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| Title of Report: | 5G Communications |
| Committee Report Submitted To: | Leisure & Development Committee |
| Date of Meeting: | 19th November 2019 |
| For Decision or For Information | For Decision |

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| Linkage to Council Strategy (2019-23) | |
| Strategic Theme | Innovation & Transformation |
| Outcome | The Council will embrace new technologies and processes where they can bring about better experiences for citizens and visitors. |
| Lead Officer | Strategic Projects Manager |

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| Budgetary Considerations | |
| Cost of Proposal | £8k (in year revenue budget) |
| Included in Current Year Estimates | Yes |
| Capital/Revenue | Revenue |
| Code | Not applicable |
| Staffing Costs | Not applicable |

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| Screening Requirements | Required for new or revised Policies, Plans, Strategies or Service Delivery Proposals. | | |
| Section 75 Screening | Screening Completed: | Yes | Date: 24 th June 2019 |
| | EQIA Required and Completed: Having considered the proposal, it is not anticipated the proposal will have an adverse impact upon equality of opportunity or good relations. | Yes | Date: 24 th June 2019 |
| Rural Needs Assessment (RNA) | Screening Completed | Yes | Date: 24 th June 2019 |
| | RNA Required and Completed: | No | Date: 24 th June 2019 |
| Data Protection Impact Assessment (DPIA) | Screening Completed: | Yes | Date: 24 th June 2019 |
| | DPIA Required and Completed: | Yes | Date: 24 th June 2019 |

1.0 Purpose of Report

The purpose of this report is to provide elected members with an update in relation to 5G Communications. The next generation of mobile communications, 5G, is beginning to gather momentum, although many elements of its delivery and use are still in development.

2.0 Background

5G is expected to deliver faster and better mobile broadband services to consumers and businesses, and to enable innovative new services for industry sectors, including manufacturing, transport, tourism, immersive technologies and healthcare.

It will address the growing requirements for mobile data:

- **More Data** - Driven by better customer experience, more connected devices, higher bandwidth requirements, virtual and augmented reality, etc.
- **More Devices** - Driven by smart agriculture, e-health, transport and logistics, environmental monitoring, smart tourism etc.
- **Instant Response** - Driven by vehicle to vehicle communications, remote control applications, drone delivery, smart manufacturing, etc.

Citizens are likely to demand 5G deployment, along with the extension of 4G where it is not already available.

5G is likely to be delivered as a patchwork of technologies, using a range of radio frequencies. Some of those frequencies are widely used today, for example for TV and mobile phones. Other, higher frequencies are also planned. The new technology, and its benefits, are likely to be deployed first to urban communities. Without intervention, they are likely to come much more slowly, if at all, to rural communities, because of the challenging investment case.

The Department for Digital, Culture, Media and Sport (DCMS) has already made funding available for a variety of initiatives aimed at removing the barriers to the deployment of 5G, with the objective of ensuring that the UK should be a world leader in 5G communications. It is reasonable to assume that substantial further funding will be made available in future.

Some people have expressed concerns about the health risks of 5G, particularly in respect of the extremely high (so-called mmWave) frequencies. The government's documented position is that there is no convincing evidence of health effects within the regulatory limits.

DCMS recently announced the Rural Connected Communities (RCC) funding as part of the UK Government's 5G Testbeds and Trials programme. A short call for funding was opened on 27 August 2019 and closed on 25 October 2019. The fund aims to identify the means to address both supply side and demand side barriers to the deployment of 5G.

The FFNI¹ programme (Full Fibre Northern Ireland) is ideally suited to coordinating the part of local government in the delivery of 5G, and to leading bids for future Government funding. It has built strong relationships with other key stakeholders including universities, SMEs and mobile network operators and other suppliers. These stakeholders have expressed an interest in working with FFNI to address the issues of 5G deployment in Northern Ireland.

¹ *FFNI – Full Fibre Northern Ireland – is the consortium of the ten rural councils in NI, hosted by Newry, Mourne and Down whose objective is to play an active part in delivering the best digital infrastructure for Northern Ireland.*

3.0 Key Issues

Citizens, especially in rural areas, could benefit significantly from 5G in the future. However, without intervention, 5G will come slowly, if at all to much of our region, mirroring the experience of broadband and 4G deployment.

DCMS future funding provides an opportunity to reduce the digital divide and lead on rural 5G rollout, to create a 5G communities and ensure investment in mobile connectivity.

The timelines for completing a bid for the Rural Connected Communities fund were however extremely short (8 weeks). Since future funding calls may follow a similar pattern, FFNI should be ready to react to such calls. There are also perceived health concerns about a small part of the 5G spectrum.

Due to the complex nature of the topic, external expertise is likely to be required to assist in funding bid preparation. External expertise is also likely to be necessary in respect of some elements of co-ordinating 5G activity more generally.

FFNI has the means to co-ordinate a joined-up approach to 5G in our region - to work with key stakeholders to create a 5G forum to seek; to agree a common approach to 5G in NI and ensure alignment with DfE (Dept for Economy) and their current and future 5G policy framework.

4.0 Resource Implications

Up to £8,000 per consortium member for 5G co-ordination would be required, stakeholder engagement and bid development assisted through Consultancy support; and Officer time to assist with coordination and with the co-ordination of 5G activity in general.

5.0 Recommendations

To approve that the FFNI Operations Team carry out a comprehensive and detailed report analysing the risks and benefits of 5G roll out, considering all available evidence and information on behalf of all Consortium Members.

That the FFNI Operations team continue to engage with key stakeholders to develop materials for a bid working with Consortium members in preparation for future 5G funding.