

ARGYLL AND BUTE - MOBILE COVERAGE MAPPING

1.0 EXECUTIVE SUMMARY

- 1.1 The purpose of this report is to seek approval from the Policy and Resources Committee to utilise £25k from the Digital Exclusion Fund to enter a partnership project with Scottish Futures Trust (SFT).
- 1.2 Currently the only mobile coverage data that we have at our disposal is from the Ofcom website, which is a perceived coverage map. The data that we aiming to get through this initiative is far more technologically advanced and provides street level mapping from each operator including signal strength, upload and download speeds and what spectrum frequency it is using (2,3,4 or 5G).
- 1.3 Having access to this data can then be used to support further improvements to our digital infrastructure which is critical to the future of our region both socially and economically. In particular, it will provide key evidence for the Council and our partners to effectively lobby government and also private industry for further investment.
- 1.4 The proposal is that we enter a joint quick quote procurement with Scottish Futures Trust (SFT) taking the lead. To adhere to quick quote regulations £50k is the maximum project value £25k SFT and £25k match from Argyll and Bute Council. There is a need to undertake this particular procurement route due to time constraints and the need to enter into a contract before the end of this financial year.

RECOMMENDATION

It is recommended that the Policy and Resources Committee approve the provision of £25k funding from the Digital Exclusion Fund to enable the Council to match fund an equal contribution from our partner SFT to undertake a Mobile Phone Coverage Map exercise covering Argyll and Bute.

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2.0 INTRODUCTION

- 2.1 The purpose of this report is to seek approval from the Policy and Resources Committee to utilise £25k from the Digital Exclusion Fund to enter a partnership project with Scottish Futures Trust (SFT) to undertake a mobile signal mapping exercise covering Argyll and Bute.
- 2.2 The Digital Exclusion Fund was established by the Council to assist communities that were out with any commercial or government programme to secure a Superfast Broadband (SFB) connection. To date only one community has approached us for assistance this being Kerrera which is currently having a Fixed Wireless Access (FWA) network built. This project has been delayed due to the Covid pandemic and protracted land negotiations.
- 2.3 It has been made clear by the UK and Scottish Governments that due to economies of scale it will not be possible to give a full fibre provision to every premise in the UK and that alternative solutions (Satellite, Fixed Wireless Access (FWA) and 4/5G) will be required to provide a Superfast Broadband Connection (SFB) to some premises.
- 2.4 The availability of mobile signal will therefore be critical for digital inclusion in Argyll and Bute. This provides a clear justification for entering a partnership with SFT to procure a detailed mapping exercise of mobile phone coverage across Argyll and Bute. Members will be aware that mobile phones are now seen as an essential part of most people's everyday life. For many particularly in rural communities the only means of communication. Additionally, the Emergency Service Network is aiming to migrate to a 4G solution and the old copper Public Switched Telephone Network or PSTN is being switch off by 2025, which will require people (if they require a landline) to switch over to a Voice Over Internet Protocol (VOIP) phone. Hence the reasons to get an accurate picture of actual mobile coverage at premise level in our area.

- 2.5 The 4/5G network is not only used for the purposes set out above. For example, electricity smart meters also use this network and following the increase in electricity costs more residents are increasingly aware of their energy consumption, most if not all would like a smart meter however some areas cannot get them due to the lack of a stable mobile network.

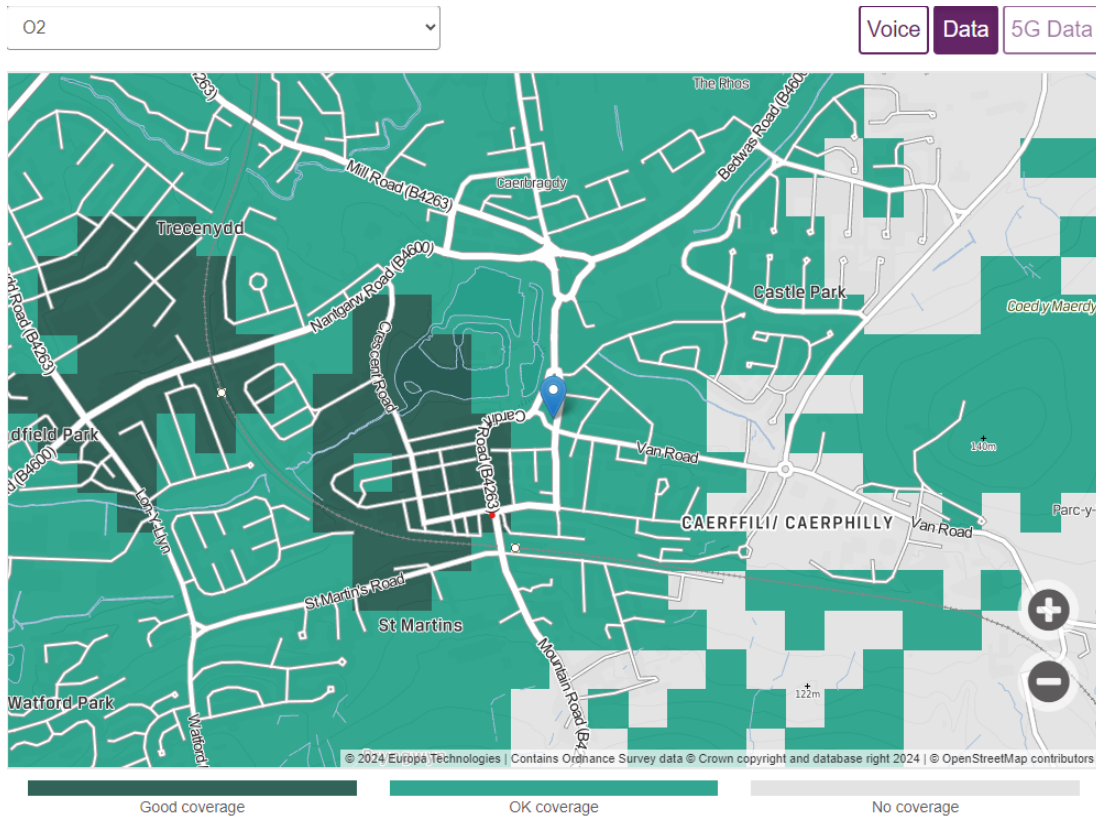
3.0 RECOMMENDATIONS

- 3.1 It is recommended that the Policy and Resources Committee approve the provision of £25k funding from the Digital Exclusion Fund to enable the Council to match fund an equal contribution from our partner SFT to undertake a Mobile Phone Coverage Map exercise covering Argyll and Bute.

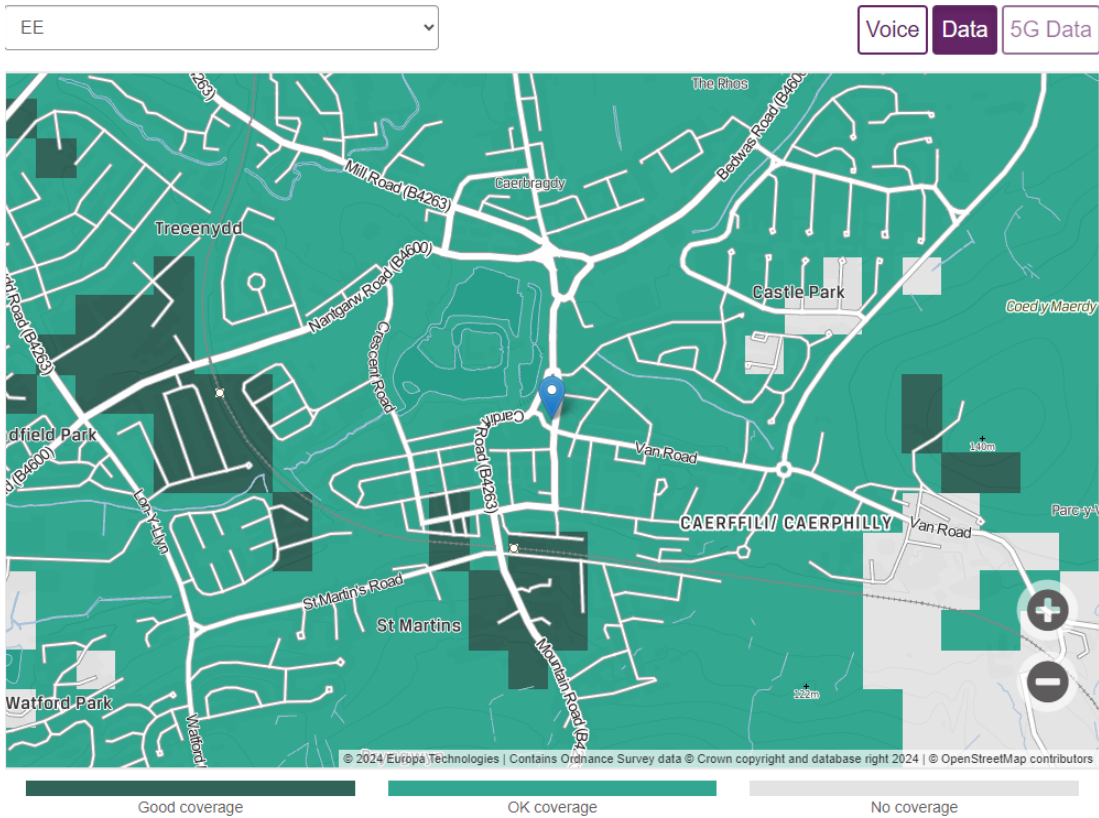
4.0 DETAIL

- 4.1 The Leader of the Council was recently contacted by Streetwave (a private company) enquiring if Argyll and Bute Council would be interested in establishing a detailed map of mobile coverage in Argyll and Bute. This was passed to the Strategic Transportation Policy Officer for further investigation.
- 4.2 Several meetings have been subsequently undertaken between parties with the potential benefits identified. However, the initial cost estimate of undertaking this work was considerable and beyond the resources of the Council at that time.
- 4.3 Further internal discussions were consequently undertaken on how this could be done more cost effectively. A process was then devised that involves the installation of monitoring equipment in our refuse vehicles as they travel every road and visit almost every premise in Argyll and Bute. It had already been established that our fleet would be capable in being equipped with the necessary equipment.
- 4.4 SFT also made contact recently indicating that they were looking at mapping part of Argyll for mobile signal strength and they had some limited funding available and that they had also been in discussion with Streetwave.
- 4.5 SFT have chosen Argyll and Bute due to the amount of mobile infrastructure that has been built particularly the Scottish 4G Infill (S4GI) Programme which they manage on behalf of the Scottish Government. They are looking to establish the impact of the programme and identify coverage gaps and any additional funding requirements.
- 4.6 Currently, the only source of mobile coverage mapping from all 4 Mobile Network Operator's (MNO's) Vodafone, EE, Virgin Media O2 and Three is the Ofcom coverage checker which only provides perceived coverage with data provided by the 4 operators. On the ground this is a different matter and has been raised with

Ofcom on numerous occasions. See examples of the Ofcom Coverage checker below (Maps are of Caerphilly in Wales for comparison purposes)

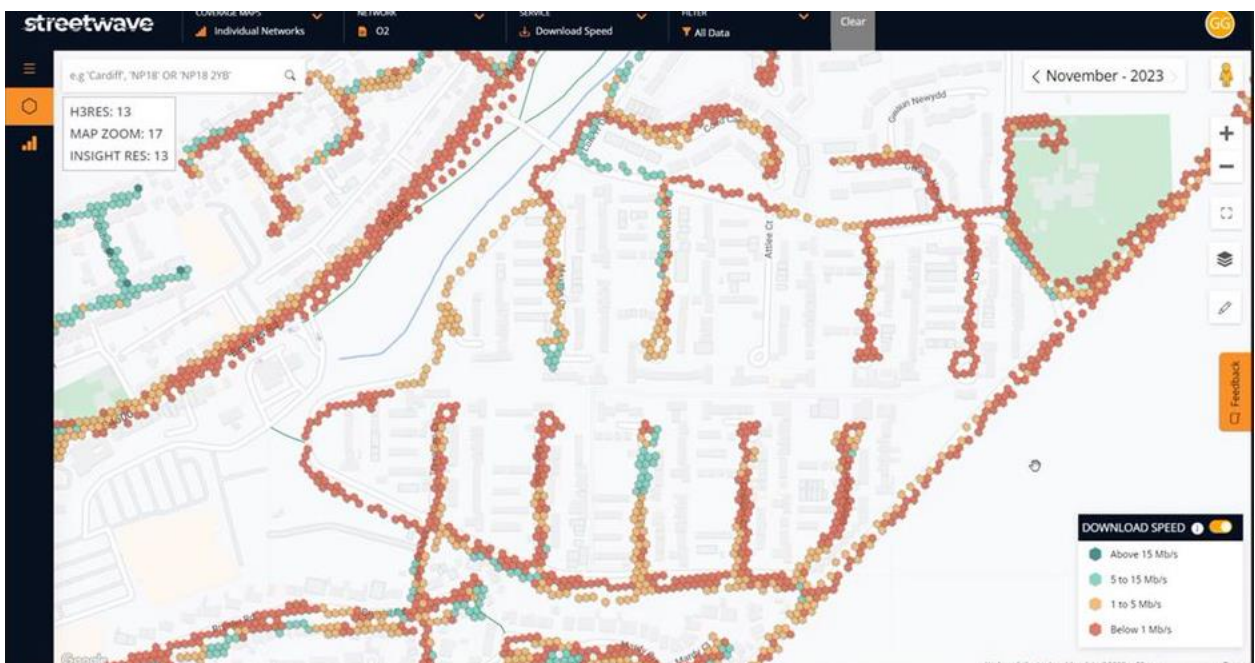


Ofcom O2 Data coverage map Caerphilly (Greatest Detail)

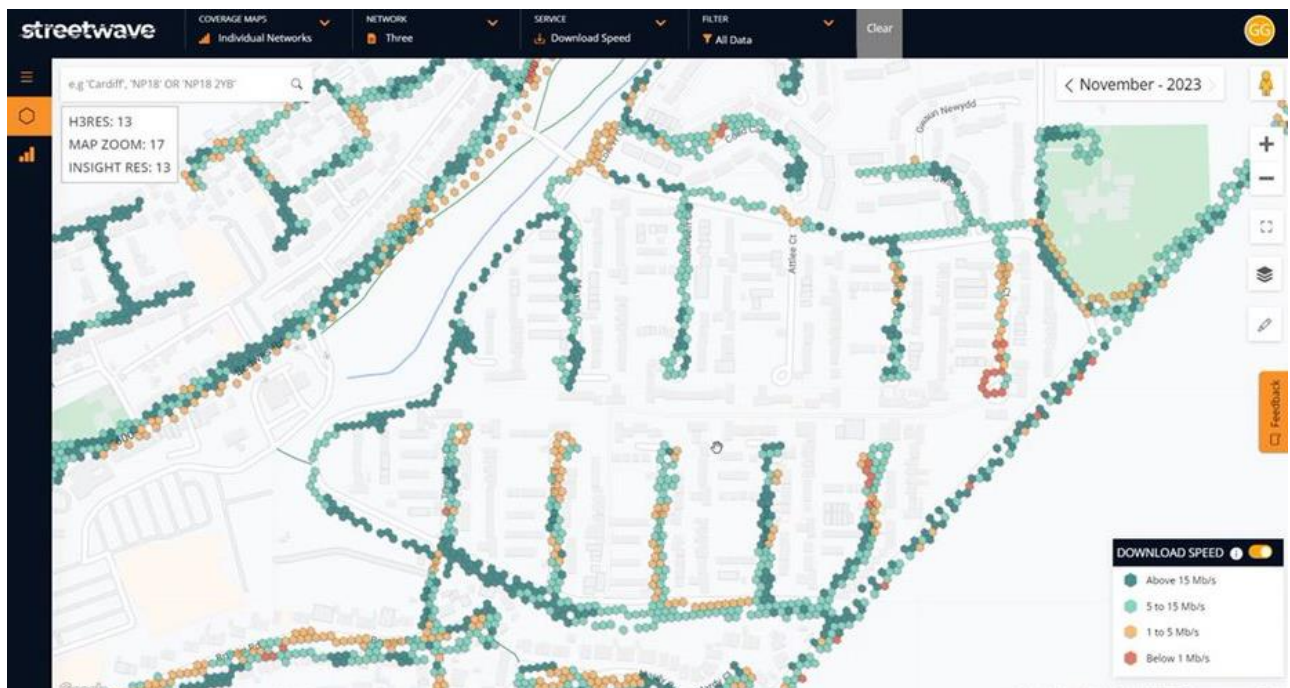


Ofcom EE Data Coverage Map Caerphilly (Greatest Detail)

4.7 In reality this is a bit different as the screen shots provided by SFT from a Streetwave presentation.



Streetwave Speed test of O2 network Caerphilly



Streetwave Speed test of EE network Caerphilly

- 4.8 From the images above you can clearly see the difference of a perceived coverage map and an actual coverage map. The level of detail that can be accessed using this data far surpasses anything else that we or SFT have seen before. Consequently, with this evidence SFT are amenable to working in partnership with the Council to procure through a quick quote process the use of this mapping technology to identify mobile signal strength from different mobile phone operators across Argyll and Bute. This includes match funding our own proposed contribution of £25k if this can be done this financial year.
- 4.9 It is proposed that SFT will take the lead on procurement and have provided us with a copy of the draft requirements which has been shared with legal. This includes the requirements on access to the data
- The contractor shall place no usage restrictions on the client associated with the aforementioned raw measurement data.
 - The contractor shall make the required measurement data available via a readily accessible online Geographical Information System (GIS) mapping tool for a period of up to 5 years after the contract start date.
- 4.10 It has been outlined that other initiatives may be collecting similar data for example Volkswagen audit group have been contracted by the Department of Transport utilising vehicle journeys. Having spoken to SFT they believe that the data will not be in as great a detail. Additionally getting access to the data for our purposes could be timely and costly.

5.0 CONCLUSION

- 5.1 It is proposed to undertake a joint procurement exercise with SFT to map digital signal across Argyll and Bute utilising the Council's fleet of bin lorries. A detailed mobile coverage map would have huge benefits to our local communities where in some cases individuals and local businesses pay for a level of service that they cannot receive. A link to the data could be put onto the Council's website where individuals could check which digital operator provides the service they are looking for prior to entering into a lengthy contract.
- 5.2 It would also identify mobile signal coverage gaps to help inform and incentivise both Governments and private industry to commit further investment in digital infrastructure across Argyll and Bute. Ultimately this would help address people who are digitally excluded.
- 5.3 Estimated costs for the project are in the region of £50k with £25k requested from the established digital inclusion fund and £25k from SFT.

6.0 IMPLICATIONS

- 6.1 Policy - the Single Outcome Agreement (SOA) and Economic Development Strategy and Action Plan support improvements in the digital infrastructure.
- 6.2 Financial - There is a request of £25k from the established Digital Exclusion Fund that has available funds.
- 6.3 Legal - Legal implications as this is a joint procurement exercise.
- 6.4 HR - Better mobile connectivity will benefit our staff in terms of accessibility and safety when they are delivering services to remote communities.
- 6.5 Fairer Scotland Duty:
 - 6.5.1 Equalities - the differing nature of the deployment of new technology has the potential to lead to inequalities in terms of access to digital services including those which support business and personal development.
 - 6.5.2 Socio-economic Duty - there is an overall risk that the economic and social benefits rising from modern digital infrastructure are not fully realised.
 - 6.5.3 Islands - There are risks that those areas which do not benefit from digital infrastructure could become less attractive locations within which to live and work which could have implications in relation to the SOA objective of growing the population.
- 6.6 Climate Change - The ability to access online services/meetings will limit the requirements to travel reducing an individual's carbon footprint.

- 6.7 Risk - The various programmes are reliant on new technology and innovation which is developing rapidly. Some projects are reliant on commercial operator decisions to invest whilst grant funding is necessary for many aspects of digital infrastructure improvement in Argyll. These aspects all create a level of uncertainty around the extent of infrastructure improvements.
- 6.8 Customer Service - improvements in broadband and mobile technology improve the opportunities for digital based customer services.

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