

**2004 annual report concerning compliance with the voluntary
commitment on the part of the mobile telecommunications network
operators**

Abstract

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The voluntary commitment on the part of the mobile telecommunication network operators vis-à-vis the Federal Government of Germany entitled "Measures for the improvement of security and consumer protection, environmental care and health protection, information and confidence-building measures with the upgrading of the mobile telecommunication networks" has been in force since December 2001. Among other things, it relies on the so-called "inter-association agreement" (*Verbändevereinbarung*) with the central municipal associations ("*Vereinbarung über den Informationsaustausch und die Beteiligung der Kommunen beim Ausbau der Mobilfunknetze*", "Agreement concerning the exchange of information and the participation of local authority districts in upgrading mobile telecommunication networks") dated July 2001.

Commissioning a study by the mobile telecommunications network operators, represented by the information centre mobile telephony (*Informationszentrum Mobilfunk, IZMF*), is one component of voluntary commitment: "The mobile telecommunications network operators will inform the Federal Government at least once a year on the basis of an independent study of the experiences with voluntary commitment."

This study is the third annual report concerning the implementation of voluntary commitments on the part of the mobile telecommunication network operators. It builds on the previous studies - which are available on the IZMF website - and the questions and problematic issues specified therein. The new design of the investigation was conceived in such a way that it can also be applied in the following years. It permits the comparability of results over time and is thus suited for describing changes and tendencies.

Besides regular monitoring, the voluntary commitment addresses four key areas:

1. Communication and participation; this concerns several aspects (with reference to the so-called "inter-association agreement" with the central municipal associations dated 09 July 2001): information of the local authority districts of plans to upgrade and of firm intentions to construct, including agreements about the procedure of consensus building (obligatory inclusion of local authority districts), joint use of antenna locations as well as investigations of alternative locations in the case of kindergartens and schools.
2. Consumer protection and consumer information regarding mobile telephones, with the main focus on the subject of "SAR data",
3. Promotion of research, including aspects of awarding research funds and establishing an appropriate allocation mechanism in accordance with WHO criteria, and
4. Monitoring, with the main focus on the EMF measuring network and the locations database.

This study was prepared by the German Institute of Urban Affairs (*Deutsches Institut für Urbanistik*, Difu; overall project responsibility and responsible for subject area 1: "Communication and participation"), Consumer Advice Centre North Rhine-Westphalia e. V. (*Verbraucherzentrale Nordrhein-Westfalen e.V.*, VZ NRW; subject area 2: "Consumer protection and consumer information"), the Scientific Institute for Communication Services (*Wissenschaftliches Institut für Kommunikationsdienste*, WIK; subject areas 3 and 4: "Promotion of research" and "EMF-Monitoring"), and Prof. Dr. Dietrich Henckel of the Berlin University of Technology (*Technische Universität Berlin*; in an advisory capacity for subject area 1: "Communication and participation"). The various aspects that are to be addressed in the study are thus covered by the competence of the involved partners.

The research questions, the methodical approach and key results are presented for each of the four areas.

Communication and participation

The central issues of this study in this subject area concerned aspects of *information* - regular information of the regional authorities by the mobile telecommunications network operators regarding planning and upgrading of mobile telecommunication systems as well as putting them into operation - as well as aspects of *communication and participation*: the opportunity for the local authority districts to state their opinions and for the consideration of concrete construction plans including alternative locations from the municipal perspective. It was to be examined to what extent the commitments of the network operators were adhered to. Necessarily, the role of the local authority districts was also to be analysed in the process of the determining the location.

In order to arrive at representative statements, three written surveys were carried out in parallel in September 2004 by Difu, linking in to the first survey conducted in 2002:

- a survey of towns and municipalities,
- a corresponding survey (concerning the individual local authority districts) of the local units of the mobile telecommunication network operators, and
- an additional, unrepresentative survey of the administrative districts.

The written surveys were conducted on the basis of standardised questionnaires, using largely closed questions. In addition, open questions were asked in order to support interpretations of the "marked responses" as well as to be able to examine in greater detail in the respective following year issues that were mentioned by the local authority districts or the operator companies as being of particular interest or urgency. With samples drawn from 200 municipalities and operating companies and a return rate of 80 percent (local authority districts) or nearly 100 percent (operating companies) the results are representative for all

municipalities with more than 5,000 inhabitants.

The most important result is that the overall situation regarding information, cooperation and participation compared to 2002 has clearly relaxed and improved. Overall, communication and participation on the basis of the voluntary commitment and the inter-association agreement function well. However, in isolated cases as well as regarding details problems continue to exist.

But first, regarding the information about location planning which the operator companies provide to the local authority districts: Here the companies have been largely fulfilling the voluntary commitments over the last two years. However, a proportion of the persons surveyed in the towns and municipalities still articulates specific deficits which on the one hand refer to the occasionally late provision of information (for being able to react adequately and constructively), and, on the other hand, to the quality of information, which they sometimes consider to be insufficient. In particular, the often insufficient or missing information concerning commencement of operation is criticised. In this area, the discrepancy is especially large between the respective assessments of the local authority districts and of the operating companies, so that here, clear action is required.

The implementation of the concept (that in principle is good) of providing access to the location database at the Regulatory Authority for Telecommunications and Posts (*Regulierungsbehörde für Telekommunikation und Post, RegTP*) does not seem to be totally satisfactory yet. Usage is not considered to be particularly intense. Also, the database is still not well known, especially in smaller municipalities - in this context, further clarification is needed.

In the context of planning and installing new locations - largely also in view of realising the higher UMTS network density - the locations that are suited from the municipal perspective (acceptable by the criteria of town planning, accepted by local residents, exhibiting no interference with "sensitive" facilities) slowly seems to be dwindling. Also, the number of municipal real properties on offer has receded. If one also considers the operating companies' economic and technical requirements, the survey gives the impression that it is becoming more and more difficult to find locational solutions that are satisfactory for both sides. It is recommended to pursue the question whether this is in fact the case within the context of further studies.

Therefore, it is not astonishing that in spite of the clearly improved consultation between local authority districts and operating companies that has become routine, the number of conflicts has not substantially receded compared to 2002. Also, the causes of the conflicts - above all, problems regarding the distance to facilities that lie in the focus of public attention, or to purely residential areas - have shifted a little over the last two years. Even if in the meantime dealing with conflicts and negotiating processes has become more routine, the operating companies see a tendency that technical decisions by administrative bodies that are guided by legal provisions and threshold values, are countermanded by protests by

the general public and decisions by politicians who are not prepared to accept these facts. The local authority districts, on the other hand, expect that in cases of conflict the operating companies are willing to accept public concerns and municipal interests to an even stronger degree, and intensify their efforts to bundle their installations. In addition, tensions are probably tending to increase due to UMTS upgrading (bigger location density, as yet low acceptance instead of an understanding for necessary additional infrastructure).

The "tense situation" described in cases of conflict - which, as should be expressly pointed out, represents the exception, and not the rule - probably can only begin to be resolved if

- the operating companies in debated cases become even more involved in the process of detailed discussion with committed citizens and the municipal representatives, even if this can occasionally result in delayed decisions,
- the current legal situation and the scientific findings concerning the effects on health of mobile telephony emissions (and, as a new aspect, in particular also of the combined effects of GSM and UMTS) are even better prepared by parties that are as neutral as possible, and these findings are made available "proactively"; even if for instance IZMF provides high-quality information material, certain interest groups always perceive it as biased,
- local authority districts universally adhere to the threshold values stipulated in Germany and to the methods recommended in the "inter-association agreement", as is the case in most instances. The efforts in this direction to elucidate this matter, inter alia by the central municipal associations, should not abate.

The overall positive picture painted by the survey - especially in comparison to the 2002 results - should not hide the fact that there is a series of required improvements. In particular the large number of helpful comments on open questions related to the survey points to many individual aspects that should be addressed. In this context, some questions have emerged the answers to which could serve to further improve the communication and participation process between local authority districts and operating companies:

- What kind of information should the operating companies provide for the purpose of the planning of locations?
- How can mutual understanding of locational requirements for mobile telecommunication systems be improved?
- How can the procedure of choosing and examining alternative locations be improved?
- Can the impression be verified that the number of good locations that are satisfactory for both sides is slowly running short? Which role does UMTS upgrading play in this context?

- Which role can the availability of municipal real estate as a location still play?

A quantitative as well as qualitative examination of these questions is recommended for treatment in a future potential study.

Consumer protection and consumer information

This part of the study was to examine to what extent the commitments of the network operators regarding the provision of information for the consumer were implemented. The main focus of the study lay on the implementation of the subject area "mobile telephony - environment - health", in particular concerning information about SAR data. It included an assessment of all information options and information materials for consumers that are offered by the mobile telecommunications network operators and IZMF e.V.

In the period from September to November 2004, the following studies were carried out:

- Survey of employees in shops of the mobile telecommunication network operators,
- Evaluation of the contents of available printed information materials,
- Assessment of the materials available in the Internet,
- Verification of the possibility for interactive establishment of contact,
- Verification of the activities regarding supply of low-emission mobile telephones.

The survey of the employees took place in 52 shops that belonged to the network operators in 13 towns with the help of a fully standardised questionnaire. For the assessment of the printed information materials, a grid with 15 criteria was prepared, based on the voluntary commitment. On the web site of the network operators and of IZMF e.V., locatability and availability of information as determined concerning the subject areas "mobile telephony - environment - health". Interaction was assessed by means of establishment of direct contact by post and email, using test persons.

An important result was found to be that already good approaches exist in the area of consumer protection and consumer information. However, by focussing the assessment on consumer information regarding SAR data of mobile telephones, deficits were identified in individual areas that in complying with the voluntary commitment must be optimised.

The information status of the shop employees in concerning the subject area "mobile telephony - environment - health" is still - as before - not satisfactory, although the companies do provide suitable information. Here, an improvement should be achievable regarding understanding of the subject within company-internal training courses with a corresponding focus.

In part, the available information materials highlight the topic of mobile telephony transmission masts. Nevertheless, the main focus of the present evaluation lay on the

provision of consumer information concerning SAR data, so that on this basis only three out of 14 information materials were rated as being "adequate". Because both subject areas (mobile telephony transmission masts as well as mobile telephone emissions) are equally of interest to consumers, this should accordingly be taken into consideration within the information materials provided. The description should contain at least the definition and disclosure of SAR data, specifications regarding an available list of SAR data as well as indications concerning research still needed in the context of health consequences of the use of mobile telephones. Complementary indications concerning the minimisation of the personal radiation exposure in dealing with mobile telephones would be desirable from a consumer's point of view.

The websites offer high information density with regards to the subject matter; however, the locatability of the information is not optimally solved in the navigation structure and in the search engines. Also, for the purposes of clear consumer information, the specific SAR data of mobile telephones should be stated in the description of the performance data that is provided on the web.

In the subject area of interaction with network operators and IZMF e.V., it was found that around half of the inquiries were forwarded to the responsible functional department. In these cases, they responded to the actual question, and suitable information was provided. "General" customer service was able to do this only in exceptional cases. Hence, regarding quality assurance it is recommendable as a matter of principle to have these inquiries answered by the responsible departments.

An assessment of the supply of low-emission mobile telephones could not be carried out in the absence of solid comparative data. It was found that during the assessment period (November 2004), in the case of all network operators, more than 1/3 of mobile telephones offered exhibited SAR values that satisfied the SAR value criterion (= 0.6 W / kg) of the German designation "Blauer Engel" for environmental friendliness.

In view of the necessity that is also emphasised by the German Federal Office for Radiation Protection (*Bundesamt für Strahlenschutz*, BfS) of labelling low-emission mobile telephones - which to the extent possible should already be established in the market - the manufacturers, but also the network operators, should intensify their efforts in this respect for the purpose of clear consumer information regarding SAR data of mobile telephones.

Promotion of research

The two core issues were: Have the mobile telecommunications network operators complied with their financial obligations resulting from their voluntary commitment? Have they established appropriate award and administrative procedures?

In order to answer the pertinent questions, in particular the person at the Federal Office for

Radiation Protection (BfS) who is responsible for the German mobile telecommunication research programme was interviewed, as well as some researchers whose work was supported. In addition, publicly available secondary materials were evaluated within the scope of desk research.

The result is that network operators in 2004 have fulfilled their financial obligations resulting from voluntary commitment in the full amount required. Also, the partial failure to pay on the part of Quam GmbH and Mobilcom AG was compensated in proportion by the four remaining companies. For 2005, T-Mobile, Vodafone D2, E-Plus and O2 Germany will make proportionate payments of a final payment in the amount of 2,024,997 Euro, incl. the payment shortfalls of Quam and Mobilcom.

The research funds were used and are being used for the promotion of a total of 54 research projects in the disciplines of biology, dosimetry, epidemiology and risk communication in the period from 2002 to probably 2006. Up to now, 7 projects were concluded, and 28 projects were awarded. 19 additional research projects are still in the planning phase.

The information of the general public of the project results is conducted by the Federal Office for Radiation Protection (BfS) as well as by the supported researchers. In addition, the Round Table entitled "German mobile telephony research programme" offers societal groups and institutions the possibility to receive information as well as to give suggestions.

The consultants recommend making future assignments of research projects even more clear and simple for all involved parties. Also, the communication between the supported projects and the BfS must be further improved.

Monitoring

The questions of this part of the investigation were whether the network operators have complied with their obligations resulting from voluntary commitment and compensated the failure to pay on the part of Quam GmbH and Mobilcom AG. Another question concerned the current status of the location database as well as the monitoring programme. A mix of methods, consisting of desk research, online research as well as verbal and written surveys was selected for answering these questions.

The result is that a total of 1.5 million Euro was provided by the mobile telecommunications network operators for the purpose of monitoring. The network operators T-Mobile, Vodafone D2, E-Plus and O2 Germany have proportionately compensated the payment shortfall on the part of Quam and Mobilcom. Of the 1.5 million Euro administered in trust, the first instalment in the amount of 300,000 Euro was transferred to RegTP for establishing the EMF database. The remainder of 1.2 million Euro for the construction of a Monitoring programme with defined measuring points had not yet been requested at the time of the research in October 2004, because the invitation of tenders for the project was supposed to run probably

until November 2004.

On 20 June 2002, RegTP put into operation the location database, access to which municipalities and air pollution control authorities are able to apply for. By October 2004, 63,408 locations had been entered into this database. The EMF database intended for the general public officially started operation on 23 January 2004. By 18 October 2004, 2.9 million accesses had been registered, a number that indicates a high degree of interest in this information on the part of the general public. By the end of 2004, according to the status of research in October 2004, the municipal database should be replaced with the EMF database. In autumn, all functions of the municipal location database were already integrated into the freely accessible EMF database by means of a password-protected area.

The overall impression is that of an isolated need for improvement in view of the design and technical implementation of the database as well of the database entries.