EUROPEAN COMMISSION

Brussels, 20.5.2010
C(2010)3250 final

CONSULTATION OF SOCIAL PARTNERS

SECOND STAGE OF CONSULTATION OF THE SOCIAL PARTNERS ON THE PROTECTION OF WORKERS FROM THE RISKS RELATED TO EXPOSURE TO ELECTROMAGNETIC FIELDS AT WORK

CONSULTATION OF SOCIAL PARTNERS

SECOND STAGE OF CONSULTATION OF THE SOCIAL PARTNERS ON THE PROTECTION OF WORKERS FROM THE RISKS RELATED TO EXPOSURE TO ELECTROMAGNETIC FIELDS AT WORK

1. INTRODUCTION

The purpose of this document is to seek the views of the European social partners, in accordance with Article 154(3) of the Treaty on the Functioning of the European Union (TFEU), on the content of a new European Union initiative to ensure the protection of workers exposed to electromagnetic fields (EMF) during their work.

On 6 July 2009, the Commission launched the first stage of consultation of the social partners on this subject. Pursuant to Article 154(2) of the TFEU (previously Article 138(2) of the EU Treaty), employers' and workers' organisations were asked for their views on the possible direction for an eventual Community initiative to amend Directive 2004/40/EC[1] ('the directive'), which is currently in force and due to be transposed by April 2012.

2. RESPONSES OF THE SOCIAL PARTNERS TO THE FIRST-STAGE CONSULATION

The Commission received 16 replies to this consultation (12 from employers' organisations and 4 from workers' organisations). Most of the contributions were from European organisations (10 employers; 3 workers) but there were also a few from national organisations (2 from UK employers' organisations and one from a German union). The list of organisations that replied can be found in Annex 1.

2.1 To the first question '*Do you consider the current Directive 2004/40/EC sufficient for the health and safety of workers exposed to electromagnetic fields during their work?*' the general answer was 'no' although the employers' and workers' organisations clearly held different views. The employers' organisations regard the directive as inappropriate because it is difficult to implement. For them the exposure limit values laid down by the directive impose a disproportionate burden and may well prevent important medical and economic activities from being performed. New limit values should be considered and set at the level where the risk of harmful effects exists and not where there are harmless detectable biological effects. The workers' organisations are also of the opinion that the directive is not the ideal legislative tool. However, for them, this is due mostly to the fact that limit values are currently being updated by ICNIRP and because medium or long-term effects are not considered by the directive. Moreover, they agree with the employers' organisations as to the need for simplification of the assessment methods for ensuring compliance

[1] Directive 2004/40/EC of the European Parliament and of the Council of 29 April 2004 on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields) (18th individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC); OJ L 184 of 24.5.2004, p.1.

with the exposure limit values (ELVs), bearing in mind that these are currently expressed in quantities that are not directly measurable.

2.2 Replies to the question '*Do you consider that a Community initiative is the best way to ensure a high standard of protection of workers exposed to electromagnetic fields'*, were all positive except for those from the representatives of SMEs (UEAPME), who have a preference for non-binding instruments, and two national employers' organisations (UK) who consider that a Community initiative is not justified for cost/benefit reasons. The other employers' organisations are in favour of a Community initiative that would set 'practicable' and measurable limit values, introduce appropriate guidance for risk assessment and propose methods to assess exposure levels. Some of them also suggested that Member States should limit themselves to transposing the provisions of a new directive without adding more restrictive provisions which might undermine harmonisation. The workers' organisations insist that a Community initiative should reinforce the principles of risk reduction and prevention across the Union.

2.3 Most of the respondents gave a clear negative answer to the question *'Do you think that certain categories of workers should be excluded from the scope of any future Community initiative because of reported implementation problems (e.g. medical procedures involving MRI) with some provisions (exposure limit values) of Directive 2004/40/EC?',*. The two national employers' organisations, opponents of the directive, believe that *excluding some workers from all or part of the directive would be an admission that it is not fit for purpose.* Industry representatives (BUSINESSEUROPE, CEEMET, ECEG) also take a negative view. They call for a sound scientific approach and cannot support exemptions for certain categories of workers. For the workers' organisations, the answer is also negative although they feel that (de)limited, well-controlled exemptions should be possible for certain medical applications. The employers' representatives of the healthcare sector (HOSPEEM) are of the opinion that exemptions to enforceable limits should be granted to ensure that cutting-edge technologies using nuclear magnetic resonance can be implemented for the benefit of patients and society as a whole. In order to ensure appropriate protection of workers in the sector concerned, reinforced alternative measures could be envisaged.

2.4 As regards the fourth question '*Would you find non-binding measures such as the production of good practice guides, launching of regular information campaigns, setting-up of appropriate training programmes, and drawing-up of voluntary agreements between the social partners of EU on sector level – useful, and for what purpose?"* the opinion of all respondents was positive with a number of nuances. A large majority of organisations is in favour of such non-binding initiatives either to replace completely the directive or to complement a new revised directive.

2.5 There was clear disagreement between the employers' and workers' organisations in regard to the last question *'Should a possible future EU initiative cover the long-term effects of workers' occupational exposure to electromagnetic fields?'*. The employers, referring to the most recent SCENIHR opinion[2], take the view that long-

[2] Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR): Health Effects of Exposure to EMF, Opinion adopted on 19 January 2009.

term effects should be excluded from the scope of any binding initiative because there is not sufficient scientific evidence of long-term 'ill health' effects. On the other hand, the workers feel that those effects should be taken into consideration as soon as possible. In particular, the workers' organisations asked the Commission to set up a forum where experts from the Member States and independent scientists could make recommendations on the situations facing workers, and promote/monitor research on workers' exposure to EMF.

3. THE GENERAL CONTEXT

3.1. Assessment of legislative options

The results of the first stage of the consultation provide interesting contributions to the assessment of the various legislative options as well as suggestions for future work in this field.

From the answers received the Commission can draw the conclusion that both workers' and employers' organisations are not happy with the directive, but for different reasons. A large majority of the social partners are in favour of – or not against – a directive with appropriate improvements relating, inter alia, to the introduction of practicable exposure limit values, guidance for the assessment of risks, and evaluation/calculation of exposure levels. Such a solution should have the effect of guaranteeing a certain degree of harmonisation within the EU for working with EMF and protecting workers' health adequately whilst simplifying things for employers. Everyone recognises the need to maintain good protection of the workers concerned but the interpretation/definition of adverse health effects as well as the necessity of including a reference to long-term effects remain controversial.

The Commission's assessment of legislative options must also take into account the informal contacts established with stakeholders since 2005 as well as technical advice received from the dedicated Working Party mandated on 27 May 2005 by the (tripartite) Advisory Committee on Safety and Health at Work. This Working Party was set up with the objective of assisting the Commission in the preparation of a guide to good practice, and finding a solution for the medical MRI applications (revised mandate of 23/11/2006) and for all activities where workers are exposed to EMF (extended mandate of 29/5/2008). The discussions enabled social partners, stakeholders, manufacturers and scientists to make their views known and contribute to the design of a proper solution. In this framework, the Commission has also given due consideration to the outcomes of the conference organised by the Swedish Presidency in Umea from 6 to 8 October 2009[3] in cooperation with the Commission.

Finally, the Commission must take account of developments in the protection of workers against exposure to EMF at the international level and of the work of scientists and recognised organisations worldwide (ICNIRP[4], IEEE[5], WHO[6], ARPANSA[7], etc.) as well as in the Member States.

---

3 Occupational Exposure to Electromagnetic Fields: paving the way for a future EU Initiative; Umea (Sweden), 6-8 October 2009.

4 International Commission on Non-Ionizing Radiation Protection.

5 Institute of Electrical and Electronics Engineers.

6 World Health Organisation.

On the basis of all the information collected from the above sources, the Commission has identified a number of very concrete issues that ought to be addressed. They are described in section 4 below.

3.2. The importance of the issue

It is not disputed that health and safety measures are needed to protect workers who are exposed to EMF. Whilst the four-year deferral of the deadline for transposition of the directive may have been perceived negatively by the workers' organisations, since it delayed the necessary improvement in protection of the workers concerned, the delay has certainly enabled a better evaluation to be made of the directive's effects on medical procedures using MR techniques and on some industrial processes. This delay has also made it possible to consider and to formulate adaptations of some provisions in the light of the latest scientific and technical progress in this field and to improve the balance between minimising the burden on enterprises and raising awareness and ensuring adequate protection of workers.

3.3. The current EU legislative framework

The EU legislative corpus which deals with the prevention and protection from risks related to occupational exposure to electromagnetic fields is firstly based on Directive 89/391/EEC (the 'framework directive'), which provides for general preventive measures for protecting the safety and health of workers. It contains minimum requirements for, among other things, risk assessment and the information, training and consultation of workers. In particular, Article 6 of this framework directive lays down general principles of prevention which employers are obliged to implement, namely 'avoiding risks', 'combating the risks at source' and 'replacing the dangerous by the non-dangerous or the less dangerous'.

In addition to the framework directive, some individual directives in the sense of its Article 16 are also applicable in relation to the prevention of risks resulting from exposure to EMF:

(a) Directive 2004/40/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from electromagnetic fields contains provisions guarding against particular risks due to occupational exposure to EMF.
The directive sets out exposure limit values in regard to electromagnetic fields for time-varying electric, magnetic and electromagnetic fields with frequencies from 0 Hz to 300 GHz. It also provides for action values which determine when preventive measures are necessary to reduce the risks to workers. The directive establishes employers' obligations as regards risk prevention and covers all sectors and activities. Under the directive specific health surveillance must be carried out, and workers exposed to EMF must be given appropriate information and training. The directive refers to the risk to the health and safety of workers due to known short-term adverse effects in the human body but it does not address possible long-term effects, such as potential carcinogenic effects, for which there is as yet no scientific evidence of a cause-effect relationship.
During the pre-adoption discussions in the Council and Parliament some political choices had been made in order to avoid unduly hampering the use

[7] Australian Radiation Protection And Nuclear Safety Agency.

and development of cutting-edge techniques, in particular medical procedures using Magnetic Resonance Imaging (MRI) techniques. Therefore, no exposure limit value has been established for exposure to strong static magnetic fields (MRI falls within this category). Unfortunately some of the provisions remain controversial, in particular some exposure limit values set by the directive. This situation has led to the current review of the directive.

(b) Directive 2009/104/EC concerning the minimum safety and health requirements for the use of work equipment by workers at work[8] aims to guarantee a better level of safety for workers using work equipment, including the medical equipment used in hospitals. The employer must pay attention to the specific working conditions and risks for workers when selecting work equipment in order to eliminate or minimise these risks. Where it is not possible to use work equipment which does not endanger the health and safety of workers, the employer must minimise the risks involved. Furthermore, appropriate instructions and training must be provided for workers using any work equipment.

(c) Directive 89/656/EEC on the minimum health and safety requirements for the use by workers of personal protective equipment at the workplace[9] stipulates that personal protective equipment (PPE) must be used when risks cannot be avoided or limited by technical means or by methods or procedures of work organisation. All PPE must be appropriate for the risks involved, without it leading to any increased risk. It must correspond to existing conditions at the workplace and fit the wearer correctly. It is recognised that the protection offered by PPE against electric and in particular magnetic fields is rather limited.

(d) Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding[10] obliges the employer to assess in detail any specific risk of exposure of pregnant workers, in particular as regards exposure to non-ionising radiation, in order to decide what measures should be taken, including moving the worker concerned or granting leave (Articles 4, 5 and 6 and Annexes I and II of Directive 92/85/EEC).

4. NEED FOR A NEW REVISED LEGISLATIVE INITIATIVE AT COMMUNITY LEVEL

In the light of the foregoing, the Commission has identified a number of areas where new specific provisions addressing the concerns expressed or giving guidance are needed. It intends to propose amendments to Directive 2004/40/EC, taking into consideration the need for appropriate flexibility and proportionality.

The Commission intends to make a proposal which

---

8 OJ L 260, 3.10.2009, p.5.
9 OJ L 393, 30.12.1989, p.18.
10 OJ L 348, 28.11.1992, p.1.

– will cover all sectors of activity (unchanged),

– will propose a new set of definitions for adverse health effects (Article 2),

– will include a revised system for limit values different from the current Limit Values and Action Values for the range from 0 to 100 kHz (this will affect Articles 2 and 3 plus the annex of Directive 2004/40/EC),

– will propose a more comprehensive mechanism to facilitate measurements and calculations (Article 3(3)) and to give guidance on taking measurement uncertainties into account,

– will seek to give guidance to ensure simplified but more efficient risk assessments (Article 4) in order to facilitate the evaluation work and also to limit the burden on SMEs,

– will introduce due flexibility by proposing a controlled framework for limited derogations (new),

– will propose a rationale for medical surveillance (Article 8),

– will pay due attention to specific cases such as medical applications using magnetic resonance (new), and

– will provide for the introduction of complementary non-binding measures.

4.1. Coverage of all sectors of activity

The Commission considers it important that EU legislation on occupational health and safety covers all workers in all sectors of activity in conformity with Article 2 of Framework Directive 89/391/EEC. This reflects the wishes of a large majority of the social partners' organisations who responded to the first phase of the consultation and does not depart from the provisions of the current directive on the issue.

4.2. Precise definitions

As the issue has to do with short-term effects, the Commission is of the opinion that a better understanding of the meaning of adverse health effects could reconcile science and industry. This should allow a flexible system to be developed for defined working conditions in certain activities. In order to be credible the system should reflect the most recent scientific progress and subsequent recommendations. The definitions contained in Article 2 of the directive should therefore be adapted accordingly.

There are differing opinions on whether phosphenes, vertigo and nausea should be considered as adverse health effects. They could affect certain aspects of work performance if precision, concentration, short-term reaction time or work at height is required and would de facto affect the safety of workers but not their health. The Commission is of the opinion that the solution may be to distinguish between effects which are harmful to health and effects which can be detrimental to the safety of the worker and may even impair the quality of work. In practice this may lead to a situation where acceptable levels of exposure to EMF depend not only on frequency and intensity of the source but also on the type of work.

4.3. Exposure limit values

ICNIRP has recently reviewed its recommendations for static fields and is currently reviewing its recommendations for the low frequency range which goes from just above 0 Hz to 100 kHz. A further review of the recommendations for higher frequencies is expected in the near future. The latter do not seem to be controversial because in most situations and under normal circumstances they are not exceeded. ICNIRP recommendations, both the ones published in 1998 and their new ones as discussed during a consultation process, are nowadays challenged by different agencies: IEEE (USA), ARPANSA (Australia) and very recently by a proposal of the German Ministry for Employment and Social Affairs (BMAS). The Commission intends to take into account the diversity of recommendations from the scientific world and replace the current system, which comprises one action value and one exposure limit value for each frequency, by a 'multilayer' system facilitating the verification of compliance and the decision by the employer. This is very much in line with suggestions already made by CENELEC (zoning) and Member States or employers' federations that have already undertaken to develop guidance for their workers or members.

The Commission would however suggest maintaining the provision of the directive for frequencies above 100 kHz. The 'zoning' system for frequencies from 0 to 100 kHz would be as follows:

- Zone 0 (blue zone) where the situation is similar to what is acceptable for the public (no action deemed necessary);

- Zone 1 (green zone) where exposure remains under the levels proposed by ICNIRP in 2009 for frequencies up to 100 kHz: as there are no health and safety problems, and giving specific information to staff should be sufficient except for frequencies equal to or lower than 1 Hz where nausea and vertigo may occur. In that particular case, protection measures as for Zone 2 should apply;

- Zone 2 (yellow zone) where exposure is between the ICNIRP 2009 proposed values and the value fixed for Zone 3 (see below): no harmful health problems expected but maybe adverse quality problems or potential workers' safety problems due to appearance of phosphenes. This is the area where required actions and preventive measures are in fact situation/activity-dependent as already indicated under 4.2. A non-exhaustive list of identified activities could be provided in an annex. Measures that should be considered here include: information, specific training and awareness raising, appropriate labelling, and limited access;

- Zone 3 (red zone), where exposure exceeds the current commonly accepted limits proposed by ICNIRP and IEEE for frequencies above 100 kHz and where the exposure is above the limit line of the BMAS proposal. In this zone, no access should be allowed or even possible. If access is required it must take place under strictly controlled conditions, never in routine work.

This system would replace the current action values and exposure limit values concept in the range under 100 kHz and all the limits would be expressed in the same units, for directly measurable quantities.

4.4. Measurements and calculations

Management of uncertainties has been reported as being a serious difficulty in implementing the exposure limit system set up by the directive even with resort to standards, such as EN50499 developed by CENELEC in 2008 on the basis of the mandate M/351 of 17 May 2004 given by the Commission to CENELEC in order to meet the requirements of Article 3(3) of the directive currently in force:

'3. for the assessment, measurement and/or calculation of workers' exposure to electromagnetic fields, until harmonised European standards from the European Committee for Electrotechnical Standardisation (CENELEC) cover all relevant assessment, measurement and calculation situations, Member States may employ other scientifically-based standards or guidelines'.

As in any activity where measurements are made, each value is affected by a degree of uncertainty. In most cases this uncertainty tends to be limited (a few percent) and can be accepted without problem. Unfortunately when measuring electric or magnetic fields the 'errors' can become very high (up to 100 % of the measured value). From a technical point of view this may be dealt with when the measurements concern process controls and triggering signals. This may however become an issue from a legal point of view – at least in some Member States – when it comes to comparing a measurement and an exposure limit value, especially when the latter is expressed in non directly measurable quantities.

Consequently, uncertainty plays an important role in assessing human exposure to EMF since it affects the results of measurements and numerical calculations. The directive does not address this problem in depth and the new proposal will need to give clear guidance in this respect. Moreover, the way to deal with pulsed, non-sinusoidal signals and harmonics should also be covered, bearing in mind that in the new system such complex and costly measurements and evaluations should be limited to cases where exposure is likely to exceed the upper limit of Zone 2.

4.5. Guidance for risk assessments

According to expert reports, employers do not always realise that there will be situations where their staff may be exposed to a high electric and/or magnetic field. This is for instance the case in establishments using just one welding device, an induction furnace, an in-house electric transformer, a microwave drying system, etc. Consequently, exposure to EMF is not normally considered as a risk and it must be recognised that it is probably not seen as one of the major sources of illness or accidents in such enterprises. Therefore appropriate guidance should be given to raise awareness and simplify the risk assessment procedure. The Commission is aware that some Member States and sectoral associations have already put in place simple but effective tools to help employers take account of risks linked to exposure to EMF. Moreover, the EN50499 standard referred to in point 4.4 above entails a similar approach. These tools and means have the great advantage of simplifying the compulsory risk assessment and of limiting the burden when the situation does not require extensive efforts. This approach leads to a simple but effective risk assessment, thereby boosting overall implementation.

The new proposal for a directive will not exempt any employer from carrying out a risk assessment and documenting it as already provided for in Directive 89/391/EEC but will

introduce to a large extent the desired simplification and proportionality. Assessment time and costs will thus be reduced whenever possible without jeopardising workers' health and safety.

4.6. Due flexibility in a controlled working environment

As can be noted from points 4.2 to 4.4 relating to short-term effects, the Commission recognises the need for an appropriate and proportional approach for all sectors of activity. Exposure to electric and/or magnetic fields above some levels can have effects on the human body; however, these effects are not necessarily adverse to health.

The Commission has taken due note of the latest conclusions of the SCENIHR[11] relating to possible long-term effects. One may conclude from SCENIHR's opinion that there is currently no consistent evidence of long-term adverse effects on adult human bodies (with very few exceptions for young children) and therefore no possibility to take them into consideration for a quantifiable approach in a binding legal instrument. The Commission is however of the opinion that a precautionary approach should be part of the preventive measures developed in the new instrument. In practice this would entail the inclusion of a generic principle to avoid presence in an exposed zone whenever a worker's presence is not necessary to carry out an activity. This is already stated in the directive under Article 5(2) f): '*….. (f) limitation of the duration and intensity of the exposure;*'.

Whilst cognitive and/or adverse health effects do appear above certain levels, they can be overcome and their nature (nerve stimulation) may be acceptable under certain circumstances, for instance in a controlled environment. This flexibility to accept occasional overriding of the upper limit of Zone 2 would obviously have to be counterbalanced by appropriate training and preparation, a thorough risk assessment, adapted exposure level measurements and transparent, documented monitoring. A specific annex would address this issue in some detail for the different areas of the frequency spectrum up to 100 kHz.

Above that frequency, where the exposure limit values should remain unchanged, the adverse effects consist in internal or external burns from which the human body may not recover immediately. This cannot be accepted. However, heating of tissues does not necessarily occur if the exposure time is very short. The importance of this parameter is underestimated in the present directive. It is intended that the proposal should make clearer the interpretation to be given to exposure time and averaging over it so as to tie in with current publications of ICNIRP and IEEE.

4.7. Medical surveillance

Doctors present at the Umea Conference of October 2009 admitted that they found it difficult to identify effects from exposure to EMF, especially with routine medical surveillance. They also felt there was a need for guidelines on how to handle overexposure as moderate overexposure could not be expected to produce any effects once the exposure is over. The actual question was: what should be looked for after heavy exposure, except for burns? The experts were of the opinion that the exposure limit value as suggested in the directive was not a useful indicator for health examinations.

[11] Scientific Committee on Emerging and Newly Identified Health Risks.

An open question remains concerning the need for special protection of persons at increased risk, e.g. pregnant women, persons with implants and persons with certain neurological or cardiac diseases.

In view of these medical opinions, which seem to be quite widely held, it is suggested that Article 8 of the directive be revised.

In addition, and this was also suggested by the medical experts present at the Umea Conference, there is a need to establish guidance in this field. The Commission proposes the setting-up of an appropriate working party under the Advisory Committee on Safety and Health at Work to develop such guidance.

4.8. The specific case of medical applications and related activities (research, cleaning, maintenance) using nuclear magnetic resonance (MR) technology.

MR technology is used in medical applications such as magnetic resonance imaging (MRI) and magnetic resonance spectroscopy (MRS). These methods are very powerful and have improved patient care immensely in terms of diagnosis and follow-up of diseases and opened new perspectives for interventional medical procedures. Currently, the existing provisions would preclude the use of such equipment and methods as they would not comply with the limit values of the directive. Therefore the Commission has to find a way of providing a high level of protection for workers dealing with MR techniques while at the same time permitting the development and full use of MR medical procedures.

A study ordered by the Commission on the subject of medical MRI[12] showed that compulsory compliance with the exposure limit values of the directive would indeed hamper the further use of MRI. However, the study indicated that the problem affects a relatively limited number of procedures - less than 10% - and are restricted to the frequency range from 0 Hz to 10 kHz used in MR medical techniques. For the large majority of the procedures - more than 90% - compliance with the provisions of the directive would de facto be assured without any change in the current way of working or, in a limited number of cases, by slightly adjusting working practices during the medical procedures.

By way of example, and bearing in mind the technical specifications of the current machines - a large majority of which use a 1.5T or 3.0T (rarely 7.0 T) static magnetic field – 'slightly adjusting working practices' to bring the level of exposure under the current exposure limit values would imply the following recommendations:

– do not come closer than 0.5 m from the entry of the bore when not absolutely necessary to assist the patient;

– just walk normally in the MRI room (~ 4km/h);

– do not stay close to the bore when (image) acquisition is in progress;

– do not remain in the room when it can be avoided.

[12] Open call for tender VT/2007/017 for an investigation into occupational exposure to electromagnetic fields for personnel working with and around medical magnetic resonance imaging equipment. Study finalised in April 2008.

Notwithstanding, in absolute terms the relatively small percentage of non-compliant procedures still represents – per year in the EU - between 400 000 and 500 000 medical procedures that would contravene the directive because a presence close to the patient cannot be avoided or in cases of emergency, e.g. for the patient.

Analyses were conducted to compare exposure levels for these critical cases with a different set of limit values (for instance, IEEE values in the USA) and no ideal solution could be found. Therefore, the Commission envisages the possibility of exempting the medical MR sector and activities related to the use and development of medical MR techniques from binding exposure limit values. However, workers' health and safety would continue to be protected through reinforced qualitative preventative and protective measures to be included in the proposal for revision of the directive:

– reinforced information measures;

– reinforced training of workers;

– documented and practicable working procedures favouring exposure limitation whenever possible;

– strict administrative procedures for access to MR rooms;

– consultation of personnel on improvements;

– monitoring.

Qualitative elements that reassure the Commission when proposing exemption from binding exposure limits are that the presence of workers in exposure situations is very limited in their normal working time and most of the workers are skilled people who can easily be made aware of good practices. Moreover, most instances of exposure would not be far above the new proposed limits announced under 4.3 above.

Appropriate and commonly agreed qualitative prevention and protection measures should be implemented in a harmonised way ideally in all the medical MR facilities existing in the EU (more than 8 000). European organisations of MR practitioners and manufacturers have already indicated their willingness to give their full support to this approach.

Contacts between Commission services and stakeholders have been pursued since July 2006. They have already led to the successful completion of the study referred to in paragraph 3 of this section. In a second phase, which is still in progress, discussions have focused on the implementation of a common, effective and reliable system, to be adopted for all EU MR facilities with the support of the workers and employers of the sectors concerned.

4.9. Non-binding measures

The Commission agrees with the social partners that the complexity of the matter and the scarce expertise, in particular in SMEs, justify supplementing the revised directive with non-binding initiatives.

For example, the Commission, assisted by the Advisory Committee on Safety and Health at Work, has already begun drawing up a guide on prevention and good practice which will cover the main risk activities and situations. A first draft was prepared in line with the

provisions of the current directive but it will have to be adapted in order to suit the revised directive.

For difficult situations where workers face very high exposure levels, precise evaluations will be necessary and appropriate standards developed by CENELEC will be the best solution. However, for lower exposure levels more simple guidance will have to be developed in the language of the 'end users'. The Commission is of the opinion that an active role by the social partners is of crucial importance for effective prevention and that the employers' and workers' organisations have an essential role to play in developing and encouraging dissemination to their members of non-binding but well-adapted tools. The Commission intends to invite the Advisory Committee on Safety and Health at Work to play a more proactive role in this field in the future.

Furthermore, the Commission intends to ask the European Agency for Safety and Health at Work to step up information, guidance and awareness-raising activities on the ground with a view to enhancing protection against exposure to EMF in selected sectors. Such activities, including a possible European information and awareness campaign, would be undertaken with the close involvement of the Member States and social partners.

5. QUESTIONS TO THE SOCIAL PARTNERS

In the light of the above, the Commission requests the social partners to:

– submit to the Commission an opinion or, where appropriate, a recommendation on the content of the envisaged legislative and non-legislative initiatives pursuant to Article 154 (3) of the TFEU, giving particular attention to the topics identified in section 4 above;

– to inform the Commission about alternative solutions in particular for the expression of exposure limit values in the range of 0 to 100 kHz and for ways to foster and concretise the aspects linked to the implementation of sound and efficient protection of workers exposed to electromagnetic fields during their work. Alternative solutions for the range from 100 kHz to 300 GHZ are also welcome;

– where applicable, to indicate their willingness to enter into negotiations on the basis of the proposals described in this document under the terms of Article 154(4) and Article 155 of the TFEU.

Annex 1

List of associations/organizations which responded to the 1st stage of the consultation of social partners on the protection of workers from the risks related to exposure to EMF at work*				
N°	**Abbreviated name**	**Full name**	**Industrial/medical sector(s)**	**Workers or employers representation**
1	**BUSINESSEUROPE**	Businesseurope	European Business	Employers
2	**CBI**	CBI - The Voice of Business	UK Business	Employers (UK)
3	**CEEMET**	Council of European Employers of the Metal, Engineering and Technology-Based Industries	Metal, Engineering and Technology-Based Industry	Employers
4	**CEEP**	Centre Européen des Entreprises à participation publique et des Entreprises d'intérêt économique général	European Association of Employers	Employers
5	**CER**	Community of European Railway and Infrastructure Companies	Railway	Employers
6	**DGB**	Deutscher Gewerkschaftsbund	Unions	Workers (DE)

7	**ECEG**	European Chemical Employers Group	Chemical industry	Employers
8	**EEF**	EEF, the manufacturers' organisation	Manufacturing, engineering and technology-based businesses	Employers (UK)
9	**EFBWW**	European Federation of Building and Woodworkers	Construction	Workers
10	**EIM**	European Rail Infrastructure Managers	Railway	Employers
11	**ENTSO-E**	European Network of Transmission System Operators for Electricity	Electricity networks (transmission)	Employers
12	**EPSU**	European Federation of Public Service Unions	Public Service	Workers
13	**ETUC**	European Trade Union Confederation	Unions	Workers
14	**EURELECTRIC**	EURELECTRIC AISBL	Electricity sector	Employers
15	**HOSPEEM**	European Hospital and Healthcare Employers' Association	Hospital and Healthcare	Employers

16	**UEAPME**	Union Européenne de l'artisanat et des petites et moyennes entreprises	Small and Medium sized Enterprises (SMEs)	Employers

* Official duration of the consultation: from 8/7 to 18/9/09 - Last response received: 6/10/09