Manchester City Council
Report for Resolution

Report to: Executive – 24 October 2012

Subject: Digital Manchester Update

Report of: Chief Executive

Summary

This report proposes a strategic direction for a Digital Manchester.

Recommendations

1. Approve the Digital Manchester Strategy action plan and governance structure to guide the delivery.

2. Delegated responsibility to the Chief Executive to oversee progress.

Wards Affected: All

Community Strategy Spine	Summary of the contribution to the strategy
Performance of the economy of the region and sub region	Supporting business and resident access to fast/er broadband and Wi-Fi and use of digital to enable engagement, reform and growth. Stimulating growth of the digital and creative media sector that employees 25k people in Manchester and is 5% of employment in GM contributing to £2.7bn of regional GVA
Reaching full potential in education and employment	Supporting skills and education so residents to access the growing job opportunities in this sector. Educating residents and SME's on the value and power of digital connectivity to help individuals and business grow and reach their full potential.
Individual and collective self esteem – mutual respect	Placed based engagement and use of digital to reform services and enable residents and communities to communicate and connect with each other and public services. A more social City.

Neighbourhoods of Choice	Ensure all neighbourhoods have equal access to broadband and Wi-Fi, all citizens and businesses can utilise the opportunities of connectivity/ better connectivity and create a truly digital place.

Financial Consequences

Further reports which require specific approvals will be presented to the Executive and the appropriate funding sources identified.

Contact Officers:

Name: Sara Tomkins
Position: Assistant Chief Executive (Communications, Customer and ICT)
Telephone: 0161 234 3706
E-mail:s.tomkins@manchester.gov.uk

Name: Eddie Smith
Position: Chief Executive of New East Manchester
Telephone: 0161 223 1155
E-mail: e.smith@manchester.gov.uk

Background documents (available for public inspection):

The following documents disclose important facts on which the report is based and have been relied upon in preparing the report. Copies of the background documents are available up to 4 years after the date of the meeting. If you would like a copy please contact one of the contact officers above.

- Digital Strategy Report – March 2012, Executive
- The Sharp Project Expansion – September 2012, Executive

1.0 Introduction

1.1 The purpose of this paper is to update the Executive on the Digital Strategy for Manchester and seek approval to progress the action plan.

2.0 Background

2.1 Manchester as the original tech city has an ambition to retain its leadership as one of the world's top 20 digital cities. Manchester has the second largest and most dynamic cluster of creative and digital businesses not only in the UK, but in the whole of Europe, with significant growth forecast across Greater Manchester. The creative and digital sector is a major driver of the UK's Gross Value Added (GVA) and supports over 25,000 jobs in Manchester.

2.2 Manchester's Digital Strategy aims to support the growth of this sector and continue the competitive advantage this will bring residents and businesses to provide skills and jobs that drive the economy.

2.3 For Manchester to retain this digital advantage, there is a need to develop a clear action plan to support its Digital Strategy and to work with the City of New York and be measured as part of the Digital City Index (DCI) to evaluate Manchester's digital progress.

2.4 The initial core criteria within the DCI are as follows:

Access:	Broadband Internet Adoption;
Open Government:	Application Programme Interface (API*) – enabled public data;
Engagement:	Individuals using Digital Services; and
Industry:	A Business Innovation Index

2.5 Manchester Digital Strategy was agreed by the Executive in March and consists of a ten point plan (Appendix 1) to help drive the Council's priorities and also achieve positive ratings against the DCI. The action plan covers access and connectivity, engagement, industry and growth, collective leadership and governance. At the heart of the plan is a single focus for a place-based digital strategy which will help move the City forward at the pace required.

3.0 Progress

3.1 Since agreeing Manchester's Digital Strategy progress has been made over the last six months and Appendix 3 summaries a snap shot of the ten strategy points, the strengths the city has and recent developments.

3.2 A digital transformation is underway on infrastructure in this city with confirmation of the Urban Broadband Fund (UBF) delivering £12m investment

* An API is an "Application Programming Interface" a language and message format used by an application to communicate with another application or a computer's operating system. In simple terms APIs are set of protocols which allow computer programs to speak to each other.

for residents and businesses to be better connected. The investment aims to deliver ultrafast broadband made available to 228,000 premises, with the UBF monies reaching at least 27,700 residential dwellings and 6,200 businesses and improve services as follows:

- 16% of residential properties that currently have no broadband will gain ‘ultrafast’ broadband access
- 84% of residential properties that only have access to 'superfast' will have the option to receive ‘ultrafast’ broadband (only 46% of dwellings in the city are 'ultrafast' now).
- aim to achieve 100% of homes having access to ‘ultrafast’ broadband service by 2015
- business with ‘superfast’ (69%) and those with no access will join the 23% currently using ‘ultrafast’ access
- aim to achieve 100% ultrafast to over 22k businesses across the city
- the bid also included reference to a ‘voucher scheme’ for 1000 SME’s to help with the upfront capital costs of construction and connection charges

3.3 The £12m UBF is currently in a procurement process so outcomes and expectations are still to be determined however, as a result of this investment it is expected that 262 business start ups could be stimulated, 220 jobs are forecast to be created and £125m extra Gross Added Value (GVA) into the economy.

3.4 The delivery of broadband is still subject to state aid notification and until the city gets EU approval there are risks in achieving the above project plan within the timescales however, clarity is expected in the next few months.

3.5 ‘Free’ Public Wi-Fi is also in procurement and the aim is to provide Wi Fi in more public spaces including transport hubs with a city centre phase one 'go live' by Christmas. This coupled with the announcement of 4G for the city supports Manchester’s ever improving connectivity.

3.6 The agreed expansion of The Sharp Project at last month’s Executive further highlights the Council’s commitment to invest and stimulate growth in this sector, attracting global companies like EON Reality to site their European headquarters in the city bringing jobs and an Entrepreneurial Coding School to enhance skills to 500 students over its first 5 years of operation. TechHub has also recently arrived in the Northern Quarter supporting technology startups to start up faster and helps to foster an international network of physical and virtual technology spaces for like-minded tech entrepreneurs. This further adds to the ecosystems and innovation hubs that encourage and support the creative and digital sector in the city to collaborate and thrive and connects Manchester internationally alongside the work with NY and EU networks such as SMART cities.

3.7 Go On MCR launched in October and aims to develop a network of digital champions to encourage businesses and residents to gain skills and utilise the web to transact and grow. The Council has also recruited a digital apprentice who started in August alongside the apprenticeship model of social enterprise Sharp Futures which has recruited five apprenticeships to date.

3.8 Manchester is championing 'open data', accessibility and information to ensure transparent conversations and interactions with residents, businesses and visitors to truly embrace the digital age. The Council is working with other public sector partners to do a 'mini hack' in November followed by a hackathon[**] in March where over 80 data sets that developers have asked to be shared and maintained, supporting our aim to be an open data friendly city. Although there are practical issues to be addressed, our aim is that only by exception will data not be openly available.

3.9 The Technology Strategy Board's 'Future Cities Demonstrator' is a game-changing opportunity for Manchester to deliver digital reform. The city is currently creating a feasibility and business case and will bid along with 30 other cities in the UK to be the chosen city granted £24m to deliver technology innovation as a Future Cities Catapult exemplar. Manchester's bid will be submitted in November and the centre of excellence determined in January 2013.

3.10 Manchester is supporting an interactive cityscape to enable growth of the digital, creative and media economy however, it takes significant investment both in the public and private sector. Brands such as the BCC and ITV choosing the region as it's home, the Urban Broadband Fund and telecom providers continually improving infrastructure, the Heritage Lottery Fund funding the innovative 'Archive Plus' project, the Council investing and stimulating growth in incubators like The Sharp Project and Transport for Greater Manchester (TfGM) investing in connectivity both physical and virtual - all are supporting and investing in our digital future.

3.11 The pace of digital change and growth cities like Manchester are experiencing is fast, hence the need for a clear action plan. To help us shape the direction the city commissioned an independent analysis from Oliver and Ohlbaum (O&O). This research also helped determine the city's capabilities of delivering the global digital ambition.

4.0 Independent Analysis

4.1 O&O provided a report entitled, 'Manchester: a truly global content hub by 2025' which provided an independent assessment of Manchester's capacity to deliver its digital ambition within a global context and summarised areas of strength and weakness and suggested actions. The brief report can be found in Appendix 2.

4.2 The UK and therefore Manchester's position as a net exporter of digital content in Europe provides a real opportunity for the city and we have a good grounding and momentum to continue the digital progress. However we have

[**] A hackathon (also know as a hack day, hackfest or codefest) is an event in which computer programmers and others in the field of software development, like graphic designers, interface designers and project managers collaborate intensively on software projects with a goal to create usable software or apps.

gaps, namely the lack of a significant technology brand to dovetail with the BBC and the traffic light assessment identified weaknesses in digital leadership, capital and communications. If the city can plug gaps and continue to invest and attract more funding, Manchester will be better placed globally to play catch up with other leading digitally connected cities such as Singapore. However there is a significant step change required if we are to match the likes of New York or Seoul. The city is advised not to pick individual winners but to stimulate the digital marketplace and ecosystems such as The Sharp Project as a blueprint for future growth and to tell a more compelling story that helps attract, retain and promote the talent and digital and creative gems in the city and region. Manchester City Council needs to understand the barriers to growth and how to reduce them and ensure businesses do not fail simply because of market failure.

4.3 The report recommends focused interventions around funding, connectivity, skills and retention and supports market forces shaping the city's diverse growth opportunities, it highlights the necessity of coordination and integration of public and private sectors and the need to be competitive and support stronger leadership.

4.4 Finally, the report stresses immediate priorities some of which have already been implemented and a series of interventions. These have been combined into an action plan to support Manchester's Digital Strategy to produce a clear delivery plan to progress.

5.0 Delivery Action Plan for the Digital Strategy

5.1 Appendix 3 summaries the action plan but more detail can be found in Appendix 4 where clear actions are listed under each of the ten points of the Digital Strategy. This action plan will develop and change, detailed timescales and assigned responsible officers will ensure prioritisation and the Assistant Chief Executive (Communications and ICT) will ultimately be responsible for coordination and delivery reporting to the Chief Executive.

5.2 The action plan highlights where activity has been achieved, in progress or is still developing and will be updated every 6 months.

6.0 Governance and Leadership

6.1 Finally, Manchester Digital Strategy will be supported by a small, informal board to ensure it is delivering the right outcomes at the pace required to support the private sector and their growth which is the ultimate success outcome. The draft board membership will invite key members from the digital sector and relate to other leadership bodies such as the Local Economic Partnership (LEP), Manchester Digital and its 450 digital and creative members and our international connections via the NY DCI and Eurocities. The board aims are to challenge and support the strategy, coordinate a digital focus across the city and provide collective leadership.

6.2 Smaller sub groups or project teams will also support strands of the strategy such as infrastructure, funding and skills to help overcome challenges that need focused intervention.

7.0 Contributing to the Community Strategy

(a) Performance of the economy of the region and sub region

7.1 Manchester has a very strong and diverse digital sector at the core of the conurbation making a significant and growing contribution to the City Region's GVA. However, there are issues with the supply of skilled labour, appropriate pathways for the development and retention of digital skills and access to finance to better support the potential and success of this sector highlighted in the action plan.

7.2 5% of GM employment is categorised as creative and digital, employing over seventy-three thousand (2010) generating £2.7bn of GVA (6% of total GM) with the sector being more productive than the average. Forecasts of around 40k new job opportunities are possible within this sector between 2010 and 2015 and an average growth of 2.8% per annum in GVA over the next decade. The action plan is geared to enhance and sustain this growth expectation.

7.3 Many of the City's digital businesses are Small & Medium Enterprises (SMEs) or micro businesses. Although they have leading edge connectivity needs, only 10% of SME's currently use high speed services mainly due to the upfront connection costs. In some parts of the City, there is limited access to or use of landlines and many residents even if they have access to broadband or wireless are not online e.g. 45% of those living in social housing are not utilising broadband provision. The action aims to not only improve access for all residents and businesses but to encourage adoption of high speed services to enable growth.

(b) Reaching full potential in education and employment

7.4 Improving IT skills in primary, secondary and further education is embedded into the action plan so the vacancies in the digital sector can be filled by Manchester residents and Manchester residents can contribute to the innovation and growth of the digital sector in the city.

7.5 The City's digital businesses need to tap into the "talent" through internships, graduate recruitment, apprenticeships and links with schools. All residents will need to be equipped with the skills to access jobs and make use of online services to improve their job chances. Businesses will grow if they fully utilise digital technology and can create more employment.

(c) Individual and collective self esteem – mutual respect

7.6 The Council needs to ensure its data is open for all to utilise and transparent and easy to navigate so business and residents can get the maximum use from information they require. The Council needs to utilise digital platforms to become more 'social' and engage with residents helping communities and digital audiences to transact online, get to know their neighbourhood and what's on, understand the public services on their doorstep and have easy access to information that can help them to help themselves from jobs, skills and education to benefit support and paying their bills.

7.7 Digital can play a significant role in shaping services and reforming the way we deliver and interact with residents and businesses. The actions to support this strategy will fully explore and exploit how digital enhancement can drive change and efficiency as well as making it easier to support the requirements of complex families.

(d) Neighbourhoods of Choice

7.8 The aim is for all neighbourhoods to have ultra fast broadband as well as free public wireless opportunities in high footfall areas and to equip work spaces with efficient connectivity. Areas in East Manchester and Wythenshawe are currently at a disadvantaged as a result of poor connectivity and this strategy will remove the digital divide or post code lottery so regardless of where you live you have access to fast service connections.

7.9 The fabric of the city needs to support a digitalised public realm from way-finding, advertising, real time tram information, highways signage and interactive tours to support digital tourism. These are all addressed as part of the action plan to design a digital landscape.

8.0 Key Policies and Considerations

(a) Equal Opportunities

8.1 The digital strategy supports equal access opportunities to connectivity and enhanced skills to support job access for all.

(b) Risk Management

8.2 There is a risk on state aid approval to broadband and on Manchester achieving the global status as a digital city.

(**c) Legal Considerations**

8.3 The 'Free' Wi-Fi procurement mentioned at paragraph 3.4 is intended to lead to a Concession Agreement, a representative of City Solicitors has advised on the project to date and will lead in formalising contract arrangements with the Concession Bidder and any required changes under the Street Lighting PFI.

9.0 Next Steps

9.1 Initiate the board, engage partners to critique and support the action plan and continue to monitor and report on progress and delivery.

10.0 Conclusion

10.1 Manchester has much strength in the digital sector and these will be built on to achieve at pace the ambition outlined in this strategy.

10.2 The Council is expanding successes like The Sharp Project to act as an incubator to continue to stimulate and invest in the largest cluster of digital and creative businesses in Europe.

10.3 However, weaknesses need to be tackled if we are to reach the ambitions of a global digital city and the need for better connectivity, more funding, improved skills and communications as well as the use of digital in neighbourhoods to drive reform are imperative to help enable future regeneration of the City and the Council's priority of continued growth.

Appendix 1 – Manchester's Digital Strategy – 10 point plan

Access and Connectivity
1. CONNECTED CITIZENS – 100% Broadband Coverage: • Wi-Fi in all public spaces and high speed wireless across Manchester • Superfast and where available Ultrafast Broadband
2. CONNECTED BUSINESSES - All businesses have access to fast broadband services and are supported with advice to best exploit it and/or financial assistance in accessing even better/faster services.
3. CONNECTED MANCHESTER – public and private sector better connected. Lead and deliver a more coordinated partnership to drive improvements and market the city as a successful digital place to attract new business.
Engagement
4. DIGITAL SKILLS – from officers and members; primary school children; Academies and Universities; to adult education we need excellence at all ages to provide the best digital education and further education to support people today to get the skills needed for future jobs. Digital Championing of knowledge transfer about the benefits of 'Going Digital'. This includes use of digital technology but more importantly design, research and development.
5. SOCIAL CITY – an open and transparent, digital embracing City Council and Marketing Board. Accelerate social media and engagement, advance our website and web advertising focus, enrich content, maximise offline digital advertising, fully utilise e-opportunities (e.g. e-zines/e-bulletins), Embrace growth in mobile by increasing mobile content, mobile advertising and mobile apps. The development of a Manchester super app (Mapp) is one opportunity, the delivery of many consolidated into a New York-style hub is another. Work with the private sector to support fast progress and crowd sourcing with a hackathon, fully exploit GIS mapping utilisation etc.
6. DIGITAL REFORM – encourage and enable more people to become self-service customers, use CRM integration to deliver reform and efficiencies. By providing continued focus on key digital platform excellence, openness, tools, fast accessible connectivity and skills to citizens and business we will allow people to become self-sufficient and help them achieve their full potential.
Industry
7. ECONOMIC GROWTH -stimulate and grow the creative and digital sector. As one of our three most important areas of job creation we have to support, encourage and instigate growth from skill development from an early age, inward investment, procurement to maximising global opportunities of our home-grown talent.
Place
8. DIGITAL PLACE – the City's digital landscape supports the vision of Digital Manchester – from advertising options to wayfinding, real time tram information to digital tourism – Microsoft surface maps, interactive tours etc. Digital Master planning should be considered at the same time as physical infrastructure and should fundamentally be led by the needs of the digital resident. Providing a joined up voice to drive coordinated development is vital.
Leadership
9. DIGITAL INVESTMENT / RESOURCES – exploit new investment opportunities, public and private, that can help accelerate the delivery of our ambitions.
10. DIGITAL LEADERSHIP – digital at the heart of Manchester strategies to promote a truly digital city in all we do from transport to health, education to public services. Consolidate and coordinate approaches to development based on need – not multiple people trying to achieve the same end via different methods. Think digital first and lead the way**.**

Manchester: a truly global digital content hub by 2025

Brief report

Prepared by Oliver & Ohlbaum Associates Ltd

Monday 22nd October 2012

Executive Summary

We believe that Manchester can, with focus and a number of planned interventions over the coming years, develop a digital content ecosystem to compete with and truly rival the ‘second tier’ of global hubs by 2025. Our work suggests strongly that there is realistic scope for a second global digital content hub in the UK, although there will still be competition both within the UK (e.g. from the Cambridge and Thames Valley corridors, Scotland and Ireland) and from leading regional hubs throughout Europe.

The traditional media industry continues to adapt and evolve, but it is clear that the digital and creative content sector is here to stay, with innovation driving new business models and growth. Future growth will be particularly marked in the mobile sector, and consumer spending on home entertainment is – for the first time in many years – slowly on the rise again, with subscription streaming and digital content models fuelling growth in film, television, music and gaming. Mergers and acquisitions activity and start-up funding are also returning to the sector. Given the global nature of the digital economy, and the UK’s strength as a net exporter of digital – and related – content, the opportunity for Manchester is real.

Our analysis of the industry, peer group and global economy lead us to believe that Manchester can build on the presence of major public sector broadcasters and the success of The Sharp Project as two key components of its platform for growth. Implicit in this is a recognition that the ‘first tier’ – i.e. New York, London, San Francisco, Tel Aviv and Seoul, for example – are too far ahead to be considered as a peer group for Manchester at this moment in time. Most of the top tier have significantly greater access to funding, superior broadband infrastructure, connectivity and speed, and a track record to build upon.

With significant industrial, scientific and cultural heritage, strong infrastructure already in place, and a dynamic team with experience of working together and a complementary skillset driving this project, Manchester can be characterised as having gained considerable momentum. The new BBC North base at Salford gives Manchester a good start on this strategy but it might need to focus attention on attracting a global digital technology company alongside the BBC to give the region the chance of becoming a more significant player in Europe. A significant technology company would provide further revenue to the array of smaller businesses within the ecosystem (support, professional and creative services for example) that will build further momentum required to facilitate the future growth of the hub. A wider team of advocates, supporters and ‘champions’ of the project also need to be recruited, mobilised and retained, in order to take advantage of the rich cultural and content enablers that Manchester has at its current disposal.

It must be recognised that Manchester is not – currently – that well placed globally. The digital sphere is crowded and highly competitive, and the global marketplace is witnessing significant investment by both leading digital cities (e.g. New York, Seoul and Silicon Valley) and emerging hubs (e.g. Moscow, Tel Aviv and Doha). In order to be realistic about Manchester’s prospects, an appropriate peer group of genuine comparators – mostly found in Europe, namely Barcelona, Amesterdam and Berlin – must be considered. Some of its competitors are investing significantly more than one hundred times the much-lauded sum of £12m (awarded via the Urban Broadband Fund (UBF) with which Manchester hopes to narrow the gap on the most connected cities. Becoming, and remaining competitive in this respect is essential for success.

However, should there be significantly improved and sustained innovation to deliver greater broadband connectivity and speeds, wider availability of funding – especially seed or micro-funding for digital entrepreneurs and SME’s – and support in developing business skills (e.g. writing successful funding applications and coherent, clear business plans), and improvements in the Computer Science and Digital Media curricula across the full spectrum of schools, colleges, clubs and universities, we believe that Manchester has the potential to compete with leading European and ‘second tier’ global digital hubs.

There is evidence to indicate that investments by both BT and Virgin Media – of significantly larger scale than the UBF provides – and the re-purposing of a major fibre ring that links many currently under-served areas (including but not limited to the airport, science park, Etihad campus and Manchester Central), will deliver a radical ‘step-change’ for Manchester. The existing high capacity fibre ring[1] is currently providing connectivity to The Sharp Project via 1 fibre pair with a capacity of 1GB (with a total of 24 fibre pairs available, total capacity of 10GB – 100GB could be expected) which far exceeds average broadband in

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[1] ‘The Loop’ is an operational asset consisting of 48-miles of fibre and ducting, which has been maintained for the last 10 years

Manchester. In total this asset contains 296 pairs of fibres, and the operators and managers are now actively seeking to exploit this potential. BT and Virgin Media, meanwhile, are committed to significant investment in fibre to cabinet – i.e. fibre to business premises – and their investments are expected to provide significantly greater availability of fibre-on-demand connections from 2013. All of this provides genuine rationale to believe that Manchester can catch up and compete with leading connected cities, such as Singapore and Moscow, for example, without having to rely on over-investment in broadband.

The focus for Manchester therefore is not to try and compete with the massive investment of leading digital hubs, nor to try and pick winners in specific sectors in order to drive growth. Manchester must capitalise on its existing resources, successes and hub, and nurture and facilitate the growth of its own unique digital ecosystem, specifically using The Sharp Project as a blueprint for future growth. It must become more adept at harnessing the existing public and private sector support and resources available to it, in terms of funding, education and retention of key skilled talent, and driving sustainable innovation. And it must overcome a cultural tendency towards self-deprecation, in order to promote the genuine success it has achieved historically, and in the recent past, in order to continue supporting the growth and proliferation of start-up businesses, and attract talented individuals and exciting projects to the region.

Our detailed recommendations can be found in Section 4 of this document, but we set out here four key factors that we believe are crucial to the success of this project.

Firstly, the need for a set of **focused interventions…**

- Manchester should focus on a number of interventions and projects, outlined in more detail in Section 4 of this Executive Summary, directing resources specifically addressing core challenges including availability of funding, broadband connectivity, business skills, Computer Science and Digital Media teaching and training, and the retention of successful workers and entrepreneurs

Secondly, the importance of **allowing market forces to determine the success** of individual sectors…

- Any digital hub needs to encompass a wide range of activities from e-commerce and marketing activities to web 2.0 audio-visual content, and allow for market forces to supply what is demanded - there is no one sector – e.g. film, gaming, animation – that can as yet be identified as essential to future growth, or prioritised over other sectors (this needs further rigorous industry analysis)

Thirdly, the necessity of **co-ordination and integration** across the private and public sectors…

- Establishing a digital hub will need significant co-ordination of educational, skills and training resources (including University research departments), infrastructure, finance and key individuals

Finally, the ability to **compete and overcome considerable challenges** that this project brings with it…

- Manchester stands a good chance of becoming the UK's secondary hub, and one of the leading hubs in Europe by 2025, although it will face significant competition and considerable challenges, specifically in the longer term with regards to:

  (a) education and skills, both within and outside of the formal school, college and university system;
  (b) securing better access to existing venture capital and investment, and coaching and mentoring applicants for funding to improve success rates; and
  (c) innovation and progress regarding technical (e.g. broadband connectivity) and transport (e.g. HS2 rail) infrastructure in order to maintain current competitive advantage

One other consideration must be the extent and co-ordination of genuine ‘digital leadership’ across Manchester. A major question remains ‘how can Manchester create leadership for this dynamic and diverse sector?’. What is needed is a team of credible, flexible and experienced entrepreneurs, industry leaders and public servants, who can authoritatively articulate the vision and relate to the next generation of start-up business owners and digital content entrepreneurs, providing guidance and mentorship.

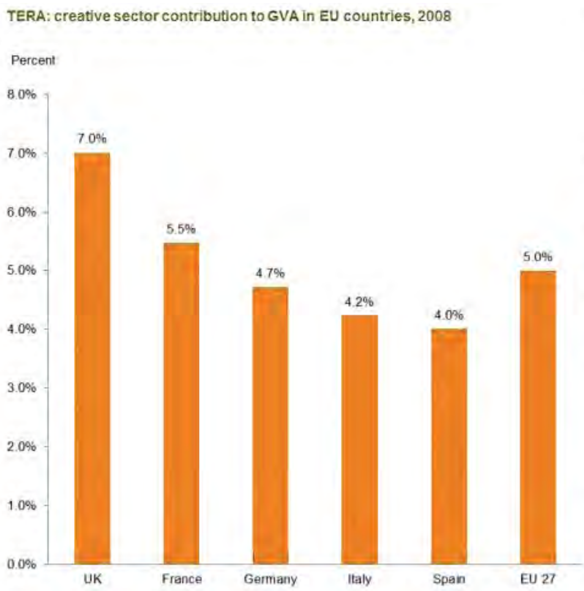
1. The digital and creative content sector

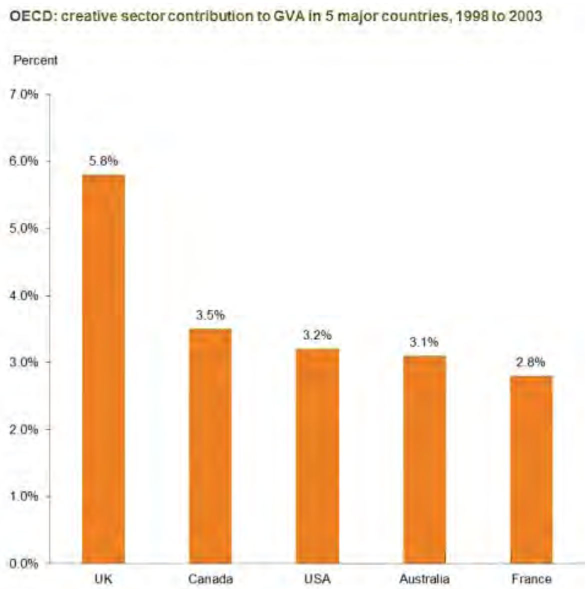
The importance of the digital and creative content sector

The traditional media industry continues to adapt and evolve, especially in terms of internet delivery, but the digital and creative content sector is clearly here to stay. Technology and innovation continue to fuel new business models, with social media, gaming and online video in particular experiencing rapid growth. Against the backdrop of a decade of technological and economic upheaval, consumer spending on digital content and media grew significantly, as did demand for visual, audio, gaming and other forms of content.

Service sector (activity band)	Exports	Imports	Net balance
Business and professional services (incl. advertising)	£33.5 Bn	£19.4 Bn	+ £14.1 Bn
Communication services (incl. telecoms)	£5.6 Bn	£4.5 Bn	+ £1.1 Bn
Computer and information services (incl. publishing, business information etc)...	£8.2 Bn	£4.1 Bn	+ £4.1 Bn
Personal, cultural and recreational services (incl. AV services)	£2.9 Bn	£0.7 Bn	+ £2.2 Bn
Royalties and licences (incl. IP licence sales, patent licences, etc...)	£10.9 Bn	£6.8 Bn	+ £4.1 Bn
Technical services (incl. engineering services)	£7.1 Bn	£1.7 Bn	+ £5.4 Bn

The creative and digital sectors are major drivers of the UK's strong service sector trade performance. The UK 'digital and creative industry' accounted for nearly 3% of gross value added (GVA) and 11% of exports in 2009 (representing increases on 2008 figures) – furthermore, 1.5 million people were employed in the creative industry in 2009, and in 2011 there are 106,700 creative enterprises (over 5% of the total number of UK enterprises). The sector employs 320,000 people in NW England, with over 31,000 companies generating almost £16 billion per annum (16% of the region's total output) – growth since the mid-'90's has increased at twice the rate of the UK economy writ large.





The publishing industry is the largest contributor to UK digital and creative Gross Value Added (GVA). However, the fastest-growing sectors are film, video, music and the performing arts which collectively grew by around 11% between 2008 and 2009. The UK's digital and creative contribution to GVA is disproportionately large when compared with other countries in the EU and beyond.

Future growth trends for the digital and creative content sector

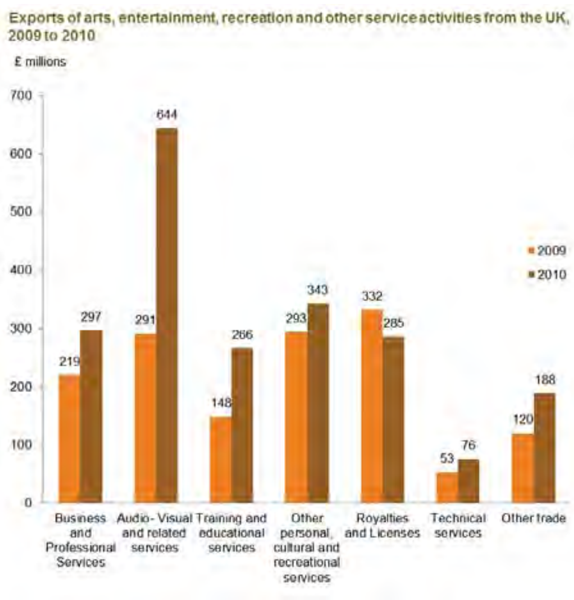
Total global advertising spend reached all-time record levels in 2011[2]. Content expenditure in television and filmed entertainment in developed markets of the Western world will continue to experience some growth, (or at worst remain 'flat), whilst the Asia Pacific region and China in particular[3] will drive growth.

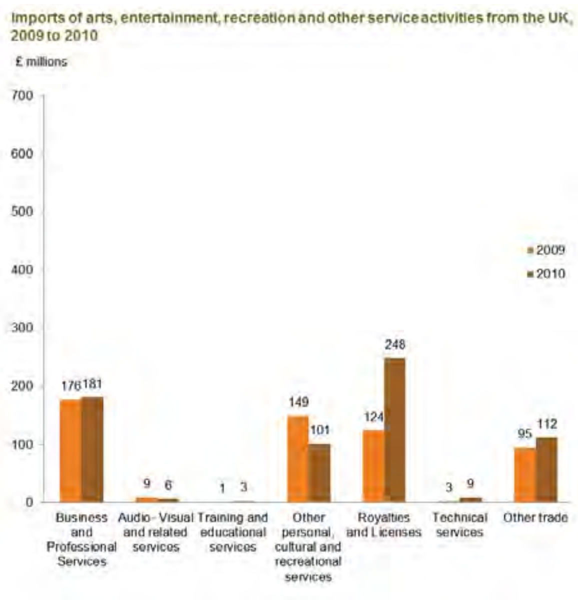
For the first time in several years, consumer spending on home entertainment is on the rise again[4], with streaming driving significant growth, and packaged media sales declining at a much slower rate than previously. Subscription streaming and other digital content models will fuel growth for film, television, music and gaming over the coming years, whilst stabilisation of the physical product market may indicate that DVD and Blu-Ray - and CD and offline gaming - have more of a shelf-life than previously expected. The recent Facebook initial public offering, achieving $100 billion capitalisation, highlights the remarkable, meteoric rise that is possible for digital start-ups. However, there are many that believe Facebook and other Web 2.0 businesses may struggle to meet the challenges of the rise of mobile. The proliferation of mobile devices (i.e. tablets and smartphones) has led some to declare that the age of Web 2.0 is over, and that the new age of mobile could threaten the unparalleled dominance of Facebook and Google[5].

Future growth will most likely come from new mobile technology companies, and existing tech giants will need to adapt and change. This is indicative of an opportunity for small start-ups to compete globally in the new mobile boom. Our analysis indicates that there is the potential for an upswing in M&A[6] activity across the digital sector, but especially for start-ups, products and services offering mobile solutions. Facebook's recent $1 billion acquisition of Instagram – valuing the mobile photo start-up at a higher level of capitalisation than The New York Times – provides some evidence of future M&A activity.

The global nature of the digital and creative content sector

Facilitated by high-speed, high-capacity internet access, the sector is truly global, and will remain so.





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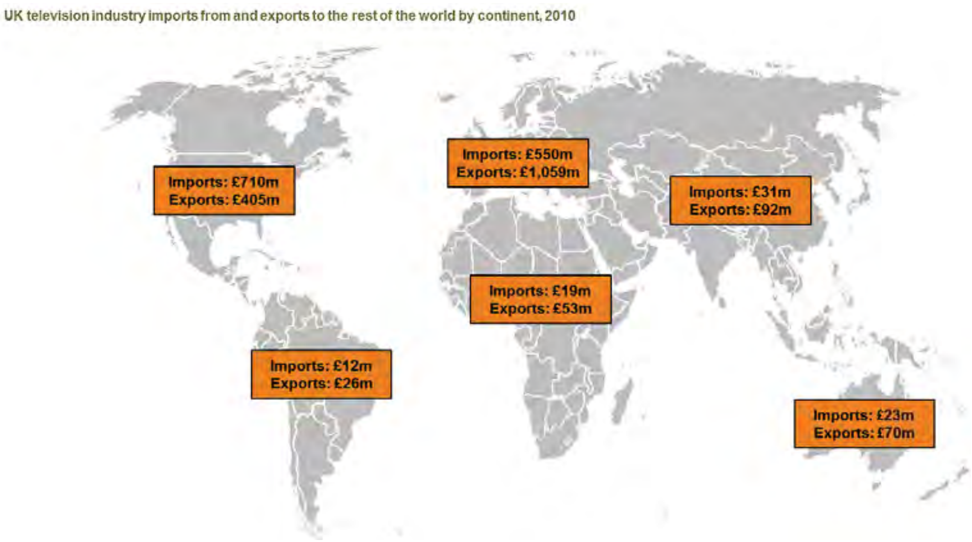
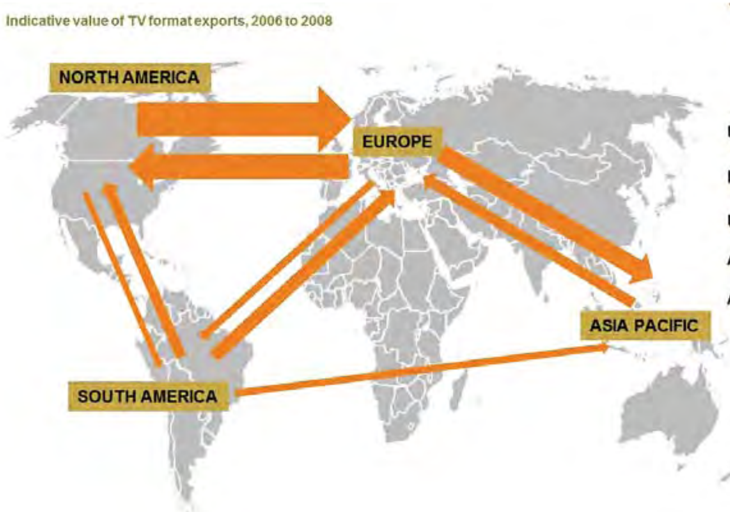
[2] 'US TV ad spending appears to have crossed the $70 billion mark for the first time in 2011, a year without a Presidential election or Olympics' (http://www.mediapost.com/publications/article/173472/tv-ad-spending-appears-to-pass-70-billion-for-the.html)
[3] 'China is now the world's second-biggest film market after America… last year China's box-office take rose by more than 30% to over $2 billion' (http://www.economist.com/node/21553486?fsrc=scn/tw/te/ar/themonkeyandthemouse)
[4] 'Consumer spending on home entertainment actually rose in Q1 2012, rising 2.5% to $4.45 billion largely due to the strength of streaming' (http://www.hollywoodreporter.com/news/consumer-spending-home-entertainment-netflix-bluray-redbox-317877)
[5] 'The tech world in which we live in seems to be speeding up' (http://www.forbes.com/sites/ericjackson/2012/04/30/heres-why-google-and-facebook-might-completely-disappear-in-the-next-5-years/2/)
[6] Mergers and Acquisitions activity

The UK is a significant net exporter of digital and creative products and services: in 2010 exports amounted to £2.1 billion and imports £0.7 billion (2009: exports £1.5 billion, imports £0.6 billion).

Manchester has a key role to play in contributing to the UK's net digital and creative exports. English language content has significant value, with many TV formats and shows highly exportable[7]. Shows and formats like 'Strictly Come Dancing', 'Come Dine With Me', 'Shameless' and 'Top Gear' have been globally successful, and Manchester can contribute to exports via PSB's and indies alike. But what Manchester can offer globally goes beyond just television. With tax breaks recently announced for the gaming sector, we see no reason why Manchester should not be able to develop online and social games and export them successfully, with the right infrastructure in place. Some of what is required includes improved education and training, access to start-up funding and mentoring by successful executives.



Whilst the UK runs a deficit in the US in TV content trade, it remains a significant net exporter of TV content to the rest of the world. In fact, the UK has the largest global market share of exported hours by volume, ahead of the Netherlands and the USA in second place.



Exporting market	Global market share by volume of hours (%)
UK	29
Netherlands	26
USA	26
Australia	4
Argentina	4

With the BBC based at mediacity:uk and increasingly moving resources and production into Manchester, and ITV and Channel 4 following suit, this provides genuine grounds for optimism. Manchester must focus on gaining as large a share of possible of UK television output, and stands to benefit through the export of that content around the world, further establishing the city on the global digital map.

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[7] UK TV exports increase again (http://www.pact.co.uk/about-us/news/uk-television-exports-survey-reveals-13-rise/)

2. Manchester has critical mass

Manchester draws on a proud heritage and solid foundations

Manchester has significant and important industrial, scientific and cultural heritage; it was the birthplace of the first computer, and in the 1970's, 1980's and 1990's became recognised on the global music scene. Manchester is home to arguably two of the largest football teams in the world, and was the recipient of the 2010 Nobel Prize in Physics[8] for 'ground-breaking experiments regarding the 2D material graphene'.

The semiotics of Manchester indicate a 'get it done' attitude, with substance more important than style, and a 'Team Manchester' ethic pervading that encourages local successes to look to support others hailing from Manchester. In terms of transport infrastructure, evidence suggests many European businesses find it quicker and easier to travel to Manchester as a business hub via air, citing ease of travel from the airport to city centre. The proposed future extension to the HS2 high-speed train link will only serve to make Manchester more accessible to the rest of the UK, and to mainland Europe.

Manchester has genuine momentum

The relocation of the BBC to mediacity:uk (and the knock on effect in terms of ITV and Channel 4) has had a significant impact on the digital and creative sector in Manchester. The multiplier effect of this for SME's has yet to be fully realised, and will provide future growth. Service sector growth clustered around this and greater opportunities for providing support to the PSB's – and also potentially Sky – will continue to develop the digital economy in and around Manchester. We assessed the potential for Manchester across a number of dimensions and found that the building blocks for success are broadly in place.

City Leadership Vision, ambition, teamwork	**Strong**: the core team have a compelling vision and are a cohesive unit with a strong track record between them.
Digital Leadership Agility, credibility, expertise	**Weak**: credible, agile leadership is required, with flexible and non-bureaucratic governance, and dynamic management.
People Education, training, labour force	**Average**: a focus on improving technical and entrepreneurial skills and retaining key talent requires long-term effort.
Infrastructure Power, connectivity, transport	**Very strong:** with abundant power and connectivity, and ever-improving transport links (e.g. HS2 train).
Development Land, property assets	**Strong:** significant quantities of developable land available that can be provided cost-effectively to new tenants.
Capital VC community, access, skills	**Weak:** capital is available, but there are difficulties – including a lack of skills – to draw down funding.
Content producers TV broadcasters/indies, web 2.0	**Good:** subsidiary businesses are thriving in support of major content producers (delivering support services).
Content enablers Sport, music, drama	**Very strong:** as well as arguably two of the largest clubs in world football – there is strength in music and drama.
Semiotics Substance, brand 'Manchester'	**Good:** evokes sporting excellence, creativity, strong industrial legacy (endeavour, robustness and substance).
Comms/PR Style, narrative, story	**Weak:** neither telling nor selling a good story about the region, its prospects and future plans
Total Initial assessment	**Good:** overall, the building blocks appear to be in place for Manchester to be successful, despite some challenges.

[8] Andre Geim and Konstantin Novoselov of the University of Manchester were awarded the Nobel Prize in Physics for 2010 (http://www.nobelprize.org/nobel_prizes/physics/laureates/2010/press.html)

Our overall assessment reinforces our belief that the aspiration of being a competitive, global digital content hub by 2025 is possible, with a sustained focus on the right set of interventions.

Three of these dimensions are expected to pose significant challenges over the coming years. Firstly, Manchester must attract, develop and retain a team of credible, flexible and successful digital leaders to provide direction, coaching and guidance to the next generation of digital content entrepreneurs. Implicit in that, they must be able to assist with providing access to capital, and help start-ups and SME's achieve scale within an environment where that capital may be scarce. And finally, a narrative must be developed that encompasses the genuine successes emanating from the digital sector in Manchester.

Manchester is the second city in the UK

In relevant dimensions of comparison, Manchester is second only to London in terms of its attractiveness to businesses, with outstanding transport links, solid broadband connectivity, and a talented labour force.

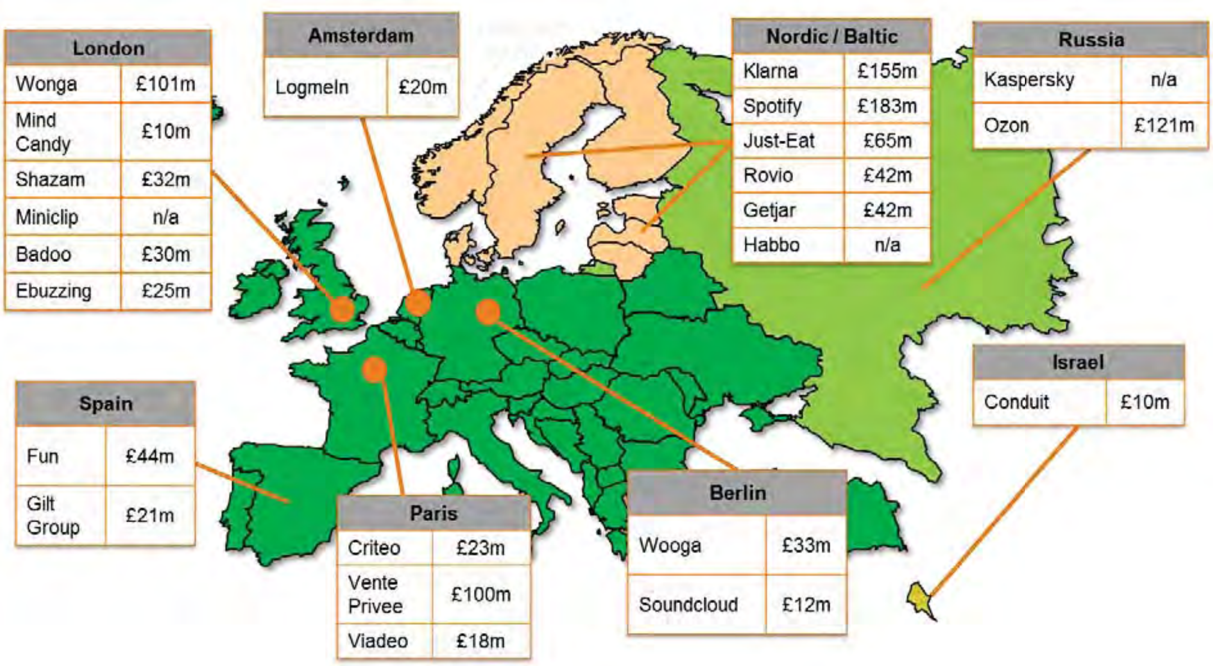
The information and communication sector, which includes IT services, digital businesses and content production, represented 5.4% of Manchester's total GVA in 2009, compared with 4.0% in 1997. When compared against its main UK peers – Cambridge, Shoreditch and Bristol – its growth is relatively strong.

However, it is important to remember that this industry is a vastly more globally competitive industry than many others, and that being in 2nd place within the UK does not necessarily indicate strength globally.

But Manchester is not that well placed globally

Manchester is competing within a broader competitor set, where its competitors are better funded, within an industry that is increasingly global. The scale of the challenge is not to be under-estimated and a 'leap-frog' is required in order for Manchester to compete effectively over the long term.

The digital sphere is crowded and highly competitive, and whilst Manchester should be applauded for its ambition, this must be grounded in reality. The appropriate peers to compare against should not be the biggest global digital content hubs – such as New York, Seoul and Silicon Valley – but more realistically the second tier, mostly situated in Europe and the Middle East (EMEA), such as Barcelona, Amsterdam, Tel Aviv, Doha and Berlin, for example.



The map above shows the 23 EMEA based start-ups that are within the Top 100 most highly funded recent start-ups. None are located in Manchester, and Manchester needs to be able to compete with these tech cities in attracting capital in the near future. This remains a major challenge, partly due to the lack of availability of capital, but more significantly due to the difficulties start-ups and SME's face in accessing existing funding. Many individuals and businesses need support in understanding what constitutes a professional application, in drafting and developing business plans, and in establishing credibility where their innovative products and services are creating a 'new market'. Existing funding bodies also need support in understanding the specific demands and challenges of the digital and creative sector, especially in these new markets where traditional approvals based on track record do not directly apply. They need support in finding different proxies for awarding funding to digital start-ups.

Within its peer group, Manchester can reasonably be expected to be near the back of the pack. Talent is highly mobile, and projects and businesses increasingly operate on a global basis. Whilst mediacity:uk and the BBC anchor a certain amount of service and support sector business in the area, Manchester must adapt and grow, and be able to operate competitively on a global scale, attracting talent and exciting projects for the talent to work on.

	Public funds / rent subsidies	Super fast broadband provided	Cooperation with university research departments	Tax / duty concessions	Cooperation with financiers	Networking opportunities and forum	International transport links improved
Paris	✓	✓	✓		✓	✓	
Berlin	✓	✓	✓	✓	✓	✓	✓
Moscow	✓	✓		✓	✓		✓
Barcelona		✓	✓	✓		✓	✓
Tel Aviv		✓	✓	✓	✓	✓	✓
New York	✓	✓	✓	✓	✓	✓	✓
San Francisco	✓	✓	✓	✓	✓	✓	✓
Singapore	✓	✓	✓	✓	✓	✓	✓
Seoul	✓	✓	✓		✓		

A number of countries are launching – or have recently launched – significant "tech city" initiatives in an attempt to become digital and creative sector hubs. Every one of these cities has one thing universally in common, namely that they are all investing significantly in super-fast broadband.

Manchester has gained significant press via its recent maximum award of £12 million of government funding in order to become a 'super-connected city[9]'. International rivals are, however, investing more in dominating and growing their high-speed connectivity further in future, such as Singapore[10] and Moscow[11].

Our analysis indicates that the UK remains behind many of its peers in terms of super-fast broadband connectivity and availability. For Manchester to compete globally, significant investment and a radical, innovative new approach are required, to overcome systemic challenges in broadband infrastructure. Currently Manchester, and the UK, remain far off the broadband pace, and are slipping further behind.

However, both BT and Virgin Media, who have committed significant funding and investment over the coming years in fibre to cabinet connecttions, as well as the planned exploitation of 'The Loop', a high

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[9] 'Interconnectivity gets a leap in the Northern capital… Manchester aims to make ultrafast broadband available to 235,000 premises… by 2014/15' (http://www.manchesterconfidential.co.uk/News/12m-Broadband-Bid-Success-For-Manchester)

[10] 'The new network, stimulated by an investment of about $700 million from the government, will help the country leap ahead in an international race' (http://broadcastengineering.com/news/singapore-offer-fastest-broadband-service-world-2013-0621/)

[11] 'Moscow's largest landline telecom provider… plans to spend $2 billion on its new GPON network. An investment of about $600 million has been allocated for this year' (http://www.ewdn.com/2012/04/26/moscow-telecom-provider-to-invest-2-billion-in-gpon/)

capacity fibre ring (consisting of 296 pairs of fibres covering a 48 mile ring around and through some of the least connected areas within Greater Manchester) could enable Manchester to catch up swiftly.

	Fixed BB subs/ per 100 people	Wireless data subs/ per 100 people	% Of fibre to the home connections in total b/band subs	Average measured connection speed Mbps
UK	32.6	44.4	<1% (FTTC c20%)	4.9
USA	27.3	65.5	8%	5.8
GERMANY	32.6	29.2	0.5%	5.0
FRANCE	33.8	38.2	3%	3.7
NETHERLANDS	38.5	44.1	4%	8.2
DENMARK	37.7	73.6	8%	5.7
CANADA	31.2	31.8	1%	N/A
SOUTH KOREA	36.0	89.3	57%	17.5
JAPAN	27.0	80.0	44%	9.1
OECD AVERAGE	25.1	47.9	N/A	2.3 (global)

Whilst it is still too early to be able to gauge the impact that BT and Virgin Media's investment will have, and how successful 'The Loop' is in terms of the rollout of access to this high capacity asset, there are grounds for cautious optimism, especially with regards to the latter. The infrastructure in the ground is fully operational – currently serving The Sharp Project – with vast capacity that could transform the connectivity of Greater Manchester. The knock-on impact of this on the sector could be considerable.

In terms of education, Manchester University is currently ranked as the 22nd best information technology university in the world, and one of the best in the UK. The 2012 University League Tables show that for Computer Science, Manchester's research assessment score is equal to Oxford and University College London[12], and only bettered by Cambridge, Imperial College London, Southampton and Edinburgh.

There is a significant pool of talent graduating from Manchester every year. However, whilst Manchester is producing quality graduates, it faces a challenge to retain them, with many attracted by London or other international opportunities. This is illustrative of the size of the challenge faced by Manchester.

There are numerous cities with similar ambitions, and significantly greater access to public and private funding, with larger and more established digital sectors, and a more highly skilled labour force receiving best in class education. Many of these are better placed to dominate as digital content hubs of the future.

Manchester does, however, have several advantages, a unique offering, and the potential to challenge for its place – initially – in the second tier of global, digital content hubs. By focusing on making more funding available – especially to start-ups and SME's – and improving the skills base of those in the sector, as well as making Manchester an attractive place to live and work, Manchester can genuinely compete.

3. A plan for a Digital Manchester

Nurture and facilitate

It is important to make it clear that what is required for Manchester is not a committee led approach, with standard governance and development of a multi-year plan. The digital, creative and media sector is one that should not be over-managed by Manchester, and they should not attempt to pick and back winners (neither focused on sectors nor specific companies that they believe will succeed).

The role for Manchester is to nurture small and medium sized businesses in particular, and facilitate development of a digital content hub. Market forces should be encouraged to operate under the normal rules of supply and demand, and the role for Manchester is not to pre-empt those market forces, but to respond to them and work hand in hand with the private sector where support is most directly required.

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[12] 2012 tables (http://www.thecompleteuniversityguide.co.uk/league-tables/rankings?o=Research&s=Computer+Science&y=2012)

What is a digital content hub?

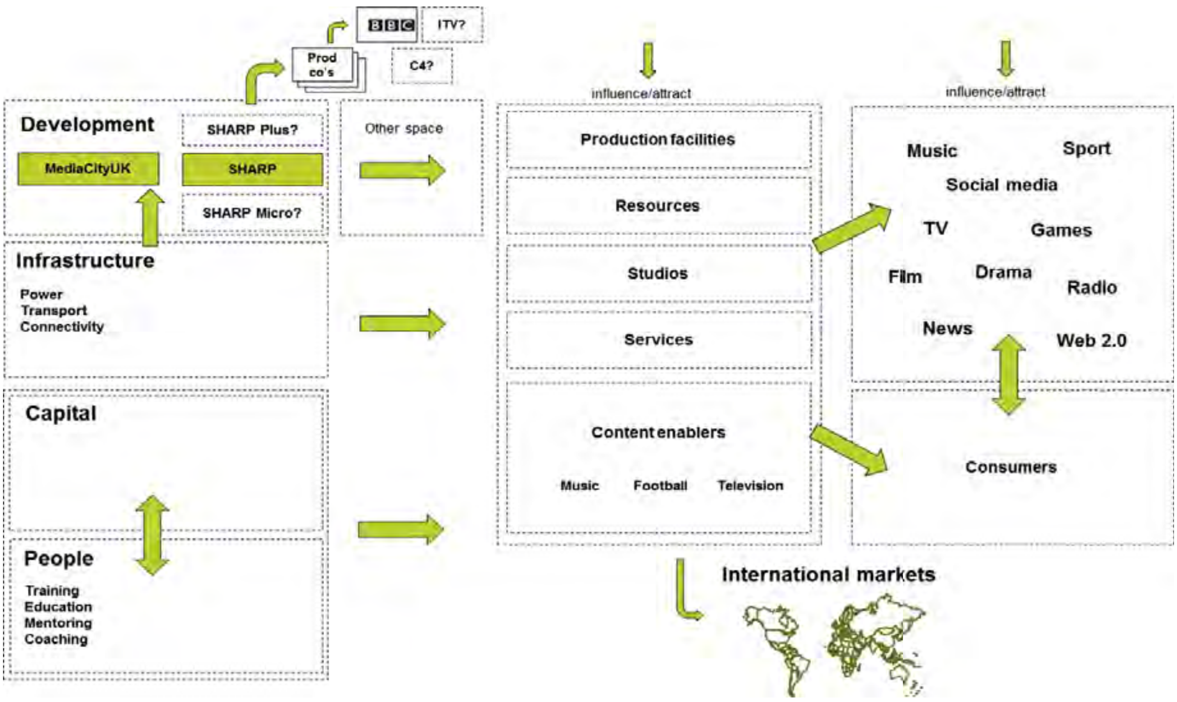
We have identified a number of characteristics shared by digital content hubs.

- Implicit demand for content services locally, regionally, nationally or even internationally
- Established incumbent content businesses nearby (i.e. easier to steal than grow)
- Self-sustaining 'ecosystem' housing inter-related media businesses
- Strong local or regional identity to build upon, with 'brandable' media success stories
- Content origination / rights sources locally (sport, drama, music etc.)
- Competitive advantage (i.e. cost savings) and spare capacity (people, property etc.)
- Stable 'core' (e.g. traditional media businesses) for start-up companies to serve
- Broad representation of multiple digital content and creative sectors (e.g. TV, film, news, Web)
- Support infrastructure (e.g. power, transit) and services (e.g. financial, legal)
- Government/public sector support, as well as private sector willingness to 'engage'
- Academic support – in training, or in research with business spin-offs
- An 'X-Factor' or 'cachet' (something 'cool' that builds momentum)

The Sharp Project ecosystem as an example

The Sharp Project offers affordable, flexible office space for rent to companies that produce and manipulate digital content. The remit has been specifically to help grow and build on the creative and digital sector in order to create job and career opportunities in the area, and support regeneration efforts.

The project has created an ecosystem on site which allows this growth to develop, as companies collaborate as well as compete with each other for business. To enable this The Sharp Project carefully select companies who offer complimentary or additional services which will allow creative companies to develop their skills and support their businesses to grow. This selection process, and the support provided by tenants of The Sharp Project to each other, and by The Sharp Project to tenants, has created a self-sustaining ecosystem, which is a microcosm of the ecosystem required across the breadth of the digital sector in Manchester.



A philosophy within a factory

The Sharp Project has become 'a philosophy within a factory', and is a prime example of how some public sector support has led to a now self-sustained private enterprise, with high occupancy and remarkably low failure rates for businesses operating within its ecosystem. This is partly due to a selection basis, with potential tenants assessed before moving in, partly due to low rental costs and exceptional connectivity, and partly due to the environment, network of related businesses (suppliers and customers) found there.

There is, however, a challenge in terms of scalability, and building on the success of The Sharp Project. What will happen to those businesses that outgrow The Sharp Project? What about the 'kids with ideas' who – as yet – do not have the experience, financial backing and acumen to become tenants? How can Manchester best capture the essence of The Sharp Project and replicate it elsewhere within Manchester? Creating a climate where things happen, an ecosystem where growth can be encouraged, is the next challenge for Manchester. Capitalising on the success of The Sharp Project will be key to future prospects for Manchester.

What is required is replication of the philosophy of The Sharp Project elsewhere in Manchester, and extensions to the existing project to provide for 'micro' start-ups ('The Sharp Project Micro', which is emerging with the The Sharp Project campus and Sharp Futures) and start-ups or SME's that have outgrown the The Sharp Project premises ('The Sharp Project Plus'). The Sharp Project Micro expansion should be focused on providing support to the 'teenager with a great idea' (someone technically savvy but without any real world business experience or access to the kind of support and resources that would allow them to take advantage of The Sharp Project) as a pseudo-incubator, from which they would graduate to The Sharp Project. Likewise, the The Sharp Project Plus expansion would provide additional space, resources, fora, contacts and access to funding, venture capital and public sector support, as the start-up becomes a more established business, requiring additional staff, capital and guidance. We believe that in combination with the existing development opportunities and infrastructure, and a focus on attracting capital and people, the foundations will be in place to influence and attract more start-ups and businesses into Manchester's digital content hub.

Obstacles and challenges for The Sharp Project ecosystem tenants

In the course of our analysis we have conducted several interviews and meetings with current tenants of The Sharp Project, in order to understand the obstacles and challenges they face.

The main categories were seen to be as follows:

- Finance
  - Fundraising – access to initial (seed) funding
  - Business plans – planning for future growth and learning the language of 'business'

- Future broadband connectivity
  - Businesses and homes – geographical spread, connection speed and alternatives
  - Capacity/spine – room for future growth, additional capacity, increased speed

- Education
  - Computer Science and coding – ensuring that it is on the curriculum
  - Appropriate coding languages being taught (i.e. up to date)

- Mentoring
  - Business support/'grey hair' – predominantly for start-up businesses
  - SME development – focused on the requirements of SME's in becoming bigger

We have incorporated this feedback into our planning, in order to ensure that the interventions that we recommend to Manchester reflect the real concerns and requirements of digital content businesses.

A climate for growth across Manchester

Focusing intervention efforts on key priority areas – such as property, finance and education, for example – will enable Manchester to put the appropriate, solid foundations in place for long-term growth.

From a property perspective, The Sharp Project must remain at (or near) full capacity, and the lessons learned from operating The Sharp Project must be applied to similar property and land that can be re-developed, potentially with some limited support from Manchester. A key focus must also address The Sharp Project Plus, identifying future options for tenants who outgrow The Sharp Project but want to remain within a 'campus' or community ecosystem. In terms of ensuring that the The Sharp Project philosophy is captured and the ethos transmitted to other sites, both physical and virtual, we recommend that Manchester creates a portal – or gateway – to its digital sector. This could take the form of an incentivised competition for developers in Manchester, where they submit their vision and outline plans for such a portal, and that the prize includes a bursary for further study in Computer Science skills required, an award of funds to help establish the portal, and partnership opportunities with Manchester-based businesses who can support the development of the portal.

The digital portal would become the first port of call for those within Manchester's digital sector, and a calling card for the talent and projects in the area. It would support twinning with international hubs, and partnerships across both the public and private sector, building a digital community for Manchester.

Funding and business skills

With regards to finance, we believe that Manchester can lead the way in terms of incorporating micro-finance and crowd-funding for small businesses, and that initially a 'seed' capital fund should be set up. This would initially take the form of fundraising to a maximum level of £50,000 for a start-up business, and Manchester should develop and own the platform exclusively for its own use. Further down the line we believe that Manchester should look to facilitate a larger fund, backed by a bank, private equity and angel investors. This fund should be used to further develop businesses from start-ups to SME's, and with a focus on delivering genuine step-changes. The fund should also look to award bursaries and incentives to attract top global talent to teach and work in Manchester, and to be retained.

However, an immediate challenge remains in terms of accessing funding that is already available, such as the North West Development Fund (which has seen little success in terms of applications from the digital sector) and other national and European (EC, EU) funds. Improving the ability of entrepreneurs and small business owners to apply for funding is a key priority for Manchester, and there remains a role for MIDAS to play in educating the gatekeepers of private and public funds with regards to them providing finance to newer business models in as yet unproven markets. Likewise, there remains work to be done in supporting individuals with business planning, the 'art' of successful funding applications, and general commercial skills building in practice (e.g. supplier negotiations and managing cashflow).

We believe that there is a role to play in engaging a number of young digital entrepreneurs with successful mentors, both with regards to general development of their business, and in order to furnish them with specific skills that they will need in future. The Sharp Project could house a number of lectures, tutorials and short-courses focused on business planning, drafting funding submissions and in-depth business plans, negotiation skills, the language of business, and other commercial-based curricula. The Sharp Project could also be host to presentations from established businesses in the region – e.g. BBC – with executives attending to help explain how best to engage with large companies, specific workshops as required, and other support to start-up businesses. We believe that Manchester should look at both The Sharp Project and non-Sharp Project tenants, and select start-ups that should be earmarked for mentoring support.

Education and digital curricula

In terms of education, we believe that attention must be paid to the Computer Science and Digital Media curricula, both in terms of what the public and private sector can provide. In terms of publically funded education, Manchester should lobby to ensure that relevant, up-to-date courses are provided, where possible supplemented by existing, free, online learning resources for those who are best placed to take advantage. Manchester should also seek to attract top international coders to schools, colleges and universities. This talent could also provide support at The Sharp Project and other venues, who could host high-impact, low-cost presentations and shorter courses of training. Manchester could truly lead the way in developing online Computer Science and coding courses, and making them available with bursaries and incentivised competitions for those unable to pay for training. This would increase the supply of talent.

The impact of the Super-Connected Cities Proposal and Urban Broadband Fund[13]

Although Manchester's submission for UBF finance is comprehensive in nature covering both commercial and social impacts of improved broadband connectivity in the Greater Manchester area, a number of key assumptions and proposals appear to be lacking in clarity and detail.

Whilst the key headline intentions and plans are clear and broadly logical in most places, specific details of what will be implemented and how are lacking, making it difficult to gauge the actual impact that the plan will have on broadband reach and connectivity in Manchester. It will be important to closely monitor the actual impact of UBF funding once plans are implemented, in order to understand the specific extent of improved reach and connection speed. This should also be assessed against the background of other leading and aspiring cities investments in broadband, and achievements in terms of reach and speed.

The main areas of concern include the following:

1. Broadband infrastructure is expensive and often has a short life-cycle; it is our belief that the tender significantly underestimates the cost of implementing such an ambitious project. Cities like Moscow and Singapore have spent upwards of $1billion each developing their infrastructure and continue to invest both public and private funding in maintaining their technological advantage
2. The tender does not underline the short life span of broadband related technologies and the constant need to think ahead of the curve and upgrade infrastructure as and when needed.
3. The document makes no reference to 4G/'long term evolution' (LTE) technology, which given Ofcom's recent statements should reach major UK cities by 2013/14. The technology is not only a game changer, but could also have a considerable impact on Manchester's key investment targets in this area. (e.g. wireless broadband infrastructure)
4. The document alludes little to the changing consumption patterns of internet, and more emphasis should be placed on mobile technologies and how Manchester's bid could support these
5. The document does not sufficiently allude to the difficulties and costs of rolling-out broadband to SMEs and start-up businesses
6. Finally, the document lacks a general "vision" as to how broadband can benefit SMEs not directly involved in the creative or digital sectors

Further considerations include the following:

1. The overall aim of the project may be over reaching especially given the limited amount of funds
2. The outline on how to support "super-fast or ultra-fast connectivity" for SMEs is limited. We feel that the difficulties and costs associated with the implementation of such ambitions are not sufficiently defined in the document

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[13] The UBF should be considered in the context of other developments in Manchester, such as commitments for investment in fibre to cabinet connections by both BT and Virgin Media, and the significant capacity that 'The Loop' offers across Greater Manchester

3. 50% up-take of ultrafast services by 2020 is not as ambitious of a target as it may first appear to be. Other leading and aspiring hub cities are developing and investing in infrastructure with much greater capability (e.g. Moscow, Singapore, Tel Aviv)
4. The development of online public services seems unambitious when compared to peers - Manchester seems to be playing “catch-up” in this area rather than a pioneering role
5. The document does recognise the high costs involved in delivering superfast FTTC[14] or FTTH[15] services to residents and SMEs. It is doubtful, however, that £12 million will be sufficient to bridge this capability gap – especially with competitors investing significantly more

[14] FTTC - fibre to the cabinet (i.e. businesses)
[15] FTTH - fibre to the home (i.e. residential)

4. How to get there?

Set of interventions and activities

We believe there are a number of interventions that Manchester should pursue, broken down into two steps – firstly, a focus on immediate priorities, and secondly a fuller list of interventions.

Step One: focus on immediate priorities

Immediate priorities would include:

- Develop criteria for selecting appropriate sites to contribute to the overall digital ecosystem
- Identify infrastructure required to 'light up' sites (e.g. power and connectivity)
- Develop a closer relationship with the University of Manchester Computer Science department
- Identify themes to promote Manchester's achievements and ambition to be a digital hub

Step Two: proceed with a fuller list of interventions

A more exhaustive set of recommended interventions is detailed below, focused on specific outcomes:

<table>
<tr><th></th><th>How to get there?
Short term: 0-18 months hence</th><th>Goal sought
Long term: 18 months-5 yrs</th><th>Priority</th></tr>
<tr><td>Ecosystem</td><td>Identify and distil the key characteristics of the digital content ecosystem, and apply them to future extensions of the The Sharp Project brand and philosophy</td><td>Establish the The Sharp Project brand and philosophy across several sites in Manchester</td><td>Top</td></tr>
<tr><td colspan="4">Outcome: detail and distil the key characteristics and components of the ecosystem into a set of easy to use documents that can be provided to the management team tasked with developing, launching and maintaining alternative campuses. The documents should be focused on (a) essentials required for success and (b) key lessons learned from The Sharp Project experience to date, and should be considered to be a 'blueprint' for launching and operating future sites that support the overall ecosystem in Manchester. These documents should be the basis of a 'starter pack' and be maintained on an on-going basis.</td></tr>
<tr><td>Property</td><td>Make best use of the current portfolio of available property (e.g. The Sharp Project Micro and The Sharp Project Plus focus) in the right locations (offering significant regenerative benefits)

Capture 'lessons learned' from The Sharp Project – operational and strategic

Encourage private sector partners to create 'digital' co-working hubs in their city centre locations based on models such as 'General Assembly: Manhattan'</td><td>Extend the The Sharp Project ecosystem and philosophy across other appropriate sites in Manchester to stimulate growth

Provide support to start-ups that are too small and/or have outgrown The Sharp Project

Attract a leading global digital technology company to base European HQ in Manchester</td><td>High</td></tr>
<tr><td colspan="4">Outcome: detail and develop a set of criteria for selecting appropriate sites to contribute to the overall digital ecosystem (e.g. infrastructure requirements (power and connectivity), development potential of the area itself (i.e. regeneration needs and risks), likely achievable rents, existence of digital businesses in the vicinity etc.) and use these to identify and prioritise a set of key locations and sites across Manchester. Targets should be set for the next 5 years in terms of (a) number of sites and (b) square footage made available to start-ups and SME businesses, and (c) target break-even point for future sites.</td></tr>
</table>

Infrastructure	Continue to track broadband connectivity and monitor supplier base Identify alternatives to incumbent providers with lower speeds and reach	Develop a longer-term solution providing radically improved connectivity which is globally competitive, aspiring to match Moscow, Singapore and Seoul (1GB)	**High**
Outcome: development of a longer-term solution, potentially utilising hidden assets to provide alternative sources of connectivity beyond the scope of the UBF plan. Implicit in this is a recognition that whilst the Super-Connected Cities project and all related funding will improve broadband reach and connection speeds, the extent of improvements are unlikely to be enough. Manchester will still not be competitive when compared to leading and aspiring global hubs. Careful, detailed monitoring and analysis of the actual impact of the implementation of the UBF plan is required, as well as attention to developments at other leading and aspiring global hubs, and the impact of 4G and LTE. Manchester needs to evaluate multiple alternative sources of (a) raising further funding and (b) taking advantage of other resources to deliver a leapfrog in terms of broadband reach and speed, simply to catch up with competitors. We would recommend that that a separate project or working group be established exclusively for this purpose.			
Finance	Work with the NW Fund and other existing funds to educate funding gatekeepers about the digital sector and challenges of new business models Focus on improving the quality of applications for funding, with mentoring, advice and specific support to digital entrepreneurs/small business owners Set up a crowd-sourcing fund for start-ups and small businesses Set up a new fund (three partners: private investors, bank and crowd-funding) Select start-ups for business plan mentoring/training Work with MIDAS to create a map of support available (public and private) and localised funding advice/guidance Produce a pack to provide support to those looking for UK based VC funding and EC (Digital and Creative Fund) or EU (European Regional Development Fund – ERDF) funds Deliver workshops and presentations at The Sharp Project, led and facilitated by ‘Team Manchester’ successful entrepreneurs Arrange fora for banks/lenders to meet with start-ups	Increased supply of start-up funding for ‘first step’ (micro-funding for pre-start-ups and start-ups in early stages) Identify and mentor a handful of ‘bright young things’ Make the process of funding more transparent, fluid and relevant to the digital content and creative industries De-mystify EC funding and encourage more applications (whilst improving the quality of all applications) Provide resources, support and guidance to digital sector start-ups Break down barriers – language and cultural – to support entrepreneurs Put Manchester on the map – leverage relationships and network	**Top**
Outcome: initially we recommend focusing on providing a dedicated ‘one-stop shop’ or ‘brokerage’ on site at The Sharp Project. Effectively this would be a full-time resource who would (a) signpost public funds that are already available within Manchester, the UK or Europe, (b) act as a broker for private funds, bringing with them their own network of contacts (individuals and organisations) and (c) develop			

<table>
<tr><td colspan="4">the funding pipeline primarily (but not solely limited) for occupants of The Sharp Project. As well as providing one-to-one advice and support in terms of form-filling, writing and editing business plans and navigating the funding landscape, this service could also provide presentations to The Sharp Project occupants (and a wider audience) and facilitate a number of workshops on relevant topics. Guest speakers (including successful entrepreneurs from the Manchester community) and specialist advisors could also be provided. The brokerage would need to work alongside MIDAS, the NW Development Fund and a selected number of financial partners (banks, funds and key individuals) with a remit to increase the amount of funding made available to start-ups and SME businesses. It is proposed that an individual be seconded into this role from within the existing network of contacts of Manchester City Council, and that the role be subsidised initially (but eventually would be part of the cost-structure and 'value-added' services made available by The Sharp Project).</td></tr>
<tr><td>Education</td><td>Lobby for improved Computer Science and Digital Media curricula in secondary schools, colleges and universities (local initiatives) and ensure HTML5 and most up to date codes and languages are taught widely

Research best-practice online learning facilities available in order to develop 'top-up' curricula for future coders

Award conditional bursaries to attract top international coders to Manchester, and support Erasmus opportunities to learn and train abroad for Manchester students/professionals

Develop online Computer Science, Digital Media and coding courses with financial support (i.e. bursaries)</td><td>Attract (and retain) graduates

Improve skills base

Find innovative, online, distance learning solutions

Incentivise and import skilled labour into Manchester

Work experience schemes

A role for Sharp Futures in delivering new apprenticeship opportunities for Manchester</td><td>Medium</td></tr>
<tr><td colspan="4">Outcome: TBC (pending a meeting with the University of Manchester Computer Science department)</td></tr>
<tr><td>Regulation</td><td>Lobby for crowd-sourcing fund availability

Lobby for additional support re: broadband infrastructure

Take advantage of tax breaks for high-end TV and gaming</td><td>Improved availability of micro-financing

Better broadband (leapfrog) – a diverse range of suppliers

Attract gaming companies to Manchester</td><td>Medium</td></tr>
<tr><td colspan="4">Outcome: the focus of all regulatory interventions should be either (a) to improve the availability of key resources (e.g. funding and broadband connectivity) and (b) to make Manchester more attractive for specific sectors (e.g. gaming companies benefiting from proposed tax breaks)</td></tr>
<tr><td>Co-operation</td><td>Develop international partner relationships – e.g. US (NYC, Silicon Valley) and Abu Dhabi (via Man City)

BBC, ITV and C4 – 'pods' at The Sharp Project /Town Hall meetings

e.g. Apple (or other global tech brands)</td><td>Supply chain/mediacity:uk

Innovative partnerships</td><td>Medium</td></tr>
</table>

	Partner with a brand like Samsung to launch a 'smart app' challenge for Manchester (e.g. handheld devices) International digital hub co-operation, knowledge sharing and 'twinning' Review public/private sector interaction		
Outcome: the focus of all co-operation interventions should be to make Manchester more attractive for inward investment and partnership opportunities (e.g. large international businesses and organisations)			
Promotion and Communications	Commission a competition to build a portal for a digital Manchester (virtual community online) Build a network of digital cities, twinning Manchester with digital hubs in America, Asia and Europe Develop narrative with Marketing Manchester Digital success stories – in their own words – from reputable entrepreneurs Commission 'Digital Festival' for Manchester, including short-films, online gaming and apps development, and events in Manchester itself Start a competition to submit start-up business ideas and win a rent-free space in The Sharp Project (or similar) Host a 'start up weekend' in Manchester – time-bound events where developers, designers, product managers and start-up enthusiasts come together to share ideas, form teams, build products and launch start-ups	Change the perception of Manchester Celebrate success/culture of achievement Unity/team spirit	**High**
Outcome: a narrative is required to promote the success stories to date relating to Manchester's digital ecosystem, start-ups and key individuals, showing how Manchester has put itself on the global map. Careful consideration of both (a) the message and (b) the method for promoting Manchester are required, and a social-media campaign will be a key component in ensuring that the right audience is reached. Manchester should consider commissioning specialist support in developing this narrative, and enlisting the support of The Sharp Project occupants and other SME's and start-ups in providing collateral to support it.			

5. Appendix: International broadband benchmarking

Table: International broadband benchmarking comparisons (Source: World Bank)

Country	Background and Goals	Scope and Financing Approach	Amount
Australia	The government announced in April 2009 plans for a national broadband network to make Australia one of the world's most wired countries. Broadband is seen as essential to boosting long-term economic growth in Australia and increasing the country's productivity and competitiveness. This plan is subject to approval by the country‘s Upper House, and would be the country‘s biggest infrastructure project.	To deliver broadband at speed of 100 megabits per second (Mbps) to 90 percent of Australian homes, schools and businesses through fibre-optic cables connected directly to buildings. The other 10 percent of people would get a wireless upgrade. A yet-to-be named company would build the network, funded by government money with private companies invited to invest and provide technical expertise and resources. Private sector ownership would be capped at 49 percent. The network is estimated to cost up to AU$42 billion ($30 billion) to build over eight years beginning next year. The government will start with an AU$4.7 billion ($3.4 billion) initial investment, with the rest to come from private companies and the issuing of government bonds. The government would sell its stake in the company five years after the network is completed if conditions allow.	AU$42 billion (~US$30 billion) with government initial investment of AU$4.7 billion ($3.4 billion)
Britain	Part of a wider Digital Britain initiative outlined in January 2009 for stimulating the economy. The government sees digital networks as the —backbone of our economy in the decades ahead. The goal of the initiative is to accelerate growth and cement the UK‘s position as a world leader in the knowledge and learning economy. Relevant objectives include: - Upgrading and modernizing digital networks (wired, wireless and broadcast) so that Britain has an enabling infrastructure to remain globally competitive in the digital world; - Fairness and access for all: universal availability coupled with the skills and digital literacy to enable near-universal participation in the digital economy and digital society; and - Developing the infrastructure, skills and take-up to enable the widespread online delivery of public services and business interface with Government.	The scope of broadband-related Digital Britain initiative includes: - Next Generation Networks. A strategy group will be formed to assess the case for how far market-led investment will take UK in terms of roll-out and likely take-up; and whether any contingency measures are necessary. - Universal access to broadband. The government is developing plans for a digital Universal Service Commitment to become effective by 2012, delivered by a mixture of wired and wireless means. Subject to further assessment of the costs and benefits, the government will set out their plans for the level of service which they believe should be universal and include speed options up to 2Mbps. The financing approach is by promoting investments and encouraging market competition. Ofcom, the regulator for the UK communications industries, has set up five supporting elements: pricing freedom, risk reflective of return, efficient networks, wholesale access for all, and encouragement of future competition. This will only be the first phase of the development, and Ofcom	Conducting assessment of whether government funding/ support would be required.

Canada	Canada's 2009 budget announced in January accelerates and expands recent federal investments in infrastructure with almost $12 billion in new infrastructure stimulus funding over two years. The goal of the broadband component is to close the remaining broadband access gaps, even though the country is one of the most connected nations in the world.	The scope of the 3 year plan is to extend broadband coverage to all currently unserved communities beginning in 2009– and the financing approach is by encouraging the private sector to develop rural broadband infrastructure. Industry Canada provided funding to develop and implement a 3-year strategy for this purpose.	Estimated CA$225 million (~US$181 million)
European Union	In November 2008, as part of its European economic recovery plan, the European Commission proposed the mobilization of an additional € 5 billion of unspent money from the EU budget for investment in energy and broadband projects in 2009 and 2010. The goal was to speed up necessary investment, cushion the blow of the economic downturn on the construction sector and enhance the EU's longer term sustainable growth potential through a targeted stimulus into the EU economy. To this end, the extension and upgrading of high-speed internet infrastructure is an imperative because it has direct economic and social implications, especially for rural areas as they face additional difficulties in linking up to broadband.	To develop broadband networks for achieving full 100% high-speed internet coverage by 2010, including the extension and upgrading of high-speed internet in rural communities. Funding will be targeted via the existing EU's Rural Development Fund to cover the "white spots" on Europe's broadband map (30% of the population in rural areas who do not have broadband access, mostly in Eastern & Southern parts of the EU).	€1 billion (~US$1.3 billion) earmarked for actions aimed at overcoming the —broadband gap‖ between urban and rural areas.
Finland	The government is strongly committed to developing an information society, and wants to promote productivity and efficiency. It sees high-speed internet access as essential infrastructure that will allow the country to take a global edge in competitiveness and productivity. The broadband strategy announced in September 2008 aims to boost national economic productivity.	To provide ultrafast broadband to every household in Finland, including those in rural areas, with download speeds of at least one megabit per second by 2010, with a ramp-up to 100 megabits by 2016, the Finnish government would foot one-third of the cost of building a fibre-optic cable network in areas that are underserved by commercial internet service providers. Hence the government contribution from 2009 - 201515 will make up about €67 million ($88 million) out of the total 200-million-euro ($265 million) budget for the project. Telecommunications companies, regional governments and financial support from the European Union are expected to make up the remaining cost of the project.	Total €200 million (~US$265 million) of which about €67 million (~US$88) million is from the government
France	Digital France 2012 was first mooted by President Sarkozy in March 2008, which sees the digital economy as the main factor in increased competitiveness. A primary objective of the plan is to provide universal access within France to high-speed broadband, currently at 54%, by the end of 2012 because each French citizen, wherever he lives, will have a right to high speed access, and the government has subsequently announced that it would like to see blanket broadband coverage available two years earlier than it had first	The scope is to provide ultra-broadband networks, and to connect 4 million households through FTTH access by 2012. In addition, it includes the provision of universal access to broadband Internet at affordable prices throughout France before the end of 2010. The government has unveiled action plans in October 2008 to drive investments by the private sector. In addition, it has allocated the sub-band 790-862 MHz freed by the switch to Digital TV (the digital dividend) to new high speed mobile services on the Internet, which will reach rural communities that cannot be	Total investments expected to be €10 billion (~US$13 billion) for the next ten years

	proposed.	served economically by fixed-line broadband networks.	
Germany	Chancellor Merkel announced at the 3rd Summit on ICT in November 2008 that the country would broaden access to broadband Internet into more remote rural areas because "China and emerging countries develop their road networks. Similarly, we must develop our broadband networks". Broadband digital networks are seen as key to the growth of European industrial societies and the government's ambition is to ensure that not one inch of the territory, even rural, is denied of access to broadband Internet.	The first phase of the strategy is for all homes in Germany to have broadband access at1 Mbps by the end of 2010. The second phase is to bring broadband access at 50 Mbps or above to 75% of the households by 2014. The government had also earlier hinted to include a third phase—to cover all households by 100 Mbps by end-2018 — yet this has been dropped from the final version. The financing is based on a market-driven approach which uses a large portion of the digital dividend from frequency liberalization and self-incentivized partnerships to achieve the first-phase target. The government will focus on four areas: speeding up digital dividend auctions; push operators to seek synergy via joint infrastructure deployments; ensure growth- and innovation-oriented regulation, and give the necessary financial support.	Total investments, estimated at €50 billion (US$67 billion)
Ireland	While Ireland has over 1.2 million subscribers to broadband, approximately a third of the country and 10 percent of the population are without coverage. Hence, the goal of the January 2009 plan is to deliver broadband coverage to all of Ireland, and for everyone to have high-speed internet, no matter where they live, by September 2010. The plan is also expected to create 170 jobs.	To provide broadband coverage and services to the remaining 33% of the country and 10% of the population who are unserved. Mobile and satellite broadband technologies, instead of fibre, will be used for the plan. Half the area covered will be based on HSDPA with minimum download speeds of 1.2 Mbps, although the use of such mobile technologies has been criticized as insufficient for long term rural development needs. A commercial provider, Hutchison 3, has been contracted to build the network and provide the service, and the plan will be funded by the Irish Exchequer with EU co-financing.	€223 million (~US$297 million)
Japan	Budget plan for FY 2009 and 2010 includes a broadband infrastructure rollout plan for the rural areas, in order to address the digital divide, and to enable broadband access for use by cable TV, telecenters, disaster prevention programs etc.	The budget is planned for the current fiscal year, and the broadband infrastructure is to be fully funded by the government, with construction by the private sector and contract award based on a competitive bidding process.	371 billion yen (~US$371 million)
Singapore	The government announced in January 2009 a stimulus plan of SGD20.5 billion (US$14.5 billion), which is one of the most aggressive stimulus packages in the world as it represents 6% of the country's GDP. The plan will provide additional funding support (SGD183 million) to the Intelligent Nation Masterplan, with includes NGN as a key initiative. With speeds of 1Gbps and beyond, the NGN was originally announced in 2007 with the aim to propel the country to the forefront of broadband development internationally. Citizens and businesses will be able to access an ultra-high-speed broadband with more	For homes and offices nationwide to be connected to Singapore's ultra-high-speed and pervasive Next Generation National Broadband Network by 2013; and for 60% of homes and offices to have access to this new, pervasive, all-fibre network in 2 years' time. The approach involves structural separation of new national broadband network infrastructure from the operating company that will operate its switches and routers. The government has already allocated SGD750 million to OpenNet, the SingTel-led company that will manage the passive infrastructure on the fibre-to-the home network. It has also provided a grant of up to SGD250 million to Nucleus Connect	SGD1 billion (~US$650 million) plus part of SGD183 million funding for Intelligent Nation Masterplan

	choices and at affordable prices, and be able to use information and communications more extensively to boost productivity and competitiveness. The broadband is expected to be a strategic enabler that will transform the way the country works, live, learn and plays.	to support the infrastructure deployment, which will have to start offering commercial services by the first half of 2010 —and be ready to fulfil its universal service obligations from 2013.	
Spain	The Spanish government introduced Plane E in 2008 to boost the economy and employment. This plan represents the country's most powerful stimulus to economic activity in the past decades and includes broadband development through providing financing support for the existing Plan Avanza. Spain is already the EU leader in broadband - around 95% of Internet access is broadband, and 19.5% of the population use mobile broadband. Phase 2 of Plan Avanza (submitted to the cabinet on January 30, 2009) seeks to further develop the information and knowledge society, with broadband development as one of the key goals.	Phase 2 of Plan Avanza promotes greater speed and reach of broadband to rural and isolated areas. This is done by focusing on centres with dispersed populations and extending the reach of trunk fibre-optics networks. The approach is for the government to stimulate the deployment of broad-band infrastructures, and increase demand for broadband by promotional activities to citizens and businesses. There is a budget for overall infrastructure development, which includes broadband, but actual budget depends on the additional funding from the European Fund for Regional Development (ERDF).	Overall €89 million (~US$118 million) for infrastructure measures, actual budget subject to further ERDF.
United States	On February 17, 2009, U.S. President Obama signed the American Recovery and Reinvestment Act. The $789 billion package aims to create or save 3.5 million jobs over the next two years, over 90% in private sector. Of this investment, $7.2 billion has been allocated for providing and extending broadband services in rural, suburban and urban areas. This is expected to create 10,000 additional jobs, and better access to broadband can — enrich democratic discourse, enhance competition, provide economic growth, and bring significant consumer benefits. Moreover, improving our infrastructure will foster competitive markets for Internet access and services that ride on that infrastructure.	The scope is as follows: - Rural Utilities Service ($2.5 billion): provide broadband service to unserved areas, improved service to underserved areas - Broadband Technologies Opportunities Program ($4.7 billion): To provide and improve access for consumers in unserved areas, provide support for public interest schemes facilitating access to broadband, improve broadband uptake by public safety agencies, and to stimulate demand for broadband The current draft of the broadband part of the stimulus package focuses on providing grants, loans and loan guarantees based on basic conditions and guidelines some of which are still under development. The bill also has no speed requirements but mandates operators to meet build-out requirements, operate basic and/or advanced services on an open access basis. The stimulus money is being dispersed through various agencies, including the FCC, the National Telecommunications and Information Administration and the U.S. Department of Agriculture.	US$7.2 billion, about 1% of the overall stimulus budget.

DIGITAL MANCHESTER

2012

Manchester is charging towards a digital future. The city that gave birth to the Industrial Revolution is, once again, demonstrating the willingness to combine science and technology with commerce to create the successful, modern city we see today.

Our record is impressive. The world's first real computer 'the Baby' was invented here in 1948, and Alan Turing spent the last six years of his life working at The University of Manchester. We are a major centre for research and innovation in the digital industries: designing, programming, creating content and sharing ideas. We are also the home of the UK's international Internet Exchange and our region has the second largest 'creative cluster' not only in the UK, but in the whole of Europe. We're a founder member of the European Connected Smart Cities network, we aim to co-chair the Eurocities Knowledge Society Forum, and we and have applied to join the global cities collaboration led by New York to benchmark itself against a Digital Cities Index.

Manchester also has a 50-year history in TV production through the presence of the BBC and Granada in Salford. We have maintained this leading role through independent production companies and new investment at MediaCityUK, while the universities produce a large number of high-quality graduates every year.

No other city in Europe has invested as much in its digital media and content operations, and billions are being spent on creating a global hub for the creative industries. However, there is still more to do.

Manchester aims to be a city that is well connected. A city with ultrafast broadband and free WiFi in public places. A city with enviable digital skills. A city of open data where citizens can develop the apps to make data not only available, but usable, and create a more openly democratic city.

This is Manchester: a city of digital enterprise.

Sir Richard Leese,
Leader of Manchester City Council

CONNECTED CITIZENS

Manchester's citizens are witnessing a digital revolution in their city. With £12million investment from the Urban Broadband Fund and one of only 16 cities to be chosen to trial 4G technologies, the digital face of Manchester is about to change. Manchester is, once again, leading the way with the very best digital and social connectivity there is.

GOVERNMENT FUNDING: ULTRAFAST BROADBAND

MANCHESTER IS **ONE OF 10** CITIES TO SECURE GOVERNMENT FUNDING TO IMPROVE INFRASTRUCTURE IN COLLABORATION WITH PRIVATE SECTOR INVESTORS

£ £ £ £ £ £ £ £ £ £

£12m
OF FUNDING ALLOCATED TO MANCHESTER

100%
OF HOMES WILL HAVE ACCESS TO ULTRAFAST BROADBAND BY 2015

16%
OF RESIDENTIAL PROPERTIES HAVE NO BROADBAND ACCESS

84%
OF RESIDENTIAL PROPERTIES HAVE ACCESS TO SUPERFAST BROADBAND

46%
OF RESIDENTIAL PROPERTIES HAVE ACCESS TO ULTRAFAST BROADBAND

24Mbps
SUPERFAST

80+Mbps
ULTRAFAST

12:45

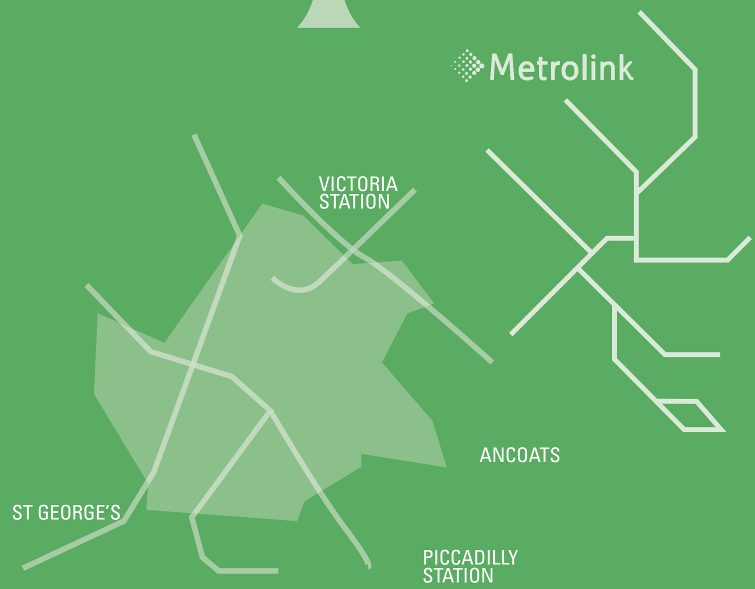
EXISTING LOCATIONS WITH COMMUNITY WiFi HOT SPOTS:

- MCR AIRPORT
- ALBERT SQUARE
- ST ANN'S SQUARE
- ST PETER'S SQUARE METROLINK STATION
- MANCHESTER ART GALLERY
- MANCHESTER TOWN HALL
- FIRST STREET

PHASE 1: MANCHESTER CITY CENTRE

FREE WiFi

Manchester's WiFi tree in the Northern Quarter is the first of many.



FUTURE PHASES WILL BRING FREE WiFi TO AN EVER-EXPANDING AREA OF MANCHESTER CITY CENTRE. ALL METROLINK ROUTES WILL HAVE FREE WiFi.

£7.5bn
AMOUNT 4G WILL BOOST THE UK ECONOMY BY

£5.5bn
OF DIRECT PRIVATE INVESTMENT INTO THE UK ECONOMY WILL BE UNLOCKED

125,000
UK JOBS WILL BE CREATED OR SAFEGUARDED

MANCHESTER IS A TRAILBLAZER: 4G WILL HIT THE CITY IN 2012

CONNECTED BUSINESSES

Manchester's businesses are at the forefront of the city's digital enterprises. Innovation hubs and incubation spaces provide the perfect environment for digital, creative and technical businesses to collaborate and thrive. And with ultrafast broadband being available to all businesses by 2015, the promise of a truly prosperous digital sector is all but guaranteed.

PERCENTAGE OF BUSINESSES WITH ACCESS TO ULTRAFAST BROADBAND

2012		2015
SUPER-FAST 69%	ULTRA-FAST 23%	ULTRA-FAST 100%

15 YEARS OF MCR BIG CHIP AWARDS

Largest digital awards to be held outside of London

PREVIOUS WINNERS

- CODE COMPUTERLOVE
- d2 DIGITAL BY DESIGN
- TYNESIDE CINEMA
- MOSQUITO DIGITAL
- CYBERTILL

15 YEARS OLD

MANCHESTER DIGITAL – NETWORK OF BUSINESSES

2001	450	2000
SET UP	MEMBERS	LINKEDIN

BY WORKING TOGETHER WE CAN MAKE MCR AN EVEN BETTER PLACE FOR DIGITAL BUSINESS

MANCHESTER CORRIDOR

- Innovation testbed
- Magnet for private sector investment
- Links to internet exchange
- Ultra-high-speed digital infrastructure
- Dynamic, innovative digital environment
- Fully open access network

MANCHESTER'S INNOVATION HUBS

1. TODAY THE SHARP PROJECT HQ: WHERE SPACE, POWER, CONNECTIVITY AND PEOPLE CONVERGE TO MAKE AND MANIPULATE DIGITAL CONTENT

£19.5m INVESTED BY THE COUNCIL CREATING THE SHARP PROJECT

287 JOBS CREATED IN THE FIRST YEAR

75% OCCUPANCY

200,000 SQUARE FEET OF SPACE

50 DIGITAL BUSINESSES

SHARP '2' AND '3' COMING VERY SOON

2. TECH HUB: HELPING TECHNOLOGY START-UPS TO START-UP FASTER

Currently in three locations: Manchester, Riga, London

3. MADLAB: MCR'S DIGITAL LABORATORY

An exciting community space in Manchester's Northern Quarter for designers, illustrators, hackers, artists, programmers, film-makers – anyone who wants a stimulating place to think, make and do

14 AD HOC GROUPS

25,000 PEOPLE ATTENDED MEETINGS IN THE PAST YEAR

36 ACTIVE GROUPS

4. INNOSPACE

Based at Manchester Metropolitan University, Innospace is the perfect place for start-ups and new enterprises to grow and succeed.

120 BUSINESSES CALL INNOSPACE HOME

CONNECTED MANCHESTER

From its own residents and businesses to European and global cities, Manchester's digital connections are undoubtedly impressive. One of 15 Digital Cities in the world; one of ten European SmartCities; it's even got a festival dedicated to digital. Manchester is very much part of the conversation when it comes to what the digital world of the future is going to look like.

NEW YORK'S DIGITAL CITIES INDEX: MANCHESTER HAS APPLIED TO JOIN

THE WORLD'S DIGITAL CITIES WILL MEASURE THEIR ACHIEVEMENTS IN TERMS OF:

- ACCESS
- OPEN GOVERNMENT
- ENGAGEMENT
- INDUSTRY

FUTURE-EVERYTHING

Future Everything

www.futureeverything.org

FutureEverything is an award-winning festival of ideas and digital innovation in Manchester celebrating digital in music and art

FUTURE EVERYTHING HAS BEEN GOING FOR

17 YEARS

AND HAS A TOTAL REACH ON TWITTER OF

2.3m (🐦 = 100,000)

IN 2012 FUTURE EVERYTHING ATTRACTED

36.8 THOUSAND PEOPLE

TO A TOTAL OF

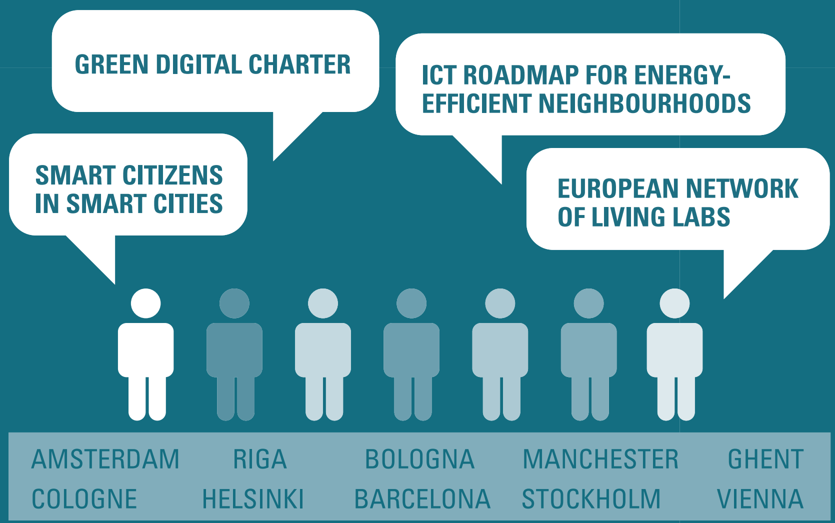
28 SEPARATE EVENTS

91%

OF ATTENDEES SAID THEY HAD TAKEN AWAY NEW KNOWLEDGE

EUROPEAN NETWORKS: SMART CITIES

EUROPEAN CONVERSATIONS ON THE DEVELOPMENT OF OPEN NETWORKS, OPEN DATA AND OPEN INNOVATIONS



GO ON MANCHESTER

67,000

PEOPLE IN MANCHESTER ARE CURRENTLY OFFLINE

50%

OF THESE WILL BE ONLINE BY 2015

ONLINE BUSINESSES GROW TWICE AS FAST AS THEIR OFFLINE COMPETITORS

DIGITAL SKILLS

Inspiring the next generation of digital whizz-kids and retaining the talent right here in Manchester is paramount to the city's strategy. From grass-roots skills development to professional development, we are nurturing the coders, producers, entrepreneurs and developers, both for today and the future.

MANCHESTER ANNUAL DIGITAL SKILLS SUMMIT

Manchester is committed to developing the skills needed for a successful digital sector

FEB 2012

HYPER ISLAND

With bases in Manchester, Stockholm, Karlskrona, London and New York, Hyper Island gives people the opportunity to learn and grow to meet the technological challenges of the future

30 STUDENTS FROM **15** DIFFERENT COUNTRIES

GRADUATED WITH AN MA IN DIGITAL MEDIA MANAGEMENT

GREATER MANCHESTER UNIVERSITIES

3,825 STUDENTS STUDYING COMPUTER SCIENCES AT DEGREE LEVEL IN 2009/10

9,610 STUDENTS STUDYING BUSINESS INFORMATION TECHNOLOGY AT DEGREE LEVEL IN 2009/10

Q: HOW DO YOU ENGAGE A NEW GENERATION OF LEARNERS NOT MOTIVATED BY TRADITIONAL METHODS?
A: EON REALITY ENTREPRENEURIAL CODING SCHOOL

100

EACH YEAR 100 OF THE REGION'S BEST AND BRIGHTEST STUDENTS LEARN VIRTUALLY THROUGH EON REALITY

VIRTUAL LEARNING
CLOUD-BASED DISTRIBUTION
GLOBAL EDUCATION FORUM
ONLINE MULTIUSER PLATFORM

EON +

3D TECHNOLOGY
CODING
DESIGN
DEVELOPMENT
INTERACTIVE SKILLS

THIS REDUCES NATIONAL DEFICIT IN CODING SKILLS

95% OF GRADUATES GET A JOB UPON LEAVING EON'S SCHOOL...

...WHICH HELPS TO STIMULATE ECONOMIC GROWTH...

...BOOSTING JOBS AND TALENT RETENTION IN MANCHESTER

MANCHESTER UNIVERSITY IS RANKED 22ND BEST IN THE WORLD FOR INFORMATION TECHNOLOGY AND IS ONE OF THE BEST IN THE UK

SOCIAL CITY

Manchester realises the importance of open data, the benefits it can bring to residents, and the need to make information free and accessible. And of course, social networks are helping the conversations and transparency of the city. Facebook, Twitter, Vimeo, Flickr – the way the city interacts with its residents, businesses and visitors has firmly embraced the digital age.

MANCHESTER – THE OPEN DATA-FRIENDLY CITY

Manchester has an ambition to become an open data-friendly city

MANCHESTER CURRENTLY HAS

35
OPEN DATA SETS

WITH AN AIM FOR 80 BY MARCH 2013

At Manchester's first Hackathon event, 50 developers will come together to investigate and develop prototype apps

50
HACKATHON 2012

CONNECTIONS TO THE COUNCIL – MANCHESTER.GOV.UK

Page views per year	19,568,791
Visits per year	5,246,133
Visits per month	437,000

12,697 FOLLOWERS
1,963 FANS

123 VIDEOS ON VIMEO
33,100 PLAYS WORLDWIDE
2,980 PHOTOS ON FLICKR
200+ VIEWS PER DAY

MANCHESTER'S FOOTBALL CLUB FACEBOOK LIKES

MUFC 28m

MCFC 3.5m

MANCHESTER THE APP... COMING SOON

PICK AND MIX TO CREATE
THE APP YOU WANT

TOP 5 ORGANISATIONS ON THE GM TWEET MAP

1. GM Police
@gmpolice
2. Manchester News
@mennewsdesk
3. Sweet Mandarin
@sweetmandarins
4. Granada Reports
@granadareports
5. Social Media Guide
@smmguide

LIBRARIES GO ONLINE

284,204
RENEWALS WERE MADE ONLINE IN 2011/12

OVER
70,000
RESERVATIONS WERE MADE ONLINE

ACCOUNTING FOR
56%
OF ALL RESERVATIONS MADE

MANCHESTER'S TOP TWEETERS

1. Wayne Rooney
@waynerooney
2. Rio Ferdinand
@rioferdy5
3. Sergio Aquero
@aquerosergiokur
4. Robin van Persie
@persie_official
5. Samir Nasri
@samnasri19
6. Brian Cox
@profbriancox
7. Tom Cleverly
@tomclevz23
8. Vincent Kompany
@vincentkompany
9. Tuncay Sanli
@tuncaysanli17
10. Chris Hoy
@chrishoy

Manchester City Council
Executive

DIGITAL REFORM

Digital technologies are very much at the heart of Manchester's sustainable future. From the simple act of going online to carry out transactions and communications, and employing energy-efficient systems across the city's buildings, to joining the conversation on the European Green Digital Charter, Manchester is embracing digital innovations.

ENVIRONMENTAL IMPACT OF DIGITAL TECHNOLOGY

Manchester City Council and local businesses are working together to make digital technology part of a sustainable solution, rather than a problem

WE ARE PART OF THE **SOLUTION!**

MANCHESTER IS DEVELOPING A BID TO THE TECHNOLOGY STRATEGY BOARD FOR

£24million

TO DELIVER A CITY INCUBATION PROJECT THAT WILL DRIVE MAJOR TECHNOLOGICAL REFORM

THIS IS HOW WE DO IT

SMART LIFECYCLE Sustainable at every stage

SMART BUILDINGS Energy-efficient systems in place

BE GREEN

SMART SYSTEMS Encouraging behaviour change

MANCHESTER HAS SIGNED UP TO THE GREEN DIGITAL CHARTER

28 EUROPEAN CITIES HAVE SIGNED UP TO THE CHARTER

30% THE AIM IS TO REDUCE THE CARBON FOOTPRINT OF EACH CITY BY 30% BY 2020

MANCHESTER LIVING LAB

200 EUROPEAN CITIES INVOLVED SINCE LAUNCH IN 2006

LODANET: The Low Carbon Open Data Network, enabling people to test real-time data apps

mHEALTH: Developing new mobile apps to support health promotions and telecare services

SUSTAINABLE BUILDINGS: Smart meters, sensors, wireless networks to encourage energy-efficiency

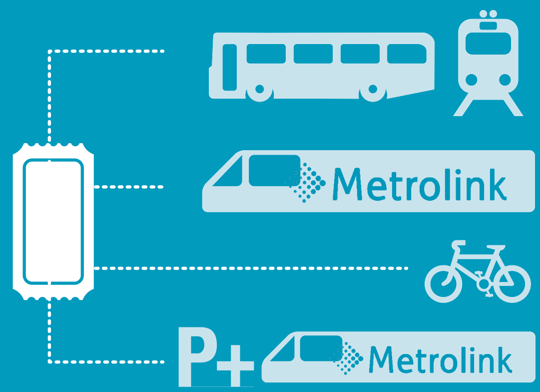
DO IT ONLINE

Residents are going online to perform transactions, increasing response time and reducing paper

INCREASING **REDUCING**

SMART TICKETING

MAKING TRAVELLING ACROSS THE CITY EASIER, INTRODUCING ONE TICKET TO WORK ACROSS ALL MODES OF SUSTAINABLE TRANSPORT



ECONOMIC GROWTH

Manchester's digital and creative economy has never been more important to its economy and, through growth and investment, its influence is guaranteed to increase in the future. Job creation, inward investment and skills development are key to this and, as the largest digital and creative cluster outside London already, a bright future for Manchester looks assured.

URBAN BROADBAND FUND

£12m
INVESTMENT RESULTING IN

262
BUSINESS START UPS

220
JOBS CREATED

£125m
INCREASE IN GVA

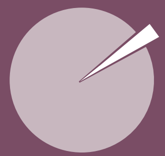
BY 2020 THE SECTOR IS FORECASTED FOR

44%	GROWTH
11,000	ADDITIONAL JOBS
3.7bn	ANNUAL GVA

THE DIGITAL AND CREATIVE ECONOMY

THE DIGITAL & CREATIVE INDUSTRIES

300
NEW CREATIVE START-UPS IN THE CITY EVERY YEAR



5%
OF EMPLOYMENT IN GREATER MANCHESTER IS IN THE CREATIVE & DIGITAL INDUSTRIES

GREATER MANCHESTER CREATIVE & DIGITAL ACCOUNTS FOR
£2.7bn OF REGIONAL GVA

FOCUS ON EMPLOYMENT

RECENT NEW INVESTMENTS AND DIGITAL PROJECTS INCLUDE:

- **EON REALITY:** 240 JOBS CREATED
- **BRIGHT FUTURE SOFTWARE:** 300 JOBS CREATED
- **ANS DATA CENTRES:** 100 JOBS CREATED

KEY SUBSECTORS IN GREATER MANCHESTER INCLUDE:

- Printing and reproduction of recorded media and publishing activities
- Motion picture, video and television programme production, sound recording and music publishing, programming and broadcasting activities
- Computer programming, consultancy and related activities

2011 ONS employment figures

DIGITAL PLACE

At one time, integrating digital technologies into city centre spaces may have sounded like something from a Hollywood script, but an interactive cityscape is well underway in Manchester. Digitising urban design, interactive advertising, touch-screen information points and a fully accessible online library are just the start…

INFORMED TRAVELLERS

REAL-TIME TRAVEL DATA WILL ALLOW PEOPLE TO MAKE THE BEST TRANSPORT CHOICES WHILE ON THE MOVE

4,800
TFGM TWITTER FOLLOWERS

200,000
VISITORS TO **WWW.TFGM.COM** EVERY MONTH

36 DIGITAL ADVERTISING OPPORTUNITIES... MORE IN BEING DEVELOPED

DIGITAL ECOSYSTEMS

MANCHESTER'S VISITOR INFORMATION CENTRE

COMPUTERS

MEDIA WALL

TOUCH-SCREEN SURFACES

PEOPLE

58% OF VISITORS SAID THE TECHNOLOGY HELPED THEM TO DISCOVER NEW PLACES TO VISIT IN THE CITY

66% SAID THE TECHNOLOGY WOULD ENCOURAGE THEM TO VISIT THE VISITOR INFORMATION CENTRE AGAIN

196%

2011

2012

THE NUMBER OF PEOPLE ACCESSING **VISITMANCHESTER.COM** ON A MOBILE DEVICE INCREASED 196% BETWEEN 2011 AND 2012

ARCHIVES+

£1.55m
FUNDING FOR ARCHIVES+

heritage lottery fund
LOTTERY FUNDED

AIMS OF THE PROJECT:

400,000
NUMBER OF VISITORS TO ARCHIVES+ EVERY YEAR

800,000
OLD PHOTOGRAPHS DIGITISED WITH 600,000 VIEWS ANNUALLY

1000s
OF FAMILY RECORDS ONLINE (thanks to Manchester City Council and Manchester & Lancashire History Society)

WHAT'S IN ARCHIVE+?

- Rare books
- Special collections
- Parchment
- Paper
- Leather-bound volumes
- Photographs
- Glass negatives
- Film

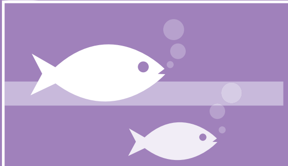
INVESTMENT

Digital technologies would be nothing without investment, and this is where Manchester can truly boast continuing success. Investment by the public and private sectors is not only supporting a digital future, it is driving it. Whether it's transport, innovation hubs, connectivity or WiFi, Manchester's digital and creative sector has the support it needs to thrive.

£60m
TO SPEND ON INFRASTRUCTURE

MANCHESTER IS THE ONLY CITY IN THE UK OFFERING NEXT GENERATION SPEEDS OF UP TO 100Mbps

100Mbps



SUBMARINE CABLE NETWORK PROVIDES DIRECT CONNECTIVITY TO THE US AND CANADA

THE ONLY CITY OUTSIDE LONDON WITH SIGNIFICANT INTERNATIONAL INTERNET EXCHANGE.

WITH 300 DIGITAL EXCHANGES AND 300,000 USERS, MANCHESTER IS TWO YEARS AHEAD OF ALL OTHER UK CITIES (EXCLUDING LONDON) IN IT'S ACCESS TO DIGITAL SERVICES

TRANSPORT

£54m INVESTMENT IN THE CROSS-CITY PROJECT

£30m IN SUSTAINABLE TRANSPORT PROJECTS

WHY INVEST?

50th
RADIUS

7th
WORKING POPULATION

30,000
GRADUATES EVERY YEAR FROM MANCHESTER'S UNIVERSITIES

= 1,000 STUDENTS

£56bn
OF GVA

20m
CUSTOMERS

60%
OF UK BUSINESSES

WITHIN A TWO-HOUR DRIVE

MANCHESTER

MEDIACITYUK, SALFORD
THE FIRST PURPOSE-BUILT MEDIA AND CREATIVE HUB IN THE UK

£500m
INVESTMENT

DEPARTMENTS INCLUDE:
BBC
ITV
THE PIE FACTORY
GREENHOUSE
THE LANDING

DIGITAL LEADERSHIP

Manchester likes to lead. It's a position we're more than comfortable with. And from the creation of the world's computer in 1948, our story has been intertwined with enterprise. Today, we are once again at the forefront of the latest technological developments and have the knowledge, passion and structures in place to make a digital future this city's reality.

MANCHESTER'S DIGITAL HERITAGE

1912–1952
Alan Turing: mathematician and computer pioneer, one of the Bletchley Park WWII code-breakers. Moved to the University of Manchester and worked on the software for one of the first stored-program computers

21.06.1948

1948
First successful run of a program on the 'Baby' (21 June 1948)

1991
Manchester Host: one of the earliest municipal networking projects with email and database service accessible locally via dial-up. Seen as an important example of the use of technology in economic development

TelecityGroup

1998
Manchester has the first International Internet Exchange outside of London in 1996 with the world renowned Telecity setting up in 1998 developing direct global connectivity through trans-Atlantic cables, including Hibernia Atlantic

("Manchester")+ ("Digital")>

2001
Manchester Digital set up: the independent trade association for the digital sector in north-west England

2009
Manchester signs Eurocities Green Digital Charter on Climate Change

2013
Manchester's Tomorrow Project due to be launched... watch this space

EASTSERVE

LAUNCHED IN **2002**

Eastserve was a pioneering community network set up alongside the Commonwealth Games to tackle the digital divide in East Manchester and increase the number of residents with access to the internet

MANCHESTER DIGITAL DEVELOPMENT AGENCY

Supporting city regeneration through technology-focused projects. Develop and implement a Digital Strategy for Manchester

MANCHESTER DIGITAL

As the north west's digital trade association Manchester Digital is supporting this booming sector

- Talent and skills development
- Business support
- Events and conferences
- Local and national voice

DIGITAL FIRSTS FOR MANCHESTER

- **1ST** DIGITAL CO-OPERATIVE
- **1ST** SMART CARD-ENABLED CYCLE HUB
- **1ST** PROGRAMMABLE COMPUTER
- **1ST** 'DEVELOPER' APPRENTICE

DIGITAL BOARD

Informal private sector-led board to challenge and support progress of the digital strategy

ACTIONS & PROGRESS REPORT

SUPER CONNECTED CITY

CONNECTED CITIZEN	achieved	in progress	in development
Ultrafast broadband connections to all homes		■	
'Free' public Wi-Fi		■	
Next Generation 4G mobile launching in Manchester before Christmas		■	
Track connectivity and work with supply base to continually improve and align with Europe and other leading global cities to ensure we continue to progress our digital connectivity		■	■
CONNECTED BUSINESSES			
Ultrafast broadband connections to all businesses - 'last mile' connections and subsides to support sme's to have world class connectivity at affordable prices		■	
Corridor Network – Next Generation access		■	
Digital, creative and technology business innovation hubs and ecosystems: - The Sharp Project Ecosystem Expansion – The Sharp Project (200k sq ft) is now full expansion into 'Sharp 2' - TechHub – coming to Manchester - InnoSpace – MMU established with growth plans along the Corridor - Manchester Science Park houses digital companies and the Graphene Institute expansion agreed - Project Tomorrow	■	■	■
Business Community Networks - Digital Board - Manchester Digital (est trade body – 450 members) working with the city on the Digital Strategy - The Campus – social hub of The Sharp Project - Support for business to be globally connected, promoted, and exporting internationally	■	■	■
Digital Industry Awards - The Big Chip Awards celebrates and promotes best practice on an annual basis	■		

CONNECTED MANCHESTER	achieved	in progress	in development
Only significant internet exchange outside of London – need to maintain and enhance, including support for planned expansion through IX Manchester	■	■	
A 'Go On Mcr' Digital Inclusion Campaign to encourages off-liners online, people/business to upgrade to faster connections, businesses to have presence, trade and grow using the web		■	■
Digital narrative and promotion Narrative, casestudies and evidence base required Internationalisation of messages			■
Develop international partnerships - Manchester to be part of NY Digital Connect Cities Index		■	
EU Networks/SMART cities – Manchester is building on its links with Eurocities and the Connected Smart Cities Network to exchange knowledge and experience with cities facing similar challenges and to develop new and innovative forms of cooperation that support the Digital Strategy. Manchester is already working closely with Amsterdam, Barcelona, Bologna, Cologne, Ghent, Helsinki, Riga, Stockholm and Vienna,	■		
Digital Festival - Future Everything		■	
Innovation Centres – Manchester Living Lab, Mad Lab and Fab Lab looking at digital technologies supporting products and services for the community. Combining Living Lab capacities with Mad Lab will strengthen the space where geeks, developers and artists create.		■	
Creative Times – online magazine for the creative community – started in Manchester but has national subscribers	■		

SKILLS

DIGITAL SKILLS	achieved	in progress	in development
Digital Skills Summit – network of public and private sector that promotes apprenticeships and graduates and links talent from schools, colleges and universities to the sector			
Further work with schools – partnerships with primary and secondary to influence basic coding to be taught in primary and improved teaching and uptake of Computer Science in secondary and colleges. Ensure latest codes are taught and appropriate skills are available for the sector Review Bursaries to attract students and allow access to further digital education			
Universities - Audit and map of digital training courses/ skills in further education and rating globally - Attract and retain graduates with digital skills Ensure courses, capacity and quality match industry needs and growth			
Review online learning solutions and best practice for 'top up' curricula for future coders			
Attract private sector skills initiatives - Hyper Island in Manchester with expansion plans for the 2nd year intake - Eon Reality's Entrepreneurial/Coding School – training in digital skills			
Evaluate and ensure the best teachers and lecturers stay/come to Manchester and are supported by the ecosystem			
Support public and voluntary sector initiatives that support digital skills, eg. - Code Club (www.codeclub.org.uk) and encourage an after school code club to inspire children across the city - Manchester Geek Girls www.mcrgirlgeeks who inspire girls to embrace code and get into Computer Science with more than 60 groups in over 20 countries - A UK version of www.girlswhocode.com needed to inspire and equip 13-17 year olds to get skills and tech careers - Look at Youth and Play offers in the city to ensure they reflect skills like www.kidscodecamp.com			

DIGITAL SKILLS	achieved	in progress	in development
Adult education – review landscape provided by MAES, Libraries, Union Learn etc			
Digital apprenticeships - One employed by Manchester City council communications team - Sharp Futures supporting apprenticeship model			
Work with partners to promote free software such as Kodu to be used in primary schools to help teach basic coding			
3D learning – utilise 3D learning in schools to improve attendance and attainment			
Skills to support businesses e.g. 'how to create a web space' and 'selling on the web' courses as part of Go On Mcr.			

SKILLS

SOCIAL CITY	achieved	in progress	in development
Open data - Open Data GM – 180 published data sets for organisation across Greater Manchester including all 10 Local Authorities, health, police, fire and transport - Open Data Manchester – further data releases planned this year – aim to open 80 data sets by March 2013			
Apps (key output from the hackathons) Current Apps - Timeout visitors app for Manchester - Libraries app - Condom finder app - Partner apps- Airport App and TfGM App, Creative tourist app - Endorsement of Walk it, Fix My Street, My Council Services, Trip Advisor City Guide and Looking Local apps where appropriate Developing Manchester App (real time travel app, council services app etc) pick & mix solution to create your own Manchester App e.g. Manchester travel info (combines air, tram, bus apps), Manc what's on combines creative tourist app with other data feeds, where to eat, latest news, weather etc personalised to suit the individual and neighbourhood. Partner with private sector to support future app development			
Continuing to expand social media and web transactions to support digital switch			
'Going Really Local' – local social media plan, neighbourhood and community hubs, online social sharing spaces enabling co-production, and crowd sourcing opportunities			
Citizen engagement – - 4* SOCITM website – one of the best websites in the UK and largest number of followers on twitter for a LA - My Area and My Account and aggressive social media strategy, mobile website, CMS upgrade, responsive design, richer content, cleansed pages, personalised e-bulletins, fast forms automated customer transactions, GIS auto mapping, live chat customer services, customer service real time display & live community interaction, Do it online campaign, more use of SMS			

REFORM	achieved	in progress	in development
Green Digital agenda being developed in collaboration with the Green City Team and with Eurocities Green Digital Charter			
The Manchester Living Lab, established as result of the Intelligent Cities project in which Manchester worked with 20 European cities, including Helsinki and Barcelona, is developing new test-bed environments for scientific and technological innovation to support Green Digital Agenda			
Current Living Lab projects include: - Low Carbon Open Data Network (LODANET): developing easy to use and low cost sensors to link up with the public wireless network in the Corridor area to test out new Internet of Things services enabling people to get real time data on environmental conditions and to be able to develop new apps and services based on open data generated by these; - mHealth ecosystem development: working with the University of Manchester and a wide range of business partners to develop new mobile apps and services to support health promotions and telecare services; - developing energy efficient buildings: by using smart meters, sensors and wireless networks to enable people working in and using public buildings to support greater energy efficiency through using open data and more intelligent and accessible energy management systems.			
Do it Online Campaign (Channel Shift) to promote online ways of interacting, reporting as opposed to other forms of transaction			
Technology Strategy Board (TSB) – currently bidding for 'Future Cities Demonstrator' to drive digital reform and deliver technology innovation and for Manchester to be a Future Cities Catapult Exemplar.			

PLACE AND ECONOMIC GROWTH

	achieved	in progress	in development
ECONOMIC GROWTH			
Data on businesses, jobs and GVA as well as export value needed for benchmark to assess growth in Manchester/ GM			
Aim to exceed growth targets - Employment (17% from 2011-21) - GVA (target £3.7bn)			
Urban Broadband – - 262 start ups expected to be created, 220 jobs & £125m gross added value to GVA			
The Sharp Project Expansion and Eon Reality - EON Reality - 243 jobs & GVA impact tbc - ANS Data centre - 100 jobs & GVA tbc			
Project Digital/Tomorrow – job numbers and GVA tbc			
TechHub – tbc			
Midas (jobs) – inward investment in digital sector - Soap Media (30), Carbon Digital (20), Yippee Entertainment (20), App Crowd (30), Bright Future Software (300) - In the pipeline 101 projects totalling over 1000 jobs			
DIGITAL PLACE			
Digital Master Planning - Infrastructure –Internet Hub map of fibre and wireless - Planning framework to influence no more 'white areas' are created by new builds (housing and office)			
New digital landscapes - Digital advertising, highways and way finding opportunities			
New Central Library digital enhancement – Archive Plus			
Digital tourism - Microsoft surfaces in award winning tourist info centre - Digital enhanced wayfinding - Interactive tours			
Promote and maintain tax breaks for high-end TV and gaming			

LEADERSHIP

	achieved	in progress	in development
DIGITAL INVESTMENT / RESOURCES			
Investment - Private sector commitment - Infrastructure – BT & Virgin investment totalling tbc - 4G – worth £1.5bn investment in upgrades and 4G in the UK - Wi-Fi - tbc Public sector commitment - Urban Broadband Fund £12m - Other - TSB future cities bid £24m – for one city Manchester awarded £50k to support feasibility and bid			
NW Fund – £25m for digital sector			
Funding map and review of what is available, gaps, access to and promotion of and possible solutions: - Educate funding gatekeepers and generate new fund for digital innovation - Support access to and applications - Crowd source fund option for start ups and small business - Support start up business planning, mentoring and training - Map of public and private sector support - Guidance on VC, EC and EU funds - Sharp workshops - Provide networking opportunities for funders to meet start ups			
DIGITAL LEADERSHIP			
Digital board to co-ordinate private and public sector to support digital strategy			
European digital knowledge and exchange resource via MDDA			
Industry leadership via trade body 'Manchester Digital' – 450 members and over 2000 linked in to a Manchester digital networking group			
The Sharp Project – Sue Woodward's role as Creative and Media Champion			
Midas support at driving further inward investment in this sector			
Partnership with Government to influence digital investment and focus beyond TechCity and support for Manchester - Minister and civil servant visits to the city and The Sharp Project - Conversations with governments, private sector, Europe and other opportunities for better funding, connectivity etc.			

Manchester's Digital Strategy Actions & Progress Report		Achieved	In Progress	In Development/ Designing
Super Connected City				
#1	**Connected Citizen**			
1	Ultrafast broadband connections to all homes		Completion 2015	
2	'Free' Public Wi-Fi		Provider to be chosen Oct- Phase 1 role out – city centre - Dec 2012	
3	Next generation 4G mobile launching in Manchester before Christmas		4G live Dec 2012	
4	Track connectivity and work with supply base to continually improve and align with Europe and other leading global cities to ensure we continue to progress our digital connectivity		Working with Eurocities to identify and benchmark relevant initiatives in a cross section of other European cities	Review after UBF tender
#2	**Connected Businesses**			
5	Ultrafast broadband connections to all businesses - 'last mile' connections and subsides to support sme's to have world class connectivity at affordable prices		Completion 2015	
6	Corridor Network – Next Generation Access		State aid notification agreed by BIS and now awaiting EU approval	
7	Digital, Creative and technology business innovation hubs and ecosystems: - The Sharp Project Ecosystem Expansion – The Sharp Project (200k sq ft) is now full expansion into 'Sharp 2' - TechHub – coming to Manchester - InnoSpace – MMU established with growth plans along the Corridor - Manchester Science Park houses digital companies and the Graphene Institute expansion agreed - Project Tomorrow	 Launched Sept 2012 Established Established	'Sharp 2' expansion agreed Graphene Institute	 Coming soon
8	Business Community Networks - Digital Board - Manchester Digital (est trade body – 450 members) working with the city on the Digital Strategy - The Campus – social hub of The Sharp Project - Support for business to be globally connected, promoted, and exporting internationally	 Established	 To be formed Growing	 In design
9	Digital Industry Awards - The Big Chip Awards celebrates and promotes best practice on an annual basis	Established		
#3	**Connected Manchester**			
10	Only significant Internet Exchange outside of London – need to maintain and enhance, including support for planned expansion through IX Manchester	Established	Maintain competitive advantage	
11	A 'Go On Mcr' Digital Inclusion Campaign to encourages off-liners online, people/business to upgrade to faster connections, businesses to have presence, trade and grow using the web		Launch 4th October	Campaign progressing through 12/13 – 14/15
12	Digital Narrative and promotion - Narrative, case studies and evidence base required - Internationalisation of messages			Brief being defined
13	Develop international partnerships - Manchester to be part of NY Digital Connect Cities Index		Asked to join DCI's and upcoming symposium	

Manchester's Digital Strategy Actions & Progress Report		Achieved	In Progress	In Development/ Designing
14	EU Networks/SMART cities – Manchester is building on its links with Eurocities and the Connected Smart Cities Network to exchange knowledge and experience with cities facing similar challenges and to develop new and innovative forms of cooperation that support the Digital Strategy. Manchester is already working closely with Amsterdam, Barcelona, Bologna, Cologne, Ghent, Helsinki, Riga, Stockholm and Vienna,	Established		
15	Digital Festival - Future Everything		Continue with support	
16	Innovation Centres – Manchester Living Lab, Mad Lab and Fab Lab looking at digital technologies supporting products and services for the community. Combining Living Lab capacities with Mad Lab will strengthen the space where geeks, developers and artists create.		Living Lab facilities move to Northern Qtr and co-locate with Mad Lab	
17	Creative Times – online magazine for the Creative Community – started in Manchester but has national subscribers	Established		
Skills				
#4	**Digital Skills**			
18	Digital Skills Summit – network of public and private sector that promotes apprenticeships and graduates and links talent from schools, colleges and universities to the sector	Established	2013 event being planned	
19	Further work with schools – partnerships with primary and secondary to influence basic coding to be taught in primary and improved teaching and uptake of Computer Science in secondary and colleges. Ensure latest codes are taught and appropriate skills are available for the sector Review Bursaries to attract students and allow access to further digital education			Further evaluation and strategy and task force needed
20	Universities Audit and map of digital training courses/ skills in further education and rating globally Attract and retain graduates with digital skills Ensure courses, capacity and quality match industry needs and growth			Required Strategy needed Needs review
21	Review online learning solutions and best practice for 'top up' curricula for future coders			Required
22	Attract private sector skills initiatives - Hyper Island in Manchester with expansion plans for the 2nd year intake - Eon Reality's Entrepreneurial/Coding School – training in digital skills	30 graduates doing MA Investment agreed	Doubling intake for 2013 100 students in 2013	Need to continue to attract skills investment
23	Evaluate and ensure the best teachers and lecturers stay/come to Manchester and are supported by the ecosystem			Needs focus
24	Support public and voluntary sector initiatives that support digital skills e.g. - Code Club (www.codeclub.org.uk) and encourage an after school code club to inspire children across the city - Manchester Geek Girls www.mcrgirlgeeks who inspire girls to embrace code and get into Computer Science with more than 60 groups in over 20 countries - A UK version of www.girlswhocode.com needed to inspire and equip 13-17 year olds to get skills and tech careers - Look at Youth and Play offers in the city to ensure they reflect skills like www.kidscodecamp.com	Established	Developing Manchester clubs	Need UK arm In design
25	Work with partners to promote free software such as Kodu to be used in primary schools to help teach basic coding			Developing as part of overall school engagement
26	3D learning – utilise 3D learning in schools to improve attendance and attainment		In development	
27	Skills to support businesses e.g. 'how to create a web space' and 'selling on the web' courses as part of Go On Mcr.		In development	

Manchester's Digital Strategy Actions & Progress Report		Achieved	In Progress	In Development/ Designing
28	Adult Education – review landscape provided by - MAES - Libraries - Union Learn etc			Need to review existing offer
29	Digital Apprenticeships - One employed by Manchester City council communications team - Sharp Futures supporting apprenticeship model	Recruited in August Established		
#5	**Social City**			
30	Open Data - Open Data GM – 180 published data sets for organisation across Greater Manchester including all 10 Local Authorities, health, police, fire and transport - Open Data Manchester – further data releases planned this year – aim to open 80 data sets by March 2013	Launched 2011	Mini hack in Nov 2012, Hackathon – March 2013	
31	Apps (key output from the hackathons) Current Apps - Timeout visitors app for Manchester - Libraries app - Condom finder app - Partner apps- Airport App and TfGM App, Creative tourist app - Endorsement of Walk it, Fix My Street, My Council Services, Trip Advisor City Guide and Looking Local apps where appropriate Developing Manchester App (real time travel app, council services app etc) pick & mix solution to create your own Manchester App e.g. Manchester travel info (combines air, tram, bus apps), Manc what's on combines creative tourist app with other data feeds, where to eat, latest news, weather etc personalised to suit the individual and neighbourhood Partner with private sector to support sponsorship of future app development	Established	In progress In progress	
32	Continuing to expand social media and web transactions to support digital switch		In progress	
33	'Going Really Local' – local social media plan, neighbourhood and community hubs, online social sharing spaces enabling co-production, and crowd sourcing opportunities		In progress	
34	Citizen Engagement – - 4* SOCITM website – one of the best websites in the UK and largest number of followers on twitter for a LA - My Area and My Account and aggressive social media strategy, mobile website, CMS upgrade, responsive design, richer content, cleansed pages, personalised e-bulletins, fast forms automated customer transactions, GIS auto mapping, live chat customer services, customer service real time display & live community interaction, Do it online campaign, more use of SMS		In progress	
#6	**Reform**			
35	Green Digital agenda being developed in collaboration with the Green City Team and with Eurocities Green Digital Charter		In progress	
36	The Manchester Living Lab, established as result of the Intelligent Cities project in which Manchester worked with 20 European cities, including Helsinki and Barcelona, is developing new test-bed environments for scientific and technological innovation to support Green Digital Agenda	Established		

Manchester's Digital Strategy Actions & Progress Report		Achieved	In Progress	In Development/ Designing
37	Current Living Lab projects include: • Low Carbon Open Data Network (LODANET): developing easy to use and low cost sensors to link up with the public wireless network in the Corridor area to test out new Internet of Things services enabling people to get real time data on environmental conditions and to be able to develop new apps and services based on open data generated by these; • mHealth ecosystem development: working with the University of Manchester and a wide range of business partners to develop new mobile apps and services to support health promotions and telecare services; • developing energy efficient buildings: by using smart meters, sensors and wireless networks to enable people working in and using public buildings to support greater energy efficiency through using open data and more intelligent and accessible energy management systems.		In progress	
38	Do it Online Campaign (Channel Shift) to promote online ways of interacting, reporting as opposed to other forms of transaction		2013	
39	Technology Strategy Board (TSB) – currently bidding for 'Future Cities Demonstrator' to drive digital reform and deliver technology innovation and for Manchester to be a Future Cities Catapult Exemplar.	Currently creating feasibility and business case	Submit bid in November for £24m and cities will be notified in Jan 2013	
Place & Economic Growth				
#7	**Economic Growth**			
40	Data on businesses, jobs and GVA as well as export value needed for benchmark to assess growth in Manchester/ GM			Need detail on business sector
41	Aim to exceed growth targets - Employment (17% from 2011-21) - GVA (target £3.7bn)			Need measurement strategy and key milestones to track progress
42	Urban Broadband - 262 start ups expected to be created, 220 jobs & £125m gross added value to GVA		Investment agreed awaiting delivery and therefore actual outputs	
	The Sharp Project Expansion and Eon Reality - EON Reality - 243 jobs & GVA impact tbc - ANS Data centre - 100 jobs & GVA tbc		Investment agreed awaiting delivery and therefore outputs	
43	Project Digital / Tomorrow – job numbers and GVA tbc		Awaiting outputs	
44	TechHub -tbc		Awaiting outputs	
45	Midas (jobs) – inward investment in Digital sector - Soap Media (30), Carbon Digital (20), Yippee Entertainment (20), App Crowd (30), Bright Future Software (300) - In the pipeline 101 projects totalling over 1000 jobs	Achieved	In progress	
#8	**Digital Place**			
46	Digital Master Planning -Infrastructure –Internet Hub map of fibre and wireless -Planning framework to influence no more 'white areas' are created by new builds (housing and office)			In design
47	New digital Landscapes - Digital advertising, highways and way finding opportunities		In progress	
48	New Central Library digital enhancement – Archive Plus		In progress	

Manchester's Digital Strategy Actions & Progress Report		Achieved	In Progress	In Development/ Designing
49	Digital tourism Microsoft surfaces in award winning tourist info centre - Digital enhanced wayfinding - Interactive tours	Established	In Progress	In Design
50	Promote and maintain Tax breaks for high end TV & gaming			
Leadership				
#9	**Digital Investment / Resources**			
51	Investment Private sector commitment - Infrastructure – BT & Virgin investment totalling tbc - 4G – worth £1.5bn investment in upgrades and 4G in the UK - Wi-Fi - tbc Public sector commitment - Urban Broadband Fund £12m Other - TSB future cities bid £24m – for one city Manchester awarded £50k to support feasibility and bid	Committed Committed Committed	Need to review all investment opportunities to keep up with International global digital cities	
52	NW Fund - £25m for digital sector	Established		
53	Funding Map and review of what is available, gaps, access to and promotion of and possible solutions: - Educate funding gatekeepers and generate new fund for digital innovation - Support access to and applications - Crowd source fund option for start ups and small business - Support start up business planning, mentoring and training - Map of public and private sector support - Guidance on VC, EC and EU funds - Sharp workshops - Provide networking opportunities for funders to meet start ups			Developing funding strategy
#10	**Digital Leadership**			
54	Digital Board to co-ordinate private and public sector to support digital strategy		To be formed	
55	European digital knowledge and exchange resource via MDDA	Established		
56	Industry Leadership via trade body 'Manchester Digital' – 450 members and over 2000 linked in to a Manchester digital networking group	Established		
57	The Sharp Project – Sue Woodward's role as Creative and Media Champion		Ongoing	
58	Midas support at driving further inward investment in this sector		Ongoing	
59	Partnership with Government to influence digital investment and focus beyond TechCity and support for Manchester - Minister and civil servant visits to the city and The Sharp Project - Conversations with governments, private sector, Europe and other opportunities for better funding, connectivity etc.			Strategy needs developing