

Approach to smoke-free workplaces in the European Union

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Preamble

The report was prepared for the European Network for Smoking Prevention (ENSP) in the framework of the EB-ETSPV project (no 2003307) “Evidence-based policy development for the prevention of exposure to passive smoking in European and accession countries” and updated subsequently during the period 2004-2006.

The report is focused on the role of scientific evidence on the health hazards of passive smoking in approaching comprehensive legislation on smoke-free workplaces in the European Union. This will be explored with respect to the use of the scientific knowledge base in promoting smoke-free workplace laws at the level of European Union Member States as well the European Community.

The author gratefully acknowledges the information provided by Mervi Hara on the establishment of smoke-free workplaces in Finland and by Dr. Fenton Howell and Valerie Coghlan on the development of a smoke-free environment in Ireland. The author bears full responsibility for the accuracy of the report.

Much of the background information on smoke-free workplace policy used in this paper is taken from the reports by Karola Grodzki (1) and John Griffiths (2) for ENSP as well as a report by Carin Håkansta for the International Labour Organisation (3).

Footnote

In this paper, smoke-free workplaces are defined as workplaces where smoking is completely banned or allowed only in enclosed separate smoking areas so that no one is involuntarily exposed to tobacco smoke. The term environmental tobacco smoke (ETS) is used to denote tobacco smoke in ambient air. Passive smoking denotes the inhalation of ETS.

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1 Introduction and background

The last decade has seen considerable progress in the establishment of smoke-free workplaces in the European Union (EU). However, much remains to be done in order to attain a comprehensive protection from involuntary exposure to tobacco smoke in the workplace. As the struggle for smoke-free workplaces in the past has shown, entirely smoke-free workplaces are not achieved in one stroke, but are usually the result of a stepwise process over many years.

Commonly, workplaces are made smoke-free in a certain order. Restrictions on smoking in workplaces are first introduced in the public employment sector, e.g. governmental offices, educational facilities or communal hospitals. The sectors to follow are large private enterprises and - with some delay - small private enterprises. The workplaces to become smoke-free as the latest are those in the hospitality and entertainment sector. EU Member States are at different stages along the road toward entirely smoke-free workplaces. Most of them have gone through the first two stages of restricting smoking in workplaces in the public sector and in large private enterprises. However, the extent, stringency and implementation of these restrictions differ widely between Member States (4-6). The last stage, smoke-free workplaces in the hospitality and entertainment sector, has only been reached in a few Member States such as Ireland (2004), Italy (2005) and Sweden (2005) (7).

In the earlier stages of the drive for non-smokers protection at work, voluntary agreements may have contributed considerably to achieve smoke-free workplaces notably in large enterprises. However, substantial segments of workplaces did not benefit from this approach. This pertains in particular to workplaces in small enterprises and, even more so, to workplaces in the hospitality and entertainment sector. Clearly, further progress can only be achieved by strengthening smoke-free workplace legislation and enforcing the respective laws.

As a result of the prevailing incomplete and inadequate regulations of non-smokers protection in the workplace, a great proportion of the workforce remains exposed to tobacco smoke at work throughout the EU. For example, a survey for the UK Department of Health in 1997 found that only 60% of the workforce is working in a smoke-free environment (8). In Great Britain, 900 office workers, 165 bar workers and 145 manufacturing workers are estimated to die each year as a direct result of passive smoking at work (9). According to a survey from the year 2002, three million German employees worked in enclosed rooms together with smokers (10). Another German survey from 2003 showed that 26% of all non-smoking employees were exposed to ETS daily and 42% at least once a week (11). Contrary to this, exposure of employees to ETS is very low in EU Member States in which strict workplace smoking bans have been adopted and enforced, such as Finland and Ireland (cf. below 2.2 and 2.3).

In contrast to EU Member States, the European Community (EC) did not make significant progress over the past two decades regarding smoke-free workplace legislation. While Community legislation was leading with regard to occupational safety and health issues when adopted in the late 1980ies, it was only rudimentary with respect to smoke-free workplace legislation (cf. section 3) and has not been advanced notably since then. Therefore, at present, Community legislation on smoke-free workplaces is greatly lagging behind the respective legislation in EU Member States.

The establishment of smoke-free workplaces is approached with two complementary objectives. One objective is the overall decline in smoking prevalence. In this context, workplaces are only one of many targeted environments. A number of studies have shown that smoking restrictions in workplaces affect both smoking rates and per capita tobacco consumption. When smoking is not allowed at work, or only in designated smoking areas, quit attempts are more frequent and those who do not quit smoke fewer cigarettes compared to employees in workplaces without such regulations (12-14). The second objective is to specifically protect

employees from the health risks of passive smoking. In this respect, ETS is viewed as an occupational safety and health issue. The two objectives are usually pursued by different authorities, i.e. the ministry for health and the ministry for labour, respectively. Although the support of the ministry of health is an important factor for promoting smoke-free workplaces, the involvement of the ministry for labour is crucial in the process of establishing comprehensive smoke-free workplace legislation (cf. case studies in section 2).

The driving force of any move for non-smokers protection is the awareness that passive smoking constitutes a health hazard and is not merely a cause of discomfort and irritation. The strength of the scientific evidence on the health effects of passive smoking is of overriding importance for the promotion of a smoke-free environment. As long as disease and death caused by ETS are under scientific dispute – or are cloaked as being contested in the scientific community –, smoke-free workplace legislation is prone to be ineffective. Such is the case with the earlier legislation by the EC and EU Member States. For example, in 1989, the European Community considered ETS to be only a cause of ‘discomfort’. In consequence, the pertinent EU directives provided not more than marginal protection against ETS in the workplace (see below, section 3). Similarly, Luxembourg’s Grand-ducal Regulation on health related issues in the workplace adopted in 1994 specifies that appropriate measures have to be taken to protect non-smokers against the ‘discomfort’ caused by tobacco smoke (15).

Even though, there is, today, no longer any reasonable doubt that ETS increases the risk of lung cancer and lethal cardiovascular diseases, the strength of scientific evidence alone does not suffice for establishing comprehensive and efficient smoke-free workplace laws. For example, smoke-free workplace legislation which came into force in the Netherlands in 2004 required employers to ensure that employees can carry out their work-related duties “without being inconvenienced by tobacco smoke” (16). What seems to be needed for establishing stringent smoke-free workplace legislation is the official recognition that ETS poses a serious health hazard in the workplace. This pertains in particular to the official recognition of ETS as an occupational carcinogen.

Chemical carcinogens take a special position in the framework of healthy workplace regulation. Carcinogens have no ‘threshold’ levels below which they do not exert adverse effects. Therefore, as a rule, exposure to carcinogenic substances has to be minimized in workplaces as much as possible, i.e. to a degree which is technically and economically feasible. In respect to ETS, minimization of exposure to the carcinogens contained in tobacco smoke can readily be achieved by banning smoking in the workplace. Thus, the official recognition of ETS as carcinogen in the workplace might be pivotal for legislating entirely smoke-free workplaces.

The following explores the role which scientific evidence on the health hazards of ETS and its official recognition played in shaping the legislation of smoke-free workplace in three EU Member States, Germany, Finland, and Ireland. It furthermore addresses the question how such official recognition might help in advancing EU wide smoke-free workplace legislation.

2 Approach to smoke-free workplace legislation in EU Member States: case studies

2.1 Germany

The first call for smoke-free workplaces in Germany was made in 1971 when the German Medical Action Group Smoking or Health (GMASH) assembled for its inaugurating meeting and placed the demand for smoke-free workplaces on the top of the list of basic requirements for tobacco control. The call was well received by the public and authorities alike. In 1974, the German Government came to the conclusion that in spite of lacking conclusive scientific

evidence on the health effects of passive smoking “*it would be irresponsible to wait until passive smoking had in fact produced sickness, absenteeism, and death*” (17) and considered establishing a non-smokers protection law. This alarmed the tobacco industry. To counteract the threat of public smoking bans and smoke free workplaces, the industry forged close ties to German scientists and medical doctors, in particular to leading scientists in the field of occupational medicine. Many of these scientists were integrated into the Research Council on Smoking or Health which was formed by the “*Verband der Cigarettenindustrie*”, the German Tobacco Industry Manufacturing Organization. In the following two decades, this Council dominated the discussion on tobacco control in Germany and succeeded in keeping the health effects of passive smoking under dispute as “controversial” and “unproven” (18,19). As a result, passive smoking was widely thought to be harmless and the Federal Government no longer saw a need for the regulation of environmental tobacco smoke (ETS) and changed the planned law into mere recommendations with no binding effects (17). Under these conditions, smoke-free policies in the workplace advanced at a very slow rate in Germany.

In 1975, the Ministry of the Interior issued a recommendation which lays out guidelines for the separation of smoking and non-smoking areas in workplaces under its jurisdiction. If such a separation was not feasible, smoking should only be allowed with the consent of non-smokers present. These guidelines were adopted by nearly all federal administrations. At the state level, protective measures against passive smoking in administrative buildings followed much later. The State Ministers of Health agreed on a resolution which calls for banning smoking in all shared offices, meeting rooms, canteens and communal areas in 1988. The resolution has the character of a (strong) recommendation and is not legally binding. It prohibited smoking in shared offices even if non-smokers did not specifically ask for such. The only legal protection against passive smoking in workplaces was provided by the so called workplace ordinance (*Arbeitsstättenverordnung, ArbStättV*) of 1975 requiring employers to take “suitable measures for protecting non-smokers against discomfort caused by tobacco smoke in rest rooms of work premises” (§32 *ArbStättV*). (cf. EU Directive 89/654EEC of 1989, p.16)

Beginning in the late 1970ies, non-smokers increasingly went to court to fight for their right to a smoke-free workplace (20). By the year 2001, the number of such lawsuits had approached around a hundred cases. Most of the employees based their claim on the workplace ordinance (§5 *ArbStättV*) which establishes the employer’s duty to ensure that there is a sufficient quantity of fresh (healthy) air in enclosed workplaces (21). Under this provision, indoor air is considered to be fresh when its quality equals that of outdoor air. Accordingly, an upper court, for example, decided in 1980 that the plaintiff, a cancer patient, is entitled to a smoke-free workplace partially on the grounds that it could not be ruled out that passive smoking causes not only discomfort but also severe health damage (22). The court however also based its decision on the workplace ordinance (§5 *ArbStättV*) arguing in essence that “healthy air” has to be free of tobacco smoke (cf. p.18).

Although the right of employees to a smoke-free workplace was upheld in courts more often than not, the overall situation regarding smoke free policies in German enterprises was rather bleak, even in the 1990ies. In one third of all enterprises, smoking was not regulated at all, another third only had partial smoking restrictions (23). In some workplace, the conditions were even worse. For example, 91% of financial institutions, banks and insurance companies, allowed smoking in all their workplaces (24). Thus, 36% of non-smokers were exposed to tobacco-smoke in their workplace in 1998 (25). Two years later, a survey indicated that 20% of all non-smoking employees were exposed to tobacco smoke, i.e. more than 4 million of the approximate 21 million non-smoking employees were exposed to tobacco smoke at work (26). Under the prevailing conditions, protection of employees against passive smoking was to a considerable degree dependent on whether or not the decision-makers, supervisors,

representatives of works councils, boards etc. were themselves smokers. For example, companies managed by smokers are twice as likely as companies managed by non-smokers to lack smoking regulations (23).

Public opinion has been strongly in favour of smoking bans in workplaces since the 1990ies. For example, in 1993 the great majority of non-smokers (92%) and of smokers (77%) who were surveyed for their opinion about a smoking ban or a separation of smoking and non-smoking areas favoured an outright smoking ban (27). Eight years later, more than 70% of both non-smokers and smokers thought they have a legal right to a smoke-free workplace (28). Likewise, in 2002, more than two thirds of the interviewees voiced support for smoke free workplaces, public buildings and trains (29).

During all the years when individual employees battled for their right of smoke-free air at work, there was a drawn-out struggle for the recognition of passive smoking as an occupational health risk. The struggle began when a number of reports were published in the early 1980ies indicating that passive smoking is associated with an increased risk of various diseases including lung cancer (30-32). The question whether or not passive smoking poses an occupational health risk was soon taken up by the so called MAK-Commission, the Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (MAK = Maximale Arbeitsplatz Konzentration). This scientific body which consists of experts from universities, governmental research institutions and industry is part of the federal state's German Research Foundation (DFG Deutsche Forschungsgemeinschaft). Once the MAK-Commission arrives at a conclusion, its opinion is referred to another commission, the Committee on Hazardous Substances (Ausschuss für Gefahrstoffe - AGS). This Committee advises the Federal Ministry for Labour on measures of occupational safety and health such as classification, establishing threshold limit values, and labelling of hazardous substances in the workplace. Aside from the scientific evidence, the AGS evaluates the technical feasibility and economic consequences of regulatory actions. As a rule, the AGS adopts the risk assessments made by the MAK-Commission.

The MAK-Commission deliberated on the occupational health hazard of ETS for four years and in 1985 reached the following conclusions (33): *“Tobacco smoke inhaled at the workplace has to be considered as a mixture of harmful substances. As long as the inhaling (non-smoking) employee is involuntarily exposed to tobacco smoke, tobacco smoke has to be evaluated like any other hazardous substances at the workplace, i.e. also carcinogenic substances or their mixtures. It has particularly to be taken into consideration that a very large number of employees is exposed to involuntarily inhaled tobacco smoke; there are most likely no other hazardous substances at the workplace as widespread as tobacco smoke.”* The Commission also formed an opinion on the carcinogenicity of ETS: *“Tobacco smoke contains a multitude of carcinogenic substances some of which are known carcinogens at the workplace. The level of some carcinogenic substances is higher in the sidestream smoke than in the mainstream smoke. Thus, some risk of cancer by passive smoking has to be assumed at the workplace”*. The Commission noted that passive smokers showed increased levels of mutagenicity in their body fluids and added, that passive smoking possibly increases the effect of known occupational carcinogens

In spite of these straightforward assessments, the Commission labelled the risk of lung cancer elicited by passive smoking merely as “under discussion”. The Commission was equally vague about the epidemiological studies which concluded that there is a statistically significant association of lung cancer risk for non-smoking wives of smoking husbands (30). In the opinion of the Commission, these studies only formed a *“hypothesis which has to be taken serious”*. Thus, the Commission was equivocal about whether or not ETS has to be considered a carcinogen in the workplace. In consequence, the assessment of the MAK-Commission was not referred to the AGS and no formal decision was made on the regulation

of ETS in the workplace. Instead, the MAK-Commission – by transgressing its competency - gave the advice” *to take suitable protective measures at workplaces which are highly contaminated by tobacco smoke*”. In practice, the assessment of the health risk of passive smoking by the MAK-Commission had little impact on the establishment of smoke-free workplaces in the following two decades.

A new attempt to assess the health risks of passive smoking was taken by the German Society of Toxicology about ten years later. In 1994, an advisory committee of the Society came to the conclusion that tobacco smoke in indoor air is hazardous and exerts carcinogenic effects. These conclusions were accepted by the Society and published in its periodical as well as in a leading German medical journal in 1995 (34). The conclusions did not remain unchallenged. Criticisms came from some members of the Society of Toxicology with close ties to the tobacco industry. In addition, the scientific director of the German Association of Cigarette Manufacturers (Verband der Cigarettenindustrie, VdC) Prof. Franz Xaver Adlkofer tried to intervene. In order to get access to the forum of the Society, its periodical which restricts the authorship to its members, he applied for membership in the Society. In a rare move, the members of the Society rejected his application (35). This signaled the end of the dominance of German scientists associated with the tobacco industry. They were rapidly losing ground in the debate on the health effects of ETS brightening the prospects for smoke-free policies.

Although the health danger posed by passive smoking had not been recognized by an authoritative governmental body in the mid 1990ies, an attempt was made to establish a comprehensive non-smokers protection law based on the vast evidence on the issue. A draft law which was to cover public places, transportation and workplaces was submitted by an inter-party group of parliamentarians co-operating closely with NGOs. During the final stages of the legislative process, workplaces were taken out of the proposed law, because its supporters feared that the resistance of employers associations and unions against smoke-free workplaces endangered the success of the whole venture. At the end, in 1998, the truncated law was defeated by a narrow margin in the Bundestag (Lower House of the German Parliament). Part of the failure has to be attributed to the fact that the Chancellor and most of the ministers, including the minister for health, did not support the law but actually lobbied against it.

Possibly due to the deliberations of the Society of Toxicology, the MAK-Commission re-evaluated the issue of passive smoking in the workplace in 1996. The Commission analyzed the new evidence, in particular the accumulating epidemiological studies on the cancer risk of passive smoking and in 1998 came to a more forceful conclusion than in 1985 summarizing its opinion as follows (36): *“Taken together, the presence of carcinogenic and mutagenic substances in ETS, the demonstrated uptake of mutagenic substances from ETS by passive smokers, the exposure-effect relationship between ETS exposure levels, the incidence of lung cancer, and the results of the available carcinogenicity studies in animals meet the criteria for classification of ETS as carcinogenic for man.”* The Commission therefore classified passive smoking in the highest category of workplace carcinogens comprising substances which cause cancer in humans and which presumably make a significant contribution to cancer risk.

There was little critique of the MAK-Commission’s authoritative judgment within the German scientific/medical community. The tobacco industry, however, made an elaborate attempt to undermine the assessment by Commissioning a book on the purported many flaws of the assessment (37). The intention of the book is revealed in the preface: *“Many of the issues connected with ETS are not as clear as they should be – and could be. Some of the effects attributed to “passive smoking” are perfectly correct; others are doubtful and some downright wrong. Well-meant warnings go badly awry if they are based on invented data”*. The book didn’t make any lasting impact on the public perception of the MAK-Commission’s verdict, but it cost the Commission considerable time to rebut the numerous charges.

This time, the MAK-Commission' assessment of the health risks of passive smoking in the workplace was referred to the AGS. The AGS confirmed the assessment of the MAK-Commission classifying passive smoking at the workplace as carcinogenic to humans (category 1) (38). However, to the disappointment of the tobacco control community, the AGS did not recommend ETS to be included into the official list of carcinogenic substances in the workplace (cf. Annex I of Directive 67/548/EWG and German TRGS 90). Being on this list, ETS would have been subject to the same regulation as other carcinogenic substances in the workplace, i.e. exposure had to be minimized to the extent technically and economically feasible. In practice, this means that ETS would have had to be entirely removed from workplaces. Instead, the AGS recommended taking the classification of ETS as carcinogen into account by amending the workplace ordinance. This ordinance is under the jurisdiction of the Ministry for Labor in charge of regulating hazardous substances at the workplace.

The Ministry, however, made no efforts to adopt the recommendation of the AGS, but waited for the inter-party group of parliamentarians which had initiated and supported the unsuccessful non-smokers protection law (cf. p.7) to propose a suitable amendment of the workplace ordinance. The inter-party group presented a proposal to the president of the Bundestag in April 2000.

The Ministry for Labour, although reluctant to take the amendment of the workplace ordinance in its own hand, did not oppose the proposed smoking restrictions. The Ministry for Health which in 1995 had rejected all moves for non-smokers protection legislation, was now actively supporting the amendment. Objections against the amendment came mainly from the Bundesverband Deutscher Arbeitgeberverbände (Federal Union of German Employers Associations) and the labor unions, in particular, the influential Union Food, Beverages and Catering (Gewerkschaft Nahrung, Genuss, Gaststätten NGG) which represents the employees of the tobacco industry as well as of the hospitality sector.

The first reading of the law in the Bundestag took place in June 2000, the second and third reading a year later when the law was adopted by a great majority. It then went to the Bundesrat (Upper House of the German Parliament) for consultation and confirmation. The amendment remained there for another year, because it was tied to a general amendment of the workplace ordinance which was complex and in part highly contentious. Only the tobacco growing states Rheinland-Pfalz, Baden-Württemberg and Thüringen argued against the amendment. Finally, in June 2002, the Bundesrat agreed to the overall amendment of the workplace ordinance including the clause concerning the non-smokers protection and the amended ordinance came into force in October 2002.

The ordinance requires that the employer has to take "all necessary measures to effectively protect non-smoking employees against the health hazards of tobacco smoke in the workplace" (§3a Article 1) (21). In workplaces open to the public, the employers' obligations go only as far as the nature of the enterprise and the type of employment allow" (§3a Article 2) (21).

For the first time, the ordinance spelled out the right of non-smokers to be protected against tobacco smoke in the workplace. If employers fail to provide smoke-free workplaces, employees can appeal to the agencies charged with inspecting and enforcing the workplace ordinance. These agencies have the power to impose fines on defaulting employers.

Although the new provisions of the ordinance present a substantial progress in non-smokers protection in the workplace, they are far from being ideal. The wording of the text is rather vague. For example, it remains open how the terms "necessary measures" and "effective protection" are interpreted. In consequence, the dispute whether effective protection is provided by separation of smoking and non-smoking areas, ventilation or smoke free policies still lingers on in German courts.

Another serious shortcoming of the new regulations is given by the limited restrictions on smoking in workplaces which are open to the public. This applies primarily to the hospitality sector, but also to other areas, where smoking by customers or visitors is supposed to be socially acceptable. So far, employers in hospitality trade have taken their limited responsibility for non-smokers protection as license to remain inactive and continue to leave their non-smoking employees exposed to the smoke of the customers and fellow employees.

2.2 Finland

Tobacco control has a long tradition in Finland (39). Back in 1977, the so called Tobacco Act aimed at reducing tobacco consumption was passed (40). It was based on the Primary Health Care Act of 1972 which emphasizes the importance of prevention in disease control. Amongst others, the Act restricts smoking in a large range of public places. Smoking becomes prohibited in/on:

- indoor premises of day-care facilities for children and of educational institutions intended for students, and outdoor areas primarily intended for persons under the age of eighteen,
- indoor premises of government agencies and comparable public bodies intended for the public,
- indoor public events to which the public has unrestricted access,
- public transportation.

At that time, this act was very progressive. However, it took another 18 years until the protection against tobacco smoke was extended to workplaces. In 1991, the Ministry of Social Affairs and Health took the initiative to include smoke free workplaces in the Tobacco Act. The media was repeatedly informed about the targets and details of the proposed amendment. The proposal itself was widely discussed in public during the preparatory stage and during readings in the Parliament.

During this time, a considerable number of enterprises introduced smoke free workplace on a voluntary basis in an apparently mutually reinforcing process. Thus, the number of employees exposed to tobacco smoke at work for more than an hour a day continuously decreased in the early 1990ies. While the largest decline occurred in the two years before the adaptation of the law, exposure to tobacco smoke at the workplace was halved by the time the law was enacted.

There was considerable resistance against the establishment of smoke-free workplaces. The tobacco industry and its allies strongly fought the proposed regulations. One of their major arguments was that the carcinogenicity of ETS had not been scientifically proven. To promote their interests, the industry used third parties and front groups, such as associations of employers which claimed that stronger regulations of tobacco smoke in the workplace would cause job losses. They also argued that the law would incur enormous costs for employers by having to provide separate rooms for smokers. The tobacco industry furthermore recruited citizens, well-known persons, writers, musicians or lawyers who made use of civil rights arguments and argued for an adherence to the constitution.

However, the will of the public and the government prevailed. The Finnish Parliament adopted the amendments in June 1994 and the amended law was enacted in March 1995 (41). Smoking was banned in

- joint and public premises of workplaces and their indoor premises intended for clients,
- bars and gambling premises of restaurants and corresponding establishments, unless the exposure of employees working there to tobacco smoke can be prevented otherwise (Section 12).

These provisions were further specified:

- *“Following negotiation with employees or their representatives, employers are required to prohibit or restrict smoking so that employees are not involuntarily exposed to environmental tobacco smoke on any work premises at the workplace where smoking is not prohibited by law”* (Section 13, Paragraph 3).
- *“..(..)..the provisions on prohibiting and restricting smoking at workplaces ..(..).. shall be supervised by the Occupational Safety and Health Authorities.....”* (Section 14, Paragraph 5).

Although the provisions were far reaching, they were neither absolute nor immediate. Several exemptions were made, e.g. for work premises which are located in the home of the worker or the business entrepreneur as well as for other premises which are exclusively used by family members and/or persons living in the same household. Furthermore, workplaces in the hospitality trade were granted a transition period of three years to implement the law.

It is noteworthy that with the framing of the new law the authorities concerned with occupational safety and health entered the field of tobacco control. Until then tobacco control had been solely the responsibility of the authorities concerned with social affairs and health. As will be further discussed below, this shift in responsibility had a strong impact on the way scientific evidence was used to justify and improve smoke free workplaces.

The new law worked well in the majority of workplaces, in particular in large and medium size enterprises. Exposure to tobacco smoke in the workplace decreased drastically upon implementation of the ban. Nicotine concentrations in the air of industrial workplaces dropped from 5.7 $\mu\text{g}/\text{m}^3$ before to ban (1994-1995) to 0.3 $\mu\text{g}/\text{m}^3$ one year after the ban (1995-1996) and reached a low level of 0.05 $\mu\text{g}/\text{m}^3$ after another two years (1998) (42). Accordingly, the percentage of workers who were not exposed to ETS at work increased from 21 before the ban (1994) to 71 after the ban (1998).

Yet, compliance with the law was not satisfactory in all workplaces. This was particularly the case in small private enterprises and in the hospitality sector. From the beginning, the law had been poorly implemented in restaurants and bars. During the late 1990ies, the respect for the law even declined to the extent that it was practically ignored in the hospitality sector (personal communication). Thus, another attempt was made to amend the Tobacco Act in order to grant the right to smoke-free air to all employees, including those working in the hospitality sector in 1999.

In the final stages of amending the Tobacco Act before in 1994, the Parliament felt that it was essential to obtain a scientific opinion on the health hazard of tobacco smoke in the workplace, and in particular on the carcinogenicity of ETS. Thus, when passing the law, the parliament required the Government to consider the classification of ETS as a carcinogen. The request for assessing the health hazard of ETS was put forward by the Social Affairs and Health Committee of the Parliament. Among the Committee members were a number of health professionals who strongly supported the call for a scientific evaluation of the adverse effects of ETS. The request was also backed by governmental institutions such as the National Institute of Public Health and the Finnish Institute of Occupational Health as well as various NGOs including the Doctors against Tobacco Network.

The Government (i.e. the Ministry of Social Affairs and Health) responded by calling upon the Finnish Scientific Committee on Health Effects of Chemicals (KATA). KATA comprises toxicologists, epidemiologists, public health experts, representatives of governmental agencies, and other scientific experts in the field. Most of the committee members are civil servants. Thus, their independence was not questioned and no declarations of conflict of interests were made. The Committee was charged to give an expert statement regarding the

health hazard of ETS with the explicit aim to improve the protection of employees against tobacco smoke in the workplace.

Upon thorough assessment which proceeded without external interference, the Committee came to the major conclusion that ambient tobacco smoke is a carcinogen. Although this classification could be interpreted as being of a general nature and applicable to all public places and workplaces alike, only health hazards for workers and in workplaces were of concern in the context of the mandate and the framework of the law under consideration.

When the expert Committee delivered its final report to the Social Affairs and Health Committee and the Parliament in February 1999, the latter reacted quickly by classifying ETS as a carcinogen (category B1) and, on this basis, taking immediate action to further restrict smoking at work.

Unlike the approach taken in Germany, ETS was included into the list of carcinogens in the workplace. This greatly facilitated and strengthened the creation of smoke-free workplace environments. Regulation of ETS now has to adhere to the provisions of the Labour Protection Act concerning the exposure against carcinogenic substances. For example, all workers have to be protected against exposure to ETS regardless of whether they themselves smoke or not. Furthermore, employees who work on premises where smoking for some reason or other is allowed must be registered by the Finnish Institute of Occupational Health. Besides, employers have to arrange health examinations for their employees as described in detail in the Occupational Health Care Act.

The revised Tobacco Act which came into force in March 2000 strengthened the restrictions of smoking in the hospitality sector (43). It requires that restaurants and corresponding establishments which have a serving area larger than 50m² provide at least 50% of the area to non-smokers (section 13, paragr. 2). Smoking is not allowed at bar counters and game areas (section 12, paragr. 5). Smoking rooms, spaces and areas have to have separate air conditioning. For carrying out the changes, restaurant and bar owners had been granted a three-year transition period which ended in July 2003. In addition, the revised Tobacco Act unequivocally states that “*ambient tobacco smoke is a carcinogen*” (Section 11a).

Within a short time, the flaws of the new restrictions became apparent. In the first year, the smoke content in the non-smoker’s sections had dropped by not more than a third and then levelled off (44). Furthermore, exposure of non-smoking employees to ETS had remained the same as before the revision. In view of these deficits, the Finnish government renewed its efforts to make restaurants, bars, pubs, and cafes smoke-free and in December 2005 submitted a law to the Parliament which restricts smoking inside dining and drinking establishments to special isolated and ventilated rooms and booths (45). No food or drink should be served in the smoking areas. The new law is scheduled to be enacted June 2007. For restaurants and bars that have invested in ventilation equipment to comply with existing legislation there would be another two-year extension to 2009.

2.3 Ireland

The enactment of the Tobacco Products Act in 1978 marks the beginning of tobacco control in Ireland. This Act provides the statutory framework for the Minister for Health and Children to control and regulate advertising of tobacco products and other means of promotion, including sponsorship. The Act also confers on the Minister the authority to designate the form and content of health warnings. While knowledge of the health hazards of passive smoking was emerging at the time, the risks of ambient tobacco smoke were not considered to be so serious as to warrant protective legislation.

Ten years later, provisions for smoke-free public places were included in the 1988 Tobacco Act. The Act empowered the Minister for Health and Children to prohibit - or at least restrict - smoking in various locations such as public offices, schools, colleges, health and child care facilities, cinemas, theatres, and taxis. Workplaces were however not included in the law. For those, only voluntary codes of practice were established.

In 1993, when it was felt that the existing voluntary codes were unsatisfactory, the Minister for Health formed a committee with representatives of employer and employee organisations and health interests to consider what steps should be taken to reduce the exposure of employees to ETS. In February 1994, the committee finalised a policy document which rejected the option of enacting legislation to ban smoking in the workplace but recommended that a new voluntary code of practice should be prepared. The Minister for Health followed these recommendations and issued a new code in September 1994 (46).

When employers were asked by questionnaire to evaluate the code two years later in 1996, 88% of the respondents reported the code to have worked either "well or very well" (46). However, only half of the employers surveyed had responded to the query. In spite of the ambiguous results of the survey, the Department of Health decided to continue to promote the code *"but to keep the question of extending legislative control to the workplace as a live issue for consideration..."* (46). According to an assessment of the Irish Joint Health and Children Committee in 1999 (47), nothing was done to further promote the voluntary code nor was there any indication that the Department was considering to take legislative action since 1996.

In 2001 and 2002, the Tobacco Act of 1988 was amended, e.g. by making it an offence to sell tobacco products to anyone less than 18 years of age and by specifying restrictions on tobacco advertising and sponsorship and the regulations regarding the marketing of tobacco products (48). An amendment and passage into law which would prove to be of vital importance for smoke-free workplace legislation was the establishment of the Office of Tobacco Control. Still, no legislative measures were taken to introduce smoking bans in the workplace.

The unsatisfactory state of non-smokers protection in the workplaces was rapidly changed when the authorities concerned with occupational health took up the issue. In March 2002, the Minister of Labor, Trade and Consumer Affairs announced that he had asked the Health and Safety Authority (= National Authority for Occupational Safety and Health) to examine the necessity for developing a Statutory Code of Practice to ban workplace smoking (49). Previously, the Board of the Health and Safety Authority had not shown particular interest in the issue of non-smokers protection at the workplace.

The Minister was straightforward in his announcement: *"I want the Health and Safety Authority to take clear and effective action to deal with the dangers of workplace smoking. I recognize that the Voluntary Code of Practice, developed with the social partners in the last decade, has been effective in most workplaces, but there remain sectors, such as pubs, where a serious problem still exists and must be addressed. It is a worker's right to leave his place of work in the evening as healthy as when he arrived that morning."* (49). He concluded his announcement by saying: *"The unacceptability and dangers of smoking in the workplace is now fully recognized..."* and *"...the protection of workers in all sectors of the economy is paramount and there can be no excuses for lack of action in any workplace."*

One of the immediate actions taken by the Minister was to ask the Health and Safety Authority to co-operate with the Office of Tobacco Control on the issue of workplace smoking.

There was massive opposition to the proposed legislation, in particular by the hospitality sector. The vintners' organizations, Vintners Federation of Ireland and the Licensed Vintners Association, strongly opposed the legislation. They condemned the government's decision

and claimed it was based on “spurious medical evidence”. They offered all kinds of seemingly reasonable measures which are however known to be virtually ineffective at protecting against tobacco smoke. For example, they proposed to designate 50% of each pub a non-smoking area or to prohibit smoking at the bar counter. They made a commitment to install better ventilation equipments. However, they also asked to exempt owner managed pubs with five employees or less from any such regulations. Finally, they called on the government to conduct further research into the health impact of ETS. In addition, a new organization representing the hospitality industry, the Irish Hospitality Industry Alliance, emerged out of nowhere in 2003 to oppose the law. Once the law was enacted this organization disappeared as suddenly as it had surfaced. Opposition to the proposed smoking ban also came from within the government. For example, the Ministers for the Environment and Agriculture publicly voiced their misgivings about the law.

On the other side, the public was strongly in favor of the initiative for smoke-free workplaces. Driving forces for the initiative were the non-governmental health organizations such as the Irish Heart Foundation and the Irish Cancer Society, in particular ASH Ireland. The call for smoke-free workplaces was also supported by bar and restaurant workers unions and trade unions representing various health professionals. Other trade unions followed suit once the drive for the smoking ban had gained momentum. Finally – and most importantly – the Ministers of Health and of Labor were unwaveringly supportive of the proposed legislation.

Although the Minister of Labor, Trade and Consumer Affairs had stated that the danger of smoking in the workplace was “fully recognized” (see above), no authoritative report existed on the issue in Ireland. This made it easy for the opponents of the prospective law to spuriously allege that the health dangers of passive smoking are far from being scientifically proven (see above). In order to close this apparent gap, the Health and Safety Authority and the Office of Tobacco Control jointly set up an independent scientific working group which was asked to identify and report on the degree of consensus that exists among leading international scientific authorities on the question of the hazard and risk posed by environmental tobacco smoke to human health in the workplace.

The ad hoc group took up its work in January 2002 and finalized the report by January 2003 (50). There is no indication that the experts disagreed on essential points of the assessment or that any attempts were made to interfere with the process of scientific evaluation. The experts thought it important to make a statement on potential conflicts of interest. They asserted that they had no vested interests in the tobacco industry, no conflict of interest with respect to cessation products nor an involvement with any “anti-tobacco lobby groups”.

The conclusions of the scientific working group are as follows:

- ETS is carcinogenic and causes lung cancer and probably other cancers.
- ETS causes heart disease.
- ETS causes respiratory problems in adults and children.
- ETS has adverse effects on reproduction, including low birth weight.

With respect to ETS exposure, the experts observed that in workplaces where smoking is permitted, employee exposure to ETS is likely to be higher and more sustained than in the home environment. More specifically, employees in pubs and nightclubs and other leisure industries are exposed to high levels of ETS due to customers’ smoking. The expert commission also stated that ventilation is ineffective at removing the risk of ETS to health.

In addition to the assessment of the health danger of tobacco smoke and the evaluation of ventilation technology, the expert committee proceeded to make recommendations for legislative measures. It pointed out that smoke-free workplaces could either be provided for by the Public Health (Tobacco) Act 2002 which empowers the Minister for Health and Children to

ban smoking in any ‘place of work’ or by occupational health and safety legislation which requires that workers be protected from health risks. Specifically, section 6 of the Safety, Health and Welfare at Work Act of 1989 and the Safety, Health and Welfare at Work (Carcinogens) Regulations, S.I. No. 078 of 2001 could be used to identify ETS as a hazard and controllable risk from which workers must be protected.

When the report of the expert group was made public by the Minister for Health and Children on 30 January 2003, its impact immediately became apparent. The Minister stated: *“I am banning smoking in the workplace, including restaurants, trains and pubs. Today, I am publishing draft regulations to prohibit smoking in the workplace.”* He added: *“I’m doing this because - as this report makes inescapably clear - I have no choice. There is no other option open to me other than to take action. Before this, consensus was correlated and stated so bluntly, it was possible to temporize, to negotiate, to water down the measures I’d like to have taken”* (51). The latter comment alludes to the fact, that before receiving the report, the Minister had been considering all types of measures to deal with the issue of smoke-free workplaces, e.g. those proposed by the vintners, in particular partial bans in bars (see above). The report clearly reinforced the need to introduce a “complete, total, absolute” ban on smoking at the workplace. The report also gave the Minister a backing to get the legislation through the Cabinet.

The smoke-free workplace law was enacted in March 2004, i.e. not more than two years after the Minister of Labor Trade and Consumer Affairs made the first initiative and about one year after the scientific expert group has delivered its report. The law was incorporated into the Public Health (Tobacco) Act of 2004. The new provisions make virtually all workplaces including pubs, restaurants, offices and shops smoke-free. There are only very few exemptions e.g. for hotel bedrooms, prisons or psychiatric hospitals.

The law was well accepted by non-smokers and smokers alike. As evidenced by a report of the Office of Tobacco control (52) one year after the law took effect, compliance with the legislation is very high. More than 90% of all inspected workplaces were smoke-free, including the hospitality sector. Air quality in pubs had substantially improved. 96% of all employees reported working in smoke-free environments since the introduction of the smoke-free workplace law.

It should be noted that the law was anchored in a public health act rather than the legal framework of occupational health and safety regulations. However, this has recently changed. In June 2005, a new Safety, Health and Welfare at Work bill has been enacted which makes reference to the protection against ETS at the workplace (53). The bill requires the employer to *“ensure, so far as is reasonably practicable, the safety, health and welfare at work of his or her employees”* (54). Specifically, the employer has to *“ensure the design, provision and maintenance of the workplace in a condition that is safe and without risk to health”* (55). Concerning tobacco smoke at the workplace, the act empowers the Minister to issue regulations with respect to *“the control or limit of environmental pollution in the place of work including environmental tobacco smoke or the monitoring of any such emissions in a place of work”* (56). The Act breaks new ground in that it requires the employer to safeguard not only the employees but also *“individuals at the place of work (not being his or her employees)”* against risks to their health or welfare (57).

3. European Community legislation on smoke-free workplaces

The following sections provide a closer look at the EU legislation concerning the protection of the workforce from passive smoking in the workplace and explore to what extent the existing legislation offers a framework for establishing EU wide smoke-free workplaces.

There are several EU directives which have some bearing on the exposure of workers to ETS.

3.1 Directives related to safety and health requirements in the workplace

Community action on the protection of workers against ETS is possible under Community Directive 89/391/EEC, the Framework Directive on Health and Safety (58). The Directive which was adopted under Article 137 (former Article 118A) lays down principles governing the requirements concerning health and safety at work. Member States are obliged to raise their level of protective measures to the minimum requirements set by the (daughter) directives. The general principles of the Framework Directive are outlined in Article 1:

1. *The object of this Directive is to introduce measures to encourage improvements in the safety and health of workers at work.*
2. *To that end it contains general principles concerning the prevention of occupational risks, the protection of safety and health, the elimination of risk and accident factors, the informing, consultation, balanced participation in accordance with national laws and/or practices and training of workers and their representatives, as well as general guidelines for the implementation of the said principles.*
3. *This Directive shall be without prejudice to existing or future national and Community provisions which are more favourable to protection of the safety and health of workers at work.*

A number of provisions have a more direct bearing on the health danger hazard arising from exposure to ETS at work.

According to Article 5 (1) the employer shall have the duty “*to ensure the safety and health of workers in every aspect related to the work*”. Article 6 (1) obliges employers to take the measures necessary for the safety and health protection of workers. This is further detailed in Article 6 (2) which requires employers to implement the measures on the basis of a number of general principles of prevention, for example avoiding risks, combating risks at source, developing a coherent comprehensive prevention policy covering technology, work organization, working conditions, social relationships and the impact of factors related to the working environment. In addition, it is a requirement to give collective protective measures priority over individual protective measures.

Since the establishment of the Framework Directive more than a dozen daughter directives have been adopted which specify the basic principles of the Framework Directive. Of these, two are of particular interest for the protection against tobacco smoke in the workplace: 1) Directive 89/654/EEC (1st daughter directive) (59) which is related to general workplace conditions including ventilation and 2) Directive 90/394/EEC (6th daughter directive) (60) which concerns the exposure to carcinogenic chemicals.

The two directives are briefly presented in the remainder of this section and will be discussed further in the next section (3.2).

1. Directive 89/654/EEC of 30 November 1989 concerning the minimum safety and health requirements in the workplace (59)

The requirements applicable to the control of tobacco smoke in the workplace are contained in the Annexes of the directive.

First, specifying minimum requirements for the ventilation of enclosed workplaces, the provision is made that “*steps shall be taken to see to it that there is sufficient fresh air in enclosed workplaces*” (Annex I, 6.1 and Annex II 6).

Second, in a rare reference to tobacco smoke, it is stipulated that “*in rest rooms appropriate measures must be introduced for the protection of non-smokers against discomfort caused by tobacco smoke*” (Annex I, 16.3). The area of concern is broadened to rest areas in Annex II, 11.3.

There are at least three more directives which include provisions on ventilation and sufficient fresh air in various enclosed workplaces. This is the case for Directives 92/57/EEC (temporary or mobile construction sites) (61), 92/91/EEC (mineral-extracting industries) (62) and 92/104/EEC (underground and open pit extractive industries) (63). With respect to the protection against tobacco smoke in the workplace, these directives do not go beyond Directive 89/654/EEC (59).

2. Directive 90/394/EEC on the protection of workers from the risks related to exposure to carcinogens at work (60)

This directive has been amended twice (first amendment: Council Directive 97/42/EC of 27 June 1997, second amendment extending the scope to mutagens by Council Directive 99/38/EC of 29 April 1999)

The major objective of the directive as amended by Directives 97/42/EC and 1999/38/EC is to protect workers' health and safety against risks specifically arising or likely to arise from exposure to carcinogens and mutagens at work. To achieve this objective the directive lays down minimum requirements concerning the exposure to carcinogens and mutagens, including limit values. If there is a risk of exposure to carcinogens or mutagens, the Directive requires that the nature, degree and duration of the exposure and the risk to the workers' health and safety must be determined, the risks be assessed and appropriate precautionary measures be taken. The employer has the duty to reduce the use of a carcinogen or mutagen by replacing it with a substance, preparation or process which is not dangerous or at least less dangerous. If such substitution technically is impossible, the employer must ensure that the carcinogen is manufactured and used in a closed system. In cases where neither of these precautions is possible, the employer has the obligation to reduce the level of exposure to a carcinogen or mutagen to as low a level as is technically possible.

With respect to smoking, the directive provides for the use of warning and safety signs including "no smoking" signs in areas where workers are exposed or likely to be exposed to carcinogens.

Aside from Directive 90/394/EEC (53) two more directives, Directive 92/85/EEC (64) and Directive 98/24/EC (65), are specifically concerned with protection against hazardous chemicals in the workplace.

3. 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

The directive provides protection for pregnant women and the unborn as well as the newborn child against toxic substances, in particular those endangering reproduction. It imposes a number of obligations on employers. These include assessing any risks to safety and health, and any possible effect on the pregnancy or on breastfeeding. Further, employers are required to take the necessary measures to ensure that exposure of pregnant workers to any such risks is avoided. This may be achieved by applying protective measures or moving the worker to another job or granting leave in accordance to national legislation and/or national practice to protect the worker's health.

Annex I of the Directive incorporates a non-exhaustive list of agents, processes and working conditions for which the employer needs to assess the nature, degree and duration of

exposure. The chemical agents included in Annex I correspond to the mutagenic and carcinogenic chemicals contained in Annex I of Directive 90/394/EEC. In addition, the directive lists carbon monoxide as one of the toxic agents for which the employer has to assess the nature, degree and duration of exposure.

Although many of the agents listed in the Directive are contained in tobacco smoke, no mentioning is made of tobacco smoke as a potential health risk for pregnant women and the breastfed newborn child.

4. Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work (65)

This Directive incorporates the former Council Directive 83/477/EEC of 19 September 1983 (66) on the protection of workers from the risks related to asbestos exposure at work. The Directive provides binding exposure limits for inorganic lead and its compounds. Lead has been classified toxic for reproduction of humans.

Similarly to Directive 90/394/EEC (see above), the Directive establishes the obligation to designate smoke-free areas. Thus, although both of the Directives on hazardous chemicals (90/394/EEC and Directive 98/24/EC) impose restrictions on smoking in the workplace, these restrictions are valid only in conjunction with other hazardous chemicals and are not based on the health hazard of tobacco smoke itself.

3.2 Applicability of EU-legislation to smoking bans in the workplace

When the various directives on safety and health in the workplace were conceived in the late 1990s, ETS was not recognized as serious health hazard. Hence, the only explicit mentioning of the impact of ETS on the health and safety of workers is that of “discomfort” due to passive smoking in rest areas (Directive 89/654/EEC). Tobacco smoke in the workplace merely was assumed to increase the health risk posed by toxic and carcinogenic compounds arising at work and thus only banned in areas where workers were exposed to such substances (Directive 98/24/EC and Directive 90/394/EEC).

Within the last decade, a large number of authoritative national and international scientific bodies have established beyond doubt that ETS is a highly toxic pollutant and a human carcinogen (Table). This calls for a new interpretation and an amendment of the pertinent EC Directives on workplace safety and health.

The most logical option for the inclusion of ETS into legislation related to workplace safety is Directive 90/394/EEC which is concerned specifically with the protection of workers from risks related to the exposure to carcinogens at work. However, such an approach is barred by the fact that the European health and safety legislation dealing with the protection of workers against hazardous chemicals covers only substances and preparations which arise at work, i.e. are used during or generated as the result of production processes. Although many of the carcinogens contained in ETS fall into this group of chemicals, the mixture does not qualify as something arising from work in the narrow sense of the text of the directive.

The second option for establishing Europe-wide smoke-free workplaces is Directive 89/654/EEC which is more broadly concerned with minimum safety and health requirements in the workplace. As pointed out above, the directive bans smoking in rest rooms of workplaces to protect non-smokers from discomfort caused by tobacco smoke” (Annex I, 16.3). The provision clearly shows that ETS falls under the jurisdiction of the Directive.

Furthermore, Directive 89/654/EEC calls for “*sufficient fresh air in enclosed workplaces*”. It does not further specify what “fresh air” means. However, the preliminary note of the Annex indicates how the term should be interpreted. According to the note, “*the obligations laid*

down ..(..). apply whenever required by the features of the workplace, the activity, the circumstances or a hazard.” “Fresh air” apparently refers to air free of hazardous pollutants. In view of the fact that ETS is one of the most dangerous indoor air pollutant, the directives’ requirement for fresh air makes it mandatory to ban ETS from indoor workplaces.

Such considerations also have arisen from within the Commission. When consulting the social partners, the Commission expressed the opinion that the Framework Directive obliges the employer to assess the risks to safety and health at work and stated that “*therefore, passive smoking should be considered in the risk assessment and appropriate preventive measures implemented, if necessary.*” The Commission went a step further and formed a link to the daughter directives pointing out that “*several health and safety at work directives include provisions on ventilation and sufficient fresh air in enclosed workplaces*” including Directive 89/654/EEC.

The provisions of 89/654/EEC also have to be interpreted according to the principles of the Framework Directive 89/391/EEC (cf. Article 3 of Directive 89/654/EEC). As noted above, the Directive Directive 89/391/EEC establishes the obligation that “*the employer shall have a duty to ensure the safety and health of workers in every aspect related to work*”. It is apparent that ETS must be considered as an agent which constitutes a health threat in the workplace.

In conclusion, the existing directives, in particular Directive 89/654/EEC, clearly provide the legal framework for smoke-free workplace policies. In fact, Directive 89/654/EEC could readily be interpreted to involve the health hazards caused by tobacco smoke. It might even be argued that the provisions of the Directive already suffice to effectively protect non-smoking employees from tobacco smoke in the workplace and, hence, the introduction of amendments is unnecessary. However, this argument can not be subscribed. The interpretation that “fresh” air means air devoid of tobacco smoke is not generally accepted but remains subjected to conflicting interest. It has repeatedly been a major contentious issue in German courts deliberating on non-smokers’ protection in the workplace (cf. section 2.1, ref. 20, 21, 67). In France, the Supreme Court reached as recently as June 2005 a verdict that employers have the obligation to ensure that the air breathed by their employees is free of tobacco smoke (68).

Thus, it is essential that the directives should be amended to explicitly refer to the health hazard of tobacco smoke and to provide the basis for protection from tobacco smoke. Such an amendment could be made, for example, by introducing minor changes in the wording of Annex II, 11.3 of Directive 89/654/EEC, i.e. in its stipulation that “*in rest rooms and rest areas appropriate measures must be introduced for the protection of non-smokers against discomfort caused by tobacco smoke.*” The provision might be rephrased by deleting the reference to “rest rooms and rest areas” and replacing the term “discomfort” by the term “health hazard”. The new provision would then read: “*Appropriate measures must be introduced for the protection against the health hazards of tobacco smoke*”. In addition, as pointed out above, “fresh air” (Annex I, 6.1 and Annex II 6) has to be specified as air free of tobacco smoke.

3.3 Need for recognizing the health hazard of passive smoking

As indicated above, the current EU-legislation for the protection from ETS in the workplace rests on scientific evidence which is out-dated. Clearly, the impact of ETS can no longer be viewed merely as a nuisance entailing “discomfort” as stipulated in the key Directive 89/654/EEC, but ETS has to be considered as a cause of disease and death.

Having taken notice of the emerging scientific consensus on the health hazard of ETS, the governing bodies of the EU have considered the issue in various manners:

- In 1998, the Commission approached all member States about the potential classification of ETS as carcinogen in the workplace (69). At the time, some Member States were evaluating the classification issue but none had designated ETS as carcinogen in the workplace, yet. According to the Commissions' report, France had not formally made such a classification, but the French Academy of Medicine had already published a report which substantiated the necessity for a ban of smoking in public places (70). Portugal thought it worth to consider the classification of ETS as carcinogen in the workplace due to the scientific evidence of the role of tobacco smoke in carcinogenesis. The most proactive response came from Spain. The Spanish government stated that it would welcome an effort by the Community to classify tobacco smoke as a carcinogen in the workplace (71).
- In 2002, the Council issued the recommendation that "*Member States should aim to protect smokers and nonsmokers from environmental tobacco smoke*" and substantiated this call with "*the health risks associated with passive smoking*" (72).
- Recently, the EU Parliament took up a call by Member States in encouraging the Commission "*to designate environmental tobacco smoke a class 1 carcinogen*" (73).

Thus, apparently all three EU institutions, Commission, Council, and Parliament are acting under the assumption that exposure to ETS poses a serious health risk, including the risk of cancer. However to date, there is no official recognition of this fact by the Community.

Since the EU Community has made a general commitment to base its actions on the current state of scientific and technical knowledge and to act on a high level of health protection, the recognition that ETS causes serious health effects appears to be a matter of course.

There is another urgent reason for the Community to move forward in re-assessing the health risk of ETS. Most recently, the Community ratified the WHO Framework Convention on Tobacco Control (FCTC) (74). In doing so, it signaled its readiness and commitment to recognize ETS as a deadly risk factor. In Article 8, the parties to the Convention are required to recognize "*that scientific evidence has unequivocally established that exposure to tobacco smoke causes death, disease and disability*" implying that this is a precondition for taking protective measures against ETS.

In view of the overwhelming evidence that ETS poses a serious health threat, the Commission may adopt the consistent conclusions of the many official expert bodies.

4 Conclusions and prospects

Over the past two decades, the great majority of EU Member States has adopted voluntary codes of practice and/or statutory regulations which restrict or ban smoking in the workplace. However, these codes and regulations have rarely been comprehensive. Furthermore, compliance with the smoking restrictions in the workplace has been – and is - rather poor in many Member States. As a consequence of this, millions of employees throughout the EU are still exposed to tobacco smoke at work.

In recent years, considerable efforts have been made to strengthen smoke-free workplace legislation in the EU. These efforts have been successful in a number of Member States such as Germany, Finland, Ireland, Italy or Sweden. Other Member States such as Spain, UK and France are in the process of establishing, or substantially improving, comprehensive smoking bans in the workplace.

As delineated above, the official recognition of ETS as a cause of disease and death has been an essential element for strengthening legislation on non-smokers protection at work in Germany, Finland and Ireland. This recognition effectively advanced smoke-free workplace

legislation not only under conditions where virtually no such regulation existed at the time, as for instance in Germany, but also under conditions where far-reaching regulations on smoke-free workplaces had already been firmly established, such as in Finland.

The way by which the official recognition of the health danger of ETS was achieved differed considerably between Germany, Finland and Ireland. In Germany, the scientific assessment of ETS was made by a non-governmental commission (MAK-Commission), in Finland by an advisory body to the government (KATA), and in Ireland by an ad hoc expert committee. Similarly, the incentive and mandate for assessing the toxicity of ETS came from different institutions. In Germany, it came from within the MAK-Commission, in Finland from the parliament, in Ireland from the government. Irrespective of their mandate, the scientific expert bodies in the three countries basically reached the same conclusions regarding the health hazards of ETS. Tobacco smoke in ambient air was assessed to be hazardous, in particular, carcinogenic to humans. This assessment placed ETS into the domain of hazardous air pollutants in the workplace. It ruled out that ETS could be considered a mere “nuisance” or “discomfort” any longer and eliminated a source for previous weak and ambiguous regulations of smoking in the workplace.

The classification of ETS as human carcinogen was transposed differently into national legislation in Finland, Germany and Ireland. In Finland, ETS was included into the list of occupational carcinogenic substances and regulated as such. In Germany and Ireland provisions for protection from ETS were incorporated into the Workplace Ordinance and Public Health Act, respectively. The effectiveness of the statutory measures taken by the three countries was less a consequence of the national legal framework than of each country’s determination to implement and enforce these measures.

Taken together, the official recognition of ETS as a serious occupational health hazard proved to be instrumental in promoting smoking restrictions or smoke-free workplaces independently of the manner by which this recognition was obtained and transposed into national law and independently of the initial extent of smoking restrictions in the workplace.

Contrary to its progress in several EU Member States, smoke-free workplace legislation at the EC level has been stagnant for the past fifteen years. When the EC directives on occupational safety and health were conceived in the late 1980ies, passive smoking was widely considered to cause not more than “discomfort”. Thus, the EC workplace legislation did not contain any specific provisions for the protection from exposure to ETS except for a smoking ban in rest areas. As pointed out above, once ETS was recognized as a serious health threat, EU Member States reacted by amending their workplace regulations which are largely based on EC directives on occupational safety and health. So far, the EC has made no efforts to follow suit.

There are two EU directives which might offer a suitable template for the incorporation of smoke-free workplace provisions, Directive 90/394/EEC and Directive 89/654/EEC. The equivalent of both EU-directives in national legislation has been used for introducing appropriate amendments (see above). Directive 90/394/EEC on carcinogens at the workplace is not a realistic option, since according to EC specifications only substances arising from work qualify as occupational carcinogens. However, Directive 89/654/EEC appears to be a perfect choice. It requires that workers have to be protected against hazards in every aspect related to work. In addition, the Directive already contains some provisions on smoking in the workplace.

There is no doubt that ETS constitutes a severe health hazard. Thus, the Commission, the Council as well as the Parliament have based their recent queries and recommendations in respect to smoke-free workplaces on the assumption that passive smoking involves a serious health hazard. Yet, to date this hazard has been recognized by the governing institutions of the Community only in an indirect way. What is urgently needed, now, is the official recognition

by the Community that ETS is a cause of severe disease and death in order to enable the inclusion of ETS into the “hazards” under regulation by Directive 89/654/EEC.

A new incentive for the EC to strengthen its smoke-free workplace legislation stems from the ratification of the FCTC by the Community. A core component of the Convention consists of the requirement to promote the protection from exposure to ETS. Both the Guiding Principles (Article 4) and the General Obligations (Article 5) of the Convention require effective legislation for the prevention of exposure to ETS. The Guiding Principles explicitly state that strong political commitment is necessary at an international level for protecting all persons from exposure to tobacco smoke. Article 8 further delineates the specific requirements for this protection. It calls for an active promotion of legislative measures at the appropriate jurisdictional level to provide for the protection from exposure to tobacco smoke, among others, in indoor workplaces.

Taken together, the prospects for achieving EU wide protection of workers from tobacco smoke in the foreseeable future are promising. The Commission has a general mandate to assure a high level of safety and health in the workplace and a specific mandate to regulate smoking at work. An addition, by ratifying FCTC, the Commission has made a firm commitment for the protection from tobacco smoke in indoor workplaces. Under these conditions, the two major steps forward to approach smoke-free workplace legislation in the EU, i.e. the official recognition of ETS as serious health hazard and the appropriate amendment of a Directive on occupational safety and health, have a good chance to succeed.

It is timely for the Community to strengthen and harmonize the regulation of smoke-free workplaces and to once again take a lead in occupational safety and health legislation in the EU.

5 Recommendations

Millions of employees are exposed against ETS at work and thousands of them die early because of their passive smoking during working hours in the EU. To protect employees from this grave health risk,

1. EU Member States should take immediate action to
 - a. recognize ETS as carcinogenic to humans and a serious health hazard in the workplace
 - b. adopt legislation banning smoking in all workplaces,
provided that they have not been done this, yet.
2. The EC should fulfill its commitment to FCTC and the obligation to base its legislation on the state of scientific knowledge, to take action analogous to the EU Member States and
 - a. recognize ETS as a carcinogenic agent in the workplace
 - b. legislate smoke-free workplaces, e. g by amending a directive on safety and health requirements in the workplace such as Directive 89/654/EEC.

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1992	US Environmental Protection Agency (EPA)	Respiratory Health effects of passive smoking (76)
1994	US Occupational Safety and Health Administration (OSHA)	Indoor Air Quality (77)
1997	California Environmental Protection Agency (California EPA)	Health effects of exposure to environmental tobacco smoke (78)
1997	Australian National Health and Medical Research Council	Health effects of passive smoking (79)
1998	Report of the Scientific Committee on Tobacco and Health (SCOTH)	Environmental tobacco smoke (80)
1999	Finnish Scientific Committee on Health Effects of Chemicals (KATA)	
2000	US National Institute of Health (NIH)	9th Report on Carcinogens (81)
2001	Working Group of the French Director General for Health	Passive smoking (82)
2002	Working Group of the Irish Health and Safety Authority and Office of Tobacco Control	Health effects of environmental tobacco smoke (ETS) in the workplace (83)
2002	International Agency for Research on Cancer (IARC)	Tobacco smoke and involuntary smoking (84)
2003	Health Council of the Netherlands	The impact of passive smoking on public health (85)
2005	California Environmental Protection Agency (California EPA)	Proposed identification of environmental tobacco smoke as a toxic air