Standardisation mandate addressed to CEN, CENELEC and ETSI to develop harmonised standards for the assessment, measurement and calculation of workers' exposure to static magnetic and varying electric, magnetic and electromagnetic fields with frequencies from 0Hz to 300 GHz.

Title
Harmonised standards to assess, measure and calculate workers' exposure to electromagnetic fields in the range from 0 Hz to 300 GHz.

Purpose
This mandate derives from Directive 2004/40/EC1. This Directive requires the employer to perform an initial assessment of the levels of workers' exposure to EMF, if necessary including measurements and/or calculations of such levels, to determine whether it is necessary to carry out a detailed risk assessment of EMF exposure.

Under this mandate, CEN, CENELEC and ETSI (ESOs) are mandated to provide standards that employers can use to carry out the aforementioned tasks.

Introduction
Research on the effects of exposure of the human body to electromagnetic fields has led to a scientific consensus on the known risks. The International Committee on Non-Ionising Radiation Protection has recommended 2 sets of exposure limits: a set of limits for the protection of workers and a more stringent set of limits for protecting the general public. The second set forms the basis of Council Recommendation 1999/519/EEC, from which horizontal product regulation such as the Low Voltage Directive (73/23/EEC) and the R&TTE Directive (1999/5/EC) derives adequate emission limits to be met by products. The first set forms the basis of Directive 2004/40/EC, for the protection of workers.

Mandate M/305 and its predecessors mandated standards for product compliance under the LV and R&TTE Directives. The work conducted under this mandate has led and will lead

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not only to a number of standards to assess compliance of products through measurement or calculation, but also to in-situ measurement methods. Although the latter will be instrumental in assessing compliance of a workplace with Directive 2004/40/EC, they are incomplete for that purpose.

With the present mandate, the ESOs are requested to complement their work programme with standards covering all aspects of assessment, measurement, calculation and test methods required for the implementation of Directive 2004/40/EC. The work under the present mandate must ensure coherence with the standards developed under mandate M/305 and with relevant standards developed under the series of mandates relating to the medical devices directive.

**Description of the work required under the new mandate**

The European Commission requests CEN, CENELEC and ETSI to prepare a work programme for, and adopt harmonised standards covering, the following:

1. the assessment as to whether a detailed risk assessment is required;
2. the methodology of a detailed risk assessment;
3. measurement and calculation methods to support the above.

CEN, CENELEC and ETSI should ensure that the practical application of the standards is proportionate.

The standards should assess all relevant sources of exposure (both in- and outside the workplace) and cover all exposure situations that can realistically be expected (near field, far field, different frequencies, and pulses). The standards should also take full account of the standardisation work carried out under M/305 and under the mandates developed under the medical devices directive and notably avoid introducing measurement where exposure can be calculated on the basis of compliance with product directives.

In particular, they should take into account the limit values and action values in the proposed Council and European Parliament Directive 2004/40/EC.

The compliance of a workplace environment is ensured if the assessment shows that the limits set in Council and European Parliament Directive 2004/40/EC are not exceeded. The European standards will be used by employers for the assessment and, where required, measurement and calculation of the exposure of workers to determine whether preventive action must be taken to comply with the provisions of the Directive.

The resulting standardisation work can include both generic standards and, if necessary, specific standards dealing with specific types of workplaces.

**Execution of the Mandate**

**Starting phase**

In order to ensure transparency in the work to be carried out, CEN, CENELEC and ETSI will provide the following information to the Commission by October 2004.
A programme for the standards under the mandate and the target dates for public enquiry and for adoption of these standards.

**Implementation phase**

CEN, CENELEC and ETSI will implement the above work programme.

**Progress reports**

The formal co-operation between CEN, CENELEC, ETSI and the Commission is ensured through the normal procedures in the 98/34/EC\(^2\) Committee.

CEN, CENELEC and ETSI must, at regular intervals, inform the Commission, which in turn will inform the 98/34/EC Committee of any new draft standard in this area which is added during the implementation phase.

CEN, CENELEC and ETSI must co-operate with the Commission to ensure that the standards on measurement and testing are properly aligned with Council and European Parliament Directive 2004/40/EC and Council Recommendation 1999/519/EEC to avoid duplication of work.

**Co-operation with other bodies**

In all matters relating to the health aspects and biological effects of electromagnetic fields, the standard bodies should seek the advice of ICNIRP\(^3\), WHO\(^4\) and relevant services of the European Commission.

EMF standards are of international and interregional interest. CEN, CENELEC and ETSI are therefore also advised to co-ordinate their activities with the other international standardisation bodies concerned.

CEN, CENELEC and ETSI will ensure appropriate consultations of stakeholders (employers and trade unions, e.g. TUTB and ANEC).

**Standstill**

Acceptance by CEN/CENELEC of this mandate will initiate, from the date of adoption of the programme by the ESOs, the standstill period referred to article 7 of Directive 98/34/EC of 22 June 1998 (OJ No L204 of 21 June 1998).

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\(^3\) The International Commission on Non-Ionising Radiation Protection

\(^4\) World Health Organization