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Subject: A Consultation on the State's Digital Connectivity Strategy [REDACTED]
Date: Thursday 31 March 2022 16:15:21
Attachments: [Submission Digital Conn Strategy.docx](#)
[Submission Digital Conn Strategy Word version 92-2004.doc](#)

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Please find for your consideration, my submission below on the Digital Connectivity Strategy and also attached in 2 different Word documents in case this is your preferred format.

Regards,

[REDACTED]

SUBMISSION ON THE DIGITAL CONNECTIVITY STRATEGY – February 2022

I am very worried about the recently published Digital Connectivity Strategy and the government's policy on public exposure to electromagnetic radiation, its reliance on the guidelines of the International Commission on Non-Ionising Radiation Protection (ICNIRP) which have been widely condemned by both the scientific community and official international organisations and the consequent alarming lack of adequate safety measures or oversight in this field. This has resulted in the proliferation of telecommunications structures around the country, many of which have been erected in highly inappropriate areas – next to homes, schools, workplaces, hospitals etc. and even over crèches. This has been facilitated by the undemocratic legislative framework, which has evolved since the introduction of the Telecommunications Antennae and Support Guidelines 1996 of the Department of Housing, Local Government and Heritage and which has singled out the telecommunications industry for preferential treatment. Wireless technology is being rolled out in the absence of any meaningful involvement by the Department of Health or any other competent health body, despite a huge body of scientific studies which demonstrate the adverse effects of electromagnetic radiation on health, all wildlife and the environment at levels much lower than the ICNIRP levels. It is vital that the safety of the Irish public is prioritised over the interests of the telecommunications industry and I would appreciate if you would take my concerns below into account.

CONSULTATION QUESTION 1

The ambition level in the Digital Connectivity Strategy is completely inappropriate as it aims to significantly increase public exposure to wireless radiation across the state, which has been demonstrated in thousands of independent studies to have adverse effects on health, all wildlife and the environment even at very low levels. The Strategy supports the recently launched Digital Ireland Framework which includes plans for example to facilitate the development of SMART cities and other communities and to cover all populated areas by 5G by 2030. 5G is not simply an upgrade from 4G, it is much more powerful and would operate in conjunction with the existing 2G, 3G and 4G technology and not replace them, thereby compounding the adverse effects. Here are some examples from studies on the adverse effects of electromagnetic radiation:

The Bioinitiative Working Group, an international collaboration of prestigious scientists and public health experts from across the world, reviewed thousands of peer reviewed scientific papers. They reported that chronic exposure to even low-level EMF/RFW/FI emitted including from masts/antennae can cause adverse health effects. The 2007 report includes 2,000 studies, the 2012 report an additional 1,800 studies. The collective studies in the Bioinitiative Report identified key scientific biological effects with peer reviewed evidence from independent scientific research:

- Children are more vulnerable
- Fetal and Neonatal Effects
- Effects on Autism (Autism Spectrum Conditions)
- Electrohypersensitivity
- Effects from Cell Tower-Level RFR Exposures
- Effects on the Blood-brain Barrier
- Damage to Sperm and Reproduction
- Effects on Brain Tumours
- Effects on Genes (Genotoxicity)
- Effects on the Nervous System (Neurotoxicity)
- Effects on Cancer (Childhood Leukemia, Adult Cancers)
- Melatonin, Breast Cancer and Alzheimer's Disease
- Stress, Stress Proteins and DNA as a Fractal Antenna
- Effects of Weak-Field Interactions on Non-Linear Biological Oscillators and Synchronized Neural Activity

More at: Bioinitiative 2012 – Summary for the Public (2014 Supplement)

https://bioinitiative.org/wp-content/uploads/pdfs/sec01_2012_summary_for_public.pdf

The National Toxicology Programme released the results of the longest (10 years) and most expensive study to date on mobile phones and cancer in November 2018, which found "clear evidence" that male rats exposed to high levels of radio frequency radiation (RFR) like that used in 2G and 3G mobile phones developed cancerous heart tumours. Higher incidences of brain and adrenal tumours were also seen.

<https://ehtrust.org/clear-evidence-of-cancer-from-cell-phone-radiation-u-s-national-toxicology-program-releases-final-report-on-animal-study/?fbclid=IwAR2EzTMU7csOg6tdXD0DJHOXCoxbe5776Z-pno16HhskeXk3lPVmkAyTihk>

Martin L. Pall (2018) 5G Great risk for EU, U.S. and International Health! Compelling Evidence for Eight Distinct Types of Great Harm Caused by Electromagnetic Field (EMF) Exposures and the Mechanism that Causes Them

https://europa.eu/attachments/article/130/2018-04_EU-EMF2018-5US.pdf

Specific studies show higher rates of illnesses and cancers in those living near mobile masts. Here is just a small sample:

- Prof. Girish Kumar found in his study "Radiation Hazards from Cell Phones/Cell Towers" that people living within a 50-300 meter radius are in the high radiation zone and are more prone to ill effects of electromagnetic radiation. <https://www.robindestoits.org/attachment/337945/>

- The study entitled, "Impact of radiofrequency radiation on DNA damage and antioxidants in peripheral blood lymphocytes of humans residing in the vicinity of mobile phone base station" (Zothansama et al. 2017) was published in Electromagnetic Biology and Medicine. It compared people living close (within 80 meters) and far (over 300 meters) from cellular antennae and found that the people living closer to the antennae had a much higher RF exposure and statistically significant effects – increases in blood damage considered biomarkers predictive of cancer. <https://pubmed.ncbi.nlm.nih.gov/28777669/>

- The study "Neurobehavioral effects among inhabitants around mobile phone base stations" found that "Inhabitants living nearby mobile phone base stations are at risk for developing neuropsychiatric problems and some changes in the performance of neurobehavioral functions" (Abdel-Rassoul, G. et al 2006. NeuroToxicology, doi:10.1016/j.neuro.012)

- And a new study was recently published by the Swedish Radiation Protection Foundation in February 2022, which adds to the wealth of science indicating the serious potential health effects of 5G. It shows the health consequences for a man and a woman who received a 5G base station directly above their apartment, only 5 metres above their bedroom. This is significant considering that 5G has never been proven safe. It demonstrates that 5G causes harm specifically. However existing scientific evidence has long indicated 5G could cause harm. According to the study, in addition to showing that 5G causes microwave syndrome/ electromagnetic sensitivity fairly immediately, the case study also shows that 5G leads to a massive increase in radiation in our environment. The findings of the study with regard to the health implications make for urgent reading and can be accessed here: <https://ehtrust.org/study-5g-causes-microwave-syndrome/>

or the Swedish version: https://www.stralskyddsstiftelsen.se/wp-content/uploads/2022/02/5g_mikrovagssyndromet_ma_2022.pdf

Successive governments have chosen to ignore the warnings from the thousands of peer reviewed scientific studies on the dangers of electromagnetic fields and from many others such as the Council of Europe, the 300 independent scientists at cml call.org and bioinitiative.org (whose research spans several decades and categories of illness to humans, pollinators, plants and animals) and organisations such as Environmental Health Trust (ehtrust.org), PHIRE medical UK, the current International Appeal to Stop 5G on Earth and in Space, along with over 40 scientist/doctor appeals since 1998 including the Freiburg Appeal 2002 and Bamberg Appeal 2004. Prof. Tom Butler of UCC explains in his report on the health risks of radiofrequency radiation that "the overwhelming majority of published peer-reviewed scientific studies in biomedical research databases indicate significant health risks with RFR of the type used in 5G technologies". Here are examples of several other warnings:

- In 2005 a cross-party Oireachtas Committee report compiled a report on Non-ionising radiation from mobile phone handsets and masts http://archive.oireachtas.ie/2005/REPORT_20050600_2.html

This report followed evidence by Dr Elizabeth Cullen of the Irish Doctors' Environmental Association on the health impacts of electromagnetic radiation and her request that a full assessment of the health impacts be undertaken https://www.oireachtas.ie/ga/debates/debate/joint_committee_on_communications_marine_and_natural_resources/2005-01-25/2/
<https://iervn.files.wordpress.com/2019/08/report-by-dr-elizabeth-cullen-to-the-joint-oireachtas-committee-2005.pdf>

The Oireachtas Committee report was compiled at a time when wireless technology was far less advanced and prevalent compared to today and when the first smart phones had not even been introduced to Ireland. The report recognised that many people suffer ill health from the use of mobile phones or because they reside near a mast and called for a series of measures to be implemented including:

- the appointment of an independent board to review the published scientific data and which would include a representation from a statutory medical body;
- the establishment of a standing advisory committee comprised of the Department of Health and Children, the Department of the Environment, Heritage and Local Government and the Department of Communications, Marine and Natural Resources to vet and agree all standards for the mobile telephony industry;
- that all mobile phones for sale should display a label with details of its non-ionising radiation level;
- a ban on mobile phone masts/antennae near schools, play grounds, pitches and health centres etc
- In 2006 members of the Irish Electromagnetic Radiation Victims Network (IERVN) recounted their daily suffering with electromagnetic hypersensitivity due to effects from their exposure to non-ionising radiation from mobile phone handsets and masts at a Joint Committee on Health and Children in Lemster House
https://www.oireachtas.ie/ga/debates/debate/joint_committee_on_health_and_children/2006-02-02/3/
- The Irish Medical Organisation (IMO) passed the following motions at their AGM in 2010 relating to non-ionising radiation, which means they are now the official policy of the IMO.
- 07/29 This AGM recommends that the recommendation of the Joint Committee on Communications, Marine and Natural Resources on 'Non-ionising radiation from mobile phone handsets and masts' be implemented
- 05/25 That in light of ongoing uncertainty and in view of accumulating evidence, *in vivo* and *in-vitro*, of discernible effects on structure and function of tissues resulting from non-ionising radiation, that this Organisation, urges the Government to restrict the use of cell phones by children and prohibits the erection of cell phone base station transmitters on or near schools
- 01/32 In view of the increasing concerns regarding the possible adverse health effects from microwave radiations the IMO requests the Minister for the Environment to require that a health warning, relating to these possible adverse health effects, particularly for those under eighteen years of age, be issued with all mobile phones
<https://www.imo.ie/policy-international-affair/documents/policy-archive/imo-motions-and-policy-handbook/IMO-Policy-Handbook-2010.pdf>
- In 2011 The World Health Organisation and International Agency for Research on Cancer (IARC) classified all Electromagnetic Fields/Radio Frequency (EMF/RF/Wi-Fi) used to power modern technology and emitted by masts/antennae and technological devices, as a Class 2B Carcinogen. The body of evidence is growing to suggest that it should be re-classified as a Class I carcinogen
http://www.iarc.fr/wp-content/uploads/2018/07/pr208_E.pdf
- Following the WHO classification, the Parliamentary Assembly of the Council of Europe adopted Resolution 1815 in which it considered that there was sufficient proof of the potentially harmful effects of electromagnetic fields (EMFs) on health and the environment. The resolution outlined several recommendations on the dangers of EMFs to the member states concerning the use of mobile phones and WiFi networks. It described the standards on exposure to EMFs set by the ICNIRP as having "serious limitations" and stated that "the precautionary principle should be applied when scientific evaluation doesn't allow the risk to be determined with sufficient certainty. Given the context of growing exposure of the population, in particular that of vulnerable groups such as young people and children, there could be extremely high human and economic costs if early warnings are neglected. Waiting for high levels of scientific and clinical proof before taking action to prevent well-known risks can lead to very high health and economic costs, as was the case with asbestos, leaded petrol and tobacco"
<https://assembly.coe.int/tv/xml/XRef/Xref-XHTML2HTML.asp?fileid=17994>

- In 2016, the European Directive "Safety, Health and Welfare at work Electromagnetic Fields) Regulations 2016" were transposed into Irish law. These regulations include information on the risks of non-thermal effects of EMF/RF/Wi-Fi "such as stimulation of muscles, nerves or sensory organs. These effects might have a detrimental effect on the mental and physical health of exposed employees". The sources of EMFs include but are not limited to Wi-Fi, 2G, 3G, 4G, 5G etc. The regulations also impose duties on employers to avoid and reduce risks from EMFs and when to carry out risk assessments etc. The regulations identify groups "at particular risk" as being the following: pregnant employees, employees who wear active or passive implanted medical devices such as cardiac pacemakers and employees with medical devices worn on the body, such as insulin pumps

Regardless of whether or not you believe EMF non-ionising radiation exposure to be safe, the Regulations in Ireland/EU clearly state that it is not safe and that it presents a particular health risk to the groups of workers above and that specific risk assessments "must take place". It stands to reason that if workers can suffer adverse effects from EMFs, then the residents and children in particular, who live near telecommunications structures and antennae, which have been erected around the country, are also at risk and must be protected
<http://www.irishstatutebook.ie/eli/2016/si/337/made/en/pdf>

Professor Tom Butler's 'Review of the Health Risks of Radiofrequency Radiation Employed in 5G Technology and the Implications for UK Policy-making' is very relevant to our situation in Ireland and provides an excellent scientific summary of why we should be concerned about the health risks of wireless radiation
<https://www.radiationresearch.org/wp-content/uploads/2020/05/Prof-Tom-Butler-Submission-on-5G-RFR-Final-27-05-2020.pdf?fbclid=IwAR3pfz2CoapFhQaEd4wJloPdFvNVs1sMdrnC4uZCB2F4XJKVI-OHnky24>

If the thousands of studies warning of the dangers of electromagnetic radiation and 5G don't convince you of the serious risks to health, it should be enough to confirm that at the very least there is a serious doubt about its safety, and therefore the precautionary principle should be applied. We have no basis on which we can presume that electromagnetic fields and especially 5G are safe and to further confirm the serious doubt about safety, wireless industry representatives admitted at a US Senate Hearing in 2019 that they had carried out NO health and safety studies on 5G!

You can watch this short video where they make this admission:
<https://www.youtube.com/watch?v=hsil3VOE5K4>

Children and WiFi in schools

Most worrying with regard to the health issue is the fact that children, adolescents and especially the unborn are particularly vulnerable to exposure from wireless radiation as they absorb much more radiation than adults, are still developing and have a longer time ahead for latent effects to manifest. The WiFi systems used in schools are considerably stronger than that used at home, as more routers are needed, producing much higher microwave signal strength to cover a larger area. Each separate tablet or device will also be emitting radiation. It is vital therefore that the government works to reduce the exposure in schools and early childhood care and education settings like has been done for example in France, Cyprus, Israel and Russia

<http://www.assemblee-nationale.fr/14/ta/ta0468.asp>
<https://chtrust.org/cyprus-issues-decree-banning-wireless-kindergarten-elementary-school-classrooms/>
<https://chtrust.org/restrict-screens-no-cell-phones-and-minimize-wireless-radiation-for-education-during-covid-19-quarantine-russia-releases-recommendations-for-childrens-protection/>

However Circular Letter PL 07/12 issued in 2012 by the Department of the Environment, Community and Local Government advised planning authorities not to include minimum separation distances between telecommunications structures and schools

<https://www.gov.ie/en/circular/bbd7-circular-pl-0712-telecommunications-antennae-support-structure-guidelines/>

This urgently needs to be reversed in line with the recommendations of the Joint Oireachtas Committee mentioned above and the policy of the Irish Medical Organisation

Some warnings specifically relating to children which have been largely ignored are:

- The Council of Europe Resolution 1815 of 2011 mentioned above, called on European governments to replace WiFi technology in schools with safer wired solutions instead. "European governments should "take all reasonable measures" to reduce exposure to electromagnetic fields, especially to radio frequencies from mobile phones, "and particularly the exposure to children and young people who seem to be most at risk from head tumours". Governments should "for children in general, and particularly in schools and classrooms, give preference to wired Internet connections, and strictly regulate the use of mobile phones by schoolchildren on school premises", and put in place information and awareness-raising campaigns on the risks of potentially harmful long-term biological effects on the environment and on human health".

- In 2011 our Chief Medical Officer, Tony Holohan issued a press release which included the statement

"We may not truly understand the health effects of mobile phones for many years. There is general consensus that children are more vulnerable to radiation from mobile phones than adults. Therefore the sensible thing to do is to adopt a precautionary approach rather than wait to have the risks confirmed". He also advised that young people should be encouraged to use mobile phones for 'essential purposes only', and all calls should be kept short, as talking for long periods prolongs exposure to radiofrequency electromagnetic fields.
<https://www.gov.ie/en/press-release/6b473-advice-from-the-chief-medical-officer-on-mobile-phone-use/>

- In 2012 the Irish Doctors' Environmental Association sent the Safe Schools Report to all schools in Ireland, which recommended a series of measures which should be taken in order to minimise exposure to EMF. <http://wifinschools.org.uk/resources/safeschools2012.pdf>

- In 2013 the Irish Doctors' Environmental Association followed up with a letter to all school principals warning them of the harmful effects of WiFi and urging them to use wired technologies for the safety of the pupils and staff.
<https://iervn.files.wordpress.com/2019/06/idea-wifi-in-schools-2013.pdf>

- In 2019 Prof. of UCC published research papers 'On the Clear Evidence of the Risks to Children from Non-Ionizing Radio Frequency Radiation: The Case of Digital Technologies in the Home, Classroom and Society' <https://www.radiationresearch.org/wp-content/uploads/2019/04/On-the-Clear-Evidence-of-the-Risks-to-Children-from-Smartphone-and-WiFi-Radio-Frequency-Radiation-Final-20201.pdf> and 'A Critical Review of Digital Technology in Education that should give Policy Makers and Educators Pause for Thought' <https://www.radiationresearch.org/wp-content/uploads/2019/11/Digital-Technology-in-Education-Working-Paper-2019.pdf> and an opinion article 'Why every day wireless technology poses a health risk to children' <https://www.rte.ie/brainstorm/2019/04/17/1043133-why->

[every-day-wireless-technology-poses-a-health-risk-to-children?fbclid=IwAR023AaXURt9-lhNjp2q20ua2BouyEVXvOod4-ltTJl4BxRN4sFje5F13g](https://www.irishtimes.com/news/technology/every-day-wireless-technology-poses-a-health-risk-to-children?fbclid=IwAR023AaXURt9-lhNjp2q20ua2BouyEVXvOod4-ltTJl4BxRN4sFje5F13g)

To date we have not seen action taken on these recommendations but rather we are seeing even more WiFi installations being rolled out in Irish schools. It is crucial that the Department of Education instructs schools to implement the use of safe alternatives and solutions to wireless technology. Schools can use wired computers; devices can be connected to the internet via ethernet connections or fibre optic cables and pupils can be asked not to use or carry mobile phones on them whilst at school. As Dr Sarah Starkey has said on this issue, "Harming children is wrong, no matter how economically inconvenient or how difficult it is to make changes".

CONSULTATION QUESTION 3

The EU's European Electronic Communications Code is identified in the strategy as being of prime focus in the context of strategic enablers. This would revise the regulatory framework for the telecommunications sector in such a way that would provide even more sweeping exemptions to the industry and facilitate the widespread installation of small cell 5G, Wi-Fi or any wireless antennae without public consent. We already had a warning that this could happen in Circular Letter PL 01/2018 from the Department of Housing, Local Government and Heritage, which makes provision for certain exemptions to works undertaken by telecommunications companies, including that small cell antennae may be attached "to smaller structures including electricity poles, telegraph poles, lamp posts, lighting structures, flag poles, CCTV poles, phone kiosks and bus shelters".
<https://www.gov.ie/en/circular/35bd3-circular-pl-012018-amendments-to-the-exempted-development-provisions-in-the-planning-and-development-regulations/>

These exemptions to the telecommunications industry effectively allow 5G and other wireless technology to be installed anywhere and everywhere in our communities to beam electromagnetic radiation 24 hours a day without our knowledge or consent. The Irish Planning Institute stated in 2001 around the time of implementation of the Planning and Development Act, that the exemptions were "far too wide-ranging and permissive" and would substantially affect the balance between the needs of industry and the need to protect planning laws. Also that "if passed un-amended, the exemption would "virtually remove" any need for planning permissions for masts in built-up areas, including schools and churches and "on virtually any pole on any street".
<https://www.irishtimes.com/news/planning-curbs-on-phone-masts-cased-1.337307>

Twenty-two years later in 2022, their prediction has come true.

EHS

The Digital Connectivity Strategy is presenting a nightmare scenario to the small minority of us in the population who suffer with electromagnetic hypersensitivity (EHS). This is a condition in which adults and children develop intolerance to radiation from wireless technology devices and infrastructure such as mobile phones, Wi-Fi, wireless utility "smart" meters and mobile masts and antennae. Symptoms vary from tingling in the hands and head pain when using a mobile phone, to severe and disabling illness. The most common symptoms are headaches, sleep disturbances, nausea, dizziness, cognitive and memory problems, a racing heart and palpitations, burning sensations, nosebleeds and noise or light sensitivities.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7139347/>

The prevalence of the condition is growing rapidly including amongst children and many people are not aware that their symptoms are caused by exposure to wireless devices. Given the exponential increase in the past decade of the use of wireless devices including Wi-Fi and smartphones and the increase in the levels of radiation in the environment from the wireless infrastructure, it is likely that the rates of people who suffer from the condition will continue to rise. (Some well-known sufferers of the condition include Gro Harlem Brundtland, former Norwegian Prime Minister and head of the World Health Organisation, Matti Niemala, former Nokia technology chief and the wife of Frank Clegg, former head of Microsoft Canada and current head of Canadians for Safe Technology.) The Strategy if implemented would leave EHS sufferers in Ireland with no safe place to live and work.

CONSULTATION QUESTION 4

Lack of health oversight

Of particular concern is the fact that the Department of Health has not been given responsibility for public exposure to non-ionising radiation. In fact former Minister with responsibility for Communications, Richard Bruton stated many times in the Dail, that the government's policy on the 5G roll-out is "primarily a matter for private mobile network operators". The Air Quality, Noise and Radiation Division of the Department of Environment, Climate and Communications is responsible for policy relating to the health effects of non-ionising radiation including EMFs and according to its website "contributes directly" to the Department's efforts to achieve a high quality environment through effective nuclear safety and environmental (radiation) protection. It is responsible for managing the development of effective environmental radiation policy and legislation".
https://whodoeswhat.gov.ie/division/comms/Air_Quality_Noise_and_Radiation/

It is assisted in this role by the Environmental Protection Agency (EPA) and neither of them are competent bodies in the field of health. It beggars belief that we have a non-health-related government department and the EPA, who specialise in protecting the environment, responsible for public health in regard to EMFs.

To add insult to injury, I asked the Health and Safety Authority (HSA) the question of who was responsible for ensuring compliance with the Safety, Health and Welfare at Work (Electromagnetic Fields) Regulations 2016 and they replied that it was a matter for ComReg. ComReg replied to the same question that it was a matter for the HSA! So it appears that nobody is overseeing compliance with the workplace legislation – a clear abrogation by the State in its responsibility for public health and another clear reason why overall responsibility for the health effects of electromagnetic radiation needs to be transferred to the Department of Health.

Responsibility for public exposure and health effects of EMFs should be transferred to the Department of Health which should oversee the Digital Connectivity Strategy and ensure that truly protective limits for exposure to EMFs are enforced instead of the discredited ICNIRP guidelines which have been set far too high. The Health and Safety Authority should also enforce the European Directive "Safety, Health and Welfare at Work (Electromagnetic Fields) Regulations 2016 which identify groups as being "at particular risk" and impose duties on employers to avoid and reduce risks from EMFs and when to carry out risk assessments etc.

The vacuum in general oversight on exposure to EMFs by a competent health authority is made greater by Circular Letter PL 07/12, mentioned above, which advises planning authorities that they should not determine planning applications on health grounds.

Commission for Communications Regulation (ComReg)

Part of ComReg's role in relation to non-ionising radiation is to manage Ireland's radio spectrum and to ensure that licensed network operators comply with their licence obligations and do not exceed the emissions levels established by the ICNIRP. They say that over 1,400 sites have been surveyed and non-ionising radiation levels at all sites have been found to fall well below the ICNIRP limits. As explained below, this is no consolation whatsoever as these levels have been set so high in order to benefit the telecommunications industry, that they would be very difficult to breach.

ComReg also measures non-ionising radiation levels at a minimum sample of 80 transmitter sites each year. As the total number of locations of mobile telephone masts/antennae in Ireland according to ComReg's Siteviewer page (siteviewer.comreg.ie) is approximately 11,758, this amounts to a highly inadequate proportion of antennae being monitored for their emissions. In reality, this means that we have a system of self-regulation by the mobile network providers in place, which is not acceptable.

On the other hand ComReg is actually actively advertising Ireland as a destination for 5G testing through its website testandtrial.ie. Their promotional video boasts that in other countries, access to radio-spectrum may be restricted by military use, international borders or high-density populations, but not here in Ireland. Also that a one year test licence is available for as little as €200 and is approved in less than 10 days. So the people of Ireland are being used as guinea pigs!

ICNIRP – a discredited organisation and its 'safety guidelines'

The reliance of the Environmental Protection Agency on the 'safety' guidelines of the International Commission for Non-Ionising Radiation Protection (ICNIRP) is at the heart of the problem of public safety. These guidelines which were set in 1998 have been widely condemned by both the scientific community and official European bodies, such as the Council of Europe, the European Parliament (both of which recommend lowering the ICNIRP exposure limits), the European Environmental Agency, Professor Dominique Beljonne from France, Dr Sarah Starkey and many others. They have been scientifically proven to be hopelessly too high, they are not protective, do not adhere to the Precautionary Principle and they benefit the telecommunications industry only. They focus on technical issues and also on technology that is vastly different from that of today and were set for short term exposure (only 6-30 minute, unreflective of today's constant exposure) on an adult male only. Children are not covered by these guidelines. They are based on the obsolete hypothesis that heating is the only harmful effect of electromagnetic fields, thereby excluding a large body of published science demonstrating the detrimental effects caused by non thermal radiation. Hundreds of scientists have proven that many different kinds of acute and chronic illnesses are caused without heating ("non-thermal effect") from radiation levels far below these 'guidelines'.

The ICNIRP guidelines are relied on by many countries around the world but there are also many countries who clearly don't trust those set by the ICNIRP and apply much more stringent exposure guidelines. Dr Isaac Jamieson for example, states in his report "RF/Microwave Radiation: Risk Awareness" that it is because of the numerous scientific studies indicating adverse health effects from even very low levels of RF exposure that over 40% of the World's populations have exposure guidelines substantially more rigorous than those provided by the ICNIRP e.g. Austria, Bulgaria, Luxembourg, Ukraine, China, Italy, Russia and many others.
<https://hemri.org/publications/icnirp/458-rf-microwave-radiation-risk-awareness/file.html>

His point is very well illustrated in the chart which indicates just how high the ICNIRP 'guidelines' (on the far right of the chart) are compared to those in use in other countries.

The ICNIRP organisation itself has also been widely discredited as it is a self-appointed organisation, lacking official oversight and many members have been found to have serious

conflicts of interest due to direct and indirect ties to the telecommunications industry. The recent landmark judgement of the Turin Court of Appeal in Italy ruled that research reviews carried out by the ICNIRP were biased and could not be trusted in determining whether there was a causal link between wireless cell phone use and brain cancer. The court decided that there was a link, and its judgement was based on independent scientific studies.
<https://www.radiationresearch.org/wp-content/uploads/2020/01/Turin-Verdict-ICNIRP-Judgment-SUMMARY-of-the-Turin-Court-of-Appeal-2019-EN-min.pdf>

MEPs - Michèle Rivasi (Europe Écologie) and Klaus Buchner (Ökologisch-Demokratische Partei) among many others highlighted the conflicts of interest which exist in the ICNIRP in their extensive 98-page report in June 2020 entitled "The International Commission on Non-Ionizing Radiation Protection: Conflicts of interest, corporate capture and the push for 5G". The health risks are too serious to be left to a private organisation like this.
<https://ehtrust.org/the-international-commission-on-non-ionizing-radiation-protection-conflicts-of-interest-corporate-capture-and-the-push-for-5g/>

The ICNIRP doesn't even stand over its own research and it takes no responsibility whatsoever for any harm that may result from the information it provides. This is the disclaimer on their website:

"ICNIRP e V undertakes all reasonable measures to ensure the reliability of information presented on the website, but does not guarantee the correctness, reliability, or completeness of the information and views published. The content of our website is provided to you for information only. We do not assume any responsibility for any damage, including direct or indirect loss suffered by users or third parties in connection with the use of our website and/or the information it contains, including for the use or the interpretation of any technical data, recommendations, or specifications available on our website."

In reply to a question from the European Parliament in 2018, the European Commission representative stated that according to Article 168 of the Treaty on the Functioning of the European Union, "the primary responsibility for protecting the public from potential harmful effects of electromagnetic fields remains with the Member States". However, our governments have not made any meaningful efforts to protect our citizens from the harmful effects of EMFs and instead have recklessly relied on the fraudulent "guidelines" of the ICNIRP, while ignoring the huge body of independent research warning of the dangers and not designating a competent health authority to properly investigate 5G for safety.
https://www.europarl.europa.eu/doceo/document/E-8-2018-003975-ASW_EN.html

Below is a small sample of other sources with damning findings against the ICNIRP and its guidelines:

164 scientists and medical doctors together with 95 non-governmental organisations (NGOs) from all over the world are calling for more protective limits for exposure to radiofrequency radiation from wireless technologies. In a joint statement, "The EMF Call", they conclude that the ICNIRP guidelines are unscientific and do not protect against harmful health effects including cancer.
www.emfcall.org

Resolution 1815 (2011) of the Council of Europe on health risks associated with electromagnetic fields states:

"The rapporteur underlines in this context that it is most curious, to say the least, that the applicable official threshold values for limiting the health impact of extremely low frequency electromagnetic fields and high frequency waves were drawn up and proposed to international political institutions (WHO, European Commission, governments) by the ICNIRP, an NGO whose origin and structure are none too clear and which is furthermore suspected of having rather close links with the industries whose expansion is shaped by recommendations for maximum threshold values for the different frequencies of electromagnetic fields. If most governments and safety agencies have merely contented themselves with replicating and adopting the safety recommendations advocated by the ICNIRP, this has essentially been for two reasons: in order not to impede the expansion of these new technologies with their promise of economic growth, technological progress and job creation, and also because the political decision-makers unfortunately still have little involvement in matters of assessing technological risks for the environment and health."
<https://assembly.coe.int/tv/xml/XRef/Xref-XML2HTML-en.asp?fileid=17994>

Prof. Emeritus Martin Pall, Eight Repeatedly Documented Findings Each Show that EMF Safety Guidelines Do Not Predict Biological Effects and Are Therefore Fraudulent.
<https://ehtrust.org/wp-content/uploads/Safety-Guideline-Fraud-2.pdf>

Prof. D. Belpomme (MD, MSc, Professor of Medical Oncology, and his colleagues stated in July 2018: "The specific absorption rate (SAR)-based ICNIRP safety limits were established on the basis of simulation of EMF energy absorption using standardised adult male phantoms, and designed to protect people only from the thermal effects of EMFs. These assumptions are not valid for two reasons. Not only do they fail to consider the specific morphological and biochemical vulnerabilities of children, but also they ignore the effects known to occur at non-thermal intensities."
<https://www.saferemr.com/2018/07/international-perspective-on-health.html>
<https://pubmed.ncbi.nlm.nih.gov/30025338/>

Gandhi OP, Morgan LL, de Salles AA, Han YY, Herberman RB, Davis DL. Exposure limits: the underestimation of absorbed cell phone radiation, especially in children. *Electromagn Biol Med*. 2012;31(1):34-51. doi:10.3109/15368378.2011.622827
<https://pubmed.ncbi.nlm.nih.gov/21999884/>

Hardell L. World Health Organization, radiofrequency radiation and health - a hard nut to crack (Review). *Int J Oncol*. 2017;51(2):405-413. doi:10.3892/ijo.2017.4046
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5504984/>

Professor Jacque McGlade, Executive Director of the European Environment Agency, Copenhagen has stated: "The evidence is now strong enough, using the precautionary principle, to justify the following steps: to reconsider the scientific basis for the present EMF exposure standards which have serious limitations such as reliance on the contested thermal effects paradigm and simplistic assumptions about the complexities of radio frequency exposures."
<https://www.sehn.org/sehn/precautionary-principle-number-187>

The International Commission for Electromagnetic Safety have said: "The non-ionizing radiation protection standards recommended by the international standards organisations, and supported by the World Health Organisation, are inadequate. Existing guidelines are based on results from acute exposure studies and only thermal effects are considered. A world wide application of the Precautionary Principle is required. In addition, new standards should be developed to take various physiological conditions into consideration, e.g., pregnancy, newborns, children, and elderly people" (ICEMS, 2008)
<http://www.icems.eu/resolution.htm>

The International Bio-Initiative report (2007), an international collaboration of prestigious scientists and public health experts from across the world, reviewed thousands of peer reviewed scientific papers and states: "What is clear is that the existing public safety standards limiting these radiation levels in nearly every country of the world look to be thousands of times too lenient. Changes are needed."
https://bioinitiative.org/wp-content/uploads/pdfs/sec01_2007_summary_for_public.pdf

Starkes, S. J. (2016) Inaccurate official assessment of radiofrequency safety by the Advisory Group on Non-ionising Radiation. *Reviews on environmental health*, 31(4), 493-503
<https://www.ncbi.nlm.nih.gov/pubmed/27902455>

The serious conflict of interest between the World Health Organisation and the ICNIRP is outlined in detail in this report:

Hardell L, Carlberg M. Health risks from radiofrequency radiation, including 5G, should be assessed by experts with no conflicts of interest. *Oncol Lett*. 2020;20(4):15. doi:10.3892/ol.2020.11876
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7405337/>

Hardell L, Nyberg R. Appeals that matter or not on a moratorium on the deployment of the fifth generation, 5G, for microwave radiation. *Mol Clin Oncol*. 2020;12(3):247-257. doi:10.3892/mco.2020.1984
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7016513/>

And straight from the 1998 ICNIRP report (p. 507): "Overall, the literature on non-thermal effects of electromagnetic fields is so complex, the validity of reported effects so poorly established, and the relevance of the effects to human health is so uncertain, that it is impossible to use this body of information as a basis for setting limits on human exposure to this field."

<https://www.icnirp.org/cms/upload/publications/ICNIRPcmfgdl.pdf>

In other words, a total rejection by the ICNIRP of the precautionary principle in the face of complexity.

CONSULTATION QUESTION 6 (OTHER GENERAL OBSERVATIONS)

Copper Switch-Off

I am very worried about the plan to implement a Copper Switch-Off as mentioned in Section 4.6 of the Strategy. EHS sufferers don't use mobile phones due to the adverse side effects and rely on landlines. Others don't want broadband, don't want or are unable to use a mobile phone for various reasons and also rely on landlines. Such people would become

isolated and seriously disadvantaged without a landline. When people are at their most vulnerable, the State should be ensuring that they remain safe and not worsen the situation. In the event of a power cut and consequent loss of internet, which will be more likely in the coming years due to more frequent bad weather events, a VOIP system would not work whereas a landline would be more reliable in such a situation as local telephone exchanges usually have their own back-up power. It's very important therefore that traditional landlines are not phased out.

Environment

There are concerns regarding the continued expansion of the telecommunications sector including the 5G rollout on a number of environmental grounds. Many companies and governments claim that 'smart' technology is green and good for the environment, using false claims to push smart meters, IoT and wireless devices on us. Wireless technology is neither a sustainable nor an environmentally-friendly technology because it uses far more energy than wired connections.

The French Climate Council states that up to an extra 7 billion tonnes of carbon dioxide could be released into the atmosphere by 5G and that the technology is only the tip of the iceberg as additional carbon emissions would come mainly from data centres and the manufacturing of new electronic devices.
<https://www.france24.com/en/europe/2021/220-deploying-5g-will-lead-to-spike-in-co2-emissions-french-climate-council-warns?fbclid=IwAR2iChFNGD6UjKuyEpreuaalgr9mlDgScGvUQcacBoZ08C7H7vvPzKq>

Dr Patrick Bresnihan of the National University of Ireland, Maynooth told an Oireachtas Committee on the Environment and Climate Change on 28th September 2021 that while data centres currently represented 11 per cent of our grid capacity, the energy used by those existing connections will rise to almost 30 per cent of overall capacity by the end of the decade and if all other data centres proposed for Ireland are allowed, their energy use would comprise 70 per cent of capacity on the national grid. This compares with the worldwide situation where only 2 per cent of electricity is consumed by data centres. Dr Bresnihan also stated that while Ireland has committed to having 70% of its electricity sourced from renewables (mainly wind) by 2030, there will be a need especially in the short term, for other sources of energy and that "achieving ambitious emissions and renewable targets by 2030 will undoubtedly be far more difficult with the addition of more data centres to the grid". He said that an average data centre used as much electricity as a small city like Kilkenny, that they are large consumers of water, using an estimated 500,000 litres per day with the potential to rise to 5 million litres per day and that this is "particularly significant in light of the weak security of water supplies in parts of the country, particularly the greater Dublin region". Also that "In a context where households are facing increased energy bills and carbon taxes, the continued granting of planning permission to energy-intensive data centres is already being perceived as unfair". The Digital Connectivity Strategy is clearly unsustainable and bear in mind that Dr Bresnihan's remarks were made last September – well before the current energy crisis which has been exacerbated by the war in Ukraine. Increased future demands of data centres resulting from the implementation of the Digital Connectivity Strategy would in turn exacerbate the crisis in energy shortages and price increases and energy insecurity and even brownouts or blackouts would result in great reputational and economic damage. Further into the future, there would also be reputational damage and potential financial penalties if Ireland fails to meet its 2030 climate and renewable energy targets.

https://data.oireachtas.ie/ie/oireachtas/debateRecord/joint_committee_on_environment_and_climate_action/2021-09-28/debate/mul/@/main.pdf

5G in particular would contribute to climate change and a warming Earth partly due to the increased energy usage and due to the thousands of satellites that will orbit around the planet and which will be launched by thousands of rockets. Ireland is already contributing to the demand for these satellites with Elon Musk's Starlink operations in Midleton, Co. Cork and the Black Valley area of Co. Kerry.
<https://www.irishexaminer.com/news/munster/arid-40298921.html>

The Aerospace Corporation predicted in a paper that these rockets would "create a persistent layer of black carbon particles in the northern stratosphere that could cause potentially significant changes in the global atmospheric circulation and distributions of ozone and temperature", therefore causing a substantial carbon footprint - at a time when we must drastically cut our greenhouse gases.
https://www.researchgate.net/profile/Michael_Mills8/publication/228750427_Potential_Climate_Impact_of_Black_Carbon_Emitted_by_Rockets/links/0a85e53176e5440262000000.pdf

This of course is not in keeping with the government's declaration in 2019 of a climate emergency. On the contrary, the people of Ireland stand to lose out with the increasing carbon footprint leading to more EU fines and severe reductions in other vital areas that really need to use the carbon.

Biodiversity

ICNIRP limits were not developed to protect our flora or fauna. Wireless radiation 'safety' limits for trees, plants, birds and bees simply do not exist. No Irish agency or international authority with expertise in science, biology or safety has ever acted to review research and set safety limits for insects (including bees and other pollinators), birds, small mammals, plants and all wildlife.

A 2021 review found "sufficient evidence on the damage caused by electromagnetic radiation" to insects to state that "electromagnetic radiation should be considered seriously as a complementary driver for the dramatic decline in insects, acting in synergy with agricultural intensification, pesticides, invasive species and climate change." The paper concludes that "the precautionary principle should be applied before any new deployment (such as 5G) is considered".
<https://www.sciencedirect.com/science/article/abs/pii/S0048969720384461?via%3Dihub>

This is just a small sample of other studies to illustrate this point:

2021 – Effects of non-ionizing electromagnetic fields on flora and fauna. part 1: Rising ambient EMF levels in the environment
<https://www.degruyter.com/document/doi/10.1515/reveh-2021-0026/html>

Effects of non-ionizing electromagnetic fields on flora and fauna. Part 2: Impacts: how species interact with natural and man-made EMF
<https://www.degruyter.com/document/doi/10.1515/reveh-2021-0050/html>

Effects of non-ionizing electromagnetic fields on flora and fauna. Part 3: Exposure standards, public policy, laws, and future directions
<https://www.degruyter.com/document/doi/10.1515/reveh-2021-0083/html>

Electromagnetic radiation as an emerging driver factor for the decline of insects
<https://www.sciencedirect.com/science/article/>

2020 – Radio-Frequency Electromagnetic Field Exposure of Western Honey Bees
<https://www.nature.com/articles/s41598-019-56948-0>

2018 – Study: Electromagnetic Fields A 'Credible Threat' To Wildlife
<https://principia-scientific.org/study-electromagnetic-fields-a-credible-threat-to-wildlife/>

2007 – Bees, Birds and Mankind: Destroying Nature by "Electrosmog"
https://kompetenzinitiative.com/wp-content/uploads/2019/08/ki_beesbirdsandmankind_screen.pdf

Uninsurable Technology

According to CFC Underwriting Ltd., it is standard practice in the insurance industry to exclude cover for illnesses caused by long-term non-ionising radiation exposure. This is confirmed in this document – Insurance for Architects & Engineers – Proinsurance TM A&E Policy Document – which has been produced by CFC Underwriting Limited for Lloyd's of London.

<https://www.jrseco.com/lloyds-insurance-company-does-not-cover-health-damage-caused-by-electromagnetic-radiation/>

which states:

- "We will not
- make any payment on your behalf for any claim, or
 - incur any costs and expenses, or
 - reimburse you for any loss, damage, legal expenses, fees or costs sustained by you, or
 - pay any medical expenses.

GENERAL INSURANCE EXCLUSIONS:

32 Electromagnetic fields

directly or indirectly arising out of, resulting from or contributed to by, electromagnetic fields, electromagnetic radiation, electromagnetism, radio waves or noise".
(Exclusion 32, page 7/8)

Another of the world's largest insurance companies, Swiss Reinsurance Company (Swiss Re) classifies electromagnetic radiation into the highest risk class. The text on page 11 of this report states:

"Anxiety over the potential risks related to electromagnetic fields (EMF) has risen. Studies are difficult to conduct, since time trend studies are inconsistent due to the still rather recent proliferation of wireless technology. The WHO has classified extremely low-frequency magnetic fields and radiofrequency electromagnetic fields, such as radiation emitted by cell

phones, as potentially carcinogenic to humans (Class 2B carcinogen). Furthermore, a recent ruling by an Italian court suggested a link between mobile phone radiation and human health impairment. Overall, however, scientific studies are still inconclusive regarding possible adverse health effects of EMF. If a direct link between EMF and human health problems were established, it would open doors for new claims and could ultimately lead to large losses under product liability covers. Liability rates would likely rise." <https://www.svissre.com/institute/research/sonar/swiss-re-sonar-2013-emerging-risk-insights.html>

The insurance authority Swiss Re Group released a white paper in 2019 classifying 5G as a "high" emerging risk and cautioned that "As the biological effects of EMF in general and 5G in particular are still being debated, potential claims for health impairments may come with a long latency." <https://chtrust.org/wp-content/uploads/Swiss-Re-SONAR-Publication-2019-excerpt-1.pdf>

The Ericsson Annual Report for 2019 has acknowledged that new scientific findings of adverse health effects from mobile communications devices and equipment could adversely affect them through liability claims. <https://www.ericsson.com/495c1f/assets/local/investors/documents/2019/ericsson-annual-report-2019-en.pdf>

and the Vodafone Annual Report for 2019 states that EMF health related risk has been moved to their watchlist as a longer-term potential risk. <https://investors.vodafone.com/sites/vodafone-ir/files/vodafone-annual-report/vodafone-full-annual-report-2019.pdf>

This begs the question - if 5G is as safe as the telecommunications companies and our state organisations say, why is it uninsurable and why are they not being made liable? It appears that this lack of insurance cover leaves future governments exposed to being liable for all ill health effects from EMF radiation. If insurance companies won't take the risk, then our citizens, especially children and EHS sufferers should not be subjected to this risk and our governments and taxpayers should not be exposed to the risk either.

Conclusion

I am not against the use of technology, but it is vital for all of us that it is safe and especially for EHS sufferers. Focus should be on wired/fibre broadband to the home, which provides safer, faster, more reliable and more cyber-secure internet. Up to now, we have had the option to avoid wireless and use wired and to turn off Wi-Fi while sleeping etc. but we would have no choice with the full implementation of the Digital Connectivity Strategy and no option whatsoever to turn it off. The Strategy would facilitate radiation to become inescapable in its provision for antennae to be deployed everywhere using electricity poles, bus shelters etc. as mentioned above, near homes, schools, hospitals and workplaces which would expose us all to wireless non-ionising electromagnetic radiation against our consent.

The compelling scientific evidence proves at the very least that there is a serious doubt about the safety of wireless radiation and continuing down this path with its consequent adverse effects leaves future governments at risk of an extensive backlash from the public who feel betrayed by governments who ignored the mounting evidence of the risks, massive lawsuits by individuals or groups who fall ill from exposure to electromagnetic radiation and a health service unable to cope. I therefore earnestly request:

- the use of wired technology which is safer, faster, more reliable and more cyber secure than wireless telecommunications should be prioritised and incentivised.
- grants of planning permission for telecommunications structures with antennae, dishes etc. should cease especially next to homes, schools, hospitals etc. and especially where there are already existing structures in place.
- special attention should be given to ensuring safety in schools and early childhood care and education settings so that there is no exposure to Wi-Fi, including by strictly regulating the use of mobile phones by schoolchildren on school premises and by installing hardwired networks only.
- the recommendations of the 2005 report on Non-ionising radiation from mobile phone handsets and masts by the Joint Committee on Communications, Marine and Natural Resources should be implemented.
- the policy of only requiring wireless technology to conform with ICNIRP guidelines which have been widely condemned should be brought to an end and independent EMF and health scientists should be immediately appointed, without industry influence and with no conflicts of interest, for the purpose of establishing new safety standards for RF radiation for Ireland, that are not based only on power levels, that consider cumulative exposure, and that protect against all health and environmental effects, not just thermal effects and not just effects on human.
- information and awareness-raising campaigns on the risks of potentially harmful long-term adverse effects on health from wireless radiation should be put in place. This would be in keeping with the advice of Chief Medical Officer, Tony Holohan in 2011 as mentioned above, the United Nations Convention on the Rights of the Child and the Council of Europe Resolution 1815 (2011).
- legislation should be introduced which requires warning labels to be put on all mobile phones sold in Ireland clearly stating that mobile phones emit electromagnetic radiation, and that users should keep the device away from the head and body.
- the precautionary principle should be applied before any further deployment of 5G is considered.
- responsibility for public exposure and health effects of electromagnetic radiation should be transferred to the Department of Health.
- the Digital Connectivity Strategy should be amended so that transparency in the planning legislation is restored so that telecommunications structures are no longer exempt from the planning permission process (through legislative exemptions like Section 254 and Class 31 etc.)

Thank you for your time in reading my submission.

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