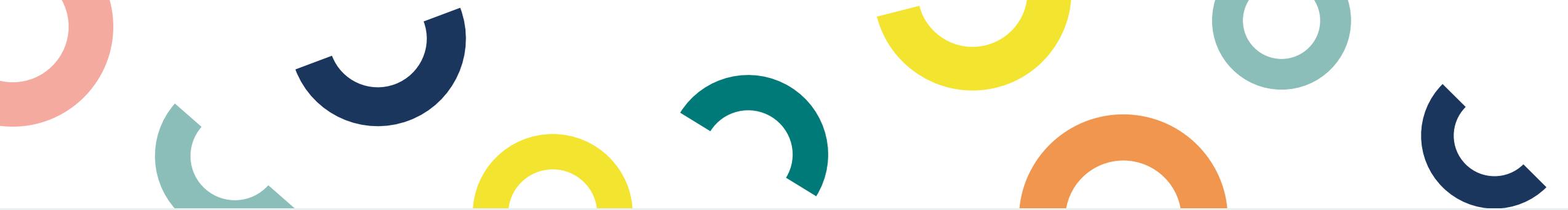


Digital strategy 2022-2025

Leeds Integrated Digital Service





The strategy has been written following extensive consultation and engagement that included thirteen workshops covering wide-ranging areas such as digital ethics, business and economy, and primary and social care.

Those engaged included members of the public, academia, and those working in the public, private and third sectors.

The main leads for developing the strategy have been Leeds City Council and Leeds NHS Clinical Commissioning Group* in partnership with the wider Leeds Health and Care Partnership that includes the third sector (community organisations).

Collaboration between organisations across all sectors, communities and the people of Leeds is key and already well-established. The strategy has therefore been written from a 'whole city' view rather than from any specific organisation's perspective to encourage participation in its delivery.

It is intended to be a 'live' document that will be updated as progress is made and priorities change.

* Since 1st July 2022 – Leeds NHS Clinical Commissioning Group is now part of the West Yorkshire Integrated Care Board.

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Forewords



Cllr Debra Coupar
Deputy Leader
of Council &
Executive Member
Resources

Leeds is the third largest city in the UK with a diverse population of nearly 870,000*. It is often selected to host trials of national policies and innovations as our demographic closely mirrors that of the country as a whole.

This, however, means that the challenges experienced by people nationally such as poverty, homelessness, educational and financial pressures, are also felt here.

We now face additional, significant challenges associated with the fallout of Brexit, climate emergency, the cost of living crisis, and ongoing the effects of the pandemic.

* GP registered population, April 2021

Focusing on everyone's health and wellbeing is at the heart of this strategy. We want people to have the very best start in life; have access to the best services; have access to a buoyant high-paid, high-skilled jobs market; and to live long, healthy and independent lives.

Improved use of data and technology already enables us to access some services around the clock and manage our own health better in ways that were unimaginable even 10 years ago. And whilst digital continues to play an increasing role in how people live and work, for far too many, it is still a barrier. To ensure no one is left behind, it is essential we prioritise those who are digitally excluded.

We're starting from a position of strength, with strong collaboration across the city focusing on areas such as delivering superfast broadband, improving digital inclusion, and better use of data to improve health outcomes. We must build on this joined-up approach by encouraging everyone to adopt the strategy and contribute to its delivery in any way that they can. We want to promote the city as a centre for innovation that is open, accessible and trusted, but we cannot do this alone – we all have a role to play in the city's success.

Leeds' digital sector is growing and thriving with the city being the home for an ever increasing number of start-ups and small/medium enterprises, as well as larger tech companies such as BJSS, TPP and Emis, and the digital divisions of Sky and Channel 4. To support this growth, it's important that we have a skilled workforce that can fill job vacancies, encourage more business investment, and provide greater opportunities for all.

This digital strategy supports our key priorities focusing on improving the health and wellbeing of everyone, achieving our carbon zero ambitions, and ensuring we all benefit from the city's growth and prosperity. No single organisation can achieve this alone; it must be a joint effort. I hope therefore that you can contribute to the delivery of this strategy and support our ambition of Leeds being the best city in the UK to live.





Leonardo Tantari
Chief Digital
Information Officer
Leeds Integrated
Digital Service

I started my role of CDIO for Leeds City Council and the NHS Clinical Commissioning Group (CCG) six months into the pandemic.

This was a personal challenge for me, as I was unable to meet my new colleagues face to face. Whilst the two organisations were trying to get to grips with managing Covid 19 in the new, ever changing reality and pressures they were under.

Like any other major city, we're currently facing challenges on many levels that we must confront. Expectations continue to rise against a backdrop of ever increasing financial pressures.

The use of digital technology to support in the delivery of our services offers many opportunities that we encourage and embrace for Leeds.

This is not just about moving our services online however, far from it. We must transform how we work. It is important to note that reaching the level of world-class digitisation we intend to achieve, will take more than simply deploying new technology. Bringing the digital services of the council and CCG together to create the Leeds Integrated Digital Service is the start of this digital transformation enabling us to provide a more joined up digital offer for the people of Leeds.

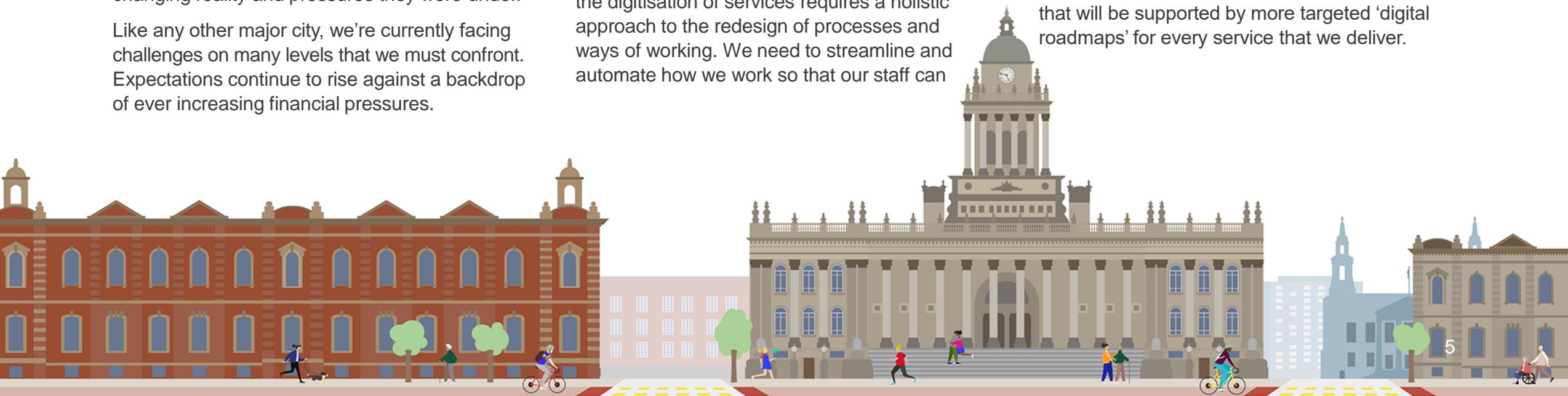
Any benefits expected to be realised from the digitisation of services requires a holistic approach to the redesign of processes and ways of working. We need to streamline and automate how we work so that our staff can

focus on delivering the best services to our customers rather than on dealing with red tape and bureaucracy.

We will invest in our staff to ensure they have the right digital skills to deliver those services and be equipped to support the people of Leeds effectively.

We're on a journey to transform the delivery of our services through better use of technology and effective data use. We will increasingly be able to collect data in real-time and utilise mobile technology to deliver personalised services when and where they are needed.

This strategy maps out at a high-level, our ambitious plans over the next three years, that will be supported by more targeted 'digital roadmaps' for every service that we deliver.





Jason Broch
Chief Strategic
Clinical Information
& Innovation Officer
Leeds

As part of a developing Integrated Care System, the West Yorkshire Health & Care Partnership has created an environment encouraging organisations to come together and join up their services, by ensuring that places, like Leeds, are empowered to do what's right for the people who live there.

In Leeds, we take a 'place-based' approach that focuses on integrating healthcare and council services in every community across the city – each of which have their own individual strengths and challenges. We believe supporting organisations, both statutory and third sector, in place, is the best way to achieve the best outcomes for local people.

As doctors, nurses, pharmacists, physiotherapists, social workers and many other clinicians work closer across their historic organisational

boundaries, there will be a need for digital solutions to, not only support and enable this new way of working, but join up information to ensure that the services provided is focussed on the needs of local communities.

As a GP, I know how important it is to have all the information needed, to make good decisions with patients and it is also important that people have access to information in a way that means they can care for themselves and their families in the best way possible.

It is important that people can access services, whether this is through new digital processes or the freeing up of traditional access capacity as a result of more people using digital methods, for example, the automation of some back-office functions can help free up staff enabling them to be more focussed on care.

Crucially, the way people connect with our services needs to be clear and easy, whilst making sure people unable to access digitally are not excluded. Our strategy underpins an inclusive approach to tackling health inequalities.

Leeds is a centre for developing health technologies and by supporting this, we can encourage job growth and inward investment

in line with the ambitions of our Health and Wellbeing strategy.

We have some incredible, experienced staff in the Leeds health and care system, but increasingly like elsewhere it is difficult to recruit new people. Our strategy needs to support a wider skill mix in our teams, whilst ensuring high quality care.

Leeds is an exciting place to work and will be at the forefront of innovation and digital development in the next few years, whilst at the same time being firmly focussed on the people of Leeds, their needs and an underpinning approach to tackling inequalities.



Executive summary

There is no doubt that digital technology has changed the lives of everyone.

Even before COVID-19 increasing numbers of people were working, managing their lives and health through digital tools.

We want Leeds to be the best place to live in the UK. This strategy supports that ambition and has been written from a 'whole city' view. Working together as [#TeamLeeds](#) across all sectors, organisations and communities is key.

By making better use of data and technology, and by taking a person-centred approach to service design and delivery, we will improve the way we can support people in their daily lives, helping them achieve their ambitions and overcoming any challenges they may face.

This strategy has been written to underpin Leeds' [Best City Ambition](#) and the three key initiatives that support it:



Health and wellbeing

Leeds will be a healthy and caring city for everyone.



Inclusive growth

Leeds will have an economy that works for everyone.



Zero carbon

Leeds will have made rapid progress towards carbon neutrality, reducing our impact on the planet and doing so in a fair way.

Getting the basics right

Before we move on to the ambitions of the strategy, it is important to note that these initiatives would come to nothing unless we have the right foundations in place.

We therefore start by summarising the key underpinning initiatives that we will put into place to ensure people are not left behind as we move towards our digital-first (but not digital only) approach to delivering services.

It needs acknowledging however, that some people could be left behind as we begin to operate more digitally, either through a lack of skills, access to devices, connectivity or even lack of motivation. Therefore, the starting point of this strategy is to ensure that this negative impact is minimised through a robust approach to digital inclusion.

Each of these foundations underpin everything we do and provide the basis of how we intend to use existing and emerging technologies to serve the people of Leeds.



Data management, use and access

Better collection, management, and use of data that facilitates the delivery of improved, personalised services



Connectivity and infrastructure

The delivery of 21st century connectivity and infrastructure that provides the backbone for world-class service delivery



Digital inclusion

Digital inclusion is complex, we will continue to work with people to ensure equal opportunity to develop skills and access digital tools, technology and services that are the right for them



Digital skills

Life-long learning that ensures people continually have the right skills to get online, access digital services, and do their job effectively



Digital and data ethics

Scrutiny and sense checking to ensure that any use of data or introduction of new technology or digital service is sound, and 'the right thing to do'

Our digital ambitions

We have mirrored the 'life course approach' used in the Best City Ambitions to clearly articulate the impact of our plans for digital at every stage of a person's life from early years to older age – Starting well, Living well, Working well and Ageing well.

Starting well

Using modern data technologies and techniques we will analyse population health and other data to understand what determines a person's health and life chances from birth through to old age. This will help us to reduce inequalities and design impactful services for the people who need them the most.

We will achieve this by:

- Using data to identify and eliminate inequities
- Introduce new ways to stay healthy including education and services
- Ensuring that all children have the opportunity to access and use technology

What this means for Leeds:

- Better outcomes for children
- Improved life opportunities
- Improved parent and child health

Living and ageing well

We will utilise new technologies to deliver health and wellness services tailored for individuals and ensure that people's information follows them through their journey regardless of the organisation they are interacting with. We will help people to stay healthy using innovative tools such as wearable monitors, augmented reality apps or coaching tools.

We will achieve this by:

- Ensuring information can be shared between partner organisations, adhering to rigorous information governance policies and procedures
- Making services easier to find and access
- Using automation technology to make services better
- Launching new ways for people to stay healthy using technology

What this means for Leeds:

- Better access to services
- Improved health and wellbeing
- More effective public services
- Services delivered closer to home

Working well

We will build on existing collaboration by improving information flow between organisations and supporting the city's inclusive growth ambitions. Our thriving digital community, modern infrastructure and skilled workforce will attract new and established businesses to Leeds.

We will achieve this by:

- Investing in infrastructure to support the services we deliver
- Supporting our vibrant digital economy that creates inclusive growth
- Taking a #TeamLeeds approach to dealing with cyber threats
- Building and coordinating an innovation network that is accessible to all

What this means for Leeds:

- Inclusive growth and more opportunities for business and employment in Leeds
- New ideas that improve services
- People will be able to build digital skills
- Confidence that personal data is protected

Priorities and approach

This strategy has been written to underpin Leeds' Best City Ambition document.

It outlines the overall vision for the future of the city and has been developed to support the mission of tackling poverty and inequality, improving the quality of life for people in Leeds and growing a vibrant economy that everyone benefits from.

It focuses on how organisations and local communities in every part of Leeds can contribute to making Leeds the place to live in the UK.

Organisations, communities and the people of Leeds already collaborate well and embrace the [#TeamLeeds](#) approach. People are at the heart of the strategy, collaboration is key to its success.

It has not been written from the perspective of any particular organisation, but rather from a 'whole city' one where everyone can play a part in delivering some of the priorities outlined.

The strategy takes a 'person-centred' approach, that is, people are at the heart of everything we do. When we talk about 'people', we are referring to those who access services, live, work, study and visit our great city.

We see the strategy as a key enabler to improve outcomes for everyone. For this reason, a 'Life Course' approach was taken when developing the [Best City Ambition](#) that clearly articulates the opportunities and challenges at every stage of a person's life from early years to older age – starting well, living and ageing well and working well. We have harnessed this approach for the Digital Strategy to outline how digital can support everyone throughout their lives.

For the purposes of this strategy, we have combined living and ageing well.

Underpinning the Best City Ambition, Leeds has three main 'pillars' focusing on [Health and Wellbeing](#), [Inclusive Growth](#) and [Zero Carbon](#). This digital strategy will support the delivery of these key strategies.



Health and Wellbeing

In 2030, Leeds will be a healthy and caring city for everyone: where those who are most likely to experience poverty improve their mental and physical health the fastest, people are living healthy lives for longer, and are supported to thrive from early years to later life.



Inclusive Growth

In 2030 Leeds will have an economy that works for everyone, where we work to tackle poverty and ensure that the benefits of economic growth are distributed fairly across the city, creating opportunities for all.



Zero Carbon

In 2030 Leeds will have made rapid progress towards carbon neutrality, reducing our impact on the planet and doing so in a fair way which improves standards of living in all the city's communities.

Whilst the strategy is focused on Leeds, its people, and services, it is written in the context of national policies and strategies that focus on the wider challenges facing the UK and which will have a significant impact on our plans. Notable documents that will influence the approach taken in Leeds are:

NHS long term plan

10-year strategy that identifies how digital technologies will support people in and out of hospital, giving them more control over their own health and wellbeing.

NHS digital – ‘what good looks like’

Framework that builds on good practice to provide guidance for the safe and secure digitisation of health and care services.

A plan for digital health and social care

Policy paper directed at leaders in the health, social care and technology sectors focusing on laying the digital foundations that will deliver faster, more effective and more personalised care.

Data saves lives – reshaping health and social care with data

That explains how the NHS will ‘use data to bring benefits to all parts of health and social care – from patients and care users to staff on the frontline and pioneers driving the most cutting-edge research.’

National data strategy

Sets to ‘unlock the power of data’ and ‘sets the framework for how [the country] will invest in data to strengthen [the] economy and create big opportunities... in the future.’

UK innovation strategy

Focusing on how innovation supports businesses to innovate by making the most of the UK’s research, development and innovation system.

Technology code of practice

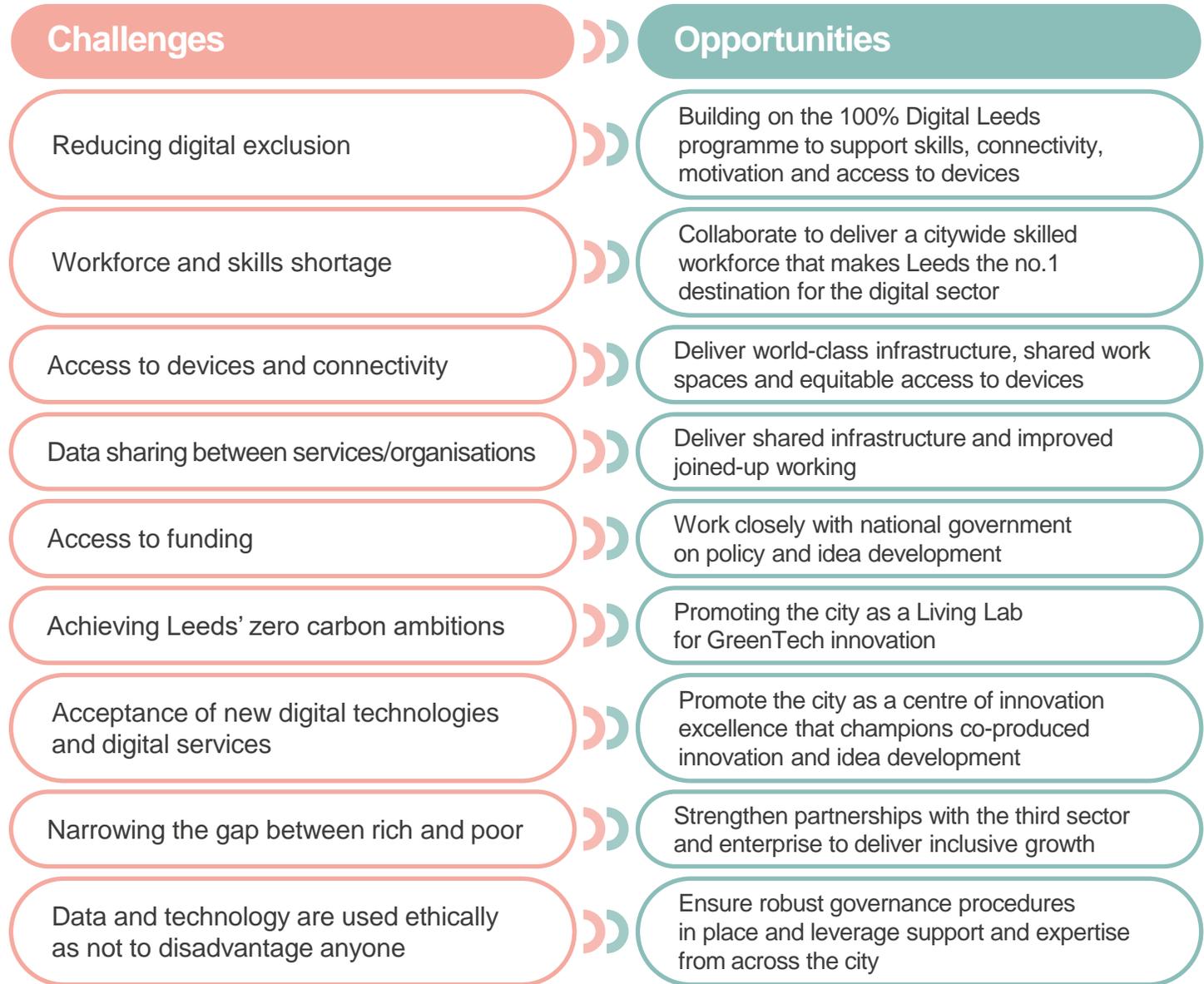
That outlines a set of principles that support designing, building and buying new technology such as defining user needs, making use of open standards, and taking a cloud first approach.



Better use of data and technology can radically improve how services are delivered in Leeds.

There are of course challenges that will need addressing to realise a more sustainable, equitable Leeds that we all aspire to, however these should be viewed in relation to the opportunities that exist that will enable people, businesses and communities to prosper.

This summary highlights some of the key challenges and opportunities that will be investigated as part of the delivery of this strategy.



Digital foundations

Whilst we have significant ambitions for digital services and technologies in Leeds, it is also important that we get the basics right.

These foundations set the baseline for which the rest of the strategy is built on and will ensure that our ambitions are grounded, achievable and inclusive.



Data management, use and access

Better collection, management, and use of data that facilitates the delivery of improved, personalised services



Connectivity and infrastructure

The delivery of 21st century connectivity and infrastructure that provides the backbone for world-class service delivery



Digital inclusion

Digital inclusion is complex, we will continue to work with people to ensure equal opportunity to develop skills and access digital tools, technology and services that are the right for them



Digital skills

Life-long learning that ensures people continually have the right skills to get online, access digital services, and do their job effectively



Digital and data ethics

Scrutiny and sense checking to ensure that any use of data or introduction of new technology or digital service is sound, and 'the right thing to do'



Data management, use and access

Data underpins everything we do. It is a valuable resource that has the power to revolutionise how businesses are run and services are delivered.

It's important however, that when collecting, using, storing, disposing, or sharing personal data, it is managed appropriately and within an information governance framework that instils confidence and protects people's data.

Leeds have done well in promoting the publication and use of open data and being home to numerous data analysis and consultancy companies. Building on this cements Leeds as the UK's leading 'data city'.

We will work closely with the regional Integrated Care System to better understand how data can help improve health and care outcomes for the people of Leeds and help us tackle unequal outcomes and access to healthcare services.

We will achieve this by:

- Prioritising the importance of managing personal data effectively by having robust information governance principles and procedures in place, in line with data protection laws.
- Adhering to the highest levels of compliance with legislation and advice from the Information Commissioner's Office.
- Expanding the Office of Data Analytics, bringing together data science expertise and technologies.
- Development of a Leeds Data Strategy focusing on local challenges and opportunities.
- Delivering data and information to people, businesses, and services through a channel most appropriate to them, with access to tools in line with their skills.
- Improving data capability to strengthens the city's approach to population health management using new tools and techniques.
- Following nationally recognised principles and regulations in respect of data security.

What this means for Leeds:

- Improved data intelligence, decision making and service delivery.
- Utilisation of data for research and innovation that powers new medical treatments and the direct care of individuals.
- The ability for everyone to analyse and interpret data.
- Data driven planning and improvement of services.
- Increased amount of publicly accessible that supports innovation.
- Improved understanding of population health that drives understanding, decision making and the proactive targeting of services.
- Assurance that people have confidence that their personal data is being managed appropriately.
- Access to the data and information that services need.
- Access to comprehensive information about the people using services without having to rely on people to 'fill the gaps' and explain multiple times.



Protecting our data and information is of paramount importance. We will ensure that data and systems are protected from any security threats whether they be cyber or physical, deliberately intended or otherwise. It is therefore important that we have the infrastructure in place to deal with external threats.

Through investment in world class connectivity and infrastructure platforms, service delivery can be transformed to enable more people to access services digitally, where and when they want them.

We will follow a 'Cloud First – Multi-Cloud' approach to derive best value for money, best technological approach, and the highest security standards.

We will take an open standards approach for all software developments in Leeds to ensure the maximum potential for systems integration and interoperability.

We will achieve this by:

- Delivering a 24/7 365 Security Operations Centre that will prioritise the safety and security of people's data and be accessible by any organisation across Leeds.
- Providing training to enable people to identify threats and be able to protect their own devices and data.
- Completing the roll-out of fibre across the city that will enable up to 90% of households and businesses to access gigabit speed broadband.
- Encouraging use of Leeds Wireless Innovation Network – Leeds WIN Long Range Wide Area Network.
- Identifying and plugging the Cloud skills gap among the workforce.
- Migrating digital services to the Cloud enabling scalability, agility and increased security.
- Creating a 'Cloud Centre of Excellence' that ensures appropriate governance is in place to facilitate the move to Cloud.
- Identifying the benefits of a 5G network across Leeds and supporting its delivery.
- Ensuring physical work spaces are equipped with high-speed connectivity to facilitate collaboration and innovation.
- Simplifying digital infrastructure by sharing and consolidating budgets, strategies and contracts.

What this means for Leeds:

- Confidence that personal data is protected and can be shared safely and securely between organisations and departments.
- Services will be available 24/7.
- Everyone has the right skills to keep data safe and secure.
- Relevant people have the skills to prevent, detect and respond to Cyber incidents.
- The option for homes and businesses to connect to fast, full fibre broadband.
- Access to reliable digital services supported by leading edge cloud and infrastructure technologies.
- The ability to pilot and launch new digital initiatives using a scalable cloud platform.
- Access to connectivity that supports Internet of Things devices and encourages innovation.
- People can access wi-fi in GP practices, hospitals and council buildings.
- Assurance that digital services can be accessed by everyone who needs them.



Digital inclusion is a key 'enabler' to delivering many of the strategic priorities of the council and the wider city. It is a spectrum rather than a binary indicator and people will move along that spectrum as their life changes and society changes around them.

The barriers to digital inclusion for many people are complex and link to wider factors beyond the common issues of lack of skills, motivation or access to a device. We will address these barriers to ensure that everyone in Leeds has equal opportunity to use digital tools, technology and services in the right way for them.

We will work with trusted partner organisations to take a person-centred, holistic approach to develop sustainable, long-term solutions that increase digital inclusion in all communities across the city.

We will achieve this by:

- Investing further in the city's flagship [100% Digital Leeds](#) digital inclusion programme.
- Working collaboratively through partnerships and networks to build a coordinated and connected digital inclusion ecosystem across Leeds.
- Increasing the capacity of organisations across the city to deliver digital inclusion in a sustainable way.
- Developing more places in the community where people can gain the motivation, skills and confidence to get online.

What this means for Leeds:

- Stronger digital inclusion infrastructure across the city.
- Prioritise the groups and communities that are further away from equal opportunity of access.
- Digital inclusion challenges tackled at scale by bringing together organisations in a place or serving a particular community.
- Increased access and accessibility so that people have more options to get online and use digital tools and technology, either independently or with support.

Case study

The 100% Digital Leeds team leads on digital inclusion for the city. It has a vision that everyone in Leeds has equal opportunity to use digital tools, technology and services in the right way for them.

Digital inclusion

To achieve this, the team works with hundreds of organisations, settings and colleagues across the council, third sector, and health and care to identify, prioritise and support the most digitally excluded people and communities in Leeds.

They use their experience and expertise to coordinate, connect, amplify and accelerate digital inclusion across the city.

They are strengthening the digital inclusion infrastructure to address challenges at scale by bringing together organisations in a place or by serving a particular community.

They bring together teams and organisations with shared priorities, based in the same areas of the city, serving similar Communities of Interest or working towards common goals.

BARCA Leeds

Person A is a 34-year-old male who has been in and out of prison for most of his adult life. He was released from prison in November and gifted a Community Calling smartphone by BARCA in December 2021.

The device has allowed him to get online without having to visit the library or Job Centre meaning he could more regularly and proactively check his emails. He has been able to apply for a budget advance through the Department for Work and Pensions, find and secure housing, and complete a Peer Mentor course. Not having to rely on Pay As You Go calls and data has allowed him to reconnect with and regularly contact his family and support services.

This has allowed him to rebuild and maintain a positive support network including detoxing from methadone, meeting Probation requirements, and avoiding reoffending, all of which have allowed him to stay out of prison for the longest period of his adult life.

Hamara Healthy Living Centre

Working with the 100% Digital Leeds team has been so beneficial for our community. The support they have given us as an organisation on the Digital Health Hub project has been invaluable.

Being a Digital Health Hub has helped so many of our community members to get online and bid for properties, apply for benefits and sign up to the NHS app.

We have empowered people to do these tasks themselves and often at home thanks to our device lending scheme.

Our next step is introducing health management apps to those with long term health conditions and creating a space in the café where the community can come in and use the devices while enjoying a cuppa or meal. We have also recruited Digital Champion volunteers who speak community languages to support our English class to become more digitally included.



Digital skills

Whether you're at school starting to do basic coding, in employment working with data and technology, or getting online for the very first time, technology doesn't stand still. It's therefore important that we maintain our skills throughout our lives.

Through this life-long learning approach, we will ensure that everyone in Leeds has the skills to access services in a way that suits their needs. Digital channels will be accessible, well designed and so easy to use that they become most people's preference.

We recognise however, that not everyone will want to access services via a digital channel all of the time. It is for this reason that we take a 'Digital First but not Digital Only' approach, meaning that others complimentary means of accessing services will always be available, such as, face-to-face and by telephone.

We will achieve this by:

- Improving the skills of the city's workforce.
- Supporting a basic level of data, digital and cyber security literacy, followed by continuing professional development.
- We will ensure that students have work-ready digital skills to optimise employability.
- Encouraging businesses to invest in digital skills.
- Taking a person-centric approach to the co-design of public services involving a wide variety of stakeholders.
- Encouraging and promoting digital activities such code clubs, meet-ups and digital workshops.

What this means for Leeds:

- Improved services over digital channels that are supported on any device.
- More people can access services through a digital channel.
- Greater opportunities for people to develop their digital skills throughout their life.
- Improved employment opportunities for everyone.
- A skilled workforce that attracts investment from businesses and the availability of high-earning, high-skilled jobs.
- Greater numbers of graduates choosing to remain in the city.
- Digital skills are improved through participation.



Digital and data ethics

Data is easier to collect than ever and technology is developing so quickly that it is often difficult to keep pace with.

It's therefore important that as these new technologies become more widely used, we have thorough understanding of their impact. Just because something can be done using technology, doesn't mean it should be.

Leeds is already a champion of 'tech for good' and we will improve this by embedding strong governance procedures and by drawing upon data and digital ethics expertise from across the city. This will provide additional support and scrutiny that will ensure Leeds is regarded as the best destination for anyone who wants to deliver services ethically and equitably.

We will achieve this by:

- Developing data and digital ethics principles that provide checks and balances for any use of data or introduction of new technology.
- Drawing upon expertise from across the city to provide additional support and scrutiny.
- Ensuring people are at the centre of any data and technology considerations.
- Understanding what people want from their data and that they are genuinely informed of the implications of data sharing.
- Involving people in the development of services that they will access and use.
- Thoroughly understanding the technology that is being introduced including, how data is being collected, how it is stored, and the provenance of the hardware that is being used.
- Working with industry and academia to build trust around machine learning.

What this means for Leeds:

- Robust governance structures are in place to ensure that the use of data and introduction of new technology is done so ethically and equitably.
- People can be confident that services will be delivered that can be accessed by anyone.
- Personal data will be handled safely and securely and only shared with those who need to access it.
- Risks are assessed to identify the impact on people, place and infrastructure of the introduction of new digital services and data use.

Starting well

A decorative graphic on the left side of the page, featuring several colorful curved shapes: a light pink arc, a dark blue circle, a yellow arc, an orange arc, and a teal arc.

Leeds has a well-established [Child Friendly Leeds](#) programme that sets the vision for Leeds being the best city in the UK for children and young people to grow up in. With this in mind, this strategy supports the priorities outlined in the [Children and Young People's Plan](#) ensuring that people have the best possible start in life.

We will use modern digital technologies to understand the challenges associated with population health and education and how this affects individuals from birth through to old age. Understanding health and economic conditions prevalent across the city will help us to reduce inequalities and provide more relevant and impactful services to families across Leeds.

We will work increasingly with schools and colleges to encourage children and students to get involved in innovation work that helps develop their digital skills and get them interested in the technology sector and the breadth of opportunities it offers.

We will achieve this by:

- Engaging in the Maternity Transformation Programme recognising the important role that digital technology can play in transforming maternity services.
- Supporting a better start for all children in Leeds through better access to services that understand their requirements.
- Collecting and analysing data about the population of Leeds, their needs, and their health, that support the design and commissioning of services and health initiatives.
- Using high quality health intelligence to inform improved decision making and responses to health protection incidents.
- Analysing data that supports the identification and reduction of inequalities that disadvantage people in early life.

- Supporting better health through education, environment, housing and ways to stay healthy.
- Getting children interested in digital from an early age through code clubs, after school/ holiday activities and digital projects in schools.
- Addressing the gender gap from an early age by encouraging more girls to get interested in technology.
- Providing access to devices and connectivity that helps children stay ahead at school and in play.
- Using digital technology to encourage people to be more active.

What this means for Leeds:

- Improved outcomes for children.
- Reduced numbers of young people not in education, employment or training.
- Improved number of children engaging in learning and improving digital skills.
- Improved physical activity through utilising digital channels.
- Improved life skills and readiness for work.
- Increased numbers of people taking up employment in the digital and technology sector.

Starting well

Case study

The Covid-19 pandemic was a challenge that no-one expected or had previously dealt with on such a scale. Technology enabled many people to continue working from home, whilst understanding the data assisted with monitoring progress and decision making.

Continuing healthcare services throughout the Pandemic

COVID-19 response

Throughout the pandemic, the **Integrated Digital Service** (supporting digital services for Leeds City Council and the Leeds NHS Clinical Commissioning Group) supported GP practices and Primary Care Networks to help them adapt to new ways of working, allowing them to maintain services in the unprecedented circumstances presented by Covid.

At the start of the pandemic additional equipment was delivered to GPs including 600 laptops, 500 webcams and 800 headsets.

This additional equipment enabled practices to continue to work, provide a safe working environment for staff and allow patient services to be maintained. Throughout 2021/22, the team continued to support the increased demand for more online consultations, ongoing testing requirements and new Covid outbreaks.

Blood pressure monitors

In early 2021, the Leeds NHS Clinical Commissioning Group took part in the national blood pressure **monitoring@home** programme. 2,800 monitors were distributed to GP practices to share with their patients with a confirmed diagnosis of hypertension.

Following training, patients monitored their blood pressure at home and submitted their results for review by their GP, reducing the need for patients to visit their GP practice, freeing up GP resources traditionally employed to take readings, allowing continuous monitoring if needed, and enabling healthcare professionals to change or adapt medications as necessary.

Leeds office of data analytics

The new **Office of Data Analytics** (ODA) was created out of situation where data was held in siloes across the various health and care providers, resulting in it being very difficult to understand the full picture of what was happening to groups of people across the city. It combines data from a multitude of sources helping to reveal the single version of the truth as to what is happening to cohorts of populations.

The Public Health Intelligence team has been at the forefront of the ODA's Covid response. The team was fundamental in setting up and delivering test and trace reporting for local measures and guiding outbreak test teams in the early days of the pandemic, along with a wide range of internal and external reporting on infections and vaccination provision, especially to those most vulnerable, or at risk of inequalities of access.

Living and ageing well



We will ensure that services are designed around the individual and their needs. As our services become increasingly integrated there will be opportunities and challenges in delivering effective and efficient services, where and when they are needed.

We will implement leading edge digital solutions that enable real-time monitoring and communication to support the shift towards enabling proactive self-care, and help people to manage their own health and wellbeing better.

We will ensure a joined up approach across the eleven Population and Care Boards to use data to understand population health and the challenges and inequalities being faced by the people of Leeds. This intelligence will support partners to define and deliver effective services and support, including messaging that prevents the onset and progress of disease and helps people to stay healthy.

We will use modern digital services to deliver primary and community care closer to people's homes in a way that is better for the people of Leeds and those delivering the service.

We will achieve this by:

- Building and information sharing approach that is person-centred to ensure their data and information can, legally and securely, follow them regardless of which organisation and/or service they are engaging with.
- Implementing intelligent and automated processes that make services more efficient, convenient and joined up.
- Ensuring the approaches taken in this strategy are reflected at a regional level.
- Introducing new technologies such as wearable devices that supports independent living, clinical service delivery at home, wellness programmes and healthier habits.
- Continuing to work with GP practices and other care settings to develop online and video consultations.
- Introducing digital technologies that provide the public with a range of personalised preventative interventions.
- Using data to identify people who may benefit from innovative health and care services.

- Using data to better understand how a person's health is affected by their living conditions.
- Promoting Leeds as an innovation test bed to trial new innovative health and care technologies.
- Launching new ways for people to access health and wellbeing services that are closer to where they live.
- Delivering a directory of all public services in Leeds that is accessible to all and easy to use.
- Providing people with the skills and capabilities to book appointments, update their own health records and more easily engage with those delivering services to them.

What this means for Leeds:

- More people can find the services they need, when they need them, and access them through a digital channel and device of their choice.
- Improved efficiency of services through automation.
- Improved understanding of people's wider determinants of health.
- Improved personalisation of services, ensuring services are delivered at the right time and in the right location/setting.
- More people are enabled and confident to access their information and contribute to their records.
- Improved access to the information that services require, when and where they need it, including real time data.
- Increasing numbers of people receiving healthcare services previously delivered in hospital, closer to where they live.
- Improved independent living, self-care and self-management.

Case study

The use of Virtual Reality (VR) has been trialled with nearly 800 dementia sufferers and carers as part of the Dementia Pathfinders programme.

Assisting dementia sufferers with Virtual Reality

VR headsets were loaned to care homes and carers groups to trial how they might enhance the existing dementia programme by offering residents the chance to experience new virtual reality, immersive environments.

The trial reviewed the Google Cardboard and Oculus GO headsets that have different price levels, to test their suitability and effectiveness, and were conducted in both individual and group settings utilising apps mainly focused on meditation, relaxation, world travel and wildlife.

Images included both static and moving content which led some people to experiencing slight motion sickness. Some adjustments to the headsets were made to ensure users had more control over them leading to this being improved.

The trial provided sufferers and carers the opportunity to escape reality and enjoy experiences such as National Geographic, visit places across the world they'd never seen before and take virtual museum tours exploring arts and culture.

Carers expressed how they enjoyed exploring different places and experiences and explained that they it appeared to relieve symptoms of their loved one's dementia such as agitation and disorientation.

Supporting digital inclusion

The work supported the wider **100% Digital Leeds** work focusing on improving digital inclusion across the city.

It comprised carers and people with dementia, staff, volunteers and stakeholders that resulted in 81 carers and 91 staff and volunteers trained as Digital Champions.

Working well



Leeds is building a digital sector that competes on the world stage. To do this, it needs to be diverse. Having the full social spectrum represented within the sector will lead to a wide range of benefits for the city, allowing Leeds to unlock the true potential of the digital and technology sector.

We will build on existing collaboration between our different workforces in all sectors by improving information flow between organisations and supporting the city's inclusive growth ambitions.

A thriving digital community, modern infrastructure and skilled workforce will attract new and established businesses to invest in Leeds improving opportunities for the city and people of Leeds.

Building on established innovation work in Leeds, we will develop a co-ordinated innovation network and community that offers a fair and robust innovation management approach, supporting the qualification, testing and dissemination of new initiatives.

We take a people-centred approach to service design and ensure that associated business change programmes and training are delivered alongside service implementation.

We will achieve this by:

- Building on our digital community to attract enterprise, entrepreneurs and skilled people to Leeds, through a combination of engagement, collaborative work spaces, digital services and events.
- Improving data sharing and analysis across the city that informs decision making and supports the identification of new opportunities.
- Continuing to develop shared infrastructure to ensure it benefits the city and regional economies.
- Delivering modern connectivity for Leeds that supports businesses and enterprises to thrive.
- Developing a programme of innovation that looks to address civic challenges through participation and collaboration and working with a variety of stakeholders to deliver person centric, co-designed services.

- Building a co-ordinated innovation network that focuses on co-creation, allowing people to bring their ideas forward through a consistent and agile approach that promotes qualification, testing, learning and scaling.
- Embedding a culture of openness to change, embracing digital technology and ensuring benefits of change are measured and managed on an ongoing basis.
- Sharing of, and learning from best practice.
- Identifying funding opportunities at a local and national level that supports an ambitious innovation programme and helps grow the technology community and facilitates collaborative working.
- Exploring opportunities for new ways of working and the development of a digital blueprint for shared buildings to encourage improved and seamless access to collaborative space and allow people to work more flexibly.
- Identifying new innovation opportunities for the city to lead on such as GreenTech.
- Promoting creativity alongside technology and innovation.

What this means for Leeds:

- Inclusive growth that includes everyone and leaves no one behind.
- Access to open data that facilitates innovation.
- Access to an innovation platform that enables enterprise and entrepreneurs to collaborate.
- A skilled workforce across the entire city.
- More job opportunities in the technology and digital sectors.
- An attractive city for businesses to invest and thrive.
- Everyone has the opportunity to participate in the improvement and development of services and helping to tackle some of the challenges facing the city.
- The delivery of new, innovative digital services and solutions are prioritised and accelerated.
- People have the skills and capabilities to be able to work in new ways as the business landscape changes.
- A city that is recognised for its creative digital sector, cultural opportunity and diversity.

Working well

Case study

Innovation is thriving in Leeds, from grassroots community led initiatives such as Leeds Digital Festival – UK's largest tech festival, to NEXUS, a state-of-the-art innovation hub located at the heart of the University of Leeds. World leading R&D, health innovators and tech unicorns have made Leeds their home.

Innovation through collaboration

We have benchmarked ourselves internationally through working with **Massachusetts Institute of Technology** on their **Regional Entrepreneurship Acceleration Program** (MIT REAP).

Recognising the significance of our innovation assets, we have worked closely with key stakeholders to refresh our innovation vision 'to stimulate innovation which drives and delivers measurable impact towards a healthier, greener and inclusive future for Leeds and the world'.

The '**Innovation Arc**' concept is central to this vision. Set across 150 hectares of the city centre and involving partners such as Leeds Beckett University, University of Leeds, Leeds Teaching Hospital Trust and Leeds City Council, it will stitch together some of the most significant innovation assets in the North of England to become a driving force for innovation and emerging digital technologies.

A part of Leeds Teaching Hospitals NHS Trust, the **Innovation Village** will be a cornerstone of the Innovation Arc and one of the most exciting UK investment opportunities focusing on research, innovation and technology in health and life sciences.

NEXUS Leeds is a magnet for high-growth innovation talent from across the globe. Their member businesses have already demonstrated economic impact by creating 176 new jobs, raising over £27.8m of private investment, and being awarded £18m in collaborative research funding with the University.

British Library North represents a £95m investment which will magnify its impact in the North by opening up access to a new generation of researchers at Boston Spa and a new public space in Leeds. The expansion compliments their network of Business & IP Centres, which in Leeds offers innovation and digital advice for entrepreneurs.

Ingenuity is an exciting new real-world smart city innovation testbed located in South Leeds. It has been successful in receiving £1.7m of levelling up funding and will be developed by Munroe K at White Rose Park.

Supporting local businesses to use digital technology and unlock growth is critical. **AD:VENTURE** and **Digital Enterprise** offer a range of free support for SMEs in the region. Additionally, the **Innovation@Leeds** grant scheme enhances the city's core business offer to support innovative entrepreneurs, reach more diverse communities and build the city's innovation profile.

The city's expertise in the professional and finance sectors is fuelling innovation in FinTech, LegalTech and Green Finance that is strengthened further by the presence of the Bank of England, UK Infrastructure Bank and the Financial Conduct Authority.

Conclusion

This strategy provides a window into our exciting plans for the use of technology to improve the lives of the people of Leeds and the services they use.

We believe that these plans will lead to greater access to services and that these services will be more impactful for people, and that disparate organisations and partners will be able to work more closely together.

Leeds has an ambition to be a 'regional centre of digital innovation excellence' – the foundations of which have recently been publicised through the launch of our shared vision that includes the 'Innovation Arc', a series of innovation areas set across 150 hectares connecting some of the most significant innovation assets in the North of England.

We have directly linked our plans to Leeds' Best City Ambition and the city's key strategies focusing on:

1 Health and wellbeing

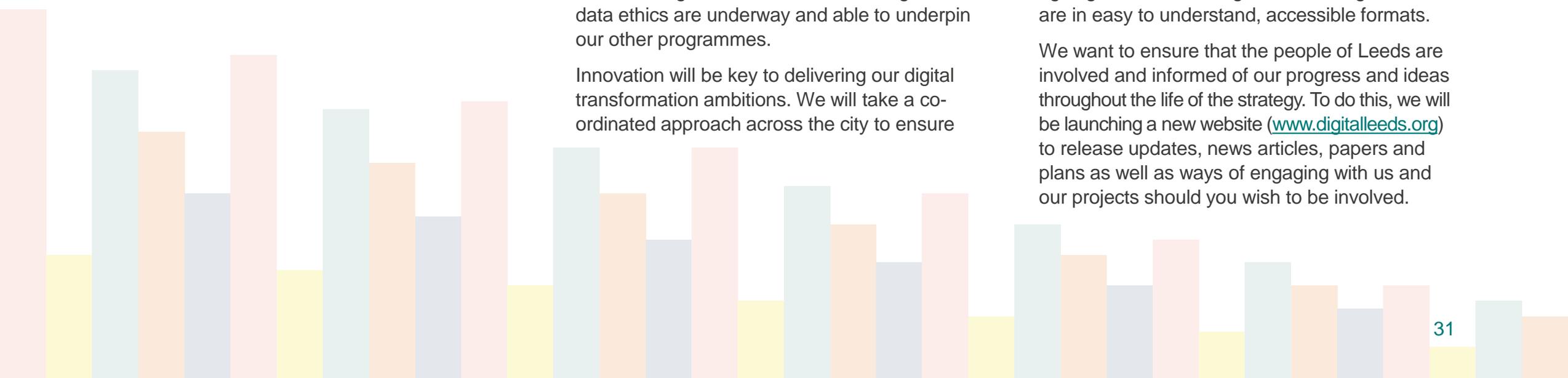
2 Inclusive growth

3 Zero carbon

This ensures that any initiatives we undertake are directly aligned to the things that matter to the people of Leeds regardless of where they live, work and play.

Our ambition is clear – we want Leeds to be the best place to live in the UK that is supported through innovative use of data and technology and be a leading light in solving challenges faced by the whole country.

Next steps



Ambition is important, but it is of little value unless we get the basics right and provide a good foundation on which to build more advanced initiatives.

Therefore, our immediate focus will be on ensuring that core programmes around digital inclusion, digital skills, data use and digital and data ethics are underway and able to underpin our other programmes.

Innovation will be key to delivering our digital transformation ambitions. We will take a co-ordinated approach across the city to ensure

we have a connected innovation ecosystem where we can all play a part and contribute.

We will build on the momentum generated from the launch of the Innovation Arc to increase collaboration and promote Leeds as a centre of digital innovation.

We will develop digital roadmaps and plans to achieve the strategic ambitions across the life stages of starting well, living and ageing well and working well, ensuring these are in easy to understand, accessible formats.

We want to ensure that the people of Leeds are involved and informed of our progress and ideas throughout the life of the strategy. To do this, we will be launching a new website (www.digitalleeds.org) to release updates, news articles, papers and plans as well as ways of engaging with us and our projects should you wish to be involved.

Thank you

This strategy has been a joint effort and we'd like to thank everyone who has contributed to it through attending workshops, providing feedback, sense checking and design.

Whilst this list is not exhaustive, we'd like to make a special mention to the following for their support and contribution.

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Leeds Community Healthcare NHS Trust

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Yorkshire and Humber AHSN

Information Commissioner's Office

The Clarity Practice

Emma White Ltd.

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