MANY
Mobile Access North Yorkshire

# Health, Social Care and Public Safety Use Cases

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# Mobile Access North Yorkshire - MANY

The MANY project is a collaboration between local government, comms companies, SMEs , and Universities, exploring how mobile technology can connect people to improve lives in rural communities in North Yorkshire, in northern England.

Builds on previous 5G projects - part of a wider UK Government Department for Digital, Culture, Media and Sport  (DCMS) test bed and trials programme, 7 rural projects in total

https://www.gov.uk/government/collections/5g-testbeds-and-trials-programme

Designed to identify challenges in using 5G across sectors and regions. Focused on building a scalable model to identify the benefits of a 5G network and to influence national policy around rural connectivity. Projects can apply for spectrum where licensees have no roll-out plans for 5G

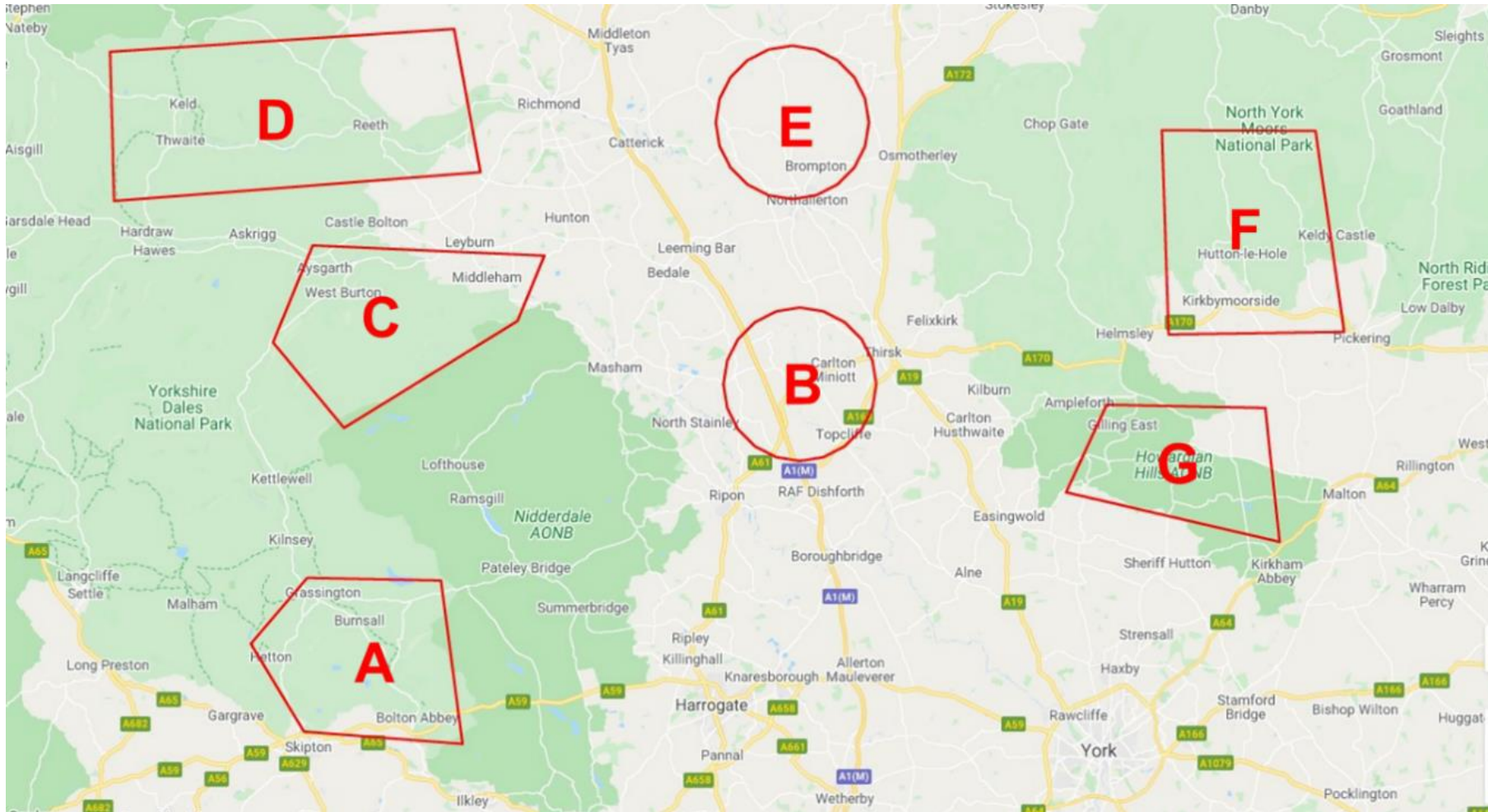# Mobile Access North Yorkshire

There is poor mobile data and voice connectivity across large parts of North Yorkshire which impacts on the rural community's day to day lives.

The project will highlight how mobile access connects people by:

- improving wellbeing and mental health, specifically loneliness
- boosting tourism opportunities
- providing mission critical support for the emergency services network
- enhancing the safety of the area through environmental monitoring
- providing a better mobile signal
- offering a quicker home broadband speed

In dialogue with local people, the aim is to demonstrate how mobile access can assist in the recovery of the social and economic fabric of rural communities, unlocking their potential.

# North Yorks target spots

# Project Partners, Start Date, Use Cases

Partners: Quickline Communications (infrastructure provider), North Yorks CC (L.A), Cybermoor, Flo-Culture, Boundless Coverage, Safenetics, U. Lancaster, U. York

2 year project from 1st April 2020

Four use cases:

1. Tourism

2. 2. Health and Social Care – Loneliness

3. 3. Environmental Monitoring – Flooding

4. 4. Emergency Services, Public Safety – Mountain Rescue?

# Technical Summary

NB. Working in rural areas with v limited coverage of even 2G. Need to manage expectations and plan for sustainability. No equipment provider in consortium.

Very few 5G suppliers with equipment ready for trial use.

3 Phase approach. 4G – 5G non standalone, SDR and open source – 5G standalone, supported by fibre and wireless backhaul.

Showcase events include use of U. York Helikite

Spectrum: Undertaken coverage survey. Will use several bands.

Security strategy completed.

# UK Challenges in Health and Social Care

UK NHS not one system but a complex multi-organisational structure 1.5M staff, budget of £135Billion (normally)

- Health and Social Care are separate, not necessarily well integrated – no common Electronic Health Record (EHR)
- NHS is not UK wide - England, Scotland , Wales and Northern Ireland
- National (England) central organisations: NHSE, NHS Digital, NHSX, Public Health England, CQC - all funding allocated by DHSC. Also external organisations e.g. NICE,
- Primary v Secondary Care - GPs are not employees of NHS
- 135 Care Commissioning Groups (CCGs), 7,500 GP practices, 220 hospital trusts, 10 ambulance trusts (England)

Social care run by 152 local authorities. Pre-Covid: 650,000 home care staff, 110,000 vacancies, 19,000 businesses. No laptops. No data sharing with NHS.
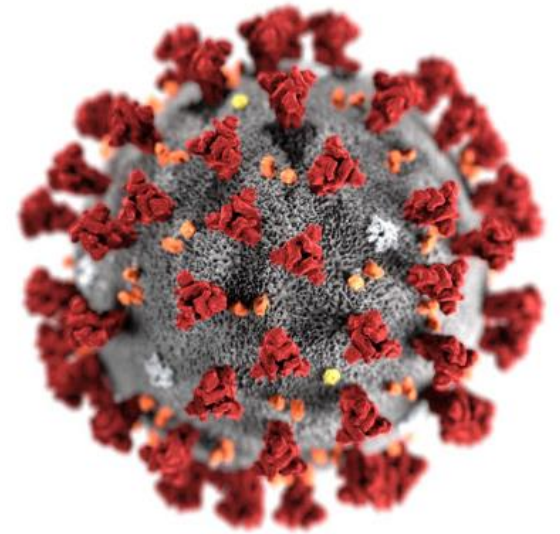
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# Impact of Covid-19

Major changes to GP services as well as hospital care.

GP moves to online triage. 90% of patient management now online versus 90% F2F previously. Online questionnaire and telephone. Video consultation is still very low. 0-2%.

Outpatient Clinics – unmet need. Backlog of other disease interventions.

Enormous interest in addressing crisis. InnovateUK call had over 8,000 SME applications for £50K grant for non-direct measures e.g. patient rehabilitation. Doubled money, funding 800 projects.

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# What health and care use cases will we explore?

Led by North Yorks Council. Community/user consultation approach.

Potential applications:

- Provide access to GP video consultations in the community - all GPs in NY have signed up to AccuRx. (https://www.accurx.com/) Provides video and links to EHRs.

- Investigate voice assistant (probably not Alexa) in the home for support.

# Public Safety (and Security) Use Case

Led by Safenetics.



UK has announced 4G project for ESN. Not proposing to directly demonstrate capability to police, fire, ambulance

Hoping to use mountain rescue as a proxy demonstrator.

# Mountain Rescue Use Case

In collaboration with Swaledale Mountain Rescue Team.

Requirement for more robust and resilient comms infrastructure, not replacing existing DPMR system, look at interoperability options (also helicopter) showcase additional capability.

Potential applications to be explored include:

- Medical telemetry
- Use of video - infra red for night time search
- Use of drones and U York Helikite
- Remote vehicle mounted BS

# H&SC Some final thoughts:

Lots of potential digital health applications but do they need 5G?

Staff shortages, resource intensive but complex structure - need to change business model, evidence base? not RCT – WSD e.g. Covid -19, not about technology, most routine applications don't require 5G, or wireless.

Revised Medical Device Regulations will hold back introduction new digital health applications in Europe.

Can we identify applications for mission critical layer that require e.g. additional security, resilience that also improve business model for Police, Fire and Ambulance e.g.

Robotics in the home (CHIRON project)

Home based physiotherapy and exercise monitoring, falls, use of VR? (SPHERE, Datagait projects), home based renal support, sleep monitoring.

Surgery??????

Find out more visit:
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