To the EU Commissioner of Health

12 January 2023

7th 5G Appeal
The EU’s illegal precedence of economy over health

On behalf of 430 scientists and MDs\textsuperscript{1} we are sending the 5G appeal\textsuperscript{2} to the EU commissioner of Health for the 7th time since 2017. We expect that you as a EU decision maker will take the 5G Appeal and thousands of relevant scientific articles as indicative of what is now known about the harmful and energy wasting effects of wireless electromagnetic fields (EMF) and all forms of Non-Ionising Radiation (NIR). We expect you and the the EU to take appropriate measures to protect EU citizens from these effects. We request a written response from you the EU commissioner of Health, Stella Kyriakides (not again only from one of your subordinates) as well as a meeting with you in Bussels.

1. The Charter of Fundamental Rights\textsuperscript{3}, primary law\textsuperscript{4} as well as case law from the European Court of Justice make it mandatory for EU decision-makers to protect the EU population, especially children, from all kinds of harmful health effects of wireless technology. Article 168 of the consolidated version of the Treaty on the Functioning of the European Union (TFEU) reads as follows: A high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities.\textsuperscript{5} EU Case law\textsuperscript{6} clearly states that: The protection of health takes precedence over economic considerations. We therefore expect protection of health to be the primary principle adopted by all decision-makers in the EU, including European commissioners, members of the European Parliament and the Council of Ministers.

2. Since 2017 we have not seen any proof of this\textsuperscript{7}. In the six replies we have received to earlier 5G Appeals there has not been any clear intention to prioritise health over economics. Instead, the EU continues to advocate the economic benefits of wireless (5G) communications more than health and to consider the inadequate ICNIRP\textsuperscript{8} guidelines as protective of human and environmental health, including for children and the most vulnerable. The history of EU responses to consecutive 5G Appeals demonstrating an ongoing lack of attention to health concerns has been published in a recent review.\textsuperscript{9}

3. The EU continues to refer to the ICNIRP guidelines because ICNIRP has been endorsed by Council Recommendation 1999/519/EC\textsuperscript{10} as the EU’s main external advisory group concerning NIR protection. Even in the face of thousands of studies stating the contrary, ICNIRP and Council Recommendation 1999/519/EC continue to deny that there is scientific proof of non-thermal, biological effects far below current policy radiation guidelines. Given the state of play of independent science today, there are increasing questions concerning the continued legality of Council Recommendation 1999/519/EC and the EU EMF-health protection policy in general.

ICNIRP Guidelines are a grossly inadequate basis for EU policy

4. There is now clear evidence that ICNIRP guidelines are not an adequate scientific basis for EU’s policy regarding wireless electromagnetic fields (EMF) policy. ICNIRP guidelines have been shown to be flawed by, amongst others, Cherry\textsuperscript{11}, Favre\textsuperscript{12}, Hansson Mild & Hardell\textsuperscript{13}, ORSAA\textsuperscript{14}, Redmayne\textsuperscript{15}, Nordhagen & Flydal\textsuperscript{16} and recently the ICBE-EMF\textsuperscript{17}. On top of this, 256 Scientists in the EMF Scientists Appeal\textsuperscript{18} attest that ICNIRP guidelines do not protect health. Over 400 scientists and medical doctors\textsuperscript{1} have endorsed the 5G Appeal. All have
asked the EU to apply the Precautionary Principle in such a way that EU policy takes not only heating (thermal) but also non-thermal effects into account. This is increasingly supported by a number of successful lawsuits in USA, Germany, Italy and elsewhere in the European Union, demonstrating that signals from mobile communications are seen to be the cause of several kinds of harmful effects such as acoustic neuroma (brain cancer) in people exposed to cell phones. The environment, including plants, trees, bees, insects, birds, mammals, rats, and cows are also harmed by NIR far below the ICNIRP guidelines. Therefore, NIR poses a serious threat to not just humans, but also to the environment and to everything that lives.

5. In clear contradiction to the ICNIRP and EU positions, we have provided the European Commission with several thousand scientific studies revealing the harmful effects caused by wireless EMF far below ICNIRP guidelines. For example earlier 5G appeals have referred to at least 7000 peer-reviewed research reports, the ORSAA Review and over 100 extensive research reviews, showing harmful effects from wireless NIR well below ICNIRP limits. BioInitiative colour charts list harmful biological effects found at levels more than one million times below ICNIRP guidelines. However, all six replies 2017-2022 from the EU claim that no studies show harmful effects of EMF below the guidelines. Will the EU a seventh time try to deny the existence of 7000 scientific reports proving health risks far below the flawed ICNIRP guidelines?

6. Given all the evidence presented to the European Commission since 2017, we now know beyond any doubt that radiofrequency EMF radiation not only causes ”tissue” heating, as ICNIRP claims, but many other serious biological effects far below the heating thresholds set for ICNIRP’s ”testing tissue” (which is actually liquid; see Figure 1). Such harmful effects include oxidative stress, as demonstrated in 93 of 100 available studies reviewed by Yakymenko et al., damage to DNA, blood, sperm, brain cells and cancer. These effects have been explained by mechanisms other than heating, e.g., disruption of voltage gated calcium (and other) channels in cells (Panagopoulos, Pall), reactive oxygen species, and changes in cell signalling. All of these effects and mechanism were recently stressed in an article by the International Commission of Biological Effects of EMF (ICBE-EMF).

7. Six earlier 5G Appeals since 2017 have consistently clarified how ICNIRP guidelines do not relate to everyday exposures as experienced by EU citizens. Real world radiofrequency signals are complex combinations of many simultaneous frequencies. They are pulsed, polarised and modulated at frequencies that have been shown to be extremely bioactive. None of these complexities are addressed by the ICNIRP guidelines. ICNIRP guidelines thus do not address long term exposure from childhood on, nor the real world scenarios from several simultaneously radiating gadgets experienced every day by the general public. For that reason, ICNIRP guidelines cannot be deemed relevant or protective of public health.

8. Earlier Appeals also laid bare the many ways in which ICNIRP and SCENIHR have been compromised towards promoting industry interests instead of the public interest. Two EU parliamentarians Rivasi & Buchner, 2020 and International Commission of Biological Effects of EMF have created well documented accounts of how ICNIRP is captured by industry and therefore has a questionable ability to provide trusted leadership on wireless EMF and health issues. ICNIRP is a self-selected, industry supportive body comprised of only 14 persons with limited biophysics or medical training, and no industry-independent views. Its members elect like-minded colleagues ensuring the perpetuation of the wireless industry’s need for maximum exposure guidelines.
9. Over the past five years, the EU has continued to rely on fraudulent, biased science from ICNIRP, SCHEER and SCENIHR.51 Faced with thousands of peer-reviewed articles of proof to the contrary, these groups continue to claim that no scientific research has proven harmful health effects below tissue heating power densities. Instead of protecting the public, the EU continues to follow the biased opinions of SCHEER and SCENIHR, and the ICNIRP guidelines while dismissing the EU’s own internally commissioned, important reports 52,53,54 and the advice of hundreds of independent scientists 1,17, which contradict the ICNIRP narrative. If the EU continues to trust these industry biased “experts”, claiming that heating is the only risk and denying the existences of thousands of scientific reports proving harmfull effects, then the EU accepts lies and crimes against EU laws.

10. This position has given operators and producers of digital equipment the right to expose all citizens, including children to continually increasing levels of harmful radiation, without being certain of the outcomes of this exposure. Without prior consent, this is equivalent to a mass experiment with serious health consequences. It represents a crime against the EU Charter of Fundamental Rights 9 and the Nuremberg Code 55, which requires that, before the acceptance decision by the experimental subject, there should be made known to him the nature...of the experiment...all inconveniences and hazards...and the effects upon his health or person, which may possibly come from his participation in the experiment. That is, the EU’s current position on NIR violates primary law and constitutes a serious crime against humanity.

11. The six earlier Appeals have also provided recommendations for alternative and accessible technologies such as the use of cable and fiber connections. Such innovations are readily available and provide far superior speed, reliability, health protection and data security. Wired internet speeds are about 100 times faster 56 than typical wireless connections, and are also much more energy efficient. According to Huawei, a typical 5G base station takes 68% more energy or even “up to twice or more the power of a 4G base station” 57 and additionally 5G needs three times more base stations. According to the IEEE, 5G will need over 20% of the total global energy consumption by 2030. In short, far from being a ‘Green Deal’ 58 [which the EU Council strives for], wireless connections are a senseless waste of energy.

The best alternative is Passive Optical Networks (PON) which are the fastest and least energy consuming technology available today. They consume nearly 50 times less energy than UMTS/3G 56,59 and about 10 times less energy than LTE/4G 60. PONs are safer for humans, the environment and data security. They provide a vastly superior alternative to continuously increasing levels of wireless planetary electromagnetic pollution 61 in the environment.

12. According to the EU Directive 2018/2002 62 remotely readable utility meters for water and electricity consumption are required in all apartments. They can be wired or wireless. Some wireless meters send series of pulses every second (83,100 series per day, which means 27.7 minutes every day 63) signals which are proven to be harmful for health. 64 One single smart meter can radiate as much as 100-160 cell phones 65. Thus, a full apartment house set of 80-200 wireless smart meters produces immense harmful NIR 66. Therefore, all utility meters should be required to be wired so as to: (a) save energy, b) protect health, and to (c) prevent data from being misused, as Directive (EU) 2018/2002 61 demands: promote cybersecurity and ensure the privacy and data protection of final users in accordance with applicable Union law. The EU’s GDPR 67 lays down that sending any information relating to an identifiable...natural person can infringe the data protection of the individual 68 when sending wireless in all directions. Service providers must secure their services by at least – ensuring that personal data are accessed by authorised persons only (EU directive 2002/58/EC 69). That is possible only by using wired communication.

13. As a result of the increased consumption of energy, the harm to people and the environment, and the potential misuse of data, we consider current EU policy to grossly infringe EU primary law, the EU Charter of Fundamental Rights 3, and Children’s Fundamental rights 70. It also infringes EU promises of energy savings as well as the EU Council’s Green Deal 58 ambitions. In order to avoid legal action we invite EU institutions to immediately take measures to make sure that EU policy fully takes all long term non-thermal, biological effects into account by drastically reducing the exposure of plants, insects, animals, humans – especially children – to wireless EMF. This involves notably the following actions:

1. Basing policy on truly industry-independent science and scientists;
2. Establishing EU scientific (advisory) committees that are fully independent from industry;
3. Revoking Council Recommendation 1999/519/EC 9 and replacing it with a new legal instrument that fully takes into account all long term, non-thermal, biological effects of wireless EMF, as stressed in Resolution
1815 of the Council of Europe and numerous other recommendations by various international governing bodies and hundreds of independent scientists;

4. Drastically sharpening both the meaning and the application of the Precautionary Principle to wireless EMF so as to arrive at EU guidelines that are health- and environment-centred, with primary consideration for the wellbeing of insects, animals and humans – especially children;

5. Re-interpreting Directive EU 2018/1972 to include full and real-life protection of humans, especially children against all long-term biological effects from wireless EMF and, thus, bringing it in line with EU primary law 7,9, EU Charter of fundamental rights 3, Children’s fundamental rights 68 and the Nuremberg Code 55;

6. Stipulating that data transmission from utility meters (i.e., water, gas and electricity) must be wired and transmissions allowed only when necessary for the billing (max. 1 x per month);

7. In order to protect EU citizens’ health and environment demand wired connections where possible and less wireless according to Schoechle’s 71 recommendations (p. 122 ff).

Conclusion: Towards an EU policy that protects health and is mindful of energy

14. Because health must have precedence over economy 6, we urgently ask the EU to take the above actions to protect humans, children, animals and insects. To establish such policy, the EU needs new committees, comprised of qualified, truly industry-independent scientists from i.e the International Commission of Biological Effects of EMF (ICBE-EMF) 17 and/or four other groups of scientists 72. They suggest guidelines ranging from 0,1 µW/m² to 100 µW/m², which are a million times stricter than ICNIRPs industry-friendly (heating) guidelines 8 being 10.000.000 – 400.000.000 µW/m²*, proven harmful 11-50 in 70% of all relevant scientific reports.

15. Based on a correct reading of the Precautionary principle70 and other principles of EU law we ask the EU to impose a moratorium on the 5G roll-out to avoid dramatic additions to existing planetary electromagnetic pollution 35.

16. Finally, we request a meeting between lawyers, independent scientists in this research field and you the EU Commissioner of Health and Food Safety, Stella Kyriakides, as well as a direct, written response from the European Commission and the EU Council confirming that– in order to stop infringements of the EU Treaty 5, EU laws 6 and the EU Charter of Fundamental Rights 3 – the Recommendation 1999/519/EC 9 will be replaced with far lower guidelines as suggested in point 14 above.

Vasa and Örebro, 12 January 2023

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Attachments:
1. In Attachment 1 you find additional signatures from scientists and MDs who endorse this 7th appeal.
2. See also the initial 5G Appeal sent six times to EU since 2017. We do not include it because you can read it in your preferred language by clicking here > DE / EN / ES / FI / FR / IT / SV / PL.
3. 430 scientists and MDs endorse the initial 5G appeal: www.5gappeal.eu/signatories-to-scientists-5g-appeal

*) Quote from ICNIRP guidelines 8 (p. 490): "ICNIRP has set the absorbed power density value for local heating, averaged over 6 min and a square 4-cm² region, at 200 W m⁻²; this will also restrict temperature rise in Type-2 tissue to below the operational adverse health effect threshold of 2°C. An additional specification of 400 W m⁻² has been set for... square 1-cm² regions, for frequencies >30 GHz." [This means 200.000.000 µW/m² or 400.000.000 µW/m². NOTE! The reason for the ICNIRP guidelines is that ICNIRP is captured by the industry and considers only heating 50. See pt 8 above.]
References

1. Scientists and MD:s (424) who have endorsed the EU 5G Appeal. Available from: https://www.5gappeal.eu/signatories-to-scientists-5g-appeal/

2. The EU 5G Appeal. Available from: www.5gappeal.eu


6. Case 183/95 Affish that the protection of public health ... must take precedence over economic considerations https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:61995CJ0183&from=EN (para. 43)


11. Cherry NJ. Criticism of the health assessment in the ICNIRP guidelines for radiofrequency and microwave radiation (100 kHz-300 GHz); 2002. Available from: https://core.ac.uk/download/pdf/35464854.pdf. [348 scientific sources used as proofs]


18. 256 signatories to EMF Scientists appeal to the UN and WHO to reduce exposure of humans and the guidelines (created by ICNIRP) must be reduced. Available: https://emfscientist.org/index.php/emf-scientist-appeal


AMS kommunikasjonsmoduler (Norwegian Smart meters comparison. Available from: https://emf-consul-t.com/ams-kommunikasjonsmoduler/ Examples: [Kamstrup, Nuri + Aidon: NOTE: Sends 869.525 – 875.350 MHz (20 ms) series of pulses every second = 83.100 (27.7 min) per day = 2.493.000 series (13.8 h) per month.]


Germany-Data Privacy and Protection: Available from: https://www.privacyshield.gov/article?id=Germany-Data-Privacy-and-Protection


Four groups of industry independent scientists demand far lower guidelines than ICNIRP/EU: Compare the guidelines below to ICNIRP/EU guidelines 10,000,000 – 400,000,000 µW/m² which consider only heating!


(c) BioInitiative Report. Available from: https://www.bioinitiative.org Suggests guidelines based on all kinds of biological effects, not only heating: [3–6 µW/m²]

(d) Council of Europe, Resolution 1815. Available from: https://assembly.coe.int/nw/xml/XRef/Xref-XML-L2HTML-en.asp?fileid=17994 [100 µW/m²] (these guidelines consider all biological effects - not only heating!)

See endorsements of the ”7th EU 5G Appeal” in Attachment 1 next page —>

See the 430 endorsements of the initial 5G appeal to the EU by clicking here.