

RESEARCH PAPER

German tobacco industry's successful efforts to maintain scientific and political respectability to prevent regulation of secondhand smoke

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Objective: To examine the tactics the tobacco industry in Germany used to avoid regulation of secondhand smoke exposure and to maintain the acceptance of public smoking.

Methods: Systematic search of tobacco industry documents available on the internet between June 2003 and August 2004.

Results: In West Germany, policymakers were, as early as the mid 1970s, well aware of the fact that secondhand smoke endangers non-smokers. One might have assumed that Germany, an international leader in environmental protection, would have led in protecting her citizens against secondhand smoke pollution. The tobacco manufacturers in Germany, however, represented by the national manufacturing organisation "Verband" (Verband der Cigarettenindustrie), contained and neutralised the early debate about the danger of secondhand smoke. This success was achieved by carefully planned collaboration with selected scientists, health professionals and policymakers, along with a sophisticated public relations programme.

Conclusions: The strategies of the tobacco industry have been largely successful in inhibiting the regulation of secondhand smoke in Germany. Policymakers, health professionals, the media and the general public should be aware of this industry involvement and should take appropriate steps to close the gap between what is known and what is done about the health effects of secondhand smoke.

Secondhand smoke poses a serious problem for the tobacco industry because as public awareness about its detrimental health effects increases, the demand for smoke-free indoor air laws increases, contributing significantly to reductions in smoking and revenues.^{1,2} In West Germany, policymakers were, as early as the mid 1970s, aware of the fact that secondhand smoke endangers non-smokers. In addition, public opinion polls conducted in Germany have consistently demonstrated strong support for government restrictions of secondhand smoke. Therefore, one would expect that Germany, an international leader in environmental protection with a history of strong science and public support for a clean environment, would have led in protecting her citizens against secondhand smoke pollution. Rather, science supporting detrimental health risks associated with smoking has been successfully distorted by the tobacco industry in Germany³ and the federal government of Germany has historically supported tobacco interests.⁴ This discrepancy between public opinion and policy is a victory for the tobacco industry in Germany. As of 2005, there was no general law creating smoke-free public places and workplaces and implementation of rarely enforced nominal controls is left to individual entities and institutions.

The issue of secondhand smoke had emerged in Germany well before it did in the United States (where there was subsequently more progress on creating smoke-free workplaces, public places, and homes). The term for sidestream smoke, "Nebenstrom", had been coined in Germany in 1909⁵ and the hypothesis that secondhand smoke damages human health was first advanced in Germany in the late 1920s by Fritz Lickint.^{1,6} Still, the German tobacco industry has been successful in preventing the translation of research into effective public health policy.

As far back as 1968, two representatives of a German cigarette manufacturer wrote a letter to Frank Colby of

Reynolds Tobacco (RJR), later associate director of scientific issues, in America regarding "danger to nonsmokers by nicotine"⁷ because of the potential inclusion of nicotine into a list of toxic compounds published annually by the German MAK-commission (Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe) that provides the scientific foundation for workplace health protection from toxic substances. The MAK-commission, while not a government agency, is usually an influential voice affecting government policy. It is a commission of the German Research Foundation (Deutsche Forschungsgesellschaft), the central, self-governing research organisation that promotes research at universities and other publicly funded institutions in Germany. The MAK-commission's recommendations are supposed to be taken into account through the government commission called the Committee on Hazardous Substances located in the Federal Agency for Occupational Health and Safety and Occupational Medicine.

The MAK-commission discussed smoking in the workplace on 10 October 1969 in response to an enquiry from the Federal Minister of Occupation⁸ and recommended restricting smoking in the workplace.⁹ Despite this early awareness and concern about secondhand smoke in Germany, the tobacco industry successfully inhibited tobacco regulation in Germany for decades by means of carefully planned collaboration with selected scientists and policymakers and a sophisticated public relations programme.

The tobacco industry in Germany is represented by the Verband der Cigarettenindustrie^{10,11} (Verband), the National Manufacturing Association. The Verband was founded in 1948 and reorganised in 1954 to include 10 multinational and national tobacco companies. The 1954 reorganisation occurred the same year as US tobacco manufacturers founded the Tobacco Institute to represent their political interests and the Tobacco Industry Research Committee (later renamed

Council for Tobacco Research) to influence the scientific community and to support the public relations claims that they were addressing the “smoking and health controversy”.¹² In Germany, these two functions, political and scientific, were carried out in a single organisation, the Verband.

The MAK-commission’s and the federal government’s proposals (discussed below) of the early 1970s alerted the Verband to the threat of passive smoking before the multinational companies considered it seriously. Understanding that secondhand smoking was *the* crucial issue for their viability, the tobacco industry in Germany, the Verband promptly acted long before the German government and the main German voluntary health agencies, leading to the industry’s success in preventing government action to protect German citizens from the toxic chemicals in secondhand smoke. Indeed, as of 2005, none of the major voluntary health agencies in Germany had continuously made secondhand smoke a major topic.

METHODS

Between June 2003 and October 2004, we searched the following tobacco industry document sites, made available as a result of litigation in the United States: (1) the University of California San Francisco Legacy Tobacco Documents Library (www.legacy.library.ucsf.edu); (2) Philip Morris (<http://www.pmdocs.org>); (3) British American Tobacco (www.bat.library.ucsf.edu); and (4) Tobacco Documents Online (www.tobaccodocumentsonline.org). Initial search terms included “German*”, “Secondhand smoke”, “ETS” (environmental tobacco smoke, the tobacco industry’s acronym for secondhand smoke) and their German equivalents, including misspellings. Further searches included organisations, names, and events, such as: “Verband (der Cigaretten-industrie)” and “VdC” (acronym for the Verband), “Bundestag” (lower house of German Parliament) and “DEHOGA” (German Hotel and Restaurant Association). We followed up with detailed searches on organisations, institutions and individuals that were identified in the initial searches. Standard, widely accepted document search strategies were used to acquire reliable data within the tobacco collections and case methodology typically used in documents research including the dependence upon triangulation of findings was relied upon for analysis of retrieved data.¹³

Secondary source materials included media (newspaper and magazine) reports, scientific papers, governmental agency reports, original reports of surveys discussed in this paper, and personal archives that were made available to the authors.

Three interviews were conducted by one of the authors (AB) with individuals who were either part of the public health administration throughout some of the time periods reported about and were in positions that dealt with the topic of secondhand smoke (Rudolf Neidert, an employee of the Federal Health Ministry until the 1990s, and Burkhard Junge, an employee of the then-existing Federal Health Office), and with Ernst-Günther Krause, the vice president of the German Nonsmokers Initiative, who has been active in smoke-free issues since the early 1980s. The data from these interviews were used to provide additional context on industry activities that had been identified in the documents as well as to identify issues, events and materials that did not appear in the documents. Interviews were conducted with key informants in accordance with a protocol approved by the University of California Committee on Human Subjects.

The German language documents were translated by one of the authors (AB), and the English language documents are quoted verbatim.

RESULTS

The results are presented in the text thematically; table 1 presents a timeline of key events. All events and reference to government bodies, cigarette companies, other institutions and survey data refer to West Germany before German reunification in 1990.

Secondhand smoke emerges as a public issue in Germany

Other than the MAK-commission, the first indication of high level political concern about the detrimental effects of secondhand smoke came in the answer to a December 1973 brief parliamentary enquiry made during the debate about the revision of the German Food Law.¹⁴ The government answer in May 1974 identified the protection of non-smokers as an urgent issue:

...there are justified claims for a comprehensive protection of nonsmokers, because it must be assumed with ample certainty that the health damages which are established in smokers can, in weakened form but fundamentally the same, occur also by “passive smoking. ...Although the data on the real danger of “passive smoking” is insufficient as of yet, a conclusion by analogy must be permitted that this danger is real. The federal government does not have to act on the assumption of an abstract notion of danger, the concrete danger can be taken for granted. It would be irresponsible to wait until a “rash” of sick persons, people incapable of working and dead can be exhibited that fell victim to passive smoking.¹⁵

In June 1974, the Bundestag Committee for Youth, Family and Health requested that the Bundestag use the adoption of the revised food law as an occasion to begin to address protecting non-smokers from secondhand smoke. The Bundestag (lower house) passes federal laws, many of which need approval by the Bundesrat (upper house) in which the federal states of Germany are represented. The German Chancellor heads the government. In response to a resolution passed by one of its committees, the Bundestag passed a resolution calling on the federal government to prepare a comprehensive programme for “protecting the health concerns of nonsmokers in the different settings of life”.¹⁶ For the mid 1970s, this was a very progressive statement.

In early 1975, another brief parliamentary enquiry about the consequences of cigarette smoking was submitted to the government by several deputies. Referring back to the government’s 1974 response, the deputies included questions about the effects of smoking during pregnancy and on children exposed to tobacco smoke by their parents as well as several questions about improving the protection of non-smokers. The government responded¹⁷ that smoking during pregnancy is harmful for the unborn and that children exposed to parents’ tobacco smoke suffer respiratory diseases twice as often as children of non-smokers. The response further reinforced the earlier notion that the non-smoker is exposed to an “additional environmental burden” which would justify preventive measures and referred to the pending programme for the protection of non-smokers.⁹ The federal government failed to carry through with meaningful action; it was not until 1978 that a programme for the protection of non-smokers was released.¹⁸

Beginning in the 1970s, protecting non-smokers was also a central theme of the Medical Action Group on Smoking or Health, the only non-governmental organisation (NGO) in Germany active in the field at the time. Founded in 1971 by medical scientist and director of the Research Center for Preventive Oncology in Mannheim, Ferdinand Schmidt, the

Table 1 Key events and players related to secondhand smoke in Germany

Year	Scientific and public health	Tobacco industry	German government
1909	The term for sidestream smoke, "Nebenstrom," is coined in Germany		
1929	Fritz Lickint published the first formal statistical evidence linking tobacco and lung cancer		
1948		Verband der Cigarettenindustrie formed by domestic German tobacco companies	
1954		Verband expanded to include multinational tobacco companies	
1968–1969	MAK-commission recommends restricting smoking in the workplace in response to enquiry from Federal Minister of Occupation	German cigarette manufacturers correspond with Frank Colby of RJR regarding secondhand smoke and threat of nicotine's inclusion in list of toxic compounds	
1971	Inclusion of nicotine into list of toxic compounds discussed Medical Action Group on Smoking or Health (NGO) (founded by Director of Research Center for Preventive Oncology in Mannheim, Ferdinand Schmidt); calls for statutory protection of non-smokers		
1973–1974	Medical Action Group on Smoking or Health organises the first German Nonsmokers Conference	Tobacco industry frames Schmidt's work as "peculiar" working through third parties and medical journals; attacks continued into the 1990s	First indication of high-level political concern about secondhand smoke; identified protection of non-smokers as urgent during debate about revision of German Food Law. The Bundestag passed a resolution to have the federal government prepare a comprehensive programme for the protection of non-smokers, but did not follow through with meaningful action
1975		Verband published a SHS brochure (1.3 million copies) designed to "prove" that passive smoking did not damage health of non-smoker	North Rhine-Westphalia (federal state) issued decree to protect non-smokers in public offices, but onus rested on non-smoker to request tobacco-free air
1976		Verband began distributing regular informational leaflets to the press promoting tobacco-friendly information on smoking and health	
1977–1978		The industry arranges for the health effects of passive smoking to be debated at a Munich scientific conference, which concludes that SHS was not harmful and warranted no legislation	A programme for the (voluntary) protection of non-smokers is released by German Health Minister. This programme replaced an actual law drafted in the mid-1970s based on the industry-sponsored conference's SHS conclusions. The government stated that it did not deem legislative protection of non-smokers necessary at this time
1980	A MAK commission member suggested adding SHS to the MAK list; Chairman Henschler, recipient of RJR research funds in the late 1970s, did not support this request	Verband PR efforts reached over one billion copies and successfully reached the press, politicians and scientists	The federal state of Baden-Württemberg approved a non-smoker protection plan containing measures related to work, public transport and public institutions. This plan gave the non-smoker some freedom to insist his or her employer take action to prevent detrimental health effects related to tobacco, but there was no active enforcement
1981	White and Froeb (in the USA) publish the first study showing that secondhand smoke adversely affected pulmonary function in healthy non-smokers. This paper was the first evidence that SHS harmed adults	RJR's Associate Director of Scientific Issues, Frank Colby, reported he had reasonably reliable, very confidential information that the German government was prepared to condemn implications of the White and Froeb study	When asked if passive smoking would cause lung cancer in non-smokers, the Health Ministry's spokesman suggested epidemiological research did not support this assertion
1982	Secondhand smoke linked to lung cancer by Hirayama	The German industry organises a scientific conference on public smoking because of the government's endorsement of White and Froeb's study	A report in drafting form available from one of the Divisions of the German Health Ministry endorsing White and Froeb study's findings on SHS and adverse health effects
1983		Verband published a full-page advertisement in the Stern attacking Hirayama's findings on lung cancer	
		Verband contracts with Karl Uberlind's private research institute, GIS, to do a study on passive smoking and lung cancer	
		At a National Manufacturing Organizations meeting held in Washington DC, Verband discusses importance of passive smoking to industry's PR	Federal Ministry of Health sets up a working group on smoking-related cancer risks to advise the federal government; at least 5 of 24 invited members had worked for or received funds from the Verband

Table 1 Continued	Scientific and public health	Tobacco industry	German government
1985	The MAK-commission concludes that a cancer risk should be assumed due to SHS's mixture of carcinogenic substances, but only recommended preventive measures in heavily contaminated workplaces; while SHS was included, it was not formally declared an occupational substance US Surgeon General's Report, The Health Effects of Involuntary Smoking, released	Verband considers taking legal steps against the inclusion of SHS into the MAK-list; instead works to classify SHS under a less conspicuous section	Working group on smoking-related cancer risks supports the government's attitude that modification of the non-smoker's protection programme was unnecessary based on lacking proof of the carcinogenic effects of smoking in the MAK list's outlined text
1986			
1987–1990	Ferdinand Schmidt, chairman of the Medical Action Group on Smoking and Health, reproaches the federal government for failing to protect non-smokers; he attributes this failure to tobacco industry opposition SHS was considered a health hazard by a greater proportion of the West German population than the US population and 49% of the German population favoured government-regulated smoking restrictions in public places	Verband board meeting (1990) minutes show government action plan had deleted strong guidelines in earlier drafts, instead recognising industry's contribution to smoking reduction through product modification Verband plans a major PR offensive on secondhand smoke with political intervention since it realised SHS was widely understood as a risk German industry acknowledged its successful positioning through PR and political lobbying. American intransigence message believed to be working well as an argument against tobacco control in Europe Managing Director of the Verband suggests that Germany is the only scientific community that has held open the question of health hazards and smoking when the damage is doubtless, and this is thanks to Verband scientific director Adlkofer and the collaboration of industry and science	Government paper summarising action plan for promotion of non-smoking underway (1987) is watered down over several drafts and quietly released with weak recommendations and no mention of federal government (issued as a paper of the Federal Ministry of Health)
1991			
1994			Forty one Bundestag members draft a bill for federal non-smoker protection legislation. It receives mostly negative press and does not pass in spite of popular support
1998	After an industry-influenced delay, the MAK-commission places SHS in category A1. "Substances which are definitely carcinogenic to humans and which can be expected to contribute substantially to cancer risk." The German Nonsmokers Initiative reports in a press release that Burke AG, the survey institute which conducted a poll showing over three-quarters of Germans did not want new legislation, had close links to the Institute of the German Industry which produced the economic study claiming the bill would hurt the economy. The Nonsmokers Initiative also suggested the poll results were in stark contrast with all other surveys carried out on the subject	The Verband's submission of new data and Adlkofer's influence achieved a success for the tobacco industry through the postponement of a vote by the MAK-commission on SHS's revised placement in the MAK-list Results were released in a major German newspaper less than a month before a final parliamentary vote from a study commissioned by the tobacco industry suggesting the cost to German businesses of a law to protect against smoking would be 33 billion (US \$16 billion) A 1998 survey is published reporting that over three-quarters of Germans did not want new legislation	The final vote on a federal non-smoker law is defeated on 5 February 1998, before the MAK-commission's vote regarding the revised placement of SHS in the MAK list, originally slated for January 29 before an industry-influenced delay
2001–2002		At a Verband Science and Industry Policy Committee meeting, Verband representatives expressed pleasure over the fact that SHS was no longer a pressing topic in Germany The law represents a victory for the tobacco industry, as the government can claim the issue of smoking has been addressed without requiring major changes in the status quo	A weak ordinance nominally providing workplace protection was passed after failed attempts at comprehensive non-smoker protection in two previous parliamentary sessions No meaningful programme to promote implementation of the revised workplace law in existence
2005			
RJR, RJ Reynolds; SHS, secondhand smoke.			

group called for the statutory protection of non-smokers in its programme against smoking in 1972¹⁹ and organised the first German Non-smokers Conference in 1974. The group gave legal assistance to non-smokers going to court; attempted to reveal links between the tobacco industry, science, and politics; issued publications for public and professional audiences on the health risks of secondhand smoke; and called for the government to issue an emergency programme against smoking.^{20, 21} The tobacco industry, by way of representatives or medical journals, responded by framing the work of Ferdinand Schmidt as peculiar.²² The industry's attacks continued into the 1990s and were successful at marginalising Schmidt in the eyes of government health administrators.

Government action for the protection of non-smokers

At the state level, several ordinances were passed in the 1970s. A 1975 decree issued by the federal state of North Rhine-Westphalia protected non-smokers in public offices, acknowledging the danger from tobacco-related toxic substances for both smokers and non-smokers.²³ The decree, however, was a non-binding recommendation as the onus of requesting tobacco-free air rested on the non-smoker, so did not carry great potential for change. The German Health Minister's 1978 programme for the protection of non-smokers was similarly non-binding. A report on secondhand smoking-related Verband activities at a September 1983 meeting in Washington DC of several National Tobacco Manufacturing Associations revealed that this programme replaced a law on the protection of non-smokers which had apparently been prepared by the government in the mid 1970s:

In 1974 the German Federal Government had to answer a Parliamentary Question on the health effects of cigarette smoking. It was no surprise to the insider that as a by-product passive smoking had also been dealt with at some length..... The German cigarette industry, of course, could not let this dangerous development simply go on. *Since there were most alarming signals from inside the Health Ministry that a draft law on nonsmokers' protection was in preparation the industry decided to have the issue of passive smoking debated on a high level scientific conference in Munich in 1977. ... As a result it was confirmed that passive smoking was not harmful to the nonsmoker and hence no special legislative action was needed.* This result did impress the Health Ministry. *The intended law was changed into a programme of mere recommendations with no binding effects.* Even in its political language the government abandoned its former position. When asked in 1980 whether passive smoking would cause lung cancer in nonsmokers the Health Ministry's spokesman in Parliament answered that the actual state of epidemiological research did not support such a relationship.²⁴ [emphasis added]

The 1978 programme drafted jointly by federal and state level ministries responsible for health and forwarded to the Bundestag by the Federal Minister for Youth, Family and Health dropped several important passages adopted earlier by the Permanent Working Group on Drugs, including in particular: "the regulation of smoking in public places for the protection of the nonsmoker is not only possible but it is the duty of health protection agencies of the government."²⁵ Instead, the government reiterated the tobacco industry's framing of the issue:

Any governmental interventions limiting the citizen's rights to develop his own personality in the form of general bans are only justified in restricted cases. A general ban on smoking, however, is not in line with the appropriateness of means. The smoker's and nonsmoker's personal rights should be weighed against one another.¹⁸

The government did not propose any new legislation or additional financial resources. Voluntary measures were given priority over clear regulations. This position represented a substantial retreat from statements made four years earlier.

The lack of any call for statutory measures to protect non-smokers at this time does not appear accidental. The federal government's departure from legislative support to protect non-smokers was revealed in its response to a parliamentary enquiry submitted in 1978 about the scientific evidence on health hazards of secondhand smoke and what subsequent legislative measures would be necessary on the basis of this evidence.²⁶ The government's answer reflected standard tobacco industry rhetoric common in the United States and elsewhere:

The federal government does not deem legislative measures for the protection of nonsmokers as necessary at present. The program for the protection of nonsmokers, which has been drawn up by the federal government together with the federal states and which will be forwarded to the Lower House of the Federal Parliament shortly, contains numerous measures for the improvement of the protection of nonsmokers, *in which the education of smokers and the appeal to reason and voluntary consideration with regard to nonsmokers are in the foreground.*²⁷ [emphasis added]

Even as evidence against secondhand smoke accumulated, the federal government continued to minimise its effects. In 1980, the associate director of scientific issues at RJ Reynolds (RJR) in the United States who had earlier received correspondence from a German cigarette manufacturer's representatives regarding nicotine as a possible toxic (1968), Frank Colby, reported that he had:

...reasonably reliable, VERY CONFIDENTIAL information that the present German Government is ready to publicly condemn the implications of the White and Froeb study [the first study showing that secondhand smoke adversely affected pulmonary function in healthy nonsmokers]²⁸ in response to inquiries from the German Parliament. [emphasis in original]²⁹

Possibly linked to the release of the 1986 US Surgeon General Report, "Health consequences of involuntary smoking",³⁰ a government paper summarising an "action program for the promotion of non-smoking" was underway in Germany in early 1987 to discuss planned government activity.³¹ The action programme originally was to be issued by the federal government under Chancellor Helmut Kohl.³¹ However in 1990, when it was quietly released on World No Tobacco Day, it carried the name of the Federal Health Ministry and made no mention of the federal government.³² The Health Ministry did not even hold a press conference to promote the report publicly.³¹

The 1990 programme, which did not represent a substantial step forward compared to existing voluntary measures, solely consisted of the brief presentation of an educational campaign targeted at adolescents and recommendations on tobacco cessation, self-regulation of access to

tobacco products, protection of non-smokers, tobacco advertising, and warning labels. Consistent with the ministry's practice of minimising the dangers of secondhand smoke, it only said, "[I]nvoluntary inhalation of tobacco smoke – passive smoking – is for heavily exposed nonsmokers not only an annoyance, but a health risk that needs to be taken seriously; on this there has been, in recent years, a great increase in the evidence [emphasis added]."³² The programme repeated the existing weak policies following standard tobacco industry rhetoric³³ and suggested establishing smoking zones with "adequate" ventilation. Even these

weak recommendations did not specify who would be responsible for implementation.

The minutes of a Verband board meeting in August 1990 indicate that the programme had been weakened considerably,³⁴ deleting earlier drafts' recommended tax increases and provisions to limit easy access to tobacco products (table 2).³⁵ Rather than implementing strong guidelines to protect individuals from the dangers of smoking, the final programme recognised the tobacco industry's contribution to smoking reduction by way of product modification. Whereas it had been stated earlier that evidence of health damage

Table 2 Action programme for the promotion of non-smoking, 1990: provisions as proposed versus enacted

Topic/setting	Provision as originally proposed ³⁵ (draft 1988)	Provision as issued ³² (1990)
Educational campaign	Campaign promoting non-smoking was to run from 1987–1995, administered by the Federal Health education authority	Event festivals targeted at youth. Further target groups include health professionals, doctors, journalists, opinion leaders, teacher associations, labour unions, employer associations, etc
Youth access	No access for underage youth as a mid-term goal by way of "youth-proof" vending outdoor machines and giving up of sales to children and youth. Legislative regulations by way of law for the protection of youth, if voluntary measures do not prove sufficient	Voluntary measures, dialogue with the responsible associations (retailer, manufacturers of vending machines)
Protection of non-smokers	<p><i>Generally:</i> All rooms that are shared by smokers and non-smokers to become smoke-free Amendment of the workplace ordinance of 1975 yielding an explicit protection of employees against exposure to tobacco smoke Propagate smoke-free policies in homes, schools, health sector, businesses and administration</p> <p><i>Specific settings:</i> In governmental institutions with public access, smoking to be prohibited in waiting rooms. Smoking only allowed in separate areas On public transportation, the proportion of non-smoking seats shall be greater than the proportion of non-smokers in the population Health sector: In hospitals, smoking shall be prohibited for staff, patients and visitors in all rooms that are used by patients. In single rooms, smoking by staff is subject to personal decision (identical in both drafts) Talks with the hotel and restaurant association about recommendations to set up smokefree restaurants. In restaurants and cafes non-smoking-areas shall be provided at a ratio of 7:3 (in favour of non-smokers). Restaurant-law to be examined with view to whether a legislative frame is necessary.</p>	<p><i>Generally:</i> In implementing the EU resolution of May 1989 calling for smoke-free policies in public buildings, precedence shall be given to voluntary measures and specific individual regulations such as house rules or administrative guidelines.</p> <p><i>Specific settings:</i> In governmental institutions with public access, smoking prohibited in waiting rooms. As far as possible, smoking shall be allowed in separated rooms or areas On public transportation, seats shall be provided for non-smokers according to the proportion of non-smokers in the population Health sector: In hospitals, smoking shall be prohibited for staff, patients and visitors in all rooms that are used by patients. In single rooms, smoking by staff is subject to personal decision</p> <p>Talks with the hotel and restaurant association about recommendations to set up smoke-free restaurants, in connection with measures that encourage mutual tolerance. In restaurants, adequate ventilation, non-smoking areas or the like shall be pushed in order to minimise involuntary smoking of guests No mention about the precision of the workplace ordinance besides the suggestion that a reference could be included in the workplace ordinance to organisational possibilities of the employer, e.g. the spatial separation of smokers and non-smokers or the enactment of (graded) smoking bans Classroom health promotion and the exemplary development of non-smoking zones in schools and youth centres. Voluntary measures to achieve smoke-free schools, further regulations only if these do not work out Integration of cessation counselling into psychosocial counselling centres, development of special smoker counselling centres Pregnant women as special target group Voluntary measures have precedence over legislative restrictions Suggestions: The Ministry of Health will discuss with the associations in the tobacco business about: (1) extension of the existing self-regulations of tobacco advertising (restriction of advertising referring to youth, restriction of billboard advertising, especially around schools and youth centres) (2) renunciation of the joint advertisement for smoking/cigarettes in general (3) renunciation of give-away cigarettes (4) renunciation of cigarette advertising in cinemas before films that are adult (over 18 years old) rated The Health Ministry intends to select warning labels which express the risk and danger of smoking. It however declines exaggerated phrases such as "smoking kills" None</p>
Schools/youth centres	Smoke-free policies for schools and youth centres, abolition of existing smoking rooms for pupils in schools	
Cessation plans	Further and more targeted cessation plans, especially for pregnant women, including provisions for the modification of tobacco products to make them less harmful	
Tobacco advertisements	Stronger warning labels on tobacco products and on tobacco advertisements Further restrictions of tobacco advertisement, primarily by means of gradual elimination of tobacco advertising in the public space. If necessary, legislative measures in course of the EU harmonisation	
Warning labels	If necessary, legislative measures in the course of the EU harmonisation	
Tobacco tax, subventions	Tobacco tax raises and efforts to further reduce the subventions on European level for the growing of tobacco	

caused by secondhand smoke necessitated an effective protection of non-smokers in public institutions and workplaces,³⁵ secondhand smoke was not even mentioned in the programme's preface in 1990. The final 1990 version referred to secondhand smoke as simply a "risk that needs to be taken seriously".³² The programme was also targeted primarily at youth, one of the tobacco industry's favourite strategies used to promote the use of tobacco products as mature behaviour.^{36 37}

Before the programme was issued, the then-chairman of the Medical Action Group on Smoking and Health, Ferdinand Schmidt, reproached the federal government for failing to protect non-smokers, an outcome he attributed to tobacco industry opposition.³⁸

The Verband's public relations response

Strong public relations were critical to the Verband, which relied on a public relations committee (PR-Ausschuss, PRA) to "ensure that the public has a positive perception of the German cigarette industry."³⁹ The Verband quickly realised that the emergence of secondhand smoke as a public concern and subsequent governmental action for the protection of non-smokers represented a serious problem for the social acceptance of smoking.^{11 40} This concern was reflected in a presentation by a Verband employee at a 1983 meeting of National Manufacturing Organizations in Washington DC:

Ladies and Gentlemen, you all know the importance of the "Passive Smoking" issue for our prime PR-problem which is the social acceptability of smoking. The war declared on smoking and the tobacco manufacturers ... would become a deadly threat to the long-term survival of our industry if passive smoking could be proven a real health hazard.²⁴

The remaining presentation described the Verband's mid 1970s sophisticated covert public relations programme to shape science and policy to support industry needs.

In 1975, a brochure on secondhand smoke with a circulation of 1.3 million copies entitled "Passive Smoking – a documentation concerning the state of affairs on political discussion, jurisdiction and scientific knowledge of the topic of passive smoking" was published by the Verband and targeted medical journalists, leaders, members of parliament, and others in government.⁴¹⁻⁴³ The aim of the pamphlet was to prove "the scientific irrelevance of the thesis that passive smoking damages the health of the nonsmoker".⁴¹ Mirroring the same tactics as the US tobacco industry,⁴⁴ the Verband claimed that the brochure summarised the state of the art of scientific findings to facilitate a factual assessment of effects from secondhand smoke. The brochure, however, simply presented statements from high profile scientists who all had ties to the tobacco industry and frequently contested the evidence that secondhand smoke was dangerous to non-smokers.⁴⁵⁻⁴⁹ A number of press articles and two print magazines were also released and distributed by the Verband.^{41 50 51}

In 1976, the Verband founded its own leaflet press review, the "International Tobacco Science Information Service", to produce tobacco-friendly information on smoking and health. With a circulation of 1500 and a target audience of journalists, health officials, politicians and public opinion leaders, it reported every three weeks on research "favourable or at least neutral to the tobacco industry, but which the tobacco industry cannot directly say for themselves".⁵² To avoid suspicions that it might be sponsored by the tobacco industry, it was offered at a subscription price and its reports were disseminated under the acronym "iti".⁵³ At least three issues in the late 1980s included articles designed to indicate

that there was a controversy about the health dangers of secondhand smoke.⁵⁴⁻⁵⁶ The production of this kind of media material is an ongoing strategy of the tobacco industry in the United State and elsewhere.^{57 58}

Such Verband activities increased over time, and a report summarising governmental activities and Verband actions suggested that industry materials reached over one billion copies in 1977 and would be considerably higher in 1978.⁵⁹ These publications appear to have been successful for the tobacco industry in reaching the press, politicians, and scientists.^{52 60} As in other countries,⁵⁷ while the legitimate, peer reviewed scientific literature unequivocally documented detrimental health effects of secondhand smoke, industry-favourable coverage in the lay press gave the impression that there was still doubt as to the health risks of secondhand smoke. A 1989 document credited this industry-favourable coverage to the Verband's PR-program:

...a number of discussions with large German publishing houses which publish the most important daily papers, magazines and journals. *The industry urged the publishing houses to guarantee a more objective [i.e., supporting the industry position] reporting. These talks have had an obvious effect and reporting has changed in a positive respect.*⁶¹ [emphasis added]

The 1977 conference in Munich illustrates both the industry's effect on legislation and its successful public relations efforts. To mobilise public and political opinion against federal governmental action for non-smoker protection, the symposium entitled "Passive Smoking at the Workplace" was officially organised by the Bavarian Academy for Industrial and Social Medicine and scheduled as the Academy's 1977 continuing education event to summarise medical and legal information on secondhand smoke. The Secretary of State of the Bavarian State Office for Labor and Social Order gave the opening address.⁶² An official from the Bavarian Ministry of the Interior told a representative of the Munich Nonsmokers Initiative that this event represented an effort by the tobacco industry to undermine the pending governmental action for the protection of non-smokers.⁶³ The direct link to the tobacco industry was never disclosed to the public, nor appeared in the conference materials, but the industry's secret planning of this symposium was confirmed in a report of a Verband representative at the September 1983 meeting of several National Tobacco Manufacturing Associations in Washington DC:

The *official* organizer was the Bavarian Academy for Occupational and Social Medicine. The active participants were eminent medical scientists and lawyers. The conference was attended by high ranking personalities of the health scenery including health officials from the Ministry.²⁴ [emphasis added]

As Frank Colby of RJR in the United States reported in a confidential interoffice memorandum dated February 1982, the Verband was involved in the preparation of another, similar event:

because of the potential legislation and the potential threshold limit listing [the Verband was] committed to hold a public smoking meeting in Germany before the end of the year.⁶⁴

Another confidential memorandum by Colby, also dated February 1982 and labelled "please note and destroy"

reported that in December 1981 the German Ministry of Labor and Social Order had published a status report on the drafting of legislation pertaining to the protection of employees in the workplace. Colby recounted that this draft had been proposed by the German Health Ministry and included a paragraph that referred to smoking as a "manner which may be annoying." He noted:

There seems to be a report available at least in drafting form from one of the Divisions of the German Health Ministry which reportedly endorses, as proven, the allegations of the White and Froeb [the first study showing that secondhand smoke adversely affected pulmonary function in healthy nonsmokers], and similar studies on respiratory and cardiac impairments in adults.⁶⁵

He went on to explain that therefore, the German industry was:

"sub-rosa" trying to organize in Germany for the second half of the year, a scientific conference on public smoking...⁶⁵

The Verband had recognised the need for covert, proactive activity to counteract those opposing smoking. The fact that this approach was applied systematically and successfully was described in a report of a visit to the Verband in 1979 by a member of the British National Manufacturing Association:

...by far the greatest proportion of the work and expenditure goes into the "arms length" promotional activities intended to maintain the social acceptability of smoking... When publications appear which clearly misrepresent or distort facts and are likely to mislead the public VdC call [sic] on the services of a law firm who act [sic] with no apparent connection with the industry. ... Risks. The type of clandestine operations [reference to the above and other promotional activities] in which the VdC is involved clearly carry certain risks of detection, by such people as investigative journalists, of the link between the industry and the end product. HK [Harald König, a Verband employee] believes that the precautions they take are sufficient to enable the industry to be able to deny any link and says that such risks as remain are acceptable to the VdC member companies ... By this form of combined approach the German industry seems to have defended itself better than many countries from the worst excesses of the various anti-smoking lobbies and has maintained a higher standing for itself and its product in the public mind. ⁶² [emphasis added]

The industry's use of law firms to insulate the tobacco companies and provide secrecy is a strategy that the industry has used worldwide, particularly in efforts to undermine the evidence linking secondhand smoke to disease.⁶⁶⁻⁷⁰

The industry's efforts were working, and the tobacco industry's 1978 "Smoking and Health Report"⁷⁹ on government and Verband activity gave an indication of its success regarding attempts to defuse public debate on the danger of smoking and secondhand smoke. The report suggested that 1974 government assertions on smoking (for example, a figure published of roughly 140 000 deaths per year from smoking and a figure quoted of DM20 000–25 000 million for social costs resulting from smoking) would no longer be upheld in their original form:

As has been stated, these opinions have not yet been given officially; they do, however, indicate a considerable modification in the Ministry of Health's way of thinking on the problem of Smoking and Health.⁵⁹

A major shift in the general discourse on passive smoking followed the publication of three notable studies and a Surgeon General's report on secondhand smoke between 1980 through 1986,^{30 71-73} and yet the tobacco industry successfully employed defensive strategies through influential public relations and an astute awareness regarding its need to increase political intervention. The effort to publicly deny any link between secondhand smoke and disease became more pertinent after the publication in late 1980 and early 1981 of papers by Hirayama,⁷¹ Trichopoulos, *et al*⁷² and Garfinkel, *et al*⁷³ linking secondhand smoking with lung cancer. The most notable paper was from Japan by Hirayama⁷¹ and showed that non-smoking women married to smokers had higher lung cancer rates than non-smoking women married to non-smokers.^{71 74} On 8 May 1981, the Verband published a full-page advertisement (fig 1) in four leading German dailies, aiming to refute an article on Hirayama's findings and a statement regarding Germans dying prematurely due to smoking in the widely read magazine, *Stern*.^{75 76} The Verband ran the advertisement criticising the Hirayama study despite private assurances from Franz Adlkofer, head of scientific department of the Verband and scientific secretary of the Research Council Smoking and Health, that Hirayama was correct.⁷⁴

Likely linked to the publication of the 1986 US Surgeon General's report "The Health Effects of Involuntary Smoking" and the efforts toward an action programme for the protection of non-smokers by the German Federal Health Ministry, the Verband was planning a major public relations offensive on secondhand smoke. A 1987 Verband memo revealed its analysis showing secondhand smoke was widely understood as a risk by the general public; the Verband's



Figure 1 This full-page Verband advertisement ran in four German dailies including the print magazine *Stern*, refuting findings linking secondhand smoke to cancer and premature death.⁷⁵

subsequent political tactics; and public relations messages used to counter smoking restrictions and acceptance of the scientific evidence that passive smoking was dangerous.⁷⁷ The Verband's analysis indicated an urgent need to intervene on a political level which it successfully responded to through political contacts, public relations, and lobbying efforts. The document also highlights a growing readiness for political intervention in the second half of the 1980s. A document entitled "ETS – Challenge for the Industry" (1989) acknowledged the successful positioning by the Verband two years later:

Numerous talks between industry representatives and politicians of all parties about the topic of ETS have taken place in the past years. The series of politicians engaged comprises members of the Federal Parliament and of State Parliaments, Federal Ministers and Ministers of Federal States, including Health Ministers. The industry organized parliamentary evenings, had negotiations with the most important committees of the Bundestag (Lower House) and with high-ranking employees from the administration. *A certain group of industry representatives and employees of the Health Ministry is meeting regularly for an exchange of ideas.* All of these political contacts are being cultivated and continuously improved. In conclusion it can be said that the German industry is using a great amount of PR-resources and political lobbying in order to establish its position.⁶¹ [emphasis added]

The Verband's efforts to shape science, scientific committees and events

Research conducted inside and on behalf of the tobacco industry

Conducting its own health-effects research both internally and externally was an essential part of the Verband's effort to maintain credibility with the general public and positive relations with the government.⁷⁸⁻⁸⁰ The Verband's internal and external research was also used to create a collaborative climate with scientists and the health establishment, both by funding outside academics and by maintaining the status of an active and respectable scientific player itself.^{81 82} At the same time, the Verband's own facilities were used to conduct research considered too sensitive to be contracted to outsiders.⁸³⁻⁸⁶ The tobacco manufacturers wanted a hand in primary research to try and block potentially important research that could produce results dangerous to the industry.

Recruitment of "independent" scientists

Part of the industry's strategy to slow public acceptance of the scientific evidence linking secondhand smoke with disease was recruiting "independent" medical and political authorities to speak on this position.^{67 87 88} Probably the most important health authority allied with the tobacco industry in Germany during the 1980s was Karl Überla. Simultaneously acting as President of the German Federal Health Office, he was head of a private research institute in Munich, the "GIS" (Gesellschaft für Informationsverarbeitung und Statistik in der Medizin). As Frank Colby noted in a 1982 RJR memorandum, this situation "is permissible in Germany, but would be considered totally unethical in the US and other countries".⁸⁹ Überla at least on one occasion changed written assessments about secondhand smoke that had been made by his staff in an effort to skew scientific evidence in favour of the tobacco industry.^{90 91} Several "conclusions" in a report by the BGA (Bundesgesundheitsamt, the German federal health office) on lung cancer in persons exposed to secondhand smoke were changed to "hypotheses" and a "proven

effect" became a "described effect." He deleted the statement that it was reasonable to make the assumption that secondhand smoke negatively influences and chronically damages lung function and increases the risk of lung cancer in non-smokers. After Überla's editing, secondhand smoke became an "annoyance" rather than a dangerous substance.⁹¹

In 1982, the Verband contracted with Überla's GIS for a study on "passive smoking and lung cancer."⁸⁵ Adlkofer explained how the Verband won over Überla:

It has turned out that one of the highest health-political authorities of the Federal Republic [i.e. Überla] has taken a very balanced and sophisticated stance on passive smoking, which has dealt especially critically with the alleged evidence that has been presented so far on the harmfulness of such passive smoking. There is the possibility to consolidate this authority in his conviction so far attained with a scientific endeavor which would extend over several years and also to enable him to make, publicly, on the basis of his own research, decidedly congruent statements.⁹²

The tobacco industry in Germany maintained a level of respectability that allowed it access to high level authorities, scientists, and scientific institutions who agreed to serve on its Research Council Smoking and Health.⁹³

Influencing high level working groups and scientific commissions

In 1983, a working group on "Cancer risk due to smoking" was set up by the Federal Ministry of Health to advise the federal government on issues surrounding active and passive smoking.³¹ Of the 24 members the ministry invited to comprise this working group, at least five had worked for or received funds from the Verband.^{86 94 95} Though this working group did not have programmatic or legislative authority, the group's composition gave the Verband legitimacy at the Federal Ministry of Health and put it in a position to influence government policy.⁹⁶

In the MAK-commission, tobacco smoke resurfaced in 1980 when one of the commission members suggested adding secondhand smoke onto the MAK-list. While the MAK-commission does not have actual regulatory power, regulatory authorities use MAK classifications to establish permissible exposure limits. As an RJR memorandum written by Frank Colby in 1981 revealed, Dietrich Henschler, chairman of the MAK-commission between 1969 and 1991, did not support the request to consider secondhand smoke. The same memo suggested that "off the record" Henschler considered this request nonsensical and did not believe that it had a chance of ever being approved.⁹⁷ Henschler received funds from RJR in the late 1970s for research related to thresholds in chemical carcinogenesis,⁹⁸ before the discussion about including secondhand smoke on the MAK-list took place.⁹⁹ Further, even though the MAK-commission concluded in 1985 that a cancer risk was to be assumed because secondhand smoke contained a mixture of carcinogenic substances, the commission only recommended appropriate preventive measures for workplaces that were *heavily* contaminated with tobacco smoke.¹⁰⁰ Because secondhand smoke was not formally declared an occupational substance, the 1985 inclusion of secondhand smoke by the MAK-commission was not a strong statement and did not have a broad impact on everyday life.

Though the Verband had considered taking legal steps against the 1985 inclusion of secondhand smoke into the MAK-list,¹⁰¹ it did not pursue them. When it was clear that the inclusion could not be prevented, however, the Verband

worked to classify secondhand smoke in a different section (under pyrolysis products from organic substances) which would be less conspicuous under substances that are definitely proven or suspected on justified grounds to be carcinogenic.¹⁰² The Verband's Adlkofer gave a presentation to industry representatives which predicted that the federal government was not going to do anything in response to the MAK-classification:

In spite of this [the MAK-classification of second-hand smoke in 1985], the Federal Government does not feel compelled so far to modify the nonsmoker's [sic] protection program. In its opinion, the text outlined in the MAK list does not provide proof of the carcinogenic effects of passive smoking. The attitude of the Government is supported by a vote issued by the working group "Krebsgefährdung durch Rauchen" (cancer risk due to smoking) who advise [sic] the Federal Ministry of Health and the Government.¹⁰³

The MAK-commission revisited secondhand smoke in 1997 and in 1998 placed secondhand smoke in category A1, "substances which are definitely carcinogenic to humans and which can be expected to contribute substantially to cancer risk".¹⁰⁴ The vote of the MAK-commission for the change of the classification had originally been scheduled for 19 January 1998, however, through "new data submitted by the VdC [Verband] and the influence of Adlkofer, the vote was postponed".¹⁰⁵ This delay was very important for the tobacco industry, because the final vote on a federal nonsmoker protection law was due on 5 February 1998. The proposed law was defeated before the MAK-commission voted.

The tobacco industry carefully tracked public attitudes on secondhand smoke and the potential support of regulatory action in Europe to avoid the problems that were emerging for the industry in the United States. In 1989, Philip Morris International conducted a public opinion poll comparing attitudes about secondhand smoke and related issues in 10

European countries and the United States.¹⁰⁶ The comparison of Germany and the United States yielded several interesting results, showing that public opinion about secondhand smoke in the two countries was similar. Secondhand smoke was, in fact, considered a health hazard by a greater proportion of the West German population than the US population. Germans were also more supportive of governmental action to protect non-smokers than US citizens (table 3). Among the European countries, the survey indicated that non-smokers in Germany desired separate facilities in restaurants to a far greater degree than the populations of most southern European countries (Spain, France, Italy) (fig 2). While the proportion of the German population favouring government legislation restricting smoking in public places was below some European countries, the 49% of the population which favoured such actions exceeded the United States (47%) (fig 2).

In its summary of main findings, Philip Morris International concluded:

The perception that ETS represents a danger to health is widespread. ... Both smokers and nonsmokers in Europe desire more rules in the future against smoking in public places. ... Europeans are generally less opposed to government involvement in the smoking issue than people in the US.¹⁰⁶ [emphasis added]

Given these patterns of public opinion, it is notable that Germany has lagged so far behind the United States in developing and implementing policies to provide smoke-free environments. A survey identified in the British American Tobacco documents and probably conducted by a tobacco manufacturer in 1988, reported that 80% of German non-smokers and 55% of smokers believed that smoking "pollutes the environment" and that 80% of non-smokers and 48% of smokers considered secondhand smoke to be a very large or large health risk.¹⁰⁷ In addition to surveys conducted by the tobacco industry, several polls were conducted by independent survey institutes in the 1990s, most of which indicated

Table 3 Results from the 1989 Philip Morris survey: public sentiment about secondhand smoke and desire for public smoking restrictions in Germany as compared to the United States¹⁰⁶

Item	Germany		United States	
	Non-smokers	Smokers	Non-smokers	Smokers
Consideration of ETS as health hazard	95%	87%	62%	32%
Non-smokers finding cigarette smoke annoying	76%	–	71%	–
Would like policy to be smoking not allowed in restaurants	10%	4%	22%	7%
Would like policy to be separate facilities in restaurants	62%	43%	75%	87%
Would like policy to be smoking not allowed in the office	45%	25%	31%	15%
Would like policy to be separate facilities in the office	30%	38%	59%	67%
Would like policy to be smoking not allowed in waiting room/lobbies	27%	12%	45%	25%
Would like policy to be separate facilities in waiting rooms/lobbies	40%	35%	37%	42%
Believe government should pass laws restricting cigarette smoking in public places	49%		47%	
Agree strongly that making smoking socially unacceptable should be major goal of government health policy	25%		30%	
Agree strongly that when smokers and non-smokers use some courtesy there is no need for government rules	69%		37%	
Agree employers should improve office ventilation rather than ban smoking	74%		64%	

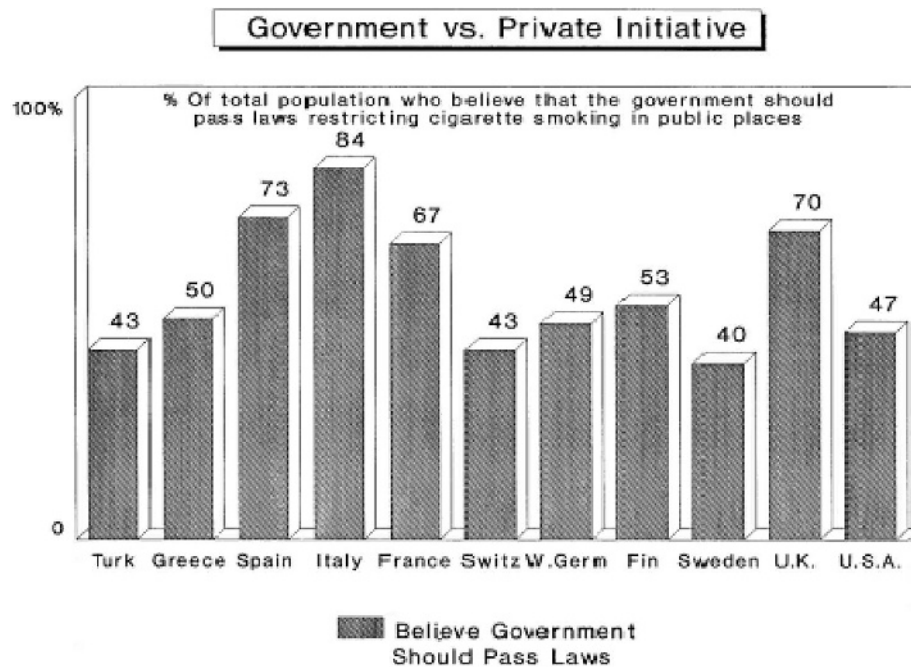


Figure 2 Philip Morris' 1989 international comparison of population beliefs regarding government legislation of smoking in public places showed slightly higher support for such policies in West Germany than in the United States.¹⁰⁶

that the great majority of the West German population favoured smoke-free policies at the workplace and in public places (table 4).

From the 1990s onward, this strategy seems to have been employed widely. A 1991 letter from the government affairs manager of Philip Morris Corporate Services in Brussels revealed that the use of the "American intolerance message" appeared to work well and was to be used to the industry's benefit:

...during a meeting on ETS last week, a consensus seemed to emerge concerning the desirability of using American intolerance as an argument against anti-smoking in Europe... Having had the opportunity to use the "intolerance" message personally with European journalists, I can assure you that journalists are easily won over when one explains that we are simply fighting the development of such intolerant behaviour in Europe.¹¹¹

The same letter explained that some commentaries on the subject of "American intolerance" were available in a Phillip

Morris ETS reference manual and others would be disseminated later. Additional reference was made to the fact that Philip Morris International had "offered to help organize a conference on the sociological phenomenon of American extremism and intolerance in an EC market".¹¹¹ We were not able to determine whether this conference actually took place.

1994–2002: the tobacco industry influences legislation

While the Reunification of Germany in 1990 did not appear to have affected the politics of tobacco control, there were several unsuccessful efforts to pass non-smoker protection legislation between 1994 and 2002. In 1994, for example, a multi-party group of 41 (out of 662) members of the Bundestag introduced a draft for federal non-smoker protection legislation.¹¹² This bill nominally created smoke-free workplaces and public facilities, but, consistent with established tobacco industry strategies, allowed for the creation of smoking zones as long as there was "adequate" ventilation.^{33 113} While polling showed wide German population support for smoke-free public places (65% of non-smokers

Table 4 Independent surveys on population sentiment about secondhand smoke and its regulation showed a majority of Germans favoured smoke-free policies in public and at the workplace

Year	Survey institute	Contracting entity	Sample	Results (and source)
1993	Eurobarometer	EU Commission	12 800	78% favour smoking bans in public places, 19% against, 88% favour separate areas in workplace ¹²³ (cited in a PM Draft report, dated 1994 ¹⁰⁸)
1993	Infratest	Tabak-Info-Verlagsgesellschaft	2020	46% non-smokers, 19% smokers favour smoking bans in public places ¹²⁴ (25% non-smokers say government should regulate smokers/non-smokers relations, 75% say that modus vivendi should be found) (cited in a PM Draft report, dated 1994 ¹⁰⁸)
1994	FORSA	TV channel RTL	501 persons	65% in favour of smoking bans in public places ¹²⁵ (40% of the smokers; 78% in former East Germany, 61% in former West Germany) (cited in a PM Draft report, dated 1994 ¹⁰⁸)
1996	FORSA	Not established	Not established	69% pro smoke-free workplaces (including 49% smokers) (cited after Süddeutsche Zeitung of 3 June 1996 ¹⁰⁹)
1997	GfK Marktforschung GmbH	German Nonsmokers Initiative	2600 persons (aged 16–69)	68.1% are for a statutory non-smoker protection (83.6% non-smokers; 45.2% smokers) ¹¹⁰

and 40% of smokers),¹¹⁴ the initiative received mostly critical media coverage in spite of wide popular support and did not pass.^{112 114}

In 1998, less than one month before the final parliamentary vote, the *Frankfurter Allgemeine Zeitung*, one of the major German nationwide newspapers, reported the results of a study concluding that the law for protection from smoking would cost German businesses DM33 billion (US\$16 billion). The report, commissioned by the tobacco industry,¹¹⁵ was conducted by a private economic research institute, the Institute of the German Industry, whose president had spoken out against the proposed law several times. These one-sided studies predicting economic chaos are a well-established tobacco industry tactic for opposing smoking restrictions.¹¹⁶

Further, a January 1998 survey was published reporting that over three-quarters of Germans did not want new legislation and that 42% of non-smokers and 75% of smokers regarded the existing regulations as sufficient.¹¹⁷ A press statement by the German Nonsmokers Initiative reported that Burke AG, the survey institute that conducted the poll, had close links to the Institute of the German Industry that had produced the economic study claiming the bill would hurt the economy. It also stated that the results were in stark contrast to all other surveys carried out on the subject.¹¹⁸ On 5 February 1998, the bill was defeated. It was not until 2002 that a weak ordinance nominally protecting non-smokers at the workplace entered into force, after a comprehensive non-smoker protection law was defeated in the two previous parliamentary terms.

As of January 2005, the German government had not established any meaningful programme to promote implementation of the revised workplace law. Employees can sue their employers if they do not comply with the ordinance, but given the vague specification of obligations under the law, it is doubtful that such a legal action would succeed while leaving the employee open to retaliation by the employer. The law represents a victory for the tobacco industry because it permits the government to claim that the issue of smoking in workplaces has been addressed without requiring any major changes in the status quo.

Limitations

This paper is primarily based on tobacco industry documents that have been made public as a result of litigation in the United States. There is always the possibility that important information was not included in the documents that were produced. In addition, the indexing of the documents is often of low quality, especially for the German language documents, so there is the possibility that relevant documents may have been missed in our searches. Some of the events discussed here occurred many years ago, thus some primary source documents were not available and we were required to rely on secondary sources. Nevertheless, past experience has demonstrated that, despite these limitations, such research appears to give a reasonable picture of industry activities.

DISCUSSION

Even though the West German government's 1974 response to a parliamentary enquiry had stated that it would be irresponsible to wait until a rash of sick persons has fallen victim to secondhand smoke before acting to protect non-smokers,¹⁵ it never acted to provide meaningful protection. One of the remarkable conclusions that follows from this 30 year history is how constant and magnifying the influence of the tobacco industry has been in Germany despite the many changes in government. While each of Germany's major political parties has held a position of power in the government since 1974 (the year of the strong governmental statement regarding secondhand smoke), none has acted

What this paper adds

Germany has lagged well behind most developed countries in implementing tobacco control policies and has often supported the tobacco industry's positions in international negotiations. It has no widespread restrictions on smoking in public places or workplaces.

The tobacco industry in Germany represented by the "Verband" (Verband der Cigarettenindustrie) contained and neutralised the early debate about secondhand smoke through an exceptionally successful collaboration with selected scientists, health professionals and policy makers, along with a sophisticated public relations programme that has not been countered effectively by health advocates. As a result, Germany is one of the few major countries in the world where the tobacco industry remains a completely legitimate force in public discourse.

adequately with regards to the relevance of secondhand smoke.

As it has done everywhere else in the world,^{66-69 88 119-121} the tobacco industry has fought against clean indoor air laws in Germany by working to discredit and deny the accumulating scientific evidence on the dangers of secondhand smoke. Reporting that the same strategies were used elsewhere helps to make the important point that the tobacco companies use many common strategies around the world, despite differences in cultural and political circumstances. This is an important message for public health professionals, who often perceive the differences in industry strategies among various countries to be much greater than they are. Ernst Brückner, Managing Director of the Verband until 2004, recognised this success at a meeting of the Verband Board of Directors in 1991:

In practically all developed countries of the world as well as in all responsible international organisations, the question about the health hazards of smoking has been decided. *From a scientific point of view, such a damage is doubtless. The only scientific community that has held this question open is Germany.* This is not the least owing to Dr. Adlkofer [until 1995, he was a leading employee of the Verband, both Head of the Scientific Department of the Verband and the Scientific Secretary of the Research Council Smoking and Health] and due to the collaboration of industry with science.¹²² [emphasis added]

Unlike many other countries, however, the tobacco industry in Germany has remained a legitimate partner for business, government, and the scientific community. It recognised this success, managing to continuously obscure and deny scientific evidence on the factual danger of secondhand smoke. Over the years, its air of scientific integrity allowed the Verband to maintain political standing and remain involved in relevant scientific and health policy discussions. The minutes of an 8 February 2001 meeting of the Verband's Science and Industry Policy Committee took stock of the Verband's research over the past 25 years, at which time Verband representatives expressed pleasure at their role in the smoking and health debate and stated that secondhand smoke was no longer a pressing topic in Germany:

The priority goal of attaining credibility and competence in the discussion about smoking and health has been achieved primarily by independent research. ... *The main*

focus of the VdC-research had shifted from the risk-assessment of passive smoking to active smoking in the past 1–2 years. Dr. Heller [Adlkofer's successor as Head of the Scientific Department] emphasized that as a result of the VdC-research policies the cigarette industry in Germany still is an accepted discussant partner regarding scientific and health-policy. The efficiency of [the Verband's] research is proven among other things by the fact that one can participate in shaping the scientific discussions in many domains and that the expertise on the topic smoking and health which is acquired within the VdC is being considered.⁸⁰ [emphasis added]

The tobacco industry ran a coordinated, pervasive, and effective effort to avoid policies and regulations that would reduce or eliminate exposure to secondhand smoke and, indirectly, reduce active smoking and cigarette consumption. In 2005, more than 30 years after the German industry started this effort, there was little regulation of smoking in Germany. The challenge for public health forces in Germany is to break the alliances between the tobacco industry and the German government and scientific establishment and to delegitimise the scientific standing of the tobacco industry in Germany. In this sense, Germany lags well behind many other highly developed industrial countries such as Ireland, Norway, Australia, New Zealand, and the United States.

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REFERENCES

- Lickint F. Tabak und Tabakrauch als aetiologischer Factor des Carcinoms. *Zeitschrift fuer Krebsforschung* 1929;(30):349–65.
- Fichtenberg C, Glantz S. Effect of smoke-free workplaces on smoking behaviour: systematic review. *BMJ* 2002;**325**:188–94.
- Grüning T, Gilmore A, McKee M. Tobacco industry influence on science and scientists in Germany. *Am J Public Health* 2006;**96**:20–32.
- Neuman M, Bittan A, Glantz S. Tobacco industry strategies for influencing European Community tobacco advertising legislation. *Lancet* 2002;**359**:1323–30.
- Lehman K. Chemische und toxikologische Studien über Tabak, Tabakrauch und das Tabakrauchen. *Archiv für Hygiene* 1909;**68**:321–420.
- Schick S, Glantz S. Scientific analysis of secondhand smoke by the tobacco industry, 1929–1972. *Nicotine Tob Res* 2005;**7**:591–612.
- Zigarettenfabrik Haus Neuerburg KG. Danger for nonsmokers by nicotine. 25 November. 1968. RJ Reynolds. Bates No. 501477569/7569. <http://legacy.library.ucsf.edu/tid/frk18c00> (Accessed 4 October 2004).
- Greim H. Informationen über Sitzungen und Verlautbarungen der MAK-Kommission am 10. Oktober 1969. Personal information via email and telephone on 3 November, 2004.
- Deutscher Bundestag. Antwort der Bundesregierung auf die kleine Anfrage der Abgeordneten Müller (Remscheid), Dr. Blüm, Breidbach, Dr. Hammans, Prinz zu Sayn-Wittgenstein-Hohenstein, Vogt, Zink, Ziegler, von Bockelberg, Geisenhofer, Frau Pleser, Schmitz (Baesweiler) und Genossen - Drucksache 7/2921 - betr. Gesundheitsschädliche Auswirkungen des Zigarettenrauchens. Bundestagsdrucksache 7/3597. Bonn: 1975.
- Anon. Verband der Cigarettenindustrie [presentation]. Jul. 1991. Philip Morris. Bates No. 2028383841/3847. <http://legacy.library.ucsf.edu/tid/sjc24e00> (Accessed 23 Oct 2003).
- Hirschhorn B. Shameful science: four decades of German tobacco industry's hidden research on smoking and health. *Tob Control* 2000;**9**:242–7.
- Glantz S, Slade J, Bero LA, et al. *The Cigarette Papers*. Berkeley: University of California Press, 1996.
- Malone R, Balbach E. Tobacco industry documents: treasure trove or quagmire? *Tob Control* 2000;**9**:334–8.
- Deutscher Bundestag. Kleine Anfrage der Abgeordneten Vogt, Dr. Blüm, Breidbach, Frau Stommel, Dr. Hupka, Nordlohne, Link und Genossen betr. Auswirkungen des Zigarettenrauchens. Bundestagsdrucksache 7/1442. Bonn: 1973.
- Deutscher Bundestag. Antwort der Bundesregierung auf die Kleine Anfrage der Abgeordneten Vogt, Dr. Blüm, Breidbach, Frau Stommel, Dr. Hupka, Nordlohne, Link und Genossen. Bundestagsdrucksache 7/2070. Bonn: 1974.
- Deutscher Bundestag. Antrag des Ausschusses für Jugend, Familie, und Gesundheit (13. Ausschuss) zu dem von der Bundesregierung eingebrachten Entwurf eines Gesetzes zur Neuordnung des Rechts im Verkehr mit Lebensmitteln, Tabakerzeugnissen, kosmetischen Mitteln und sonstigen Bedarfsgegenständen (Gesetz zur Gesamtreform des Lebensmittelrechts) - Drucksache 7/255. Drucksache 7/2243. Bonn: 1974.
- German Bundestag. Harmful effects of cigarette smoking. Publication 7/3597, Translation from German. 1975. R.J. Reynolds. Bates No. 504851145/1181. <http://legacy.library.ucsf.edu/tid/rri55d00> (Accessed 15 Oct 2003).
- Bundesminister für Jugend Familie und Gesundheit. *Nichtraucherschutzprogramm*. Bonn: 1978.
- Schmidt F. Rauchen und Gesundheit. *Med Klin* 1973.
- Schmidt F. "Active" and "Passive" Smoking as Serious Bronchial Noxae. 1972. Translation of this article from German: RJ Reynolds. Bates No. 504876891/6904. <http://legacy.library.ucsf.edu/tid/yrd55d00> (Accessed 03 Feb 2004).
- Schmidt F. 10 Jahre Ärztlicher Arbeitskreis Rauchen und Gesundheit. *Fortschritte in der Medizin* 1980;**98**(18):714–717.
- Körner M. [letter to E. Brückner, VdC, and others]. 6 April. 1991.
- Nordrhein-Westfälisches Ministerium für Arbeit, Gesundheit und Soziales. *Nichtraucherschutz in Diensträumen*. VIA3-45.52.05-MBI.NW.1975. SMBl.NW.2128. Enacted January 31. Düsseldorf: 1975.
- Anon. Passive smoking presentation by the Verband der Cigarettenindustrie at the occasion of the NMA'S Workshop in Washington D.C. 20–22 September 1983. 20 Sep. 1983. Philip Morris. Bates No. 2501021630/1639. <http://legacy.library.ucsf.edu/tid/rsv32e00> (Accessed 6 Nov 2003).
- Anon. Program for the Protection of Non Smokers in the Federal Republic of Germany (unedited translation). 14 Sep. 1977. RJ Reynolds. Bates No. 500293415/3418. <http://legacy.library.ucsf.edu/tid/jmd89d00> (Accessed 3 Feb 2004).
- Deutscher Bundestag. Fragen für die Fragestunden der Sitzungen des Deutschen Bundestages am Mittwoch, dem 15. März 1978 und Donnerstag, dem 16. März 1978. Drucksache 8/1612. Bonn: 1978, <http://parlamentsspiegel.de>.
- Deutscher Bundestag. *Stenographischer Bericht 81. Sitzung*; 1978 16 Mar. <http://legacy.library.ucsf.edu/tid/xcf89d00>.
- White J, Froeb H. Small-airways dysfunction in nonsmokers chronically exposed to tobacco smoke. *N Engl J Med* 1980;**302**:720–3.
- Colby F. R.J. Reynolds. Public Smoking [letter to MH Crohn Jr, RJR]. 26 September 1980. Bates No. 500881888. <http://legacy.library.ucsf.edu/tid/mxf35a00> (Accessed 30 Sept 2004).
- US Department of Health and Human Services. *The health consequences of involuntary smoking. A report of the Surgeon General, 1986*. Rockville, Maryland: Public Health Service, Centers for Disease Control, 1986. (DHHS Publication No [CDC] 87-8398).
- Interview conducted by Annette Bornhäuser with Dr. Rudolf Neidert on 23 February 2004 in Heidelberg, Germany.
- Bundesminister für Jugend Familie Frauen und Gesundheit. Aktionsprogramm zur Förderung des Nichtrauchens vom 31. Mai 1990. Bonn: Bundesministerium für Jugend, Familie, Frauen und Gesundheit, 1990.
- Drope J, Bialous S, Glantz S. Tobacco industry efforts to present ventilation as an alternative to smoke-free environments in North America. *Tob Control* 2004;**13**(suppl 1):i41–7.
- Brückner E. Niederschrift über die Vorstandssitzung vom 23. August 1990. August 28. 1990. Philip Morris. Bates No. 2028529820/9832. <http://legacy.library.ucsf.edu/tid/fgr56e00> (Accessed 14 Oct 2003).
- Aktionsprogramm der Bundesregierung zur Förderung des Nichtrauchens. (Draft version of 1st September 1988). Bonn: 1988.
- Glantz S. Preventing tobacco use—the youth access trap. *Am J Public Health* 1996;**86**:156–8.
- Landman A, Ling P, Glantz S. Tobacco industry youth smoking prevention programs: protecting the industry and hurting tobacco control. *Am J Public Health* 2002;**92**:917–30.
- Anon. Nichtraucherschutz: Arbeitskreis wirft Bonn Inaktivität vor. *Ärztzei- tung*, 9 October 1989.
- Verband der Cigarettenindustrie. German Cigarette Industry Association Structure and Progress Report. April. 1992. Philip Morris. Bates No. 2028372531/2547. <http://legacy.library.ucsf.edu/tid/ssc24e00> (Accessed 6 Oct 2003).
- Colby F. Memo for Record. Passive Smoking. 20 Jan. 1975. RJ Reynolds. Bates No. 500538188/8189. <http://legacy.library.ucsf.edu/tid/rag35a00> (Accessed 22 Aug 2004).

- 41 **Anon.** PR-Actions Verband Der Cigarettenindustrie Hamburg. 1976. RJ Reynolds. Bates No. 500257485/7488. <http://legacy.library.ucsf.edu/tid/xph89d00> (Accessed 5 Sep 2004).
- 42 **Verband der Cigarettenindustrie.** Passivrauchen. Eine Dokumentation. 1975. Philip Morris. Bates No. 1005145607/5624. <http://legacy.library.ucsf.edu/tid/usc54e00> (Accessed 6 Oct 2003).
- 43 **Association of Cigarette Manufacturers.** Passive Smoking Documentation. 1975. Philip Morris. Bates No. 1003293735/3749. <http://legacy.library.ucsf.edu/tid/pnw97e00> (Accessed 28 Jan 2004).
- 44 **Tobacco Institute.** Smoking and the nonsmoker. 1973. Bates No. TIMN0103681/3692. <http://legacy.library.ucsf.edu/tid/vim92f00> (Accessed 12 Sept 2004).
- 45 **Colby F.** 4th World Conference on Smoking and Health, Stockholm. 18 Sep. 1979. RJ Reynolds. Bates No. 503246762/6762. <http://legacy.library.ucsf.edu/tid/ukf35a00> (Accessed 22 Aug 2004).
- 46 **Colby F.** Smoking and Health Related Activities of the Verband [letter to P. van Every]. 1982. R.J. Reynolds. Bates No. 503245962. <http://legacy.library.ucsf.edu/tid/vsn10d00> (Accessed 22 Jan 2003).
- 47 **Fields N,** Chapman S. Chasing Ernst L Wynder: 40 years of Philip Morris' efforts to influence a leading scientist. *J Epidemiol Comm Health* 2003;**57**:571–8.
- 48 **Klosterkötter W.** [letter to H. Gaisch, Philip Morris]. 17 January. 1974. Philip Morris. Bates No. 1000010525/0534. <http://legacy.library.ucsf.edu/tid/jsr94e00> (Accessed 2 Oct 2004).
- 49 **Anon.** Visit to Wissenschaftliche Forschungsstelle Hamburg. 19 September. 1963. Council for Tobacco Research. Bates No. 11328808/8810. <http://legacy.library.ucsf.edu/tid/faq59c00> (Accessed 4 Oct 2004).
- 50 **Frankfurter Allgemeine Zeitung:** 'Schäden bei Passivrauchern nicht bewiesen'. 21 Nov. 1975. Bates No. 1005145626. <http://legacy.library.ucsf.edu/tid/wsc54e00> (Accessed 3 Oct 2003).
- 51 **Isering P.** Germany - Smoking and Health - Smoker Dispatch. 1975. Bates No. 2024965246. <http://legacy.library.ucsf.edu/tid/oxp46e00> (Accessed 5 Oct 2003).
- 52 **St Aubyn A.** Visit to Verband der Cigarettenindustrie, Hamburg, 30th and 31st January 1979. February 6. 1979. Philip Morris. Bates No. 2501159601/9607A. <http://legacy.library.ucsf.edu/tid/dmt22e00> (Accessed 6 Oct 2003).
- 53 **Anon.** Philip Morris. ITI - internationaler Tabakwissenschaftlicher Informationsdienst. April 30. 1976. Bates No. 1005145737. <http://legacy.library.ucsf.edu/tid/hfz38e00> (Accessed 6 Oct 2003).
- 54 **Intl Tobacco Science Information Service.** I.T.I. Philip Morris. The scientific controversy on passive smoking. August 28. 1985. Bates No. 2026331806/1807. <http://legacy.library.ucsf.edu/tid/cju85e00> (Accessed 5 Oct 2003).
- 55 **Intl Tobacco Science Information Service.** Philip Morris. Passive smoking and the risk of lung cancer at the workplace. August 28. 1986. Philip Morris. Bates No. 2025029637/9638. <http://legacy.library.ucsf.edu/tid/gqi04e00> (Accessed 30 Aug 2004).
- 56 **ITI - International Tobacco Science Information Service.** R.J. Reynolds. Passive smoking and lung cancer. August 18. 1987. Bates No. 506648057/8058. <http://legacy.library.ucsf.edu/tid/jlv44d00> (Accessed 28 August 2004).
- 57 **Kennedy G,** Bero L. Print media coverage of research on passive smoking. *Tob Control* 1999;**8**:254–60.
- 58 **Muggli M,** Hurt R, Becker L. Turning free speech into corporate speech: Philip Morris' efforts to influence U.S. and European journalists regarding the U.S. EPA report on secondhand smoke. *Prev Med* 2004;**39**:568–80.
- 59 **Anon.** Smoking and Health Report August to November 1978. 1978. Philip Morris. Bates No. 2501159209/9225. <http://legacy.library.ucsf.edu/tid/xer39e00> (Accessed 8 Oct 2003).
- 60 **Verband der Cigarettenindustrie.** Passivrauchen: Mehr als nur ein Schlagwort? 1987. Philip Morris. Bates No. 2501251384. <http://legacy.library.ucsf.edu/tid/eue71f00> (Accessed 8 Oct 2003).
- 61 **Anon.** ETS - Challenge for the Industry. February 20. 1989. RJ Reynolds. Bates No. 506816535/6543. <http://legacy.library.ucsf.edu/tid/uys54d00> (Accessed 9 Oct 2003).
- 62 **Vorndran W.** Address by the Secretary of State Dr. W. Vorndran of the Bavarian State Office for Labour and Social Order. 31 Mar. 1977. Philip Morris. Bates No. 2010008594/8599. <http://legacy.library.ucsf.edu/tid/iyf71f00> (Accessed 13 Jan 2004).
- 63 Interview with Ernst-Günther Krause conducted by Annette Bornhäuser on 11 February 2004.
- 64 **Colby F.** Possible German Legislation Curtailing Smoking at the Workplace, and Other Developments on Public Smoking [letter to S. Witt, RJ Reynolds]. 16 Feb. 1982. RJ Reynolds. Bates No. 502665433/5433. <http://legacy.library.ucsf.edu/tid/cof35a00> (Accessed 22 Aug 2004).
- 65 **Colby F.** Recent Developments on Public Smoking. 18 Feb. 1982. RJ Reynolds. Bates No. 501626667/6668. <http://legacy.library.ucsf.edu/tid/vsf35a00> (Accessed 22 Aug 2004).
- 66 **Barnoya J,** Glantz S. Tobacco industry success in preventing regulation of secondhand smoke: the "Latin Project". *Tob Control* 2002;**11**:305–14.
- 67 **Barnoya J,** Glantz SA. The tobacco industry's worldwide ETS consultants project: European and Asian components. *Eur J Public Health* 2006;**16**:69–77.
- 68 **Muggli M,** Hurt R, Blanke D. Science for hire: a tobacco industry strategy to influence public opinion on secondhand smoke. *Nicotine Tob Res* 2003;**5**:303–14.
- 69 **Muggli M,** Hurt R, Repace J. The tobacco industry's political efforts to derail the EPA report on ETS. *Am J Prev Med* 2004;**26**:167–77.
- 70 **Ong E,** Glantz S. Tobacco industry efforts subverting International Agency for Research on Cancer's second-hand smoke study. *Lancet* 2000;**355**:1253–9.
- 71 **Hirayama T.** Non-smoking wives of heavy smokers have a higher risk of lung cancer: a study from Japan. *BMJ* 1981;**282**:183–5.
- 72 **Trichopoulos D,** Kalandidi A, Sparros L, et al. Lung cancer and passive smoking. *Int J Cancer* 1981;**27**:1–4.
- 73 **Garfinkel L.** Cancer mortality in nonsmokers: prospective study by the American Cancer Society. *J Natl Cancer Inst* 1980;**65**:1169–73.
- 74 **Ong E,** Glantz S. Hirayama's work has stood the test of time. *Bull World Health Organ* 2000;**78**:938–9.
- 75 **Verband der Cigarettenindustrie.** Was nicht im Stern stand. 08 May. 1981. <http://legacy.library.ucsf.edu/tid/ukt20f00> (Accessed 29 Apr 2005).
- 76 **Lempke K.** Rauchen - ein rücksichtsloser Zug. *Der Stern* 1981 30 April.
- 77 **Anon.** PR-Konzept zum Thema Passivrauchen. December. 1987. Philip Morris. Bates No. 2028364667/4675. <http://legacy.library.ucsf.edu/tid/ryg56e00> (Accessed 6 Oct 2003).
- 78 **Brückner E.** Tagesordnung und Niederschrift der Jahreshauptversammlung des VdC am 12. Oktober. 1983. Philip Morris. Bates No. 1000115030/5061. <http://legacy.library.ucsf.edu/tid/bkr97e00> (Accessed 4 Feb 2004).
- 79 **Wall C.** Memorandum from Philip Morris Counsel to Philip Morris Counsel regarding legal analysis of Philip Morris funded research and memorializing communication between Philip Morris employees and Philip Morris counsel regarding same. 1992. Bates No. 2022850392/0402. <http://legacy.library.ucsf.edu/tid/oam88d00> (Accessed 3 Dec 2003).
- 80 **Anon.** Protokoll der Sitzung des Wissenschaftspolitischen Ausschusses vom 8. Februar 2001, VdC in Bonn. Philip Morris. Bates No. 2505616767/6771. <http://legacy.library.ucsf.edu/tid/wgf90c00> (Accessed 15 Oct 2003).
- 81 **Anon.** Forschungskonzept VdC. July 28. 1992. Philip Morris. Bates No. 2028372597/2599. <http://legacy.library.ucsf.edu/tid/loi56e00> (Accessed 7 Oct 2003).
- 82 **Anon.** Zukünftige Forschungsstruktur. Philip Morris. Bates No. 2028529906/9912. <http://legacy.library.ucsf.edu/tid/wgy14e00> (Accessed 4 Feb 2004).
- 83 **Anon.** Anforderungsprofil für den Wissenschaftlichen Leiter im VdC. 13 July. 1994. Philip Morris. Bates No. 2028372476/2480. <http://legacy.library.ucsf.edu/tid/wci56e00> (Accessed 7 Oct 2003).
- 84 **Weber K-H.** Forschungsrat Rauchen und Gesundheit: Befürwortete Forschungsanträge aus der Sitzung am 14.02.1976. 11 March. 1976. Philip Morris. Bates No. 1000123005/3057. <http://legacy.library.ucsf.edu/tid/oks64e00> (Accessed 10 Oct 2003).
- 85 **Anon.** Forschungsvorhaben des VdC. 20 Mar. 1985. Philip Morris. Bates No. 2000511408/1436. <http://legacy.library.ucsf.edu/tid/nuw56e00> (Accessed 4 Feb 2004).
- 86 **Anon.** Forschungsvorhaben des VdC. June. 1991. Philip Morris. Bates No. 2023052483/2591. <http://legacy.library.ucsf.edu/tid/foi71f00> (Accessed 4 Feb 2004).
- 87 **Muggli M,** Forster J, Hurt R, et al. The smoke you don't see: uncovering tobacco industry scientific strategies aimed against environmental tobacco smoke. *Am J Public Health* 2001;**91**:1419–23.
- 88 **Assunta M,** Fields N, Knight J, et al. "Care and feeding": the Asian environmental tobacco smoke consultants programme. *Tob Control* 2004;**13**(suppl III):iii4–12.
- 89 **Colby F.** Research Proposal to the German Cigarette Industry (Verband) On an Epidemiological Study on "Passive Smoking" and Lung Cancer. 16 Jun. 1982. RJ Reynolds. Bates No. 502668519/8520. <http://legacy.library.ucsf.edu/tid/rmf35a00> (Accessed 5 Sep 2004).
- 90 Interview with Burkhard Junge conducted by Annette Bornhäuser on February 28, 2004 in Berlin, Germany.
- 91 **Andresen K,** Schwagrinn K. Ein Fall für den Staatsanwalt. Skandal um den obersten Medikamenten-Kontrolleur. *Stern* 1985 March 14:38–44.
- 92 **Adlkofer F.** [letter to members of the Verband's Ausschuss Tabakforschung]. August 9. 1983. Philip Morris. Bates No. 1000036313/6315. <http://legacy.library.ucsf.edu/tid/owy64e00> (Accessed 14 Oct 2003).
- 93 **SCHMAHL D.** Tätigkeit des Forschungsrates Rauchen und Gesundheit. *Münchener Medizinische Wochenschrift* 1980;(suppl 1):3.
- 94 **Colby F.** Paper by Prof. Dr. Schmähl on Cancers of the Respiratory System etc., Berlin, November, 23, 1979 [letter to S. Witt, RJ Reynolds]. 14 December. 1979. R.J. Reynolds. Bates No. 500877284. <http://legacy.library.ucsf.edu/tid/iyf35a00> (Accessed 4 Oct 2004).
- 95 **Schmidt F.** Wir klagen an: Zigaretten, Parteispenden und Volksgesundheit: Offener Brief an alle Bundestagsabgeordneten. *Umwelt&Gesundheit* 1986/1987:3–10.
- 96 **Anon.** 1992 funding (DM) [budget review]. June. 1992. Philip Morris. Bates No. 2022850538/0542. <http://legacy.library.ucsf.edu/tid/xwe78e00> (Accessed 4 Feb 2004).
- 97 **Colby F.** Potential inclusion of tobacco smoke in the official German tabulation of threshold limit values of allegedly health deleterious materials occurring at the workplace [letter to S. Witt, RJ Reynolds]. 21 Aug. 1981. RJ Reynolds. Bates No. 503248674/8674. <http://legacy.library.ucsf.edu/tid/jkf35a00> (Accessed 22 Aug 2004).
- 98 **Colby F.** [letter to S. Witt, RJ Reynolds]. October 13. 1981. RJ Reynolds. Bates No. 500875205/5210. <http://legacy.library.ucsf.edu/tid/qnm23a00> (Accessed 7 Oct 2003).
- 99 **Colby F.** RJR continuing support for the research of Prof. Henschler [letter to Wilfried Dembach, RJR Germany]. 26 March. 1980. R.J. Reynolds. Bates No. 503247410/4711. <http://legacy.library.ucsf.edu/tid/oic68d00> (Accessed 2 Oct 2004).
- 100 **Deutsche Forschungsgesellschaft,** Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe. *Passivrauchen am Arbeitsplatz.* Edited by D Henschler. Weinheim: Wiley-VCH, 1985.

- 101 **Fink W.** Minutes of the VdC Scientific Committee Meeting held in Hamburg on July 24.2 Sep.1985. Philip Morris. Bates No. 2023539046/9050. <http://legacy.library.ucsf.edu/tid/nau78e00> (Accessed 4 Feb 2004).
- 102 **Brückner E.** Passivrauchen und MAK-Kommission [letter to several representatives from member firms of the Verband]. 12 Mar.1985. Philip Morris. Bates No. 2001227723/7724. <http://legacy.library.ucsf.edu/tid/jyy68e00> (Accessed 21 Jan 2004).
- 103 **Anon.** [Presentation]. Oct.1986. Philip Morris. Bates No. 2501457523/7536. <http://legacy.library.ucsf.edu/tid/wji22e00> (Accessed 4 Feb 2004).
- 104 **Deutsche Forschungsgesellschaft**, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe. *Passivrauchen am Arbeitsplatz*. Edited by H Greim. Weinheim: Wiley-VCH, 1999.
- 105 **Smith C.** VdC Study [email letter to C. Green and D. Doolittle, RJR]. 4 Feb.1998. RJ Reynolds. Bates No. 528475301/5302. <http://legacy.library.ucsf.edu/tid/qmr15a00> (Accessed 15 Oct 2004).
- 106 **Philip Morris International.** Tobacco Issues 1989. How today's smokers & non smokers in Europe feel about smoking issues. October.1989. Philip Morris. Bates No. 2500147468/7533. <http://legacy.library.ucsf.edu/tid/eym19e00> (Accessed 14 Oct 2003).
- 107 **British American Tobacco.** Smoking and Health. German Smokers Attitudes Perceptions and Preferences. 25 May.1988. Bates No. 400170334/70344. <http://www.library.ucsf.edu/tobacco/batco/html/1800/1869/otherpages/allpages.html> (Accessed 24 Nov 2004).
- 108 **Anon.** Focus Groups Country Reports. Draft Report Germany. February 1.1994. Philip Morris. Bates No. 2501361336/1341. <http://legacy.library.ucsf.edu/tid/how39e00> (Accessed 6 Oct 2003).
- 109 **Anon.** FORSA-Umfrage: 69% für ein Rauchverbot. *Nichtraucher-Info Nr. 25 III/96* 1996:7 (cited after Süddeutsche Zeitung of 3 June 1996).
- 110 **Anon.** Zwei-Drittel-Mehrheit für gesetzlichen Nichtrauchererschutz. *Nichtraucher-Info*, 1997(Nr. 28 IV/97).
- 111 **Wirz G.** American Intolerance [letter to U. Wolff, Philip Morris Germany, and others]. April 9.1991. Philip Morris. Bates No. 2501456443/6444. <http://legacy.library.ucsf.edu/tid/ggr22e00> (Accessed 13 Oct 2003).
- 112 **Deutscher Bundestag.** Gesetzentwurf der Abgeordneten Roland Sauer (Stuttgart), Uta Titze-Stecher, Ingrid Walz etc. Entwurf eines Gesetzes zur Verbesserung des Nichtrauchererschutzes (Nichtraucherschutzgesetz - NRSZG); 1994 14 March. Drucksache 12/7082. <http://www.parlamentsspiegel.de>.
- 113 **Dearlove J**, Bialous S, Glantz S. Tobacco industry manipulation of the hospitality industry to maintain smoking in public places. *Tob Control* 2002;**11**:94-104.
- 114 **Forsa.** Repräsentativumfrage im Auftrag des Fernsehsenders RTL (cited after *Nichtraucher-Info*;14 - II/94:2).
- 115 **Krause E-G.** IW-Gutachten zu den Kosten eines Nichtraucherschutzes-Gesetzes niveaulos. Oder: Mit welchen Methoden die Zigarettenindustrie gegen das Nichtraucherschutz-Gesetz polemisiert. *Nichtraucher-Info* 1998:12-13.
- 116 **Glantz S**, Ballbach E. *Tobacco war. Inside the California battles*. Berkeley: University of California Press, 2000.
- 117 **Staatlich verordneter Nichtrauchererschutz unerwünscht.** *Lycos Nachrichten online*, 1998 January 29.
- 118 **Nichtraucher-Initiative Deutschland.** *Pressemitteilung: Manipulierte Umfrageergebnisse zum Nichtraucherschutz-Gesetz [press release]*. Munich: Nichtraucher-Initiative Deutschland, 1998 January 29.
- 119 **Sebríe E**, Barnoya J, Pérez-Stable E, *et al.* Tobacco industry successfully prevented tobacco control legislation in Argentina. *Tob Control* 2005;**14**:e2.
- 120 **Lee C**, Glantz S. The tobacco industry's successful efforts to control tobacco policy making in Switzerland; 2001 January. <http://www.library.ucsf.edu/tobacco/swiss>.
- 121 **Tong E**, Glantz S. ARTIST (Asian regional tobacco industry scientist team): Philip Morris' attempt to exert a scientific and regulatory agenda on Asia. *Tob Control* 2004;**13**(suppl II):ii118-24.
- 122 **Brückner E.** Niederschrift über die Vorstandssitzung vom 8. Februar 1991.8 Feb.1991. Philip Morris. Bates No. 2028529727/9740. <http://legacy.library.ucsf.edu/tid/tgr56e00> (Accessed 17 Oct 2003).
- 123 **Commission of the European Communities.** Passive smoking or the pollution of non-smokers by smokers. Brussels, Autumn 1993. Supplement to Eurobarometer Nr. 38. http://europa.eu.int/comm/public_opinion/archives/eb/ebs_072_en.pdf (Accessed 6 Feb 2006).
- 124 **Infratest-Wirtschaftsforschung.** Infratest-Umfrage im Auftrag der Tabak-Info-Verlagsgesellschaft;1993.
- 125 **FORSA.** Repräsentativumfrage im Auftrag des Fernsehsenders RTL (cited in *Nichtraucher-Info*;14-II/94:2).