

The European Commission's
**INTELLIGENT CITIES
CHALLENGE**

This document was compiled by the City of Derry. The information and views set out in this report are those of the City and do not necessarily reflect the official opinion of EISMEA or of the European Commission. Neither EISMEA, nor the European Commission can guarantee the accuracy of the data included in this document. Neither EISMEA, nor the European Commission or any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

Derry: Intelligent City Transformation Overview

ICC Final Deliverable

Executive summary

Derry City and Strabane District have an Inclusive Strategic Growth Plan, a community plan with the vision of a thriving, prosperous and sustainable City with equality of opportunity for all. Through the Digital Cities Challenge, a Digital Transformation plan was developed to support the city's key priorities for growth.

Discussion with stakeholders showed concern for a skills gap and too many graduates leaving for better opportunities or becoming underemployed locally. Yet the city is one of Ireland's most vibrant digital clusters with a vibrant digital technology business community and excellent research and training capability of local higher education establishments in key technology areas.

The City's vision is to be a **City of Opportunities for all**: *To stimulate and develop the digital skills of our young people – reflective of our values of community, inclusiveness and creativity – focused on sustainable growth of the City Region and in target economic sectors.* The ambition is to reduce the digital-technology skills gap, show that the City can offer rewarding digital/technology careers, increase exposure in schools to digital technology and entrepreneurship and develop skills for the future .

What we have achieved as a city against the solutions during the ICC is:

- Bringing a focus on digital/technology/entrepreneurial skills to the City
- Bringing key city stakeholders with skills interest together as an ecosystem
- Enabling the start of digital construction courses in the City.
- Identifying ICC cities such as Ventspils & Porri with relevant experience/know-how for inspiration, ideas exchange & enduring collaboration with our City
- A set of prioritised skills initiatives to become part of the City-Region's digital transformation plan
- Ensuring the needs identified in ICC are absorbed into a wider City-region digital transformation planning

Our city plans to do over the next 3 years to achieve our goals :

The City is firmly committed to progressing on its Digital Transformation roadmap via the City Deal which is in the pipeline in the coming year or so.

The ICC skills ambitions will be progressed via the City Deal Initiatives of:

- Applied digital research centres related to Industry 4.0 uptake (CIDRA), disruptive technology such as AI (CARL), medtech (THRIVE)
- An Innovation Centre supporting innovation and start-ups
- Digital infrastructure with Next generation connectivity
- A Smart City programme

Mayor Foreword – How has ICC Impacted the City

ICC has assisted the City Region's efforts to increase digital skills and innovation. It has acted as a glue for our community of local stakeholders in skills, creating an innovative ecosystem.

It also acts as a bridge towards other similar experiences in Europe. ICC has both reinforced existing initiatives and has brought innovative new initiatives to promote and develop digital technology skills in the City.



GUILDHALL
— Derry - Londonderry - Doire —

Intelligent City Challenge Programme
European Commission
12/05/2020

Re: Intelligent City Challenge

Dear Intelligent City Challenge Team,

I refer to the city's intention to enter the European Union's Intelligent Cities Challenge and very much welcome this initiative. I appreciate that progress was already made via the City's inclusion in the Digital Cities Challenge and it is wonderful that there is another opportunity to continue the journey in its successor programme and to work with our fellow cities across Europe.

I believe it will assist our efforts to develop and rejuvenate the City and its hinterland, set out in both the city's Growth Plan, and in our city-region plan, the "North West Strategic Growth Plan - A Model for Regional Development & Growth of the North West of the Island of Ireland".

I look forward to the benefits the initiative can bring to an increase in the level of digital innovation and research being carried out in the city and the wider North West and to improving the lives of our communities and businesses.

I take this opportunity to thank the European Union for developing this innovative and strategic initiative for European cities.

Yours sincerely,

Michaela Boyle

Councillor Michaela Boyle
Mayor of Derry City and Strabane District Council

Mayor's Parlour
Guildhall, Derry BT48 6DQ
Telephone: +44 (28) 7137 6508
Email: mayor@derrystrabane.com
www.derrystrabane.com
f [mayordcsdc](#)
t [@mayordcsdc](#)

Derry City & Strabane District Council
Cathair Chathair Derry & Strabane
Derry City & Strabane District Council

Mayors Support for the City joining ICC May 2020



The city of Derry pursued an EU-supported transformation over four main stages, and this document details that journey by these sections

Overview to the city's journey and structure of this document



1 Preparation & assessment

5 months:
September 2020 – January 2021



2 Ambition & roadmap

3 months:
February 2021 – April 2021



3 Implementation

15 months
May 2021 – July 2022



4 Review & way forward

2 months
August 2022 – September 2022

*Reported as
one section*

Summary

Launch workshop Jan 2021.
Formed an ecosystem & quickly identified **our focus on Skills** & those willing to mobilise.

Our **Strategy Workshop Feb 2021** allowed us to prioritise & co-create a **concrete plan of Skills initiatives** with interested stakeholders.

Early results included the **I4.0 Workshops with City of Porri**, a process for a new **skills course in digital construction** in the local college NWRC & a Council marketing initiative of **youth champions for local tech careers**.

Collaboration continues to seek **funding for our identified skills initiatives** on a regional basis

Section

1

September 2020 to January
2021

Derry: Preparation and assessment

ICC transformation



Introduction

The involvement of the City of Derry in ICC is fully aligned with the City's strategy for growth and prosperity.

The City was a participant in the Digital Cities Challenge, (DCC) 2017-2019 and this enabled the development of a Digital transformation vision, strategy and plan. ICC is therefore seen as a continuation of the work started in DCC

Derry City and Strabane District have an Inclusive Strategic Growth Plan from 2017 – a community plan with the vision of a thriving, prosperous and sustainable city with equal opportunity for all. ICC is aligned to the strategy, as was its predecessor, DCC. A skills gap was identified as a key risk to the delivery of the economic growth model of the strategic plan. The challenge was to deliver the skill requirements for target areas such as life sciences, digital/creative industries, and advanced manufacturing and engineering, which are not readily available skills in the available local workforce.

The plan's economic strand therefore contains multiple action areas around skills such as:

- Increasing the number of 3rd level students and expanding the local university, Ulster University Magee
- Embedding entrepreneurship in all learning opportunities in collaboration with appropriate agencies
- Increasing industry engagement in careers advice and guidance
- Implementing a STEAM action plan.

In January 2020, the City was very proud to be accepted as a member of UNESCO's Global Network of Learning Cities, the goal being *"To provide all citizens with information on learning opportunities available across the city and region"*

2 City needs: State of the city overview

Significance of insight to what we want to do on the ICC

 Of critical importance to ICC journey and we should be working to change

 Of importance to ICC journey, and we should act to change this along the journey as opportunity presents

 Contextually relevant, but not major point of attention in ICC and unlikely to be impacted on the journey

The state of Derry-Londonderry today

Innovation education and up & re-skilling A skills gap is a key risk to the delivery of the economic growth model, especially for target areas such as life sciences, digital/creative industries, advanced manufacturing and engineering. There is high long-term youth unemployment. Too many of our graduates are leaving for better opportunities, or are finding themselves underemployed locally

Growing start-ups and the social economy Growth of start-ups is a key component of the operational objective to create a digital innovation ecosystem for job creation. We have approx. 23 start ups per 10,000 population and 7% of all start-ups in our city region are considered High-Growth Firms with annual average employment growth of 20% or more over a three-year period. Total early-stage entrepreneurial activity (TEA) across NI was approx. 5.4% in 2020, compared to 7.5% across the UK.

Transforming Industry, Green Manufacturing and Clean Production

There is a need to increase take up of new technology for smart manufacturing and to increase the level of awareness of local companies on the benefits of Industry 4.0 and smart, green manufacturing. There is a new CIDRA research centre in the pipeline.

Scaling up renewable energy solutions and energy efficiency

In the City, 30% of households are estimated to be in fuel poverty, 9 percentage points above the Northern Ireland average. The aim is to employ Smart energy to help provide energy available at a better price, combat fuel poverty, assist the economy and lower the amount of carbon dioxide we produce.

Key insights from city performance analysis

Higher performance observed

1 Innovative Education

2 Growth of Digital/Technology Businesses

3 Growing start-ups

4 Green Manufacturing & Clean production

...

Lower performance observed

1 Skills : Digital skills gap

2 Skills : Digital skills gap

3 Skills : Entrepreneurial skills

4 Renewable energy & energy efficiency

2 City Needs: State of the city – detailed analysis

Youth unemployment rate, brain drain, and the need of a new narrative for Derry

Key insight

Young people in the City, too often perceive it as a place with no opportunities.

That perception is then transformed into two reactions:

- Not engaging with the world of work and education.
- Exploiting the excellent education and further education system the city offers and leaving the city for a career in London, Dublin or elsewhere.

Data points

In August 2017, 25% of those claiming long-term unemployment benefit were young people aged under 25 (NI average of 19%)

At 34.1% in 2018 Derry City and Strabane District (DCSDC) has a higher percentage of economically inactive people (those who are looking after a home/family; students; or retired) aged 16-64 years old than the NI average (26.0%).

The DCSDC area has a higher proportion of young people claiming for a year or more compared to Northern Ireland

Rates had been on a slight positive trajectory prior to Brexit and the COVID crisis

Interpretation

This attitude of young people is not new to the city. It has been a difficult problem to tackle for city authorities and stakeholders.

Because of that, there are several initiatives and several stakeholders in the city aiming at changing that attitude.

All that has targeted, primarily, the cultural attitude to work and to work in the city. That culture passes from generations to generations and it is not easy to address.

So what?

Youth unemployment and brain drain are existential issues for Derry/Londonderry. Continuing to face them means working towards the future of the city, a city built around a vibrant youth.

That requires improving and empowering existing initiatives in the city, giving strength and emphasis to tireless stakeholders today working in this field, and networking all that for maximizing the effect. Developing a network of skill specialists able to make the actions more structured, more connected and, therefore, more effective is one of the most important tasks for the ICC Team.

Last, but not least, there is the need of a new narrative of the city, a story that shows to the youth that Derry/Londonderry is a city in which exciting careers are possible, international connections are real, quality of life is ensured. That story needs to be told, since early education, focussing on gender inequalities, social and economic diversity.

2 City Needs: State of the city – detailed analysis

Nourishing the vibrant creative and high-tech city landscape with innovative skills

Key insight

Talking about Derry/Londonderry as a place with high unemployment rate and brain drain might lead the reader to think that the city has not been able to digitally transform its business system. But the situation is quite the opposite.

The city is the location of a vibrant digital technology business community. That community looks eagerly to the new digital developments.

There are also vibrant communities in fintech, green technologies, and advanced manufacturing all in need of advanced tech skills.

All this is surrounded by a further education system tuned to the development of digital tech skills.

And, finally, this system of innovation (companies + universities) is quite spread beyond Derry in Strabane, in rural areas, and cross-border in Donegal, Ireland.

Data points

Our city is one of Ireland's most vibrant digital clusters outside Belfast and Dublin. Ulster University, Northwest Regional College and Letterkenny Institute of Technology are just a few of our collaborative partners that can assist in innovating future solutions.

Global leaders rub shoulders and do business with fast-growing local companies and start-ups. The city is home to global brands such as Fujitsu, Kainos and Allstate, and local enterprises such as Learning Pool, Fintru and Elemental.

Interpretation

The system of innovation in the Derry Region and together with County Donegal seems to be solid and developing, but there is a clear disconnect between their needs for skills and the supply. Point 1 in the previous page affects the development of that system of innovation.

The networks within that system of innovation need to be nourished and reinforced.

The vibrant digital community needs to be constantly at the cutting-edge of skills in order to continue to flourish.

So what?

The Derry Region business system should become increasingly involved in the discourse on skills in the city. Young people in Derry could become their way to be competitive in the market place. In return, the businesses could become the place for careers for young people.

While the ICC team should empower existing initiatives on digital skills that do not necessarily pass through the education system, it should also work to reinforce the business-academia and business-further-education networks in skill development.

The city should also create spaces (virtual and physical) for creativity and entrepreneurship to further enrich the Derry region system of innovation.



2 City Needs: State of the city – detailed analysis

Responding to the effects of the Covid-19 crisis: construction, hospitality, and mobility

Key insight

It appears no school in the area offers GCSE Construction yet the area has many firms in that industry, as well as local opportunities, whereas in the rest of NI almost every other area offers GCSE Construction. There are no courses locally in BIM (Building Information Modelling, which is in its infancy but key for the future) or Digital Engineering. Similarly, despite the importance of the tourism sector, which is particularly hit by Covid and Brexit, the digital-technology capability appears to be low, e.g Little evidence of QR codes, no AR/VR tourism offerings.

Data points

The majority of businesses employ fewer than 10 people. Construction is the biggest sector outside of agriculture in the Council area with 840 businesses (16% of total number). Hospitality (7.5%) and arts/entertainment/recreation (8.4%) are also significant sectors. Transport (including storage and postal) is much smaller at 4.4% in terms of the number of businesses.

Interpretation

Construction is an important local sector where digital upskilling can offer excellent opportunities. Specialised courses are needed and the ideal means of delivering such a course is via the City's higher level training college, the North West Regional College (NWRC).

So what?

The ICC team has endeavoured to connect the interested stakeholders from the construction sector to the NWRC to start a dialogue on how the needs of the construction sector in digital skills could be met.

City Ecosystem

It was evident from early discussions with the Council and local stakeholders that skills would be the focus for the City in ICC.

Why focus on Skills and Youth?

- From review of priorities and progress since DCC
- Crucial issue of skills gap in Digital & Technology which will grow
- Young city with high proportion of long-term unemployed under-25s
- Impact of Covid Pandemic
- Impact of Brexit.

The ICC ecosystem is a quadruple helix with stakeholders from Local Government & Government agencies, Educational bodies from schools to Higher Education, Business organisations, and Community Groups.

Due to Covid over 90% of meetings with stakeholders had to take place online, including the launch event, and the stakeholder and strategy workshops.

3 City Ecosystem

Re-skilling, upskilling, skills and youth – a long story of a rich, but disconnected ecosystem

- Derry/Londonderry has thought about skills and young people.
- Historically, there is an evident concern for young people and their life and work relationship with the city.
- Such concern is reflected in the local-council policies on skills (which has a dedicated team) as well as on several initiatives in place in the city.
- The types of stakeholders involved in those initiatives are very diverse: single champions, universities, businesses, volunteer groups, youth organisations, further education colleges, and entrepreneurs.
- Yet all this effort appears to be disconnected. The community of stakeholders involved in skilling, re-skilling, upskilling needs to be reinforced.

3 City Ecosystem

The ideas of the ecosystem: from 1:1 interviews, working groups, launch event, and strategy workshop

- Looking at the entire spectrum of digital skills, from the early learner to skills development in advanced technologies.
- Debating the perception of careers in digital technologies, building on a rich presence of digital enterprises in the city and the region.
- Debating on the essential role of digital technologies as enablers of growth for every sector. Therefore, the need of digital skills everywhere.
- Focusing on all young people, from the ones with difficulties to the ones ready to make an impact in advanced tech and cutting-edge sectors (green).
- Creating the glue for a community of local stakeholders in skills and the bridge towards other similar experience in Europe.
- “Let’s not have another report! Let’s do things. Let’s be operational.”
- There are already several initiatives and stakeholders. There is not need to invent new things, but to reinforce and innovate the existing ones.
- Covid-19 has dramatically affected sectors (hospitality, mobility, construction for example). Let’s explore how re-skilling and up-skilling could help those sectors.

ICC strategy: Vision and ambition statements

A City of Opportunities for all

To stimulate and develop the digital skills of our young people – reflective of our values of community, inclusiveness and creativity – focused on sustainable growth of the City-region and on target economic sectors

Skills for All

Stimulate interest in young people through schools and their communities in digital technology and related careers via an inclusive approach

The City and Young Opportunity

To engage young people around creativity and technology, showing them how Derry is an attractive place for that.

Skills for the future

To promote and nurture advanced skills in areas such as open data, IoT, Robotics, AI,AR/VR, creative industry, Industry 4.0 skill sets
Digital Construction

Tools for Ease of access to careers and skills information

Develop platform and tools to facilitate choices on pathways, training and skills development for young people

City strategy: justification

Key components of the Digital Transformation Strategy for the City of Derry concern skills and to strengthen the local innovation ecosystem. The former ambition concerns creation of a digital skills environment to deliver the talent pipeline needed for businesses and to generate a creative, entrepreneurial and innovative workforce.

Through collaboration with the local ecosystem we identified a set of potential initiatives that would support the Vision. The stakeholder workshop was used to prioritise the initiatives according to their relevancy and feasibility.

The solutions areas in the strategy were complimentary, all concerning skills, but with a different focus such as encouraging advanced skills development for example in Industry 4.0, creating of awareness in the city's youth of the opportunity Derry offers in digi-tech areas, building experience in schools & communities of digi-tech through ambassadors. Supporting all of the initiatives are tools and platforms such as a portal to an open database of digital courses..

4 City Vision – Strategy through initiatives

Prioritised initiatives are in red



- 1) Derry Skill and Training Portal. available in the city.
- 2) Derry/Londonderry Skill Youth Centre.

- 1) Open data models training
- 2) XR Derry Network
- 3) IoT/Industry 4.0 Derry Skills Consortium
- 1) Creative Industry hub/accelerator
- 2) Digital public-procurement training
- 3) Smart and sustainable city training

- 1) “Talking about tech, creativity and life in Derry”
- 2) Derry/Londonderry Skill Youth Centre

- 1) Entrepreneur in residence in secondary schools
- 2) “Kids with potential” network of ambassadors

Section

2

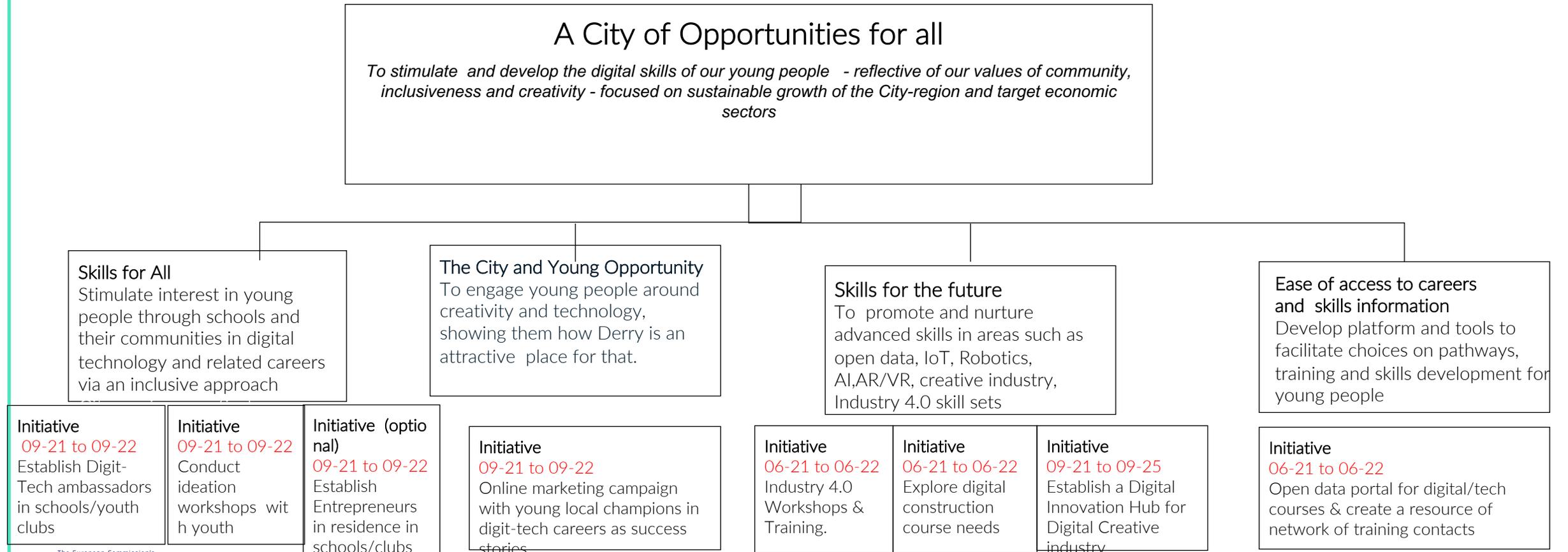
Derry: Ambition and roadmap

ICC Transformation

February 2021 to May 2021

1 Roadmap summary

High level implementation roadmap.



6

Rationale to Roadmap

Toward win-win opportunities and the need for another strategy step

ICC work achievements in Derry/Londonderry:

- Bringing together the community of stakeholders involved in re-skilling and up-skilling in the Derry region around a revamped skill strategy for the city and the area.
- Developing a strategy with related initiatives that complement and reinforce the existing Derry & Strabane Council skill strategy.
- Raising attention on youth, unemployment, and life in Derry.
- For financial resources we look to the City Deal of £250m launched in early 2021. A focus of the funding are centres of innovation and excellence together with key smart/ digital City and Region initiatives.

The roadmap depends on the availability of funding and that depends on sources such as the City Deal or Peace Plus which are still in development.



2 Initiative charter - Skills for All

	Digi Tech Ambassadors for Youth	Ideation workshops with Youth	Entrepreneurs in residence (Optional)
Link to vision	<i>Stimulate & develop the digital skills of young people</i>	<i>Stimulate & develop the digital skills of young people</i>	As the previous two initiatives
Link to ambition statement	Stimulate interest in youth through schools & their communities inclusively	Stimulate interest in digital technology and related careers	As the previous two initiatives
Description	Digit-Tech ambassadors to illustrate the career possibilities offered by digital technologies.	Fun ideation workshops to stimulate design thinking & start-up ideas in youth	Entrepreneurs spending several sessions with the school
Estimated cost and source of funding	Source of funding: Council- City Deal	Source of funding: Council- City Deal	As above
Initiative lead	Local business with facilitation focus	Specialist in ideation	As above
Initiative working team (core team)	Council, local business & education bodies & community	Council, local business & education bodies & community	As above
Contributors (stakeholders contributing)	Above plus Smart Cities volunteer network	Above	As above
Ultimate goal and scope of this initiative	Stimulate interest in Digi-Tech careers especially in girls	Stimulate entrepreneurial thinking & interest in digital start-ups	As above
Major milestones	Ambassadors & schools youth club link up started	Kick off of workshops	As above
Key stakeholders	Schools, Youth groups, Local tech Business & College/University staff	Schools, Youth Groups	As above
Impact and timing	Timing: 09-21 to 09-22	Timing: 09-21 to 09-22	As above
Risks	Low interest from schools	Lack of youth participation	As above
Support needed	Similar experiences from other cities	Similar experiences from other cities	As above

2 Initiative charter - The City and Young Opportunity

	Digi-tech Youth Marketing campaign
Link to vision	<i>Stimulate & develop the digital skills of young people</i>
Link to ambition statement	To engage young people around creativity and technology, showing them how Derry is an attractive place for that
Description	Online marketing campaign with young local champions in digit-tech careers as success stories
Estimated cost and source of funding	Council- City Deal
Initiative lead	Local business
Initiative working team (core team)	Council, local business & education bodies & community groups
Contributors (stakeholders contributing)	Above plus Smart Cities volunteer network
Ultimate goal and scope of this initiative	Stimulate interest in Digi-Tech careers and reduce the skills gap and brain drain from the City
Major milestones	Marketing campaign plan, Start of campaign
Dependencies	None
Key stakeholders	Schools, Youth groups, Local tech Business & local College/University
Impact and timing	09-21 to 09-22
Risks	Low engagement with campaign
Support needed	To be confirmed

2 Initiative charter: Nurture Digital skills for the future

	Industry 4.0 Workshops & Training	Creative Industry Digital Hub	Digital Construction Course
Link to vision	<i>To stimulate and develop the digital skills of our young people focused on sustainable growth of the City-region and target economic sectors</i>	<i>To stimulate and develop the digital skills of our young people focused on sustainable growth of the City-region and target economic sectors</i>	<i>To stimulate and develop the digital skills of our young people focused on sustainable growth of the City-region and target economic sectors</i>
Link to ambition statement	To promote and nurture advanced skills in areas such as open data, IoT, Robotics, AI,AR/VR, creative industry, I4.0	To promote and nurture advanced skills in areas such as open data, IoT, Robotics, AI,AR/VR, creative industry, Industry 4.0 skill sets	To promote and nurture advanced skills in a core sector such as construction, enabling local construction companies to be more competitive
Description	Provide Industry 4.0 Workshops & Training. Explore digital construction course needs.	Establish a Digital Innovation Hub for Digital Creative industry	Establish a course on Digital Construction in collaboration with NWRC
Estimated cost and source of funding	<i>Source of funding:</i> Council- City Deal. <i>Estimated cost:</i> very low budget if done on-line	<i>Source of funding:</i> Council- City Deal – <i>Estimated cost:</i> It requires high budget	<i>Source of funding::</i> The assured skills academy or flexible skills fund model.
Initiative lead	Local ICC Team	Council	Council
Initiative working team (core team)	Council, University, education bodies, local industrial businesses	Council, University, education bodies, local creative businesses, Creative delivery Partnership	Council, University, College, Education bodies, local architect studios and construction companies
Contributors (stakeholders contributing)	Above plus City of Pori, Smart Cities Volunteer Network, local research centres of University & NWRC College, NWCAM	Digital Innovation Hub network Donegal e.g The II Inishowen Hub	Construction companies and local architects and engineers
Ultimate goal and scope of this initiative	Stimulate interest in emerging careers linked to Industry 4.0	Build on the local strength in digital creative industry to stimulate young people & to provide conditions for further start-ups	To modernize the local construction support through digital skills & make construction sector more attractive for the youth
Major milestones	First Workshop & schedule for the series	Business Case ready.	The ICC Team has enabled the conversation between educational bodies and construction sector.
Key stakeholders	Local College/University, Local industry	Local College/University, Local creative industry,	Local College/University, construction sector
Impact and timing	06-21 to 06-22	09-21 to 09-25	09-21 to 09-25
Risks	Clashing with other similar initiatives happening in Northern Ireland	Unable to find funding or required support to develop the initiative	Unable to find funding or required support to develop the initiative
Support needed	Support with Industry 4.0 experts	Insights and ideas from similar experiences in other cities	Insights and ideas from other cities,

2 Initiative charter - Ease of access to Skills & Careers Information

	Platform to support easy access to digital skills courses
Link to vision	<i>Stimulate & develop the digital skills of young people</i>
Link to ambition statement	Develop platform & tools to facilitate choices on pathways, training & skills development for young people
Description	Open data portal for digital/tech courses & create a resource of network of training contacts
Estimated cost and source of funding	Council- City Deal
Initiative lead	ERNACT
Initiative working team (core team)	Council, education bodies, youth employment agency, skills agencies & community groups, training providers
Contributors (stakeholders contributing)	Above plus Donegal Digital training organisations and ICC training stakeholders
Ultimate goal and scope of this initiative	Stimulate interest in Digi-Tech careers and reduce the skills gap and brain drain from the City
Major milestones	Platform ready (See prototype next page). Portal launch
Key stakeholders	Youth groups, Training providers, local College/University
Impact and timing	06-21 to 06-22
Risks	Low engagement from course providers
Support needed	To be confirmed

3 Key Performance indicators Overview

Rationale for KPIs is relevance, availability of data

Solution	Activities – Inputs and actions	Solution Maturity - outputs	City performance – outcomes and impacts
Skills for All	Digit-Tech ambassadors in schools/youth clubs	Number of ambassadors. Number of youth organisations. Youth numbers involved.	Medium term: Impact on numbers of DCSDC secondary school /youth doing ICT/tech courses at A-level/GCSE/Certificate level
Skills for All	Ideation workshops with young people	Number of workshops. Number of youth organisations. Youth numbers involved.	Short/Medium term: Number of applications to entrepreneur support programmes for digi-tech start-ups (catalyst/others)
The City and Young Opportunity	Marketing campaign. Number of youth champions.	Number of assets created. Youth numbers reached/engaged.	As for first one above. Long term: Change in number of local graduates remaining to work in the City.
Skills for the Future	Industry 4.0 workshops. Number of partners involved in delivery.	Number of workshops. Youth numbers involved. Numbers of start-ups/SMEs involved	MediumTerm: Change in No of SME's engaging on I4.0 innovation in the City-Region
Skills for the Future	Digital Construction course provision	Number of organisations surveyed. Number of courses produced. Number of students	Medium term: Change in no. of people gaining Digital Construction certification
Skills for the Future	Digital Innovation Hub for Digital Creative industry	Outreach- Numbers of young people in workshops, courses, demonstrations, internships	Long term: Change in number of digital creative businesses in DCSDC
Ease of access to careers & skills information	Open data portal for digital/tech courses & create a resource of network of training contacts	Open data portal & tech network resource, funding, prototyped, operational & usage statistics	% change in people undertaking digital technology related courses

4 Governance structure for roadmap implementation

- Skills & for all
- City & Young Opportunity
- Skills for the Future
- Ease of Access to careers & Skills information

Steering Committee

- Council
- ERNACT
- Lead Expert

Reviews overall progress, takes key decisions and sponsors overall roadmap

PMO

- ERNACT, Council

Provides administrative support for overall project implementation

Core team

- Local ICC + Stakeholders expressing strong interest in initiative

Ease of Access to careers & Skills information

Initiative 1

- DigitTech Ambassadors

Initiative 1

Industry 4.0 Workshops

Initiative 2

- Ideation Workshop

Initiative 2

Creative Hub

Initiative 3

- Entrepreneurs in Residence (Optional)

Initiative 3

Digital Construction Course

Initiative 1

Marketing Campaign

Initiative 1

Open Data Portal

The European Commission's
**INTELLIGENT CITIES
CHALLENGE**

Section

3+4

Derry: Impact

ICC Transformation

February 2021 to May 2021

Impact executive summary

Our major successes of ICC were

- Bringing a focus on digital/technology/entrepreneurial skills to the City
- Bringing key city stakeholders with skills interest together as an ecosystem
- Enabling the start of digital construction courses in the City
- Identifying ICC cities such as Ventspils & Porri with relevant experience/know-how for inspiration, ideas exchange & enduring collaboration with our City
- A set of prioritised skills initiatives to become part of the City-Region's digital transformation plan
- Ensuring the needs identified in ICC into a wider City-region digital transformation planning

Quick wins were:

- Acting as a catalyst for industry-driven digital construction skills development in the City
- A council led online marketing of local career opportunities showcasing young local digi-tech champions
- Starting discussion as the basis for Smart City initiatives based on Open Data

Progress against initial KPI's we set

This is too early to assess.

The City's commitment for the next 3 years & how these goals will be achieved

The City is firmly committed to progressing on its Digital Transformation roadmap via the City Deal which is in the pipeline in the coming year or so.

The ICC skills ambitions will be progressed via the City Deal Initiatives of:

- Applied digital research centres related to Industry 4.0 uptake (CIDRA), disruptive technology such as AI (CARL), medtech (THRIVE)
- An Innovation Centre supporting innovation and start-ups
- Digital infrastructure with Next generation connectivity
- A Smart City programme

Assessment of city performance - discussion

- The implementation phase has been strongly and negatively impacted by external factors on which the ICC Team has not had any control. In the period April-June 2022, Derry region was involved in local authority elections and Northern Ireland Parliament election. That put Council ability to act in stand-by.
- The ICC Team activities have started again in September 2022 and the Team's objective is primarily to recover that momentum that characterised the first phase of the ICC project in the city.
- Due to those reasons, it is very difficult to quantitatively assess the impact of ICC implementation on city performance.
- From a qualitatively perspective, it is fair to say that ICC Team's work has taken the topic of advanced skills, upskilling and reskilling at the centre of the Council's digital transformation strategy, gathering city stakeholders on the subject and connecting the city to other ICC cities on the matter.

Assessment of solution maturity - discussion

Due to the reasons discussed in the previous slide, the assessment of the solutions is limited to the initial part of the implementation phase. The following initiatives were started between January and March 2022.

- **Skills for All -Digital Tech Ambassadors for Youth.** The ICC Team and a local Software Testing Expert ran a workshop in a secondary school for girls to talk about careers in the technology sector in Derry/Londonderry. The plan is to run similar workshops with other expert guests in other secondary schools.
- **Skills for the Future- Digital Construction Course.** The ICC Team enabled the connection between the construction sector in the region and the North West College for designing a training course on the use of digital technologies in the construction sector. The course aims to target young people, but also existing employees in the sector. Funding has been obtained, a new lecturing post is created and a new course has started.
- **Skills for the Future-Industry 4.0 Workshops.** The initiative was launched with a collaborative event with the Finnish ICC city of Pori. The objective was to promote Industry 4.0 technologies among SMEs. The event was attended by almost 50 representatives of companies and public organisations from the two cities.

Assessment of city ecosystem and activities - discussion

Bringing together a disconnected skill ecosystem.

- The first two phases of the ICC project clearly revealed that the city of Derry/Londonderry was not new to the issue of skilling, re-skilling and up-skilling. In fact, there were several initiatives in place and several organisations involved, but all that was disconnected with several solo stakeholders and overlapping of initiatives. Therefore, above all the methodological objectives, the key aim was to connect those dots into a cohesive skill strategy and ecosystem.

ICC start building formal bridges to connect the ecosystem.

- The activities run during the project and the ones ad-hoc developed – particularly the ones in collaboration with other ICC cities – had the fundamental role to start building formal connections among players. SMEs, some large companies, associations, specialised skill and entrepreneurship experts contributed to the activities with a real desire to connect and work together.

We missed the Champions!

- There are some organisations and individuals able to have several bridges in an ecosystem and be strongly influential. The ICC Team had identified potential champions, but the project issues, discussed previously, did not enable the team to really catch them.

Reflections on city collaborations

The collaborations with other cities were precious in every sense. We needed more resources for them to really flourish.

Item	Reflections
1	<p>Sharing. The ICC Derry/Londonderry team has pursued from day one collaborations with several ICC cities. The collaboration with Pori and Ventspils has been particularly fruitful. The essence there has been sharing common city features, similar challenges, and very aligned objectives.</p>
2	<p>Learning. The collaborations have provided the ICC Derry/Londonderry team with great new knowledge on a variety of issues related to the initiatives defined in the strategy.</p>
3	<p>Difficulties to diffuse the outputs of collaborations. The ICC team has tried to develop knowledge exchanges events with other cities. The objective was to spread the outputs of the collaborations within the ecosystem. The results were quite good, but it could have been better with a more proactive involvement of some parties -COVID definitely impacted as many organisations were short of resources & were dealing with critical issues.</p>

Considerations on future commitments.

- It is difficult to state those commitments at the moment. Certainly, skilling, up-skilling and re-skilling are key elements of the City Deal and the ICC work will be taken in stronger considerations for shaping future actions.
- The ICC Team will collaborate with the Council during last part of the project to integrate the work on skills within emerging discussion on smart city and 5G in the city.
- The ICC work in the City on skills will continue via a cross-border City-Region Digital Transformation Action Plan which is in progress.

Assessment of city performance – monitoring progress

Key dimensions for monitoring	Where we started	Midway through ICC	Final Results
1 No of City based ICT graduates & % employed locally	In 2018/2019 there was a significant skills gap for strong & growing local DIGI-TECH cluster. Evident need to highlight the excellent local career prospects in Digt-tech to the City's young people along with ICT reskilling opportunities.	Unclear status due to COVID. Increased the profile of local ICT reskilling course-local assured academy skills, an excellent good practice triple-helix collaboration	NI has the largest outflow of students to other UK regions.. Council's marketing initiative homeground.me launched May 2022 with young digi-tech champions showcasing local ICT careers. Educational attainment in the City is increasing & more ICT graduates, but more needed to close the skills gap. This effort continues.
2 The % of young people who think STEM subjects/digi-tech/entrepreneurship is important for them and/or for their future careers	OECD 2020 report notes the need for improved career guidance & skills imbalances across Northern Ireland. Evident need to clarify Digi-tech opportunity to the City's young people	NI Skills barometer 2021 reports just 5% of females go for STEM related subjects versus 25% for males. An excellent Digi-tech/Entrepreneur ambassador model identified along with Ideation workshops for youth.	This effort continues.
3 Supply of Industry 4.0 skills & uptake of I4.0 by local industry	There was a need to increase the supply of digital skills in advanced manufacturing & engineering.	Difficulty to find local companies to join I4.0 Workshops with COVID impact. Success in creating local ecosystem & co-operation with Porri.	City's technical college NWRC new I4.0 training suite which will impact in the near term. The CIDRA research centre in the pipeline will also improve industry I4.0 take-up mid-term. Launch of GEMX manufacturing cluster promoting I4.0 careers getting underway & will impact. This effort continues.
4 Digital construction courses availability –not available	Local construction stakeholders highlighted the absence of Digital construction courses in the City.	An initiative began with the local college NWRC to establish industry needs & to find funding for a new Digital Construction course.	This effort continues.
5 Ease of access to information on digital-technology courses	Access to information on digital-technology courses is fragmented.	A prototype is ready to show how a solution can function for the cross-border City-region education cluster	This effort continues

4 key lessons

Champions in a city ecosystem are the key for implementation in a difficult political context

Lesson	Reflections
1	The case of Derry/Londonderry is unique in terms of political context in relation to an EU-funded project. In addition to that, local and national elections happening at the same time have represented a strong block to the progress of the project. The lesson is to make the work more city-region-centric through spending more resources and efforts in building a solid and wide city-region ecosystem of stakeholders.
2	The ICC Team built an ecosystem of players. That ecosystem was useful in the research and assessment phase. But, the ecosystem can then only really move to the implementation phase if there are champions. Identifying champions has been key for implementing some initiatives, even partially, in a not very conducive political Environment.
3	We identified a set of feasible skills projects working with stakeholder groups. However maintaining momentum & stakeholder interest depends on realizing tangible results thus more efforts should have been on finding funding for initiatives.
4	A wider involvement of the city council would have been beneficial. Perhaps that could have been achieved with a physical presence of the Lead Expert in the city, but the pandemic did not allow this.

3 Year plan - targets

	Category	City Commitments
<p>KP1 No of City based ICT/STEM graduates & % employed locally</p>	<p>The City & young opportunity</p>	<p>This will be progressed by the City's commitment to the new School Of Medicine, and to realize City Deal innovation projects of research centres such as Industry 4.0 automation & robotics centre CIDRA, Data analytics centre CARL, & a centre for personalised medicine (THRIVE). Additionally Smart City projects such as an Innovation Centre will impact.</p>
<p>KP2 The % of young people who think STEM subjects/digi-tech/entrepreneurship is important for them and/or for their future careers</p>	<p>Skills for All</p>	<p>Of relevance here is the commitment to the CityDeal Digital Skills Programme will build on the skills and capacity of young people to access and create digital and smart technologies.</p>
<p>KP3 Supply of Industry 4.0 skills & uptake of I4.0 by local industry</p>	<p>Skills for the Future</p>	<p>The City's technical college NWRC I4.0 training suite which will impact in near term. Commitment to creation of the CIDRA research centre in the pipeline will also improve industry I4.0 take-up & related skills.. GEMX manufacturing cluster for the region is committed to promoting I4.0 & manufacturing, engineering careers</p>
<p>KP4 Digital construction courses</p>	<p>Skills for the Future</p>	<p>Progressing with NWRC as they have applied for funding</p>
<p>KP5 Access to digital-technology courses</p>	<p>Ease of access to skills career and information</p>	<p>Efforts will continue on the open data skills portal. The City Deal includes commitments towards Skills & Employability pathways The Digital Skills Programme will build on the skills and capacity of young people to access and create digital and smart technologies. Other more general programmes can also impact digi-tech skills such as the Youth Investment Programme ,centred around young people and aims to overcome the barriers many of them face when accessing skills and employment. Similarly the Intermediate Labour Market Programme will provide support through paid work experience that will be augmented with training qualifications and personal development support.</p>