

West of England Digital Plan

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Foreword

TBC

- Mayor
- LEP Board Chair
- Joint statement from Councils

Summary Plan on a Page

A snapshot of the challenges we need to address, our priorities and our strategic objectives that together shape our approach and what we aim to achieve.

 Digital Leadership - The region demonstrates visionary, proactive leadership which provides confidence to partners and encourages collaboration and delivery partnerships		
Challenges	Priority Area	Strategic Objectives
<p>Many communities do not have the connectivity they need. Without the right infrastructure people risk being left behind as digital infrastructure supports people's lives, our economy and regional ambitions.</p>	 <p>Digital Infrastructure - The region is digitally connected, with access to world-class digital infrastructure that is fast, secure and reliable</p>	<ul style="list-style-type: none"> • Meet 85% gigabit connectivity by 2025 across the West of England • Maximise number of premises which have at least superfast coverage by 2026 • Maximise 4G and 5G coverage and capacity • Boost community-based connectivity
<p>People on the wrong side of the digital divide are more likely to experience poor outcomes that affect quality of life. Improving digital skills will help residents secure good jobs, progress in work and benefit from digitisation.</p>	 <p>Digital Inclusion & Skills - Our people and businesses can get online and use digital services and our economy has the skills required for digital transformation at all levels</p>	<ul style="list-style-type: none"> • Reduce digital exclusion • Improve digital skills at all levels
<p>Many businesses face barriers to digital adoption from skills through to finance. Helping our businesses to overcome these barriers will help them thrive, boost productivity and create new opportunities for local residents.</p>	 <p>Digital Growth - Our businesses and third sector organisations are digitally capable and can maximise digital opportunities</p>	<ul style="list-style-type: none"> • Increase the breadth and depth of tech adoption of digital transformation across our businesses and third sector organisations • Increase utilisation of emerging technologies amongst our businesses so they can secure competitive advantages
<p>Residents want public services to be safe, easy to use and designed around them. Using digital technologies and data we can deliver innovative, cost-effective public services that meet the needs of people across the region.</p>	 <p>Digital Public Services - The region delivers best in class digital public services to provide a better experience for residents</p>	<ul style="list-style-type: none"> • Improve the experience of using digital public services • Unlock the power of digital across the public sector to deliver better outcomes for our residents
<p>There are many challenges we need to address. Digital can help us understand how to tackle challenges and develop solutions. By responsibly using tech we can deliver social value, sustainability and vibrant, inclusive places.</p>	 <p>Tech for Good - Harness our digital innovation ecosystem to address key regional and global challenges</p>	<ul style="list-style-type: none"> • Put the West of England on the map as THE place for cutting edge digital research, innovation and investment that finds solutions to key regional challenges

Introduction

Digital technologies have revolutionised almost every aspect of our lives in recent years – changing the way we work, socialise, shop and go to school or college. This revolution accelerated during the pandemic when public, private and voluntary sector organisations put services online at a pace never seen before and more people than ever took up digital services. We now live in a digital world.

This digital world offers significant benefits and opportunities, including:

- Enabling people to work in new ways and access better jobs;
- Enabling people to access education, training and skills opportunities;
- Enabling people to reduce their out-goings and tackle the cost-of-living crisis;
- Enabling businesses to become more productive, innovative and resilient;
- Enabling public sector organisations to improve the delivery of key public services and reduce costs; and
- Providing new tools to tackling challenges such as congestion, pollution, climate change and biodiversity loss.

However, there are risks/challenges to overcome. We need to ensure our digital transformation is ethical, fair and sustainable.

Not everyone has access to the services and skills they need to take advantage of the opportunities brought by digital technologies. Ensuring all our residents, businesses and wider organisations can operate effectively in this digital landscape is therefore essential to our economic recovery and long-term prosperity and is the focus of this plan.

How will a plan help?

This plan has been developed by the West of England Combined Authority and its partners to facilitate the process of digital transformation across the area. The plan sets out our collective ambition for the region and will guide our activities and investment plans, providing us with a clear direction and purpose as well as sending a clear signal of our ambition to potential partners and investors.

What does this plan cover?

The Plan covers the whole of the West of England LEP area which includes the West of England Combined Authority area and North Somerset.

Whilst the plan includes our ambitions to extend levels of connectivity in the region, we recognise that to be a truly great digital region, we must look beyond connectivity and consider how we make the best use of these new technologies to benefit our people. The plan therefore also includes our priorities to ensure:

- Everyone can get online and use digital services and our economy has the skills required for digital transformation at all levels;
- All our businesses and third sector organisations are digitally capable and can maximise digital opportunities;
- The region delivers best in class digital public services to provide a better experience for residents; and
- Using our digital innovation ecosystem to address key regional and global challenges such as Net Zero and nature recovery.

Digital transformation impacts and enables almost everything that we are trying to achieve. For this reason, our Digital Plan supports our other strategies and plans, as well as those of our partners locally and nationally.

Regional Strengths

The West of England has a strong digital ecosystem which benefits from an internationally recognised tech hub and the largest tech workforce in the South West.¹

We are well-connected and innovative. Boasting four prestigious universities, over 46,000 businesses and the UK's most productive tech cluster.² Our region is home to 1.1 million people, and with over 91 different languages spoken, we have a truly diverse, global outlook.

Our distinctive digital and tech sectors burst with innovation and creativity and have a wealth of expertise. We have capabilities in everything from fintech and immersive creative through to artificial intelligence (AI), quantum and biotech. The area is often highlighted nationally as a hub for 'Tech for Good', based on the prominence of organisations aiming to have a positive societal impact.¹

In parallel we have an outstanding reputation as a creative hub and the chosen location for some of the best-known creative brands and businesses in the UK.³ It is this intersection of creativity, digital expertise and innovative culture that creates the ideal conditions for developing solutions to key regional challenges (such as reaching our net zero targets and ensuring we have enough homes for our people) and fostering deeper relationships between our people and our places.

Tech-focused networks, such as TechSPARK and TechSouthWest, help bring people together, spark collaboration and new ideas, and raise the region's profile through large annual conferences. Our region hosts the UK Telecoms Innovation Network, a collaborative hub for developing new mobile and broadband technology.

The region has well-established world-class training facilities, digital tech hubs, incubators, accelerator programmes, shared development spaces, test-beds and open data platforms. These include:

- The University of Bath's Institute for Coding;
- The University of the West of England's Health Tech Hub;
- Bristol Robotics Laboratory;
- The SetSquared start-up accelerator which has supported over 4,000 entrepreneurs;³
- Science Creates – a Bristol-based deep tech ecosystem supporting more than 100 companies;³
- South Gloucestershire's UMBRELLA project – an open industrial Internet of Things;
- Bristol City Council's Open Data Platform;
- Bristol Digital Futures Institute; and
- Oracle's Cloud Development and HP Labs.

This digital innovation ecosystem provides us with a unique set of capabilities, which, when combined with our digital infrastructure, skills and digital businesses, puts us in an unrivalled position to act as a launchpad for digital transformation.

Our high capacity for growth and innovation, is reinforced by strong foundations. Programmes, such as FutureBright, are enabling local people to upskill and reskill, improving access to good jobs and the availability of in-demand skills. And the West of England Growth Hub, alongside programmes like Made Smarter, are making it easier for local businesses to adopt digital technologies, adapt and grow.

The West of England is a place where highly-skilled people live, ideas flourish, and businesses grow⁴, so we are not starting from scratch, but we want to

go further. We want to help bring these elements together to support our vibrant regional ecosystem and amplify their collective impact.

Strength in Numbers

General

- 3 urban centres – Bristol, Bath and Weston-super-Mare
- 4 local authorities: Bath & North East Somerset, Bristol, North Somerset and South Gloucestershire
- £40bn Economy – The Bristol and Bath region is an economic powerhouse for the UK⁴
- Ambitious international region – 1.1m population, over 46,000 businesses, 91 languages spoken⁴
- 4 top universities, 86,000 undergrads and postgrads in the region⁴
- Bath named best place to live 2nd year (Garrington 2022)⁴
- Regional 5G connectivity keeping pace with the UK
- West of England Combined Authority and regional Councils have all signed the [Local Digital Declaration](#)

Tech cluster

- Home to the 3rd largest tech cluster in the UK⁴
- Bristol is ranked as a top 10 UK tech city by The Data City⁵ and by Tech Nation as a top 20 European city for tech investment⁶
- Bristol 5th on Digital Economy Council's new 'Levelling Up Power Tech League' of fast-growing regional tech hubs⁷
- Bristol No. 1 city in UK for tech jobs - CompTIA [2022 UK Tech Town Index](#)⁸
- Region highlighted as one of the UK's top 10 FinTech clusters in the government-commissioned Kalifa Review
- Home to 4 unicorns, companies valued at over \$1bn³ – Graphcore, Pax8, Ovo Energy & Vertical Aerospace

- 47% of all our businesses are actively innovating and 57% of all digital jobs in the West of England are now found outside the 'digital' sector
- Our region is aiming to be carbon neutral by 2030, 20 years ahead of the UK target. We have already reduced emissions by 38% since 2005⁴

Where do we want to get to?

This plan has been designed around five priorities that were developed and agreed by the Combined Authority and its partners. These are all underpinned by the need for Digital Leadership which supports the delivery of all five priority areas.

Priority Areas



Our Framework for Delivery

In this section we set out for each priority:



However, we start by setting out our approach to the Digital Leadership Cross Cutting theme, which underpins all five priorities.

Case Study: Bristol’s Social Housing Broadband Project

As part of the Bristol City Council One City Plan to address Digital Inclusion, Bristol City Council is working with telecoms companies to roll out ultrafast broadband (faster than 300 mbps download) in its social housing stock.

An initial pilot, initiated in late 2018, involved the Council working with suppliers to deliver better broadband into five social housing tower blocks (approximately 200 dwellings). This initial focus was on developing an approach or blueprint that introduced competition, greater choice and a better deals for tenants.

As well as delivering better broadband for the people living in the blocks, the pilot enabled the Council to:

- find solutions to the many technical challenges involved in installing fibre in multi-dwelling units (MDUs); and
- develop and implement standardised wayleaves and contract agreements which could provide a template for future use.

Bristol City Council are now rolling out this approach in controlled stages applying the lessons learnt during the pilot on a city-wide scale. They are targeting the remaining 4,000 council-owned flats in blocks and working with suppliers to offer open access gigabit broadband connections to an additional 24,000 homes (houses rather than flats) across Bristol.

The Council are also exploring new broadband packages for disadvantaged people, such as pay as you go packages, and entry level deals – to get as many people online as possible, which also supports their aims for addressing digital divide and digital poverty.

Digital Leadership



The region demonstrates visionary, proactive leadership which provides confidence to partners and encourages collaboration and delivery partnerships

As a region we have committed to an ambitious plan which puts our region on the map as a digital pioneer. To deliver this agenda, we must work in collaboration with Government, regional partners, and investors as well as residents and businesses.

Up until now, partners in the region have been working hard to pursue the digital agenda, but a lack of strong digital leadership and common cause meant their efforts were uncoordinated. We know that if we all pull together in the same direction, we can achieve so much more than when we act alone. Therefore, strong digital leadership has been identified as a cross cutting theme which underpins all five of our priority areas. Under this theme, our collective ambitions are to:

- Bring together long-lasting partnerships between key stakeholders in our digital ecosystem to foster a culture of collaboration across sectors and boundaries;
- Mobilise public and private sector partners to support the West of England’s digital transformation;
- Secure the funding and investment needed to achieve our digital ambitions;
- Cement our region’s standing as a global centre of digital innovation excellence; and
- Ensure our digital transformation is ethical, fair and sustainable.

The Combined Authority will:

Now

1. In partnership with our unitary authorities and other stakeholders develop a detailed implementation plan (see page 30) to support delivery of this Digital Plan
2. Convene a Digital Transformation Board to:
 - Provide strategic external input into the delivery of the plan
 - Share intelligence and future opportunities
 - Share learning from elsewhere
 - Promote partnerships and collaborative activity
 - Promote digital opportunities within and outside the region
 - Speak with one voice on behalf of the region
3. Put in place the resources to deliver with a regional Digital Office to:
 - Own and manage the implementation plan
 - Maintain a digital evidence base
 - Support regional coordination and collaboration through establishment of working groups where necessary
 - Promote adoption of common policies and good practice
 - Track impact of interventions

Next

4. Seek funding to host a digital summit to raise the profile of the region as a global centre of digital innovation excellence
5. Develop a West of England Digital Charter – a set of practical and ethical guidelines for deploying new data-enabled technology deployed in public services or the public realm in the West of England⁹

Digital Infrastructure



Everyone in the region is digitally connected, with access to world-class digital infrastructure that is fast, secure and reliable

Why is this important to us?

Our people require fast and reliable digital infrastructure to support all aspects of their life and be able to respond to the cost-of-living crisis. Digital connectivity matters and for many people it is now considered a fourth utility, especially in areas with little or no public transport.

Similarly, our businesses expect world-leading digital infrastructure so they can adopt cutting-edge digital technologies which make them more productive and competitive. Nationally, research indicates that many small businesses consider that their broadband speeds are insufficient, and that poor connectivity is a barrier to growth.¹⁰

Digital technologies and data also provide us with opportunities to tackle the big challenges of our time such as climate change, transport and caring for the elderly. Our digital infrastructure will need to be resilient to a changing climate (such as flooding or overheating) and can play a role in helping us adapt.

Digital connectivity is a foundation of our economy and underpins our wider ambitions – without the right infrastructure we risk being left behind in a digital world.

Where are we now?

Whilst at a regional level, Gigabit connectivity (>1000mbps) is higher than the national average and superfast connectivity is on a par with the national average, 4% of premises (20,000) do not currently have superfast broadband and of these 20% (4,000) have speeds of less than 10mbps.¹¹ Rural areas are more likely to have no access to fixed broadband, and when they do have access, it is more likely to be slower. Whilst people living in deprived areas,

which are usually urban, tend to have higher speeds but are at more risk of digital exclusion due to the affordability of high speed broadband and devices.

There is a risk that with current deployment patterns, areas with good levels of connectivity will see further improvements and those communities with poor levels of connectivity will continue to be left behind. As the economic benefit from moving from poor to decent levels of connectivity are greater than the benefits of moving from decent to higher speed connectivity, ensuring our communities have at least superfast coverage is a key part of our plan.

There is also significant regional variation in coverage. Whilst coverage in Bristol has already exceeded the Government target for 85% Gigabit coverage by 2025 and South Gloucestershire is close to achieving this, Bath and North East Somerset and North Somerset are not expected to meet this target without some form of coordinated intervention.¹¹ Despite this challenge, we aim to surpass this target and achieve region-wide gigabit capable coverage.

From Ofcom reports, current levels of 4G connectivity across the region from at least one mobile provider is around 99% both outdoors and indoors.¹¹ However, this statistic may not represent the experiences of the public. Further work is therefore required to understand the true level of connectivity and the spread of signal strength across the four major mobile carriers. 5G connectivity across the region is keeping pace with the UK and as with the rest of the UK is limited to some urban areas.¹¹

However, the infrastructure position is constantly changing as both commercial and publicly funded initiatives roll-out new infrastructure. Research suggests that in this complex delivery environment, there are opportunities to achieve greater levels of connectivity by:

- capitalising on other investments such as new housing developments and the rollout of electric vehicle charging sites; and

- reducing the cost and risk for investors (both public and private) by sharing information and plans, coordinating activities and integrating digital infrastructure into wider works.¹²

The approach adopted in our DCMS-funded [Digital Connectivity Infrastructure Pilot](#) could offer a broader public/private collaboration model going forward. Similarly, other research suggests that community ownership models, can offer connectivity solutions in areas left behind by large, incumbent telecommunication companies.¹³ We therefore want to establish new ways to provide social or public broadband, opening up access to services that would otherwise not be available to help more people get better broadband.

Given the importance of digital infrastructure, the decision was taken to procure specialist consultancy support to deliver a robust actionable plan for accelerated digital infrastructure roll-out across the region. The work was delivered in two stages: 1) discovery and evidence review; 2) apply review findings to develop an action plan. This work is now complete and the findings have informed the development of this plan. The Regional Digital Infrastructure Action Plan can be found here.

What do we want to achieve?

We want to:

- Meet and exceed the national 85% gigabit connectivity by 2025 target;
- Maximise the number of households and business premises which have at least superfast coverage by 2026; and
- Maximise 4G and 5G coverage;
- Boost community-based connectivity.

What will this mean for our residents?

This will mean:


- ✓ Better connectivity at home, at work and in public places.

Case Study: Digital Connectivity Infrastructure Accelerator Pilot

With funding from DCMS and local partners, the DCIA project brings together Local Authorities with major mobile telecoms industry partners (Three, BT Wholesale and Cellnex Connectivity Solutions) to increase the roll-out and densification of 5G across the region.

Working with Sitenna as our platform partner, the project will investigate how digital asset management platforms can support and increase the use of local authority owned assets as host sites for the range of hardware needed to achieve improved 5G coverage. This Accelerator project is an important first step towards accelerating 5G roll out using publicly owned assets.

Meeting the Combined Authority's targets will require rapid roll-out of both fixed and mobile broadband. Mobile (i.e. 5G/4G) broadband will help connect more rural and 'hard to reach' communities and will be key to addressing the final 4% of properties and businesses currently without suitable connectivity.

 Digital Infrastructure: Everyone in the region is digitally connected, with access to world-class digital infrastructure that is fast, secure and reliable		
Strategic objective	Focus areas – what will we focus on to achieve this	Our actions (We will...)
<p>Meet and exceed the national 85% gigabit connectivity by 2025 target</p> <p>Maximise the number of households and business premises which have at least superfast coverage by 2026</p>	<p>Attracting Investment – Working as a region to create an attractive market in which to invest in digital infrastructure and minimise roll-out costs</p> <p>Embedding digital infrastructure – Maximising the impact and value for money of other major infrastructure initiatives to embed digital infrastructure and connectivity</p> <p>Coordinating Delivery – Coordinating deployment of connectivity, with a focus on ‘hard to reach’ and deprived areas</p> <p>Advice and information – Providing advice and information to residents and businesses about how to improve connectivity</p>	<p>Now</p> <ul style="list-style-type: none"> • Deliver the regional Digital Infrastructure Action Plan • Utilise the West of England Digital Office to: <ul style="list-style-type: none"> ○ monitor market activity and maintain a real-time view of infrastructure build programmes (including BDUK) ○ consolidate data, plans and intelligence and share with potential investors and partners to support investment in the region ○ engage with providers and identify barriers to the roll-out of digital infrastructure such as access to land, street works and planning ○ identify strategic opportunities to support suppliers, aggregate demand and exploit opportunities to increase coverage such as mapping assets, new housing build and Electric Vehicle charging networks • Develop a Digital Connectivity Portal to provide guidance and info about connectivity for residents and telecoms providers <p>Next</p> <ul style="list-style-type: none"> • Develop a full business case for public sector investment which maximises the contribution from private, market and government investments
<p>Maximise 4G and 5G coverage</p>	<p>Mobile connectivity – Collecting local data for mobile signal strength and availability to identify any signal not spots and determine best way to address them</p> <p>5G roll-out – Making 5G available to unlock innovation and applications in all areas of society</p>	<p>Now</p> <ul style="list-style-type: none"> • Conduct further research to understand the true level of regional coverage and develop recommendations any improvement measures • Deliver the WofE Digital Connectivity Infrastructure Accelerator Pilot and apply lessons to better support 5G roll-out and utilisation of public sector assets
<p>Boost community-based connectivity</p>	<p>Public access – Promoting broadband provision in public spaces and community buildings</p>	<p>Now</p> <ul style="list-style-type: none"> • Identify opportunities and mechanisms to expand broadband access in community spaces, such as libraries and public access wifi, especially in areas with little or no access to decent connectivity

	Community led broadband – Supporting alternative, community led broadband delivery models	<ul style="list-style-type: none">• Promote available information to help community groups access guidance about developing local, community-led broadband projects
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Digital Inclusion and Skills



Everyone can get online and use digital services and our people and businesses have the skills required for digital transformation at all levels

Why is this important to us?

A lack of digital skills and access can have a huge impact on a person's life. People on the wrong side of the digital divide are more likely to:

- Experience poorer health outcomes;
- Suffer increased social isolation and loneliness;
- Find it harder to access jobs and education;
- Pay more for services and bills and experience financial exclusion; and
- Lack a voice or visibility in the modern world as government services and democracy move online.¹⁴

Furthermore, digital exclusion is higher amongst existing disadvantaged groups such as older people, people on low incomes, people from lower socio-economic groups, people not working and people with a disability – which further exacerbates existing inequalities.

As well as being an important tool for addressing digital exclusion, improving digital skills (at all levels) can help our residents to find and secure work, progress in work and benefit from digital jobs. Equally, improving digital skills in our workforce will benefit our businesses, who are facing skills gaps which affect their productivity and ability to grow. Looking to the future, people in education today will enter a labour market that is likely to have been significantly re-shaped by emerging technologies. The UK Industrial Strategy Council predicts that, unless action is taken, in 2030 the most widespread under-skilling will be in basic digital skills.¹⁵

Where are we now?

In 2020, 5% of adults (44,000) in the West of England were non internet users compared with 8% across the UK.^{16,17} The main barriers to digital inclusions were skills, accessibility, lack of interest in the internet/need, concerns about safety and security, affordability of connections and devices and the availability of decent connections.¹⁸ As a multi-faceted issue, many organisations (such as libraries, community groups and community learning) are already playing a vital role in supporting people to overcome digital exclusion in our area. However, the support available varies across the region and there may be gaps in coverage.

Digital skills are also becoming increasingly important in the workplace. National research shows that digital skills are an essential entry requirement for two-thirds of UK occupations and these occupations account for 82% of online job vacancies. However, 52% of the workforce lack the essential digital skills for work – the hidden middle.¹⁵

Further, 27% of employers nationally required advanced digital skills and 60% expected this to increase in the next five years.¹⁹ Local data shows that the number of digital jobs in the region have increased since 2010 and the majority (57%) of these jobs now lie outside the 'digital sector', underlining how important digital skills are to all sectors of our economy.²⁰ Of the people employed in digital jobs in 2016, 83% were male and over 60% were under the age of 45 – highlighting the need to increase diversity.

Partners in the region have been pro-active in tackling the digital skills challenge and key initiatives include, [The West of England Institute of Technology](#), [Bristol Talent](#), [Digital Engineering and Innovation \(DETI\)](#), [The Digital Skills Investment programme](#), and [Workforce for the Future](#).

What do we want to achieve?

We want to:

- Reduce digital exclusion
- Improve digital skills at all levels so that:
 - residents have the foundation skills they need to get online (such as the ability to turn on a device, connect to wi-fi and use an app);
 - residents have the digital skills needed for life (such as the ability to manage finances online, buy goods or services and set up an email account);
 - residents have the digital skills needed for life and work (such as the ability to join virtual meetings, or check pay information and book annual leave online); and
 - residents and businesses can benefit from advanced digital skills.

Spectrum of digital skills



Image courtesy of FutureDotNow

What will this mean for our residents?

This will mean:

- ✓ More people have the skills, confidence and connectivity to get online; and
- ✓ More people able to access good quality digital jobs and progress their careers;

Case Study: Tea and Tech


Free 'Tea and Tech' sessions are taking place across North Somerset to help residents learn how to get online and get the most from today's digital world – and grab a cuppa whilst there! Residents facing digital exclusion through not being able to afford sim cards and mobile data can also access them for free thanks to a scheme available through North Somerset Council's library service. The UK National Databank provides free sims and mobile data (as well as talk minutes and texts) to people in need through the Good Things Foundation's network of local community partners, including North Somerset libraries. It's like a food bank but for internet connectivity data.

Case Study: Digital Skills Investment Programme

The Digital Skills Investment Programme (DSIP) is a key part of the West of England Combined Authority's Recovery Plan. The programme is worth £2m and will support access to digital skills training, helping build capacity to increase access to and take-up of adult education opportunities, and will provide innovative, bespoke training courses to address digital skills gaps (including Digital Bootcamps).

In the words of one participant:

"For me, this course was exactly the right content at exactly the right time. Following redundancy in 2020 and an on-going job search where I repeatedly made the final interview but not the chosen candidate, I decided that some upskilling to stay on the right side of the 'digital divide' would be helpful. When I saw the ad for the bootcamp it seemed that it might well be the answer. The cohort of students were friendly and from a mix of professional backgrounds and we were all able to contribute and learn from each other. The tuition was outstanding and covered core planned elements as well as topics requested. Group work on practical tasks and projects was valuable experience."

 Digital Inclusion and Skills – Everyone can get online and use digital services confidently and our economy has the skills required for digital transformation at all levels		
Strategic objectives	Focus areas – what will we focus on to achieve this	Our actions (We will...)
Reduce digital exclusion	<p>Place-based collaboration – Convening and bringing together key partners to create a local ecosystem to support digital inclusion</p> <p>Easy to access support – Embedding digital inclusion support into existing services such as employability, financial inclusion, housing and health</p> <p>Be evidence-led – Using data and insights to improve our understanding of how digital exclusion affects/impacts on people across our region and using to target our interventions more effectively</p> <p>Holistic approach – Developing comprehensive solutions which overcome the main barriers (including lack of interest, confidence/anxiety around the use of digital equipment and infrastructure, skills, connections and devices, cost etc.)</p>	<p>Now</p> <ul style="list-style-type: none"> • Establish a West of England Digital Inclusion Programme <ul style="list-style-type: none"> ○ Form a regional ‘digital exclusion/inclusion taskforce’ in partnership with unitary authorities, other key strategic partners such as DWP, the third sector and community groups to collaborate, share good practice and fix the digital divide ○ Gather evidence and baseline digital exclusion challenges to understand specific regional challenges ○ Map existing provision and services to identify gaps and opportunities to embed digital inclusion services ○ Develop a framework for regional action Digital Exclusion Action Plan which builds on existing initiatives to provide practical support for residents to improve access to services, equipment/devices, and data ○ Identify joint bidding opportunities with multiple partners and secure additional funding and resources – linked to relevant external agency funding and support (e.g. Skills Connect, Priority Skills Fund) • Sign-post existing support and services via an online portal and existing engagement routes, such as resident newsletters, to make it easier for residents to access (e.g. social tariffs) <p>Next</p> <ul style="list-style-type: none"> • Build on good practice from across the region to help residents in financial difficulty to access services, equipment and data (e.g. scale the North Somerset Data bank initiative so it is available across the region)

Strategic objectives	Focus areas	Our actions (We will...)
<p>Improve digital skills at all levels</p>	<p>Foundation digital skills – Ensuring people have the foundation digital skills to get online</p> <p>Essential digital skills for life and work – ensuring people have the essential digital skills to thrive in the workplace</p> <p>Advanced digital skills – ensuring people have the higher level and advanced skills needed to drive digital innovation and produce new technologies that will grow our economy</p> <p>Workforce skills – ensuring that digital skills provision aligns with the needs of regional employers (from across all sectors) and employers are supported to upskill their workforce (including public sector employers)</p>	<p>Now</p> <ul style="list-style-type: none"> • Integrate digital skills into a wide range of Combined Authority employment and skills programmes, guidance and support - identifying progression routes via various projects and programmes • Provide residents with digital skills for life and work through Combined Authority employment and skills programmes and wider work across the West of England. <p>Next</p> <ul style="list-style-type: none"> • Work with education providers and employers to identify local digital-skills gaps and develop focused solutions and simplified progression pathways into key digital roles • Increase the visibility and understanding of digital skills training opportunities through Skills Connect • Continue to facilitate digital progression pathways via the programmes we deliver and projects we procure • Simplify access to digital skills provision across the region and help people and businesses understand which courses are most suitable through the Skills Connect online directory and personalised support • Provide personalised wraparound support to help target groups under-represented in digital roles and/or disproportionately affected by lockdown measures access training and support progression to further digital training or digital roles

Digital Growth



All our businesses and third sector organisations are digitally capable and can maximise digital opportunities

Why is this important to us?

Evidence shows that businesses which adopt digital technologies are more productive than those that do not.²¹ Therefore, ensuring all our businesses are digitally capable is vital to securing our regional prosperity and creating decent jobs for our residents.

Research conducted by Sage shows that technology has become fundamental to the survival, resilience and growth of SMEs.²² Their research shows that 8 out of 10 SMEs depend on tech to start, survive and grow. Over the past year, SMEs have increased their use of tech across all aspects of their business, to improve relationships with customers, employees and suppliers. Increasing numbers of SMEs are using social media to improve their web presence to strengthen their reputation and reach more customers. Many are also using communication tools to connect with employees and suppliers, particularly in logistics, transport and construction. Their research suggests that technology is driving performance of SMEs in new ways and is directly contributing £216bn to the UK economy.

However, large gaps in digitalisation remain, caused by challenges in adopting tech and points of friction in using new tech well. The biggest factors stopping SMEs from investing more in tech are:

- Fears over returns on investment, especially during the current cash flow crunch; and
- Lack of awareness of the right solutions.

Once tech is adopted, there are still points of friction created by:

- Problems learning new skills; and
- Issues integrating digital tools together.

If these adoption challenges were overcome, tech could help SMEs remain resilient in the face of challenges ahead.

The report also highlighted that 30% of SMEs do not understand data protection regulations and 1 in 5 report concerns regarding cyber security as a significant barrier to adopting new technology. With nearly 40% of UK businesses and 30% charities reporting having cyber security breaches or attacks in the last 12 months, this could be a significant threat to the region.²³

The Sage research identified data as the single most important area of untapped potential for SMEs. Accelerated by the pandemic, many areas of technology which generate data, such as websites (80%), social media (73%) accounts, accountancy software (76%) and HR software (48%) have been adopted widely by SMEs – across sectors – and continue to see high levels of investment. In contrast, the adoption of tech to collect and use data in their business e.g. data analytics software, lags significantly behind (just 24%). The Sage report suggests that SMEs need more support to understand how data works (i.e. the algorithms which sit behind so much analysis) and more tools which allow them to gain insight from their data.

Looking to the future, the research also found widespread enthusiasm for emerging tech, which could boost growth in the future. These emerging technologies included 5G enabled tech, VR/A, Crypto, Robotics and biometrics.

Where are we now?

Whilst local data about the scale and pace of digital adoption is limited, we know that the wider Gloucestershire, Swindon, Bristol and Bath area is ranked 11th out of 41 other comparable areas for digital adoption.²⁴ We also know that 57% of all digital jobs in the West of England are now found outside the 'digital' sector.²⁵ Together, these statistics suggest we may be starting from a position of relative strength.

Businesses in the region benefit from a number of existing initiatives to support their digitisation including: [Tech for Growth](#), [Digital Boost](#), [Made Smarter West of England](#), and the [DETI Programme](#), as well as Made Smarter (see case study overleaf). These initiatives are central to testing digital solutions for business in real life scenarios.

Case Study: Made Smarter West of England

Made Smarter is designed to assist 80 local manufacturing small–medium enterprises (SMEs) to understand and overcome operational challenges through digital technologies. This will help local manufacturing businesses to innovate, creating new opportunities in the process. It will also boost productivity, creating more value for your customers. Participating businesses are offered a fully funded bespoke assessment, financial support and skills support.

The region’s businesses and universities are also at the forefront of innovation in next-generation communications networks, including 5G. In collaboration with the University of Bristol’s Smart Internet Lab, the Combined Authority is trialling new applications of 5G through innovative ‘testbeds’ – in conjunction with business around the region.

Case Study: 5G Logistics

The West of England Combined Authority led a consortium of 12 partners, including The Bristol Port Company and the University of Bristol Smart Internet Lab, to demonstrate how 5G can increase efficiency and productivity for the logistics sector.

By supporting smaller players to develop tailored 5G private networks and services, we are helping to diversify supply – meaning our businesses can take up these game-changing communications networks sooner.

The project was one of 22 projects funded by the Department for Digital, Culture, Media & Sport (DCMS) under its 5G Testbeds and Trials

Programme, which supports innovators exploring new uses of 5G to help improve people's lives and boost businesses.

The 5G Logistics testbed operated in and beyond the West of England, with a primary test zone at Bristol Port and a secondary test zone covering a nearby junction. The third area was 45km away at the Gravity Smart Campus in Somerset (acting as a Freezone). The three areas were connected by fibre to create a super-fast and secure private network.

The project trialled mobile edge computing (MEC) – an alternative to cloud computing. This, coupled with 5G’s ability to handle huge amounts of data, enables faster communications speeds, increased security and the potential to tailor the network to meet numerous business needs at once – creating new opportunities for ports, Enterprise Zones, business parks, local authorities and (eventually) smart cities.

What do we want to achieve?


We want to:

- Increase the breadth and depth of tech adoption across our businesses and third sector organisations; and
- Increase the utilisation of emerging technologies amongst our businesses so they can secure competitive advantages.

What will this mean for our residents?

This will mean:

- ✓ A stronger economy with thriving businesses;
- ✓ More good quality jobs; and
- ✓ Better opportunities to start and grow businesses.

 Digital Growth – All our businesses and third sector organisations are digitally capable and can maximise digital opportunities		
Strategic objectives	Focus areas – what will we focus on to achieve this	Our actions (We will...)
<p>Increase the breadth and depth of tech adoption across our businesses and third sector organisations</p>	<p>Technology adoption – Inspiring businesses and third sector organisations to do more with digital technologies, drive business growth and take advantage of the benefits of technology adoption - especially those SMEs who do not see themselves as a ‘tech business’</p> <p>Data utilisation – Helping businesses to understand their data and the tools to gain insight from it</p> <p>Cyber resilience and data protection – Helping small and medium businesses strengthen their cyber security and data protection practices and protect themselves and their data from online cyber attacks</p>	<p>Now</p> <ul style="list-style-type: none"> • Offer businesses tailored support, expert guidance and support programmes to accelerate innovation, boost digital adoption, and develop new products and services (e.g. Tech for Growth and Made Smarter) • Provide manufacturing businesses with support to introduce the right technology (e.g. Made Smarter) • Signpost businesses to relevant national services (e.g. Digital Boost, National Cyber Resilience Centre) <p>Next</p> <ul style="list-style-type: none"> • Identify requirements for new tailored support packages aligned to specific sectors and technologies • Develop new tailored support packages aligned with specific sectors and technologies (especially sectors aligned with regional challenges such as construction, energy, transport and health)
<p>Increase utilisation of emerging technologies amongst our businesses so they can secure competitive advantages</p>	<p>New and emerging technologies – encouraging businesses to embrace the opportunities these more advanced technologies offer to fuel innovation, growth and market opportunities</p> <p>Create the conditions for innovation – boosting access to digital and shared infrastructure to help reduce time, cost and risk of developing new products and services.</p>	<p>Now</p> <ul style="list-style-type: none"> • Increase engagement between businesses and the region’s digital innovators who are developing the foundational technologies of the future (such as 5G, artificial intelligence and digital twins) by: <ul style="list-style-type: none"> ○ Developing an online showcase of digital R&D assets setting out clearly the R&D activity, collaboration opportunities and how to get involved ○ Promote the showcase through the Growth Hub and Digital Transformation Board <p>Next</p> <ul style="list-style-type: none"> • Bring together and link up our digital innovation assets (such as digital twins, simulation and emulation tools, synthetic environments, test beds and living labs) to form a regional connected network by: <ul style="list-style-type: none"> ○ Working with partners to identify assets to be linked ○ Designing and implementing inter-operable systems and processes

Digital Public Services



The region delivers best in class digital public services to provide a better experience for residents

Why is this important to us?

Our residents rightly expect a user experience from the public sector which is comparable to what they experience in other parts of their lives. Residents, businesses and visitors want services to be easy to use, safe and designed around them. Digital transformation also offers benefits to the public sector in terms of:

- Supporting efficient and effective service delivery – saving money without compromising on outcomes;
- Helping us to innovate and try new things;
- Helping us to tailor and target services towards those who need support the most;
- Helping us to link together unrelated services to provide seamless and comprehensive services; and
- Making our services simple, easier to access and more straightforward to use.

Public services need to be designed around the needs of the people who use them. They should be joined up and easy to access when needed, especially by people at their most vulnerable. Most importantly, they need to provide a joined-up service across all channels, with alternatives available for people who cannot or decide not to participate digitally – people should not be excluded or have an inferior experience because they do not have the technology, skills or desire to use it²⁶.

Public sector digital transformation and continuous improvement is also underpinned by the effective use of data. Every day local government organisations are constantly managing and responding to information. Harnessing this connected information ecosystem can have enormous

benefits, offering valuable insights on the wide range of activities that authorities perform. Whether it's supporting the most vulnerable people in our communities, revitalising our high-streets, fixing the roads, designing better bus routes or helping local businesses to grow, data can help us do this more effectively.²⁷

By treating data as a strategic asset and using data more effectively, we can be more agile, innovative and cost effective and deliver better, cheaper and more responsive services. Better use of data also means better decision making as policies can be tailored and delivered more effectively, and we can better monitor whether policies are delivering their intended effects and targeted at the right people. However, there are many barriers to the better use of data. These include:

- Real and perceived legal and security risks;
- A lack of incentives, skills or investment to drive effective governance and overhaul data infrastructure; and
- A lack of consistency in the standards and systems used across the public sector.

We need public service leaders who understand what is possible and how to achieve it, a workforce with the right skills, and people who are confident in digital ways of working. We also need user-friendly, interoperable, secure systems, platforms and services that support modern ways of working. At the same time, we must be wary of the harms – intended or unintended – from an information and technology ecosystem that does not act responsibly, ethically, inclusively, and legally. The public sector is an integral part of this ecosystem. We have a duty to ensure we manage, share and use data and use digital technologies responsibly, efficiently, and effectively.

We need to keep inclusion at the heart of all we do and ensure no one is left behind as we embrace a digital first approach. By placing user needs, insight and data at the heart of our digital transformation, we have the

potential to deliver well-designed cost-efficient and effective services with enhanced transparency and public accountability.

Where are we now?

In the West of England, the Combined Authority and our four Unitary Authorities have all signed up to the [Local Digital Declaration](#), a public pledge along with hundreds of other councils to both meet high standards for technology and digital services, and adopt a digital culture and ways of working. Whilst this demonstrates our collective ambition for the future of local public services, we know there is much more to be done, especially in the management of our information ecosystem.

Transformation of public services in the current climate is a significant undertaking. We want to create the right conditions for this to happen by providing the capacity to consider new ways to deliver services and working with our world-class innovation cluster to investigate innovative, digitally-enabled service delivery solutions. We will work collaboratively, supporting our constituent council partners, to leverage our collective know-how, access other funding sources and ensure that the maximum impact, and value for money, can be delivered from the resources available to us.

By working together strategically across the public sector, we hope to accelerate our digital transformation by:

- Working across boundaries to address common problems;
- Testing and piloting new approaches;
- Sharing learning;
- Developing common standards and interoperable systems; and
- Achieving economies of scale.

What do we want to achieve?

We want to:

- Improve the experience of using digital public services; and

- Unlock the power of data across the public sector to deliver better outcomes for our residents.

What will this mean for our residents?

This will mean:

- ✓ Easier to use digital public services;
- ✓ Better value for money from public services;
- ✓ Innovative digital solutions that improve quality of life;
- ✓ More opportunities to start and grow businesses.

Case Study: Technology Enabled Care

Bristol, North Somerset and South Gloucestershire Integrated Care system received £679,000 from the NHSX Digitising Social Care Fund to roll out a project to use care technologies to improve people's independence and reduce unplanned hospital admissions. The money was used to:

- Roll-out acoustic monitoring devices – which detect unusual sound patterns raise the alarm if it senses unusual movement;
- Roll-out Digital social care records – which allow information to be easily shared amongst organisations such as the NHS and North Somerset Council. Sharing of electronic care records supports hospital admissions and discharges from and to care homes; and
- Pilot innovative systems – which collect and link health data, including wearable technologies. Collection of this data helps professionals to spot when someone's health deteriorates and identify other risks to that person. This means it can help prevent falls and reduce the risk of that person having to go into hospital unexpectedly, helping people stay as independent as possible for as long as possible.

 Digital Public Services - The region delivers best in class digital public services to provide a better experience for residents		
Strategic objectives	Focus areas – what will we focus on to achieve this	Our actions (we will...)
Improve resident’s experience of using digital public services	<p>Collaboration - Finding opportunities to work with each other and with partners to solve common problems, achieve economies of scale and learn from one another</p> <p>User centred design – ensuring our digital services are focused on the needs of our residents, are easy to use and accessible</p> <p>Outcomes and whole life value – ensuring our services are focused on delivering the right outcomes and whole-life value, rather using new technology simply because we can</p> <p>Trustworthy and safe – ensuring our services are safe for people to use and data is used ethically to develop insights and improve decision making</p>	<p>Now</p> <ul style="list-style-type: none"> • West of England Combined Authority to embed Local Digital Declaration principles and catalyse organisational and service transformation • Convene a digital public services working group to support collaboration and learning • Identify common barriers to implementing the local digital declaration and Government Digital Service Standards • Develop proposals for collaborative solutions which add value, e.g.: <ul style="list-style-type: none"> ○ adopting common standards and interoperable systems • joint research & development projects <ul style="list-style-type: none"> ○ testing and trialling new approaches and evaluating and sharing outcomes ○ cross boundary projects where this adds value <p>Next</p> <ul style="list-style-type: none"> • Identify funding for collaborative projects and implement • Explore and support adoption of innovative mobile/wireless technologies and unlock their potential to enhance public sector service delivery across sectors such as transport and social care • through demand aggregation, demonstration projects and industry engagement
Unlock the power of data across the public sector to deliver better	<p>Quality, availability and access – Improving data quality and consistency with a clear understanding of what data is held and where, better data collection, and efficient data-sharing between organisations</p>	<p>Now</p> <ul style="list-style-type: none"> • Convene a data sharing working group to bring together public sector partners to:

<p>outcomes for our residents</p>	<p>Standards and assurance – Driving the adoption of standards for data, leading to greater consistency, integrity and interoperability, and enabling data to be used widely and effectively across the region</p> <p>Capability, leadership and culture – Developing world-leading capability in data and data science across the region so that leaders understand its role, expert resource is widely available, staff at all levels have the skills they need, and a ‘data-sharing by default’ approach tackles the culture of risk aversion around data use and sharing</p> <p>Ethics and public trust – Developing a robust ethical framework of transparency, safeguards and assurance which builds and maintains public trust in the government’s use of data</p>	<ul style="list-style-type: none"> ○ identify and map the most significant data assets controlled by public sector partners ○ identify opportunities and challenges where sharing data could make a significant impact ○ identify the barriers to sharing relevant data (e.g. different standards, legacy systems, security risks, cultural barriers etc.) ○ develop proposals to address barriers ○ agree data sharing standards and protocols aligned with those established by the UK Data standards authority ○ conduct a training needs analysis to understand the digital, data and technology capabilities of public sector staff and representatives <p>Next</p> <ul style="list-style-type: none"> ● Based on the activities of the working group develop a West of England Information & Data Sharing Framework ● Develop proposals to deliver digital skills training to public sector staff and representatives to develop our in-house Digital, Data and Technology (DDaT) capabilities
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Tech for Good



Harnessing data and digital technologies to develop solutions to regional and global challenges

Why is this important to us?

Tech for good is about utilising technology to improve social, environmental and economic outcomes. Digital solutions have the potential to address global challenges at the local level. Advances in data, analytics and connectivity are enabling a range of digital applications which help us to track and understand our environment as well as develop solutions. These digital systems have applications across a range of challenge areas including:

- Addressing net zero, climate adaptation and nature recovery
- Moving people and goods in a sustainable way;
- New ways of creating homes, places and vibrant communities;
- Enhancing productivity; and
- Responding to the challenges facing the delivery of health and social care services.

Our region has a wealth of assets and expertise that means we stand at the forefront of many of these challenges. By focusing our efforts on how we use Technology for Good, not only do we address key challenges facing the region, but we create opportunities for our businesses and entrepreneurs to grow and create more opportunities for our residents.

Where are we now?

The West of England is a world leading technology cluster and internationally recognised as a technology hub. We're home to a highly collaborative ecosystem, uniting people from diverse backgrounds and drawing on different areas of expertise, with R&D, academia, industry and the public sector working together. The region is home to a number of R&D centres

including Oracle's Cloud Development, HP Labs, and the University of Bristol Smart Lab team which in 2018 staged the world's first public trial of 5G.

The region's four universities play a central role in strengthening the region's digital and tech sector, from establishing SETSquared (Global #1 University Incubator) to the new Temple Quarter Enterprise Campus. Our universities collaborate closely with businesses in life sciences, cyber security, quantum and robotics including several autonomous vehicle projects. The universities also produce a constant stream of highly-skilled graduates with one of the highest graduate retention rates in the country. The sector is often highlighted nationally as a hub for 'Tech4Good' based on the prominence of organisations aiming to have a positive societal impact – we have a vibrant Tech for Good cluster across Bristol and Bath which is already delivering positive impact. Their work is supported by thriving networks such as Tech4Good South West and the unique Bristol Digital Futures Institute, which is transforming the way we create new digital technology for inclusive, prosperous and sustainable societies.

The region already benefits from a range of smart capabilities and assets that would support digital efforts to tackle key challenges including:

- the DETI programme – Digital Engineering Technology and Innovation
- the Bristol Network (B-NET), the Bristol Operations Centre and the Open Data Platform
- the UMBRELLA project – an award-winning Industrial Internet of Things (IoT) research and development testbed in South Gloucestershire. The testbed allows pioneers in digital technology to innovate and test new applications, processes, products, services and business models to ascertain their usefulness and viability before taking them to market.

Given our status as a world leading technology cluster and technology hub, we must further cement and amplify our region’s position as the UK’s engine for digital innovation.

What do we want to achieve?

We want to:

- Put the West of England on the map as THE place for cutting edge digital research, innovation and investment that finds solutions to key regional challenges such as net zero, transport, housing, productivity, health and well-being.

What will this mean for our residents?

This will mean:

- ✓ A better, greener future for all our residents

Case Study: Future Transport Zone

The Future Transport Zone is built upon an approach of trialling new interventions in the West of England, incorporating the best solutions into the region’s wider transport plans when future funding becomes available. This includes key digital innovations such as:

- **Transport Data Hub** – The first comprehensive regional transport database in the West of England. The Hub will make it possible for the transport community to find, share and add data with ease – fostering collaboration and giving greater confidence in data-driven plans, policies and decisions
- **Net Generation App** – A new mobile app will integrate journey planning tools with payment and ticketing, enabling travellers to plan, pay for and undertake end to end journeys within a single platform. This one-stop-shop will include all types of transport, significantly increasing the convenience of journeys that use more than one mode of transport.

Case Study: University of Bath – Using Big Data to visualise the last mile of electricity networks


The journey from the substation to the power socket in our home – is called the "last mile". It's often the trickiest and most expensive section of the network for Network Operators to monitor and control.

To accommodate new low-carbon technologies like electric vehicles, heat pumps and photovoltaics without hugely expensive network investment, Network Operators need to forecast electricity usage and network behaviour. At the moment, many Network Operators make these forecasts using historical demand information. This is often inflexible, inefficient and incompatible with modern low-carbon needs and usage patterns.

To enable Network Operators to monitor and control this part of the network in real time, without having to monitor each individual substation, they need to be able to really see the patterns of use in the ‘last mile’ using big-data analytics.

The University of Bath, working with Western Power Distribution (now National Grid) through Ofgem’s Low Carbon Network Fund developed a method to predict energy use profiles and peak demand by monitoring approx. 0.01% of the substations in an electricity distribution network.

This means Network Operators can effectively plan the last mile and maximise the integration of low-carbon technologies (such as electric vehicles) within the existing low voltage network. This technique is expected to save approximately 575,000 tons of CO2 emissions every year.

 Tech for Good – Harnessing our digital innovation ecosystem to address key regional and global challenges		
Strategic objectives	Focus areas – what will we focus on to achieve this	Our actions
<p>Put the West of England on the map as THE place for cutting edge digital research, innovation and investment that finds solutions to key regional challenges such as:</p> <ul style="list-style-type: none"> • net zero and climate change • transport • housing • health and well-being • enhancing productivity • Nature recovery 	<p>Innovation ecosystem – Cultivating our region wide digital innovation ecosystem through:</p> <ul style="list-style-type: none"> • Research and Development – Supporting targeted R&D in relation to the use and deployment of digital technologies to address key regional challenges • Harnessing data – Opening up non personal data in a safe and secure way, where it is of value to our residents • Testing and Trialling – utilising test-beds and living labs to solve problems • Community involvement – empowering our communities to get involved and develop pioneering community based initiatives • Supply chains – ensuring our supply chains are digitally capable and able to help us deliver our objectives • Horizon scanning – identifying future opportunities and challenges for place-based digital transformation 	<p>Now</p> <ul style="list-style-type: none"> • Track, evaluate, prioritise and share insights about emerging opportunities, challenges and technology developments related to regional priorities <p>Next</p> <ul style="list-style-type: none"> • Building on the work of the proposed West of England data sharing taskforce and existing open data platforms, create a regional open data portal (including mapped data) covering key challenge/opportunity areas (e.g. transport, health, environment and wildlife). This should include: <ul style="list-style-type: none"> ○ Reviewing open data publication and decision making processes ○ A plan to measure the impact of published data • Pilot a Future Digital Innovation Challenge Fund linked to key regional challenges • Develop programme of community engagement events to empower residents, including hackathons and data jams to bring together the collective know-how of innovators to develop solutions • Work with partners in sectors such as transport, energy, housing and health to develop sector specific proposals to develop digital solutions to key regional challenges

Implementation

How we will work together

Whilst the Combined Authority has led the development of this plan, implementation will require the collective effort of everyone in the region. Our role is to use our convening powers to bring together and empower partners to tackle the priorities set out in this plan and we will do this by bringing together our Digital Transformation Board. We will also take the strategic view and look for opportunities to coordinate and fill gaps in delivery.

Our focus will be on adding value to, rather than duplicating the work of others. Equally, as a strategic organisation, we must also challenge and hold our partners to account to ensure that collectively we deliver for the region.

Alongside other Mayoral Combined Authorities, we have the ear of Government and will use this to make the case for investment and if necessary wider reforms where they will help us to deliver our priorities.

As we move forward, towards implementation, we will adopt the following values:

- Be ambitious in our approach;
- Utilise an evidence based/intelligence led approach;
- Build on good practice and learn from each other;
- Work in an open way with our partners with a commitment to genuine partnership working; and
- Champion equality, diversity and inclusion to ensure everyone can benefit from our digital transformation.

Implementation Plan

This plan sets out our strategic objectives and a set of high level actions that we will take to achieve them. To support the practical delivery, a

detailed implementation plan will follow setting out actions, responsibilities and resources required to deliver. This will be the primary tool for managing the delivery of this plan.

Our implementation plan will be reviewed regularly in line with the pace of digital change and regional priorities.

Case Study: Bristol Digital Futures Institute

Founded in 2019, Bristol Digital Futures Institute (BDFI) is the newest of the University of Bristol's five research institutes.

Digital technologies have changed our world. Global connectivity, smart technology and automated systems are already part of our daily lives. This brings opportunities and challenges. We need to better understand how technologies and people are shaping the future together – or "sociotechnical futures". Rather than waiting for the future to happen, we need to get ahead of it.






This demands a new way of working. So, the institute is bringing together academics from across disciplines with partners from all sectors, from telecoms to charity, finance to film, charity to government to:

- **Create knowledge:** across academic disciplines and in partnerships with industry and communities
- **Make it real:** create and implement new technology using experimental research platforms

The Institute is developing a £29m+ globally unique research facility in two former 200 year old industrial buildings. When fully complete in 2023, up to 250 people will work in specialist spaces, collaboration areas, training and meeting rooms. Specialist facilities will include a neutral lab, a reality emulator, a data centre, an instrumented auditorium and myWorld Creative Continuum

Monitoring and Evaluation

We will put in place a clear reporting process in line with the Combined Authority’s Monitoring and Evaluation Framework. This will include using readily-available data, as well as new data collection and analysis. As actions are developed, we will refine our measures of progress. The reporting process will be reviewed annually and will include project evaluations for specific schemes that are implemented as part of this Digital Plan.

Priority area	Objective	Indicator of progress
 Digital Infrastructure – The region is digitally connected, with access to world-class digital infrastructure that is fast, secure and reliable	Meet 85% gigabit connectivity by 2025 across all areas in the West of England	% of premises Gigabit capable in the West of England and by Unitary Authority
	Maximise number of premises which have at least superfast coverage by 2026	% of premises with Superfast 30 coverage in the West of England and by Unitary Authority
	Maximise 4G and 5G coverage and capacity	4G coverage (and capacity when data is available) in the West of England and by Unitary Authority
		5G availability in Bristol (and West of England when data becomes available)
Boost community-based connectivity	Public accessibility of wifi in locations where purchase not required in the West of England	
 Digital inclusion and skills – Our people and businesses can get online and use digital services and our economy has the skills required for digital transformation at all levels	Reduce digital exclusion	Digital Exclusion indicators to be developed, potentially including access to devices, access to internet, uptake of social broadband tariffs, and affordability of training
	Improve digital skills at all levels	Digital skills indicator to be developed, potentially including proportion of adults with digital skills and school provision
 Digital Growth– Our businesses and third sector organisations are digitally capable and can maximise digital opportunities	Increase the breadth and depth of tech adoption across our businesses and third sector organisations	Sample indicators include digital occupations as a share of all jobs and annual investment in ICT equipment
	Increase the utilisation of emerging technologies amongst our businesses so they can secure competitive advantages	Indicator to be developed
 Digital public services – The region delivers best in class digital public services to provide a better experience for residents	Improve the experience of using digital public services	Indicator to be developed: likely to include proportion of services delivered digitally and to a high standard (based on user feedback)
	Unlock the power of data across the public sector to deliver better outcomes for our residents	Indicator to be developed, potentially including proportion of local authority services making data publicly available (where possible), and proportion of staff at local authorities who have received digital training
 Tech for good – Harness our digital innovation ecosystem to address key regional and global challenges	Put the West of England on the map as THE place for cutting edge digital research, innovation and investment that finds solutions to key regional challenges	Indicator to be developed.

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