

## **Stop 5G in Bath and North East Somerset: Petition to Bath & North East Somerset Council to Halt the Rollout of 5G**

**The proposed rollout of 5G in Bath and North East Somerset will result in massive increases in microwave radiation exposures for the general public who have not been consulted, not given consent, and not been directly informed of the associated risks. In particular, we are concerned about the risks to public health, especially that of children, pregnant women and the elderly or those with chronic illness, and the impact on wildlife including birds, bees, animals and trees from this untested technology.**

### **How is 5G different from 4G?**

4G wireless technology uses frequencies in the microwave spectrum up to 6 GHz (gigahertz). 5G wireless technology will continue to use these frequencies whilst gradually adding much higher frequencies in the millimetre wave spectrum, also used in crowd control weapons (30 to 300 gigahertz and beyond). Due to these higher frequencies, 5G cannot penetrate buildings as easily or travel as far. **To make sure there is enough coverage, small to medium sized cells with wireless antennas will need to be installed at regular intervals on residential buildings in urban areas (approximately every 3 to 4 houses), as well as on existing street furniture such as streetlights, telegraph poles and bus stops. This will expose the general public to unprecedented levels of microwave radiation.**

[5G is part of a wider agenda](#)<sup>1</sup> – it is not just about mobile phones having faster download speeds. It is also about super-connected ‘smart’ cities where streets are blanketed in wireless signals, enabling driverless cars and the ‘Internet of Things’, linking objects in our homes to smartphones and devices, allegedly bringing greater convenience to our busy lives as well as providing personal data for marketing and surveillance purposes.

### **Scientists are already warning of serious health effects from 5G**

[Independent peer-reviewed scientific studies](#)<sup>2</sup> show extensive evidence of harm from 4G and 5G technology including damage to the skin, eyes and nervous system, changes to DNA, changes to bacteria making them more resistant to antibiotics, and direct cancer causation. In March 2018, Professor Martin Pall (Professor Emeritus of Biochemistry at Washington State University) provided [evidence to the EU](#)<sup>3</sup> regarding biological effects from the pulsed non-ionizing radiation used in both 4G and 5G technology, including: increases in male and female infertility and miscarriage, neurological and neuropsychiatric effects, including anxiety, depression and sleep disorders, cognitive and memory impairment, neurodegenerative diseases including Alzheimer’s, diabetes, cancer and damage to DNA.

The [5G Appeal](#)<sup>4</sup> currently signed by 235 independent scientists, experts in their fields, states that the International Commission on Non-Ionizing Radiation Protection (ICNIRP) “safety guidelines” on which Public Health England bases its guidelines is “*obsolete. All proofs of harm... arise although the radiation is below the ICNIRP “safety guidelines”*”. Therefore, new safety standards are necessary. It is further stated that a “*conflict of interest of ICNIRP members due to their relationships with telecommunications or electric companies undermines the impartiality that should govern the regulation of Public Exposure Standards for non-ionizing radiation*”.

### **Why 5G and smart technology damage wildlife and will not help address climate change**

Bath and North East Somerset Council recently committed to becoming carbon neutral by 2030. Yet ‘smart’ technology is carbon intensive, requiring mining of raw materials, manufacture and transportation, as well as waste from disposal of old gadgets and appliances. This year, for the first time, data centres for the Internet and the servers that power them, are set to [produce more carbon emissions than aviation](#)<sup>5</sup>.

There has already been extensive felling of thousands of healthy mature trees in areas earmarked for 5G infrastructure across the UK. [Research by the University of Surrey](#)<sup>6</sup> refers to mast height at tree level as a limiting factor for reach and reliability (p4 article 3.1).

The [Eclipse Report](#)<sup>7</sup> from an EU-funded review body working on policy that may impact biodiversity and the ecosystem, reviewed 97 studies on how electromagnetic radiation may affect the environment. It concluded that this

radiation could indeed pose a potential risk to bird and insect orientation and plant health. [Alfonso Balmori, writing in Science of the Total Environment](#)<sup>8</sup> concludes that “*At the present time, there are reasonable grounds for believing that microwave radiation constitutes an environmental and health hazard.... Controls must be introduced and technology rendered safe to the environment, since this new ubiquitous and invisible pollutant could deplete the efforts devoted to species conservation.*”

US doctors' group [Physicians for Safe Technology](#)<sup>9</sup> say ‘*there is convincing emerging scientific evidence causing great concern for the environment, with harm to mammals, insects and bacteria ... 5G technology will also consume significant amounts of energy, contrary to global climate goals.*’

### **Legal and insurance implications for B&NES Council**

The fact that 5G technology has never been tested for health effects means the rollout breaches the [Nuremberg Code 1947](#)<sup>10</sup> (this legally-binding code requires informed consent before performing experiments on human populations). Under UK and EU law, a Strategic Environmental Assessment should have been carried out before the implementation of the 5G Wireless Network Technology was authorised. That has not been done.

There have been no public consultations to ensure Public Consent (see Article 7 of the United Nations' International Covenant on Civil and Political Rights which includes a prohibition on medical and scientific experimentation without consent.) Furthermore, according to the European Commission, the Precautionary Principle must be invoked when a phenomenon, product or process may have a dangerous effect, identified by a scientific and objective evaluation.

Electro-magnetic fields including those from wireless technology are classified as a “pollutant” alongside smoke, chemicals and asbestos. [Lloyds of London Insurers](#)<sup>11</sup> as long ago as 2010 identified wireless technologies as an uninsurable risk. No insurance company in the world will now cover health risks from Wi-Fi, mobile phones or mobile masts.

### **References**

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