Comhairle Cathrach & Contae Luimnigh
Limerick City & County Council

INTEGRATED ACTION PLAN
TECH TOWN LIMERICK

Digitally Enabled Cities

LIMERICK URBACT LOCAL ACTION GROUP
LIMERICK CITY & COUNTY COUNCIL
INTEGRATED ACTION PLAN
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European Union
European Regional Development Fund

URBACT
Driving change for better cities

TechTown

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Glossary of Terms

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Term	Definition
DAG	Data, Analytics and Geographic Information Systems
IAP	Integration Action Plan
IoT	Internet of Things
LCCC	Limerick City and County Council
LEO	Local Enterprise Office
LERO	Irish Software Research Centre

Executive Summary

TechTown is an EU funded project under the URBACT III programme. URBACT 111 facilitates the sharing of knowledge and good practice between cities and other levels of government. The purpose is to promote integrated sustainable development and improve the effectiveness of regional cohesion. This programme is organised around four main objectives: capacity for policy delivery, policy design, policy implementation and building and sharing knowledge. The programme has developed three types of interventions: transnational exchange; capacity building and capitalisation and dissemination.

TechTown is an Action Planning Network (APN) of eleven EU cities which sets out to explore how small and medium sized cities can maximise the job creation potential of the digital economy.

During the period May 2016 to March 2018 the network focussed on four key themes: better understanding the digital economy, growing digital jobs, providing spaces and places for connections and finding, growing, retaining and returning talent. Each city led the co-creation of its own Integrated Action Plan (IAP) following transnational exchange and learning activities.

Limerick is the Republic of Ireland's third city with an area of 2,683.04 sq km and a population of 194,899. An URBACT local group (ULG) was established with key local stakeholders to co-create its IAP and complement its Digital Strategy. The ULG utilised URBACT methodologies to identify its challenge statement as follows 'Limerick needs to measure its digital economy to ensure the successful implementation of its digital strategy' and outlined four key objectives for its IAP.

1. To understand how to measure Limerick's innovation district digital economy to further inform its Digital Strategy by 2018;
2. To increase the number of companies transitioning from start-up to scale up within its innovation district;
3. To create a structure which brings relevant parties together to realise the potential of its Digital strategy;
4. To create a platform for open data.

Key actions, output indicators, baselines, targets and result indicators have been defined in this IAP for each specific objective including the identification of key partners, intended outputs, timescales and the resources required to deliver on each action.

Chapter 1 city context & key challenges

The digital economy

According to the European Commission, the digital economy is the 'single most important driver of innovation, competitiveness and growth'. It estimates that 1.5m additional jobs could be created in the EU digital economy if it mirrored the performance of the US. It already contributes around 8% of the GDP in the G-20 economies and yet only 2% of EU businesses are said to be taking full advantage of digital opportunities (European Commission, Internal Market, Industry, entrepreneurship and SMEs, 2015). Recent developments in ICT including the rapid growth of smart devices, social media and the internet-of-things allow for a new type and level of connectedness and digitally mediated interaction between people. New technologies also hold massive potential for the manufacturing industries, offering potential (good and bad) to transform entire sectors. These new digital trends are not just about technological innovation, they are radically shifting the business landscape, reshaping the world of work, introducing innovations in business models, developing new networking and knowledge transfer mechanisms, reducing the time to market and widening access to international markets. They are also relevant to the management of cities themselves and in the delivery of public services which benefit the economy, citizens and the environment.

The report 'Doing business in the digital age'[1] (Deloitte, 2013) states that '*digital technologies are one of the most important sources of growth for national economies. They enable economies to create more jobs, improve people's lives and build better and greener societies. Citizens, enterprises, universities and governments become increasingly connected in the digital world. Digital is changing people's lives: the way they work, shop, socialise, communicate and educate*' and it is not just about 'new' companies. Digital is also reshaping traditional industries, environments and business models. It speeds up the way new products and services are conceived, developed, produced and accessed.

The report prepared for the World Economic Forum in Davos in January 2016 'Digital disruption: The growth multiplier Optimizing digital investments to realize higher productivity and growth'[2](Accenture, 2016) estimated that *'the digital economy, involving some form of digital skills and digital capital, represents 22.5 percent of the world economy' and went on to state that 'digital's ability to unlock value is far from being fully exploited*'.

At a more local level, 'The Digital Skin of Cities' (Rabari and Storper, 2013) suggests that the 'smart cities' technology market may be worth anywhere from $100 billion to $1 trillion over the next 10 years. The article places cities at the centre of the digital revolution and concludes that city governance and management structures will experience major changes as technologies are predicted to make it possible to manage the physical city in ways not previously possible. Cities can also generate unprecedented quantities of data (big data), which opens up all sorts of urban governance discussions - and unparalleled job creation opportunities.

So what are the challenges and barriers? What is preventing Europe from keeping pace with its global competitors?

[1] http://eclass.uoa.gr/modules/document/file.php/ECON168/KES-6. Doing Business in the Digital Age (EU).pdf
[2] https://www.accenture.com/_acnmedia/PDF-4/Accenture-Strategy-Digital-Disruption-Growth-Multiplier.pdf

The current skills mismatch is a major barrier to growth. It is vital to better integrate digital skills into education from early years to higher education, through vocational training and lifelong learning. As Herman Van Rompuy said in his article Boosting Digital Europe[3] (Digital Minds, European Digital Forum, 2015), *'Unemployment today is about poor skills, not necessarily about poor education*'. As more and more 'traditional' jobs are becoming '*digitalised*' in some way, so more and more digital skills - from basic ICT skills to more sophisticated coding or programming skills - are needed. Indeed by 2020 it is estimated that 85-90% of all job vacancies in Europe will require digital skills.

'*Digital natives*' may be intimately familiar with digital technologies, but Europe must go further: it needs people across all generations to have digital skills. A deep understanding of coding principles and knowledge of a number of programming languages may well become the most important dialect for Europeans of all ages in the digital era.

It is ironic that the forces that create a dynamic and entrepreneurial culture are also the ones that create skills shortages, especially as innovation accelerates. So, Europe also needs to stimulate a more innovative, risk taking and an entrepreneurial mind-set and to accelerate the use of digital technologies across old and new businesses. Unless this happens, digital companies will experience difficulties accessing finance and, as they also have often have low levels of working capital, this affects their resilience and ability to build the relationships they need to break into this complex and competitive international market.

At the same time, the cost and speed of protecting intellectual property does not match the speed of technological change. This means that some companies do not put in place the long-term strategies required to survive (such as patent registrations or diversification) but rather focus on short-term gain born out of agility and know-how. Tech companies have a tendency to scale up very rapidly - often before sustainable business structures are in place. However the platforms, systems and supply chains that form the framework within which the digital economy operates need a longer-term approach to investment and innovation, based on broad cross-sectoral collaboration.

Clearly, there is no digital economy without digital infrastructure so investment in digital connectivity is required in a market where future revenues are linked to a complex - and often unclear - commercial market. The availability of such infrastructure varies enormously in Europe – and indeed even within individual countries. Linked to this, there is often unequal access to digital technologies - and digital skills - between affluent (often young, urban) people and more excluded (often older, rural) people - who subsequently become part of the digitally disadvantaged. The counter argument is that digital can help to democratise society, giving many greater access. Funding - and the regulatory environment in which companies are operating - need to be as agile as the companies themselves. Existing models are often designed around a more '*traditional*' innovation context with linear production development processes.

[3] http://www.lisboncouncil.net/publication/publication/118-digital-minds-for-a-new-europe-.html

What digital means to Limerick?

From a Limerick perspective, digital enables the amplification of existing processes and practices and opens the possibility for innovation. Thus, enabling equal opportunities for all citizens and accelerating the development of a Sustainable Smarter Limerick so it can become Ireland's second largest city at the centre of a strong region.

The Internet, mobile communications, social networks and the "cloud" have turned Limerick into a connected, "always on" society with new expectations on how it seeks and finds information, how it access services, how it work, how it engages with its peers and how it communicates. It is no surprise therefore, that cities across the world including Limerick are examining how they can increasingly use integrated digital technologies, ICT, data and analytics, to operate in a smarter, more efficient way.

The URBACT III programme

URBACT III facilitates the sharing of knowledge and good practice between cities and other levels of government. The purpose is to promote integrated sustainable development and improve the effectiveness of regional and cohesion. The programme uses resources and know-how to strengthen the capacity of cities to deliver integrated urban strategy and actions on the thematic according to their challenges. The main target participants include practitioners, city managers, elected representatives and stakeholders from other public agencies, the private sector and civil society. The programme is co-financed by the European Regional Development Fund (ERDF) with a budget of 74.302 million EUR for the 2014-2020 period.

URBACT III programme is organised around four main objectives:

- Capacity for Policy Delivery: To improve the capacity of cities to manage sustainable urban policies and practices in an integrated and participative way.
- Policy Design: To improve the design of sustainable urban policies and practices in cities.
- Policy Implementation: To improve the implementation of integrated and sustainable urban strategies and actions in cities.
- Building and Sharing Knowledge: To ensure that practitioners and decision makers at all levels have access to knowledge and share know-how on all aspects of sustainable urban development in order to improve urban development policies.

URBACT III has developed three types of interventions:

1. Transnational exchange;
   - Capacity-building;
   - Capitalisation & dissemination.

TechTown overview

TechTown is an URBACT III Action Planning Network of 11 cities which explores how small and medium sized cities can maximise the job creation potential of the digital economy. During the period from May 2016 to May 2018 it examined whether there is potential for spill over from stronger city and regional level digital economies; explored the role of the city in growing a digital economy; examined how clusters can work at city level and looked collaboratively at what cities can do to support businesses to access the digital skills and innovations they need in order to start, grow and compete.

Figure 1 Techtown partners

TechTown addressed challenges by focusing on the following themes in transnational exchange and learning activities and using learning to co-create Integrated Action Plans at local level:

1. Better understanding the digital economy
2. Growing digital jobs
    a. Growing new digital jobs through start ups and existing businesses
    b. Growing jobs through the digital transformation of traditional industry
    c. Growing digital jobs through the smart city agenda: smart cities are maximised? How can cities create 'living labs' or 'test beds' for new intelligent city solutions?
3. Providing spaces and places for connections:
4. Finding, growing, retaining and returning talent

As this IAP is specifically focussed on Limerick, the following sections will provide a context and highlight existing relevant strategies related to Limericks digital economy.

See Appendix 1 for existing relevant strategies from a national and regional perspective.

Limerick City context

Limerick City sits on the majestic River Shannon and is one of Ireland's oldest cities with a fascinating history involving everything from sieges to soviets. Limerick is a small city, that has successfully restructured out of older industries, but experienced significant jobs losses over the recession. It is pursuing a new agenda of regeneration and development, based on an integrated strategy and strong multi-sectoral partnership. While it is going through a mini-renaissance, it is a microcosm for the types of problems / challenges shared by most European cities. These include:

- youth unemployment;
- lack of sufficient numbers of quality entry level jobs for young people (low pay, insecure, at skills levels well below their educational qualifications);
- young people (NEETS) with a profile of complex social needs (early school leavers);
- structural unemployment including persistent long-term unemployment and withdrawal from the labour market of a cohort of former workers (e.g., older workers that lost their jobs during the recession and while having experience and skills have not been able to re-enter work);
- skills mismatches are an on-going problem, especially as the recovery is gathering momentum.

Limerick Key Statistics

Total Population:	194,899 persons
Area:	2,683.04 sq.km
Population Density:	72.7 per km2
Under 35 years:	46.9%
Over 65 years:	14.1%
Disposable Income per capita:	€20,395 (2nd highest in Ireland)
Average Residential Rent:	€892 per month (Limerick City, Q1 2017)
Average House Price:	€170,866 (Limerick City, Q2 2017)
Limerick Office Rents:	€215 sq.m per quarter (Q1 2017)
Unemployment Rate:	6.8% (Mid West, Q1 2017)
Gross Value Added per capita:	€28,906 (Mid West, 3rd highest in Ireland)
Land Zoned:	
Residential:	994.06 hectares
Industrial/Enterprise:	778.3 hectares
Town Centre/Mixed Use:	88.32 hectares

Living conditions

The average household size in the Limerick Metropolitan District is 2.4 persons in Census 2011 to 2.5 persons in Census 2016[4].

Population growth 2011 - 2016

The CSO's Census 2016 population results show that Limerick's population has grown by 1.6% since the Census 2011. In 2016 Limerick's population was recorded at 194,899 persons which was an increase of 3,090 persons over the four year period. The Census results show that Limerick City and County has a very favourable age profile with close to 50% of the population under the age of 35.

Disposable income & gross value added

The CSO's most recent County Incomes and Regional GDP Report 2014 (published in 2017) shows that Limerick (€20,395) has the highest disposable income per person in Ireland outside of Dublin (€21,963). Figure 1 shows that disposable income per capita in Limerick was significantly higher than the national average (€19,178) in 2014.

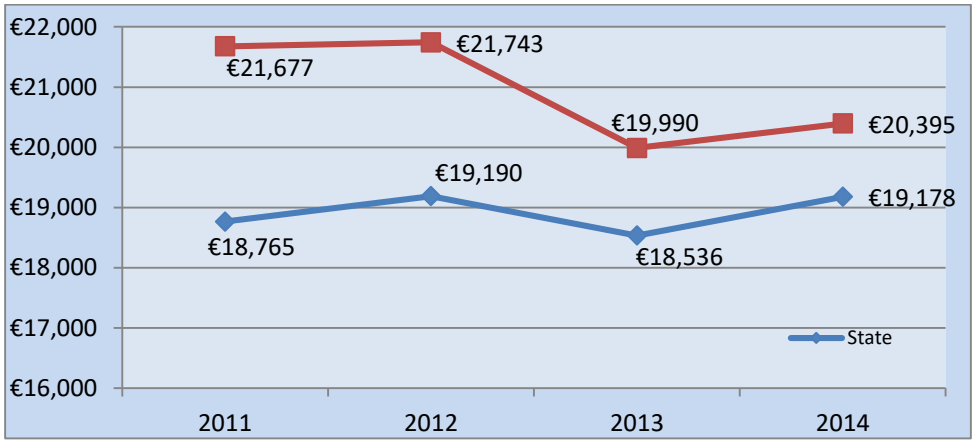

Figure 2: Limerick Disposable Income per Person 2011- 2014[5]

The County Incomes and Regional GDP Report highlights that the Mid West Region, of which Limerick is the capital, has the 3rd highest gross value added in Ireland at €28,906 per capita. Overall, gross value added per person in the Mid West has increased by over 5% from 2011 to 2014 (Figure 2).

Affluence, deprivation and dependency ratios

The HP Deprivation Index[6] for Limerick City in 2016 was -10.6, indicating that the city on average, is disadvantaged, mirroring the recovery that has been taken hold across the State since the economic crisis. The decline is greatest in the Limerick Metropolitan District, experiencing a six pint drop from -6.4 in Census 2006 to -12.4 index pints in Census 2011.

[4] http://www.cso.ie/en/csolatestnews/pressreleases/2017pressreleases/
[5] Source: CSO County Incomes and Regional GDP
[6] http://trutzhasse.eu/deprevation-index/the-2016-pobal-hp-deprevation-index-for-small-areas/

Commerce

Over the last few decades there has been an increasing realisation and understating of the importance of major cities such as Limerick. Ireland has an open economy and competes in a global market for investment.

Jobs and investment 2013–2016

The Limerick 2030 Economic and Spatial Plan (Appendix 2: Limerick 2030), launched by Limerick City and County Council in 2013, is a once in a generation plan to guide the economic, social and physical renaissance of Limerick City centre, the wider county and Mid-West Region. As part of this ambitious and transformational Plan, Limerick is investing over €1 billion in enterprise and investment infrastructure. The 2030 Plan aims to deliver 12,000 jobs, with 5,000 of these in the city centre. Limerick has been very successful in delivering on this jobs target to date. During the period from 2013 to 2016 close to 9,500 jobs and €1.4 billion in investment was announced for Limerick. Limerick's success is being recognised internationally with Limerick ranked as one of the top 10 locations in Western Europe in which to invest by the sixth global 'Best to Invest Report' compiled by Site Selection.

Table 2: Population Aged 15 Years and Over at Work by County and Broad Industrial Group

	Limerick City & County	% of total at Work
Wholesale/retail trade; repair of motor vehicles/motorcycles (G)	10,694	15.1%
Manufacturing (C)	9,840	13.9%
Human health and social work activities (Q)	7,805	11.0%
Education (P)	7,372	10.4%
Accommodation and food service activities (I)	4,067	5.7%
Industry not stated	3,771	5.3%
Transportation and storage (H)	3,027	4.3%
Administrative and support service activities (N)	2,360	3.3%
Public administration and defence; compulsory social security (O)	3,462	4.9%
Professional, scientific and technical activities (M)	3,008	4.2%
Construction (F)	3,560	5.0%
Information and communication (J)	1,941	2.7%
Financial and insurance activities (K)	2,030	2.9%
Other service activities (S)	1,535	2.2%
Arts, entertainment and recreation (R)	996	1.4%
Water supply; sewerage, waste management and remediation activities (E)	427	0.6%
Electricity, gas, steam and air conditioning supply (D)	339	0.5%
Real estate activities (L)	250	0.4%
Agriculture, forestry and fishing (A)	4,331	6.1%
Mining and quarrying (B)	151	0.2%
Activities of households as employers producing activities of households for own use (T)	64	0.1%

Activities of extraterritorial organisations and bodies (U)	11	0.0%
Total at work	71,041	100%

Active enterprises and employment

The Central Statistics Office indicates that there are approximately 12,000 active enterprises operating within Limerick City and County in 2015.

The main employment industry in Limerick is Wholesale and Retail Trade, which accounts for over 15% of total employment, followed by manufacturing which accounts for 13.9% of employment in Limerick. Table 2 provides a detailed breakdown of employment by sector in Limerick. Recent job announcements for Limerick indicate that growth has been particularly strong in:

- Biopharma/Medical Devices;
- ICT;
- Construction;
- Retail;
- FinTech;
- Creative sector.

The unemployment rate in the mid-west, which is an indicator of Limerick's unemployment rate, was recorded at 6.8% in Q1 2017. This is similar to the national average of 6.7% for the same period. The Mid West and Limerick's unemployment rate has declined considerably in recent years.

Limerick's Live Register[7] (a monthly series of the numbers of people (with some exceptions) registering for Jobseekers Benefit (JB) or Jobseekers Allowance (JA) or for various other statutory entitlements at local offices of the Department of Social Protection) as more than halved since it peaked at 23,415 Live Registrants in August 2010 to 11,376 people signing on to the Live Register in June 2017.

Foreign direct investment

In the context of foreign direct investment (FDI) Limerick City and County Council play a vital role in attracting inward investment and in driving an investment focussed strategy under Limerick 2030 (see Appendix 2: Limerick 2030). IDA Ireland[8] indicates that Limerick does demonstrate a strong base in terms level of FDI, with 38 IDA baked firms in total it still lags behind the Capital Dublin with 372 companies. The dominant sector in Limerick for FDI is ICT/Hardware/Software with a total of 12 companies, the majority of which operate in the Metropolitan District.

Start ups

According to vision-net[9] in 2016 Limerick had 680 start-ups. This represents 3.4% of the total number of start-ups in Ireland. Of the total start-ups which started in 2016 the majority were involved in the Professional services and Finance sectors.

[7] http://www.cso.ie/en/interactivezone/statisticsexplained/labourmarket/whatistheliveregister/
[8] http://www.idaireland.com/business-in-ireland/company-listing/
[9] http://www.vision-net.ie/

For start-up companies in Limerick, fewer investment opportunities and generally poor infrastructure continue to limit growth potential.

Office space

Cushman and Wakefield[10] provide quarterly reviews of regional office markets for Limerick. The level of office stock in Limerick has been increasing but the level of growth is in decline. In 2015 there was 6.2% in the level of available market stock while in 2016 the level of growth was 4%. There is an average size deal of 421 square meters in the city compared to 1,340 square meters in the suburbs. There remains a distinct shortage of large, high quality space in the city centre. Office rent is approximately €215 per square metre in Q1 of 2017 in the city and remains lower than those recorded in Ireland's other cities of Cork, Galway and Dublin.

The digital ecosystem

Ireland has an overall score of 0.53 and ranks 8th out of the 28 EU Member States on the digital and economy society index (DESI[11]). Foreign Direct Investment (FDI) companies have chosen to locate in Limerick due to the strong 3rd level supply of skilled graduates and a number of specialist research centres and Technology Parks and Business Parks such as:

National Technology Park, Limerick

Located 6 km to the north-east of Limerick City, adjacent to the motorway to Dublin and 30 km from Shannon Airport. Providing a world-class business environment connected to a modern university campus, the National Technology Park has become home to a growing and influential nucleus of high-technology and knowledge-based companies, including over 80 global multinational subsidiaries, Irish technology companies, R&D institutions and support services. ICT, Healthcare and e-Learning are the dominant sectors at the National Technology Park.

Raheen Business Park

Close to Shannon Airport, and major rail and road routes, is home to many international companies, including Regeneron Pharmaceutical; Analog Devices; Dell; Banta and Stryker Corp.

Higher and Further Education and Training/ Research

Within a 90 minute catchment of Limerick, there are 3 Universities and 3 Institutes of Technology with a student cohort of c.67,000 and c. 20,000 graduates per annum. There are two 3rd Level Institutions - University of Limerick and Limerick Institute of Technology. In addition, the Limerick & Clare and Tipperary Education and Training Boards provide almost 28,000 adults with Further Education and Training opportunities throughout the region. In relation to research, University of Limerick has a large number of academic-industry collaborations. The University has particular strengths in Materials, Manufacturing, ICT, Applied Mathematics and Health. UL hosts 2 Large SFI funded Centres and 3 large scale Technology Centres, funded by EI and IDA, which focus on identifying new sources of industrial growth and job creation and achieving competitive advantage for industry in Ireland by leveraging the

[10] Cushman and wakefield, Irish office Market, Q1 2017.
[11] https://ec.europa.eu/digital-single-market/en/desi

innovative capacity of the Irish research community. Of particular relevance is the Lero – The Irish Software Research Centre which is headquartered at the University of Limerick, and has raised the level and profile of Irish software research with such effect that it is now one of the best known and highly regarded software-related research centres in the world. Lero interfaces with a wide range of industry, state agencies, educational bodies and international collaborators to deliver on its twin goals of research excellence and social and economic relevance. Limerick Institute of Technology is a unique system as it offers enterprise incubation facilities co-located with each of its campuses

Limerick.ie digital platform

Limerick.ie was launched in 2017 as an integrated digital service platform which allows people to experience Limerick in their own way. Local citizens, visitors, businesses and public representatives utilise 'My Limerick' as digital experience with regard to the services Limerick offers. My Limerick allows the user to create a list of favourite things to do in Limerick, to submit services requests to the council such as street cleaning, licences, grants.

In 2017 Limerick.ie served over 800,000 unique customers over 3.3 millions pages. In the eight months since it launched from April to December 2017 over 850 customers registered to access My Limerick with over 200 customers accessing their online services.

Insight Limerick

Limerick is now utilising the power of analytics to aid with decision making. Limerick will be providing a new service 'Insight Limerick' as a service concept where citizens, communities and organisations will be able to find, browse, use and share open data, maps, access, analytics and reports. This will enable internal council users and the public to aggregate, visualise, query, analyse and gain insights from data.

Council.Limerick.ie

Council.limerick.ie is Limerick City and County Councils online presence where customers can view the latest events, council projects and initiatives as well as the entire council service catalogue. This service catalogue lists the individual services that the council offers to the public and allows the customer search and browse the services by service type, service category or by persona such as citizen, business or community group etc.

Limerick Innovation Hub

The Limerick Innovation Hub is a space developed to provide a high-end landing space for both indigenous and Foreign Direct Investment companies looking to establish a base. The Hub can also be sub-divided to facilitate SMEs that are looking to grow or expand their businesses in the region.

The space was recently completed, extending to 35,000 square feet of enterprise space, offering local businesses the biggest modern open plan office footprint available in Limerick.

Digital skills academy

A new Production and Digital Skills Academy has been established in Limerick to take advantage of the opportunities being created by the opening of Troy Film Studios Limerick.

The Academy is located in the heart of Limerick city, and was purchased by Limerick City and County Council for €2.25 million through funding from the Department of Housing, Planning, Community and Local Government. Many of the skills required in this film investment in Limerick are in intermediate skills areas including: hair and make-up; digital animation; acting; camera operator; set design and building; rigging and wardrobe. These are both accessible and attractive to people of working age in regeneration and other areas across Limerick. Some of these opportunities are attractive to young people of school leaving age who are planning on completing further education and training programmes such as Post Leaving Cert (PLC) courses. They will also be attractive to adults wishing to continue their education through various education and training pathways. The Academy is to set aside twenty per cent of their places for people from the regeneration areas of Limerick city. The plan is to have an all-Irish trained crew working at Troy Studios by 2020.

Ingenuity

The Ingenuity BYOB (Build Your Own Business) Programme is for people with expertise and talent who want to set up their own lifestyle or fast growth business. It is a programme for experienced entrepreneurs (aged 50+) led by ISAX, sponsored by Bank of Ireland and run in conjunction with the Local Enterprise Offices. The Ingenuity BYOB Programme is tailored to those 50+ with modules designed to teach you the skills required to set up and run a successful business.

ISAX innovation hub

ISAX was created in response to the rapid ageing of populations across the world and the challenges that throws up for health, care and income security systems. These require radical innovations, creating a new 'smart ageing' economy – with significant R&D.

CoderDojo Limerick

CoderDojo is a movement orientated around running free not-for-profit coding clubs and regular sessions for young people. At a CoderDojo, young people learn how to code, develop websites, apps, programs, games and more. Dojos are set up, run by and taught at by volunteers. Dojos organise tours of technology companies, bring in guest speakers to talk about their career and what they do, and organise events. In addition to learning to code, members meet like minded people, show off what they've been working on and so on. CoderDojo makes development and learning to code a fun, sociable, kick ass experience. CoderDojo also puts a strong emphasis on open source and free software, and has a strong network of members and volunteers globally.

CoderDojo has just one rule: "Above All: Be Cool", bullying, lying, wasting people's time and so on is uncool.

Limerick for IT

The Limerick for IT initiative has brought together major industries in the region, including General Motors, Johnson & Johnson and Kerry Group, together with the University of Limerick (UL), the Limerick Institute of Technology (LIT), Limerick City & County Council and IDA Ireland to form a unique IT skills partnership 'Limerick for IT'. This employer-led skills project linked to Limerick 2030 assesses future skills needs to help multinationals. The key role of the partnership was to develop a pipeline of job-ready IT graduates to meet global and national needs. Critical skills were identified that could expand operation mandates. The multinational partners identified Enterprise Solutions Development

and Middleware (IBM Systems Integration Bus), as critical skills for emerging corporate opportunities. As a result, bespoke Springboard courses were developed and delivered through UL and LIT. This has resulted in two major expansions in Limerick with the creation of over 200 jobs since January 2014.

Limerick Charter

The Limerick Charter commits the signatories to joint planning, integrated development and coordinated deployment of resources in the mid-west of Ireland. The Charter outlines a wider and more ambitious agenda to deliver improved economic infrastructure including new third level educational facilities, new Port facilities along the Shannon Estuary, and new infrastructure at Shannon International Airport over the next two decades. The total cost of these projects combined is €750 million euro. The charter enables a diverse community, through the use of digital technologies to participate in the development of Limerick and in doing so aid to build Limericks reputation locally, nationally and internationally as a digital ecosystem. The charter enables an environment for digital innovation and digital transformation.

Innovate Limerick Ltd

Limerick City and County Council have established a new public-private partnership company 'Innovate Limerick Ltd', to integrate the innovation activities of both the Limerick 2030 Economic Strategy (2013) and the Limerick Regeneration Framework Implementation Plan (2013). The company seeks to accelerate innovation in Limerick by providing a supportive environment that facilitates and encourages higher levels of innovation across the various stakeholders and sectors in Limerick.

Online Trading Vouchers

In order to support the goal of increasing online business sales the Department of Communications, Energy & Natural Resources have teamed up with the Local Enterprise Offices to provide Online Trading Vouchers. These vouchers set out to support small businesses and to enhance their online trading presence.

Fab Lab

The University of Limerick has established a Fab Lab which is a creative digital hub in the city centre which benefits the region culturally, economically and technologically through the integration of digital media activities. This hub also has specialist facilities and training resources to grow new creative digital industries. Troy Studios plan to establish a significant media hub for film and television production in Limerick, thereby adding to the city's digital economy.

Digital economy SWOT for Limerick

Table 3: Digital Economy SWOT for Limerick

Strengths	Weaknesses
• Established high-tech sectors in ICT • Strong education assets (UL/LIT/MIC) and associated research capacity including SFI centres (e.g. LERO)	• Numbers of home-grown digital start-ups are low • National shortage of ICT professionals

• Limerick is acknowledged for its ability and confidence to adapt and compete in a global digital economy • A new Local Government structure with an ambitious digital vision • Higher and further education providers collaborate with industry to develop study programmes that will provide 'job ready' graduates for the digital economy within the region (Limerick for IT) • Collaborative actions to strengthen the capacity of the region to sustain and grow FDI and attract new inward investment • European Commission data shows that 40% of fixed broadband subscriptions in Ireland are at speeds greater than 30 Mbps. This is significantly ahead of the euro area average of 48 • High broadband penetration in the city • Limerick Charter in place	• SME's often cannot afford the IT platforms necessary to sell online • The lack of a regional plan specifically focused on the digital economy • Limited public wifi • Fragmented CCTV • Digital divide • Siloed data sources
Opportunities	**Threats**
• IDA will provide an advanced technology building in Limerick in 2017 • Innovation opportunities to build on the region's significant research assets • The Limerick Royal/Digital Quarter & City Centre Innovation Centre(Ireland's first combined cinema and digital media training facility will deliver jobs, economic, social and cultural benefits) • Stimulate the indigenous economy by helping small Limerick businesses to expand on-line (trading online voucher Scheme through the LEO) • Increase online engagement through learning programmes	• Globalisation and the use of ecommerce has given the consumer the opportunity to buy internationally which can have an adverse affect on local businesses • Technology is always evolving and SME's can find it difficult to keep up • Digital inequality • Emigration of IT graduates

• Encourage the use of digital in education following the successful rollout of 100mbps broadband to every second level school in Ireland • The potential of the public services is unlocked by the use of digital technologies	

Summary of key barriers to growing the digital economy

- Digital inequality is a major barrier of the digital economy. This divide includes imbalances in terms of access to internet infrastructure, information and knowledge, and equality of opportunity depending on income, race, ethnicity, gender or other similar criteria;
- Many businesses do not fully appreciate the relevance of the internet to them – and its potential to help them become more efficient, or to access new markets. For others it is a problem of not knowing how to go about it, what they need to do, or where they can get help;
- It is difficult to compete with Dublin, as the capital has national level technology clusters;
- Access to the digital economy is conditioned by proprietary standards. For example if a company uses a particular outdated technology moving to a newer platform that proves more beneficial can be made difficult by the lack of tools and knowledge for data transfer;
- There is a need for more open digital platforms to enable businesses to operate.

Summary of key challenges to growing the digital economy

Limerick is making progress in its journey in becoming more digitally enabled. However there are some key challenges:

- Limited number of online services leads to reduced self-service options, missed growth opportunities, low satisfaction;
- The digital divide has created an unequal social and economic opportunity in Limerick, creating opportunities to access information, education and knowledge is important;
- Attracting investment, developing a skilled workforce while preparing for an increase in technology is difficult;
- Job creation post-recession;
- Ensuring local businesses take advantage of the Internet and the digital economy;
- The deficit in digital infrastructure at regional level with poor broadband penetration in rural areas;
- Limited public Wi-Fi in the city centre;
- Old CCTV infrastructure hinders the effort to create a safer environment.

Limerick's Integrated Action Plan

The integrated approach to sustainable urban development promoted by URBACT builds on the participation of key local stakeholders in policy-making and delivery. This IAP was put together using a participative and transnational process. The Limerick URBACT Local Group (ULG) brings together all relevant stakeholders having a stake in the policy challenge addressed by the city. The ULG realised that working with partner cities that share the same priorities and aspirations, is a more innovative and creative approach. By bringing together partners to collaborate on the specific issues of TechTown and share experiences at transnational level, ULG's enhance the impact of networking activities on local policies and practices. Limerick's ULG is a group of key local stakeholders which include individuals from Limerick Institute of Technology, University of Limerick, Limerick Chamber, Limerick Enterprise Office, Innovate Limerick, Irish Software Research Centre as well as small businesses and large scale businesses. Limerick City and County Council utilised the ULG Toolkit to aid with the challenging task of developing participatory action planning and implementation. This toolkit provided guidelines and tools that have proved useful in bringing together our city stakeholders, and facilitating collaboration in the analysis our urban challenges and the co-creation of solutions. The toolkit also provided practical tools to support Limerick in setting up and running our ULG, and in producing this integrated local action plan.

Tools which were utilised include:

- Stakeholder analysis and Stakeholders Importance/ Influence matrix;
- Problem tree and Problem and solutions table;
- Action Tables.

Limerick's IAP focus and Objectives

Limerick's ULG decided to focus on Limerick's emerging Digital Strategy as a starting point for discussion. The OPERA method was utilised following an initial meeting to agree on the relevant scope and to define the term digital from a Limerick perspective. See Appendix 3 for further details on the OPERA workshop. The topic of what we define as the digital economy arose a number of times and there was considerable debate among stakeholders. The ULG firstly included only those activities directly related to producing digital goods and services, then those activities that are supported by digital goods and services. Finally it was agreed that the digital economy is the economy. Digital goods and services have permeated the economy to such an extent that it is almost impossible to identify organisations in an economy that do not use digital goods and services to generate value.

As previously stated, ULG's and LAP's are at the core of URBACT activities, where tangible impacts are delivered, where local co-operation develops and where transnational learning is put into practice. Transnational exchanges also play a central role and central learning focus of URBACT. Representatives from Limericks ULG attended transnational meetings throughout the lifetime of the project and shared the key learning's with the ULG. These key learning's fed into the development of this IAP. The transnational meetings were focused on the key themes of the Techtown action planning network. Examples of key learning's from the networks transnational meetings which Limerick utilised in this IAP are as follows:

<u>Theme: Better understanding the digital economy</u>

Key learning: Creating a digital community is more than just core digital processes; it is the environment and support structure also.

<u>Theme: Growing new digital jobs through start ups</u>

Key learning: Limerick needs more hot desk spaces and digital mentorship programmes.

<u>Theme: Growing jobs through the transformation of traditional industries</u>

Key learning: Digitisation is a mindset with people at its heart.

<u>Theme: Growing digital jobs through the Smart City Agenda</u>

Key learning: The importance of solving local problems with local solutions is fundamental.

<u>Theme: Providing places and spaces for connections</u>

Space does not have to be a physical building.

Theme: Finding, growing, retaining and returning talent

Key learning: Attracting talent is not just about jobs it is important to also look at the reputation of the city as a selling point.

At this stage there is a need to present in detail Limerick's Digital Strategy as it is an integral part of Limericks IAP. The following section presents a broad overview of the strategy and will detail how the strategy informs the IAP including its problem statement, specific objectives and actions.

Limerick's digital strategy

The emerging Digital Strategy for Limerick is being developed by Limerick City and County Council in co-operation with key stakeholders focuses on 'smart' development and regeneration through digital technologies, the digital agenda and the digital economy. The strategy lays out the foundation for a 'Sustainable Smart Limerick City' which utilises digital technologies to empower communities, enable sustainable social and economic growth and to improve the quality of life for its citizens.

The digital vision for Limerick is:

- Limerick is acknowledged for its ability and confidence to adapt and compete in a global digital economy;
- A place of digital equality where access to information creates opportunities in a knowledge economy for actively engaged communities;
- Limerick's physical environment, digitally enabled by design and connected by default, facilitates sustainable social and economic growth while improving the quality of life for all;
- The potential of the public services, driven by the desire of putting people first, to adapt, transform and support the reality of a digital, social and mobile age by use of digital technologies.

LCCC will lead the development of Smart Limerick and show how strategic thinking and cross departmental collaboration in delivering integrated action plans is deployed in order to achieve this vision.

The strategy includes the following goals:

- Enable communities to participate in the digital development of Limerick;
- Build Limerick's reputation locally, nationally and internationally as a digital ecosystem;
- Create an environment for innovation and digital transformation;
- Develop world-class digital services and infrastructure for a Smart City and a Smart Community;
- Digitally enable and transform key public services in Limerick.

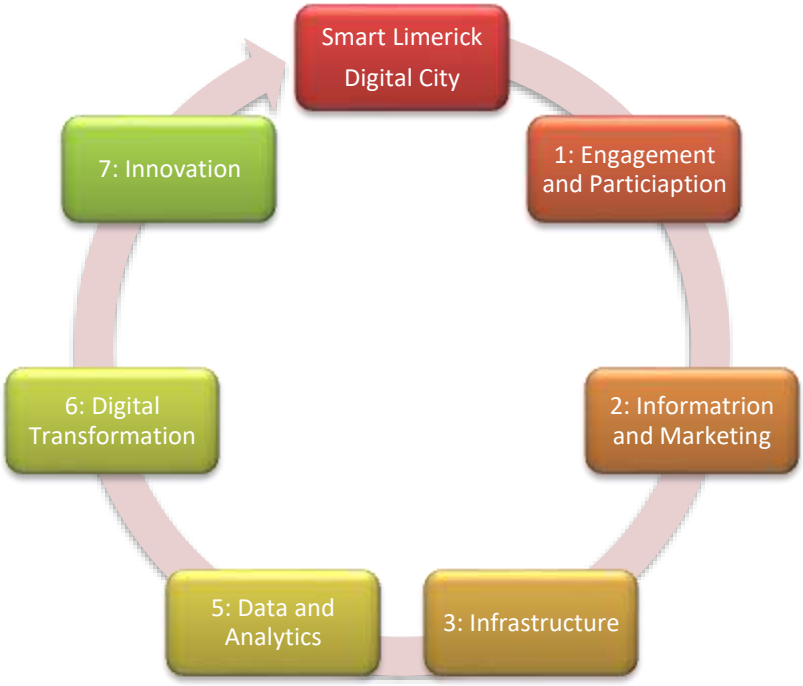

Figure 3: Limerick's Digital Strategy Programmes

It is a strategic approach guided by governance, structures and policy, support networks and research and includes;

1. Engagement and Participation: Through consultation and collaboration;
2. Information and Marketing: The launch of www.limerick.ie in May 2017;
3. Service Integration: The launch of My Limerick in May 2017;
4. Infrastructure: National Broadband Plan, WiFi, Internet of Things (footfall, noise, air quality sensors), CCTV;
5. Data and Analytics: Insight Limerick Platform (improved sharing, searchable catalogue, metadata awareness, managed coordination for better decision making);
6. Digital Transformation: Council Website, CRM-wizard style case management workflow with timely information and traceability);
7. Innovation: Cross agency Services.

The strategy defines a framework and a roadmap that will connect, enable and accelerate the outcomes from existing strategies through the use of digital technologies and the adoption of digital transformation principles for economic, social and physical development.

An integral aspect of this process was setting up of the Limerick Digital Leaders network which is made up of key stakeholders (including the ULG) across public, private, community and voluntary sectors. The aim of the network is to lead the development of the Digital City and Smart Limerick Roadmap and associated initiatives.

The Council Digital Champions Forum was also set up which consists of a network of Senior Council staff who support the development of the digital City and smart Limerick initiatives.

Digital strategy and TechTown

While Limerick's Digital Strategy lays the foundation towards a smart Limerick, the TechTown IAP complements this strategy by focusing on developing the local economy and communities while also providing valuable measurement of the local economy in response to the transformation initiated by the Digital Strategy.

Limericks proposed innovation district

As part of the Digital Strategy a Digital Quarter will be developed as a demonstration area in the Georgian Innovation District (See figure 4). As digital infrastructure becomes available, a network of connected Digital Quarters will be developed in the major towns of County Limerick. The successful pilots implemented in the demonstration areas will be extended to the wider city and county.

The connections between the two concepts are evident. The Digital Quarter is the starting point and a key enabler in the development of a Smart Limerick region.

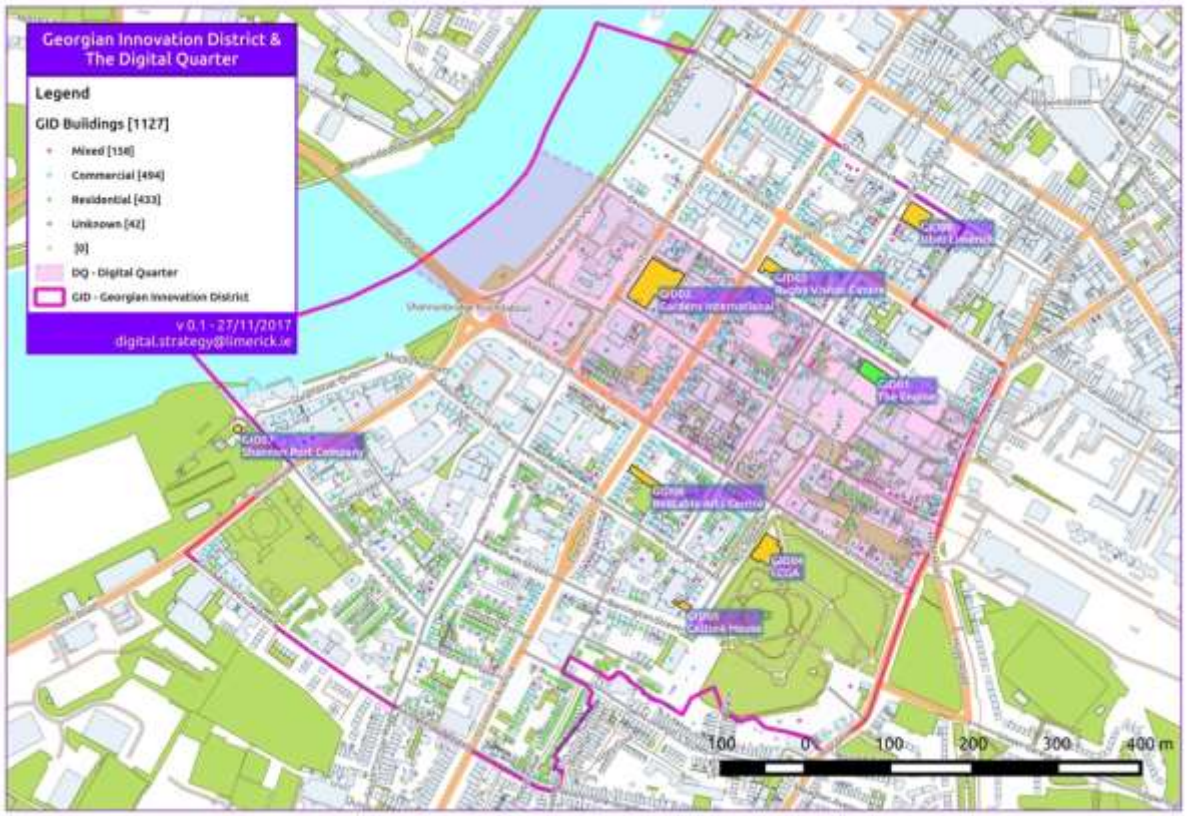

Figure 4: Proposed Innovation District

Limerick's digital capability

To plan and guide the transformation journey towards the Smart Limerick and the Digital City, an initial capability assessment has been completed in 2016 with the support of researchers from the Irish Software Research Centre (LERO) and the Innovation Value Institute (IVI). This assessment enables the

definition of the current status or the "as-is" situation and a common understanding between stakeholders of how this transformation is being tackled. It also enabled the definition of a clear set of goals to be reached in the next 3 to 5 years and the desired "to-be" situation, across the defining factors of a Smart Limerick.

There are many models that can be used to undergo maturity assessments, each model having various levels of maturity and capabilities associated with these levels. As research in this area is still ongoing and different models claim various adoption rates, a hybrid approach has been used for Limerick's digital capabilities assessment. This hybrid approach ensures that cross examination of key insights about Limerick's digital capabilities provide a clear understanding of the current position from where Limerick can start its transformation journey.

The following maturity assessment models are used:

- The Smart City Maturity Model developed by the TM Forum, a non-profit international industry association that carries out industry research and develops benchmarks, technology road-maps, best-practice guidebooks, software standards and interfaces;
- The Sustainable Connected Cities Capability Maturity Framework developed by the Innovation Value Institute in Maynooth University defines five levels of maturity across six domains, as presented in Table 4: Figure 4 Limerick Digital Maturity Level 2016 (IVI). A recent assessment of Limerick's digital capability placed Limerick at "Level 2. Basic" as presented in Table 4: Figure 4 Limerick Digital Maturity Level 2016 (IVI)..

Table 4: Figure 4 Limerick Digital Maturity Level 2016 (IVI)

Maturity Levels	Digital Access & Skills Proficiency	Building Ubiquitous City Network	Leveraging Urban Data	Fostering Digital Services Capability	City Impact Realisation	Digital City Governance
5. Optimising	Digital savvy pervasiveness & creativeness	Ubiquitous high-speed, secure & intelligent networks	Industry, Academia, Municipalities/Gov & Citizens sharing trusted data	Bottom-up entrepreneurship & open-innovation digital city services	Carbon negative city, autonomation of city operations, triple bottom line value	Shared governance across municipalities & citizens
4. Advanced	Personalised & integrated digital access, digital skills proficiency > 90%	Autonomous network QoS and QoE self-healing intelligence	Mega data-pattern processing, crowd-sourcing initiatives	Pockets of citizen prosumerism driving service innovation	Carbon neutral City, predictive city operations management	Pervasive citizen participation, cross-department digital city management positions
2020						
3. Intermediate	Quadruple-helix initiatives for integrated digital education & access	Near real-time network sense & respond management	City data platform, data mash-ups from diverse sources	Integrated city-wide digital services platform, citizen feedback loops present	Managed use of city resources, informed city operations management	Centralised digital city vision, policies & resourcing
2018						
2. Basic	Discrete digital skills & access initiatives	Varying levels of instrumentation, connectivity & field data capture	Data policies for regulatory, privacy, security & sharing, small scale data integration	Pockets of digital city services innovation, limited citizen engagement	Carbon-rich behaviours changing, partial monitor & control city operations	Decentralised city involvement, some cross-department collaboration
1. Ad Hoc	Limited expertise and access	Manual detection, response & recovery across network(s)	Proprietary, no data integration	Independent city service strategies	Unfettered city operations driving carbon-rich use	Little engagement, no interest in digital city

The Smart City Maturity Model developed by TM Forum, uses the 'smart city framework' ISO 37106[12] at its core, and is well aligned with industry standards such as BSI. It has seen wide adoption across multiple cities such as Atlanta and Mexico City just to name a few. The Smart Cities Council, The World

[12] https://www.iso.org/standard/62065.html

e-Governments Organization of Cities and Local Governments (WeGO) have signed in 2016 a memorandum of understanding to promote the adoption of the TM Forum's Smart City Maturity & Benchmark Model to over 300 cities worldwide while the White House announced a challenge grant by the Smart Cities Council to help five American cities (Austin, Indianapolis, Miami, Orlando and Philadelphia) apply smart technologies to improve urban livability, workability, and sustainability. TM Forum is a non-profit international industry association that carries out research and develops benchmarks, technology road-maps, best-practice guidebooks and software standards.

The Smart City Maturity Model evaluates the city on 7 levels (0 – not started, 7 – maximum impact) and across 5 domains as presented in Figure 5: Figure 5 Limerick Smart City Maturity 2016.

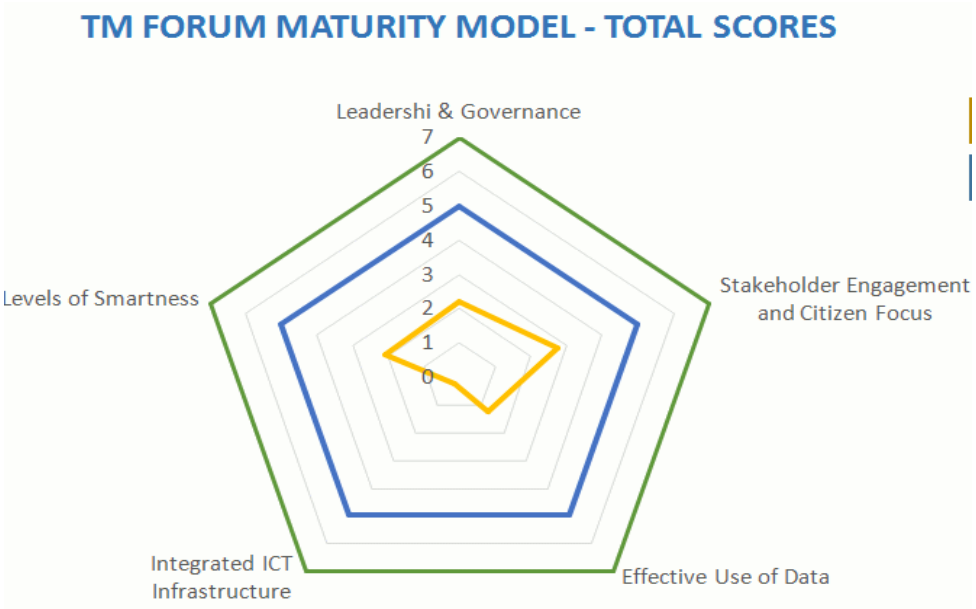

Figure 5: Figure 5 Limerick Smart City Maturity 2016

Limerick domains

Limericks digital strategy is not just about technology but ensuring that Limerick enables a better response to economic, social and physical environment needs through the use of technology. The strategy takes a comprehensive approach to environment needs and challenges which span across 6 Limerick domains.

Figure 6 Smart Limerick domains

Limerick digital strategy roadmap

Limerick Digital Strategy defines a road map of initiatives that aim to raise Limerick to a new Intermediate Level 3 of digital maturity by 2018 and Level 4 Advanced by 2020 while increasing the impact of these actions across a set of 5 Smart City capabilities:

1. Leadership & Governance
2. Stakeholder Engagement and Citizen Focus
3. Integrated ICT Infrastructure
4. Effective Use of Data
5. Level of Smartness

and 6 Smart Limerick domains:

Figure 7: Smart Limerick Domains

This will be achieved by implementing a portfolio of 10 programmes that are led by the ULG and the Council Digital Champions Forum. The strategic approach (consisting of 7 operational programmes and 3 supporting programmes) is described in Figure 8 and Figure 9 below.

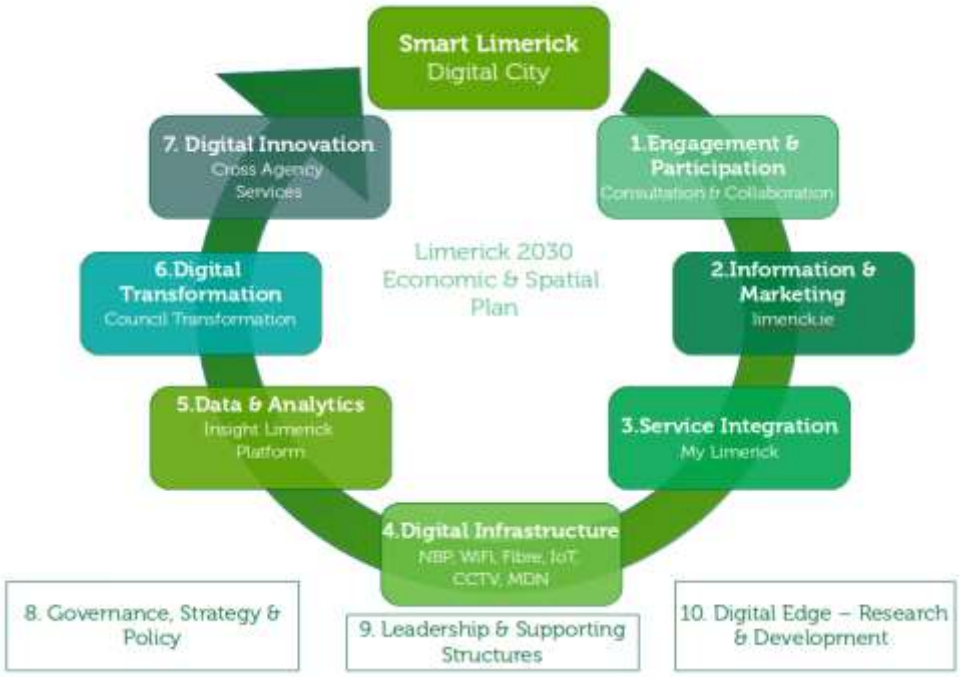

Figure 8: Smart Limerick Programmes

Pr.	ID	Action
1. Enable Participation	1.1	My Point (Open Consultation Platform)
	1.2	Public Engagement Model
	1.3	Public Participation Network Integration
	1.4	Public Mapping and Data Collection
	1.5	City & Town Engage Program
	1.6	Citizen Open Innovation Lab
	1.7	Council Podcasts
	1.8	Invasive Species App
	1.9	Sustainable Energy Communities
	1.10	Students Engagement
2. Information & Marketing	2.1	Limerick.ie
	2.2	Limerick.ie App
	2.3	Limerick.ie Economic Report
	2.4	DIGITAL.Limerick.ie
	2.5	SMART.Limerick.ie
	2.6	FILM.Limerick.ie
	2.7	GALLERY.Limerick.ie
	2.8	HISTORY.Limerick.ie
	2.9	AgeFriendly.Limerick.ie
	2.10	Age Friendly Magazine
	2.11	Community Websites
	2.12	Limerick Film Festivals Platform
	2.13	Smart Sporting Limerick
3. Service Integration	3.1	MY Limerick.ie
	3.2	MY Limerick.ie – Favourite Amenities
	3.3	MY Limerick.ie – Inspire Me
	3.4	MY Limerick.ie – Cases
	3.5	MY Limerick.ie – Payments
	3.6	MY Limerick.ie – Licences & Permits
	3.7	MY Limerick.ie – Grants
	3.8	MY Limerick.ie – Ping me (Notifications)
	3.9	MY Limerick.ie – My Post Box
	3.10	Integration of National Systems
	3.11	Smart Parking

Pr.	ID	Action
7. Innovation - Cross Agency Services	7.1	Networks Forge (Smart Collaboration)
	7.2	URBACT Techtown - A digital City Future
	7.3	BalanCities - Horizon 2020
	7.4	Public Safety Enforcement Services
	7.5	Digitally Skills Academy
	7.6	Digital Retail Pilot
	7.7	Digitally Skills Week
	7.8	Coder Dojo Limerick
	7.9	Digital citizenship / Digital Inclusion
	7.10	Innovation in Community Spaces
	7.11	LG National Service Catalogue
	7.12	Ingenuity
	7.13	Smart Ageing Housing Programme
	7.14	ISAX Innovation Hub
	7.15	Limerick Living Lab
8. Optimised Governance	8.1	Digital Limerick Framework 1.0
	8.2	Limerick Digital Strategy 1.0
	8.3	Limerick Digital Strategy 2.0
	8.4	Smart Limerick Strategy
	8.5	IBM Smarter Cities Challenge
	8.6	IE Geographical Place Names Policy
	8.7	Digital Infrastructure Planning Policy
	8.8	Smart CCTV Policy
9. Smart Limerick Network	9.1	Limerick Digital Leaders Network – DLN
	9.2	Council Digital Champions Forum (DCF)
	9.3	All Ireland Smart Cities Forum
	9.4	Open & Agile Smart Cities – OASC
	9.5	WBA - Connected City Advisory Board
	9.6	TM Forum
	9.7	Association of Strategic Alliance Prof.
10. Digital Edge	10.1	Limerick Enterprise Architecture
	10.2	Connected Health
	10.3	Smart Ageing Volunteers Platform

Pr.	ID	Action
4. Infrastructure	4.1	Municipal Data Network
	4.2	Public WiFi
	4.3	Smart CCTV Pilot
	4.4	National Broadband Plan roll-out
	4.5	Noise Sensors (IoT – Pilot)
	4.6	Air Quality Sensors (IoT Pilot)
	4.7	Water Quality Sensors (IoT Pilot)
	4.8	Soil Quality Sensors (IoT Pilot)
	4.9	Footfall Counters (IoT Pilot)
	4.10	Public Digital Displays
	4.11	Digital Quarter Limerick – IoT Demo
	4.12	Digital Quarters Network
	4.13	Community Centres Footfall Counters
	4.14	360' Live Cameras
5. Data & Analytics	5.1	Insight Limerick (Council)
	5.2	Insight Limerick (Public)
	5.3	Insight Limerick – Personal Dashboard
	5.4	Insight Limerick – Investor Dashboard
	5.5	Insight Limerick – Policing Dashboard
	5.6	ISAX Data Exchange – Limerick
	5.7	Limerick Master Data Management
	5.8	Public Data Co-creation
	5.9	Transport Patterns for Rural Transport
6. Digital Transformation - Council	6.1	Council Enterprise Architecture
	6.2	Customer Services – Digital Services
	6.3	Customer Services – Digital Displays
	6.4	Staff Training Portal
	6.5	Customer Relationship Management
	6.6	Mobile Service Operations (CRM App)
	6.7	Smart Service Operations
	6.8	Electronic Records Management
	6.9	Program & Project Management
	6.10	Customer Services – Contact Centre
	6.11	Customer Services – Video Services
	6.12	Telephony & Communications System
	6.13	ICT Infrastructure Upgrade
	6.14	Presentation & Video Equipment
	6.15	Remote Office Communications
	6.16	Disaster Recovery Programme

Figure 9 Digital Strategy Road Map Overview

Limericks challenge statement

As previously stated, Limericks ULG utilised URBACT methodologies to identify the following challenge statement and specific objectives.

Challenge Statement

Limerick needs to measure its digital economy to ensure the successful implementation of its digital strategy.

Specific objectives

1. To understand how to measure Limerick's innovation district digital economy to further inform its Digital Strategy by 2018;
2. To increase the number of companies transitioning from start-up to scale up within its innovation district;
3. To create a structure which brings relevant parties together to realise the potential of its Digital strategy;
4. To create a platform for open data.

If Limerick achieves these objectives at city level it will have reliable and repeatable metrics in place to measure its digital economy, there will be a common Smart Vision for the city, increased no.s of digital start-ups/incubation spaces/digital training and digital start-ups and increased open data sets published.

The following sections will detail key actions, output indicators, baselines, targets and result indicators for each specific objective including the identification of key partners, intended outputs, timescales and the resources required to deliver on each action.

Objective 1

To understand how to measure Limerick's innovation districts digital economy to further inform its Digital Strategy by 2020.

Actions

1. Identify data sources to allow Limerick to measure its digital economy;
2. Include the requirements for measuring the digital economy in the Insights Limerick (public) project;
3. Publish these datasets on Insight Limerick (public);
4. Report on the knowledge gleaned from this data.

Table 5 Actions for Objective 1

Action Title	Lead Actor	Key Partners	Intended Outputs	Timescale	Resources
1. Identify data sources	LCCC	LEO	A list of ten, repeatable, accurate and machine readable metric sources.	2 months	LCCC staff
2. Insights Limerick Requirements	LCCC	LCCC - DAG	Function complete requirements document	1 month	LCCC staff
3. Insight Limerick Build	LCCC	DAG contractors	A function complete system that stores, analyses and generates reports on a number of data sources.	6 months	LCCC staff and outsourcing.
4. Report	LCCC	LCCC - DAG	At least five repeatable, reusable and linked reports that depict in sharp relief the key metrics of the local digital economy.	1 month	LCCC staff

Output indicators

In order to measure Limerick's digital economy for the Economy and Innovation smart domain an established set of metrics are required that are feasible to measure, repeatable, relevant to Limerick and coherent with Limerick's Digital Strategy. To this end the Smart City Master Indicators as defined by the Smart Cities Council[13] have been employed.

Sample result indicators relevant to the innovation district, include:

- Ranking in Innovation cities index (Dublin 49/500[1]);

[13] See: http://smartcitiescouncil.com/resources/smart-city-index-master-indicators-survey

- Number of new opportunity-based start-ups/year;
- Number of open data datasets;
- Existence of official citywide privacy policy to protect confidential citizen data;
- Number of digital community events (hackatons, etc).
- Number of citations utilising this information.

Baseline

The purpose of this objective is to establish the baseline measurements for the local digital economy therefore no baseline exists.

Target

The target is to achieve a set of reliable and repeatable metrics that measurement the local digital economy.

Result indicators

The result indicators measure the expected wide reaching effects of the output indicators. For this objective the result indicators include:

- Improved decisions based on the use of this information;
- Increased usage of this information;
- Improved public awareness of this information and improved public consultation on key initiatives.

Objective 2

To create a permanent structure which brings relevant parties together to realise the potential of its digital strategy.

The Digital Strategy department within LCCC have developed a digital strategy for Limerick[14]. An integral part of that process was to set up a ULG to bring stakeholders and thought leaders from leading organisations to commit on a voluntary basis to work together and support the development of Smart Limerick. The network is still in development and new stakeholders from public, private community and voluntary are being invited to contribute and lead the development of a Smart Limerick roadmap and initiatives. Also a Council Digital Champions Forum has also been developed in 2016. This a cross departmental senior team within the LCCC tasked at leading Smart Limerick development while being cognisant of LCCC organisational vision, objectives and programs. Members should ensure that strategies, programs and projects take full advantage of the opportunities and capabilities provided by digital technologies and that technology developments are integrated according to Smart Limerick Enterprise architecture. Each Digital Champion will become a member of the wider Digital Limerick Charter. There is a need to maintain and further develop these structures.

Actions

1. Develop a common Smart Limerick Vision 2030 and agree on a set of principles and goals to be reached. This document puts forward a proposal for what a Smart Limerick will look like and also an approach for its development and the roadmap for implementation;
2. Agree the evaluation criteria, metrics and indicators to be used across each domain in order to evaluate the progress made by various initiatives;
3. Develop new policies for integrated planning, data protection, information security and privacy having regard to international and national legislation and ethical issues including the General Data Protection Regulation (GDPR) which will come into force on the 25th May 2018;
4. Agree on the communications, data exchange and other standards that must be observed at all times in order to maximize the potential of all initiatives and to avoid vendor lock in of communities and organisations;
5. Develop new types of procurement and public private partnership;
6. Develop new strategies to ensure that Limerick takes full advantage of integrated ICT and digital technologies. For example, a Data Strategy and a Master Data Management strategy defined and agreed across multiple stakeholders will enable evidence based insights and unlock the full potential of public services. It will enable information sharing between research teams, hospitals and services agencies leading to better decisions and better services.
7. Develop an online public participation platform that allows the Council to advertise proposed initiatives, public works etc. while also providing a structured means for the public to voice their opinions. These opinions will inform the proposed initiative.

[14] https://DigitalStrategy.Limerick.ie

Table 6 Actions for Objective 2

Action Title	Lead Actor	Key Partners	Intended Outputs	Timescale	Resources
1. Common Smart Limerick Vision 2030	LCCC	ULG partners	An agreed vision, set of principles and goals.	6 months	ULG
2. Develop new policies	LCCC	ULG partners	A new set of agreed policies for: • integrated planning; • data protection; • information security and privacy.	6 months	ULG
3. Agree on communications protocols	LCCC	ULG partners	Agree on the software tools (Alfresco etc.) and data exchange formats (ODF, PDF etc.).	1 month	ULG
4. Develop new types of procurement and public private partnership	LCCC	ULG partners	Publish new procurement frameworks that caters for rapid delivery of technology solutions while helping local technology companies to grow.	6 months	LCCC staff
5. Develop new integrated ICT and digital technology strategies	LCCC	ULG partners	Publish strategies on: • Data; • Master data management; • Enterprise architecture.	12 months	LCCC staff and leaders network.
6. Public participation platform	LCCC	ULG partners	An online platform that allows the public to be consulted on Council initiatives.	6 months	LCCC staff and outsourcing.

Output indicators

1 Smart Limerick 2030 publication;
2 Policies in place for:
2.1 integrated planning;
2.2 data protection;
2.3 information security and privacy.
3 Agreed software tools and data formats in place;
4 Policies ratified for procurement and public-private partnerships;
5 Policies ratified for:
5.1 Data;
5.2 Master data management;
5.3 Enterprise architecture.

Baseline

- 29 organisations in the Digital Leaders Network (2017).

Target

- 40 Organisations to join the Digital Leaders Network (2018);
- Set up a Digital Limerick Charter to include external agencies, academia, commercial community and voluntary sectors;
- 100% of all public consultations to take place via the public participation platform.

Result indicators

- A permanent structure which brings relevant parties together to realise the potential of its digital strategy.
- 100% of all public consultations to take place via the public participation platform.

Objective 3

To increase the number of start-ups to scale ups within its innovation district.

As previously stated in Limericks proposed innovation district, Limerick is in the process of creating a Digital Quarter. The selected area will be seen as a pilot of the digital city. It is proposed that as the digital infrastructure becomes available, a network of connected digital quarters could be developed and the model could be replicated across the county. This innovation district will be the focus of supports for digital companies transitioning from start up to scale up. As indicated in chapter 0 there are 410 active ICT enterprises in Limerick. As outlined in The digital ecosystem the main technology parks, business parks, training and research centres and incubation spaces are also located outside the city centre. There is a need to balance this inequality and attract digital enterprises to the city centre. It is also essential to understand Limericks offering in terms of living space and amenities within this district to allow the city to strengthen its offering.

Actions

1. Continue to enable local SMEs to transact online, reach new markets, sell more and grow using Internet technologies. The Limerick Digital Strategy will support the Local Enterprise Office which plays a key role in this initiative by developing new procurement strategies for products and services that are needed in Limerick. A Digital Retail pilot project has been included in the roadmap to 2020.
2. Tech start-ups are already supported to grow in Limerick through initiatives such as the Digital Academy of Skills developed by Innovate Limerick. We will work closely with Nexus Innovation Centre and Hartnett Enterprise Acceleration Centre in order to develop, enhance and promote a co-ordinated digital ecosystem.
3. We will open competitions for the design of new services and solutions for the challenges that Limerick encounters. We will support the development of these solutions through co-financing platforms like Small Business Innovation Research, Public-Private-Partnerships and other methods of enterprise support.
4. Digital education and access will be enabled by our educational institutions members of the ULG including extra-curricular programmes for young people such as CoderDojo, academic programs such as UL Engage and also programmes led by the Limerick and Clare Education Training Board in addition to existing digital skills programmes led by community and voluntary centres.
5. As the leader of Limerick's Digital Strategy the Council must enhance its ability to use digital technologies in delivering its services to citizens and local businesses. A Digital Transformation Programme commenced in 2016. This aims to develop and enhance the digital customer experience by bringing full support for online payments for all Council services, licences, permits, certificates and grants. Substantial investments are being made to redefine how staff operate on a digital by default principle, using electronic records, web technologies, Customer Relationship Management and mobile applications for service operations in an integrated digital platform. This is where local businesses and suppliers will be encouraged to transact online with the Council instead of the traditional paper based systems. This programme will see a major upgrade of the ICT infrastructure: the Council WAN network, switching and storage equipment, a new telephony system that works across 37 locations and council offices, extension of the Municipal Data

Network, introduction of Video Conferencing equipment and omni-channel contact centre to support a new way of interaction with citizens.

6. My Limerick Web and the My Limerick App will be launched as part of new Limerick.ie as an integrated digital services platform where people will experience Limerick in their own way. If you are a local, visitor, business or public representative 'My Limerick' aims to provide you with a consistent digital experience of what services Limerick has to offer, from creating a list of favourite things to do in Limerick to submitting service requests to the council, for example, street cleaning, grass cutting or getting permits, licences or grants;
7. We aim to develop Cross Agency Digital Services on the 'My Limerick' platform under a single customer profile, a true reflection of digital transformation in the Digital City and Smart Limerick. It is the platform where new services can be enabled, i.e. booking events or a parking spot. Limericks ULG will play a key role in fostering the collaboration between agencies in order to define new digital services that place customer experience as the main motivation to change and transform.
8. Starting with the principle of "build once use, multiple times" and that no data should be entered twice an integrated Digital Citizen Experience Platform will be developed; this platform brings together coordinated content, digital integration of services, data and analytics allowing the citizens to participate in the development of Limerick and also to provide feedback so that services and solutions can be further improved;

Table 7 Actions for Objective 3

Expected Result					
Action Title	Lead Actor	Key Partners	Intended Outputs	Timescale	Resources
1. Continue to enable local SMEs to transact online	LCCC	ULG partners	1. Improved procurement policies and guidelines; 2. Digital retail pilot.	2 years	LEO
2. Support for tech start-ups	LEO	LCCC	1. Promote the Digital Academy of Skills with local start-ups; 2. Work closely with Nexus Innovation Centre and Hartnett Enterprise Acceleration Centre in order to develop, enhance and promote a co-ordinated digital ecosystem.	3 months	LEO and Innovate Limerick
3. Competitions for the design of new services and solutions	LCCC	ULG partners	1. Establish policy for Small Business Innovation Research	12 months	LCCC staff

			and Public-Private-Partnerships; 2. Research other methods of enterprise support		
3. Digital education and access	Digital Academy of Skills	LCCC	Promote voluntary programmes such as CoderDojo, academic programmes such as UL Engage and also programmes led by the Limerick and Clare Education Training Board in addition to existing digital skills programmes led by community and voluntary centres.	3 months	LEO, Paul Partnership and Innovate Limerick
4. Digital Transformation Programme	LCCC	Third party solution providers	Outputs will be aligned with the Digital Strategy.	2 years	LCCC staff
5. My Limerick Platform	LCCC	Third party solution providers	Build of a feature complete online platform that offers the full catalogue of Council services, online.	2 years	LCCC staff and outsourcing
6. Digital Citizen Experience Platform	LCCC	Third party solution providers	Build of a feature complete online Digital Citizen Experience Platform.	2 years	LCCC staff and outsourcing

Output indicators

- Increasd number of digital start ups to scale up businesses by 20% per year for three years;
- Increased number of incubation spaces in use by 20% per year for three years;
- Increased participation in digital training courses by 20% per year for three years;
- Increased number of new opportunity-based start-ups by 10% per year for three years.

Baseline

- Number of digital jobs;
- Number of digital start ups operating in the Innovation District;
- Number of scale up businesses in the Innovation District;
- Number of incubation spaces in the Innovation District. (2017);
- Digital hub Limerick (digital jobs training at present);
- Number living labs;
- Number of mentorship programmes in place.

Target

- 1000 jobs created;

- 50 start ups created;
- 25 start up to scale up businesses;
- 100 number of incubation spaces.

Result indicators

1. Increased employment in technology related jobs by 10% over three years;
2. Reduced crime figures by 1% per year over three years;
3. Reduced building vacancy by 5% per year over three years;
4. Increased education attendance by 5% per year over three years.

Objective 4

Create an open data platform.

Open Data has been identified as a fundamental resource for governments, business and civil society. The positive impacts of Open Data are wide ranging and cover political, social and economic spheres. These can range from improving transparency and efficiency of Government, potential for business innovation and a vast array of social and personal benefits.[15]

A platform for publishing open data is vital to ensure the integrity, accuracy and providence of this data. Such a platform should in as much as possible reduce the cost of publishing this data by integrating the platform with internal business processes.

Actions

- Develop a complete and peer reviewed requirements specification for the open data platform;
- Build the open data platform;
- Verify that the open data platform meets the requirements specification;
- Promote the use of the open data platform with citizens and staff.

Table 8 Actions for Objective 4

Expected Result					
Action Title	**Lead Actor**	**Key Partners**	**Intended Outputs**	**Timescale**	**Resources**
1. Develop a complete requirements specification for the open data platform	LCCC	ULG partners	A complete and peer reviewed requirements specification document.	1 month	LCCC staff
2. Build the open data platform	LCCC	ULG partners	1. The source code for the open data platform; 2. Operating and training documentation.	6 months	LCCC staff and outsourcing
3. Verify the build	LCCC	ULG partners	Completed test plan.	1 month	LCCC staff
4. Promote the use of the platform	LCCC	ULG partners	1. Social media marketing; 2. Demonstrations at key events.	1 month	LCCC staff

[15] Ireland's Open Data Strategy 2017-2022 www.per.gov.ie/wp-content/uploads/Final-Strategy-online-version.pdf

Output indicators

- At least 50 open data sets;
- Existence of official citywide privacy policy to protect confidential citizen data.

Baseline

There are currently 12 open datasets published at opendata.limerick.ie. (2017)

Target

- 50 open datasets in the Insight Limerick Service
- Four new dashboards for Economy, Tourism, etc.

Result indicators

- Usage of datasets including number of academic citations and the number of apps using this data as a data source;
- Third party mobile apps developed using the datasets data;
- Better decision making through improved access to information.

Appendix 1: Existing strategies relevant to the digital economy from a European, national and city level

The following sections highlights the strategic link between Techtown and the digital economy from a European, national, regional and city level.

European level

Contribution to the EU 2020 strategy and links to Thematic Objectives of EU Cohesion Policy 2014/20

The European Digital Agenda is one of the 'flagship initiatives' developed to achieve the EU2020 targets. It concentrates on the digitalisation of business, e-inclusion, start-up support, and help for SMEs that want to digitalise, etc. The Commission's ambitions in this area are widespread and ultimately aim to ensure that the digital economy delivers sustainable economic and social benefits. The 'Grand Coalition for Digital Jobs' (2015) is particularly relevant in that it aims to help ensure that training is matched to digital jobs by supporting the co-design of training programmes with the ICT industry so that the skills that people get are the skills that business needs. The Coalition's agenda also includes a drive to help people with the right skills to go to the places where they are most needed so as to avoid shortages - or indeed surpluses - in different places.

In its communication 'The Digital Agenda for Europe - Driving European growth digitally' (EC, 2012), the Commission stresses that 'digital skills should be the indispensable component of all professional training, business education and lifelong education programmes to ensure new generations as well as those currently in the workplace are able to acquire the skills they need'.

It also aims to simulate digital entrepreneurship and with Startup Europe is developing a platform of tools and programmes which will support people who want to set up and grow digital companies. The Commission recognises that these start-ups need a more business-friendly environment (a 'license to fail') with 'easier access to finance, markets, networks and skills; which must be encouraged through risk-sharing schemes, venture capital, favourable fiscal treatment and networking events'

In addition TechTown complements other EU2020 goals:

One of TechTown's main aims is to ensure that cities are able to maximise job creation potential from the digital economy - both in terms of promoting digital entrepreneurship and the digitalisation of existing industry.

The development of a digital economy in Europe's cities is a prerequisite for success in terms of R&D investment and innovation. One of the aims of TechTown is to help cities to better understand the value of the digital economy in terms of business growth and investment potential and then to establish clear actions as to how to maximise that potential.

The EU2020 targets are translated into a number of “flagship initiatives”, including the development of an innovation union, the enhancement of education systems, a EUROPEAN DIGITAL AGENDA, a resource efficiency initiative, a new-generation industrial policy, among others. The Digital Agenda for

Europe (DAE) is probably the most relevant for TechTown - concentrating on the digitalisation of business, e-inclusion, start-up support, and help for SMEs that want to digitalise, etc.

The Commission's ambitions in this area are widespread and ultimately aim to ensure that the digital economy delivers sustainable economic and social benefits. The 'Grand Coalition for Digital Jobs' is particularly relevant in that it aims to help ensure that training is matched to digital jobs by supporting the co-design of training programmes with the ICT industry so that the skills that people get are the skills that business needs. This is linked to one of the central themes of TechTown which is about how cities can develop and retain the talent and skills needed by tech and digital jobs. The Coalition's agenda also includes a drive to help people with the right skills to go to the places where they are most needed so as to avoid shortages – or indeed surpluses - in different places. Again, this is closely aligned with TechTown's ambition to help these small and medium sized cities develop effective links with larger tech hubs nearby. It also aims to simulate digital entrepreneurship and with Startup Europe is developing a platform of tools and programmes which will support people who want to set up and grow digital companies.

Limerick has links with the Southern & Eastern Regional Operational Programme. The Operational Programme focuses on specific growth opportunities and targeted growth and innovative sectors identified in Ireland's smart specialization strategy, building on the region's strengths. This EU co-financed programme will focus on five main priorities:

- Develop and exploit commercial research excellence and innovation capacity in the Southern & Eastern region with active company engagement intellectually and financially;
- Access to, use and quality of high-speed information and communication technologies by settlements in the S&E Region, including SMEs (total EUR 60m);
- SME competitiveness, especially micro-enterprises in high growth and innovative sectors (EUR 69.2m);
- Shift towards a low-carbon economy, especially energy efficiency in housing, and promoting low-carbon strategies for urban areas (EUR 133m);
- Integrated urban development to revitalise urban areas (EUR 52m);
- 'Technical assistance' for programme management (EUR 4m).

National level

Doing more with digital

At National Level ‘Doing more with Digital’ (2013-2015) includes a suite of complementary measures including a National Broadband Plan, the National Payments Plan and the Action Plan for Jobs. It includes the following 3 strands:

- Strand 1- Trading online & entrepreneurship for indigenous businesses (get 10,000 Irish businesses trading online)
- Strand 2- More citizen engagement (half the number of ‘non-liners’ by 2016)
- Strand 3 – Utilise ICT to its full potential across the education system.

Limericks Digital Strategy will support national and EU digital programs, the roll out of Ireland's Broadband Plan while underpinning the Limerick 2030 Economic and Spatial Plan.

Irish smart cities forum

The Irish Smart Cities Forum is a cross border initiative that focuses on the advancement of smart city programmes across Ireland. Various smart projects are already in operation across Ireland which addresses major common concerns including flood detection systems, waste and water management tools, LED lighting projects, agritech, smart retail, tourism innovations, smart congestion and parking solutions. The forum will work to share best practice learning's from these projects and collectively drive Ireland's smart agenda.

Regional level

Mid-west action plan for jobs

The Action Plan for Jobs for the Mid West region, covering the counties of Clare, Limerick and North Tipperary, aims to build on the strengths of the region, to support businesses to start up, grow and generate exports.

Mid-west area strategic plan 2010-2030

The plans key focus is the revitalization of Limerick City and its Environs. Measures to deliver population growth, infrastructure, and job creation in specific areas targeted in the Regional Planning Guidelines. Balanced regional development to promote sustainable urban and rural development. Development of enterprise and employment and the identification and remediation of infrastructural deficits.

Appendix 2: Limerick 2030

The 'Limerick 2030: An Economic and Spatial Plan for Limerick' is a 15 year plan that aims to transform Limerick through the economic, social and physical renaissance of Limerick City Centre and the wider County & Mid West Region. The Limerick 2030 Plan is essentially about ensuring that Limerick, as the heart of the Mid West Region, delivers projects of scale that will benefit the wider region in terms in terms of job creation and investment.

The plan seeks to deliver 12,000 jobs with 5,000 in the City Centre over the lifetime of the plan, to transform Limerick and the wider Mid West Region. Since the €500 million, 15-year plan was launched in 2013: 2,500 new jobs have already been secured for Limerick. National and International partnerships have been secured to deliver a range of new investments from Film Studios to Innovation Hubs. Numerous strategic sites and locations in Limerick have been purchased and secured to anchor major new projects. Close to ½ million sq ft of new world class office and enterprise space is in development to support this new investment drive.

Appendix 3: The OPERA Method

A lead question 'What can Limerick do to understand and measure its digital economy?' was displayed. The ULG were asked to be as precise as possible, utilise concise terminology during the process. Participants were given 5 minutes to think about the lead question and work individually and write down their ideas. A pair discussion and explanation followed. Participants then ranked choices based on an agreed selection criteria. The facilitator then arranged the problem tree, linking and arranging suggestions. This methodology allowed for a jointly created, consensus based set of suggestions to emerge.

Key ideas which emerged from the OPERA session related to direct and indirect causes and effects and initial proposed actions related to the lead question were as follows:

	Cause	Effect
1	Lack of understanding of what Limerick's digital ecosystem is.	Limerick is not seen a strategic centre for digital excellence. Public support for a Smart Limerick is slow to build. Difficult to enhance Limericks digital reputation if it is not understood.
2	More effort needed to attract and retain digital businesses/FDI, increase the number of digital start-ups/incubation spaces.	Lack of business spaces. Inadequate diversification of business types. Lack of digital transformation of traditional industries.
3	Lack of a governance related to such an ecosystem	Stifles digital growth
4	Lack of digital awareness	Limited levels of technology awareness, unequal social and economic opportunities. Risk of missing opportunities.
5	Digital ecosystem boundaries are not static	No map of ICT in place
6	Poor coordination of effort, insufficient structures to bring relevant parties together	Limited cross organisation collaboration leads to inefficiencies.
7	Poor digital engagement	Lack of online services leads to reduced self service options and missed growth opportunities. Community participation relies on traditional methods. Limited digital channels and processes for engagement.
8	Lack of open data platforms	Inadequate support for digital initiatives, siloed data sources and awareness of benefits of utilising shared information.
9	Digital inequality and data access Inadequate broadband in some parts of Limerick	A digital divide due to lack of access. The growth of the city has become stifled. Local business not taking full advantage of the Internet and digital economy. Citizens do not have an equal opportunity and cannot benefit fully from the knowledge economy.
10	Need to attract and retain more talent	Opportunity to attract jobs and talent not taken – brain drain. Lack of a skilled workforce and job creation.

This table highlights the causes and effects initiated from the proposed question and were ranked by participants, therefore Limericks IAP's key objectives will focus on causes 1, 2 and 3.

Appendix 4: Funding

The objectives will be funded through a combination of EU, co-funding, and other sources as they become available.

Funding:

- Regional Funding: Ireland - Southern and Eastern Regional Assembly Operational Programme 2014 - 2020

European Funding: European Regional Development Fund
European Funding: Cohesion Fund
European Funding: European Social Fund

Lending

- Project loans
- Intermediated loans
- Venture capital
- Microfinance
- Equity and fund investments

Blended **Finance**

- European Investment Bank - Structured finance
- European Investment Fund - Guarantees & Securitisation
- European Investment Bank - The Europe 2020 Project Bond Initiative - Innovative infrastructure financing
- European Investment Bank - Trust Funds
- JEREMIE - Joint European Resources for Micro to Medium Enterprises
- ESIF - Financial Instruments
- JESSICA: Supporting urban development
- European Investment Bank - Mutual Reliance Initiative
- PF4EE - Private Finance for Energy Efficiency
- European Investment Bank - Natural Capital Financing Facility
- European Investment Bank InnovFin – EU Finance for Innovators

Appendix 5: Limerick digital leaders Network

Table 9 Digital Leaders Network

Domain	Organisation	Contact	Title
All	Limerick City & County Council	Dr. Mihai Bilauca	Head of Digital Strategy
Community & Citizenship	An Garda Siochana (police force)	David Sheahan	Chief Superintendent
Community & Citizenship	ISAX (Ireland Smart Ageing Exchange)	Anne Connolly	Director
Community & Citizenship	ISAX (Ireland Smart Ageing Exchange)	Siobhradh Fraser	Limerick Office
Community & Citizenship	Limerick and Clare Education and Training Board	Paul Patton	Director of Further Education & Training
Community & Citizenship	Limerick and Clare Education and Training Board	Brendan Ryan	Further Education & Training
Community & Citizenship	LERO (the Irish Software Research Centre) – NUI Maynooth	Prof. Brian Donnellan	Vice President Maynooth University
Community & Citizenship	Limerick Enterprise Development Partnership	George Lee	Manager Community Initiatives and PC
Community & Citizenship	PAUL Partnership	Anne Kavanagh	CEO
Community & Citizenship	PPAN (Public Policy Advisors Network Ireland)	Dr. Sean O'Riordan	Manager
Community & Citizenship	UL – CSIS (University of Limerick Computer Science and Information Systems)	Prof. Ita Richardson	Associate Professor
Community & Citizenship	UL – CSIS (University of Limerick Computer Science and Information Systems)	Prof. Tiziana Margaria	Head of Department
Community & Citizenship	UL – KBS (Kemmy Business School)	Yvonne Diggins	Special Projects Officer
Community & Citizenship	West Limerick Resources	Shay Riordan	Manager
Culture & Entertainment	Limerick Royal Project	Dave Burns	Director
Culture & Entertainment	Southern Advertising	Dave O'Hora	Director
Economy & Innovation	Ballyhoura Development	Padraig Casey	Economic Development Manager
Economy & Innovation	Innovate Limerick	Mike Cantwell	Head of Innovation

Economy & Innovation	LERO (the Irish Software Research Centre) – NUI Maynooth	Dr. Niall Connolly	Research Fellow
Economy & Innovation	LIT (Limerick Institute of Technology)	Gillian Barry	Head of Innovation & Enterprise
Economy & Innovation	Mary Immaculate College	Dr. David Moloney	Blended Learning Co-ordinator
Economy & Innovation	Mary Immaculate College	Dr. Maeve Liston	Director of Enterprise & Community Engagement
Economy & Innovation	Mid West Regional Skills	Joe Leddin	Councillor. Mid West Regional Skills Manager
Economy & Innovation	W2 Consulting	Mark O'Connell	Director
Environment Practices	Action Point	Ivan O'Connor	Head of IoT
Movement & Transport	Limerick City & County Council	Lise-Ann Sheahan	Limerick Smarter Travel Office
Urban Places & Spaces	Dell EMC	Dave Griffin	Director Limerick Site Programs
Urban Places & Spaces	General Motors	John Gleeson	Chair Mid-West Action Plan for Jobs
Urban Places & Spaces	LERO (the Irish Software Research Centre)	Brendan O'Malley	General Manager
Urban Places & Spaces	Limerick City & County Council	Rosie Webb	Senior Architect
Urban Places & Spaces	LIT (Limerick Institute of Technology)	Janice O'Connell	Head of IT Department
Urban Places & Spaces	Piercom	Adrian O'Sullivan	Digital innovation
Urban Places & Spaces	Supply Network Shannon	Mark O'Sullivan	Chairman