A Digital Masterplan for Dublin

Shaping Our Digital Future

A Roadmap

Summary
Contents

Reflections from a Civic Leader ................................................................. 3
Digital Masterplan – Formulation and Structure ........................................ 4
  Digital Dublin Leadership Forum ............................................................. 4
  Digital Masterplan Structure .................................................................. 6
Digital Vision, Mission Statement and Principles ........................................ 7
  Introduction ............................................................................................ 7
  Vision ........................................................................................................ 7
  Mission Statement .................................................................................. 7
  Principles ................................................................................................. 8
Two Innovative Toolsets for Digital Dublin ................................................ 9
  The Digital Maturity Scorecard ............................................................... 9
  The Beta Project Mechanism .................................................................. 10
Actions to achieve Digital Excellence for Dublin ...................................... 11
  Action Blocks ......................................................................................... 12
Digital Dublin Masterplan Action List ....................................................... 16
Action Details ........................................................................................... 17
  Introduction ............................................................................................ 17
  Big Ticket #1 – Fibre to Every Home by Easter 2016 ............................... 17
  Big Ticket #2 - Digital Accelerator District .............................................. 18
  Big Ticket #3 – Maximizing Local Supply Chains to Multi-National Corporations (MNCs) .......... 19
  Big Ticket #4 - The Dublin Storefront and Shop Window ........................ 20
  Big Ticket #5 – Digital Sister Cities Virtual Network .............................. 21
  Big Ticket #6 – Available as Digital ....................................................... 21
  Big Ticket #7 – Co-Creating our Future .................................................. 22
Other Actions ........................................................................................... 23
Action Block 1: “Organising for Action” ................................................... 23
Action Block 2: Creating Awareness and Building Participation .................. 24
Action Block 3: Building the Digital Commonage ...................................... 24
Action Block 4: Expanding and Innovating the Economy .......................... 25
Action Block 5: Shaping a Better City ....................................................... 26
Action Block 6: Global Positioning ........................................................... 26
Action Block 7: Knowledge is Power – Skills and Co-Creation .................... 27
Appendix 1 ............................................................................................... 28
Reflections from a Civic Leader

We live in a world of change. Many of the changes are driven by technology. It is in society’s interest that we embrace technology and shape the future of our city in a way that improves quality of life for citizens and creates opportunity through job creation.

Dublin City Council and successive Lord Mayors have worked for some time to deliver a smart economy and smart society in our capital city under the guidance of the Creative Dublin Alliance. We have worked with our sister Local Authorities to extend and achieve these goals across the Dublin Region. The Innovation Dublin Festival has showcased the range of innovation in business, in colleges, and in communities throughout our city. Dublin is an Open City, welcoming and embracing individuals of different nationalities and cultures. Openness to new people and new ideas is an essential pre-requisite of innovation.

Much of the contemporary innovation in our city is technology-reliant. This is why we talk of shaping our digital future, one where digital technologies are used to improve the way we live, work, connect with and enjoy Dublin.

The Digital Masterplan for Dublin is designed to be a roadmap that will help us shape that digital future. It is designed with an inherent flexibility to allow us to change direction, constantly rethinking our journey towards the ultimate Digital City. It sets out a framework for action that can help city leaders prioritise the use of scarce resources. At the heart of all our action is a collective willingness to collaborate with business, higher education and citizens. That collaboration must extend beyond the Dublin region and go global. That is why we envisage building a Digital Cities Network that expands the relationships we have developed with progressive cities through our International work.

The collaboration has already started with the Digital Dublin Leadership Forum. I warmly acknowledge the wisdom, energy, innovation and commitment of the members of the Forum in shaping this Masterplan. The Forum is a unique gathering of business, education, statutory agencies, citizens and local government. They are champions of the Digital Agenda in Dublin.

We launch this Masterplan as Dublin welcomes technology leaders, policy makers and activists from throughout Europe to a Digital Assembly under the Irish EU Presidency. European institutions have a key role to play in pushing the frontiers of research and establishing a progressive legal and regulatory framework for a digital society and economy. Irish National Government equally must address critical issues of regulation, policy and funding around the challenges of digital society and economy.

This document presents challenges. It challenges national government and local government to keep Dublin ahead of the curve in moving towards a digital future. It challenges business and education to create the eco system in which innovation can thrive. It challenges citizens to participate more fully in our democracy using digital technology. It is a roadmap that can only be realised when we act, individually and collectively.

Naoise Ó Muirí

Lord Mayor of Dublin, June 2013
Digital Masterplan – Formulation and Structure

Digital Dublin Leadership Forum
A Digital Leadership Forum chaired by the Lord Mayor of Dublin was established at the outset of the Digital Dublin process bringing together key players from across the digital ecosystem. Capturing ground-level opinion and representation from citizens, civil society, academia and enterprise is a crucial part of this leadership structure. The Leadership Forum, which is open to all, aspires to value creation through the application of applied research and shared knowledge across the city ecosystem.

Digital Dublin Leadership Forum Members 2012 - 2013:
Accenture; Alcatel Lucent/ Bell Labs; Cisco; CitiBank; Digi Bloggers; Dublin Local Authorities; DCU; DCENR; Diageo; Digital Skills Academy; The Digital Hub; The Digital Times; Dublinked; BT; DIT; Enterprise Ireland; Electric Ireland; European Commission Representatives; Fujitsu; Google; Hewlett Packard; Intel Labs Europe; Irish Internet Association; The Irish Times; Microsoft; NDRC; NUI Maynooth; Siemens; Storm Technology; TCD; UPC; Yellowstone; Lord Mayor’s Office; Creative Dublin Alliance; Health Service Executive; UCD; and Project team at DCC
The Masterplan has been developed through a practical action-led agenda over the last year. Key elements on this agenda were leadership and awareness events such as the Cities Against Poverty Global Forum with the United Nations; Digital Dublin Day and the Open Innovation 2.0 Conference and Technology Showcase in partnership with Intel Labs Europe, TCD and the European Commission. The actions also included the first ever Global Luminary Awards recognising leadership in Innovation and the extension of the Lord Mayors’ awards to recognise Digital Champions.

This action-led development process contributed to a set of Open Innovation Principles as caught in the Dublin Declaration on Open Innovation (May 2013) including:

- Develop further a Dublin Innovation Eco System and incentivise innovation
- Build an International and European Innovation system through City to City collaboration
- Act primarily through the Quadruple Helix (Business, Education, Government and Citizen)
- Make Adoption the key to realising innovation
- Promote intersectional Innovation through use of Dublin City as Testbed
- Celebrate and promote Innovators and Entrepreneurs as Heroes

We are all ‘DigiDubs’ now. Digital Dublin will be built by and around “DigiDubs”. The “DigiDub” is the digitally active and engaged citizen who uses digital technologies in daily life – at home, at work and at school. The creation of a suite of historical and current images of Dubliners as pixelated “DigiDubs” has become the “call sign” identifying the Dublin City Council free public wi-fi hotspots but also represents the ever-changing yet permanent series of digital initiatives and actions in Dublin.
Digital Masterplan Structure
The Digital Masterplan is structured around a number of key components:

(1) A vision, a mission statement and a set of guiding principles are outlined which inform and underpin all digital activities.

(2) Two innovative toolsets are combined to deliver a revolutionary approach to planning and execution of digital initiatives:
   a. A Digital Maturity Scorecard (DMS) – a pioneering initiative developed by Dublin City Council in conjunction with Intel Labs Europe, NUI Maynooth (the Innovation Value Institute) and Dublin City University. The DMS will be used to benchmark Dublin’s digital standing internationally.
   b. The use of the Dublin City Council Beta Project mechanism to continually prioritise, prototype and evaluate innovative ideas.

(3) Actions to be pursued in order to achieve digital excellence in the Dublin region are grouped together into 7 logical action blocks for ease of understanding and implementation.

These Actions include:
   a. Big Ticket Actions that have been identified through the Digital Leadership Forum. These are actions of critical and high impact.
   b. Enabling actions are set-up, structural and other actions that will be implemented for the delivery of the Masterplan.

This document is a summary of the key elements of the Masterplan – full details of the Masterplan will be published on [www.digitaldublin.ie](http://www.digitaldublin.ie).

Open Innovation 2.0 Conference and ‘Your Future City’ Technology Showcase, The Mansion House, May 2013
Digital Vision, Mission Statement and Principles

Introduction

Digital technologies are now pervasive in everyday life. This digital revolution has been commonly referred to as the information age and in more recent times has manifested itself within the sphere of urban planning and policy making under banners such as smart cities and the knowledge society.

The Digital Masterplan for Dublin provides a guide for the city in terms of adaption, creation and adoption of digital technologies and processes. It will lead to more efficient overall management of the city, its resources and everyday activities. The primary deliverable of the Masterplan is to facilitate further innovation in the region, long-term sustainability, enhanced citizen-focused governance and job creation. In doing so, it will improve the functioning of the city, making it a better place to live, work, study and visit. It will improve the attractiveness of the city for home-grown and foreign tech companies and digital start-ups.

The Masterplan will provide policy guidance and help ensure that various actions that are already underway are not being pursued in isolation but as part of a comprehensive plan and vision. It will be adaptive, disruptive and flexible.

Vision

“To co-create Dublin as a global leader in innovation where technology is harnessed, adopted, adapted and created to develop economic competitiveness and a cohesive and sustainable society.”

Mission Statement

Dublin will realise its potential as an open data digital commons, as a global leader in innovation and as a digital testbed so as to drive investment, job creation and sustainable futures. It will strive to operate as a city with great digital access, openness and literacy across all of society.

In respect of digital technologies and processes a more sustainable future is defined as one which is rooted in open innovation and collaboration, which is resource efficient, facilitates research and development and business innovation, which embraces participatory governance and which ultimately results in a better quality of living for all.
Principles

Digital Dublin will be co-created by adhering to the following principles:

1. That digital technologies are a facilitator of a more sustainable, cohesive and competitive city region
2. That digital technologies are used to realise net job creation across the entire economy
3. That ‘Available As Digital’ will be the norm for all Public Services
4. That as a progressive open city, welcoming of everybody, all citizens should have opportunities for access to digital technologies
5. That we will live by and act through open innovation, embracing a governance model which shares ideas, information and data between sectors, organisations, citizens and with other collaborating cities
6. That we will embrace digital governance and technologies to increase democratic participation and to stay connected with citizens
7. That the city and its stakeholders will use digital technologies, processes and design to continually improve its own performance in the delivery of services for the citizens and business
8. That Data (Open and Big) is a key element in developing Dublin as a Digital City
9. That Dublin will be a virtual and physical testbed for innovation and will integrate digital technologies into spaces and places of the city
10. That Dublin will consistently future proof the infrastructure (eg broadband, power etc) required to keep it ahead of the global competition and attractive to inward investment

Councillor Andrew Montague at The Digital Horizon Conference

For every high tech job created another 4.3 jobs are created throughout the community
Two Innovative Toolsets for Digital Dublin

The Digital Maturity Scorecard

The Digital Maturity Scorecard (DMS) is an analytical tool to benchmark where we are and help decide where to deploy resources. It will allow benchmarking of the city region internationally. The DMS defines six layers of digital activity that the city must build up to international and best practice standards in order to become a truly Digital City as follows:

Using the Masterplan as a roadmap allows us to begin with a specific set of actions and plan the journey but is flexible and adaptable, allowing detours and re-routing as new actions emerge and technology changes. Thus the identification of new actions can be on-going and it is intended that this will happen through research, funding possibilities, beta-projects, stakeholder contribution through the Leadership Forum and international collaboration.

Actions pursued as part of the Digital Masterplan will relate to one or more of six digital city service domains which impact on quality of life in the city region:

It is essential to match technological solutions to the challenges of modern urban living. These challenges include job creation and retention, maintaining a globally competitive and attractive business environment, enhancing civil society, enhancing the potential of new creative and smart economy industries, addressing infrastructural and social problems, improving the quality of the environment and the physical and virtual connectivity of citizens and business.

The impact of actions carried out under the Masterplan will be evaluated against the DMS. The DMS essentially looks at Dublin’s level of digital maturity on a scale of 1-5. Best qualitative estimates currently place Dublin in a development stage (2) across the six urban layers. The goal is to transform the city and thus move up this scale. The Scorecard will be refined and developed through application.
**The Beta Project Mechanism**

Applying the Beta Projects concept to digital initiatives allows the Digital Leadership Forum to take a lean approach, to reduce the risk of wasting valuable resources and to move quickly to trial or adopt emerging ideas. It also engenders greater citizen participation. The Masterplan seeks to identify dedicated resources to trial the best emerging ideas and actions across the digital realm. The Beta mechanism will establish what the Minimal Viable Product (MVP) features are to deploy any particular action for trial.

Digital ideas, concepts and actions will be identified by various stakeholders across the city - it is anticipated that they will come from strategic top down policy development, the Digital Leadership Forum and bottom up from citizens and groups on the ground. Actions will be ranked according to a set of transparent criteria.

The proposed actions will then be evaluated against the parameters of the Digital Maturity Scorecard to determine how many of the service domains they could impact on and the digital layers they apply to. This process will determine how much of a concept is digital and if the concept is capable of contributing to the city’s progress on the DMS (Appendix 1). Beta Projects in this way will turn ideas into new enabling actions.
**Actions to achieve Digital Excellence for Dublin**

Only through collaboration between citizens, business, research and academia and local government can the city arrive at its destination as a global Digital City. That collaboration works along a roadmap of change and Innovation as represented below.

The Masterplan recognises the numerous initiatives that exist and seeks to give a framework and context upon which future actions might be developed. In this sense it is a Roadmap giving direction and guiding the journey. Initial Actions identified in the Masterplan have been grouped into logical Action Blocks described below.

Big Ticket Actions are actions that the Leadership Forum consider high impact in terms of their value to the city and its citizens and businesses. These sit side by side with Enabling Actions. Other actions expand and push the boundaries of the action blocks.

Enabling Actions focus on the city and its leadership getting their own house in order, dedicating resources, raising awareness, supporting the growth of the digital economy and endorsement and building of on-going initiatives. Without dedicated commitment of core staff and resources to manage and support the Masterplan it will be impossible to realise.
Action Blocks

Action Block 1: Organising for Action

The Masterplan will locate the executive delivery role within the Office of Economy and International Relations in Dublin City Council as the lead agency. The Digital Leadership Forum will provide the stakeholder engagement and strategic direction. The Leadership Forum will expand and will cluster members around actions. A smaller Steering Group will lead the Forum.

The Office of Economy and International Relations will account for deliverables directly to the Creative Dublin Alliance and to the elected members of the four local authorities by way of an annual report to the appropriate Strategic Policy Committee. The Leadership Forum (in consultation with the wider business community through representative organisations and initiatives such as Activating Dublin) will also identify “key asks” of central government which will be cleared through the Creative Dublin Alliance.

Central to implementation of the actions is the formation of a Digital City Team within the Office of Economy and International Relations. The Digital City Team will deliver actions and projects including technical support; identifying projects and ideas for testing across the city testbed; acting as an in-house clearing house for those ideas; seeking out new collaborations and funding opportunities through mechanisms such as Horizon 2020; developing international digital collaboration; mapping the digital landscape and auditing progress while refining and using the Digital Maturity Scorecard. The Digital City Team will be the core programme delivery team for all the Action Blocks with the exception of Block 4.

In addition to the Digital City Team, a Business Accelerator Team will be established with specialists to support high technology start-ups, Digital business expansion and innovative businesses. It will focus on networking clusters of Innovation and Incubator support, identifying and facilitating the development of new Accelerator Districts, and marketing Dublin internationally as a location for expanding technology companies to access the European and North American Markets. This team could be built around the expertise of the Digital Hub. Located within the Office of Economy and International Relations it would recruit industry participation and be advised by an Industry council drawn from within the Leadership Forum. It would lead on Action Block 4. The Business Accelerator Team would work closely with the Local Enterprise Offices who would provide mentor support and start up seed funding. It would work with Planning and Development in Local Authorities regionally, Enterprise Ireland and the IDA to provide advice and business support to overseas companies and entrepreneurs choosing Ireland as a location. The team would develop and maintain, with industry and agency participation, a “Start and Accelerate in Dublin” portal that would be a one stop shop.

Action Block 2: Creating Awareness and Building Participation

The core objective here is to promote digital awareness and to build citizen participation within digital governance. Building a digital events calendar and delivering events such as the Innovation Dublin Festival and Digital Dublin Day are central to raising awareness both nationally and internationally of the depth of skills and ingenuity in Dublin. Crowd sourcing of opinion and greater interaction with citizens are further objectives of this action block. This Block would also focus on delivering annually on a Global Innovation Luminary Award with the partners who initiated this award during Open Innovation 2.0, and continuing the recognition of Digital Champions within Dublin.
**Action Block 3: Building the Digital Commonage**

The Digital Commonage will be a shared place of open access. The objective here is to develop data (open and big) and to expand the core infrastructure of the city. The core infrastructure refers to broadband, electrical power, wireless and data analytics that enable the development of Dublin as a Data hub.

This action requires developing Dublin as a Big Data location that underpins societal and economic change through digital technologies. Big Data concerns the growth, availability and use of information. Data comes from everywhere, it is said that 90% of the data in the world today was created in the last two years. These Big Data are digital records of economic and societal interactions of enormous complexity. However, they all present enormous opportunity to improve the delivery of services, to assist the management and understanding of complex city ecosystems and to realise resource efficiency.

We live in a world that revolves around and is increasingly dependent on various digital sources of information such as sensors, computers, smart phones and tablets. Big Data holds a unique opportunity for Dublin’s economy. Open Data is a key element of the commonage and the initiative taken regionally in Dublinked should be extended and developed.

Fibre to the Home is a core facilitator of access to the Commonage.

**Action Block 4: Expanding and Innovating the Economy**

The objective here is to ensure that existing business becomes connected and active in digital and that new hi-tech and digital businesses set up, expand and grow in Dublin. Dublin needs to be marketed as the gateway location for innovative technology businesses, including its highly skilled workforce, leading R&D sector and location as an access point to European and American Markets. In addition, Dublin needs to build on its potential to be a world leader in Data Storage and a global hub for data communications.

Dublin has a significant number of global multinational technology and financial companies. Many of these companies have their European HQ for certain functions in Dublin. Some have located key European or global R&D facilities here. Key objectives must be to develop further the R&D and Innovation investment of these companies while at the same time doing more with these companies in creating an enterprise and innovation eco-system that engages and grows indigenous SMEs in the technology sector in particular.

Entrepreneurship is an essential component of business start up and growth. This block will seek to develop entrepreneurship and encourage intersectional innovation and business growth.

**Action Block 5: Shaping a Better City**

This objective is about enhancing the experience of citizens and visitors in the city. It concerns the testing and trialling of emerging technologies and eServices in the homes, businesses, organisations and the public realm of the city.
Identified areas for trialling include health, tourism, water, lighting, transport, safety, green energy, technology infrastructure and use. Its goal is to make citizens lives better, to grow business and to realise a low carbon and resource efficient economy.

Shaping a better city means encouraging companies, communities and individuals to embrace experimental innovation. It involves taking the most promising research and applying it to homes and to the organisational, service and physical landscape of the city.

**Action Block 6: Global Positioning**

Dublin is Ireland’s only city of international scale. The objective of this block is to position the City internationally in a way that develops its attractiveness for investment, tourism, international students and mobile creative talent. It will enhance collaboration with other cities committed to digital economic and social development globally. This will be done with immediate emphasis on key growing markets that offer opportunity. This block will involve developing the brand narrative for Dublin and working across all stakeholders in the city region to maximise ownership and deliver globally of that brand narrative.

The action block will use the leverage of Civic connection to further develop and deepen existing relationships with cities such as San Jose, London, St Petersburg, Moscow, Guadalajara, Barcelona and Beijing. While facilitated by Civic Government linkages the action block will work in collaboration with and through the business community, higher education, the Irish diaspora network, and National Goverment presence at Embassy and Agency level here in Dublin and in the countries of location of targeted cities. In addition, Dublin will make strategic choices that prioritise engagement with international associations and networks that facilitate benchmarking and cooperation around Smart Cities, technology and innovation.

Within this Block, the Digital City Team will facilitate applications, win and support new transnational funding opportunities around research projects that build Ireland’s critical linkages and reputation for research. It will achieve this goal primarily through co-operative action with Higher Education and Business. A primary objective in this area is to maximise access to Horizon2020 funding.

The Action Block also seeks to enhance Dublin’s positioning by attracting international events and conferences and seeking where possible international designations around relevant themes such as technology, smart cities, mobile futures, social media, creative media, design, creativity, research and innovation.

**Action Block 7: Knowledge as power: Developing People for the Digital Age**

This block is concerned with developing the ability, capacity, creativity and skills of Dublin citizens so that they can fully participate in and co-create the digital future.

The first element is to create a city which is digitally literate, where all citizens can not only access eServices but have the core skills to use those services effectively. This will involve helping citizens to have purpose and to create purpose that will encourage digital action.

In addition, Dublin must transform from being a city region of users into a region of co-creators by teaching advanced digital skills such as programming, coding, computer science, information technology, gaming, data mining as well as innovation and entrepreneurship to children and adults across the city region. This will develop citizens as creators within the changing digital economy and society.
The block will involve co-operation with and support for initiatives that can be delivered through and by business, education, voluntary sector organisations, philanthropy and public institutions that support learning. It should be delivered online, through libraries, in schools, in public workshops and other media.
Digital Dublin Masterplan Action List

**Big Ticket Actions:**
- BT1: Fibre To Every Home by Easter 2016
- BT2: Digital Accelerator District
- BT3: Maximising Local Supply Chain to MNCs
- BT4: Dublin Storefront and Shop Window
- BT5: Digital Sister Cities Virtual Network
- BT6: Available as Digital
- BT7: Dedicated programme to expand digital co-creation skills and experience

**Key Enabling Actions**

**Organising for Action**
- Establishment of a Digital City Team and a Business Accelerator team
- Digital funding
- Unified City Region Portal
- Research programmes
- Support for Digital and Creative Initiatives

**Creating Awareness and Building Participation**
- Supporting a Repository of Digital Events and Digital Mapping
- Innovation Dublin Festival
- Digital Champions: Leaders who inspire
- Develop Citizen Participation and Digital Governance
- Deploy Social Media Tools and Strategies to Engage Citizens

**Building the Digital Commonage:**
- Explore new infrastructure for example Spectrum Playgrounds - including White Space
- City Watch App and Sensors - trial & evaluation
- Expand and Develop Open Data through Dublinked
- Expand the Digital Laboratory to be a city-wide Beta
- Dublin Public Wireless Broadband – Mesh the City
- Expand the Sensor networks in the City Landscape

**Expanding and Innovating the Economy**
- Digital Business City
- Internships to Build Experience
- Start-Up CEO Support Group
- Establishment of a Dublin Regional Enterprise Forum
- Annual Start-Up Dublin Declaration
- Dublin as Investment and Start-Up Location Programme
- Single Portal for Investors, Companies and Mobile Talent
- Critical Infrastructure Charters
- Global Media and Awareness Campaign

**Shaping a Better City**
- Trialling of Digital Technologies in communities, homes and businesses
- Digital Adventure Carnivals and Streetscapes
- Signing up to the Green Digital Charter
- Digital Safe Cities
- Digital Water – D2O
- Deliver Hackathons and Creative Data Events

**Global Positioning**
- Global City Benchmarking
- Using the DMS to evaluate ongoing success
- Attracting Events and Conferences and Leading Missions

**Knowledge is Power – Skills and Co-creation**
- Getting our People Coding
- Digital Dublin Day
- Computer loan scheme
- Develop Entrepreneurial Skills among Young People
Action Details

Introduction
This section is organised as follows:

1. The first part details the Big Ticket Actions
2. The second part describes other current identified actions under each Action Block

Many of these actions will require support by way of legislative change and resources from national Government. It is recommended that the Big Ticket items would be actionable through the high level clearing house agreed by Central Government with the Creative Dublin Alliance (CDA) in respect of key projects of economic benefit to Dublin and Ireland.

Big Ticket #1 – Fibre to Every Home by Easter 2016

Fast, reliable and cost-competitive broadband infrastructure is critical for any smart city region. Multinationals like Apple and Amazon continue to develop their remote/home-working competencies and there is some evidence that prospective Irish employees will not be job-competitive unless they have minimum 10Mbps connectivity at home.

Irish firms’ ability to export depends on being able to transact and communicate at an equivalent level to their counterparts in Asia and the US according to Silicon Republic. Broadband enables higher overall growth by allowing firms to cast their net wider when looking for suppliers or seeking new market opportunities to increase their customer base or looking to more effectively link business functions e.g. sales, design, manufacturing, supply chain, stock control and accounts – particularly across a number of geographical locations.

Irish broadband cost-competitiveness also merits examination. A Hong Kong resident, for example, can get 1GB broadband for the equivalent of approximately €22 a month compared to around €50 a month for 100MB in Ireland. In addition, new creative industries in high growth areas are broadband intensive. In the UK these industries are growing at a rate of 19% per annum and in 2011 contributed over 7% to the UK economy.

The broadband offering in the Dublin region clearly needs to be dramatically improved to reflect the importance of the capital city and its hinterland as an ICT hub of European and global significance.

The only broadband delivery technology sufficiently developed to provide the room for the likely bandwidth growth patterns in the region is fibre. Fibre rollout should be prioritised within the City Region. The market must be incentivised to invest in Dublin to guarantee full fibre optic coverage.

This plan proposes that a minimum of 100Mb symmetrical broadband be delivered into every home in the Dublin region by 2016 using Fibre.

Until now the key challenge with fibre deployment has been what is known as the “last mile” – the cost of the infrastructural work associated with getting the fibre over the final part of the journey from a shared local supply point to the home. The Telco industry estimates that there is an average unit cost of €1,500 per dwelling involved in delivering this “last mile”.
We are proposing that residential dwelling owners would opt-in to co-invest with the state on a 50:50 basis to deliver this last mile over a 3 year period.

The state investment would be delivered via a tax credit to be set against the new Local Property Tax and would cost up €117m a year over three years to be divided between local and central government. This would in turn create opportunities for telecom operators to partner together to deliver fibre in the most efficient way possible.

The companies delivering Fibre under the initiative will have to sign up to a Public Service Obligation (PSO) to ensure that delivery would include provision in disadvantaged areas and to individuals who by virtue of age, circumstances or health cannot participate in the shared cost model outlined above. This will involve a commitment to deliver for every five connections under the shared cost model one connection for free.

The Digital Agenda for Europe acknowledges the socio-economic benefits of broadband and highlights its importance for competitiveness, social inclusion and employment. This proposal would ensure comprehensive Fibre to every home coverage in the Dublin region by 2016; it would future-proof the region’s residential data network for years to come and it would generate a substantial number of civils/construction jobs in the short term.

Other points for consideration:

- Symmetrical 100MB fibre capacity should be provisioned as soon as possible in one pilot residential area which is currently a broadband “black spot” within the city. The delivery of eHealth and education services should be then piloted in this area
- Carrier-neutral ducting should be installed during all significant public infrastructure works in the Region such as roads, water and sewerage and that all current and future ductings are recorded and mapped
- In line with national policy State owned infrastructure should be explored and leveraged for fibre provision in line with national policy
- Planning regulations should be reviewed immediately and updated to ensure comprehensive provision for fibre within all new builds.

Big Ticket #2 - Digital Accelerator District

Innovation is key for progression to a digital future as it encompasses the facilitation of research, collaboration across the triple helix, open data share, idea creation and commercialization, smart cities and creative citizens.

Ireland, however, is still an innovation follower according to the EU Innovation Union Competitiveness Report (2012). While this means that Ireland is strong on take up it is not maximising its potential to lead in the innovation and technology sectors. The Dublin city region offers significant potential for advancement in terms of return on investment from research and from commercialisation of research.

While there are excellent incubators around the City it is fair to say that Dublin lacks a single ‘go-to’ point for Digital Acceleration that is of a large enough scale for a city with such a tech profile.
To this effect we are proposing a new Digital Accelerator District (DAD) which will be of the appropriate scale to localize and link ideas, innovation, skills, talent, mentoring capabilities and finance.

This will complement existing companies, spaces and initiatives like Launchbox.ie; Dogpatch Labs; the NDRC; the Centres for Science Engineering and Technology (CSETs); The Digital Hub; and the Guinness Enterprise Centre that have filled this space to date. We hope to partner with one or more of the above entities in the development and operation of the DAD. Further DADs will be developed as demand and opportunity arise.

In order to incentivise the accelerated growth of viable digital businesses is it proposed to break the space within the DAD into 3 zones and to provide a rates structure as follows:

- Zone 1 – Year 1 of start-up – 0 rates
- Zone 2 – Year 2 of start-up – 50% rates discount
- Zone 3 – Year 3 of start-up – 25% rates discount

This will require Central Government to provide for the necessary flexibility in local business rate schemes to permit Local Government to financially incentivise targeted location in accelerator districts.

Fledgling businesses will be actively expected to move through the DAD zones or they will lose their discounts and ultimately their place in the DAD. We will also work with other infrastructure providers (electricity, water, broadband) to seek the provision of a similar discount mechanism.

The Digital Leadership Forum pledges to push the agenda of Irish indigenous companies in developing their relationships with MNCs based in the Dublin region. It is essential that the proper fiscal and regulatory environment is created for indigenous SMEs to thrive and trade and as part of this process to enter the high-end (R&D, IP-intensive activities) supply chain and consciousness of large MNCs. Provision of high-end activities can be seen as “import-substitution” for locally-based MNCs.

MNCs in Ireland source about €80bn in goods and services globally, of which €11bn comes from Irish businesses. The joint IDA/Enterprise Ireland team is targeting an increase in this figure in 2013 by identifying 65 multinationals that offer potential for Irish companies and through increased participation by Enterprise Ireland clients on inward investment itineraries of IDA companies. It is estimated by DJEI that if multinational companies based in Ireland included more Irish companies in their global supply chains then just a 5pc increase in spending locally by multinationals would generate €500m in the local economy in Ireland in 2013.

We are proposing to partner with the SME representative organisations (eg. ISME, IIA, SFA, Chamber of Commerce), to develop a web based portal for Dublin-based multi-nationals to auction packages of digital/innovation/R&D work to the local SME market.
This Action should deliver:

1. Greater access to local MNC supply chains for SMEs and a corresponding growth in business
2. A new innovation supply route for the local MNC community
3. Enhanced MNC links for the SME representative organisations.

To complement the big ticket item to **Maximise Indigenous Supply Chains** it is proposed that a minimal spend of 30% on new local government ICT and digital services should be directed to SME’s.

Strengthening the use of digital by the SME base is an important part of going digital on a mass scale.

The objective is to support and expand the work being undertaken by different organisations in developing the use of digital systems and an online business presence by Dublin and Irish Business. The Irish Internet Association and the City/County Enterprise Boards have been active for some years in this area. Recent work under the “Activating Dublin” initiative of the Chamber of Commerce will provide a toolkit that could become a standard for getting Dublin/Irish SMEs trading successfully online or expanding their current online presence. A key challenge however is to devise a shared basis for future expansion of these initiatives and a means by which success and ongoing business challenges of expansion and continued usage can be monitored, supported and evaluated beyond the initial web presence or adoption of digital technologies and processes.

There is a need to build on this work and to create an eCommerce and digital adoption support platform that will particularly target business in the non ICT sector such as Food & Accommodation; Construction and small start-ups. These are businesses that just need to plug-in and get going. They are also businesses that could reduce cost and improve efficiency by developing digital back office driven processes, e-procurement and use of digital technology in terms of customer and financial management. The Forum is cognisant of the fact that the platform should not become an innovation blocker that is, directing high potential concepts and businesses away from their own bespoke ecommerce propositions. The Platform however should provide a means of ongoing support and monitoring of business success and digital expansion.

There is also an opportunity to build such a platform in a way that provides opportunities for the skill enhancement and experience building of young unemployed individuals across a range of disciplines. This could be achieved by a redefined JobBridge initiative that provides for a longer period and direct opportunities for linked experience with participating small business.

Considering an ESRI estimate that over 70% of exports will be traded services by 2025, without intervention there is a risk of Ireland and Dublin falling behind and losing global competitiveness and attractiveness. The UPC Digital Business Index shows that 3 in 10 Irish businesses are ‘Digital Leaders’, while 1 in 7 are ‘Digital Laggards’; with the balance falling into the category of ‘Digital Followers’.

CSO Information Society statistics show that from 2009 to 2012 there has been notable uptake in internet usage and website development across the main sectors of the Irish economy. Nonetheless, there are shortfalls. For example, in the accommodation and food service sector internet usage and website ownership was relatively low in 2012 with only 66 per cent of enterprises having a website or homepage, though this was an increase of 12 per cent on 2009 figures.
Moreover CSO Information Society statistics from 2012 show that only 23% of Irish SMEs are selling on-line with just over half using eCommerce to make some purchases.

We anticipate that a co-ordinated drive involving local and central government with a reliance on extensive private sector involvement will deliver a substantial update of ecommerce trading particularly in the SME sector in the Dublin region.

The Dublin Storefront will also facilitate the development of a ‘Created in Dublin’ brand that can be opened up to all Dublin firms trading online and not just those trading via the Dublin Storefront. The Dublin Storefront will ideally be built and operated through a business based organisation or association (e.g. Chamber of Commerce, Irish Internet Association) with funding support from Government (local and national), staff resources to include internships, and funding from the businesses who become members by way of annual fees.

**Big Ticket #5 – Digital Sister Cities Virtual Network**

This will involve a redesign and remodelling of [www.citieslinked.com](http://www.citieslinked.com). Targeted at Sister Cities committed to International collaboration around digital society, economy and innovation it will provide a means to connect civic government, businesses, education and innovators globally. It will be a portal that combines web and social media tools with events/information and project partner search across the participating cities. It will help cities co-create the digital future by way of common actions in business, education, and city test-bedding of new services and products. Participating cities will be required to allocate a dedicated Digital Co-operation Manager to ensure participation.

The Network of Digital Co-operation Managers will meet bi annually. The Digital Co-operation Managers will be responsible for the promotion of the Virtual Network, recruitment of companies, departments of government, education institutions and innovators to active membership of the Network and support for member engagement. This will involve developing the beta project approach, research and business co-operation matching and networking seminars locally among members.

Dublin will internationalise, through this web based portal, the Beta Project concept in its sister cities so that testing ideas can be shared and testing realised across like-minded sister cities. This will also allow the innovators who designed the innovations to expand the potential “reference proof of concept” and hasten the route for successful innovations to market.

The Digital Maturity Scorecard (DMS) will be shared with sister cities and will be a first step in the standardisation of international digital benchmarking. This in turn will allow cities to put in place realistic targets and adopt processes and technologies borrowed from each other. The portal will be used to refine, record and share this benchmarking.

**Big Ticket #6 – Available as Digital**

*Available as Digital* is commitment by Dublin City Council to ensure that all services are available in digital format. City Council will lead by example and will encourage other public sector bodies to sign up to an Available as Digital Charter with targeted commitments and deadlines to develop digital
versions of all public services, engagement and information. All public services and business should provide their services as digital.

The Masterplan is seeking to fill digital services gaps, working on best practice models to digitise all services. This action complements the “Knowledge is Power” Action Block, seeking to achieve higher levels of digital literacy and actions to increase access to high quality broadband.

The interoperability of services and the concepts of big data and the internet of things are core facilitators of going digital. How? Big data allows evidence based decision-making and the creation of new digital services. The internet of things is part of creating a digital mesh where all types of daily actions and interactions, places and things are linked through sensors, devices and continual streams of communication.

As part of this initiative to go digital by default and as part of the drive to create a Digital Commonage the Masterplan will develop and adopt a set of ‘Digital Design Principles.’ These will be similar to the Government Digital Services UK (GDS) design principles (https://www.gov.uk/designprinciples). It is intended that these will, in time, be adopted by all Government agencies in the city resulting in standardised government digital / web access for all.

Big Ticket #7 – Co-Creating our Future -

This will involve the commitment by Local and National Government complemented by Business Corporate Social Responsibility (CSR) to establish programmes to support the development of co-creation skills in communities, government organisations, young people and adults. Modelling on Code for America it would be Code for Dublin releasing expertise and building on the current commitment evident in initiatives such as CoderDojo.

To facilitate the skill development particularly among communities and groups a dedicated fund to support voluntary organisations delivering coding and advanced digital skills would be established from public and private funds. This would be administered through the Digital City Team to fund and support targeted skills development in areas such as programming, coding, computer science, information technology, gaming, data mining, creative media and social media.

To develop experience for graduates to enable market entry into jobs it is proposed to seek a special extended JobBridge internship to train and employ recent graduates as Enhanced Digital Skills facilitators. An initial team of 10 such facilitators (interns), for an 18 month period, will be recruited and supported by delivery, management and training at a cost of approximately €200,000. They will develop a programme and work with schools, youth groups and senior citizen groups within communities. This initiative will be delivered and managed by an appropriate Education/Youth/ business agency (e.g. VEC, Foróige, CYC, IIA).
Other Actions

Action Block 1: “Organising for Action”

This is a critical enabling action that requires resourcing commitment from Dublin City Council in order to enable Masterplan actions to be pursued and realised.

| Establishment of a Digital City Team | To match skills in Dublin City Council and across the Leadership Forum with the digital needs of the city and the Masterplan actions and to establish a Digital City Team to execute the Masterplan and deliver actions.
| Establishment of a Digital City Team | To identify technical skills within the existing City Council resource pool which can be harnessed to deliver the Masterplan.
| Business Accelerator Team | To cluster innovation initiatives and support technology business start ups and expansion.
| Digital Funding | Seed funding for key actions and resources must be allocated by Local and National Government. The region will also seek external means to develop solutions to its urban challenges. This will involve working closely with research institutions, SME’s and MNE’s to develop research proposals which will benefit citizens and business alike.
| Unified City Region Portal | The redesign and use of www.dublin.ie as a one stop portal for information about events, digital developments and organisations across the Dublin region.
| Supporting a Repository of Digital Events and Digital mapping | To build an interactive digital repository for all digital events that are happening in the city region
| Supporting a Repository of Digital Events and Digital mapping | Mapping digital activity and organisations that promote and enhance digital. This would include a digital mapping of international connections that support digital development. This should be an element of the Dublin.ie portal.
| Research Programme | A programme of research and events in partnership with business, statutory agencies and education designed to highlight by evidence and research critical issues of infrastructure, legislation/regulation, policy and investment that must be addressed to ensure the future development of digital, technology and media businesses in Ireland.
| Support for Digital and Creative Initiatives | Funding and resource support to digital initiatives that have global and local value in developing new business, opportunities, and profile for Dublin. The recent Fusion initiative led by the Irish Times is one such example.
### Action Block 2: Creating Awareness and Building Participation

<table>
<thead>
<tr>
<th>Innovation Dublin Festival</th>
<th>The Innovation Dublin Festival is ongoing and will further incorporate and showcase enterprise pertaining to digital innovation across the city. This action will develop the Festival, extend its international promotion and branding, and brand related events throughout the year. The Festival website will develop a directory of innovation leaders and initiatives.</th>
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<tbody>
<tr>
<td>Digital Champions – Leaders who inspire</td>
<td>Identify Digital Champions who inspire across the six urban domains of the Dublin City Development Plan and the Digital Masterplan. Work with business and EU institutions to hold an annual Innovation Luminary Award event in Dublin.</td>
</tr>
<tr>
<td>Develop citizen participation and digital governance</td>
<td>To further democratised decision making through extending the Your Dublin, Your Voice citizen panel and to evolve new digital methods to engage citizens. To extend information and knowledge and engagement with the democratic and administrative decision making systems throughout City stakeholder organisations.</td>
</tr>
<tr>
<td>Deploy Social Media tools and strategies to engage citizens</td>
<td>A social media roll-out programme will be delivered by the Digital City Team to engage further with citizens on topical issues, events and opportunities.</td>
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### Action Block 3: Building the Digital Commonage

| Explore new infrastructure e.g. Spectrum Playgrounds – including White Space | The spectrum playground (wireless transmission frequencies) may lead to the testing and trialling of new infrastructure and equipment that will enable the communication systems of the future. However it is the services and applications that sit on these systems that will make them successful. With this in mind the aim is to accompany the spectrum playground activities with a series of open workshops for rapid prototyping of new services and applications that might exploit the new infrastructures. |
| City Watch App and Sensors – trial and evaluation | This App allows citizens to instantaneously report faults or problems in their area; issues of public safety or concern; to take pictures or file reports. Citizens will receive points for engagement. Further sensor networks will be rolled out, and initiatives around data analytics developed, in conjunction with business and education. |
| Expand and Develop Open Data through Dublinked | To make public and commercial datasets open for public consumption, research and commercialisation. To bring more data online with a focus on real time data. Agree actions to secure future data centre provision by way of ensuring power supply while also building data and analytics through sensor s and software development. |
| Expand the Digital Laboratory to be a city-wide Beta | Prioritising, trialling and validating new and existing ideas which have a strong digital genome in test locations and virtual space across the city. It will be built from the top down by policy, the middle out by the ideas and projects of the City and the bottom up by citizens and businesses through trialling. |
Dublin Public Wireless Broadband – Mesh the City | To provide good-quality, free public Wifi/ 4G in core city areas.

Expand the sensor networks in the city landscape | Harness the data potential of sensors by locating sensors within the landscape and buildings of the city.

### Action Block 4: Expanding and Innovating the Economy

<table>
<thead>
<tr>
<th>Digital Business City</th>
<th>Promotion and awareness of advantages of going digital in business supported by research and identification of market opportunities in different economic sectors.</th>
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<tbody>
<tr>
<td>Internships to build experience</td>
<td>An Internship programme to provide experience to graduates that will enhance their capacity to obtain jobs in the technology sector.</td>
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<tr>
<td>Start-Up CEO Support Group</td>
<td>A Start Up CEO/Founders group to support and assist new business start-ups to grow and access funding. A dedicated Technology Business mentor panel will be established with the help of business to support start-ups in the sector. The Panel will be managed by the LEO.</td>
</tr>
<tr>
<td>Establishment of a Dublin Regional Enterprise Forum</td>
<td>The formation of a Dublin Enterprise Forum in respect of the small firms sector would have as one focus using ICT to drive competitiveness and realise this through a Finance Digital Dublin sub-forum chaired by the LEOs in the Region and consisting of micro lenders, banks and representative organisations as appropriate. This Forum would match those with capital, experience, networks and other resources with small companies with long term potential.</td>
</tr>
<tr>
<td>Annual Start-up Dublin Declaration</td>
<td>A survey of start-up activity in Dublin and an identification of opportunities annually.</td>
</tr>
<tr>
<td>Dublin as an Investment and Start-up location programme</td>
<td>A programme of trade/promotion events to encourage international start-ups, entrepreneurs, venture capitalists and companies looking for a European access location to consider Dublin.</td>
</tr>
<tr>
<td>Single Portal for investors, companies and mobile talent</td>
<td>A single portal and support service networking Innovation hubs/nodes, enterprise support services, property and infrastructure information, schools/facilities/housing options and education services aimed at overseas companies and individuals.</td>
</tr>
<tr>
<td>Critical Infrastructure Charters</td>
<td>The development and agreement of critical infrastructure charters for priority delivery based on research and industry or agency identification that can cluster economic development in niche technology industries and geographical areas of the region. These charters would have targets and deliverables and would be agreed with utility and transport companies and endorsed by national government. One key area for immediate attention is electricity distribution to support attraction of data centres.</td>
</tr>
<tr>
<td>Global Media and awareness campaign</td>
<td>A global media and awareness campaign would be developed in partnership with business and statutory economic national agencies. Using social and traditional media and harnessing meetings, events and activity of city</td>
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</table>
stakeholders internationally it would promote Dublin as the “Place to be Innovative”, the by-line being Innovate in Dublin.

**Action Block 5: Shaping a Better City**

<table>
<thead>
<tr>
<th><strong>Trialling of Digital Technologies and Services in communities, homes and businesses</strong></th>
<th>A series of new technologies will be trialled across the housing stock of DCC and within Dublin businesses. The city will look to pilot new initiatives across its housing stock in the areas of energy (for example Glenn Dimplex Quantum home heating trial in Dublin City and Fingal), delivery of education and health services, access and so forth. The Beta Project mechanism will be used to realise innovative new ideas for this action.</th>
</tr>
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<tr>
<td><strong>Digital Adventure Carnivals and Streetscapes</strong></td>
<td>A proposal for a travelling ‘Digital Carnival’ that will visit Dublin City schools, community centres and libraries on a year round basis to foster curiosity and confidence in new emerging technologies and boost digital participation and understanding in local Dublin communities. Build on the Digital Carnival to create phase by phase a digital and interactive “adventure” landscape in Dublin streets and public spaces. Augmented Reality, Wi Fi zone based messaging, digital interactive signage and gaming models to support interaction could be deployed.</td>
</tr>
<tr>
<td><strong>Signing up to the Green Digital Charter</strong></td>
<td>Actions to be selected and trialled as Beta Projects.</td>
</tr>
<tr>
<td><strong>Digital Safe Cities</strong></td>
<td>Using technologies to make our city a safer place as part of the UN Women Safe Cities Global Programme.</td>
</tr>
<tr>
<td><strong>Digital Water – D₂O</strong></td>
<td>Innovative technologies to manage all aspects of the water system</td>
</tr>
<tr>
<td><strong>Deliver hackathons and creative data events</strong></td>
<td>To run hackathon events to address city and organisational challenges. This action will maximise the use of skills within the city and provide focus for the informal gatherings of developers and designers already happening within Dublin. It is furthermore proposed to develop and validate the concept of a Code Café(s) using Beta Projects.</td>
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</table>

**Action Block 6: Global Positioning**

<table>
<thead>
<tr>
<th><strong>Global City Benchmarking</strong></th>
<th>To measure impact and assess performance compared to competitor cities. To identify best practice within each domain to set targets and establish international standards. To extend the use and application of the Digital Maturity Scorecard.</th>
</tr>
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<tbody>
<tr>
<td><strong>Using the DMS to evaluate ongoing success</strong></td>
<td>The Digital Maturity Scorecard (DMS) will be applied in sister cities and will see a first step taken in the standardisation of international benchmarking. This in turn will allow cities to put in place realistic targets and adopt processes and technologies borrowed from each other.</td>
</tr>
<tr>
<td><strong>Attracting Events and Conferences and leading Missions</strong></td>
<td>Attract technology events and conferences and ensure that technology and digital business is central to all overseas missions from the City.</td>
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</table>
## Action Block 7: Knowledge is Power – Skills and Co-Creation

<table>
<thead>
<tr>
<th>Getting Our People Coding</th>
<th>Develop and roll out a programme of Dublin CoderDojo events at Dublin City Council libraries.</th>
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<tr>
<td>Digital Dublin Day</td>
<td>Holding an Annual Digital Dublin Day with centres in each area of the City.</td>
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<tr>
<td>Computer loan scheme</td>
<td>Developing and testing through libraries an equipment rental scheme to support access.</td>
</tr>
<tr>
<td>Develop entrepreneurial skills among young people</td>
<td>Support initiatives designed to develop enterprise skills among young people including Biz Kids in the Dublin region.</td>
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</table>
Appendix 1

**Note on prioritisation:** In order to ascertain where a project (proposed action) should go on the Beta Priority table, a number of weightings or criteria are applied to the project. These criteria include but will not be exclusive to:

1. Return on investment (scalability X payback)
2. Time to build/realise
3. How easily it can be sustained and maintained
4. Socio-Economic benefits
5. Environmental benefits
6. Gamification element of the project – is it fun?
7. Ability to attract or stimulate further investment

And then assessed according to questions in the DMS

8. Digital Maturity Scorecard

Each layer asks a series of questions (these can be adapted).

<table>
<thead>
<tr>
<th>Digital City Platform Layer</th>
<th>Maturity Questions</th>
</tr>
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</table>
| Digital City Governance                     | 1. This is a realistic strategy or action contributing towards building a digital city vision?  
  2. Collaboration will include necessary stakeholders?  
  3. This action will use open data/big data to achieve its objectives  
  4. The necessary infrastructures are in place to deliver this action |
| Digital Access & Skills Proficiency         | 1. This is a skills programme targeting consumers of digital services?  
  2. This is a skills appropriate skills programmes targeting providers of digital services?  
  3. Access and availability to digital services will be improved? |
| Fostering Digital Services Capability       | 1. Grass-roots innovation is being championed?  
  2. Digital services will potentially integrate with services from adjacent domains?  
  3. New digital services will be enabled? |
| Leveraging Urban Data                       | 1. Security, privacy and data sharing policies are enhanced?  
  2. Data will be aggregated from across diverse sources?  
  3. Data are robust, replicable and available?  
  4. Effective insights will be derived from sharing data? |
| Building Ubiquitous City Network            | 1. The action will enhance adequate network bandwidth capacity?  
  2. Market failure in the area of broadband provision will be examined?  
  3. Symmetric broadband speeds are required?  
  4. Network infrastructure(s) will be able to automatically respond to changing external conditions? |
5. Inter-connectivity across adjacent network infrastructures will be enhanced?

| City Impact Realisation | 1. An *Economic* value that can be defined and measured for initiatives is achievable? 
|                         | 2. An *Environmental* value that can be defined and measured for initiatives is achievable? 
|                         | 3. A *Social* value that can be defined and measured is achievable? 
|                         | 4. Processes are or will be put in place that sustain or evolve the programmes over time? |

*Questions adapted from Digital Maturity Scorecard question developed through the Innovation Value Institute, Maynooth, 2013.*