

**International EMF Project
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National Report Switzerland

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1. General Research Activities

The Swiss Research Foundation for Electricity and Mobile Communication (FSM)

FSM is a non-profit foundation, founded in 2002, sponsored mainly by industry, but supported by government, NGOs and research organisations. The aim of the FSM is to promote innovative research projects in the mobile phone sector and distribute the resulting research findings to scientists and the public. Following research areas are covered: basic research, risk perception & communication and technology & applied research. The annual research budget amounts to 550'000 basically. Information on the FSM as well as on the research projects can be found under <http://www.emf.ethz.ch/en/>

The Foundation for Research on Information Technologies in Society (It'Is)

It'Is is a non-profit research foundation that has been founded in 1999 with the aim to create a flexible and dynamic research institution capable of addressing the research needs of society in the explosively expanding field of information technologies. Information on the It'Is and on their research projects are available under: www.itis.ethz.ch

Swiss Tropical and Public Health Institute (Swiss TPH)

The Swiss TPH is a public organization of the Basel-City region. The Swiss TPH has become a world-renowned institution for teaching, research and services in the field of international health development.

Concerning EMF, the latest project of the Swiss TPH is a new cohort study, which has the aim to prospectively investigate whether exposure to RF-EMF emitted by mobile phones and other wireless communication devices affects cognitive functions, and whether it causes behavioural problems or non-specific health disturbances in adolescents. This study is funded by Swiss National Science Foundation.

Research Activities supported by the Federal Office of Public Health (FOPH)

Information on the research projects supported by the FOPH can be found under:
<http://www.bag.admin.ch/themen/strahlung/00053/00921/00922/>

Research Activities supported by the Federal Office for the Environment (FOEN)

Validation and Mechanistic investigation of Modulation-Specific Cellular Effects of Electromagnetic Fields.

Experiments were carried out and completed with the attempt to replicate the study of Zimmermann et al. (2012). Publications are in preparation.

Internet questionnaire for farm animal owners in Switzerland.

Owners of cattle and other farm animals attributing health problems of their animals to the influence of EMF or leakage currents could fill the questionnaire. The objective of the website was to collect complaints in order to get an overview on the frequency and nature of such problems.

From a total of 55'200 farms in Switzerland, only 44 questionnaires were submitted with enough content to be evaluated. In 33 cases, the cause being suspected by the respondents was electrosmog, in seven cases leakage current and in four cases both. The results of the evaluation allow concluding that this problem is infrequent. For this reason, FOEN stopped the surveying.

<http://www.bafu.admin.ch/elektrosmog/01095/13082/index.html?lang=de>

<http://www.bafu.admin.ch/elektrosmog/01095/13082/index.html?lang=fr>

Concept for the monitoring of the ambient EMF exposure.

FOEN has mandated Swiss TPH to develop a concept for the monitoring of the ambient EMF exposure by means of portable exposimeters.

The study describes how a monitoring which is representative for the population can be carried out. The authors recommend focusing on outside measurements, on measurements in the public transportations, public interior spaces and homes, thereby proposing different procedures for the measurement in homes than for the outside and public transportations.

The publication is only available in German:

http://www.bafu.admin.ch/elektrosmog/14379/16028/index.html?lang=en&download=NHZLpZeg7t,lnp6I0NTU042I2Z6ln1ad1IZn4Z2qZpnO2Yuq2Z6gpJCHeIN2f2ym162epYbg2c_JjKbNoKSn6A--

Based on this and other preparatory work the Federal Council has approved a concept for a nationwide EMF monitoring consisting of four complementary modules:

- Modeling EMF intensities due to stationary sources of various kind based on the location and operational parameters of these installations (e.g. cellular phone base stations)
- Representative measurements using portable exposimeters
- Compiling stationary measurements performed by local authorities
- Case studies concerning exposure by close-to-body mobile equipment (e.g. mobile phones).

Due to lack of financial resources, the implementation of this monitoring has been postponed.

<http://www.bafu.admin.ch/dokumentation/medieninformation/00962/index.html?lang=de&msg-id=60064>

<http://www.bafu.admin.ch/dokumentation/medieninformation/00962/index.html?lang=fr&msg-id=60064>

<http://www.bafu.admin.ch/dokumentation/medieninformation/00962/index.html?lang=it&msg-id=60064>

2. New Policies and Legislations

Protection of public from non-ionizing radiation and sound

The Federal Council has given a mandate to the Federal Department of Home Affairs to elaborate a draft law. This draft law has the aim to improve health protection from non-ionizing radiation (NIR) and sound. The future law shall for example regulate the use of sun beds, the use of cosmetic NIR-applications or the handling of laser pointers. The draft law was in open consultation from April to July 2014. The main concern in the consultation was if it is necessary to build a new law for solving the above-mentioned issues. In February 2015, the Federal Council decided that it is necessary to build this new law and gave a mandate to the Federal Department of Home Affairs to elaborate until the End of 2015 the message and the final law. On 11 December, the Federal Council transferred the message and the final law to the parliament. The parliament will deliberate on this new law in 2016 and decide whether to implement it.

Ordinance relating to Protection from Non-Ionising Radiation (ONIR)

The Ordinance relating to Protection from Non-Ionising Radiation (ONIR) has been revised in response to a decision of the Swiss Federal Supreme Court concerning old high voltage transmission lines. Whenever old high voltage transmission lines are substantially modified, they have now to respect the precautionary Installation Limit Value of one μT . If this is not possible, the magnetic flux density has at least to be minimised by appropriate technical measures. The Federal Council has taken the decision to bring the revised ONIR into force as of 1st July 2016.

<http://www.bafu.admin.ch/dokumentation/medieninformation/00962/index.html?lang=de&msg-id=61099>
<http://www.bafu.admin.ch/dokumentation/medieninformation/00962/index.html?lang=fr&msg-id=61099>
<http://www.bafu.admin.ch/dokumentation/medieninformation/00962/index.html?lang=fr&msg-id=61099>

Ordinance relating dangerous and exhausting working situations during pregnancy and motherhood ("Mutterschutzverordnung"; SR 822.111.52)

For the first time, the Federal Office of Economics, Education and Research has set threshold values for working places for pregnant women and for their unborn child. These thresholds are based on the reference values of the ICNIRP guidelines 1998 for the exposure of electromagnetic fields for the public. This ordinance concentrates on the prevention of proven danger and on disturbances or impairments.

3. Areas of public concern and national responses

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4. New public information activities

FOEN - Swiss expert group on electromagnetic fields and non-ionising radiation (BERENIS)

The FOEN has nominated a consultative group of Swiss experts from various disciplines with scientific competence regarding electromagnetic fields and non-ionising radiation, which has commenced its work in July 2014. The group is called "BERENIS", based on the acronym of the respective German term. The BERENIS experts regularly screen the scientific literature, and use defined criteria to assess the publications, which they consider as relevant for the protection of humans from potentially adverse effects. The evaluations are published in quarterly newsletters in English, German and French. The first newsletter is available online:

<http://www.bafu.admin.ch/elektrosmog/15188/index.html?lang=en>
<http://www.bafu.admin.ch/elektrosmog/index.html?lang=de>
<http://www.bafu.admin.ch/elektrosmog/index.html?lang=fr>

FOPH - EMF-factsheets have been updated

The FOPH has updated all the EMF-factsheets on the website. New technologies were included and the health impact of the different devices was newly evaluated. Consequently, recommendations has been adapted.

All the factsheets are available online:

<http://www.bag.admin.ch/themen/strahlung/00053/00673/index.html?lang=de>
<http://www.bag.admin.ch/themen/strahlung/00053/00673/index.html?lang=fr>
<http://www.bag.admin.ch/themen/strahlung/00053/00673/index.html?lang=it>
<http://www.bag.admin.ch/themen/strahlung/00053/00673/index.html?lang=en>