ETUC's reply to the Consultation of the Social Partners on EMF – 2nd phase

The Commission has requested an opinion and recommendation from the social partners, and/or needs to be informed about solutions in order to protect workers exposed to EMF within the frequencies range 0 to 100 kHz and 100 KHz to 300 GHz.

The Commission also requests the social partners to envisage the possibility to start negotiations on the basis of its document.

Our answer, given below, has adopted the tri folded structure of the Commission's questions to the social partners.

1) Opinion

In order to facilitate the interpretation of the ETUC's answer, its opinion has followed the structure of the document C (2010)3250 final; our remarks and/or interrogations are following the sequence of the text with its specific numbering but the successive points are only presented when a comment is made.

2.1. the concept of « risk of harmful effects » needs to be elaborated; we wonder if a single "not harmful effect" conserves this quality when repeated

2.2. the idea that « Member States should limit themselves to transposing… without adding more restrictive provisions » is contradictory to the article 154 of the Treaty which stipulates that the prescriptions of the Commission are minimal ones: the States have the right to go beyond these prescriptions.

2.3. all the workers shall be covered by the directive and if a derogation will be given to the MRI sector, it shall be limited in space (meaning to the MRI applications in the medical sector exclusively) and time (derogation valid for 3 to 5 years).

2.5. saying that there is not enough scientific evidence concerning eventual long terms effects (SCENHIR opinion) does not plead to a rejection of any form of long term effects : at the contrary it pleads to a reinforcement of the precautionary principle and, at least, to the application of the ALARA-rule where workers are exposed to EMF. Moreover, as synergistic effects are observed when magnetic fields are combined with a primary stress such as heat, the cognitive effects of the exposure as well as the effects of EMF exposure on the EEG, preferably in real time have not been made (ref.: F.S. Prato's presentation on "What safety study do we need in MRI?", 28 May 2010, Bordeaux, France), the application of the ALARA-principle is more the ever the first basic requirement from a workers' health and safety point of view; the second requirement concerns the imperative necessity for research on possible long term effects due either to a single exposure or to chronicle ones.

3.2. Importance of the issue: « the delay has enabled a better evaluation of the effects ». Partly, yes because the inventory of the impacts has been limited to the

affected sectors instead of beeing directly focused on the effects on workers' health, on their complaints and on the questions they are raising for example about possible long term effects.

3.3. a) The current EU legislative framework : it is correct to underline that some of the provisions of the directive 2004/40/CE remain controversial, in particular some exposure limit values. It would have been necessary to go ahead with the impacts studies and, in order to do so, to gather the available competences knowing that, in any case limit values are necessary.
4. Need for a new revised legislative initiative

The concept of « due flexibility » (or in French: « juste dose de flexibilité ») is not acceptable as such. What could be thinkable is a restricted and narrowly controlled exemption for exclusively the MRI-sector: the concept is calling for a better, more precise, wording.

4.2. Precise definitions:

- The « short-termism » of the text, as long as it concerns workers' health protection and well-being, is a key problem of this text because it eliminates any possibility of taking into account repeated exposures in a long run perspective and also the relation between the occupational exposure to EMF and the working conditions. The perspective on the issue is similar to that one on Guinea pigs exposed to a certain stimulus. It is not related to concrete working conditions where recurrence (repetitivity) is an essential parameter.
- Concepts of « harmful effects" and/or "adverse health effects »: phosphenes, vertigo, nausea, etc. What is at stake? An isolated feeling? But what about recurrent ones, repetitive exposures? What could happen at both short and long terms and do we have any certainty/evidence about it? Are we still considering the issue within the framework of the WHO's definition on health? Anyhow, no reference to this definition has been made! Were the dimensions of the outcome of these phenomena taken into account when they are isolated and when they are repeated? Where the physiological consequences of the repetitions taken into account: e.g. if the "alarm" function of nausea regresses, will vomiting occur normally as a physiological mechanism against e.g. empoisoning? At the contrary, what would happen if this phenomenon starts to be exacerbated? What to do with a worker who would "throw up" for just nothing? These thoughts are even valid for vertigo, interferences with vagal syndromes, phosphenes and alteration of the mechanisms provoking them not only when the visual cortex (area VI) is exposed to EMF but even in all the other cases where the phosphenes' switching-on would be altered, exacerbated or inhibited. How to consider the development of interventional MRI where the head of the surgeon is close to the appliance as mentioned in the Commission's paper and when, due to this proximity, unexpected cognitive or motor effects may occur?
- The wording of what seems to be the mutually excluding concepts of "harmful to health" and "detrimental to safety" has to be improved in order to avoid any confusion. The explanation of these two concepts should even be improved

because it could be interpreted as “harmful to safety but not to health” which cannot be admitted.

4.3. Exposure limit values

Several remarks have to be made:

- « the ICNIRP reviews its recommendations for low and high frequencies » : this is thus an anticipation made on the awaited outcomes; moreover we know that the ICNIRP has received critical comments on its draft: more time is needed
- none consensus does exist between the enumerated « agencies », moreover the IEEE is not an agency but a professionnal association dealing with the advancement of technology (http://www.ieee.org/index.html): it means not specifically dealing with the advancement of health and safety at work
- too many responsibilities will rest on the employer: does he/she have the necessary competence and skill?
- participation of the exposed workers and their representatives shall also be mentioned in this paragraph to counterbalance the voice of the employer
- the limit values of the proposed concept have changed and contain uncertainties : who will benefit from these uncertainties ?
- the areas contained in the standard EN 50499 have to be considered as linked to the working environment ; the Commission must edict the limit values that correspond to these areas
- as shown in figure 1 hereunder, the limits from the German proposal are above those of the existing directive and those of the ICNIRP, for the areas 2 and 3 where measures are to be taken.

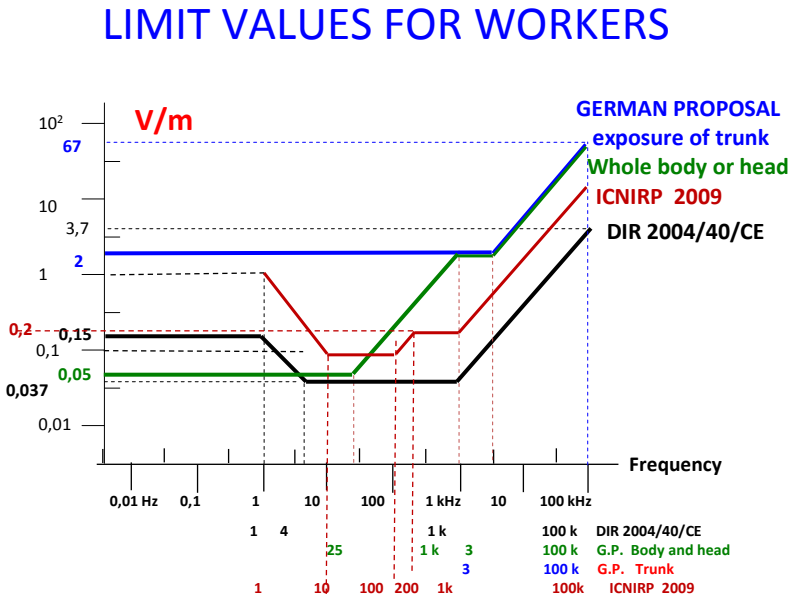


Figure 1 (Prof. Dr. Ir. Walter Van Loock, RUG – Ghent, Belgium)

- Remark. It has been reported that in France a multiplier of 60 (SIXTY) does exist between the exposure limits valid for the general public (30 microTeslas in the vicinity of a 400 kV powerline) and for the workers (1800 microTeslas; 50 Hz THT network); even under this general public limitations, the scientific and the democratic debates question the exposure limits in order to lower them more.

4.5. Guidance for risk assessments

Could it not be confusing in the mind of SMEs' or very SEs managers to consider that some equipments are risk-free and, based on a list, to skip any form of risk assessment although the directive 89/391/EC obliged him to assess; even an a priori assessment, before choosing and installing the equipment is essential? We have seen that the Commission has observed this danger but we think that better and deeper explanations of this obligation shall be put in focus.

4.6. Due flexibility (Juste dose de flexibilité)

The last § dealing with « exposure time » should consider the aspects of repeated exposures and the one of cumulated exposures, due to the repeated one, during operators' working life which means to take into account eventual long term effects.

4.7. Medical surveillance

We would like to raise concerns about 3 aspects: the 1st one is the « one shot » approach instead of « monitoring ». the second aspect deals with the fact that

EMF-issues are really complicated. It would be necessary to install a large experts' committee (with physicians but also other competencies) that will obligatorily work under the Advisory Committee (although its role could be too restrictively limited to giving advices). Finally, the third aspects concerns undocumented long term effects and/or invisible ones and the necessity to archive long enough the health files in order to prove eventual deleterious consequences, inclusive carcinogenic ones, in the future.

4.8. Medical applications

In this specific case, it will be essential for the workers (1) that these measures, if taken, are strictly limited in space and duration (e.g. re-evaluated each 3 to 5 years) and that the named limitations are monitored on participatory bases by the workers but also by an associated expert committee scrutenizing the technological progress and the systematic collection of EMF effects on workers that will allow reducing operators' exposure to EMF.
Anyhow we would like to express serious doubts about advices such as "walking slowly" instead of real preventive approaches that put the load of precautionary approach on the design of the working equipments / organisation instead of putting it on the weakest part of the chain (the exposed worker).

(1) 95% of MRI-workers are radiographers, they should be specifically mentioned in the text.

Remarks

We must repeat in the context of this 2nd stage consultation what we already wrote at its 1st stage:
"On the basis of the principles in the framework directive, the ETUC thinks that no category of workers should be excluded from the field of application of the directive. However, within the specific framework of diagnostic medicine using medical imaging, use of EMF rather than ionising radiations represents progress, both for workers and for their patients. This is why the ETUC, subject to serious procedures for monitoring exposure and its effects, might agree that particular, time-limited exemption measures might be granted to medical sectors using MRI. Such exemptions need to be documented on a scientific basis and in light of progress in technology, and they need to be transmitted to the Commission which will ensure that this principle is implemented in an equivalent way".

"The ETUC therefore supports the option of according a conditional derogation and calls for medical monitoring of exposed workers to be imposed where an exemption is requested. A specific risk assessment should be carried out taking into account workers at particular risks (for instance, those with implants or pregnant women). All the exposed workers are in any case monitored and their individual health records duly documented.
The member organisations of the European Trade Union Confederation have perfectly understood the dilemma between (1) workers' protection against any

deleterous effect, verified or supposed, of their exposure to EMF and (2) the contradictory needs of patients who could benefit of much more favourable technologies then the e.g. old X-rays. Public health, diagnostic, imaging quality gains and other competitive bonuses such as less iatrogenous effects have been put in our balanced answer."

Regarding the MRI-sector in particular, the exemption in question will allow the sector to apply the technology to diagnostic or therapeutic modalities (e.g. in radiotherapy) when the patient's state requires this application; it will also allow progresses to be made and R&D experimentation. But progress can be made in 2 directions meaning by an increase of the dosage but also its decrease!

Having written this, the ETUC and its members have observed that, although they are controversial, new approaches exist: they could allow the use of lower intensity IRM such as « Ultra-low field MR » (0.01 & 0.02 T), in Irland, or the « Microteslas », in the US. We believe that such a third way shall also be explored deeper.

A necessary balance has to be introduced between the quality of imaging and the exposure of workers with the final ambition of suppressing – as soon as possible – the exemption for the MRI-sector (see even the 2nd paragraph of "other solutions" hereunder). Moreover under the transition period, the workers' protection must be guaranteed via several instruments such as the limitation of the daily exposure (duration); job variation measures (alternated activities); increased worker-instrumentation distance and finally preventive health monitoring.

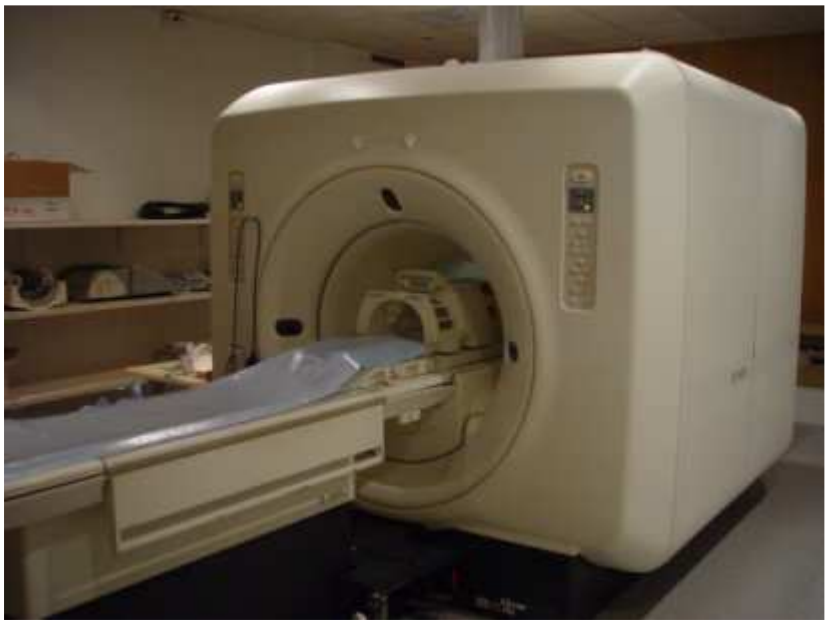
Workers, as indicated by the Commission, shall benefit from all the acquis of the Framework Directive (89/391) to which this new directive is linked in order to reinforce specifically the effects of the directive as far as EMF are concerned. We will not accept any derogation to this principle but could imagine a limited, in time and space, exemption for the IRM-sector.

Note that the recommendations made in the text of the Commission cannot be generalized, it must be specified that they are given as an example; these recommendations are in fact highly dependant on the type of equipment, the procedures in use and other factors. The unique key-point is to achieve an as low as possible exposure of the workers instead of putting the load of prevention on the workers themselves under circumstances that too often made the recommendations practically inapplicable.

2. Other solutions

We do have the possibility to find such solutions but we underline the urgent necessity for the Commission to put in place an experts' committee that will get the mission to clarify unsolved questions and to propose to the stakeholders clear options on which they could have the possibility to pronounce themslves in a diffenciated manner.
We would like to express a strong recommendation based on a well-known and successful preventive obligation when facing risk factors: the best way to escape to

any form of risk exposure is to eliminate – as far as possible – the primary risk factors. It is only when it is not feasible that a reduction procedure based on a set of measures including good practices will be used. In the case of MRI-equipment, it seems to us essential to re-design the equipments. For example, we cannot understand why the command-organs are usually placed at the entry of the bore, causing so a too narrow proximity between the operator and the EMF source: why are the buttons not placed elsewhere or why are there no remote controls at the disposal of the operators.



We take the opportunity to express our concerns about the workers' and their representatives' participation in this very complex matter and stress in particular the importance of continuous training and information of the concerned operators.

3. Enter into negotiations

Only legal measures are suitable to ensure safety and health protection at work. Therefore the answer of the Trade Unions is a priori negative; but when the new directive will be promulgated, the European Trade Unions think that it will be indispensable to add a series of additional measures: guidance, national and secorial measures, etc. to which they are willing to participate.

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