



EMF policy facts: Switzerland

Radio Exposure Limits

Switzerland is often presented as role model for applying the precautionary principle regarding electromagnetic fields (EMF) emitted from mobile communications installations.

The relevant sources of EMF regulation in Switzerland are the “Ordinance relating Protection from Non-Ionising Radiation” (ONIR), which entered into force on February 1st, 2000 and was slightly adapted in 2008¹ as well as the ‘Implementation Recommendation’, adapted in 2013 (technology neutrality)². ONIR codifies the exposure limits for EMF emission as recommended by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), the World Health Organisation (WHO) and the European Union. These limits shall be kept at all places accessible to persons regardless for how long these places are accessible.

Installation exposure limits

In addition, lower “installation limit values” are set when an installation provides radio service in or nearby a “place of sensitive use”. These places are deemed to be rooms in buildings that are regularly occupied by persons for prolonged periods and children's playgrounds designated in spatial planning legislation. In these places the “installation limit value” which is ten times stricter than ICNIRP exposure limits needs to be kept. This “installation exposure limit” is not measured but calculated based on the assumption that the installation transmits on full power and with maximum data load.

Lessons learnt

Regardless of the political and legal efforts made to allay public concerns, EMF discussions in Switzerland remain lively and controversial. Already back in 2004 it was recognised “that the implementation of restrictive limits based on precautionary arguments does not reduce public concern” and “more antenna sites are required, which leads to an increase in public resistance.”³ This situation has not changed since 2004. It was not only one of the crucial problems for 3G network rollout but remains a threat to the rollout of LTE networks.

While the need for communication and coordination with neighbours of new mobile communication installations remains stable at best, lower exposure limits have driven up costs for building and operating these installations: Compared to Germany, France, Italy and Austria (all of which are neighbouring countries of Switzerland) costs are 40 %

¹ <http://www.admin.ch/opc/de/classified-compilation/19996141/201207010000/814.710.pdf> (in German)

² <http://www.bafu.admin.ch/elektrosmog/01100/01108/01110/index.html?lang=de> (in German)

³ Report «Second Mobile Communications Seminar», Résidence Palace, Brussels, September 2004



to 110 % higher. 25 % to 34.5 % of these additional costs can be attributed to the lower Swiss “installation limit values”.⁴ This dynamic will continue to gather momentum with increasing data volumes that require further network rollout.⁵

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⁴ PWC: Report summary for publication of Mobile Network Cost Study – Analysis of cost drivers related to the construction, operation and maintenance of mobile networks, September 2013, page 7 and following

⁵ *ibid.*, page 12

⁶ The MMF is an international association of wireless communications manufacturers established to support scientific research in relation to mobile telephony and health, for further information: www.mmfa.info

⁷ The Information Platform Forum Mobile provides factual information on the topics of network roll out, antenna technology and base station siting as well as the legal framework of the authorization process. For more information: www.forummobil.ch