

**To UN Secretary General António Guterres** 

June 20, 2018

# Scientist warn of serious health and environmental effects of 5G

The 5G-Appeal to EU demanding a moratorium of the 5G rollout was signed by more than 200 scientists and medical doctors in the autumn 2017. The Appeal points to the fact that no scientific studies have been performed to show that the radiofrequency (RF) radiation from 5G is safe for human health and the environment and the fact that scientific studies increasingly and convincingly show harmful effects from already available technology (2G, 3G, 4G, WiFi etc). Alarmingly new plans are now also made to transmit 5G from space satellites. This means that humans and the environment will have an increased risk to be exposed to radiofrequency 5G radiation, also from the space. We ask you to save the world population and the ecosystems from a possible disaster caused by added 5G radiation on earth and from the space.

## 5G will increase the risk for inescapable and involuntary EMF exposure

**Ground based 5G:** Inside each *5G base station* there will be hundreds or even one thousand antennas emitting concentrated EMF (ElectroMagnetic Field) beams of microwave (millimeter) pulses, which will lead to an increase of EMF radiation. Several hundred scientists already agree that EMFs are harmful to human health and the environment.

We ask you to read more in the <u>5G Appeal from 2017</u>. Please also see the list of the more than 200 signatories from 36 countries, who have signed the appeal.

**Space based 5G:** Several companies are now planning to provide 5G from space satellites in low and medium orbits aiming focused, steerable beams at the earth. Each satellite will emit EMFs from antennas arranged in phased arrays, which direct the narrow 5G beams.

On top of new 5G transmitters on earth and new satellites in space, <u>200 billion objects</u> in refrigerators, washing machines, surveillance cameras, self-driving cars and buses, maritime engines, medical and wearable body sensors etc., are predicted to be parts of the Internet of Things (IoT) in the future. Serious harmful effects on humans, animals and plants may be the result.

## Harmful effects of RF-EMF exposure are already proven

EMFs have both immediate and long-term effects. Since 2015, 237 scientists now agree (EMF Scientist appeal) that scientific studies increasingly show that the radiation can cause DNA damage, oxidative stress and cancer. Effects also include structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plants and animals.

# International conventions violated because of wrong "guidelines"

The current ICNIRP<sup>1</sup> "safety guidelines" for exposure to radiofrequency radiation are obsolete. All evidence of harm mentioned above arise although the radiation is <u>below the ICNIRP</u> "safety guidelines". Therefore new safety standards are necessary.

### We urge the UN, the Secretary General and Governments of all nations

- 1) To take all reasonable measures to halt the 5G, including 5G Space expansion, to protect all mankind, especially infants, children, pregnant women, as well as the environment.
- 2) To appoint immediately, without industry influence, international groups of truly independent, impartial EMF and health scientists with no conflicts of interest<sup>2</sup>, to create new exposure standards for RF-EMF that protect against *all* health and environmental effects, not just thermal effects and not just effects on humans.
- 3) To favor wired digital telecommunications, not wireless communication, if not first convincingly proven safe.
- 4) To demand a Moratorium on the 5G rollout until research shows if this new use is sustainable for humans, children, animals and plants on Earth.

#### **Conclusion**

Already available scientific results show that radiofrequency radiation is a risk for humans and the environment even before the introduction of 5G. Introducing 5G might cause additional serious harm to humans and the environment due to increased radiation.

We expect an answer from you no later than September 30, 2018 sent to the signatories listed below about what measures you will take to protect the global population and the environment against RF-EMF radiation exposure, especially 5G radiation. This letter, with reference to the 5G Appeal, and your response will be publicly available on the 5G-appeal website.

#### Respectfully submitted,

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<sup>&</sup>lt;sup>1</sup>International Commission on Non-Ionizing Radiation

<sup>&</sup>lt;sup>2</sup> Martin Pall: "5G: Great risk for EU, U.S. and International Health", May 17, 2018 (chapters 1, 5, 6).