

## Electropollution - A summary of the issues

### What is electromagnetic pollution?

- Invisible electro-magnetic emissions are an inevitable consequence of electricity, electronic and wireless technology. We are immersed in electro-pollution.
- According to the World Health Organisation (WHO), electromagnetic fields of all frequencies represent one of the most common and fastest growing environmental influences. Levels are 100 million times higher than 50 years ago.
- Research studies have shown that prolonged exposure to these unnatural frequencies can have adverse effects on human health. The human species in the course of evolution has likely not encountered this kind of condition before and it is uncertain what the effects will be in the longer term.
- Scientific developments since WW2 have revealed that humans do not function solely on biological or biochemical cellular reactions; we are electro-magnetic beings. Nerve cells communicate between one another using electrical impulses.
- When this communication of information is disrupted, symptoms can appear such as headaches, concentration disorders, insomnia, mood swings, low energy, anxiety, stress, depression and unaccountable aches and pains.
- Extreme cases are labelled as 'electro-sensitive'. At the moment 3% of the population are labelled as such, but the figure is expected to rise to as high as 50% by 2017.
- In a February 2009 speech, Dr. Thomas M. Rau, medical director at the Paracelsus Clinic in Switzerland, said he estimates 3 to 8 percent of populations in developed countries experience serious electro-hypersensitivity symptoms, while 35 percent suffer from mild symptoms. Rau said the current "Electromagnetic load" is a hidden factor in many illnesses and disabilities, including attention deficit disorder, migraines, Parkinson's, arrhythmia, cancer and several other health issues.
- Children are deemed to be more vulnerable. The WHO states that, **“a child is more vulnerable to environmental factors”**.

### Why is there such a focus on this issue now?

- Awareness of the potential negative long-term effects of electro-pollution is increasing. In May 2011 a report made by The Council of Europe seriously questioned the safety of EMF emissions. It stated that precautions are needed to avoid similar social tragedies such as those surrounding asbestos, tobacco and unleaded petrol.
- Regarding the specific protection of children they recommended that the member states of The Council of Europe:

- Develop with different ministries (including education) targeted information campaigns aimed at teachers, parents and children to alert them to the specific risks of early, ill-considered and prolonged use of mobiles.
- Ban all mobile phones, DECT phones or Wi-Fi/WLAN systems from classrooms and schools.....
- The European Parliament has now mandated that all Members of the EU adhere to the recommendations made in this report (Doc 12608 6 May 2011).
- A recent Eurobarometer study (European Commission) 48% of Europeans stated that they were concerned or very concerned over the potential health risks posed by mobile telephony. The presumption of risk was noted among 76% of Europeans concerning relay antennas and 73% concerning potential effects of mobile telephones respectively.

### Is there really a problem?

- A growing number of scientific studies made by teams of high-level academic researchers demonstrate the existence of potentially or definitely pathological biological effects.
- 33% of studies funded by industrial concerns conclude that exposure to mobile phone frequencies has an effect on our organism. That figure rises to over 80% in studies carried out with public funding.
- Keep your phone out of your pocket. Journal of Craniofacial Surgery published a study in 2010 linking cell phone radiation to decreased bone density in the pelvis, and another study conducted in 2008 by the Cleveland Clinic found that it lowers fertility in men.
- Apple included the statement "When using iPhone near your body for voice calls or for wireless data transmission over a cellular network, keep iPhone at least 15 millimeters (5/8 inch) away from the body." in the Apple Iphone 4 safety manual.
- Research in Motion, the makers of Blackberries advises users to "keep the BlackBerry device at least 0.98 inch (25 millimeters) from your body when the BlackBerry device is transmitting." Don't keep near the pregnant abdomen or near the abdomen of teenagers.
- Certain electrical currents or electromagnetic waves used at certain frequencies may have a perfectly beneficial effect in medical terms (eg: Pulsed Electromagnetic Therapy to help heal bones). If there are such beneficial effects in certain frequency bands, then adverse biological effects on the human body should be just as much in the realm of possibility or plausibility.
- The Russian National Committee on Non-Ionizing Radiation Protection has identified 'possible diseases' from mobile phone use. Compared to 2009 the number of central nervous system disorders among 15 to 17 year olds has grown by 85%.

- The scientific debate is raging and whilst it does, The Council of Europe has stated, “The precautionary principle should be applicable when scientific evaluation does not allow the risk to be determined with sufficient certainty, especially given the context of growing exposure of the population, including particularly vulnerable groups such as young people and children, which could lead to extremely high human and economic costs of inaction if early warnings are neglected.”