

Press Release

5G Mobile Technology Fact Check

Bern, March 27, 2019 – Birds dying, military weapons, government conspiracy – when it comes to the 5th generation of mobile communications, the hit parade of falsehoods being spread is a long one. For the first time, the Swiss Telecommunications Association (asut) is releasing a fact-check document on 5G for everyone who would like to be able to rely on truth in the news and not misinformation. This summary of the issues will be regularly updated.

5G Mobile Technology Fact Check

False Claim	The Facts
<p>1. During a 5G technology test in the Netherlands, hundreds of birds died due to high-frequency 5G radiation.</p>	<ul style="list-style-type: none"> • There were no 5G tests in The Hague during the time in question. • Between October and November 2018, hundreds of starlings were actually found dead in Huygenspark in the Hague. • Cause of death: The birds had been eating not only the non-poisonous berries of the yew trees there, but also their toxic needles. Source: mimikama, with links to additional sources
<p>2. 5G is a totally new mobile communications technology that is being used by the military as a weapon.</p>	<ul style="list-style-type: none"> • Energy weapons systems such as the “Active Denial System” use frequencies in the 95 GHz range and have nothing to do with 5G technology. • The 95 GHz frequency range is used in Switzerland for radio astronomy and satellite navigation. • Since the end of March 2019, the frequencies used for 5G in Switzerland have been in the 700 MHz to 3.8 GHz range. • The threshold values for mobile communications prevent any harmful or bothersome heating of the body due to radiation from 5G antennas. Sources: National Frequency Allocation Plan NFAP; Ordinance relating to Protection from Non-Ionizing Radiation ONIR
<p>3. 5G causes cancer.</p>	<ul style="list-style-type: none"> • In terms of the technology used, and thus also in terms of any biological impact, there is very little to distinguish 5G as it is to be implemented in the coming years from 4G (LTE). • According to all current scientific knowledge, there are no health risks that can be attributed to mobile radiation. • When it comes to cancer, however, the data available is still somewhat unclear. Thus, to be on the safe side, the International Association for Research on Cancer IARC classifies mobile phone radiation as “possibly carcinogenic” – the exact same classification they give to coffee and many other substances. • 90% of an individual's exposure to radiation comes from the person's own mobile phone. • Having a good mobile network with a high-quality connection and optimizing one's own mobile phone to keep radiation as low as possible are considered important precautions. Sources: Swiss Cancer League; Swiss Research Foundation for Electricity and Mobile Communication (FSM); Dr. Gregor Dürrenberger, Director of FSM

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<p>4. 5G causes bees to die.</p>	<ul style="list-style-type: none"> Jean-Daniel Charrière, a scientist at Agroscope, the Swiss center of excellence for agricultural research says: “All studies on this topic to date have been unable to confirm that electrosmog causes problems for bees.” Source: Berner Zeitung BZ, May 2nd, 2017
<p>5. Public appeals like 5gspaceappeal.org claim that 5G is something totally new and a lot more harmful than 4G. It will also have a more detrimental effect on electro-sensitive people.</p>	<ul style="list-style-type: none"> The concerns raised in public appeals, petitions, etc. concern what are referred to as “millimeter waves”, and with frequencies in the 26 GHz to 300 GHz range. Licenses for these frequencies are not granted at all in Switzerland, and are thus presently unavailable for use in mobile communications and 5G. The 5G frequencies that have been granted licenses and put into service since March 2019 have very similar characteristics to current mobile communications technologies that have been in use for 30 years, and lie within a range of 700 MHz to 3.8 GHz. Some of the frequencies for which licenses have recently been granted were previously used for radio and TV broadcasts. Thus, in the matter of radiation exposure, no significant changes are to be expected. There have been a very large number of studies on electromagnetic sensitivity. Double blind studies in the laboratory have been unable to show that mobile radiation has any impact on a person’s wellbeing. However, subjects did attribute the symptoms – in the absence of a clear diagnosis – to radiation. If symptoms are caused by radiation from mobile communications, then at most only a very small minority are affected. There may be evidence of a certain “nocebo” effect, when negative psychological or psychosomatic effects are perceptible to someone who is expecting them. <p>Sources: Prof. Rössli, Director of BERENIS, the Swiss Expert Group on Electromagnetic Fields and Non-Ionizing Radiation in 20 Minuten, February 14th, 2019; March 8th, 2019; Interview in Beobachter, February 1st, 2018; ComCom Media Files, February 8th, 2019</p>
<p>6. The government and mobile operators are colluding with one another to bring in 5G through the back door (e.g., by making seemingly trivial changes)</p>	<ul style="list-style-type: none"> The frequencies to be used for 5G were determined by the Swiss Federal Council in the context of the National Frequency Allocation Plan. The frequencies were granted in an auction by the Swiss Federal Communication Commission, ComCom. The granting of licenses to mobile phone operators by ComCom entitles them to use these frequencies. In order to put 5G into operation at existing or new mobile communications sites, the petitions to do so are filed with the relevant technical and/or granting authorities in the cantons and/or communes. If the response is positive, the mobile operators put 5G into operation in that location. <p>Sources: National Frequency Allocation Plan (NFAP); ComCom;</p>

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<p>7. Only very small, local antennas are needed for 5G</p>	<ul style="list-style-type: none"> • Globally, a certain de-facto standard has become established in the construction of mobile phone networks. High-performance antennas on rooftops or tower masts carry the majority of mobile services, supplemented by smaller, local antennas (microcells or femtocells). • Being based on this multi-layered mobile network architecture, nothing will change with the introduction of 5G, due to the physical realities involved. • High-performance antennas provide coverage and capacity both inside and outside of buildings. • Microcells are used in some places with lots of mobile traffic in order to increase capacity and handle network density. However, they are not designed to improve coverage within buildings. • For additional coverage in individual spaces within buildings, femtocells are used if needed. <p>Source: Mobile providers</p>
<p>8. No one needs 5G. 4G will be sufficient for some time yet.</p>	<ul style="list-style-type: none"> • There are currently capacity bottlenecks in today's 4G mobile networks. 5G enables these to be resolved, improving mobile services for customers. Additionally, 5G is of great importance for digitization and innovation in Switzerland. • The use of 5G is being pursued in line with the Federal Council's "Digital Switzerland" strategy. In addition to providing high-performance mobile communication, 5G will facilitate several new applications in areas such as the Internet of Things (IoT), including medical applications (eHealth), image processing applications (Virtual Reality, Augmented Reality), and smart traffic control systems. <p>Source: ComCom November 9th, 2017 and February 8th, 2019</p>
<p>9. There are thousands of scientific studies that prove that mobile phones are harmful.</p>	<ul style="list-style-type: none"> • On February 18th, 2019, the Neue Zürcher Zeitung concluded: <i>"Using the standard threshold values for radiation, no study was able to demonstrate any risks involved. Even a general overview of research in the area – the best remedy against cherry-picking results in service of one's own prejudices – provides no indication of risk."</i> • Many studies that claim electromagnetic fields are harmful to health (by causing cancer, etc.) do not fulfill scientific criteria. These include acknowledged quality standards, such as the ability to reproduce the results of the study, and its publication in a scientific journal. <p>Source: Prof. Harald Walach</p>

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About asut

asut is the leading association of the Swiss telecommunications industry. Along with our members, we work to shape and guide the digital transformation of Switzerland, working to achieve the optimal political, legal, and economic conditions for the digital economy.

asut is focused on three issues that are key to the success of innovation in the country. We want Switzerland to:

- position itself as the country with the best communications network in the world and first-class services thanks to fair, free, and dynamic competition,
- distinguish itself by resilient systems and smart infrastructures,
- establish itself as a center of education and research that is tailored towards a digital society and economy.

More information at: www.asut.ch