Information exchange meeting with Member States on the implementation of Council Recommendation 1999/519/EC (electromagnetic fields)
Brussels, May 3, 2010

Meeting Report

Mr B. Delogu, Head of Unit, DG SANCO Risk Assessment, welcomed the participants and introduced the meeting.

This topic is still attracting the attention of policy makers with the European Parliament adopting a resolution on the health effects of electromagnetic fields (EMF) on April 2nd, 2009. The implementation of the Council Recommendation remains a competence of the Member States. Under Article 168 of the Treaty, there are no grounds for legal harmonization but the European Commission supports harmonization among Member States. The responsibilities of the European Commission are to review the state of scientific knowledge (through the independent Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR), the exchange of information on this issue and the quinquennial preparation of an implementation report on the basis of information from Member States.

The issue of the potential health effects of EMF is both controversial and sensitive, showing significant national differences. The Commission has been asked by the European Parliament, NGOs, and members of the public to revise the current exposure limits and to introduce a "precautionary approach"?

What is meant by "introduce a precautionary approach"? The Council Recommendation already contains a certain level of precaution.

A number of knowledge gaps remain and the European Parliament is calling for the labelling of mobile phones.

In March 2010, a Eurobarometer survey on EMF was carried out. It was requested by the Commission in order to determine the trends in public opinion since the 2006 survey and to identify what are the demands of the public to public authorities and the Commission on this issue. This survey is published on the Commission EMF website (http://ec.europa.eu/health/electromagnetic_fields/policy/index_en.htm).

Session 1: Information from Member States relative to the implementation of Council Recommendation 1999/519/EC

UK:
The UK has had legislation in place since the 1970’s, which requires employers to assess and control risks to which their workers and others (i.e. the public) are exposed. Official advice on EMF exposures, as relevant to risk assessments, is produced by the Health Protection Agency (HPA). The UK position is that the ICNIRP guidelines should be adopted and that there are benefits to international cooperation. The UK recognizes that there is a significant level of precaution in the ICNIRP guidelines and it implements the guidelines according to the Council Recommendation. After the Stewart report, in 2000, changes were brought to the implementation of the guidelines in the form of more consultation with the public, certification of compliance for base stations and measurement audits.

The UK research programme on this issue, Mobile Telephony and Health Research, Phase II, is almost complete, but the Cosmos study has just started. With respect to ELF, what precautionary measures are practical? The 2007 report by the SAGE (Stakeholder Advisory Group on ELF EMF) consultative group made some proposals followed by a government response in October 2009. The main preventative measures proposed are the optimum phasing of power lines, technical measures in homes to reduce fields, smart metering, and greater public information. The corridor option for new homes/power lines was considered by SAGE, but rejected following a cost/benefit analysis that concluded that the cost of a corridor would be prohibitive. The 2nd phase of SAGE work on lower voltage distribution systems and a review on static magnetic fields and MRI has been published. A review of radiofrequency EMFs is in progress. FI:

In Finland, the Council Recommendation was implemented through a Decree by the Ministry of Social Affairs and Health in 2002. The exposure limits for RF are strict limits for >100 kHz but are guidelines for lower frequencies. Finland has produced guidance for measurement of magnetic fields in homes. The Finnish Radiation and Nuclear Safety Authority (STUK) carries out a surveillance on mobile phones (about 100 tested) and has recorded maximum SAR of 1.4 W/kg (< 2 W/kg SAR limit value). Public concern about EMF in Finland is low. Some local authorities have asked for some restrictions in some areas... If the magnetic field around indoor transformers exceeds 100 µT, the owner must take mitigating measures. Radars are of concern near the Russian border but power densities remain below limit values. Lots of research were performed over the last 15 years through large national projects. Recently, a project was carried out on “Health risks from mobile telephony”, containing 13 sub-projects (in vitro, in vivo, human studies). All results have been published, and there was no evidence of harm. Now, a new study on health effects of wireless communication devices (WIRECOM) has started. More general information on the situation in Finland is available at the following website: http://www.stuk.fi/julkaisut_maaraykset/fi_FI/katsaukset/_files/81811016537538837/default/taustakentat_engl_22_7_2009_lopullinen.pdf.

PT:

In Portugal, concern has shifted recently from mobile phones to power lines, followed by attempts to alter current exposure limits. The national approach focuses on compliance. Some research is foreseen in the national Environment & Health action plan. One project to monitor RF emissions is carried out with municipalities. A new epidemiological study is proposed.

SI:
In Slovenia, the 1996 legislation remains unchanged. An additional safety factor of 10 is applied for schools, hospitals and other sensitive places for new or reconstructed sources (e.g. power lines). Monitoring is performed by certified organizations. A consultative body, FORUM EMS, has been set up bringing together all stakeholders. Personal dosimetry campaigns were performed in the period 2008-2010 that showed very low exposure in general. Slovenia follows the ICNIRP guidelines.

PO:

In Poland, the first regulation with a limit value of 0.1 W/m² for electromagnetic fields at frequencies above 300 MHz was introduced in 1961. Poland has regulations on the protection of the general population against EMF since 1980 – with the same value of 0.1 W/m². Currently, the Regulation of the Minister of the Environment of 30 October 2003 on the permissible levels of electromagnetic fields in the environment and on the methods to verify the compliance with these levels (Official Journal No. 192, Item 1883 - http://www.mos.gov.pl/) is in force. Due to the regulations in the Environmental Law, measurements of the levels of the EMF are obligatory around all radiocommunication, radiolocation and radionavigation installations with equivalent isotropic radiation power (EIRP) above 15 W and for power lines and switchyards with a voltage of 110 kV or higher. According to regulations, measurements can only be performed by accredited laboratories. Poland has no difficulty in respecting the provisions of Council Recommendation 1999/519/EC.

AT:

There is an Austrian standard since 2006 which is not legally binding but state-of-the-art. The ongoing work is focusing on implementing Directive 2004/40 on worker protection.

NL:

In the Netherlands, the Council Recommendation is used in licensing installations but not in law. The measurement of the fields is a difficult issue. In general, the public believes that EMF are more dangerous than experts say. So far, there is no urgent need for implementation in law because installations respect the recommendation. The ministry of Housing, Spatial Planning and the Environment has recommended that local authorities avoid creating new situations with long-term stays of children in areas around high-voltage power lines with annually averaged magnetic flux density greater than 0.4 μT. This advice was given because of the epidemiological studies linking high voltage power lines and childhood leukaemia. For antennas, the Council Recommendation is used for licensing. There is an agreement with industry to respect it. A 16.6 M€ research programme was also started. Projects are granted by international peer review, managed through a public body with public money.

MT:

In Malta, the Council Recommendation was adopted in 2000 and a new regulator was set up in 2001. Compliance with it is a legal requirement. More than 100 sites per year are audited, covering EMF sources with frequencies greater than 25 MHz. The summary of the results are published on a website of the public authorities. The results are all within the limits as recommended by ICNIRP for the general public.

HU:

In Hungary, a decree of 2004 follows the Council Recommendation. There are neither regional differences nor special cases. Research funding is very limited.

LU:
In 2009, the Luxembourg authorities produced a brochure on mobile telephony (http://www.emf.drp.public.lu/). In Luxembourg, the Council Recommendation is directly implemented for those appliances, where higher electric, magnetic or electromagnetic fields may be expected: http://www.itm.lu/securite-sante-ss/conditions_types/ . For aerial power lines, there is a 1994 recommendation to avoid creating new residential areas close to them (65-220kV) (http://www.ms.public.lu/fr/activites/radioprotection/info-non-ionisants/non-ionisant-rp-rec-light.pdf ). This recommendation does not affect the existing definition of residential areas (the right to build a house in a residential area that had been defined before 1994). For radiofrequencies, there is an additional limit for mobile telephony base stations at places, where people may stay (for more than a short moment) of 3 V/m per radiating element (http://www.itm.lu/securite-sante-ss/conditions_types/conditions_types_old/cl179-4.pdf ). Since 2000, local authorities are no longer involved in the licensing procedure of mobile phone base stations. This resulted in an increase in court cases after which the Government published a new legislation (http://www.legilux.public.lu/leg/a/archives/2006/0030/a030.pdf#page=2 ). A map of base stations is published on internet (http://basestations.ilr.lu/gsmviewer ). Luxembourg does not do its own research on this issue.

LT:
There is no new regulation, nor new research in Lithuania. The issue was discussed in Parliament.

BE:
There is a new situation in Belgium. The legal competences in relation to base stations were regionalized in 2009. Product policy remains federal. As a result, there are now 3 applicable sets of limits. In the Brussels Region, for radiofrequencies, the exposure limit is 200 times lower than that of the Council Recommendation (3 V/m). It is a cumulative limit at all places accessible by the public. However, some exemptions are foreseen (radio amateur, radio, TV…). In Wallonia, the limit is 3V/m per antenna in residential areas. In Flanders, a draft decision was adopted. There are two kinds of limits proposed: exposure limit, set at half of those of the Council Recommendation, and emission limit per antenna (3 v/m), with some exemptions. With respect to product policy, there were recent changes. A parliamentary resolution asks the government to make SAR values of the products available at the point of purchase. There is also a prohibition of marketing mobile phones designed especially for children.

IT:
In Italy, regions cannot establish their own limits. Local authorities authorize the installations after a preliminary investigation of the projects. If total power is less than 20W, a simple declaration is sufficient. Precautionary emission limits are established for fixed installations and power lines: 6V/m for radiofrequencies and 3 µT for new power lines and new buildings. Such values have been defined on political and technological bases. The European Recommendation fully applies to all the sources of exposure different than fixed telecommunication installations and power lines. A decree for setting up a database of sources of EMF is in preparation. Regarding workers protection, Directive 2004/40 was implemented but enforcement will only start in 2012. Italy considers that it is important to harmonize the protection of the public and workers across the EU. With respect to research, only one project is active, dealing with monitoring (modelling). Italy performs the highest number of
measurements of emissions from base stations in the EU. There is therefore a desire to improve modelling in order to generate data without having to measure every time. With respect to communication on this issue, the Ministry of Health commissioned the National Institute of Health to make a website proposing Italian translations of international documents (http://www.iss.it/elet). Currently, the issue is receiving little political attention. Public attention is shifting from power lines to base stations and mobile phones. In one case, a court associated a tumour to the professional use of a mobile phone. The introduction of "precautionary" measures, especially emission limits, does not appear to reassure the public, on the contrary.

FR:
French regulation on this issue follows the Council Recommendation. There was a lot of attention on this issue in 2009 and 2010. A draft law being discussed in the French Parliament foresees dispositions to reduce exposure (Hands-free kits for mobile phones, no publicity targeted at children, prohibition for children younger than 6, use of mobile phones forbidden in primary school). There is an obligation to transmit exposure monitoring results to public authorities. Exposures generated by high voltage power lines are being measured. The law foresees an obligation to make the SAR values of mobile phones available at the point of purchase. In spring 2009, there was a round table on radiofrequencies, but the debate focussed on mobile telephony. There is an increasing anxiety of the public fed by NGOs. This creates a dilemma for local authorities as they want both to ensure coverage and address the worries of the public. It is necessary to improve the information made available to local authorities and the public, to develop precautions on mobile phones, to deal with people who consider themselves electrohypersensitive and to control exposure. The foundation "Santé et Radiofréquences" is becoming public. The government is studying the possibility to decrease public exposure by running a test in selected cities (reduced power of base stations). There is an increasing worry of the public concerning high voltage power lines. Two reports were published by the AFSSET.

ES:
The Spanish representative gave a perspective from Catalonia. In 2001, there was a Spanish Royal decree implementing the Council Recommendation. In Catalonia, a decree on mobile telephony was adopted containing exposure limits. Licences for base stations are deliver at city level. There is an approach for communications and another for the control. No changes have been introduced since 2001. A platform opposing mobile communications has appeared. In 2004, a pilot project to measure exposures from base stations continuously was started. There are approximately 5000 base stations in Spain. The emission levels are in the range 2-4 V/m. Only two exceptions were ever measured. Action was taken to reach a consensus. Pilot projects were started with diverse results. Portable measurement equipment must be available at city level to be able to respond to the multiple complaints. One research project was started last year: a long-term epidemiological study.

BG:
Bulgaria is an active member of the WHO International EMF Project. It is also a reference centre for the harmonization of standards across the Balkans. There is a high level of public concern in Bulgaria. While information to the public is inconsistent, regional public administration is not ready to use and to spread it to
people. Nevertheless, communication on EMF in Bulgaria is improving. In spite of the conservative exposure limit (10 \( \mu \text{W/cm}^2 \)), the public does not want to see base stations in the landscape. As a result, ICNIRP guidelines are not adopted yet. There is a draft Ordinance to define exposure zones according to different types and durations of exposure. In the "first zone", reference levels would be compliant with ICNIRP, in the "second zone", they would partially comply with ICNIRP and partially with IEEE, and in the "third" and "fourth" zones, special provisions would apply based on the more stringent Eastern European approach. The practice shows that this is achievable by industry. There is a disagreement among various national authorities.

EL:

In Greece, there is a legally binding implementation of the Council Recommendation through three legislative acts containing additional safety measures. Some additional restrictions have been introduced for special places (e.g. schools, kindergartens, hospitals, eldercare facilities). The reduction factors that are used for base stations (70% & 60% of the Recommendation 1999/519/EC values) are political and not based on scientific or technical considerations. Since the legislation does not refer to exact values, the Greek Atomic Energy Commission (GAEC) developed proper technical guidelines for the application of the above mentioned reduction factors and defined the measurements procedure (http://www.eeae.gr/gr/docs/nil_egkiklios_oria.pdf). Since 2007, a new technical study covering all environmental aspects (in which the EMF levels in the vicinity of each base station adding the EMF background are calculated) must be submitted before an antenna can be built. GAEC or other authorized laboratories must measure the emissions in the vicinity of 20% of the antennas installed in urban areas every year and respond to requests for in situ measurements within 20 days. The results are published on the web. There will be a review of the legislation in the next few months in order to simplify the licensing procedure and provide more information to the public. GAEC and other entities have published information brochures and translated international documents (WHO fact sheets). Research takes place mostly through EU projects. There is a Greek partner in the projects MOBIKIDS and SEAWIND.

CZ:

In the year 2000, the exposure limits in the Czech Republic were changed to adopt those (less strict) of the ICNIRP and were made mandatory. This did not cause any complaint from the public. The operators must prove that the fields produced by their installations respect the limits. Sophisticated measurement methods were developed, mostly through modeling. Measurements are only performed for confirmation in difficult cases. They are mostly performed around base stations. The Czech authorities consider that it is very important to show to the public how far the state of the science is and to be transparent. So far, one single office can handle all Czech complaints. There is no national research programme on EMF.

DK:

Denmark follows the ICNIRP guidelines. Most of the public concern has focused on high voltage power lines since a 1994 Danish study on living close to power lines and the risk for childhood cancer. Now, the grid owners voluntarily buy the land up to 80m (at each side) of the new power lines established during the last 15 years. Concurrently a restructuring of the existing power lines takes place. The plan is to have all lines underground by 2028. Presently lines up to 60 kV are cabled underground. Since 2001, some public concern has emerged in relation to the
potential carcinogenicity of mobile phones and mobile phone antennas. Denmark participated in the Interphone study, conducted the first retrospective cohort study of cancer risk in mobile phone users and is also participating in the Cosmos cohort study. In Denmark, electro-hypersensitivity is not recognized as a disease and the BioInitiative report is not considered as a scientific publication. There are investigations and debate about how to establish behaviour which avoids unnecessary exposure to EMF in all frequencies and similar debates as those in France are taking place.

DE:

In Germany, the first regulation was one from 1996. In August 2009, a new law was adopted, covering all frequencies and all installations. Germany has put in place a new telecommunications network for security services. The German research programme finished in 2008. It confirmed the validity of the current exposure limits.

EE:

Estonia has a recommendation following the ICNIRP guidelines. All installations of more than 100 W require authorisation. Measurements of emissions are made and the location of all antennas is available on a website. The public can contact the Health Board in case of questions. There is no implementation of basic restrictions. The most powerful sources of non-ionizing radiation are TV stations.

Session 2: Exchange of views on the EMF policy issue

A number of questions were formulated to guide the discussion:

- Which Member States consider that EMF are a political priority?
- Which developments could have an influence on the political situation?
- How to interpret the level of public concern?
- What are the experiences with dialogues at national level?
- How does communication work in practice? How to communicate science?
- How to decide on emission levels?

The Netherlands have set up a "knowledge platform" on EMF and health involving several institutions. This platform provides documents to people who are in contact with the public and produces brief “Knowledge Notes”. It also organizes discussion fora with stakeholders, scientists and other interested organisations. Although some action groups consider this approach as biased, the activities of the Knowledge Platform can be considered successful, generally speaking. The people in charge of communication to the public find the “Knowledge Notes” useful.

The UK has developed market research on mobile phone information leaflets, with this information being provided via mobile phone retailers and set up "SAGE", a stakeholders group on ELF EMF to advise Government on ELF EMF policy. There is also a Code of Best Practice on siting of Mobile Phone Masts, which sets out an improved communications process with local government, Network Companies and the public. In Italy, the 6V/m exposure limit for mobile communications is arbitrary and was determined based on social and political considerations without any
reference to health. Emissions from base stations are always less than 6V/m, so there is implicit compliance. This is different for ELF. If there are reasons to apply the precautionary principle, they would only be for high voltage power lines and childhood leukemia. Epidemiological association appears at around 0.4µT, but the legal limit in Italy is 3µT. In Italy, the most effective communication appears to be local, eye-to-eye communication.

In Austria, children exposure is the most sensitive topic. However, there is so far no evidence of higher sensitivity of children to radiofrequency fields.

In France, the idea is to limit the exposure of children by precaution. However, this could lead to an increase in public concern. There is some attention given to the issue of ELF but there is so far no political priority on it. The concerned NGOs have built up a strong attack through the media. Communication has had a few positive effects such as the decrease in the number of legal cases. There is a will from the authorities to bring everyone around the table in a durable way and a need for technical conclusions. The exposure limits are not questioned but new "quality values" are considered. There is a public obsession with base stations and Wifi hotspots and concern about high voltage power lines is increasing, mostly at the local level. Overall, there is a large communication need.

In the Czech Republic, acceptability from the public is high if limits are perceived to be science-based. Experience has shown that, when informing the public, it is best to focus on the latest research only.

In Italy, there is a wide group of people worried by bioelectromagnetics.

In Spain, as a result of the aggressive implantation of antennas following the introduction of mobile telephony, planning and building restrictions have been put in place. This is similar to what happened in the UK in the 1990's, where the situation eventually improved.

In Belgium, the situation varies per region. At the Belgian federal level, the Health Council recommended an exposure limit of 3V/m, in part for reasons of electromagnetic compatibility. This was followed by all three regions but in different ways. In Flanders, the limits are based on advice from some scientists, but not on an official “scientific advice”. At a hearing in the Flemish parliament, only scientists claiming that harm was proven were heard. While the 3 V/m limit is understood as a limit per base station in Flanders and Wallonia, in Brussels, there is a 3 V/m cumulative ceiling for all installations and some exclusions such as for TV and radio broadcasting and security services.

Denmark says that if countries take different actions and implement different emission limits on the same scientific base, then all have a problem. When national administrations make different choices, then it is confusing for the public which uses the values in one country to argue against another. So far, epidemiological studies on mobile phone use cannot exclude risk, but for sure if there is any risk it will be low. Some studies show that EMF protect Alzheimer mice.

Greece has implemented stricter limits than those of ICNIRP. The lowering of the limit values started in 2000, followed by further reduction with the implementation of a two zone limit approach (e.g. schools vs residential areas) and some other measures concerning base stations in 2006. However, since these actions undermined the
credibility of the scientific basis of the limit values, it seems that they didn’t actually help deeply concerned people to feel safer and less confused. As far as risk perception is concerned, people tend to believe more what they can see, especially the results of measurements in their places and are interested to understand which RF sources contribute to the measured EMF levels and how much. To this end, measurements campaigns were intensified and the results are published on the web. People also want more local consultation and involvement. The discussion on the application of the Precautionary Principle in this area is also a source of confusion and controversy. Greece would like to have the views of the Commission on the application of the Precautionary Principle on EMFs and would welcome a clear policy statement at EU level.

In Slovenia, public awareness is high about all risks.

The ICNIRP is currently reviewing its guidelines. Last year, new guidelines were published for static fields. Now, new guidelines for ELF are almost ready. Next year, ICNIRP will publish revised guidelines for RF. For ELF, there was a public consultation last year. There was a parameter change to "induced electric field". This will lead to slight changes to the proposed reference levels. The annual meeting of ICNIRP took place in May 2010. A pre-publication will be sent to Commission.

When this will be available, the Commission will consult its own scientific committee. There will be no change to the principle of the approach. If there was a rationale to modify the existing limits, Council would have no problem following a proposal from the Commission, but it would be likely that debates take place in the European Parliament. The agenda of the Commission is to hold regular SCENIHR reviews, to hold a stakeholder dialogue, to finance research (projects running + new call this year based on SCENIHR proposal) and to prepare a high level scientific workshop early next year. The Commission agrees that communication should be improved and is open to suggestions.

Poland is of the opinion that CENELEC standards are very important.

Italy is of the opinion that the approach for the general public and for workers must follow the same philosophy and that communication needs for both are different, but not the protection needs. However, there are special considerations to be held on each side, with different risk/benefits balances, and there are the cases of controlled and uncontrolled exposures.

It is also important to pay attention to compliance standards, especially for the R&TTE directive, for example, to make sure that there are no products on the market for which there are no suitable standards. The provision of some in information (e.g. power) should be compulsory.

CONCLUSIONS

The Precautionary Principle excludes a purely hypothetical approach to risk. Safety factors must be applied to established facts in a consistent way to avoid an open ended process. So far, there are no new elements that would justify applying additional safety factors to the Council Recommendation. The differences in exposure limits between Member States are confusing for the public opinion. A common approach would be good for everybody, but this is in the hands of Member
States. It is very unfortunate to have the European Environmental Agency fuel a cacophony in this area.

Greece would welcome a clear policy statement at EU level. The 2009 European Parliament resolution, in its Point 3, calls on the Commission to draw up a guide on technology options; in Point 8, it encourages solutions involving partners for placement of antennas. The Commission is supportive and may help, but in support of Member States through best practices, etc...

If an updating of the Council Recommendation is needed, this will be taken up.