

The National Assembly for Wales's Committee for Economy, Infrastructure and Skills is currently carrying out an inquiry into Digital Infrastructure in Wales, focusing on broadband and mobile connectivity. We wish to submit the following comments:

The Well-Being of Future Generations (Wales) Act 2015 stipulates that short-term needs must be balanced against long-term needs, especially where things done to meet short-term needs may have detrimental long-term effects.

Evidence of adverse impacts on health and well-being from chronic exposure to the pulsed microwave-frequency radiation used in mobile telecommunications technology -at currently permitted levels -is constantly mounting. The International Agency for Research on Cancer, a branch of the World Health Organisation, has already classified this type of radiation as a 2B possible carcinogen. In the light of recent scientific findings, this classification is soon likely to be upgraded to a 2A probable carcinogen. Resolution 1815 (2011) of the Council of Europe ('The potential dangers of electromagnetic fields and their effect on the environment') recommends that awareness be raised about "the risks of potentially long-term biological effects on the environment and on human health" (8.1.3) from the radiation currently used in mobile technology".

This means that the Welsh Government must take into account the potential impacts on the health and well-being of the people and the environment of Wales when making any decisions involving the further roll-out of mobile technologies. Pulsed microwave-frequency radiation is a form of environmental pollution which must be minimised and strictly regulated.

1. With regard to broadband connectivity:

1.1 The Welsh Assembly Government is to be congratulated for its decision to prefer *cabled* technology for providing broadband connectivity via the Superfast Cymru programme.

1.2 Wireless solutions for providing broadband connectivity must be avoided.

2. With regard to mobile coverage:

2.1 Mobile telecommunications companies must be required to share infrastructure in order to prevent the unnecessary proliferation of mobile phone masts.

2.2 In order to protect the health of the people of Wales, current planning regulations must not be relaxed in favour of mobile network operators. Resolution 1815 (2011) of the Council of Europe recommends that the siting of mobile phone masts be carried out “not solely according to the operators’ interests but in consultation with local government authorities, local residents and associations of concerned citizens” (8.4.4). Planning permission must always be required before the construction of any such infrastructure.

2.3 Individuals or companies in places where mobile phone coverage is poor or nonexistent and who *wish* to use mobile phones can *choose* to use Wi-Fi-calling technology in order to make and receive calls on mobile phones *if they so wish*. However, use of landlines should always be preferred.

3 With regard to alternative technologies to improve broadband and mobile coverage:

3.1 As recommended by Resolution 1815 (2011) of the Council of Europe, Wales should “encourage research to develop telecommunication based on other technologies which are just as efficient but whose effects are less negative on the environment and health” (8.1.5). Safe, alternative technologies to current *wireless* technologies need to be developed.

Conclusion

Giving absolute priority to superfast broadband coverage via cables will future-proof Wales’s digital infrastructure and put Wales ahead of the curve in terms of resilience to the economic disruption that will occur when the health hazards of pulsed microwave-frequency radiation can no longer be denied. Wales must forge its own distinctive path with respect to mobile technologies and not blindly seek to emulate policies which have been adopted in other parts of the UK such as Scotland. It is extremely short-sighted and imprudent, as well as being in contravention of the Well-Being of Future Generations (Wales) Act 2015, to promote and invest heavily in wireless mobile telecommunications technology at the expense of sustainable, wired solutions.