

Response to Request for Information

Reference FOI 003629
Date 03 June 2019

5G Strategy

Request:

This is a Freedom of Information Request.

1. Do you have a 5G strategy? [no however we are facilitating the rollout of 5G through addressing barriers is part of the draft Wolverhampton's Digital Infrastructure Strategy which is currently under development. We are part of the West Midlands Combined Authority Urban Connected Communities 5G project.](#)
 - 1.1 If yes, I request to see the complete strategy, its ambitions and its objectives in PPTX, Word, PDF or picture format. [To be made available when draft agreed for consultation.](#)
 - 1.2 If yes, has the public had the opportunity to read and understand [Council's] 5G strategy? Where was this information published? [Once the Digital Infrastructure strategy has been agreed for consultation, it will be available on Wolverhampton's website for consultation.](#)
 - 1.3 I also request a supplementary document that includes the highest level of detail on all 5G technology that's planned to be used and current in use in public spaces within [Council]: [the Council will not be rolling out 5G technology, therefore does not have access to information on 5G technology which is in the Mobile Network Operators \(MNOs\) domain.](#)
 - (a) Companies and entities involved and the names of the company/entity officers.
 - (b) Specification sheets of 5G technology.
 - (c) What technology e.g. units and arrays are not currently 5G, but can be 5G enabled e.g. with current software, future software, hardware upgrades or retrofitting?
 - (d) What UK, EU and International safety standards is [Council] complying with for the 5G strategy and existing 5G technology. [The Council will not be rolling out 5G, however Telecoms companies are required to comply with the guidelines published by the International Commission on Non-Ionizing Radiation Protection \(ICNIRP\). ICNIRP is formally recognised by the World Health Organization \(WHO\).](#)
 - (e) I request proof e.g. a certificate from [Council] that confirms that UK, EU and International safety standards for workers and the public have been meet. [As above, the Council is not rolling out 5G. Telecoms companies are required to comply with ICNIRP and hold certificates.](#)

- 1.4 If no, I request to know when you will be chairing a 5G strategy? [We anticipate the draft Digital Infrastructure Strategy will be out for consultation later in July.](#)
2. I request the name/s of the Officer/s in charge of the 5G strategy and roll out for 5G and Smart Cities; and who their subject area expert or consultancy is, their CV and qualifications on 5G and Smart Cities. [The Council's Digital Infrastructure Champion is Charlotte Johns, Head of Strategy. Her CV/qualifications are outlined at <https://www.linkedin.com/in/charlottejohns1>](#)
3. Are you in talks with any experts, companies or entities about autonomous vehicles (AV) for public transport and/or private use on Public Highways? [We have had early stage discussions with 'Nova Modus' to take part in the Governments CCAV INSIGHT project to deliver a controlled trial of automated PODs on a pedestrianised street in Wolverhampton and to assess the interactions between the technology and the public.](#)

[The project would have been delivered by Westfield Sports and Connigital. Birmingham University were looking to do an academic piece to evaluate the project.](#)

[However no further discussion has taken place and no trial has been agreed. Additionally no detailed plans / strategy have been drawn up at this stage.](#)

[Therefore, the Council does not hold information to answer the questions below.](#)

- 3.1 If yes, I request to see the complete strategy, its ambitions and its objectives in PPTX, Word, PDF or picture format.
 - 3.2 I also request a supplementary document that includes all levels of detail on:
 - (a) Companies and entities involved and the names of the company/entity officers?
 - (b) Specification sheets of all technology.
 - (c) What type of communication system will [Council] be utilising to control the vehicles?
 - (d) What UK, EU and International safety standards does your AV strategy and rollout comply with?
 - (e) I request proof e.g. a certificate from [Council] that confirms that UK, EU and International safety standards for workers and the public have been meet.
4. Do you have a strategy for smart roads and smart signage on Public Highways and Public spaces?
[No. We are in the early stages of developing a strategy covering smart roads / signage.](#)
 - 4.1 If yes, I request to see the complete strategy, its ambitions and its objectives in PPTX, Word, PDF or picture format.
 - 4.2 I also request a supplementary document that includes all levels of detail on:

- (a) Companies and entities involved and the names of the company/entity officers?
 - (b) Specification sheets of all technology.
 - (c) What technology e.g. units and arrays will not be 5G, but can be 5G enabled e.g. with current software, future software, hardware upgrades or retrofitting etc (you must be specific on anything here)?
 - (d) What UK, EU and International safety standards does your 5G strategy and rollout comply with?
 - (e) I request proof e.g. a certificate from [Council] that confirms that UK, EU and International safety standards for workers and the public have been met.
5. Are you planning to rollout or have rolled out LED street lighting? [The City of Wolverhampton Council is considering the rollout of LED lighting but the documents/ information requested have not been completed and no tender documents have been issued. Therefore, the Council does not hold information to answer the questions below.](#)
- 5.1 If yes, please answer these questions:
- (a) What is the CMS and specification of the software and hardware of the LED street light system?
 - (b) What type of waveform is the LED? e.g. Square wave?
 - (c) Can you control the Pulse Width Modulation (PWM) of the streetlight system using the CMS?
 - (d) Can you control the PWM of each streetlight that's connected to the system?
 - (e) What restrictions do you have in place for the control of the PWM?
 - (f) What is the UK, EU and International safety limit (low and high) for the amount of 'flicker' (Hz) the Human Body and eyes can be exposed to and for how long?
 - (g) I request to see the training manual and safety operation manual for the CMS and the LED streetlight system.
 - (h) Who is the company who is or has installed the CMS LED streetlight system?
 - (i) What company maintains and repairs the CMS and LED streetlight system?
 - (j) What entity and Officer is responsible for the safety standards for the CMS and LED streetlight system?
 - (k) I request proof e.g. a certificate from [Council] that confirms that UK, EU and International safety standards for workers and the public have been met.
 - (l) What is the amount of Blue Light leakage that's safe for the public and workers during the LED streetlights operation?
 - (m) What level of LED streetlight exposure is safe for the public at daytime and night time?
 - (n) Is there a legal requirement for diffusers to be fitted to LED streetlights?
 - (o) How have you have addressed the amount of Oxidative Stress on Human and Animal cells that's produced from LED?

- 5.2 If no, then I request a declaration from [Council] that you will not be installing LED streetlights in the future. If you cannot provide a declaration, I would like the following answered in the future tense:
- (a) What is the CMS and specification of the software and hardware of the LED street light system?
 - (b) What type of waveform is the LED? e.g. Square wave?
 - (c) Can you control the Pulse Width Modulation (PWM) of the streetlight system using the CMS?
 - (d) Can you control the PWM of each streetlight that's connected to the system?
 - (e) What restrictions do you have in place for the control of the PWM?
 - (f) What is the UK, EU and International safety limit (low and high) for the amount of 'flicker' (Hz) the Human Body and eyes can be exposed to and for how long?
 - (g) I request to see the training manual and safety operation manual for the CMS and the LED streetlight system.
 - (h) Who is the company who is or has installed the CMS LED streetlight system?
 - (i) What company maintains and repairs the CMS and LED streetlight system?
 - (j) What entity and Officer is responsible for the safety standards for the CMS and LED streetlight system?
 - (k) I request proof e.g. a certificate from [Council] that confirms that UK, EU and International safety standards for workers and the public have been met.
 - (l) What is the amount of Blue Light leakage that's safe for the public and workers during the LED streetlights operation?
 - (m) What level of LED streetlight exposure is safe for the public at daytime and night time?
 - (n) Is there a legal requirement for diffusers to be fitted to LED streetlights?
 - (o) How have you have addressed the amount of Oxidative Stress on Human and Animal cells that's produced from LED?
6. Where do you have 3G and 4G systems in public spaces and public roads?
[The Council does not have 3G or 4G systems in public spaces and public roads. This is the responsibility of Telecoms companies.](#)