions must be based on consensus and accumulated evidence.



A reliable scientific position

World Health Organization:

"None of the recent reviews have concluded that exposure to the RF fields from mobile phones or their base stations causes any adverse health consequence."

"International guidelines have been developed to protect everyone in the population: mobile phone users, those who work near or live around base stations, as well as people who do not use mobile phones."

http://www.who.int/peh-emf/en/





A reliable scientific consensus

Consensus of international organizations: there is no scientific evidence of adverse health effects under international (ICNIRP) guidelines.

- World Health Organization (WHO)
- International Commission on Non-Ionizing Radiation Protection (ICNIRP).
- Scientific Committee on Toxicity, Ecotoxicity and the Environment (CSTEE), EU
- National Radiological Protection Board, UK
- Royal Society of Canada Expert Panel
- Independent Expert Group on Mobile Phones, UK
- French Government Experts Report
- German Health Council
- FDA, USA
- American Cancer Society, USA
- Health Sciences Authority, Singapore
- Ministry of Health of Spain











Scientific Research

Table 1: Studies reviewed by the international scientific community with a description of the biological and health effects of RF fields:

| Type of Study/&Research | In Progress (1) | Announced Not Published (1) | Published (2) |
|-------------------------|-----------------------|-----------------------------------|------------------|
| Epidemiological | 44 | 09 | 205 |
| On Humans | 65 | 17 | 160 |
| On Animals | 50 | 30 | 715 |
| Cell studies | 67 | 31 | 391 |
| TOTAL | 226 | 87 | 1492 |

All the studies appear on the WHO website:

http://www.who.int/peh-emf/research/database/en/

1. From WHO Project Listings. 2.IFrom WHO citation listings.











Scientific Research

Table 2: Studies on mobile telephones in the WHO database:

| Type of Study/Research | In Progress | Completed* | Total |
|---|---------------------|------------------------------|------------------------|
| Cancer-related Epidemiological On Animals Cell studies | 31 17 46 | 55 68 80 | 86 85 126 |
| Subtotal | 94 | 203 | 297 |
| Non cancer-related Epidemiological On humans On animals Cell studies Subtotal | 7 59 27 11 | 16 98 107 26 247 | 23 157 134 37 |
| TOTAL | 198 | 450 | 648 |

All the studies appear on the WHO website: http://www.who.int/peh-emf/research/database/en/



^{*} One completed study = one or more papers published.



Why research further?

 A larger scientific database leads to more definitive evaluations by public health authorities and, therefore, increases public faith in the system and products.





Defining Standards





Defining Guidelines

- Based on recommendations of an independent scientific organization, whose credibility is recognized by the international scientific community, adopted by the majority of other countries, for definition of limits.
- The limits should provide users, workers, and the public at large with substantial protection (with a safety margin), and, thanks to the credibility of their origin, they will not call for the adoption of special additional precautionary criteria.
- The limits should function amply and allow all current technologies relating to the issue to do so (realistic).





Defining Guidelines

- They should provide recognized, sound scientific criteria for the internal consideration and discussion of health matters relating to Radio Frequency.
- They should make it possible to create consistent rules for manufacturing companies and telecommunication operators.
- Thanks to their reliable origin, they should give added credibility to the regulating agencies as protectors of public health.





Challenges in Defining Guidelines

- Government and industry should act in conjunction to explain the safety of the defined standards to the population (communication!).
- They should be compatible with the standards of international organizations (CITEL, ITU, WTO), thereby guaranteeing the non-exclusion of the country from the current globalized international context.
- Standards for the certification of equipment should be internationally uniform to ensure technological agility.





Importance of Harmonization

Guidelines and Regulatory Aspects





Harmonization of Guidelines

 The WHO approves and encourages the harmonized adoption of the ICNIRP:

"International standards were developed to protect the whole population: users of mobile telephones, and those who work or live near base stations, as well as non-users of mobile telephones." http://www.who.int/peh-emf/en/

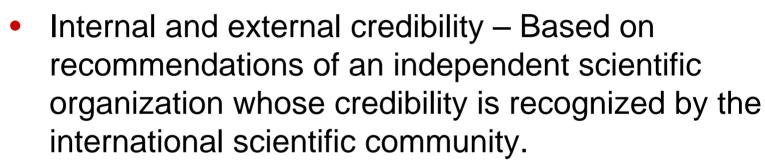
- The following also recommend harmonization by ICNIRP:
 - ITU International Telecommunication Union (ITU-TK.52(02/00);
 - CITEL Inter-American Telecommunication Commission
 - WTO World Trade Organization





Importance of Harmonization

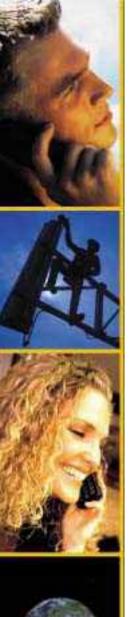
ITU/WTO/WHO



 International recognition – Internationally recognized protection levels (safety margin). For users, workers, and the general public.







Importance of Harmonization

 Technological Frontiers – Limits that work efficiently and enable all last generation technologies to do so.

 Clear Rules – Easily understood rules for manufacturing and operating companies in an increasingly globalized business environment.





Benefits of adopting the ICNIRP

All parties win with the adoption of ICNIRP guidelines:

- Consumers win with the protection of internationally recognized safety standards, and by obtaining equal access to products and services available for consumers throughout the world.
- Regulating agencies win by gaining access to consistent regulations, scientifically based on the recommendations of the WHO-World Health Organization, the ITU-International Telecommunication Union, and the WTO-World Trade Organization.
- Industry gains by developing and manufacturing products that conform to widely accepted international standards, and by putting these products on sale around the world, in a safe and timely manner.





Adoption of ICNIRP

Countries with standards that follow WHO recommendations:

Australia

Japan

Brazil

UK

Portugal

Ireland

Peru

Poland

Lithuania

Cyprus

Ecuador

Singapore

USA

Israel

France

Denmark

Greece

Sweden

Hungary

Malta

Estonia

Taiwan

Hong Kong

N. Zealand

Spain

Finland

Luxembourg

Norway

Czech Rep.

Slovenia

Argentina

Korea

Canada

Belgium

Italy

Germany

Holland

Turkey

Latvia

Slovakia

Colombia





Some Practical Recommendations

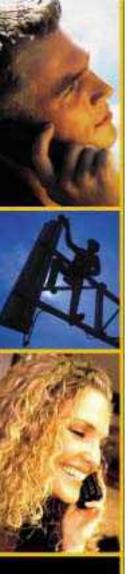




Practical Recommendations

- Expedite adoption of harmonized exposure guidelines
 It is highly recommendable that appropriate standards be
 adopted before the issue becomes emotionally charged, with
 consequences in the political area (urban myth).
- Show compliance with the guidelines
 This is the way to build confidence.
- Undertake, and communicate results of audits/reviews
 By Government or Industry.
 This helps to build confidence.
- Importance of industry cooperation
 Health is a non-competitive aspect.
 Develop common tools such as templates to help site planners.





Practical Recommendations

- Consult the community in emotionally sensitive places
 The sooner the better.
 Listen to suggestions made by the community
- Create information for the consumer
 Leading to key interests, and which can be directed by independent sources.
- Well thought-out selection and design of sites
 Use designs that will minimize visual preoccupation and invasion.
- Use joint location
 In special sites (this minimizes costs and impacts).
 But the visual impact should also be taken into consideration.





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