HOUSING AND COMMUNITIES COMMITTEE	AGENDA ITEM No: 2.5
22 JUNE 2020	**PUBLIC REPORT**

CONNECTING CAMBRIDGESHIRE PROGRAMME UPDATE

1.0 PURPOSE

1.1. To update the Committee on the progress of the digital infrastructure programme, including a reduction in the overall budget allocation in the light of emerging commercial plans and Government funding decisions for mobile coverage across Cambridgeshire and Peterborough.

DECISION REQUIRED		
Lead Member:	**Cllr Chris Boden, Committee Chair**	
Lead Officer:	**Paul Raynes, Director of Delivery & Strategy**	
Forward Plan Ref: N/A	**Key Decision: No**	
The Housing and Communities Committee is recommended to:		**Voting arrangements**
(a) Note the progress in relation to the provision of digital connectivity infrastructure across Cambridgeshire and Peterborough.		Simple majority of all Members
(b) Note the overall digital infrastructure budget allocation reduction from £5.6m to £4.3m, in line with the decision taken by the CPCA board on 3rd June.		
(c) Approve the establishment of two additional work streams to support Covid-19 related business recovery activities and the rollout of "Smart" technology to Cambridgeshire market towns, within the reduced budget allocation.		
(d) Delegate to the Director of Delivery and Strategy in consultation with the Chair of the Housing and Community Committee the approval of the detailed business plan for the digital infrastructure delivery programme for 2020-2022.		

2.0 BACKGROUND

2.1 In recognition of the growing reliance on digital connectivity, the Connecting Cambridgeshire Programme was set up by Cambridgeshire County Council in 2011 to facilitate Superfast Broadband delivery across Cambridgeshire and Peterborough to almost 50% of homes and business that at that time were not covered by commercially deployed digital infrastructure. The programme combined funding from Cambridgeshire County Council, Peterborough City, EU, Government and industry contributions.

2.2 In 2018 the Cambridgeshire and Peterborough Combined Authority (CPCA) Board allocated up to £5.6m in order to further expand the programme to deliver challenging aspirations to considerably increase the full fibre footprint, improve mobile coverage and extend free public access Wi-Fi to open spaces in Cambridgeshire's market towns. The expanded programme is being delivered in partnership between the County Council, the CPCA and its constituent Local Authorities.

2.3 The increasing importance of digital connectivity in almost all aspects of 21st century living from economic activity through to community well-being has been both expedited and highlighted by the Covid-19 crisis. This has required many Cambridgeshire and Peterborough businesses and communities to work, communicate and live in very different ways almost overnight, with digital connectivity underpinning many of these changes.

2.4 Since the expansion of the Connecting Cambridgeshire Programme in 2018 there has been significant progress towards the extended targets, including the establishment of the new "Enabling Digital Delivery" team to facilitate digital infrastructure rollout and stimulate additional commercial investment. This has attracted positive national attention from Government and Industry as one of the first in the country, and several other Combined Authorities and Local Authorities have since followed the approach. Appendix A *Connecting Cambridgeshire Digital Connectivity Programme – Review Report 2019-20* incudes more details of targets and progress to date, along with further information about the proposed changes to the programme going forward in response to the Covid-10 pandemic.

2.5 The approach for improved mobile coverage is set out in more detail in Appendix A *Connecting Cambridgeshire Digital Connectivity Programme – Review Report 2019-20*. In summary, although key activities to support improvements to coverage will continue, the plans for the £1bn "Shared Rural Network" (SRN) programme that have recently been agreed by Government and the mobile industry mean that previous plans for local investment in telecommunications infrastructure would potentially duplicate the SRN programme and therefore offer poor value for money. Accordingly the overall programme budget has been reduced and re-profiled to support other areas of activity.

2.6 This includes the establishment of the "Keeping Everyone Connected" work stream to focus on supporting businesses, communities and public service delivery in the immediate response to and longer term recovery from the impacts of the Covid-19 pandemic.

2.7 Further details of the Keeping Everyone Connected work stream are set out in Appendix A *Connecting Cambridgeshire Digital Connectivity Programme – Review Report 2019-20*. In summary this includes the provision of matched funding of £430k from the CPCA subject to a successful application to the EU ESIF (European Structural Investment Fund) programme to draw down funding to support a business grants scheme for small and medium sized businesses to help them transition to increased reliance on digital technology, to support increased productivity and help increase the resilience of the local economy to the economic consequences of the Covid-19 crisis.

2.8 As well as supporting public service delivery during this time of unprecedented demand on digital connectivity, the Keeping Everyone Connected work stream also includes activities to support greater digital inclusion across communities and a focus on ensuring that social housing residents are not excluded from future facing digital infrastructure provision.

2.9 The technology, opportunities and delivery imperatives associated with digital connectivity infrastructure continue to evolve rapidly, with the landscape having changed significantly even since the CPCA digital infrastructure elements of the Connecting Cambridgeshire Programme were established in 2018. In addition to the public access Wi-Fi deployments to market towns which are already underway (further details at Appendix A *Connecting Cambridgeshire Digital Connectivity Programme – Review Report 2019-20.*), a wider project "Advanced Communications and Emerging Technologies" is proposed which will help to ensure that the CPCA area, and market towns in particular continue to be at the leading edge. This includes an initial small-scale 18 month "Smart Places" work package which will deploy and trial "smart" technology to several market towns.

SIGNIFICANT IMPLICATIONS

3.0 FINANCIAL IMPLICATIONS

3.1 As outlined in 2.5 above, the new "SRN" programme is set to improve the mobile coverage for the area within the next few years and this has enabled the overall CPCA funding for the digital infrastructure programme to be re-profiled and reduced, including provision for Covid-19 response and recovery activities.

3.2 The overall reduction in investment from £5.6m to £4.3m was agreed at the CPCA Board on 3rd June 2020 as part of the Medium Term Financial Plan.

3.3 The revised profile of expenditure, including the "Keeping Everyone Connected" business support programme is set out below. Nb It is anticipated that CPCA funding of £500k will leverage further EU ESIF (European Structural Investment Fund) funds. Further details are set out at Appendix A *Connecting Cambridgeshire Digital Connectivity Programme – Review Report 2019-20*

	Work stream	2018/19 (£)	2019/20 (£)	2020/21 (£)	2021/22 (£)	Total (£)
1	Enabling Digital Delivery	125,000	125,000	125,000	125,000	500,000
2	Full Fibre footprint	-	-	150,000	1,550,000	1,400,000
3	Public Access Wi-Fi		20,000	360,000	-	380,000
4	Mobile coverage improvements (2G + 4G)	-	55,000	25,000	200,000	245,000
5	Programme resources for delivery of CPCA work streams	137,500	140,500	160,000	160,000	598,000
6	Advanced Connectivity & Emerging Technologies for market towns & 5G testbed & trials	-	-	225,000	175,000	380,000
7	Keeping Everyone Connected (Covid-19 Response & Recovery)			250,000	250000	500,000
	Totals	**262,500**	**340,500**	**1,295,000**	**2,460,000**	**4,358,000**

4.0 LEGAL IMPLICATIONS

4.1 The devolution deal for the Combined Authority area (June 2016) outlined the importance of digital connectivity to the objectives of the new organisation. The Cambridgeshire and Peterborough Combined Authority Order 2017 (S I 2017/251) provided a general power of competence detailed at Part 4, Article 11 of the Order enabling it to fund projects in furtherance of its economic ambitions.

4.2 Grant funding raises issues of state aid and procurement. In order to comply with EU competition law it is confirmed that the following actions will be undertaken as part of the delivery programme:

(a) Any public funding which could be deemed as a market intervention in the telecommunications market will be assessed to determine if the funding is to be deployed on a 'state aid' or 'no aid' basis.

(b) With the exception of the Superfast Broadband Rollout Phases 3 and 4 (state aid exemption already in place), delivery is intended to be on a 'no aid' basis. However, if any funding deployment is assessed as a potential 'state aid', an approval for deployment of state aid will be sought from the appropriate authorities.

(c) In commissioning any services in delivery of the programme, any contract is to be procured in line with the Combined Authority's contract rules and statutory procurement rules.

4.3   The meeting shall be conducted in accordance with Parts 2 and 3 of the Local Authorities and Police and Crime Panels (Coronavirus)(Flexibility of Local Authority and Police and Crime Panel Meetings)(England and Wales) Regulations 2020.

5.0   OTHER SIGNIFICANT IMPLICATIONS

5.1   There are no other significant implications

6.0   APPENDICES

6.1. Appendix 1 *Connecting Cambridgeshire Digital Connectivity Programme – Review Report 2019-20*

Background Papers	Location
N/A	

Appendix 1 Connecting Cambridgeshire Digital Connectivity Programme - Review Report 2019-2020
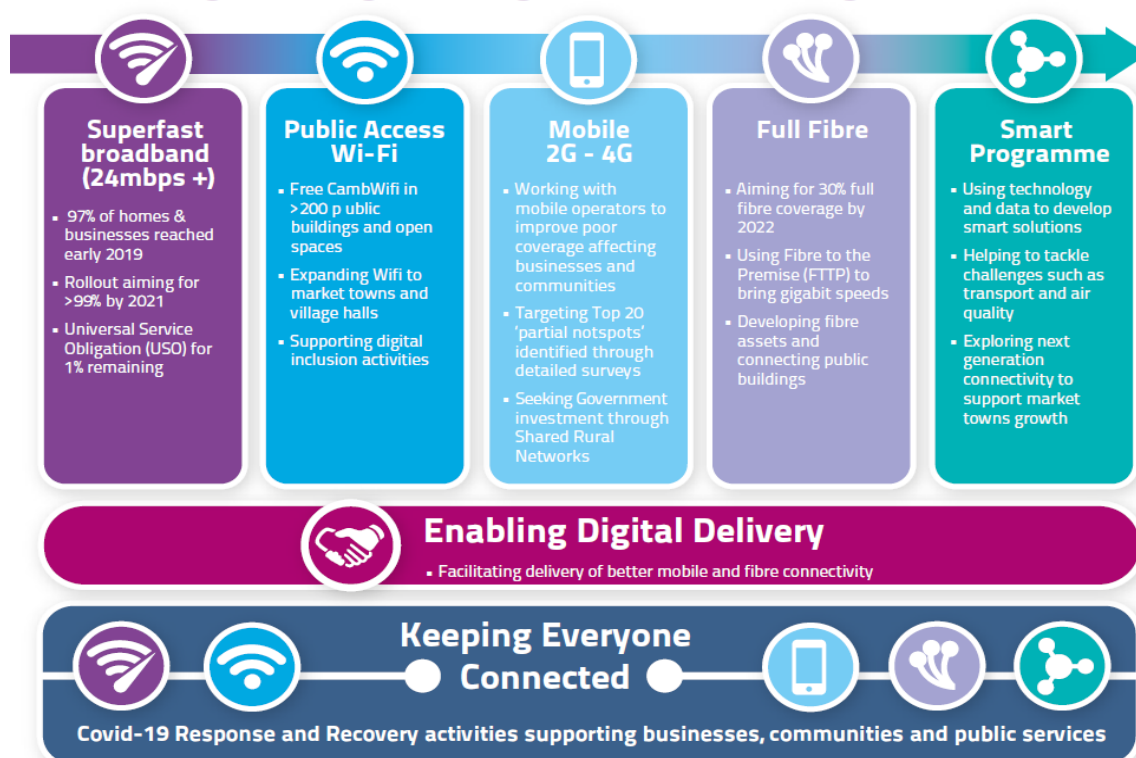
Introduction

Already a leading digital economy, Cambridgeshire and Peterborough has an ambitious agenda to optimise private and public sector investment in future-facing connectivity to underpin the region's economic strength, support businesses and communities, and deliver sustainable public services. This annual Review Report for 2019-2020 provides an overview of the work underway to significantly improve broadband, mobile and public access Wi-Fi coverage, whilst securing future proof full fibre and 5G networks to take advantage of emerging technology.

In March 2018, the Cambridgeshire and Peterborough Combined Authority (CPCA) Board approved funding to support the expansion of the existing Connecting Cambridgeshire Programme to deliver better digital connectivity across Cambridgeshire and Peterborough. This included setting up a dedicated Enabling Digital Delivery (EDD) team to facilitate the delivery of mobile and full fibre networks.

The Coronavirus pandemic has highlighted the importance of digital connectivity and society's increasing reliance upon it in a rapidly evolving technical and commercial landscape. Part of the work of the Connecting Cambridgeshire Programme team during the initial stages of the pandemic has been to assist telecommunications companies in their work to maintain and extend telecoms networks across Cambridgeshire & Peterborough as much as possible. A new 'Keeping Everyone Connected' work stream has been established to provide a focus on digital connectivity in the immediate response period and as part of recovery planning.

The Connecting Cambridgeshire programme currently includes work streams across all aspects of digital connectivity infrastructure, each with challenging targets. The programme was set up by Cambridgeshire County Council in late 2011, with an initial focus on Superfast Broadband services of 24mbps+. It now incorporates work across five different areas of digital communications technology and two cross-cutting work streams:

Connecting Cambridgeshire Digital Connectivity Programme Overview

Superfast broadband and Full Fibre

The Superfast Broadband (SFBB) rollout, led by Cambridgeshire County Council, has extended access to superfast broadband to around 120,000 homes and businesses across the Cambridgeshire and Peterborough that would not have been able to get it otherwise. Combined with commercial coverage, the SFBB rollout has brought high speed internet access of at least 24Mbps to over 97.7% of premises across the county.

From being well behind the national average at the start of the programme, the area is now above the national average, and remains ahead of Government targets. Cambridgeshire and Peterborough have some of the highest take-up of SFBB services in the country - at almost 70% for Superfast (FTTC) and over 30% for Fibre to the Premises (FTTP) services.

A fourth phase of the SFBB rollout is underway, mainly targeting hard to reach rural premises, aiming to achieve over 99% superfast coverage by the end of 2020 (subject to the impact of the Covid-19 outbreak).

The latest Fibre to the Premise (FTTP) technology is being used, which means homes and businesses can upgrade to faster, more reliable speeds of 300Mbps (or more) now or in the future. Full fibre networks support the fastest, most reliable internet access - capable of gigabit speeds of 1000 mbps - which are future-proof and provide the backbone for 4G and future 5G mobile services.

Connecting Cambridgeshire has a target to achieve over 30% full fibre coverage across Cambridgeshire and Peterborough by 2022, through a mix of direct intervention and stimulating the market to provide commercial coverage. Progress is on track with full fibre coverage approaching 20% by May 2020. However in the light of emerging government policy and plans to dramatically increase fibre availability across the UK, as part of the "Outside In" programme, this target is subject to further review. Once the immediate impacts of the Covid-19 crisis are better understood it is anticipated that both the Superfast and Full Fibre coverage targets will be reviewed, likely to be towards the latter end of 2020.

The current approach to increasing the fibre footprint across the county is based on a combination of increasing supply via deployment of fibre ducting in transport schemes and market stimulation activities to facilitate commercial investment. This has seen some significant successes in the last few years with all commissioning bodies in the area approving policy changes to incorporate fibre ducting in new infrastructure schemes and plans in place to deploy fibre in a number of transport schemes. These include the A428 upgrade, the Kings Dyke scheme, the Chisholm Trail in Cambridge and a number of others.

Commercial full fibre deployments already in progress or announced for 2020/2021 include: Peterborough, Cambridge and Ely, in addition to the existing full fibre services available in March and Chatteris. Active conversations are underway with market investors to promote further full fibre rollout to other Cambridgeshire market towns and commercially viable rural areas.

Rural areas which are not expected to attract commercial investment in full fibre fall within "intervention" schemes, utilising public funding. In addition to the "Superfast" rollout and the forthcoming "Outside In" programme this includes signposting and promoting take-up of government gigabit vouchers funding schemes that have already helped over 400 businesses and nearby residents install high speed broadband connections in both urban and rural areas of the county.

Government funding has also been accessed to provide fibre upgrades to 109 public sector buildings in rural locations over the last year.

Public Access Wi-Fi

Free public access Wi-Fi has an important part to play in supporting struggling high streets particularly in areas where mobile coverage is poor. It can also contribute to supporting health and well-being, and digital inclusion in areas of higher deprivation.

Free "CambWifi" public access Wi-Fi is already available at over 150 sites across the county including libraries, leisure centres, community centres, children's centres, sheltered housing schemes, council buildings, and some open spaces.   This is being further expanded so that more people can get online in public buildings, open spaces and retail centres around the county.

"CambWifi" is currently being deployed to around 35 village halls and community buildings, using grant funding from the Department of Health and the CPCA funding is also supporting the wider rollout of public access Wi-Fi to open spaces in Cambridgeshire market towns.

Deployment of all public access Wi-Fi schemes has slowed since March given significant supply chain issues, however all schemes continue to progress, albeit slower than originally anticipated. The public access Wi-Fi solutions for Cambridgeshire market towns have proved to be particularly problematic in terms of technology design and affordability and are running significantly behind the initial timescales which would have seen all deployments completed by March 2020.

However after some trial and error an optimised design has been agreed for all market towns which utilises the respective District Council's underpinning CCTV network and expands the capacity to incorporate Wi-Fi access points which are then integrated to the shared "EastNet" public services network. Given the integration with existing CCTV networks it is vital that the District Councils have full assurance that the CCTV services will not be impacted by the proposed design. This has required some complex partnership working and supplier cooperation across multiple Cambridgeshire Local Authorities and Town Councils. This has taken longer to deliver but it provides a more efficient and cost effective solution going forward.

As a result all market town Wi-Fi deployments are now on track, with some already completed, others in active deployment or in the final design and approval stages. Deployment completion dates are not currently known as equipment supply chains are presently disrupted and several of the key suppliers have staff furloughed in response to the Covid-19 crisis. However the situation is being closely monitored and if the current conditions continue a firm timeline for all deployments is expected by late June/early July 2020. The table below gives the current status across all market towns.

District	Town	Status
ECDC	Ely	Completed 2019
ECDC	Soham	Completed 2019
ECDC	Littleport	Deployment currently underway
HDC	St Neots	Design agreed, subject to final approval from HDC. Planned to be the first deployment in Huntingdon to test CCTV integration.
HDC	Ramsey	Design agreed, subject to final approval from HDC, will follow St Neots rollout.
HDC	Huntingdon	Design agreed, subject to final approval from HDC, will follow St Neots rollout.
HDC	St Ives	Design agreed, subject to final approval from HDC, will follow St Neots rollout.
FDC	March	Awaiting final design and subject to final approval from FDC
FDC	Chatteris	Pilot completed and service available since December 2019. However the design will be modified to comply with the overall Fenland network design. Awaiting final design and subject final approval from FDC before modifications are undertaken
FDC	Whittlesey	Awaiting final design and subject to final approval from FDC
FDC	Wisbech	Awaiting final design and subject to final approval from FDC

Mobile

Since the CPCA funded mobile work stream began in 2018, the technical and commercial landscape has changed considerably. A modified approach for mobile coverage was agreed in 2019, which brought 2G, 4G, and 5G work streams together and adopted a multi-layered approach, focusing on the "top 20" locations with coverage issues whilst continuing to explore options for intervention in the market.

However, the establishment of the government and mobile operators' Shared Rural Network (SRN) programme has changed the situation considerably. The SRN programme includes joint investment of £1billion from government and industry to increase 4G coverage to at least 95% of the UK by 2026. This will be achieved in part by a new infrastructure sharing agreement between the four mobile operators to share assets in areas of low population density which would otherwise not be commercially viable.

The proposed SRN was discussed at a roundtable event chaired by Mayor Palmer in December 2019, however the agreement between government and the mobile operators was only finally signed on 9 March 2020. The timetable for the SRN programme delivery is subject to review given the challenges of the Covid-19 pandemic.

As a result of the establishment of the SRN a revised mobile strategy is proposed which will include continued focus on the "top 20" locations (see below), but with increased emphasis on "barrier busting" and close liaison/lobbying with both government and the mobile operators to influence the SRN programme to address coverage issues in Cambridgeshire and Peterborough early on in the programme. This includes liaison with local businesses and communities to demonstrate and aggregate demand, which will help to develop an effective lobbying approach.

The list of 'partial notspots' includes communities, market towns, road and rail routes and business/research sites, where better mobile phone coverage would benefit the economy and communities. These have been identified by comparing detailed local surveys commissioned by

Cambridgeshire County Council and the latest Ofcom data. The list is representative of the range of mobile coverage issues affecting the area and is not in order of priority.

'Top 20' locations for mobile coverage improvements in Cambridgeshire & Peterborough

1	Whittlesey
2	Waresley & Gamlingay
3	St Ives Town Centre
4	Soham Town Centre
5	Ramsey & roads incl. B1093 to Upton
6	Parsons Drove & surrounding roads
7	Old Weston & surrounding roads
8	March - Station
9	Manea & roads near B1093
10	Littleport Town Centre & Station
11	Kirtling & surrounding roads
12	Hinxton - Wellcome Genome Campus
13	Hardwick & roads near Madingley, Dry Drayton & Girton
14	Ely Cathedral & City Centre
15	Chatteris
16	Cambridge Station
17	Bartlow roads & near Horseheath, West Wickham,
18	Barnack - roads and surrounding area
19	Babraham – roads and villages near A11/ A505
20	Alconbury Weald – new homes and Enterprise Zone

Advanced Connectivity and Emerging Technology

Advanced data techniques, sensor technology and digital connectivity are creating opportunities for better productivity and innovative solutions, which can positively impact on business growth, community well-being and the delivery of public services.

Technologies such as Machine learning (AI), Internet of Things (IoT) concepts and new ways of collecting, distributing and visualising data are increasingly being used across a wide range of sectors, including water and flood management, energy management, remote healthcare and diagnostics, advanced manufacturing and transport related services.

It is proposed that 'Smart' technologies, such as real-time transport information, that have been developed by the Smart Cambridge programme through the Greater Cambridge Partnership (GCP) are extended to bring digital solutions to some of Cambridgeshire's market towns. This follows the St Neots Smart Places pilot, funded by the CPCA, which was set up to help to address some of the challenges identified in the St Neots Masterplan and the Neighbourhood Plan. A Discovery Phase Report and Recommendations was published at the conclusion of the work.

Over the next 18 months, Smart Places projects will be established to trial 'smart' technology and data solutions and the development of low cost "Internet of Things" (IoT) networks that are suitable for Cambridgeshire market towns.

SmartPanels have been developed with the University of Cambridge to display location specific real-time and static travel information on large screens in an easy to read format giving people the information they need to make more sustainable travel choices. Pocket SmartPanels also provide real time bus and train information via smartphones. To date, SmartPanels have been installed in

the foyers of c20 public buildings and private businesses in the Greater Cambridge area and as part of this project will be deployed to key market town locations to provide local travel updates.

Enabling Digital Delivery

Funded by the CPCA, Connecting Cambridgeshire was among the first in the country to set up a dedicated Enabling Digital Delivery (EDD) service to remove barriers to the delivery of future-proof digital connectivity. The team facilitate private sector investment for full fibre networks and next generation mobile phone coverage across the area.

The EDD service underpins all aspects of the Programme delivery by working with network providers, telecoms operators, housing developers, and council teams to resolve a wide range of fixed and mobile infrastructure issues including wayleaves, street works permits, and infrastructure problems and planning.

The service is being used as an exemplar for other local authorities, and had developed Streetworks Guide to share learning and best practice about working collaboratively with contractors to maximise efficient use of resources and minimise conflicts, delay and costs.

The service is also providing key transport, business and housing data to help network providers plan future investments and working with major housing developers to ensure full fibre and mobile connectivity is planned for new housing developments that would otherwise have had poor coverage.

Keeping Everyone Connected

The global Covid-19 crisis has highlighted the critical role of digital connectivity for families and wider communities staying in touch and allowing the rapid transition to home working for many businesses. As both the reliance on and the challenges of maintaining digital infrastructure deployment during the pandemic became clearer, activities supporting Covid-19 response and recovery have been pulled together into a separate "Keeping Everyone Connected" sub-programme. The key elements of the programme are shown in the diagram below:

Keeping Everyone Connected

Supporting Cambridgeshire and Peterborough businesses, communities and public services in responding to and recovering from the Covid-19 crisis through improved connectivity and access to digital services

Businesses
- Grants for SMEs to support use of digital technology
- Digital business advice and support
- Digital connectivity supporting home working

Communities
- Signposting connectivity upgrade options
- Highlighting digital opportunities
- Supporting digital inclusion initiatives
- Resources for digital connectivity and preventing service disconnections

Public Services
- Connectivity support for remote Health & Care solutions
- Real-time traffic movement data measuring lockdown impacts
- Providing digital connectivity information to local hubs and those supporting vulnerable and shielded people

Enhanced Support for Telecommunications and Mobile Operators

- Proactive support for telecoms operators to progress street works applications
- Liaison with County and District planning teams to expedite telecoms decisions
- Enhanced support for planned digital infrastructure delivery to challenging areas
- DCMS, Industry body and Local Authority liaison and information exchange

National/Local Collaboration

Businesses support grant scheme

The Covid-19 outbreak has had a fundamental impact on the UK's economy. Digital infrastructure has been absolutely key to supporting people and businesses through the crisis. Looking to the future, digital connectivity will also be key to shaping and driving the recovery, as we all seek to return to normal, while managing any ongoing risk from Covid-19.

In this challenging economic environment it is vital that we support the region's businesses. Digital technologies can help SMEs adapt their operations to improve performance, productivity and resilience in the new more difficult trading environment.

An outline proposal has already been submitted to the Ministry of Housing, Communities and Local Government (MHCLG) who oversee the relevant EU funding stream and approval to submit a full application form has been granted. Subject to a successful outcome, the Combined Authority funding will leverage an additional £630,000 European funding for digital technology business grants. Total funding available for grants will be £1,200,000. The grants of between £2,000 and £10,000 have the potential to assist around 300-400 businesses across Cambridgeshire & Peterborough. The grant scheme will run from October/November 2020 for 6-12 months.