Birmingham City Council
Report to Cabinet

26 April 2022

Subject:	**Digital City Programme and Roadmap**
Report of:	Peter Bishop – Director, Digital and Customer Services
Relevant Cabinet Member:	Councillor Brigid Jones, Deputy Leader
	Councillor Tristan Chatfield, Finance and Resources
Relevant O &S Chair(s):	Councillor Carl Rice, Coordinating Scrutiny Committee
	Councillor Saima Suleman, Economy and Skills
	Councillor Mohammed Aikhlaq, Resources
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Are specific wards affected? If yes, name(s) of ward(s):	☐ Yes	☒ No – All wards affected
Is this a key decision? If relevant, add Forward Plan Reference:	☒ Yes	☐ No
Is the decision eligible for call-in?	☒ Yes	☐ No
Does the report contain confidential or exempt information? If relevant, provide exempt information paragraph number or reason if confidential:	☐ Yes	☒ No

1 Executive Summary

1.1 Digital technologies are radically changing every facet of our lives, from the way we live, work, and grow up in cities, to how we manage infrastructure and assets and how we deliver critical services. Cities that do not adapt and embrace the ongoing digital revolution will be left behind economically, socially, and environmentally. This was recognised in the *Investing in Our Future Cabinet Report* (January 2021) which outlined the challenges the Council faced and the increased expectations of Council services from citizens. The report noted the need for establishing an innovation team to identify service improvements, respond to issues and form part of a city-wide Design and Innovation network.

1.2 Digital technologies have proved to be invaluable during the pandemic as well as potential catalysts of change. However, digital change poses challenges to our economy with nearly one quarter of jobs in Birmingham (23.2%) in occupations that are likely to shrink by 2030. Adapting to the challenges represents an opportunity to make Birmingham's economy more resilient and will depend on a transformative digital approach to develop its economy, communities, and environment in its post-pandemic recovery strategies.

1.3 The Digital City Programme (DCP) is a city-wide initiative that aims to bring together city partners and stakeholders in order to equip Birmingham's institutions, communities and businesses with the digital infrastructure, data, technology platforms and enablement programmes required to thrive in this new digital world in both the short and long term. It is one of the Inclusive Growth workstreams and is aligned to;

(i) Birmingham's strategic objectives as a city – as articulated by the City Council's Grand Challenges,

(ii) all five 'Levelling Up Accelerators' and, it directly aligns to delivering green and digital infrastructure. Already Birmingham is nearly 10% worse for digital connectedness compared to England as a whole.

(iii) the need to shift from crisis to early intervention by co-ordinating the use of city data and technology platforms to provide better early insights and predictive capabilities.

(iv) The West Midlands Combined Authority (WMCA) five digital missions

1.4 This Programme will seek to deliver a range of digital connectivity, technology, and data foundations to enable every business and citizen to thrive as well as serve as a key enabler for the city's wider Inclusive Growth and Route to Zero programmes. It will establish the digital and data foundations required for the City to accelerate its growth capabilities with increased economic impacts as well as creating new opportunities for better outcomes for our citizens.

1.5 The DCP has already delivered and is implementing the Council's first ever city-wide Digital Inclusion Strategy and Action Plan co-designed with community organisations and aims to lift thousands of vulnerable citizens out of digital poverty. It has initiated projects to enable citizens in multi-storey dwellings to gain access to affordable internet services, it is providing devices and connectivity to those in

need of all ages, it has brought organisations from different sectors to work together to reduce digital poverty and increase digital equality and equity amongst our citizens and communities across the City. The Action Plan has initiated numerous activities to support existing organisations to greater align and coordinate their digital skills training and other services in order to enable better outcomes and opportunities for our citizens.

1.6 The approach the Council adopted in creating its Digital Inclusion Strategy has been the foundation for the development of the wider Digital City Programme and already the Council is working with several telecommunication providers following a soft market tender to explore ways of accelerating full fibre deployment across the City to enable digital connectivity for all.

1.7 As part of the next phase of the DCP, Jacobs and Connected Places Catapult (CPC) were commissioned to develop a Digital City Roadmap, benchmark Birmingham against some of the world's leading smart cities, positioning Birmingham as a leading digital city that accelerates digital investment, establishes it as a preferred choice for digital innovation and creates the foundations for transforming the City's economy. The Summary Report, (Delivering the Aspirations for a Digital Birmingham) and the full report are attached in Appendices A and B.

1.8 The DCP Roadmap is not a technology driven programme, nor does it focus on futuristic or undefined innovations. Instead, it focusses on the needs of the City and its citizens today, drawing on existing and emerging technologies and ensuring that it has the foundational digital and data infrastructure and capabilities needed to accelerate sustainable economic growth within the City. Thus, the DCP Roadmap outlines five themes underpinned by 11 projects that could potentially generate up to £1 billion of economic and social impact for the City. The themes were established following extensive internal and external stakeholder engagement (see Appendix C) and a digital maturity assessment against leading international digital and smart cities pre and post the proposed Digital Roadmap. For each of the themes; Connectivity, Data Sharing, Net Zero Transition, Community-led innovation and Urban Food Systems., a high-level strategic business case has been prepared. These themes will support the City to access and exploit the opportunities set out in the Levelling Up White paper which proposes a share of £100million Innovator Accelerator and the establishment Smart City region in the West Midlands.

1.9 At this stage, there is no request for additional funding from the Council to further develop the five strategic high-level business cases. Instead the DCP will utilise the previous Digital Birmingham capital allocation of £0.389m and work with stakeholders to develop them into detailed business cases, which will then be brought to Cabinet on a case by case basis in line with standard procedures.

1.10 To deliver the Roadmap, and the wider outcomes of the DCP, a small digital city innovation team will be created, funded through the redesign of the IT&D service, as well as the establishment of a Digital Board made up of senior city stakeholders

shaping and influencing the digital opportunities and being accountable for the delivery of the Roadmap. This Digital Board would report to the City Partnership Board to ensure alignment of strategic direction. A suggested structure and Terms of Reference for the Digital Board is shown in Appendix D.

1.11 City stakeholders and partners have been re-engaged to provide feedback and provide validation on the published Roadmap and its proposals. Their comments have been taken into consideration in the recommendations set out below.

2 Recommendations

That Cabinet;

2.1 Notes the Digital City Programme Summary Report ("Delivering the Aspirations for a Digital Birmingham") and the full Digital City Programme Report in Appendix A and B.

2.2 Approves the further development of the five themes and 11 underpinning projects, recognising that any additional funding requests will be subject to standard Council approval procedures.

2.3 Approves the creation of the digital city innovation team within the Digital and Customer Services directorate funded from the IT and Digital Services budget utilising existing Digital Birmingham capital reserve of £0.389m.

2.4 Approves the establishment of the Digital Board with reporting lines to the City Board as Appendix D.

2.5 Notes that funding for the Digital City Programme is covered by existing capital reserve with delegated approval for spend given to the Director, Digital & Customer Services in consultation with the Director of Council Management and the Cabinet Member for Finance and Resources.

2.6 Notes that any further spend beyond the existing capital reserve will require cabinet approval.

3.0 Background and Context

3.1 Digital technologies are radically changing every facet of Birmingham's economy, from the way we live, work, and grow up in cities, to how we manage infrastructure and assets and how we deliver critical services, transform the opportunities for our citizens and achieve our carbon reduction targets. Increasingly cities need to invest in technology infrastructures, pioneer new technologies/innovations that enable them to gain competitive advantage build reputations as places for increased investment and business relocation by working more collaboratively and in partnership with private, public and academia. If Birmingham does not adapt and embrace the ongoing digital revolution, it will be left behind and struggle to transform its economy, engagement with communities and address environmental factors.

3.2 Birmingham is in a national and international competition to secure investment, attract talent and grow its economy. However, Birmingham has a large

productivity gap, particularly in the digital and creative sectors, where it falls over £7,000 GVA per employee short of the UK's average. 97% of businesses in the West Midlands are small and medium enterprises (SMEs), and many of these have little to no digital literacy. Birmingham only attracts 2.6% of the UK's equity funding and in order to meet our environmental targets we need to reduce our carbon emission by 7.6% each year for a decade.

3.3 Digital technologies have proved to be invaluable during the pandemic as well as potential catalysts of change in the way we live and work in future. However, digital change poses challenges to our economy with nearly one quarter of jobs in Birmingham (23.2%) in occupations that are likely to shrink by 2030. Adapting to the challenges represents an opportunity to make Birmingham's economy more resilient if digitally upskilled and enhance our high-growth sectors.

3.4 In 2020, the Director, Digital and Customer Services recognised that there were a number of digital initiatives being undertaking by city partners and stakeholders that lacked visibility, that could benefit from greater co-ordination and opportunities to scale which, if successful, could transform Birmingham into one of the world's more liveable and inclusive cities by optimising digital and smart technologies that reduce inequality gaps, create new market opportunities and address market failure.

3.5 This was recognised in the *Investing in Our Future* Cabinet Report (January 2021) which outlined the challenges the Council faced and the increased expectations of council services from citizens. To tackle these challenges, the Report noted the need for establishing an innovation team to identify service improvements, respond to issues and form part of a city-wide Design and Innovation network.

3.6 In January 2021, the Digital City Programme (DCP) was formally established to focus on digital, technology and data opportunities for the City. It is one of the key workstreams established by the Inclusive Growth directorate to support sustainable economic growth. The DCP aims to utilise digital connectivity, data, and technology to improve the way people in Birmingham live, learn, work, grow and enjoy themselves at every stage of life. Its objectives are aligned to the Council's "Be Bold" vision statements outlined in draft Council's Corporate Plan 2022- 2026 and will deliver the following outcomes;

- Accelerate digital investment in the City
- Establish Birmingham as test bed for innovation and ideation, a test bed for experimentation
- Identify technology driven opportunities for transforming Council services
- Position Birmingham as an internationally recognised leading digital city under the Digital Birmingham brand

3.7 Internally, the DCP is already working alongside other key workstreams within the Inclusive Growth Directorate such as Route2Zero, East Birmingham, Perry

Barr, the Future City Plan 2040 to identify and introduce ideation and innovative digital opportunities to support the delivery of their outputs and outcomes. In addition, the DCP;

(i)　　has delivered the Council's first city-wide Digital Inclusion Strategy and Action Plan co-designed with City stakeholders and partners, supporting the Breaking Down Barriers Report and the Council's shift towards early intervention by;

- facilitating the access of over 6,000 new and recycled computer devices and data where applicable to young people

- setting up the Computers for Good Causes which has already provided approximately 650 recycled desktop devices to over 85 charities and community organisations. A further 5000 laptops have been identified for distribution into the community over the next two years

- supporting Neighbourhood Network Service organisations to deliver digital skills and devices for vulnerable citizens

- securing free and affordable data packages from telecommunication organisations to distribute to vulnerable citizens

- establishing a digital inclusion board for the City consisting of public, private, academic and voluntary sector organisation to work together to minimise digital poverty and improve equality and equity of digital access for people of all ages.

(ii)　　is supporting the Housing Directorate in improving the digital connectivity infrastructure to its multi-storey dwellings and establishing initiatives to enable vulnerable tenants to gain access to affordable and flexible broadband services.

(iii)　　is undertaking soft market testing to explore the opportunities to accelerate full fibre rollout across the City, including areas considered non economically viable by market interventions.

3.8　　The DCP is also shaping and influencing several external initiatives. For example, it is;

(i)　　helping to establish the Birmingham Knowledge Quarter as a test bed for innovation and experimentation

(ii)　　working with WM5G to accelerate the rollout of 5G across the City

(iii)　　co-chairing the West Midlands Coalition for Digital Inclusion

(iv)　　working with the WMCA Digital Steering Group to shape and deliver its 5 digital missions

3.9　　The Council's new Digital Strategy approved by Cabinet in March 2022, along with the Digital City Programme, forms a cohesive set of interventions that

recognise the importance of taking back control over the Council's ambitions for digital across the Council and the City. Both ambitions for a "Digital Council" and a "Digital City" will operate within the internationally recognised "Digital Birmingham" brand.

3.10   In May 2021, the Council commissioned Jacobs and Connected Places Catapult to undertake an extensive programme of stakeholder engagement, aiming to:

• Understand Birmingham's current challenges and opportunities for digital intervention
• Provide information to accurately benchmark Birmingham – A digital maturity assessment
• Identify potential Digital City project ideas and existing complementary initiatives – A Digital City Roadmap
• Define suitable delivery and governance arrangements

3.11   Also, Birmingham City Council's Levelling Up *"Strategy Prosperity and Opportunity for All"* published in February 2022 highlighted the critical role of digital in delivering its Levelling Up ambitions. It noted that a 'new economy' is emerging driven by digital technologies, that recognises the need to decarbonise and to grow more purpose driven businesses by investing in green technologies and digital connectivity infrastructure.

3.12   In February 2022, the Government published its Levelling Up White Paper. This emphasised the importance of digital and innovation for the region and announced that the West Midlands will be one of three regions to benefit from £100m Innovation Accelerator Fund and the West Midlands will be established as a Smart City Region.

3.13   The current activities of the DCP support several aspects of both the Government's Levelling Up White Paper and the Council's own Levelling up Strategy. The Digital City Roadmap will accelerate and elevate Birmingham's ability to address the key outcomes of the Levelling up agenda. The themes and projects identified within the Digital City Roadmap create opportunities for the Innovation Accelerator Fund, shaping and influencing the Smart City Region and will deliver Birmingham's objectives for improving public services and social infrastructure and enhancing transport, digital and green infrastructure.

Establishing the Digital City Roadmap

3.14   In February 2022, Jacobs, in collaboration with the Connected Places Catapult presented the final Summary Roadmap Report "Digital City Programme: - Delivering the Aspirations for Digital Birmingham" and the Full Digital City Programme Roadmap Report, which are attached in Appendices A and B respectively.

3.15   The Roadmap was developed based on over 35 interviews with internal and external stakeholders as well as returned questionnaires (See Appendix C), and builds on the Digital Inclusion Strategy and Action Plan. The insights from the interviews were reviewed against work undertaken by the Connected Places

Catapult that benchmarked Birmingham with 5 other comparable cities recognised for their digital and smart city leadership and capabilities; Amsterdam, Manchester, Montreal, Vienna, and Singapore.

3.16 The stakeholder engagement and the digital maturity assessment identified 8 key focus areas that require further consideration: -

    (i)   Leadership – stakeholders highlighted the importance of having a strong cross digital leadership under one strategic vision

    (ii)   Trust – Stakeholders identified a perceived lack of trust between prominent city institutions and disenfranchised marginalised communities

    (iii)   Co-ordination – Stakeholders emphasized that this programme should aim to better co-ordinate existing initiatives and facilitate streamlined access

    (iv)   Identity and Reputation- Stakeholders felt that the City struggles to promote its reputation nationally and internationally

    (v)   Inclusive growth – Stakeholders highlighted a disparate between the success of the city centre compared to its hinterlands

    (vi)   Shift of focus to Prevention- Stakeholders were advocates of a transition in approach, away from reactive action moving towards a prevention and prediction

    (vii)   Localised delivery – Stakeholders highlighted a need for many hyper-localised, target initiatives, which collectively deliver a big impact

    (viii)   Attitude to failure - as 90% of innovation projects fails, stakeholders were keen to highlight that a degree of failure must be accepted

3.17 The Digital Maturity Assessment afforded Birmingham a score of 2 out of 5, meaning that it has emerging strategies, with some good evidence that progress is being made, but needed further developments to match the "best in class" of those cities that scored 4/5, meaning that these cities were achieving sustained impact through delivery plans that evolved as needs changed.

3.18 The assessment concluded that Birmingham has a strong cross-city leadership structure, but an absence of digital leadership across city wide priorities under one strategic vision, and although Birmingham currently scores low on sustainable development, stakeholder interviews highlighted the emerging Route to Zero (R20) programme as an opportunity that could be further developed through complementary projects proposed in the Digital City Roadmap.

3.19 The Digital City Roadmap prioritised 5 strategic themes underpinned by 11 projects and activities aimed at transforming the City, economy, community engagement and environment and can be mapped against the City's "Grand Challenges." An overview of the themes and projects and their potential economic impact is shown in Appendix E. The initial set of projects are deliverable now and supported by high-level strategic business cases and stakeholder support. The

main report also highlights other projects and future technologies for further medium-term consideration. These are outlined in Appendix B.

3.20   The prioritised themes and projects could provide potential gross economic impact of over £1 billion and are as follows;

(i)   **Digital Connectivity foundations**: - This consists of two projects; a digital connectivity strategy and the digital specification for regeneration programme. It aims to provide the enabling connectivity infrastructure that would support the delivery of the Grand Challenges and is aligned to the Levelling up Accelerator four "Delivering green and digital city infrastructure"

(ii)   **Data Sharing:** - This consists of three projects; the establishment of a Data Charter, a data coordination group and a federated approach for the creation of use case driven digital twins. Data sharing is a critical enabler and will support the delivery of Levelling up Accelerator two i.e. the creation of the early intervention and prevention models to assist the most disadvantaged citizens and move from dealing with crises to co-designed support and services

(iii)   **Net Zero Transition** – This consists of two projects; the establishment of a digital sustainability pilot aligned to the retrofit programme and a monitoring and proactive maintenance approach. The projects will involve the deployment of smart sensors and smart devices to provide citizens and the Council with data and insights to better manage their energy consumption. These will support he delivery of Levelling up Accelerator five - a social housing retrofit at scale demonstrator across the cities of Birmingham, Coventry and Wolverhampton.

(iv) **Community led Innovation**: - This consists of 3 projects; Community engagement characterisation, Corporate Social Responsibility (CSR) Funding matchmaking initiative and a Youth engagement platform. These recognise the need for driving community-led innovation and delivering significant impact through the enablement of many highly localised projects and will support Levelling Up Accelerator three -integrated local place delivery model demonstrator for the East Birmingham Inclusive Growth Strategy

(v)   **Urban Food Systems** – This consists of one project; the establishment of a vertical farm. Birmingham is uniquely positioned to lead the transformation of the UK's food system due to its existing sector strengths in food and drink manufacturing, nationally renowned restaurant scene and pressing health challenges and is very much aligned to Levelling Up Accelerator four – Delivering green and digital infrastructure.

The indicative Roadmap for the Digital City Programme is shown below;

Indicative Roadmap for the Digital City Programme
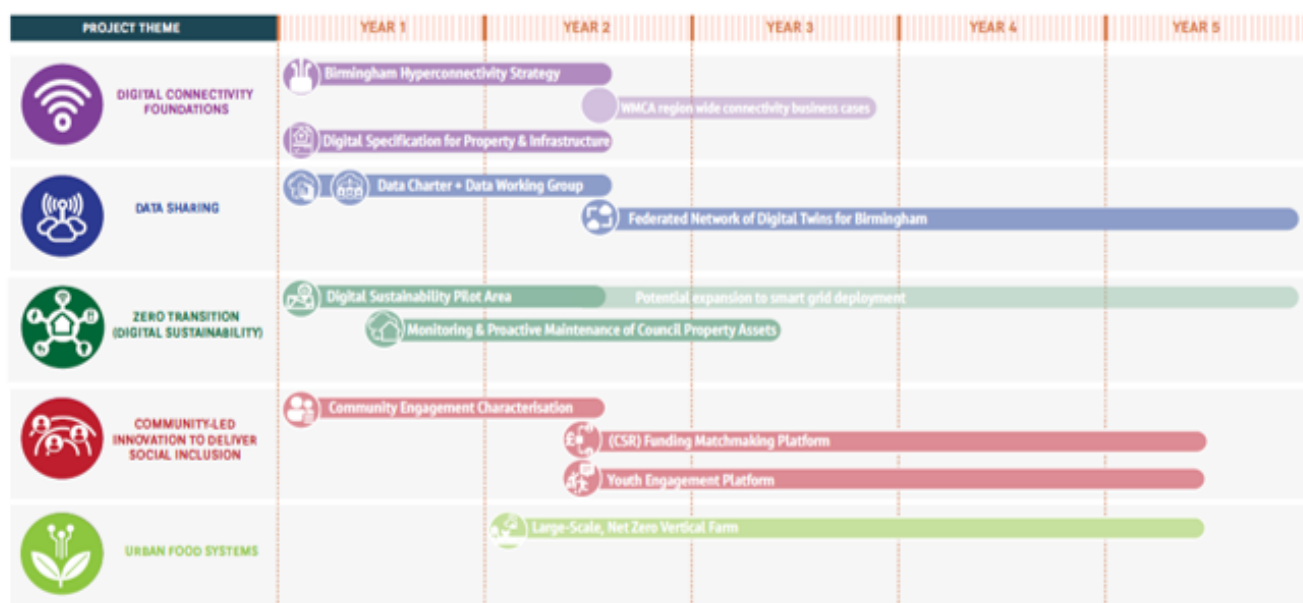
3.21 The themes also have good alignment to the 5 digital missions set out in by West Midlands Combined Authority (WMCA) that cover;

- Securing access for everyone to digital opportunities, particularly those in poverty

- Sharing and using data to improve people's lives

- Becoming the UK's best-connected region

- Realising the potential of digital to transform our economy and build economic resilience

- Using digital public services to build a fairer, greener, healthier region

The Roadmap provides an excellent platform to work collaboratively with WMCA in order to deliver the economic and social benefits to citizens and businesses both in the City and the region

Delivery and Governance

3.22 The Digital City Roadmap recommends the establishment of a Digital Governance Board to oversee the delivery of the business cases, but more importantly provide digital leadership, attract and accelerate digital opportunities and provide thought leadership to advance the opportunities for citizens, communities and businesses. It is proposed that the Digital Governance Board would be made up from senior City stakeholders and will report into the City Partnership Board, with the aim of supporting the "Grand Challenges" and delivering the "Levelling Up" agenda. It will would be supported by a small Digital City Innovation (DCI) team in order to drive forward the business cases, working with internal and external stakeholders as well as to attract funding through grants or bid funding opportunities. The creation of the DCI team is aligned to the recommendations set out in the *Investing in Our Future* Cabinet Report. A

suggested structure of the governance of the Digital City Programme is outlined in the Summary Report in Appendix A

3.23   The Summary DCP Roadmap was shared with the stakeholders involved in shaping it in order to demonstrate our commitment that we listened to their views and that the prioritised themes and projects were the right ones to deliver the outcomes of the DCP and addressed key City challenges and opportunities. Most stakeholders were fully supportive of the themes and projects and have identified how they could support the City in taking them forward.

3.24   However, there were some reservations with the proposed Digital Board governance structure, with concerns that it was too hierarchical, and the Digital Advisory Group should be merged with Digital Board. The stakeholders re-enforced that Birmingham needs a strong digital governance board that focusses on the needs of the City, with a strong focus on citizen centric activities, whilst recognising good alignment with the West Midlands Combined Authority Digital Strategy. This feedback has been taken on board and a revised approach to the Digital Board with a suggested draft terms of reference is set out in Appendix D. However, we recognise that even this working model may be further refined as the Digital City Programme develops.

3.25   In conclusion, according to the analysis undertaken by the consultants, the delivery of the initial set of projects should generate over £1billion in economic impacts for the City and will elevate the City's ranking on the digital maturity assessment from 2 to 3 and to a level of 4 under strategy and governance matching Singapore, (one of the recognised leading international digital cities). This will act as a spring board to attract further digital investment through greater coordination of activities under a shared common vision for the City as well as providing a medium and long-term horizon scanning capabilities for the City in order to further enhance its digital credentials. Table 1 shows the City ranking before and after the impact of the proposals set out in the Digital City Roadmap.

Table 1: Digital City Maturity Assessment before and after implementation of the Digital City Roadmap.

		STRATEGY & GOVERNANCE	CITIZEN CENTRED	DATA AND DIGITAL INFRASTRUCTURE	SUSTAINABLE DEVELOPMENT
01 Strategies to address this either do not exist or are fragmented and managed on an ad hoc basis	Before Projects & Governance Model	02	02	02	02
02 Some emerging strategies/progress is evident	After Projects only	03	03	03	03
03 Coherent strategy/plans are in place, with clear leadership commitment and resources	After Projects & Governance Model	04	03	03	03
04 Evidence of delivery of these strategies/plans and impacts are being measured					
05 Sustained impact with delivery plans updating to meet evolving needs					

4.0 **Options Considered and Recommended Proposal**

4.1 Do Nothing Option: The option of not adopting the Digital City Programme and Roadmap was considered and discounted. Feedback from senior city stakeholders has highlighted the need for a shared strategic vision and greater coordination of digital activities across the City. Without the involvement of the Council, other stakeholders do not have the elected authority or the convening power to bring together the current digital ecosystem for Birmingham.

4.2 The Digital City Programme and Roadmap provides the opportunity to provide a strategic view and will help to shape on the use of digital, data and technology with City partners and key stakeholders. It will provide a common shared vision for the City and facilitate the establishment of a number key enabling programmes covering infrastructure, data and technology that drive sustainable economic growth.

5.0 Consultation

5.1 In developing the Digital City Programme, tailored presentations were delivered to each Cabinet Member to highlight emerging technology solutions relevant to their portfolio showcasing the art of the possible applications that are transforming the way services could be delivered more efficiently and effectively. For the Roadmap, over 35 internal and external stakeholders were consulted. The findings and proposals set out in the Summary and Main Digital City Roadmap have been discussed with the Deputy Leader, all Cabinet Members, relevant Scrutiny chairs, external stakeholders and at the City Board. Their feedback and comments have been used to prepare this Cabinet Report.

6.0 Risk Management

6.1 At this stage, there are no financial risks for the establishment of the Digital City Programme. However, there are several operational and reputational risks such as potential lack of support from city stakeholders, inability to attract or secure funding to further develop the projects. The risk log and mitigation actions have been developed and these will be monitored on a regular basis.

7.0 Compliance Issues

7.1 The recommended decisions are consistent with the Council's priorities, plans and strategies, supporting the Council's Be Bold statements and commitments of the Levelling Up Strategy to ensure we are a truly citizen centric and partnership-led organisation. The Digital City Programme works alongside other programmes both within the Council as well as partner and stakeholder activity in order to maximise the opportunities to embed digital and innovation to support the City's strategic outcomes, addressing inequalities and striving for continuous improvement that will accelerate our ambition to be recognised as a leading digital city at an international level.

7.2 Legal Implications

7.2.1 The Council is under a duty under Section 3 of the Local Government Act 1999 to make arrangements to secure continuous improvement in which its functions are exercised, having regard to a combination of economy, efficiency and effectiveness.

7.2.2 The City Council will carry out this work under the General Powers of Competence Section 1 of the Localism Act 2011.

7.3   Financial Implications

7.3.1 The establishment of the Digital City Innovation Team is part of the Digital and Customer Services directorate and will be incorporated into the service redesign being funded from the existing IT and Digital Services base budget. There is an existing capital reserve of £0.389m relating to the Digital Birmingham initiative which will be used to support the development of the DCP and the Roadmap.

7.3.2 Any further funding beyond this will require cabinet approval.

7.4   Procurement Implications (if required)

7.4.1 None identified. Any procurement required though will be undertaken adhering to Birmingham City Council's policies and procedures.

7.5   Human Resources Implications (if required)

7.5.1 The Digital City Innovation Team will be established to support the delivery of the Digital City Programme. A new Head of Service post will be created, but other posts will be aligned to job roles being developed as part of the shaping the future IT and Digital Services division.

7.5.2 Any required changes to current job roles for the establishment of Digital City Innovation Team will be done so in line with Birmingham City Council's policies and procedures incorporating a full engagement / consultation process with the Trade Unions and employees. All new roles will be recruited to in accordance with Birmingham City Council's commitment to mitigate against compulsory redundancy where possible, any new roles will be prioritised to employees at risk of redundancy.

7.6   Public Sector Equality Duty

7.6.1 An equalities impact assessment EQUA873 has been completed and is attached to this report as Appendix F.

8.0   Appendices

8.1   Appendix A – Summary Roadmap: Digital City Programme "Delivering the Aspirations for a Digital Birmingham"

8.2   Appendix B – Main Roadmap - The Digital City Roadmap

8.3   Appendix C – List of External and Internal Stakeholders engaged to develop the Digital City Roadmap

8.4   Appendix D – Revised Governance approach for Digital Board and Suggested Terms of Reference

8.5   Appendix E – Overview of key themes and Digital projects outline in the Digital City Roadmap

8.6   Appendix F - Equalities Impact Assessment

9.0   Background Documents

9.1   Breaking Down Barriers: Working Towards Birmingham's Future (July 2021)

9.2   Government's Levelling Up White Paper 2022

9.3   Birmingham City Council Levelling Up Strategy 2022

9.4   Draft Birmingham City Council Corporate Plan 2022- 2026

9.5   West Midlands Digital Roadmap 2021

9.6   Report to Cabinet 21st March 2022 – Digital Strategy 2022-2025

List of External and Internal Stakeholders engaged to develop the Digital City Roadmap

External Stakeholders

Organisation	Stakeholder Names
West Midlands Combined Authority (WMCA)	Adam Hawksbee, Ed Cox, Rebecca Riley
Transport for West Midlands (TfWM)	Mike Waters, John Paddington
GBSLEP	Ed Watson, Henriette Lyttle-Breukelaar
University Hospital Birmingham	Stephen Chilton
West Midlands Police Force	Helen Davis
Bruntwood SciTech	David Hardman
Tyseley Energy Park	David Horsfall
Birmingham Voluntary Services Council	Brian Carr
WM5G	Robert Franks
Lendlease	Ryan Elliott
PWC & Metro Dynamics (Inclusive Growth Strategy Involvement)	Mark Ambler, Patrick White
Western Power Distribution	Jonathan Berry
BeatFreaks	Amerah Saleh
Birmingham City University	Julian Beer
Kier (PFI provider)	Eddie Fellows
SCC	James Greygoose, Daniel Cartter, Olivia Harker
MEPC (Acquired Paradise Circus scheme from Argent)	Rob Groves, Caroline Rudge, Ross Fittall
Harborne Food School/ Food Foundation	Shaleen Meelu

Questionnaire Responses

Organisation	Stakeholder Names
Aston University	Professor David Webb
University of Birmingham	Professor Iain Styles
Digital Innov8ors	Mick Westman
CX Squared Talent Solutions, The Brum Muse & Our Smart Brum	Dan Hoff-Rodrigues
STEM Learning	Eva Fryc
AbilityNet	Amy Low
CodeYourFuture	Claire Bickley
Trowers & Hamlins	Amardeep Gill
Free@Last	John Street
West Midlands Growth Company	Mike Lewis
Transport for West Midlands	Chris Lane

Internal Stakeholders

| Organisation	Stakeholder Names
Interim Chief Executive of Birmingham City Council	Deborah Cadman
Birmingham City Council Leader	Councillor Ian Ward
Birmingham City Council Deputy Leader	Councillor Brigid Jones
Other BCC Officers, Leaders, Councillors and Teams	*Multiple interviews held across BCC

Revised Governance approach for Digital Board and Draft Terms of Reference

Role

The role of the Digital Board is to ensure that a Digital City Programme is driven forward in Birmingham in support of achieving the Grand Challenges set by the City Board. It should inspire and facilitate digital initiatives that contribute to the transformation of Birmingham, including the Inclusive Growth, and Route to Zero priorities.

The Digital Board's responsibilities are to:

- Advise and act on behalf of the City Board

- Set and champion Birmingham's ambition as a digital city

- Promote Digital Birmingham nationally and internationally, attracting investment and support from business and government

- Provide oversight and quality assurance of the Digital City Programme and projects within it

- Challenge the Active Agents Working Group and Data Working Group to continuously develop viable new digital initiatives in support of the City Board's Grand Challenges

- Approve projects submitted by partners and communities, supported by the Digital Project Development Team

- Champion the involvement of Board Members' own organisations and others in Birmingham's digital initiatives, and hold them to account to deliver their commitments

- Use the resources of Board Members and their institutions to support innovation from across Birmingham's communities and economy
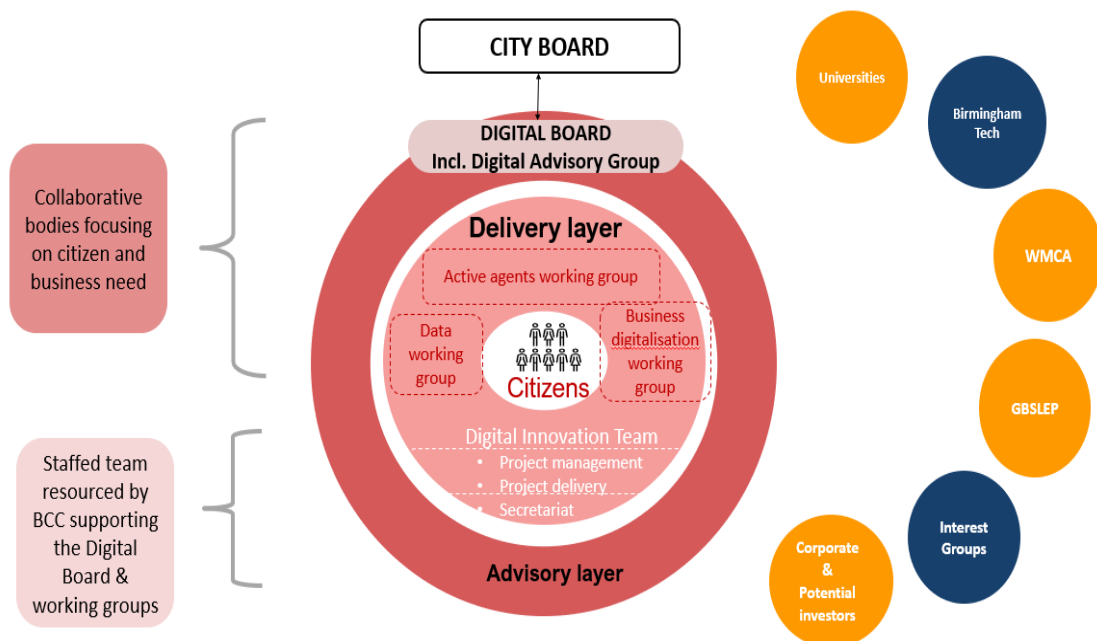
Overview of key themes and Digital projects outline in the Digital City Roadmap

Strategic Theme	Description of Projects and Activities	Economic Impact *
Digital Connectivity foundations -Poor fixed digital connectivity across multiple areas of Birmingham was highlighted as a major challenge by multiple stakeholders. If left unresolved, stakeholders expect that poor connectivity will limit the productivity and growth of existing businesses and fail to attract and retain new businesses in the area.	This project consists of two elements which are intended to maximise Birmingham's ability to benefit from private-sector investment in becoming a leading-edge hyperconnected city: • Birmingham Hyperconnectivity Strategy, including an internal digital connectivity policy transformation. • Digital Specification for Property and Infrastructure	**Potential Economic Impact*** **£760m** In the form of increased productivity across business and consumer sectors **£41m** In the form of residential social value / wellbeing benefits **£19m** In the form of increase residential property values
Data Sharing - Stakeholders identified improved data sharing as a critical enabler for Birmingham's Digital City ambitions and stated that currently Birmingham is a 'data poor' city. They universally agreed that data sharing has the potential to give organisations a more holistic and nuanced understanding of community and business needs, therefore enabling better decision making, better targeting of interventions and ultimately, better outcomes.	This project consists of three elements, which combine practical first steps with clearly defined benefits, with the ambitious aspiration for Birmingham to take be a leading-edge city driving the creation of a city-wide digital twin: • Data Charter • Data Working Group • Federated Network of Digital Twins for Birmingham It should be noted that these projects are not focused on creating additional data platforms.	**Potential Economic Impact*** **£145- £436m** In the form of GDP impacts due to open access data **£5.2m** In the form of Employment impacts of open access and move to higher value jobs **£18.1m** In the form of potential use case, savings – Not in Education, Employment or Training (NEETS)
Net Zero Transitions - The role of digital connectivity and technology in delivering sustainability outcomes is often overlooked, but they have an important part to play in helping Birmingham meet is emission reduction targets. For example, digital connectivity allows people to work from home thus reducing transport related emissions, while sensors and internet of things (IoT) devices allow more granular control of energy usage.	This project consists of two elements that will deliver high-profile smart city infrastructure to tackle one of Birmingham's primary Route to Zero challenges and alleviate fuel poverty in one of the more deprived areas of the city, whilst also enabling cost savings in the maintenance of Council property: • Digital Sustainability Pilot Area • Monitoring and Proactive Maintenance of Council Property Assets	**Potential Economic Impact*** **£11.7m** In the form of uplift in council property values. **£1.5-1.8m** for the pilot phase areas for the following: • Reduced carbon emissions • Reduced utility bills for residents • Improved health and wellbeing outcomes and cost reductions for the NHS
Community led Innovation - Birmingham is ranked as the 7th most deprived authority in England and 37% of the city's children grow up in poverty. Without action, there is very real risk that Birmingham will not improve these statistics or deliver on its wider inclusive growth ambitions. Communities will continue to be excluded due to a lack of effective engagement, a lack of trust in the city's formal institutions and a lack of funding for the voluntary and community organisations (VCOs) that provide so many critical, localised support services.	This project consists of three projects exploiting digital technology to better connect Birmingham's communities to Council- and third-party services and resources of benefit to them, helping the city in tackling its inequality and exclusion challenges: • Community Engagement Characterisation • Corporate Social Responsibility (CSR) Funding Matchmaking Platform • Youth Engagement Platform	**Potential Economic Impact*** **£45.84m** per annum in the form of benefits relating from: • Access to a wider set of funding opportunities for third sector organisations • Increased direct outputs (donations, in-kind contributions, and beneficiaries) • Reduced numbers of people not in education, employment, or training (NEETs) • Reduced levels of general unemployment and fewer residents in poor / very poor health.
Global food systems are increasingly unhealthy and unsustainable. If left unchecked, our current approach to food production and consumption has the potential to cause huge economic, social, and environmental impacts at a local, regional, and national level. Birmingham is uniquely positioned to lead the transformation of the UK's food system due to its existing sector strengths in food and drink manufacturing, nationally renowned restaurant scene and pressing health challenges.	This project will create a vertical farm as a prominent smart city flagship facility for Birmingham, making a significant contribution to the city's Route to Zero contribution by providing a more sustainable source of food. The farm will focus on growing vegetables and herbs that the UK typically imports from far away places, such as the Indian subcontinent and East Asia, which will result in a significant reduction in food miles and carbon emissions. It will also run community engagement events to promote healthy diets.	**Potential Economic Impact*** **£1.7m** Per annum from the creation of operational stage high value jobs in the Tyseley area. **£447k** per annum across the following impact areas: • Water bill savings • CO2 emissions • Reduced food miles

Figures reflect potential benefits from high-level economic assessment of the impacts of the proposed interventions. These are combined benefits and savings from the prioritised projects, aligned under joint headings and explanations. The high-level analysis reflects the early stages of project development, and any numbers should be treated as indicative of the potential type, direction and scale of impacts that could materialise, rather than precise estimates/forecasts.