Title of Report:	**Causeway Coast & Glens Borough Council's Digital Strategy & Action Plan Review and Update**
Committee Report Submitted To:	Leisure & Development Committee
Date of Meeting:	20 January 2026
For Decision or For Information	For Decision
To be discussed In Committee	**NO**

Linkage to Council Strategy (2021-25)	
Strategic Theme	Improvement and Innovation
Outcome	Businesses and household have access to high quality broadband which supports the digital economy and the development of learning and skills.
Lead Officer	Head of Prosperity & Place

Estimated Timescale for Completion	
Date to be Completed	Ongoing

Budgetary Considerations	
Cost of Proposal	N/A
Included in Current Year Estimates	**N/A**
Capital/Revenue	N/A
Code	N/A
Staffing Costs	N/A

Legal Considerations	
Input of Legal Services Required	**NO**
Legal Opinion Obtained	**N/A**

Screening Requirements	Required for new or revised Policies, Plans, Strategies or Service Delivery Proposals.		
Section 75 Screening	Screening Completed:	Yes/No	Date:
	EQIA Required and Completed:	Yes/No	Date:
Rural Needs Assessment (RNA)	Screening Completed	Yes/No	Date:
	RNA Required and Completed:	Yes/No	Date:
Data Protection Impact Assessment (DPIA)	Screening Completed:	Yes/No	Date:
	DPIA Required and Completed:	Yes/No	Date:

1.0 Purpose of Report

The purpose of this report is to update Members on the review and revision of the Causeway Coast & Glens Digital Strategy & Action Plan, outline key changes since the original strategy (2020), and seek approval for the updated strategy (2025) as a guiding framework for digital development across the Borough.

2.0 Background

2.1 Causeway Coast and Glens Borough Council's original Digital Strategy & Action Plan was published in 2020 and was shaped during a time of significant uncertainty due to COVID-19 pandemic and Brexit.

2.2 Since 2020, significant developments have occurred:

- Project Stratum has transformed broadband availability, moving the Borough from one of the least connected areas to **joint 24th** in the UK for full fibre coverage.
- The COVID-19 pandemic accelerated digital adoption and remote working.
- Rapid advances in Artificial Intelligence (AI) and growing cyber security threats have changed the digital landscape.
- The Causeway Coast & Glens Growth Deal and Local Economic Partnership now embed digital transformation as a key enabler of economic development.

2.3 These shifts necessitated a refreshed strategy and action plan that reflects today's environment, aligns with national and regional priorities, including the NI Programme for Government, UK Industrial Strategy, and Project Gigabit rollout, and prepares the Council to respond proactively to future digital demands.

2.4 To facilitate the review and update of Council's Digital Strategy, Officers appointed GreySky Consulting as industry leading experts in matters related to digital transformation in August 2025.

2.5 GreySky Consulting undertook the following actions to enable the revision of the Digital Strategy & Action Plan:

- Document and data review (original strategy, project updates, government reports, broadband data, etc.).
- Stakeholder engagement.
- Comparative analysis of other regional/national strategies.
- SWOT analysis of current digital positioning.
- Drafting of revised strategy with action plan and KPIs.

2.6 The revised Digital Strategy is included as **Annex A** and Action Plan provided at **Annex B**.

3.0 Key Changes

3.1 The updated strategy introduces several important changes as noted below:

3.2 Strategic Context

- **National Alignment**: The strategy now reflects major national initiatives, including the UK Telecoms Access Review and the NI Digital Skills Action Plan 2024–2034.
- **Sustainability Matters:** Environmental considerations are now a central factor in planning and developing data centres.

3.3 Digital Infrastructure

- **Full Fibre Coverage:** Tremendous progress has been made; coverage has jumped from circa 20% in 2020 to 92% in 2025. The focus is now on the remaining 5,500 premises and Rathlin Island.
- **Wireless Connectivity:** Council to explore if Public Wi-Fi should return to key towns, particularly if commercial partnerships can be secured. Plans should also include boosting 5G in high-demand areas and expanding LPWAN networks for IoT applications.
- **Barrier Busting:** Following DCMS recommendations, it is recommended that Council simplifies wayleaves process for connectivity projects and improves street works management to speed up deployment.
- **Council Transformation:** Council should ensure Internal systems are being modernised, with AI explored as a tool for greater efficiency.

3.4 Digital Skills

- **Next-Gen Expertise:** Greater focus required on AI awareness, cyber security, and advanced digital skills to prepare our workforce for the future.
- **Economic Integration:** Skills initiatives should be tightly linked to Local Economic Partnership programmes and Labour Market Partnership efforts.
- **Learning and Growth:** Ongoing support for apprenticeships, continuous professional development (CPD), and targeted sector-specific training will be critical.

3.5 Digital Sector

- **Collaboration & Innovation**: Encouraging the development of digital hubs and incubators to complement the established Belfast/Derry clusters.
- **Networking & Ecosystems:** Strengthening connections with regional and national digital networks.
- **Sectoral Support:** Driving digital transformation across key sectors including tourism, manufacturing, agri-food, and public services.

Snapshot on revised strategy is provided as **Annex C**.

4.0 On-Demand Recording

4.1 GreySky Consulting has provided an on-demand recording which Members may access at a time convenient to them, further reinforcing the importance of this strategy.

Recording has been added to the Members library.

5.0 Recommendation

It is recommended that Members note the progress made since the original strategy and the significant improvements in digital infrastructure and capability and approve the revised Causeway Coast & Glens Digital Strategy & Action Plan (December 2025) as the framework for future digital development.

Causeway Coast & Glens Borough Council

Causeway Coast and Glens

Digital Strategy

December 2025

Contents

1. Executive Summary

1.1 Integrated Approach

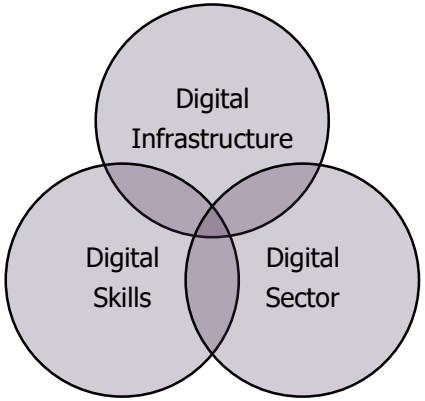


Figure ES1. The three themes of the Digital Strategy

The ***Causeway Coast and Glens – Digital Strategy*** has been developed in support of a range of local and national social, economic and digital strategies, and to help inform the update to the Economic Development strategy. The digital strategy addresses the three inter-linked themes of sector, infrastructure and skills. .

1.2 Uncertain Times

The current economic and social background to the development of the Digital Strategy is very challenging and uncertain. The sudden technological developments in the field of AI have created huge uncertainty on the undoubted impacts of this technology and its overall effects on employment and economic growth. Great geo-political uncertainty in Europe and globally has created a significant volume of cyber-crime from criminal and hostile state actors. Recent events have highlighted the huge importance of digital security at all levels of business and societal activity to counter these threats.

However, against this unprecedented background of uncertainty, recent events have demonstrated clearly the critical importance of reliable high-bandwidth digital communications and applications, how essential it is that they are integrated throughout the economy and society, and how important it is that everyone has the skills to use them effectively.

1.3 Existing Developments

Since the Digital Strategy was first published in 2020, there have been enormous strides in the availability of full fibre broadband across the Borough. Full Fibre Northern Ireland (FFNI) and Project Stratum have seen fibre deployment throughout Northern Ireland to all but the most challenging locations. Of course, for those not yet served with full fibre broadband, the disadvantage they suffer becomes more acute as businesses, government and social

organisations move towards assuming universal access to good broadband. There is still work to be done to ensure that all premises are able to access broadband capable of support full participation in society.

Ensuring that the citizens and businesses in Causeway Coast and Glens adapt to this change and make the most of the opportunity available to them is the critical challenge of the ***Causeway Coast and Glens – Digital Strategy.***

1.4 Digital Infrastructure

The concept of digital infrastructure is evolving. At one end, digital connectivity to homes and businesses is understood, and the need for maximum coverage widely accepted. At the other end, the need for data centres to support the operation of the internet and associated processing capability is evolving rapidly.

Digital connectivity in Causeway Coast and Glens has improved dramatically over the last five years. Over that time, the understanding of the term 'decent broadband' has evolved from 10Mbps to a minimum of Superfast Broadband (30Mbps). Figure ES2 shows how in rural parts of the Borough, particularly in the West, access even to relatively basic broadband is patchy. Access to full fibre broadband has improved dramatically but there are some areas where further work on connectivity needs to be done.

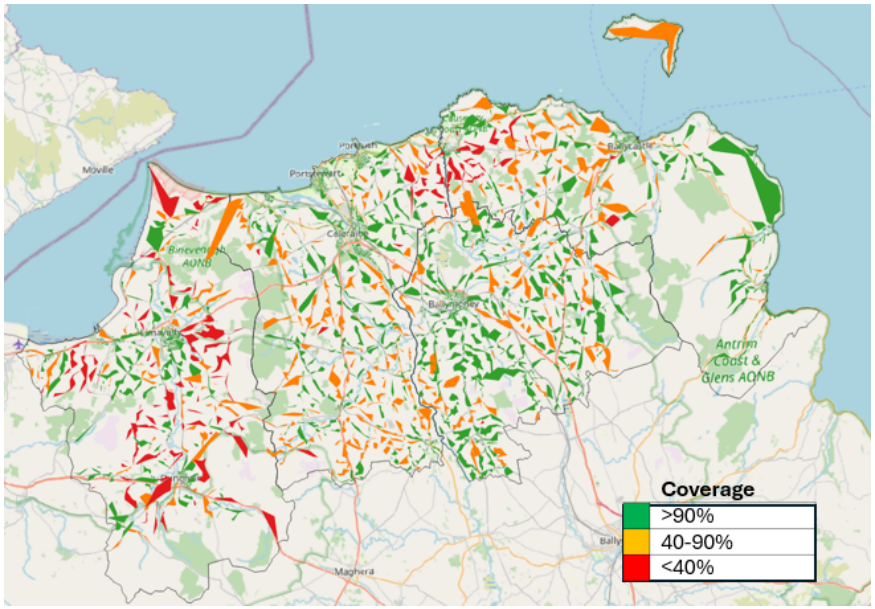


Figure ES2: Availability of superfast broadband (30Mbps or higher) in Causeway Coast and Glens [Source: Ofcom data]

Although connectivity has improved dramatically, there is still more to be done. As national programmes end, local initiative to 'finish the job' becomes more important. Other digital technologies – including mobile and LPWAN networks are also developing to support the wider digital transformation of the economy and services in the Borough.

The development of core digital infrastructure is less straightforward. The ever-increasing need for digital processing capability presents a commercial opportunity, but data centres

demand significant power and have a high related environmental impact.

Five key priorities are identified to continue the digital infrastructure development:

- **Ubiquitous Connectivity** – extending the deployment of full fibre broadband to those premises not covered. This may involve further fibre roll-out through Project Gigabit and using Gigabit Vouchers, the deployment of new technologies (usually Wireless) and using Low Earth Orbiting Satellites to deliver good quality services to the most remote premises.
- **Support new capabilities** – LPWAN, 5G and Wi-Fi networks present important new economic opportunities, underpinned by the need for connectivity and developments in AI and data processing.
- **Reduce barriers to deployment** – encouraging commercial deployment and supporting public sector initiatives to maximise benefit.
- **CCGBC upgrade its own IT platforms** to adequately support remote working and digital transformation and to explore the use of AI technologies to increase productivity.
- **Data Centre development –** balancing the commercial opportunities and environmental challenges of core infrastructure development.

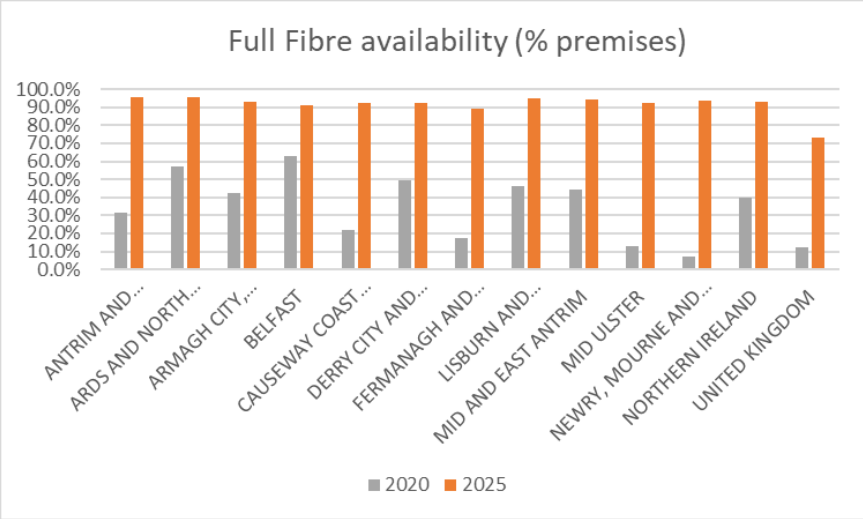


Figure ES3: How full fibre availability has changed in the last five years across Northern Ireland. [Source: Ofcom data]

Figure ES3 shows how full fibre broadband availability has changed across Northern Ireland over the last five years. It shows clearly how full fibre broadband availability has improved dramatically across the board and also how the boroughs that were lagging behind (including Causeway Coast and Glens) have closed the gap and current stand at around 90% coverage of premises (92% in the case of Causeway Coast and Glens). The Borough now stands at joint 24th in all the 361 boroughs across the United Kingdom.

1.5 Digital Skills

Digital technologies have been widely recognised as critical to economic and social sustainability for many years. COVID emphasised the need for skills - but also highlighted that most people had strong background IT skills to allow them to 'step up' when needed.

The Digital Skills strategy considers two important aspects:

- **Skills in the Digital Sector** – to allow this sector to develop and grow, and to support the wider economy.
- **Skills throughout the economy and society** – to allow the Borough to thrive in an increasingly digital world.

1.6 Digital Sector

Digital Sector businesses form a very small part of the economy in Causeway Coast and Glens. However, the sector has an important part to play in the Borough's economy – both through employment and the wider economic impact of digital transformation. Many individuals working in the digital sector in the Borough may be employed by international companies operating in the rapidly growing digital cluster in Belfast, or as digital experts in businesses outside of the sector.

We have four key opportunities identified to support the digital sector and the wider economy in Causeway Coast and Glens:

- **Incubator support** providing cost effective opportunity for new business start-ups within the wider Northern Ireland digital cluster.
- **Support for other sectors** being digitally enabled is a vital component for success of all business sectors. The digital sector has a key role to play in supporting the key sectors identified in the Economic Strategy.
- **Collaboration Hubs** buildings and facilities to provide a local focus for the sector development across the Borough.
- **Networking Programme** a programme of events to encourage networking as a part of the wider digital cluster in Belfast and beyond.

Project Stratum has seen Causeway Coast and Glens transformed from one of the least well-connected places in the British Isles to one of the best connected. This strategy aims to ensure that the improved connectivity **reaches everyone**, that they **have the skills to benefit** from the improved connectivity and that the connectivity and skills are harnessed to **support the wider economy** to the benefit of all who live, work and visit here.

2. Background

An effective digital strategy does not exist in isolation; it fits within the context of other development goals and strategies, and within the context of overall economic and societal trends and developments.

This update to the ***Causeway Coast and Glens – Digital Strategy*** comes at a time of significant uncertainty (including the war in Ukraine and wider conflicts, significant population migration, geo-political instability, the cyber activities criminals and hostile state actors and the emergence of Artificial Intelligence as a usable technology and the potential positive and negative effects of its wide deployment). It also comes at a time of growing awareness of wider society issues such as our ageing population and global climate change. This digital strategy will be an important input to the planned revised economic strategy for the Borough.

The combined impact is one of significant opportunity and challenge – where digital technology will make dramatic changes in the way we live – and where dramatic changes may be necessary if our society is to continue to thrive.

2.1 Integrated Approach

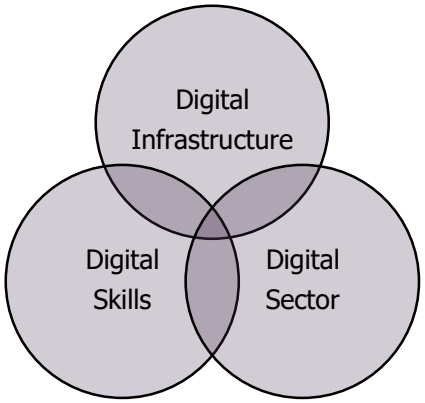


Figure 1. The three themes of the Digital Strategy

The ***Causeway Coast and Glens – Digital Strategy*** supports the wider ***A Better Future Together – the Delivery Plan for Causeway Coast and Glens Community Plan 2017-2030***[1]. The digital strategy aims to reflect the critical role of digital technologies in Causeway Coast and Glens – both in terms of the digital sector within the economy, and as an enabler of other economic and societal developments. Growth Deal projects have now been identified, and each project will have varying digital needs.

As illustrated in Figure 1, the digital strategy is formed around three core strands to provide a basis for development from establishing the current position and vision for the future, to identifying actions and targets for delivery.

2.2 Context

The digital strategy is developed in parallel with and is informed by the broader economic strategy for Causeway Coast and Glens and took into account a range of digital strategies, initiatives and developments from the UK and beyond that establish the context for development in the Borough.

The strategic context (in Figure 2 below) provides a background of requirements, targets, inputs and best practice that help shape and form the ***Causeway Coast and Glens – Digital Strategy***.

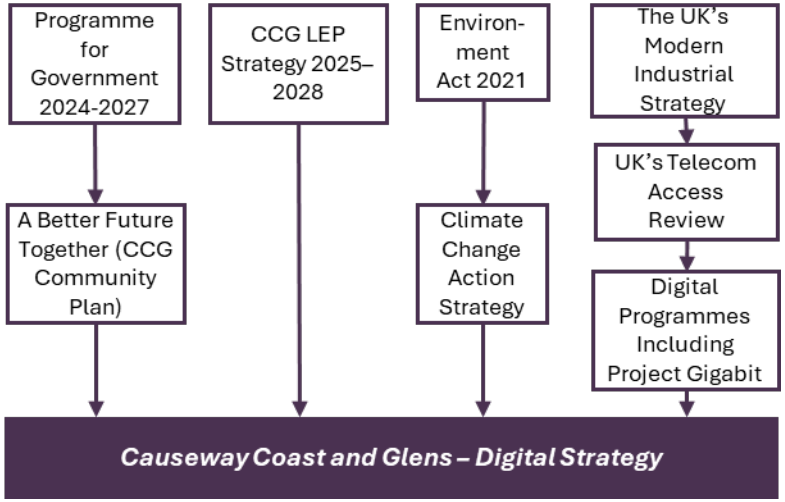


Figure 2. The context of the digital strategy

More detail on the strategic context described in Figure 2 is included in Annex 1.

2.3 Economic Background

The economic background to the ***Causeway Coast and Glens – Digital Strategy*** is determined by the general business and economic conditions in the Borough, the importance of different business sectors, and by the requirements of the population in general.

2.3.1 General Economic Background

The economy of Causeway Coast and Glens does not exist in isolation. Economic growth and productivity have recovered post Covid and vary significantly across Northern Ireland.

In the original Digital Strategy report, we saw that between 2008 and 2018, GVA in Causeway Coast and Glens increased 21% (compared to 33% for the UK, 30% for Northern Ireland and 34% for Belfast). From 2018 to 2023, GVA has increased 29% in Causeway Coast and Glens, compared to 28% for the UK as a whole and 39% for Belfast).

The difference in economic growth is matched also in differences in productivity. Causeway Coast and Glens has the second lowest GVA per head of the local authority areas in Northern Ireland.

The strong economic growth in Belfast is driven by key business sectors such as Digital industries, which attract investment and support high productivity.

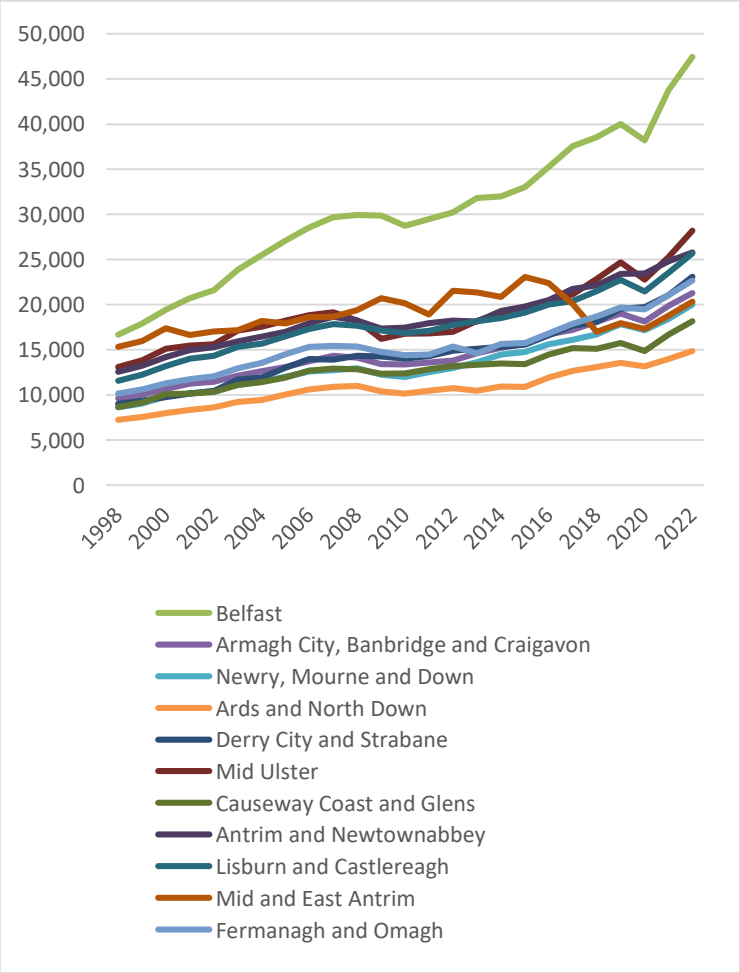


Figure 3. GVA per head for local authorities in Northern Ireland
[Source: ONS DATA]

2.3.2 Business Sectors

The economy in Causeway Coast and Glens is driven strongly by the visitor economy – which is present in a number of standard industry classification groupings (for example accommodation and food, as well as recreation).

Conversely, the Information and Communication sector in Causeway Coast and Glens is very small and has below average growth. Between 2008 and 2023, GVA in the Information and Communication sector in Causeway Coast and Glens increased by 18% - compared to 56% overall GVA growth in the Borough over the same period. The Information and Communication sector in Belfast grew 108% in the same time period, supporting an overall GVA growth of 87%.

Key economic sectors are identified in the economic strategy for the borough to provide a combination of support to existing key employment sectors, and the potential transition to higher productivity sectors. The key sectors are:

- Advanced Manufacturing, Materials and Engineering
- Construction
- Financial Business and Professional Services
- Retail
- Tourism and Hospitality
- Agri-food
- Sustainable energy

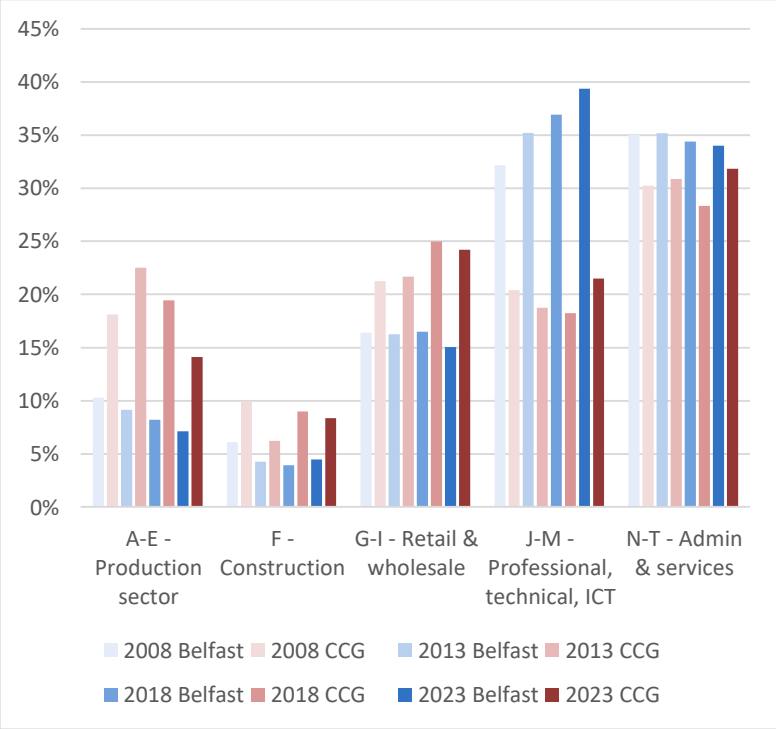


Figure 4. % GVA by sector groups in Belfast and CCG [Source: ONS DATA]

2.3.3 Impact of Belfast and Derry / Londonderry

The total GVA in Belfast between 2008 and 2023 grew 87% - well ahead of the 71% overall for the UK and 56% for Causeway Coast and Glens. This economic and productivity growth in Belfast is driven by the shift to high productivity sectors – including finance and ICT. By contrast, Causeway Coast and Glens have moved towards lower productivity sectors associated the visitor economy.

The strong economic growth in Belfast, and Derry and Strabane, and in particular the dramatic growth in the Information and Communication sector is driven by the skills drawn from the surrounding areas and provides exceptional employment opportunities.

Maximising the opportunity presented by the economic growth in Belfast and Derry (in particular in the Information and Communication sector) and developing a complementary economic offer in Causeway Coast and Glens presents a key opportunity for the Borough to make significant progress towards many of its desired outcomes.

2.3.4 Geographic Distribution

The geographic distribution of businesses and sectors has a strong impact on digital connectivity requirements. Different business sectors typically have different digital connectivity requirements, and the distribution of these requirements must be considered.

Industrial business locations (manufacturing, etc) tend to be clustered in the outskirts of larger towns. However, there is an unusually high prevalence of industrial locations scattered throughout the Borough that are not in the immediate vicinity of towns, as illustrated in Figure 5.

These more isolated industrial premises include quarries and aggregate providers, skip hire, fuel depots, and a variety of workshops (as well as a well-known distillery).

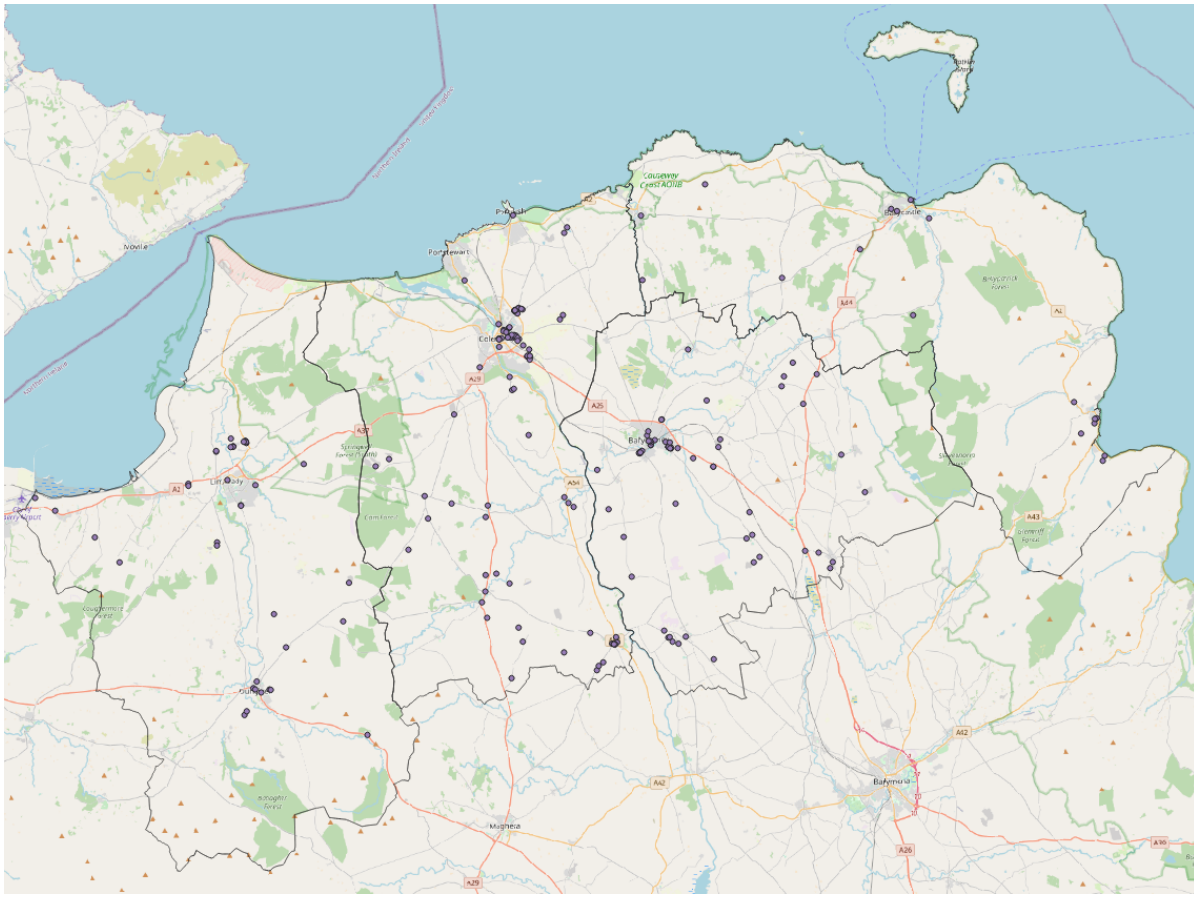


Figure 5. Industrial building locations [Source Ordnance Survey data]

Office locations, shown in Figure 6 tend to match the industrial locations, and have clusters throughout the centre of larger towns, with smaller clusters and isolated locations spread throughout the area.

The digital requirements for industrial and office locations vary based on the size of the facility and level of digital transformation. Larger facilities currently usually employ leased lines, though high bandwidth contended (shared bandwidth) full fibre connections are presenting important alternatives for many businesses.

As digital transformation of all business processes becomes established over the next few years, having been given a strong boost by the COVID-19 pandemic, availability of full fibre digital connectivity will be an important factor in the sustainability of these locations.

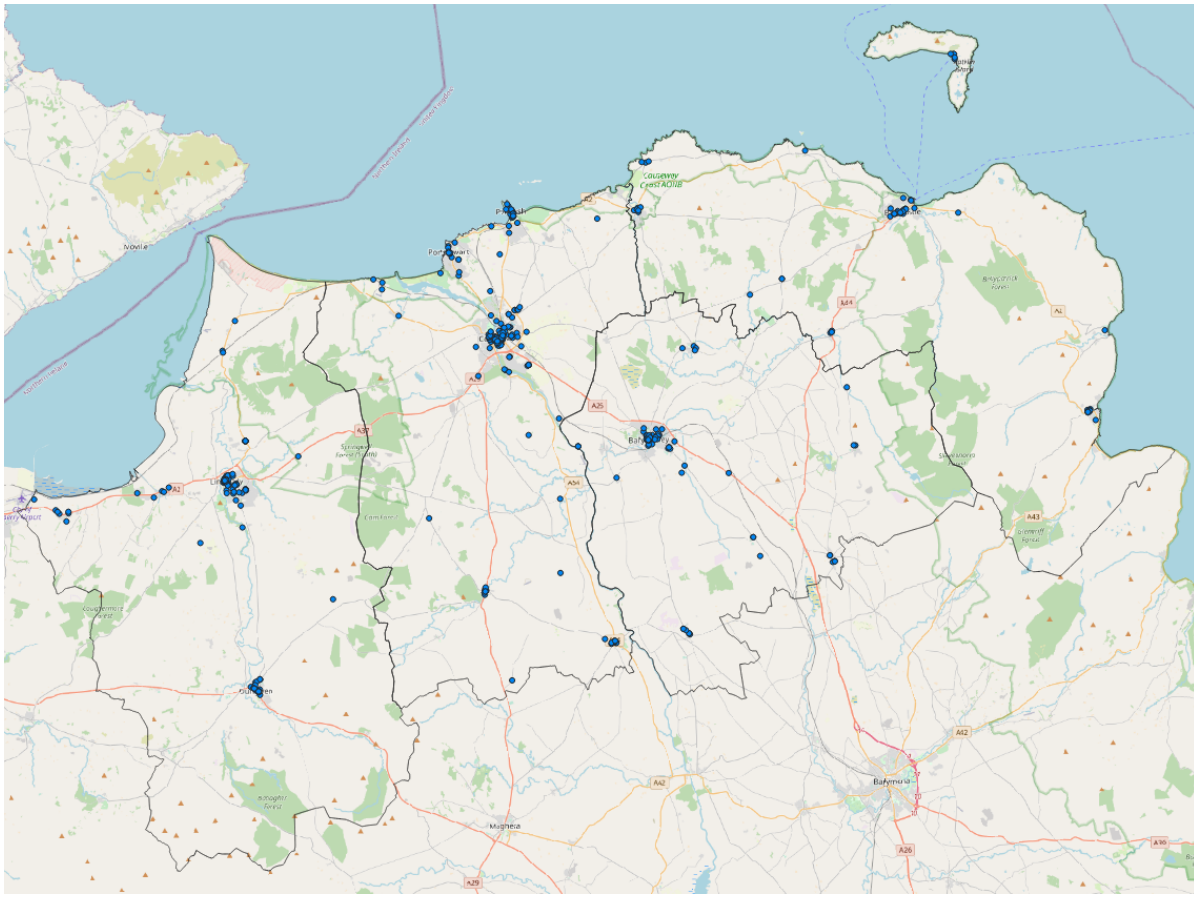


Figure 6. Office building locations [Source Ordnance Survey data]

Locations associated with the visitor economy often tend to be more widely distributed, and in different locations from the industrial and office locations – requiring a more widely available digital infrastructure. The situation in Causeway Coast and Glens follows this pattern with a very distributed coverage of the landscape between the larger towns.

The tourism strategy is one of dispersal- the Borough has a small number of heavily visited attractions. The Council wants to disperse people from these attractions to other attractions in the Borough as a means of managing over-crowding and dispersing the economic benefit. The Tourism Strategy is currently being updated, and a new strategy is expected in 2026.

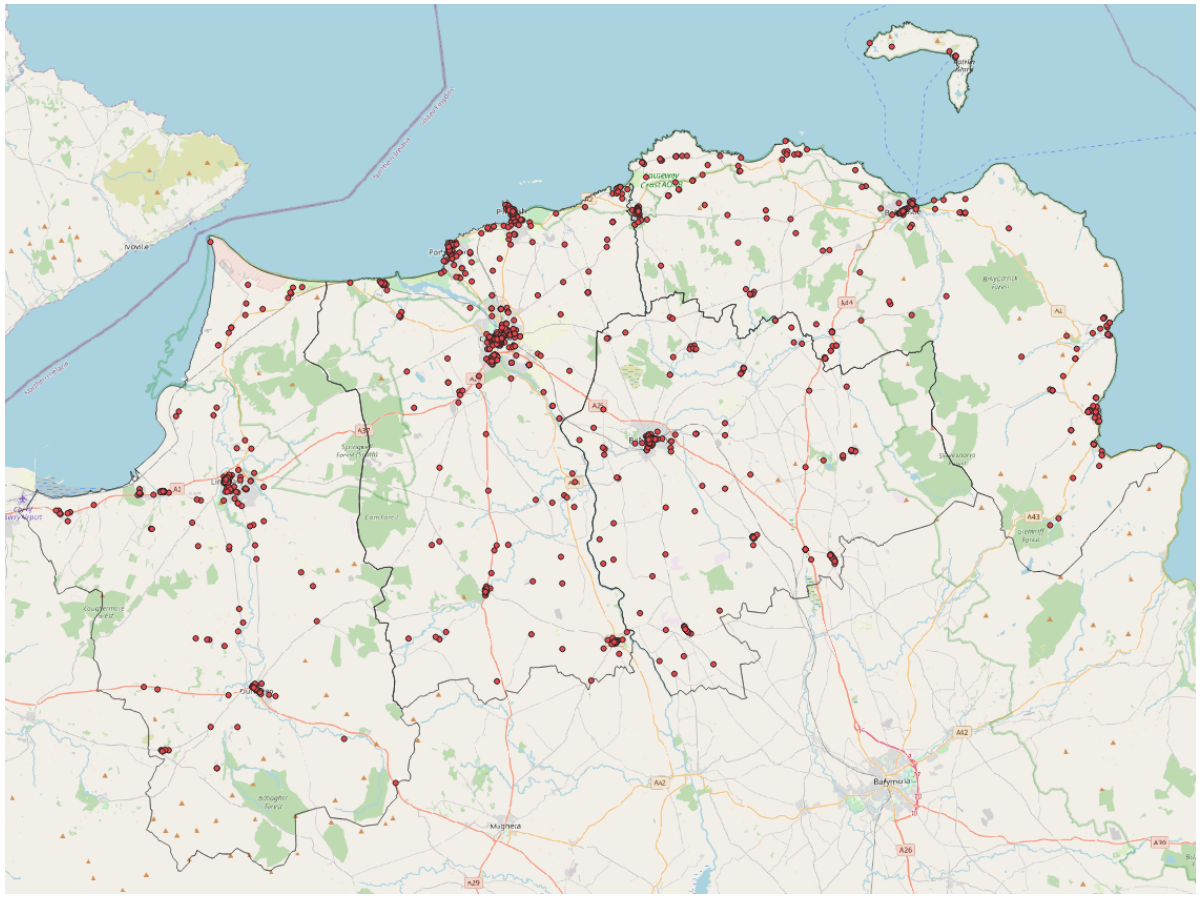


Figure 7. Retail, entertainment, cultural, hospitality and sporting locations [Source Ordnance Survey data]

2.3.5 Population Background

Causeway Coast and Glens is a relatively aged Borough, and the median age is increasing ahead of the general trend for Northern Ireland and the UK as a whole.

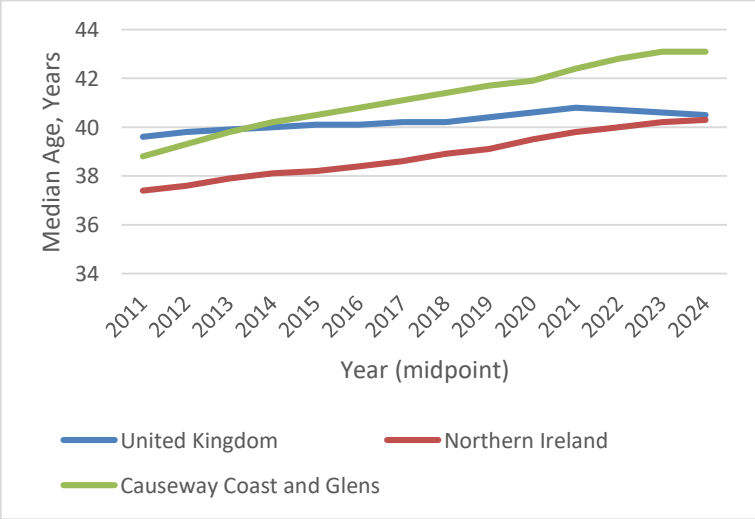


Figure 8. Mid- year median age 2011 to 2024 [Source: ONS data]

The working age is of critical economic importance. Causeway Coast and Glens has a slightly lower proportion of people of working age (57.8%), compared to the UK (60.4%) and Northern Ireland as a whole (59.3%). This gap is increasing. In 2019 the difference between the UK and Causeway Coast and Glens was only a half of a percentage point, in 2024 it was two percentage points.

20.6% of the population of Causeway Coast and Glens are 65 or older (increased from 18.4% in 2019). This is higher than the UK as a whole (19.0%) and is significantly higher than for Northern Ireland which has 18.1% of its people aged 65 or older.

The cost of providing health and social care to people over 65 is significantly greater than the costs for people of working age. The need to improve the efficient delivery of health and social care services is particularly strong across the whole United Kingdom and Causeway Coast and Glens is no exception. It is expected that digital transformation will play a significant role in this efficiency improvement.

The COVID-19 crisis had also shown how significant proportions of interaction with medical professionals for everyone, not just the elderly, can be done remotely using online interaction. The pandemic has seen changes in NHS provision that would have seemed impossibly fast in 2019. It is likely that many changes will be made permanent and willingness to experiment to improve services will be much greater as challenges grow.

Critical to reducing the cost of providing health and social care to people over 65 is the digital transformation to allow them to receive effective care in their own homes for longer. Ubiquitous coverage of effective broadband to all homes remains an essential element in this transformation and service delivery.

The distribution of domestic properties in Causeway Coast and Glens, shown in Figure 9, shows the delivery of ubiquitous coverage will be a significant technical and commercial challenge. Although significant clusters do exist in the larger towns and villages, properties are widely distributed throughout the area. However, there are very few extremely isolated properties which would be prohibitively expensive to serve with very long stretches of dedicated infrastructure.

In addition to an effective digital infrastructure, the digital transformation of services will demand critical digital skills. Skills will be required in the digital sector to develop the digitally transformed services, and throughout society to make effective use of the services.

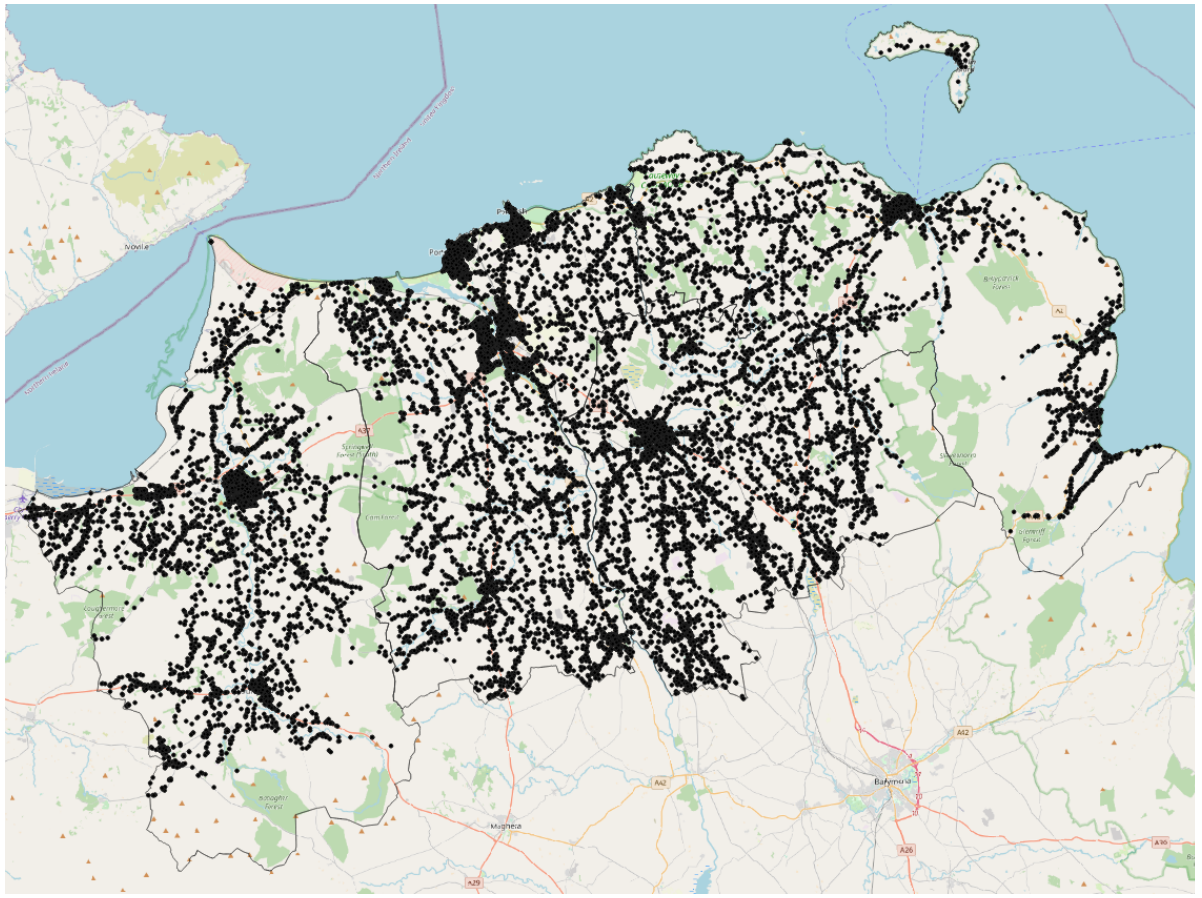


Figure 9: Distribution of domestic properties [Source Ordnance Survey data]

2.4 Key Issues – Background

Digital connectivity and data are essential to all aspects of economic and social growth and sustainability. Maximising the accessibility and use of digital technologies is essential to all aspects of the long-term prosperity of the Borough.

The digital strategy is developed in three core strands (digital infrastructure, digital sector and digital skills). The strategic inter-dependence of the three core strands means that targeted developments lead to the strengthening of all strands.

Building on Project Stratum and Project Gigabit, the digital infrastructure strand must ensure maximum coverage of homes and businesses with high-speed broadband connections. Advanced wireless and mobile connectivity is also needed to support economic and social needs. The infrastructure requirements and opportunities presented by the ongoing global need for greater data centre capacity must also be considered.

Businesses and citizens must have the digital skills they need to live and work effectively and safely in a rapidly changing digital world. Increasingly, this must include effective digital security and leverage the impact that Artificial Intelligence will have on many aspects of life. The digital sector itself is a very small part of the economy in the Borough, and this is emphasised by the strong growth of the sector in Belfast. Attempting to grow the digital sector in competition with Belfast is unlikely to be successful, and counter-productive to the needs of the Borough.

However, the digital transformation of business and service delivery is essential to ensure long-term prosperity. The digital sector businesses and individuals in the Borough must be enabled to provide this support – either directly or by engaging with the digital sector in Belfast and elsewhere. This collaborative approach ensures the maximum wider economic development for the Borough, as well as providing a direct opportunity for the development of the digital sector. The key requirements are to:

- Ensure current and emerging digital technologies are available and accessible to all.
- Support digital transformation of key economic sectors to ensure their sustainability and growth.
- Establish a digital skills ecosystem for the Borough – both directly within the Borough, and as a conduit for skills from Belfast and beyond.

3. Digital Infrastructure

Digital infrastructure provides the foundation for growth for all modern economies and is increasingly important to the sustainability of communities. The widespread deployment of full fibre and advanced wireless digital connectivity is paving the way for an accelerating technical revolution that will impact all aspects of our economy and our lives.

As a result of the project stratum roll out, Causeway Coast and Glens area has seen its fixed broadband connectivity improve dramatically. The Digital Infrastructure strand of the ***Causeway Coast and Glens – Digital Strategy*** addresses the different digital infrastructure options to maximise the reach of this transformation throughout the Borough.

In parallel, the global demand for increasing data centre capacity to support opportunities such as crypto-currency and AI development present potential economic opportunities as well as environmental challenges.

3.1 Essential Infrastructure

Digital connectivity is already central to economic competitiveness and social sustainability. To achieve the necessary productivity improvements demanded by the economic strategy, and to meet the challenges imposed by demographic change will demand ever greater reliance on digital connectivity and transformation.

Effective infrastructure is essential to support this increasing dependence on digital connectivity. This infrastructure must ensure that digital connectivity needs are met throughout Causeway Coast and Glens (not just in the main towns) and must be sufficient to meet the changing needs of business and society.

3.1.1 Changing Devices, Changing Use

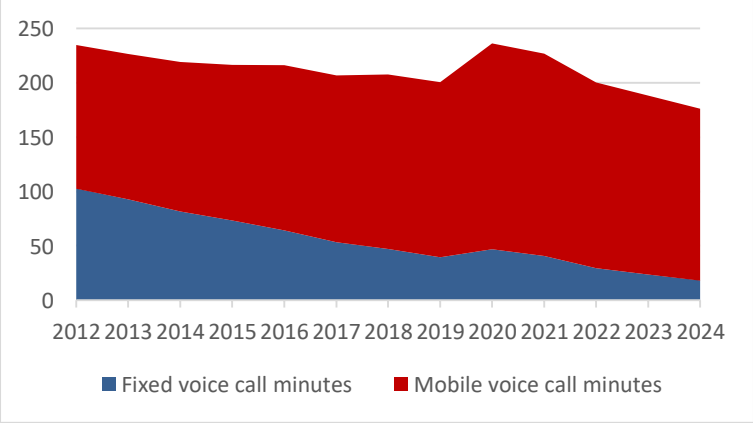


Figure 10: UK Annual fixed and mobile call mins [Source: Ofcom Data]

The devices we use, the systems we connect to, and the way we use them are constantly changing. The decline in fixed line telephone call minutes and the move to mobile, illustrated in Figure 10, is a familiar story, but the data also shows an overall decline in all call minutes as users move towards data-based calls and messages.

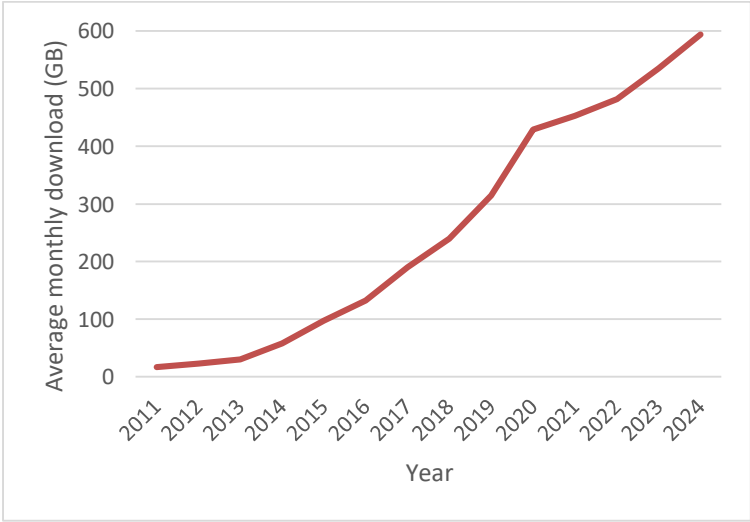


Figure 11: Fixed broadband data use per month [Source: Ofcom data]

The decline in call minutes has been more than matched by an increase in data consumption (Figure 11). In 2011, the average fixed broadband data consumption per month was 17GB; by 2024 it was estimated at 594GB.

The change in the balance of call minutes between fixed and mobile, and the increasing importance of data shows a convergence between fixed and mobile systems and devices that is continuing far beyond simple voice calls. The Ofcom Communications Market Report identified that the majority (62%) of time spent on the internet was on mobile devices. However, mobile data usage per device remains only 1% of data use per fixed broadband line. Clearly users are accessing data through their mobile phones, but connected by Wi-Fi to fixed broadband connections.

3.1.2 Different Needs; Different Technologies

Different users have different needs from the digital connectivity. At one extreme, large businesses need to provide connectivity for many people for email and web browsing, and to support critical business systems. Although many residential users have much simpler needs, the demand for streaming video is increasing.

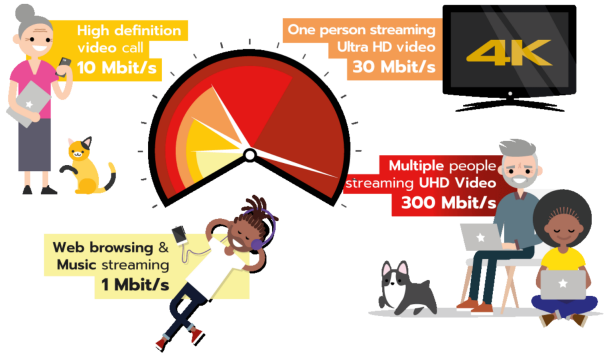


Figure 12: Residential broadband use
[Source: image copyright: Ofcom, Connected Nations 2018]

It is clear that differences in use and expectations mean that there are considerable differences in requirements even for residential users. The differences are even more marked for business users – and may be critical to business operation.

These differences in requirements lead to differences in the types of digital infrastructure technologies that are suitable for different users.

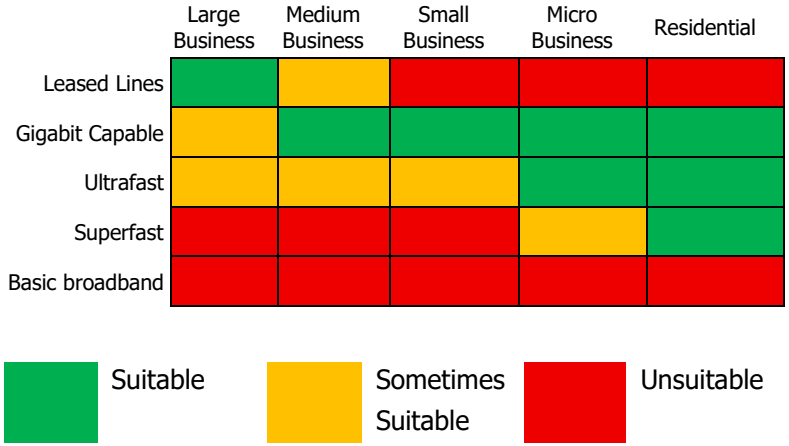


Figure 13: Digital technology applications

There is a range of digital infrastructure technologies in operation throughout Causeway Coast and Glens. These provide different levels of capability for different users.

Leased Lines

Until recently, leased lines have been considered the standard for all larger businesses. They offer a range of symmetrical, un-contended (i.e. not shared) bandwidths with high reliability and business-grade service level agreements. They are very expensive – presenting a significant barrier for smaller businesses.

Gigabit Capable

A new range of very high bandwidth contended (shared) broadband services are becoming available. Most important of these are the 'full fibre' technologies offering bandwidths of 1Gbps and even faster. For some areas, new Fixed Wireless Access technologies also support Gigabit speeds and higher and may be useful in the most remote rural areas.

Ultrafast

Refinement of some cable, fibre to the cabinet (FTTC) and Fixed Wireless Access technologies may allow significantly greater bandwidths than Superfast in some areas, although these are not common in the Borough.

Superfast

Superfast broadband was identified as a significant step forward from basic broadband and was the initial focus for government subsidised broadband deployment across the UK. Superfast broadband provides download speeds of 24Mbps or faster (30Mbps or faster for more recent deployments).

The majority of superfast broadband connections use fibre to the cabinet (FTTC) connections. Here optical fibres deliver connectivity to the nearby BT green cabinet, with copper connections to the end property. Other superfast connections may use fixed wireless or cable for the final connection to the property.

The use of different technologies (other than full fibre) presents the key limitation for superfast services – all are limited by the distance of this final connection.

Superfast broadband is now regarded as the basic requirement for broadband connectivity.

Taking the availability of full fibre broadband as a proxy for excellent connectivity, Causeway Coast and Glens has excellent connectivity available to 92% of premises, which ranks as joint 24th ranking among the 361 UK local authorities.

3.1.3 Mobile Communications

Since their launch in the 1980s, mobile networks are now an essential part of peoples' lives. Mobile technologies have evolved through a number of 'generations' with three variants remaining relevant today:

- 2G – still has the greatest coverage and availability within premises. It is still the most important coverage for mobile voice calls. However, it is rapidly being overtaken by 4G and the debate about when to switch it off has begun.

- 4G – Important for data and voice. Supporting maximum deployment of 4G services is the priority for mobile connectivity.
- 5G – is the most modern mobile communications technology in commercial deployment. It has been being rolled out in major cities and towns, mainly to give the increased capacity required to meet customer demand in those places. More general roll-out of 5G outside the larger towns is not common and its widespread deployment has been much slower than the roll out of 4G.

As well as cellular mobile networks, a number of different low power wide area network (LPWAN) standards have emerged. These usually handle relatively low speed communications 50-100 Mbps but over a wide area. They are intended to support Internet of Things (IoT) applications where large numbers of devices emit small volumes of data periodically. The standard most widely used in Northern Ireland is LoRaWAN.

Although the availability of a mobile signal can be seen as important to users, mobile 'phones do not connect only to the standard mobile networks. The use of Wi-Fi is normal for accessing data over mobile 'phones and devices, and the use of Wi-Fi for voice calls is becoming standard. New Wi-Fi standards also provide an important alternative to 5G services.

Taking 4G land area coverage by all four mobile operators as a proxy for excellent mobile connectivity, Causeway Coast and Glens has excellent mobile connectivity across 85% of the land area of the Borough, which ranks as 311th ranking among the 361 UK local authorities.

3.2 Fixed Broadband Availability

Availability of the key fixed and mobile digital technologies has been assessed across Causeway Coast and Glens using current Ofcom data.

For fixed broadband, the data provided a % measure of the properties in each postcode area able to access each service capability. This has been combined with postcode data to map availability. The following sections consider the key issues:

- Availability of superfast broadband as the current minimum requirement for most homes and micro businesses.
- Availability of full fibre broadband as a longer-term strategic objective.

The mapping used is a variant on a typical postcode mapping to focus on areas containing properties rather than 'colouring in' the whole postcode area. This approach avoids distractions such as poor connectivity in large areas where there are no properties – and so of no concern.

3.2.1 Superfast Broadband

Availability of superfast broadband (access speeds of 30Mbps and above) in Causeway Coast and Glens has improved dramatically in the last five years. In 2020, superfast availability stood at just under 87% of premises. That has now increased to more than 97% with access speeds of 30Mbps or better. Figure 14 illustrates how Causeway Coast and Glens has not only improved strongly, but has narrowed the gap in coverage that existed between it and other boroughs.

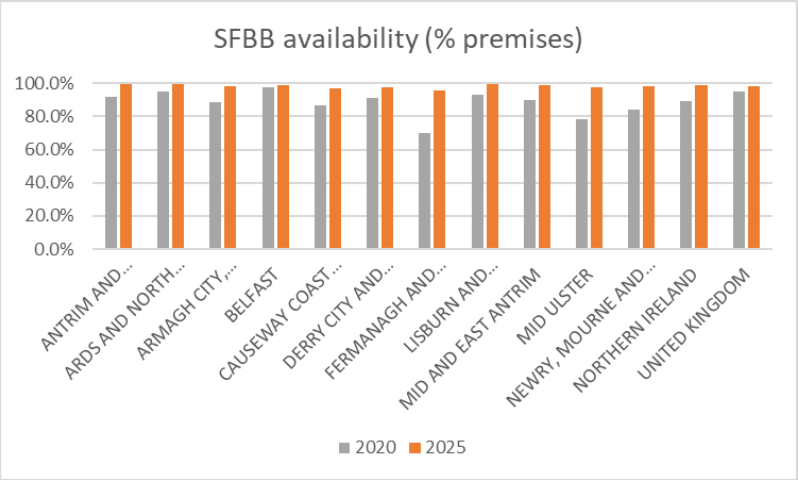


Figure 14: How Causeway Coast and Glens compares with other boroughs for superfast broadband [Source: Ofcom data]

As we would expect, superfast coverage is good in the main towns which have mostly green coloured postcodes as shown in Figure 15.

What has changed since 2020 is that a lot more of the rural areas are now coloured green or orange showing widespread availability of superfast broadband in the rural areas. This will be a direct result of the roll out of full fibre broadband in these areas from Project Stratum.

However, there are pockets of red shown in the map which indicate that there is still work to be done. The west of the Borough still has a lot of postcodes where the availability of Superfast broadband is less than 40%. A smaller cluster of red postcodes is visible south of the Causeway head around Bushmills.

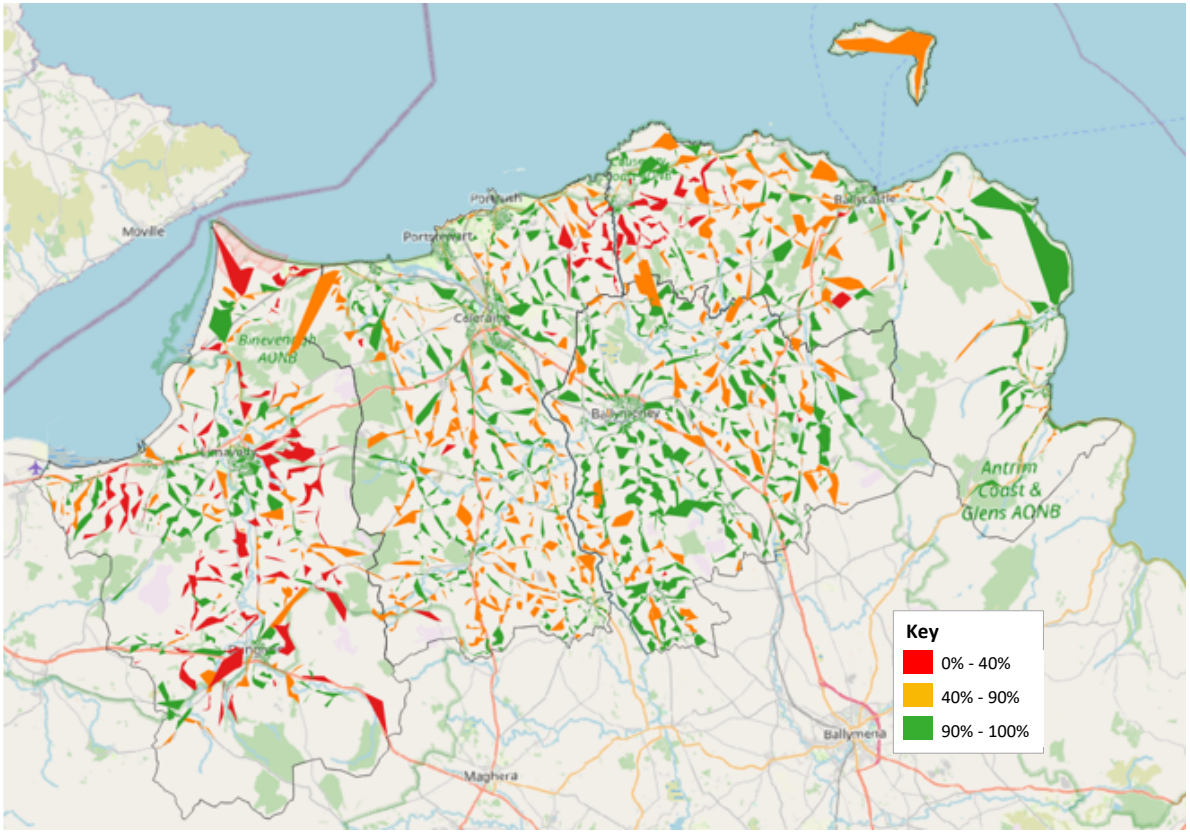


Figure 15: Availability of superfast broadband and above in Causeway Coast and Glens [Source: Ofcom data]

3.2.2 Full Fibre

Full fibre broadband gives significantly faster speeds and greater capability than standard superfast broadband. The difference is already important for advanced small and medium businesses and will become more widely important as bandwidth expectations continue to grow.

Five years ago, Causeway Coast and Glens lagged significantly behind other boroughs in terms of full fibre availability to its premises. There was very little availability outside of the main urban centres of Limavady and Coleraine with almost no presence outside those towns.

Causeway Coast and Glens was in the bottom half of the boroughs of Northern Ireland in terms of full fibre availability.

Since then, Project Stratum and Openreach's commercial deployment have hugely expanded the availability of fibre with more than 90% of premises throughout the Borough now having access to full fibre broadband.

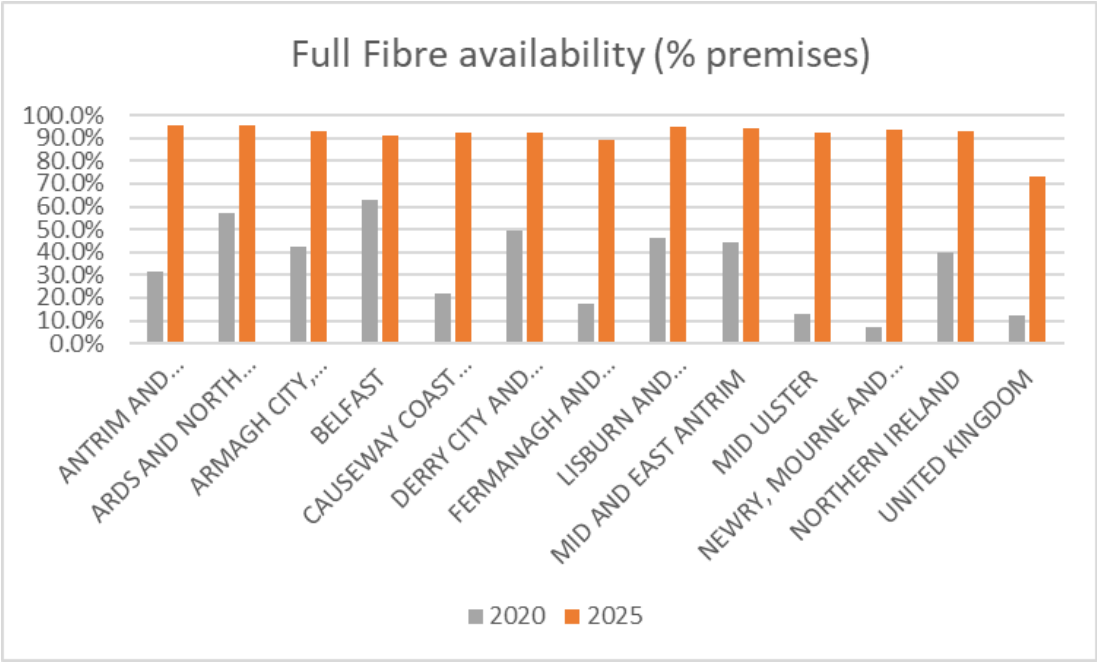


Figure 16: How full fibre availability has changed in the last five years across Northern Ireland. [Source: Ofcom data]

Causeway Coast and Glens has closed the gap with the other Northern Ireland boroughs and has full fibre availability at almost the average for all of Northern Ireland (which is well ahead of the availability in the rest of the UK).

Mapping the availability of full fibre broadband in Figure 17 shows that availability of full fibre broadband has increased dramatically. All the towns are now well served with many rural postcodes showing green (availability > 90% of premises). Also visible are swathes of orange postcodes where full fibre availability is between 40% and 90%.

There are clusters of red postcodes in the west of the Borough and around Bushmills (consisting of the same postcodes showing poorly for Superfast broadband but with other postcodes expanding the clusters.

Rathlin Island warrants a mention also because the lack of a fibre to the mainland hampers the deployment of full fibre broadband on the Island. Special provision of a fibre to the island will be needed in order to make full fibre broadband available.

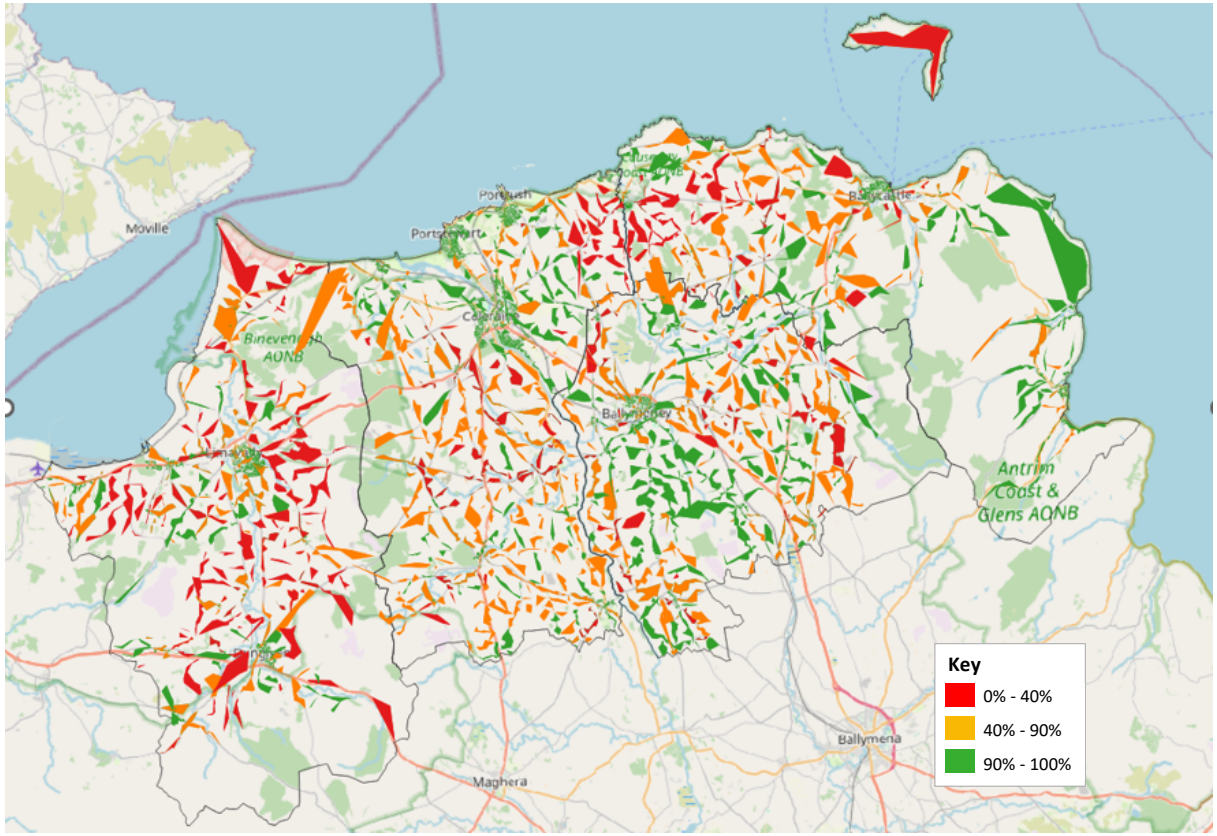


Figure 17: Availability of full fibre broadband in Causeway Coast and Glens [Source: Ofcom data]

3.3 Mobile Coverage

Mobile technologies are evolving with time and will continue to do so. In parallel with the mobile network developments, mobile devices evolve and access different networks for different requirements. The two major use cases for mobile communications are voice calls and access to data – for example to access emails, or for internet browsing. Ofcom reports on the availability of voice services independently from the technology used to deliver these services. Mobile data services are now delivered predominantly over 4G networks, and Wi-Fi connections are also critically important.

3.3.1 Voice Coverage

Mobile voice coverage in Causeway Coast and Glens is reasonable and is close to the average for Northern Ireland. 87% of the land area in the Borough is covered by all four operators (O2, Vodafone, EE and Three) with signals strong enough to allow voice calls outdoors. The proportion of land area that has no coverage is small (0.5%), but this is higher than for many other local authority areas in Northern Ireland. However, it is significantly better than for the UK as a whole.

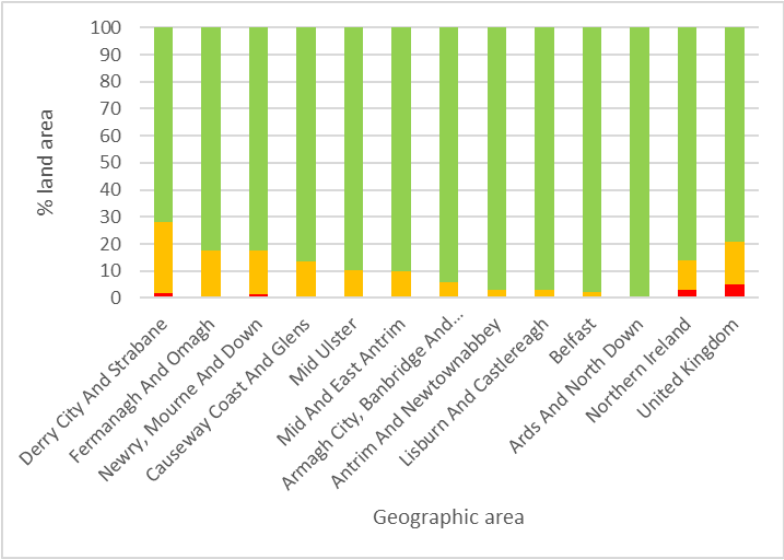
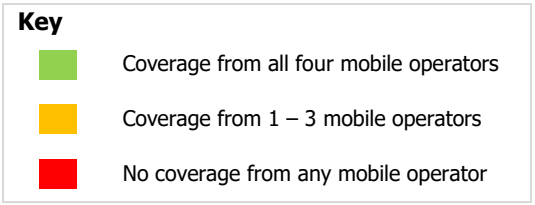


Figure 18: Voice outdoor coverage of Northern Ireland Boroughs
[Source: Ofcom Data]



More important for mobile voice coverage is the coverage along road routes. Figure 19 shows that only 61% of the main roads in Causeway Coast and Glens are covered by all four operators. This is similar to the Northern Ireland average but a worsening from the 65% coverage that was reported in 2020. 83% of roads have coverage from three or more operators, again a slight drop from the 86% reported in 2020. Around 2% of the road length has no coverage from any operator, an improvement from 3% in 2020.

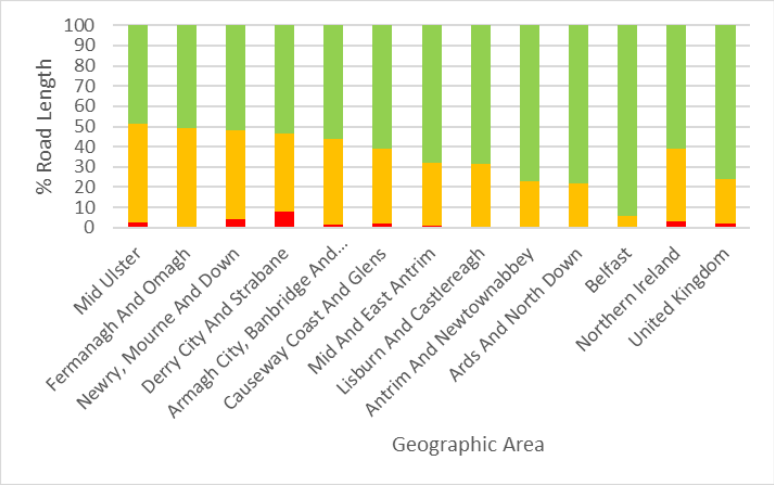


Figure 19: Voice coverage of Main Roads in Northern Ireland Boroughs [Source: Ofcom Data]

3.3.2 4G Coverage

From 2015 to 2022 network operators have invested heavily in 4G network deployment. This has resulted in widespread availability of high-speed mobile data connectivity.

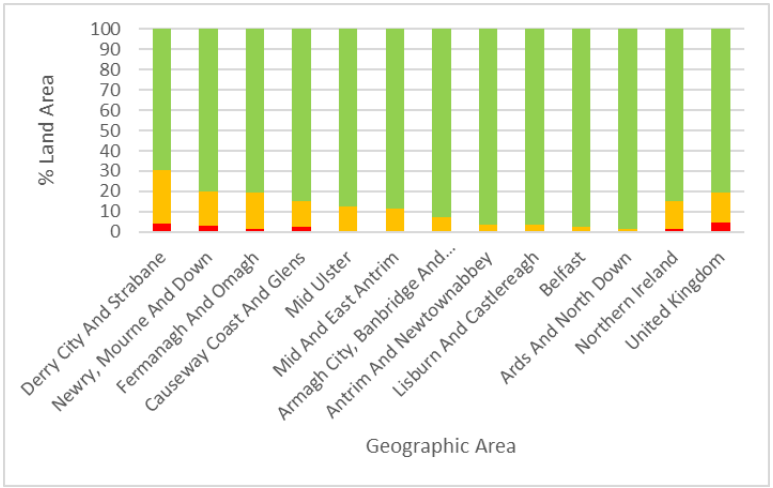


Figure 20: 4G outdoor coverage of Northern Ireland Boroughs [Source: Ofcom Data]

Figure 20 shows how that roll out has covered Northern Ireland. 85% of the land area of Causeway Coast and Glens is covered by all four operators sufficient for outdoor coverage. This is a good improvement from 77% in 2020. The proportion of the land area of the borough with no 4G coverage has fallen from 5% in 2020 to 2.6% in 2025. Worryingly, nearly 5% of the land area has no 4G coverage at all – the third worst of all the boroughs in Northern Ireland.

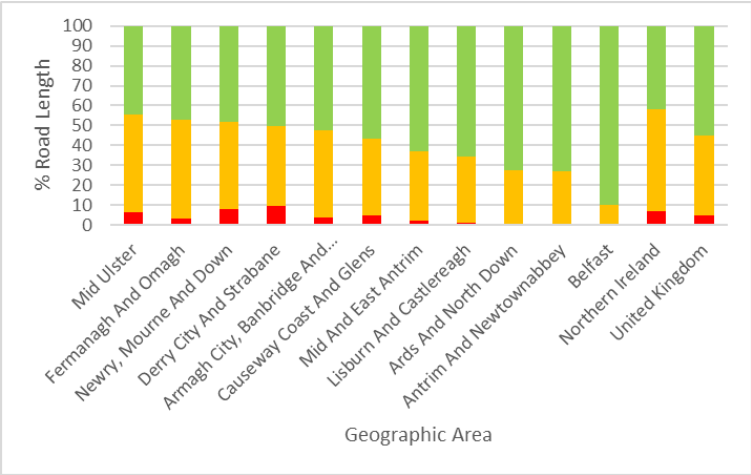


Figure 21: 4G coverage of main roads in Northern Ireland Boroughs [Source: Ofcom Data]

Figure 21 shows that the coverage of main roads in Causeway Coast and Glens is above average for Northern Ireland with 57% of the road length covered by all four operators. This is a strong improvement from the below average 46% reported in 2020. 5% of road length has no coverage from any operator, a modest improvement from 6% in 2020. Although generally drivers shouldn't access mobile data directly, many support systems such as sat nav, logistics support systems and fleet management systems do need access to reliable data. Also, passengers in vehicles, travelling for business or pleasure, often desire access to good data services throughout their journey.

3.3.3 5G Coverage

5G coverage confidence levels are defined by signal strength:

- High Confidence (-110 dBm, ≥80%);
- Very High Confidence (-100 dBm, ~95%).

Currently, outside premises coverage from at least one provider is 92% (High) and 86% (Very High), while coverage from all four MNOs is much lower—20% (High) and 8% (Very High). Geographic coverage with at least one mobile network operator has grown to 71% of Northern Ireland's landmass at High Confidence and 59% at Very High, up from 59% and 46% last September. Coverage from all network operators remains limited, with only about 2% of landmass receiving 5G at High Confidence.

Ofcom does not publish the data on operator coverage for 5G in the same way as it does for other mobile generations. The best data we can get is a table from a report which indicates coverage from at least one operator shown in Figure 22. Please note the availability specified in the table is for at least one operator, while the green bars in the previous Figures show coverage for all four networks.

Local authority	High Confidence	Very High Confidence
Antrim And Newtownabbey	99%	94%
Ards And North Down	92%	84%
Armagh City, Banbridge And Craigavon	97%	88%
Belfast	99%+	99%
Causeway Coast And Glens	90%	80%
Derry City And Strabane	88%	84%
Fermanagh And Omagh	60%	51%
Lisburn And Castlereagh	97%	91%
Mid And East Antrim	96%	89%
Mid Ulster	90%	79%
Newry, Mourne And Down	86%	77%

Figure 22: Local authority 5G outside premises coverage from at least one MNO [Source: Ofcom]

3.3.4 Confidence in Coverage Data

The coverage data provided by the MNOs through Ofcom suggests high levels of mobile coverage in the Borough. This is not the widespread view of mobile coverage in the Borough. The quality of mobile communications is not only a matter of coverage, but also of capacity. The signal may be strong, but of all the available channels are used, customers will be unable to get service. The development of independent data through direct testing for both coverage and capacity may be beneficial.

3.3.5 Wi-Fi

Wi-Fi is a vital complement to mobile communications and, where provided, is users' preferred means to access the Internet. As voice over Wi-Fi has developed, it has become a major delivery mechanism to originate and terminate voice calls.

Until March 2020, Causeway Coast and Glens Borough Council provided public realm Wi-Fi service in the five major towns in the Borough: Coleraine, Limavady, Portrush, Ballycastle and Ballymoney. This service was cut at the beginning of the new financial year delivering an annual saving of £26,000. The CCTV system is still operating in the public areas of Coleraine Portrush and Portstewart by Safer Causeway. Council funding towards the service was stopped in March 2020.

Although switching off the Wi-Fi network resulted in very little complaint, this does not mean there was no impact. Key users will be visitors to Causeway Coast and Glens, and they will not know the service has been switched off; they will simply see no Wi-Fi availability.

The model whereby the council provided the Wi-Fi service was probably not ideal and there is little appetite among elected members to reinstate the service as it was previously. Establishing an appropriate partnership operation with a suitable commercial operator may provide a more sustainable long-term solution. While entirely self-sustaining public Wi-Fi funded by user payments is generally not commercially viable, many successful models exist that use indirect benefits (increased sales, data offloading, advertising, public service) to justify the cost. The key is often a strategic collaboration between the public and private sectors to balance the goal of digital inclusivity with sustainable

economic models. Simple initiatives such as allowing commercial operators to use public sector infrastructure assets (such as poles and ducts) may be sufficient to enable commercial Wi-Fi provision.

3.4 Developing Technologies

In addition to fixed broadband and current mobile coverage, there are emerging technologies which are expected to play an important future role in supporting tourism, healthcare and other services.

3.4.1 LPWAN

Low Power Wide Area Networks (LPWAN) provide long range networks that allow exchange of data at relatively slow speeds over large areas. LPWAN is seen as a key enabler of the Internet of Things (IoT), particularly in less populated areas which are less likely to have high capacity 5G or Wi-Fi networks to support IoT data communication.

In Northern Ireland, LoRaWAN connectivity is available through both community-driven and commercial providers, with a major operator extending its services from the United Kingdom and the Republic of Ireland. The accessibility of LoRaWAN networks for businesses largely depends on their geographic location and specific coverage requirements.

Commercial operators

Netmore: is a pan-European IoT network operator that is actively expanding LoRaWAN coverage across the UK and Ireland.

Alliot Technologies: A specialist in IoT solutions, Alliot collaborates with platforms such as The Things Network and offers a range of LoRaWAN hardware and related services.

Smooth Communications: This supplier delivers managed connectivity solutions and devices within Northern Ireland.

Lumen Electronics: An engineering firm with expertise in LPWAN technologies, including NB-IoT and LoRaWAN.

Community and Free-to-Use Networks

The Things Network is an international, free-to-use, community-led LoRaWAN platform.

Things Connected NI: Previously, Digital Catapult, in partnership with Ulster University and others, launched a complimentary network for IoT experimentation and prototyping.

Community-Driven: This network relies on participation from individuals and organisations to install and operate gateways, resulting in variable coverage dependent upon local engagement.

Getting Involved: Community portals, such as the Belfast TTN community, facilitate connections between individuals and businesses, encouraging collaboration to expand network coverage

3.4.2 6G

Currently, 6G is in the preliminary pre-standardization phase, with global research and technical studies underway. Although initial commercial deployments are not expected until approximately 2030, governments, academic institutions, and private enterprises worldwide are actively engaged in defining the requirements and prospective capabilities of this next generation of wireless technology.

It is too early in the development process to make any definitive statements about this emerging technology. A watching brief should be maintained to monitor developments.

3.5 Digital Infrastructure Key Priorities

Although the communications infrastructure in Northern Ireland has improved dramatically due to Project Stratum, Causeway Coast and Glens is poorer relative to other areas, with poor coverage outside of the main towns. The wider changing requirements of digital infrastructure must also be considered.

Five key priorities are identified:

- **Ubiquitous broadband** – extending the deployment of full fibre broadband to those premises not covered by Project Stratum.
- **Support wireless infrastructure** – LPWAN, 5G and Wi-Fi networks present important new economic opportunities.
- **Reduce barriers to deployment** – encouraging commercial deployment and supporting public sector initiatives to maximise benefit.
- **Digital transformation in the Council** to adequately support remote working and digital transformation.
- **Data Centre development –** balancing the commercial opportunities and environmental challenges of core infrastructure development.

The following sections consider the requirements and opportunities of these priorities.

3.5.1 Ubiquitous broadband

Project Stratum has transformed the availability of full-fibre broadband across Northern Ireland and Causeway Coast and Glens is no exception. The latest Ofcom data states that 92.2% of premises in the Borough have access to full fibre broadband. However, that leaves around 5,500 premises still with access to poor broadband. Project Gigabit has procured Fibrus as a supplier to extend this coverage and it expects 9,000 additional premises will be given access to full Fibre broadband across Northern Ireland through its gap funding. We recommend a four-step approach to ensuring ubiquitous broadband in Causeway Coast and Glens:

- Allow the Project Gigabit procurement and roll out to run its course. This will deliver full fibre broadband to many of the premises currently not served. While this is happening, the Council needs to lobby BDUK to make Gigabit vouchers available for the borough. It is likely that Openreach and Fibrus would support the Council in this.
- A scheme should be put in place to help those remaining unserved premises get connected. The Council should consider topping up the £4,500 maximum if this will extend the coverage further.
- Alternative technologies should be added to the voucher scheme when fibre roll-out has reached its maximum to extend the reach of networks further into the most inaccessible places to serve.

- Accept that providing terrestrial coverage to the most extremely remote premises is not economically viable and these should be served with Low Earth Orbiting Satellite services which will deliver acceptable levels of broadband speed provided that satellite is only used for a small number of premises. More extensive use will cause capacity problems which will degrade the service experienced for all customers using satellite.
- Work with operators to ensure that Rathlin Island is given a fibre access infrastructure. The existing microwave backhaul link from Rathlin to Ballycastle should have sufficient bandwidth to support a fibre access deployment on the Island. This would address the short-term issues due to copper line lengths. In the longer-term, a fibre backhaul connection to the island is required.

The approach to achieving ubiquitous broadband coverage in the Borough is more generally applicable across Northern Ireland (with the exception of the approach to Rathlin Island, which is unique to Causeway Coast and Glens). All the boroughs have Digital Champions who have focused on trying to work with the mobile sector with very limited engagement from that sector. Focusing their remit on achievement of ubiquitous broadband could help to achieve this objective across the province as a whole, with a collective approach more likely to succeed than a variety of smaller approaches.

3.5.2 Support Wireless Infrastructure

In March 2020, the five publicly provided Wi-Fi networks in Ballymoney, Portrush, Coleraine, Limavady and Ballycastle were switched off to reduce operational expenditure in the Council.

The Council should seek out a concession partner which has experience in operating Wi-Fi networks and generating interest and revenue from their operation. This would allow the existing networks to be turned on again and to become self-funding with possibly a revenue stream for the Council.

Deployment of 5G in the Borough may be a long way in the future and it is possible that much of the Borough will never get 5G coverage and will continue to operate on 4G for the foreseeable future. However, some areas of peak demand such as the vicinity of the world heritage site and Royal Portrush Golf Club may be in mobile operators plans for 5G deployment and operators should be encouraged to deploy there sooner rather than later.

3.5.3 Reduce Barriers to Deployment

The DCMS Barrier Busting Team have identified a range of actions that local authorities and stakeholders can take to simplify and encourage the deployment of digital infrastructure. These recommended actions should be adopted as a matter of course:

- **Simplifying wayleave agreements** to facilitate easier access to multi-dwelling buildings.
- **Improved streetworks management** to reduce costs and delays.
- **Full fibre connectivity** to new build developments.

3.5.4 Digital Transformation in the Council

The connectivity delivered by Project Stratum presents an opportunity to deliver a digital revolution throughout Northern Ireland. As well as providing opportunities for economic and social development, it also provides an opportunity for digital transformation of public services and operations.

A new generation of digital transformation is expected to be driven by the introduction of Artificial Intelligence. Local Authority acceptance of this needs to happen. Engagement by CCGBC with the Artificial Intelligence Collaboration Centre (AICC) to explore secure use of AI should be considered.

3.5.5 Data Centre Development

Artificial Intelligence, the growth of streaming, and other data initiatives, such as crypto-currency, demand ever greater processing capability. Much of this can be considered a global resource, but local deployment has technical benefits (for example, due to lower latency) and can provide economic opportunity. However, data centres have substantial requirements in terms of land, water and power -resenting a significant environmental challenge.

3.6 Key Issues – Digital Infrastructure

The demands for data and digital communication are increasing constantly to support all aspects of society and the economy. Superfast broadband technologies were a poor match for the requirements in Causeway Coast and Glens, resulting in poor digital connectivity compared to the rest of Northern Ireland.

Project Stratum has made a huge improvement to the availability of full fibre broadband with 92.2% of premises in the Borough now able to access full fibre broadband. There are still around 5,500 premises that need to be upgraded to give them future proof connectivity. Planned Project Gigabit roll-out will meet the needs of a significant proportion of these remaining premises. Beyond that, Gigabit Vouchers will finance further roll out of fibre with alternative (usually wireless) technologies mopping up most of the rest. The most remote premises will need to be served by Low Earth Orbiting Satellites.

In addition to the improved coverage of full fibre and superfast broadband, full coverage of LPWAN across the Borough, and restored, improved and extended Wi-Fi coverage in key towns and visitor locations is required to maximise the impact of the step-change in capability.

4. Digital Skills

As with the digital sector throughout the United Kingdom (and through much of the developed world), availability of suitably skilled personnel is a major constraint on the growth of digital companies and on the wider economy that is dependent on digital innovation to improve competitiveness and productivity. Several companies identified finding qualified and experienced staff as one of the major constraints on their growth.

4.1 Importance of Digital Skills

Digital technologies are increasingly central to the way we communicate as a society. Recent developments in Artificial Intelligence give strong indications of a forthcoming revolution in the way technology will be used to process data and automate tasks that have hitherto been the domain of people. This presents significant challenges in understanding what skills will be needed in the future to exploit this technology to its fullest extent.

Because of the increasing demand for online delivery of services, and the increasing efficiency savings possible through digital transformation, it is increasingly difficult for businesses, organisations or individuals to not participate. Enormous improvements in productivity are promised by these developments, but there are increasing risks associated with cyber security and cybercrime which must be managed effectively if the potential benefits are to be realised.

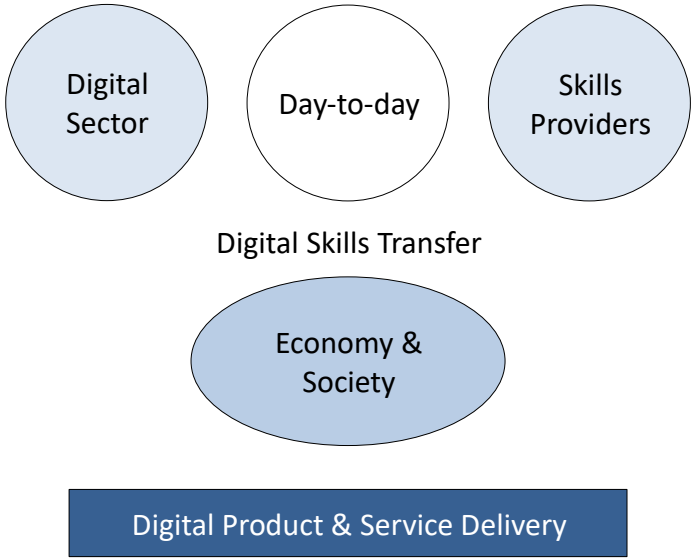


Figure 23: Digital Skills Transfer

Day-to-day use of digital technologies by most individuals will build transferable skills to allow them to access products and services online, and to use these skills in their employment, etc. However, not everyone is actively engaged in the digital society – ensuring access to skills to allow the digital inclusion of all members of society remains an important consideration.

The Digital Skills strategy must consider two important aspects:

- **Skills in the Digital Sector** – to allow this sector to develop and grow, and to support the wider economy.
- **Skills throughout the economy and society** – to allow the Borough to thrive in an increasingly digital world.

However, many of the skills delivery mechanisms will serve both aspects. Also, as all businesses become increasingly digital, it is hard to separate the skills needed by these different aspects. The Digital Skills strategy addresses them together, with consideration for their different needs.

4.2 Digital Skills Demand

The world of digital skills is rapidly evolving. Digital applications and systems are constantly building on earlier capabilities. This drives an increasing rate of change, and a constantly evolving skills requirement – both for the developers and the users of the applications and systems.

Consequently, digital skills themselves have shelf lives with established skills falling in importance as new skills emerge. It appears that generic digital skills (such as MS Office) have become so embedded in day-to-day life that they are no-longer a significant consideration.

There are more and more specialisations emerging, with strong demand now evident in the areas of artificial intelligence (AI), big data manipulation and management, the Internet of Things (IoT), and cyber security.

This astonishing rate of change puts real pressure on businesses, since locating good people with these skills is a significant challenge. Wage inflation among those with in-demand skills is strong. However, the spread of AI in large organisations is having a dramatic effect, particularly on graduate recruitment. The entry level tasks previously done by graduate recruits are being farmed out to AI and this is likely to have a long-term effect across whole organisations with the pipeline of people changing very significantly.

4.2.1 Shortage of Skills

In Causeway Coast and Glens, businesses in the Digital Sector are struggling to find and retain suitable staff. There are a range of different factors involved:

"Skills are still an area where there's a shortage, like we see it not only in the skills. We see it also in getting staff" (Roe Valley Enterprises)

As inward investment activity by Invest NI brings more international companies with a strong thirst for talent into Belfast and Derry, pressure on smaller indigenous companies may increase.

"And there's a massive gap in digital skills in all these businesses. The good ones are the big industry players that know what exactly they want to do and how to do it, and they've got the capital and the resources. The smaller businesses, which make up the mainstay of businesses in Northern Ireland, are really poorly resourced or educated on basic digital skills" (Newry Mourne and Down Borough Council)

The Digital Skills Action Plan 2024-2034, published by the Department for the Economy, presents findings from a Digital

Skills survey indicating that the digital sector in Northern Ireland has experienced significant growth and is projected to continue expanding. The survey estimates an annual shortfall of approximately 125 workers qualified to Foundation Degree/Higher National Diploma or equivalent level in ICT from 2020 to 2030.

According to the Northern Ireland Skills Barometer 2023, employment in the Information Technology (IT) sector in Northern Ireland is projected to increase by 3.1% between 2023 and 2033, with a combined annual requirement for around 1,500 additional workers through education and immigration.

The Software Skills for a 10x Economy: Digital Skills NI Network[10] report, commissioned by representatives of the software industry, identified an over-reliance on graduate recruitment, particularly from computer science courses.

. Many scientific and technical courses equip students with the skills needed by the software sector. To make a real impression on the supply of skilled software professionals, that report recommends tailoring the apprentice approach to meet the needs of the sector.

Although the close proximity of the strong digital cluster in Belfast may result in some pressure on skills availability in the digital sector in Causeway Coast and Glens, it also means there is a strong availability of advanced digital skills to the wider economy in the Borough, exceptional opportunity for individuals with digital skills to encourage long-term development, and significant scope for advanced skills transfer within the digital sector.

4.3 Developing Digital Skills

Digital Skills development is required to address four key skills areas:

- **Basic digital skills** – needed by everyone to allow them to participate in an increasingly digital economy and society.
- **Professional digital skills** – needed by businesses and organisations to allow them to operate their standard digital processes and systems.
- **Sector-specific digital skills -** digital skills that are specific to the digital transformation requirements of individual sectors.
- **Advanced digital skills** – needed to develop the new generation of advanced digital products and services.

All these areas will be affected by the increased use of AI, and all will need to be increasingly conscious of digital security as more sensitive and personal information is stored.

4.3.1 Basic Digital Skills

The OECD Skills Strategy Northern Ireland[9] equates digital literacy with basic literacy and numeracy as a foundational skill, essential to participate in society. The importance of digital literacy has been highlighted by experience of the COVID-19 lockdown, where participation in employment and education has relied on a basic level of digital literacy.

The basic digital skills needed by all develop through a mix of channels, including the day-to-day use of digital applications. At present this approach does not deliver a depth of skills for all: digitally excluded citizens still remain. The existing digitally excluded citizens must be addressed through the short-term training, and a longer-term strategic solution adopted to reduce the levels of digital exclusion.

The Northern Ireland Council for the Curriculum, Education and Assessment (CCEA) identifies Using Information Technology and Communications as a core cross curricular skill (along with communication and using mathematics).

It focuses on using digital skills appropriately in meaningful activities such as publishing, presenting, and coding, and emphasizes responsible and safe use of ICT. The framework is structured around the "5 E's" (Explore, Express, Exchange, Evaluate, and Exhibit) and includes specific learning outcomes for e-safety and online behaviour. It is integrated into the curriculum from Foundation Stage up to Key Stage 4.

Its core concepts include:

- **Purposeful use:** The emphasis is on using digital skills for meaningful activities, not just for their own sake.
- **Creative expression:** Students learn to use technology to create products like digital art, music, and videos.
- **Collaboration:** The curriculum promotes online communication and collaboration to share and develop ideas safely.
- **Problem-solving:** Students use digital tools to investigate, solve problems, and make predictions.
- **E-safety:** Learning to stay safe and respectful online, protect personal information, and understand security features is a key component.

However, discussions with teachers have indicated that the implementation of the curriculum is patchy and highly dependent on the availability of enthusiastic teachers on the ground to make a real impact.

The integrated framework for the inclusion of digital skills through all levels of education provides a long-term strategic solution to address digital exclusion. In the short-term, direct training may need to be provided to encourage digitally excluded citizens to become more confident and familiar with the use of digital applications and systems.

Of course, current digital skills training in schools will miss the many hundreds of thousands of people who have passed through the education system and emerged with little or no digital skills. Reaching these people can be more of a challenge.

Ulster University has a Widening Access and Participation Plan designed to raise skill levels in the general population to make higher education more accessible. Targeting digital skills training at companies with a high proportion of manual workers may be a fruitful route to reach those with low levels of digital skills who are outside the education system.

Working with the two colleges and other training providers the Causeway Coast and Glens Labour Market Partnership (LMP) are developing an Integrated Skills Action Plan which will include coordinating the provision of essential skills in the Borough, including ICT skills. This will explore ways of increasing ICT and Digital Skills provision across the Borough.

4.3.2 Professional Digital Skills

At present, typically only larger businesses have dedicated digital professionals within the company structure. Some smaller businesses outsource their digital skills requirements to dedicated service companies, and more still simply buy in digital skills on an ad-hoc basis when they are needed.

As more and more businesses need to become digital businesses in the way they deliver their products and services, so there will be a growing need for professional digital skills within the non-digital sector economy. Businesses in Causeway Coast and Glens can source these skills from the digital sector within the Borough, but also from the large digital sector in Belfast.

Equally, the wider digital cluster in Belfast will create a demand for professional digital skills that can be addressed by digital sector businesses in Causeway Coast and Glens.

It is clearly important that the Digital Sector in Causeway Coast and Glens can develop and maintain effective levels of skills for them to serve the needs of the wider economy. Education and training in professional digital skills is available within the Borough, and further afield.

The CCGBC *Digital Causeway* initiative supports around 100 businesses each year to embrace digital technology and incorporate digital platforms into their business operations and procedures. It operates at a basic level helping businesses to cross the digital threshold and giving them basic skills covering website development, social media presence, ecommerce, search engine optimisation, advertising and video marketing, cyber security, data analytics and routes to advancement.

Further education is served in Causeway Coast and Glens by the Northern Regional College (NRC) with sites in Coleraine and Ballymoney and the North West Regional College (NWRC) which has a site in Limavady. They offer a wide range of computing and engineering courses at FE and HE level.

The learning opportunities within Causeway Coast and Glens complement the widely available opportunities presented by the established Open University and more recent developments such as Massive Open On-line Courses (MOOCs) with content from a range of internationally respected contributors.

The Artificial Intelligence Collaboration Centre (AICC), a £16.3 million initiative by Ulster University and Queen's University Belfast, promotes AI awareness and adoption among businesses in Northern Ireland, with a strong emphasis on ethical and responsible innovation. This resource should be exploited by

businesses in Causeway Coast and Glens to enhance AI awareness and adoption in the borough.

The CCG LMP is actively promoting a number of Digital Skills programmes including Apprenticeships, Higher Level Apprenticeships, and the Skill Up funded Kick Start programme with NWRC which focuses om Software Testing.

The LMP has also funded candidates to undertake Fibre Installation Academies in Partnership with Belfast City Council and is continuing to develop this.

The LMP have also hosted IT focused careers events with Belfast MET and the Bring IT On project.

4.3.3 Sector Specific Digital Skills

The application of digital skills is becoming increasingly important to all economic sectors. The need for digital skills is not restricted to the digital sector. This creates a need for digital skills that are specific to the digital transformation requirements of individual sectors.

For example, as the tourism sector becomes more sophisticated in its online presence, there will emerge a strong need for a significant number of professionals capable of generating and maintaining digital content regarding tourist attractions around the whole of the Borough. The FE colleges in the Borough should be made aware of the need for courses that help professionals identify, record, post and maintain high-quality engaging digital content. The Digital Causeway programme should also provide basic training in content generation and maintenance.

Through the Personal Learning Fund, CCG LMP can fund candidates up to £500 to undertake career related upskilling. Each year more than 250 people are supported with this fund, and this includes a number of technology and digital skills interventions as well as more traditional low tech upskilling.

4.3.4 Advanced Digital Skills

The rapid development of full fibre, 5G and LPWAN capabilities, combined with the rapid growth of new digital opportunities (such as AI, gaming, digital animation, and digital service delivery across all sectors) means there is an urgently growing need for advanced digital skills to maintain economic strength.

The development of advanced digital skills requires action beyond standard technical education programmes. Continuous professional development, digital sector networking and targeted research programmes are required to build these more advanced skills.

Professional associations are very important to maintaining and updating skills and knowledge. The digital space is largely covered by two associations, both of which are active in Northern Ireland:

- The **Institution of Engineering and Technology** (IET) has an annual programme of around 20 events in Northern Ireland covering tours, lectures, young professional skills building, competitions and awards and social events. Most of

these events are in Belfast with a smattering in Derry, Craigavon and Antrim.

- The **British Computer Society** (BCS) has a Dedicated Northern Ireland branch which runs a programme of between 10 and 15 events per annum, mainly in Belfast.

It is clear that proximity to the strong digital cluster in Belfast is a significant benefit in developing advanced digital skills within the digital sector in Causeway Coast and Glens – the levels of opportunity afforded to the digital cluster in Belfast would simply not be available in Causeway Coast and Glens in isolation.

Extending the strengths of the digital cluster into Causeway Coast and Glens presents a further strategic goal. Focusing on key economic sector requirements in the Borough (such as the visitor economy) will allow Causeway Coast and Glens to extend elements of the Belfast digital cluster into the Borough and establish strength through a depth of advanced digital skills.

4.3.5 CCG Local Economic Partnership and Digital Skills

The Causeway Coast and Glens Local Economic Partnership (LEP) delivers a coordinated, place-based approach to economic transformation through its four programmes.

- Global Gateway
- Innovate360
- Thrive Causeway
- FutureProof

Established through the Department for the Economy's Regional Balance Fund, the LEP targets the Borough's key economic challenges. Each programme supports businesses to modernise, innovate and increase productivity through a mixture of capital investment, skills support, diagnostics and partnership-driven delivery. Together, they form a coherent framework for long-term economic improvement and a more competitive, resilient business base.

Digital capability and digital skills are embedded across all LEP programmes and form a central pillar of delivery. Key digital delivery items include:

- Expanding digital skills pathways through FutureProof's mobile green/digital skills hubs.
- Boosting SME digital adoption via Innovate360's digital productivity tools, Innovation Exchange and digital diagnostics.
- Strengthening digital engagement and visibility through Global Gateway's digital investor portal, CRM enhancement and online sector promotion.
- Enhancing data capability through shared monitoring dashboards, Turning the Curve baselines, and consistent data-capture standards.

By integrating these digital components across its 4 programmes, the LEP acts as a significant driver of digital capability and inclusion, enabling a more connected, digitally confident and future-ready Borough.

4.4 Key Issues - Digital Skills

Digital skills are important to everyone as society becomes more digital and Artificial Intelligence becomes a prominent feature of everyday life. There is a hierarchy of needs which goes from basic skills (needed to function generally) through professional skills (needed to function in the modern digital professional environment) to advanced skills (needed to develop the software and systems which keep expanding the digital capabilities of society).

Demand for qualified and experienced staff is a barrier holding back expansion of the digital sector in Causeway Coast and Glens and more generally. Our research has found the following:

- Northern Ireland has a very forward-looking approach to the development of basic digital skills with use of Information Technology and Communications regarded as a core cross-curricular skill which will ensure that all pupils emerging from the education system have had the best opportunity to develop their general digital potential.
- There remains a need for additional training for those already out of education who did not benefit from such a background and suffer some level of digital exclusion.
- Professional digital skills are catered for through the NRC and the NWRC and the third level educational opportunities available through the universities and distance learning institutions.
- Adding a properly tailored route to apprentices could have a very positive effect on the supply of skilled software professionals. Targeting specific skills needed for digital transformation of key economic sectors in Causeway Coast and Glens provides an opportunity to ensure maximum economic benefit of digital skills training.

5. Digital Sector

The digital sector in advanced economies has been a key driver of employment and productivity growth over the last several years. However, although the sector is expected to show high growth, in Causeway Coast and Glens the digital sector is very small and has below average GVA growth compared with the wider economy in the Borough.

However, recent developments have shown that all sectors are digital sectors now. New entrants in a range of business sectors have been able to achieve significant efficiency advantages and scale rapidly through the application of digital technologies. Although the development of the digital sector may not be economically important in its own right, it is critical to support productivity gains in other key industries.

The digital sector has a critical role in the development of Causeway Coast and Glens although the sector is currently very small, it has the potential to create high paying jobs in the Borough over the short to medium term. The digital sector is also a critical enabler of wider economic and social development throughout the Borough.

Given the proximity and economic scale of Belfast, and Londonderry/Derry in the West of the Borough, any developing digital sector in Causeway Coast and Glens needs to complement wider sector developments – which provide opportunity and momentum to the sector development throughout Northern Ireland.

The sector must also seek to support the wider social and economic requirements of the Borough which has an older than average population and a strong focus on the visitor economy as a driver for growth.

This section of the ***Causeway Coast and Glens – Digital Strategy*** looks at:

- The importance of the digital sector in development of the economy of the Borough
- Suggested actions to support the development of the sector in the Borough.

5.1 Importance of the Digital Sector

There is often some uncertainty regarding the actual *identity* of the digital sector, and there is a range of definitions of the sector.

One important factor is the importance of digital professionals in all sectors throughout a modern economy. For this reason, we have adopted the definition to guide the development of the digital strategy:

Organisations and individuals involved in the design, development, manufacture, support, maintenance and application of digital products, components, networks, systems and platforms – including, hardware, firmware and software.

In terms of economic data, however, we view the sector as the standard Information and Communications sector. Economic data shows the sector is only a small part of the economy in Causeway Coast and Glens and growing more slowly than the economy as a whole for the Borough. In total there are just over 200 companies in the Borough in the Information and Communications sector, employing just over 1,000 people – contributing approximately 0.5% of the total GVA of the borough – compared to 7.5% (and growing) contribution of the sector for Belfast.

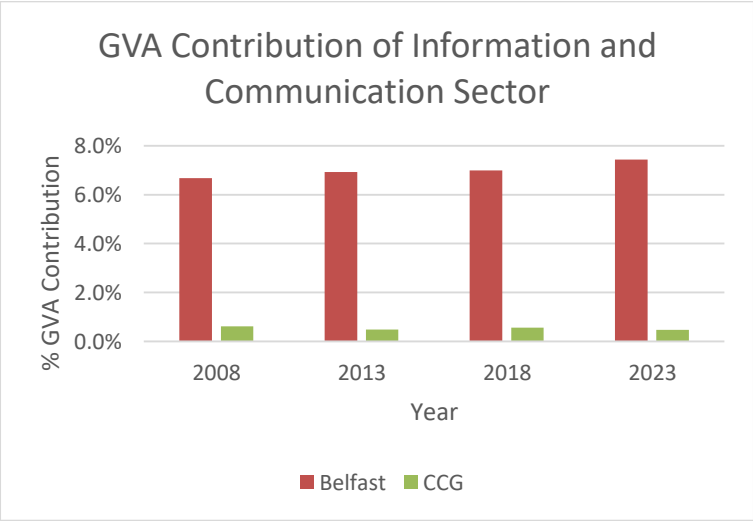


Figure 24. Comparison of GVA Sector Contribution for Belfast and Causeway Coast and Glens [Source: ONS data]

The size of the sector in the Borough does not, however, mean that it does not have a critical part in the ongoing economic development. Indeed, one of the three strands of activity for the Causeway Coast and Glens Growth Deal is Innovation and Digital.

The digital sector in Causeway Coast and Glens has three critical roles:

- The digital sector in CCG is a part of the wider digital sector (in particular Belfast) that is driving economic growth.
- The sector must support growth of the visitor economy and other key sectors through digital transformation.
- With increasing pressure on public services, the sector must support the digital transformation of key service delivery.

A series of online video interviews with key businesses and stakeholders informed the development of the digital strategy. A number of key recurring issues were identified:

- **Access to skills** – the ability to attract and retain skilled employees was identified as a significant barrier to development.
- **Belfast migration** – the Borough does have the skilled workforce needed in the sector, but they are attracted to larger companies (and higher salaries) in Belfast.
- **Need for networking** – the ability to meet with other companies in the sector is important and lacks focus at present.

These key themes are considered in the context of the wider economic issue, and in particular the three critical roles for the sector identified above.

5.1.1 Direct Sector Economic Impact

Although digital sector companies in Causeway Coast and Glens identified the problem of competing with Belfast for skilled workers, the exceptional strength and growth of the digital sector in Belfast provides strength and opportunity across the whole of Northern Ireland.

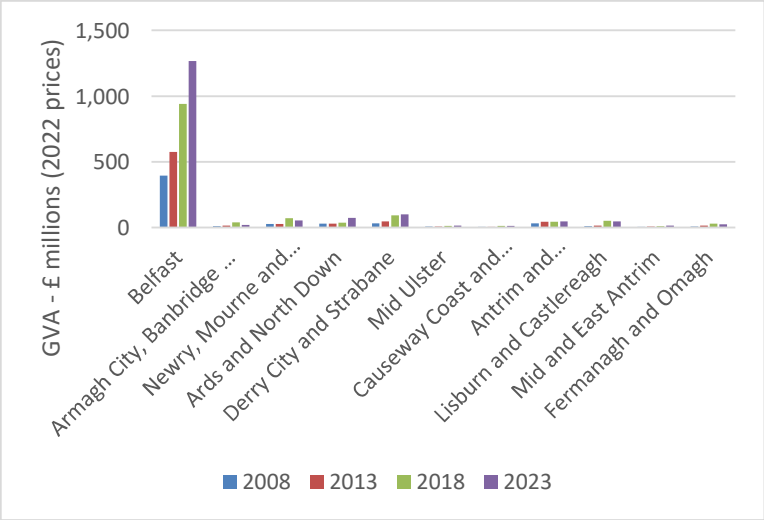


Figure 25. ICT Sector GVA in Northern Ireland (2022 money value) [Source: ONS data]

In 2008, the Information and Communications sector GVA in Belfast was 66% of the combined GVA of all local authorities in Northern Ireland; in 2018 it was 68%; in 2023 it was 76%.

The strength of the digital sector cluster in Belfast brings the potential for significant ongoing economic growth – through indigenous business growth and foreign direct investment. The proximity to Belfast gives the potential to extend the geography of the Belfast cluster to allow similar economic benefits in Causeway Coast and Glens

5.1.2 Wider Digital Transformation

Key sectors are identified as critical to the future economic strength of the Borough. It is important that these sectors receive the support they need to develop – providing economic growth and employment.

It is important that these sectors have the support that they need to develop and grow, and that they can develop the necessary digital skills within the companies to allow them to compete effectively.

The critical economic importance of digital communication and transformation, and the increasing technical complexity mean that it is essential that there is effective technical advice and support available throughout the economy.

5.2 Developing the Digital Sector

It is clear that the importance of the digital sector extends far beyond the direct economic impact of the sector itself. The development of the digital sector in Causeway Coast and Glens must reflect this importance throughout the economy, and beyond the geographic boundaries of the Borough.

Four key opportunities to support the digital sector in Causeway Coast and Glens are identified:

- **Incubator support** providing cost effective opportunity for new business start-ups within the wider Northern Ireland digital cluster. This could be delivered by the new Local Economic Partnership (LEP).
- **Support for other sectors** being digitally enabled is a vital component for success of all business sectors. The digital sector has a key role to play in supporting the key sectors identified in the Economic Strategy. This could also be supported by via the LEP.
- **Collaboration Hubs** buildings and facilities to provide a local focus for the sector development across the Borough. Some are already being developed as part of the CCG Growth Deal)
- **Networking Programme** a programme of events to encourage networking as a part of the wider digital cluster in Belfast and beyond.

5.2.1 Incubator Support

The strength and growth of the digital sector in Belfast provides a clear opportunity for Causeway Coast and Glens to provide a 'feeder' incubator capability for the wider Northern Ireland cluster. Causeway Coast and Glens can offer a supportive environment (and lower cost structure) for new digital businesses to form, with the growth opportunity in Belfast nearby or in Derry in the west of the Borough.

Collaboration hubs will provide much of the physical infrastructure required to support new business start-ups; they also provide a focus and environment for other support activities – for example generic entrepreneurial business skills training and advice programmes.

5.2.2 Supporting Key Business Sectors

Although the digital sector in Causeway Coast and Glens is small, it has a vital role to play in supporting the other major sectors of the economy of the Borough.

The continuing decline of the high-street and growth of online retail is just one factor in the growing economic importance of digital technologies. New digital capabilities supported by new developments and the deployment of improved digital platforms (such as full fibre, 5G and LPWAN) are extending the importance to more and more sectors of the economy.

The visitor economy is essential to the sustainability and growth of the economy in Causeway Coast and Glens, and increasingly dependent on digital technologies. Events, such as the major golf tournaments at Royal Portrush Golf Club provide world-class visitor attractions, generating significant economic input to the Northern Ireland economy, and create exceptional demand on services.

The key identified economic sectors are:

- Advanced Manufacturing, Materials and Engineering
- Construction
- Financial Business and Professional Services
- Retail
- Tourism and Hospitality
- Agri-food
- Sustainable energy

The provision of public services should also be considered a key sector for digital transformation. The need to support digital transformation in these sectors could be considered a key economic development priority and is potentially a significant opportunity for the digital sector in the Borough. However, it is not appropriate to constrain the sourcing of digital transformation advice to providers in the Borough, or to require providers in the Borough to engage with these sectors.

5.2.3 Collaboration Hubs

Currently, digital companies in the Borough are dispersed and in many cases occupying premises that are not ideal for collaborative working. Physical hub locations would be highly beneficial for the development of the digital sector in Causeway Coast and Glens. They can also complement and extend the collaborative hub infrastructure for the sector in Belfast – providing greater capacity and choice.

As a result of the COVID-19 pandemic, large numbers of people in the Borough who normally commute to Belfast are working from home. This has become a lasting change in working habits. Hubs can help remote workers operate more effectively.

The development of one or more collaboration hubs is supported by existing digital sector businesses in the Borough:

"COVID-19 has changed the way people from CCG and elsewhere behave. It has shown that individuals can work from home or visit local hubs rather than having to commute to their normal workplaces." (InvestNI)

"Looking at mid-tier US tech companies with an outpost in Belfast, a model that some of them are looking at is Regional Hubs. They may have three or four employees in Cookstown and three or four employees in Coleraine and they will rent space from the likes of an Enterprise Causeway to bring these people together." (Causeway Chamber)

Physical hub locations can provide a focus for networking and collaboration that are at the heart of the development of an effective cluster.

Hubs need to provide physical space closely linked to sources of appropriate support. Locations need to offer:

- Excellent communications infrastructure
- Incubator space
- Communal space to support networking (café, etc)
- Meeting rooms
- Event spaces
- Hot desking facilities

Appropriate locations were considered and discussed with existing digital companies and sector stakeholders. The Data Centre on the Enterprise Zone just outside Coleraine could be a suitable location for such a hub. Smaller hubs are being developed in Dungiven and Cushendall as part of the Growth Deal. Other commercial coworking hubs are operational at Riverhouse, Coleraine and Chronicle Press, Coleraine. Enterprise Causeway also has a coworking hub at Knocklynn, Coleraine. There is also a small coworking hub in Portrush. Other locations such as Limavady may also benefit.

5.2.4 Networking Programme

Networking helps to support effective collaboration between companies and is an essential element in maintaining sector development awareness and skills.

You also need the right people delivering the right programmes of events and networking to inject energy and a sense of purpose into the sector. (Causeway Chamber)

Maintaining links and encouraging networking with other digital sector businesses throughout Northern Ireland and the Belfast digital cluster presents an opportunity for ongoing collaboration.

Developing and delivering an effective programme of networking events is a perfect opportunity to continue and develop this sector collaboration across Northern Ireland.

Careful attention should be paid to the 'wrap-around' services offered in successful hubs such as the Ormeau Baths in Belfast. Any networking programme should be modelled on successful programmes elsewhere.

5.2.5 CCG Local Economic Partnership and the Digital Sector

The Causeway Coast and Glens Local Economic Partnership (LEP) plays a key enabling role in supporting digital-sector growth and wider digital capability across the Borough. Established through the Regional Balance Fund, the LEP delivers targeted economic interventions across three themes, all of which contain direct digital components, as outlined below:

- Building digital capability in SMEs and microbusinesses
  - Digital readiness support
  - Digital productivity and innovation tools
  - Digital diagnostics, workflow digitalisation and technology trials
- Strengthening digital skills pathways
  - Mobile green/digital skills hubs
  - Digital skills training embedded in sector-relevant programmes
  - Workforce digital capacity building aligned with FE/HE partners
- Supporting digital infrastructure for business engagement
  - Digital investor portal and enhanced CRM systems
  - Improved online routes to market and digital visibility
  - Adoption of shared data standards and evidence dashboards
- Enhancing the digital business ecosystem
  - Collaboration between industry, FE, HE and innovation partners
  - Opportunities for digital firms to supply diagnostics, audits, and productivity solutions
  - Strengthened connectivity to regional digital hubs

Together, these interventions will help to develop a digitally confident, innovation-driven local economy.

5.3 Key Issues – Digital Sector

The digital sector in Causeway Coast and Glens has a critical role to play as a sector in its own right, as a part of the wider digital sector throughout Northern Ireland, and in supporting the digital transformation of businesses and service delivery in the Borough.

Four key actions are identified to support the digital sector development in the Borough:

- **Incubator support** providing cost effective opportunity for new business start-ups within the wider Northern Ireland digital cluster.
- **Support for other sectors** being digitally enabled is a vital component for success of all business sectors. The digital sector has a key role to play in supporting the key sectors identified in the Economic Strategy.
- **Collaboration Hubs** buildings and facilities to provide a local focus for the sector development across the Borough.
- **Networking Programme** a programme of events to encourage networking as a part of the wider digital cluster in Belfast and beyond.

6. Delivery

The Action Plan to deliver the aims of the ***Causeway Coast and Glens – Digital Strategy*** will be developed as detailed requirements are determined. Existing projects and programmes (including Project Gigabit, and the Causeway Coast and Glens growth Deal) will provide significant developments for the Borough and provide a focus for the development of other activity.

This section provides a high-level view of the Action Plan and how key actions will deliver key priorities of the digital strategy.

6.1 Key Actions by Themes

Digital Infrastructure

Ubiquitous broadband	*Support Wireless Infrastructure*	*Reduce barriers to roll-out*	*Digital transformation in the Council*
Identify the premises not reached by Project Stratum and Project Gigabit, and put in place measures to ensure connectivity	Support increasing availability of Wi-Fi and LPWAN infrastructure and services	Adopt the 'barrier busting' recommendations from DCMS to ensure efficient network roll-out	Update Council IT systems and support to make them fit for purpose.

Digital Skills

Basic Skills	*Professional Skills*	*Advanced Skills*
Ensure effective focus on in digital skills for all throughout education	Support continuous professional development and apprenticeships programmes for digital companies.	Develop and maintain networking opportunities for digital sector throughout Northern Ireland and internationally.

Digital Sector

Incubator Support	*Support Key Sectors*	*Collaboration Hubs*	*Networking Support*
Establish support programmes, focused at hub locations to encourage and support SMEs.	Develop platform, systems and content to maximise performance of key economic sectors.	Develop innovation hub locations to support digital business development.	Develop a programme of events to encourage networking in the Borough and beyond.

6.1.1 Digital Infrastructure Key Actions

Although the communications infrastructure in Northern Ireland has improved dramatically due to Project Stratum, Causeway Coast and Glens is poorer relative to other areas, with poor coverage outside of the main towns. The wider changing requirements of digital infrastructure must also be considered.

Five key priorities are identified:

- **Ubiquitous broadband** – extending the deployment of full fibre broadband to those premises not covered by Project Stratum.
- **Support wireless infrastructure** – LPWAN, 5G and Wi-Fi networks present important new economic opportunities.
- **Reduce barriers to deployment** – encouraging commercial deployment and supporting public sector initiatives to maximise benefit.
- **Digital transformation in the Council** to adequately support remote working and digital transformation.
- **Data Centre development –** balancing the commercial opportunities and environmental challenges of core infrastructure development.

6.1.2 Digital Skills Key Actions

Demand for qualified and experienced staff is a barrier holding back expansion of the digital sector in Causeway Coast and Glens and more generally. Our research has found the following:

- Northern Ireland has a very forward-looking approach to the development of basic digital skills with use of Information Technology and Communications regarded as a core cross-curricular skill which will ensure that all pupils emerging from the education system have had the best opportunity to develop their general digital potential.
- There remains a need for additional training for those already out of education who did not benefit from such a background and suffer some level of digital exclusion.
- Professional digital skills are catered for through the NRC and the NWRC and the third level educational opportunities available through the universities and distance learning institutions.
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- **Collaboration Hubs** buildings and facilities to provide a local focus for the sector development across the Borough. Some are already being developed as part of the CCG Growth Deal)
- **Networking Programme** a programme of events to encourage networking as a part of the wider digital cluster in Belfast and beyond.

Annex 1 Strategic Context

A1.1 Strategic Background

The strategic background comes from a range of local and national strategy developments. These provide a foundation for the core objectives of the digital strategy, as well as a direction and best practice for achieving those objectives.

More importantly, we need to take into consideration the changing nature of peoples' experiences as technology evolves. We now have two generations that have grown up with IT as a part of their daily lives, and one who have grown up with the Internet. The next generation will grow up with AI, and all that will bring.

A1.1.1 Programme for Government 2024 – 2027

The programme for Government 2024-2027 established a delivery unit within the Executive Office and a £235 million Transformation Fund to reform and transform public services.

It also established the Office of AI and Digital. The Office sits alongside the Office of Science and Technology and works with the Northern Ireland Statistics and Research Agency (NISRA) and other data and digital leaders across the NICS, to advise the Executive.

A1.1.2 A Better Future Together

A Better Future Together – the Delivery Plan for Causeway Coast and Glens Community Plan 2017-2030[1] is the corporate plan for Causeway Coast and Glens Borough Council.

The document identifies 12 outcomes for the people who live in, work in and visit Causeway Coast and Glens. The digital strategy provides significant support to achieving each of these outcomes:

Outcome 1: All people of the Causeway Coast and Glens benefit from improved physical health and mental wellbeing

Improved digital connectivity throughout the Borough will help to combat loneliness among the elderly and isolated, allowing easy communication and video sharing. Video allows the physical state of elderly and vulnerable people to be assessed in a way that is not possible in a telephone call.

Outcome 2: Our children and young people will have the very best start in life

Although the dangers associated with excessive screen time and pressures from social media are well documented, the educational and social benefits for young people being well-connected are considerable. Good rural connectivity will ensure that all children in the Borough will benefit from these advantages.

Outcome 3: All people of the Causeway Coast and Glens can live independently as far as possible and access support services when they need it

COVID-19 has broken a log jam of resistance to remote medicine and social care which has been impeding progress of remote health and social care delivery for more than a decade. This change of approach from the health and social care sectors, combined with the widespread availability of high-quality reliable connectivity will have a dramatic effect on the ability of many elderly and vulnerable people to live independently at home with access to the support services they need.

Outcome 4: The Causeway Coast & Glens area feels safe

Security in remote farms and businesses is difficult. Significant numbers of serious thefts of equipment and livestock happen each year. Widespread availability of LPWAN in rural areas is easy to achieve and sensors can be put on gates, lanes and out-buildings that can sound alarms when there is unusual activity. This is likely to have a strong deterrent effect on such theft.

People and organisations also need to be safe online. This required people to be aware the nature of cyber security risks and how to protect themselves from hostile accesss to their data.

Outcome 5: The Causeway Coast and Glens area promotes and supports positive relationships

Active volunteer schemes can be supported across communities through online promotion by CCGBC and other organisations. These schemes can promote cross-community collaboration and cooperation which enhance positive relationships.

Outcome 6: The Causeway Coast and Glens area is widely recognised and celebrated for its unique natural built landscapes

The Borough has a very strong reputation through the presence of the Giant's Causeway and because of the *Game of Thrones* locations in the Borough. Active online promotion of these will be important as the Borough battles to attract visitors, as numbers return to pre-pandemic levels. Extensive support for all of the Google five stages of travel (dreaming, planning, booking, experiencing and sharing) will be essential to revive the visitor economy.

Outcome 7: The Causeway Coast and Glens area has physical structures and facilities that further growth, access and connections

In terms of communications infrastructure, these facilities already exist, but they are unevenly distributed. Project Stratum and the Outside In programme of DCMS will make access to such communications infrastructure almost ubiquitous. It will be necessary to consider those that are not reached by those programmes to ensure total coverage of good communications. (The availability of broadband at download speeds of 30 Mbps is one of the indicators against which this outcome will be measured.)

Outcome 8: The Causeway Coast and Glens area is a sustainable environment

The measurement of air and water quality, particularly in rural areas, can be supported through the widespread availability of LPWAN with appropriate sensors and services to support monitoring and alarms for those responsible for the levels.

Outcome 9: The Causeway Coast and Glens area provides opportunities for all to contribute to and engage in a more prosperous and fair economy

Widespread availability of good broadband will help to eliminate the economic, educational and social disadvantages endured by citizens living in rural and remote locations. It will also help to stem and maybe even reverse the migration of young people away from rural areas to towns and cities.

The effects of AI will need to be monitored to ensure that it serves the needs of society and that it is used to spread prosperity across the Borough.

Outcome 10: The Causeway Coast and Glens area attracts and grows more profitable businesses

Digital transformation of businesses has been proceeding for decades, but many businesses have progressed slowly. The COVID-19 pandemic has forced many businesses to accelerate their digital transformation. Some businesses have taken advantage of the Digital Transformation Flexible Fund to help this transformation. A requirement that has become very clear is how dependent businesses are on their employees having good connectivity from home. Having a strong hub like the Enterprise Zone in Coleraine is a great advantage. Having excellent connectivity at home for everyone who works there will strengthen the attractiveness of it as a location. Availability of good home connectivity has improved greatly in recent years, but there is still work to do.

Outcome 11: The Causeway Coast and Glens area drives entrepreneurship and fosters innovation

The OECD and the World Economic Forum recognise the importance of good digital connectivity to the development of entrepreneurship and fostering innovation. Access to sophisticated digital tools is vital for innovation in a wide variety of advanced sectors form biosciences to finance and advanced manufacturing to food science. AI will have a key role in supporting entrepreneurship and innovation.

Outcome 12: All people of the Causeway Coast and Glens will be knowledgeable and skilled

Fostering the advancement of digital skills will assist this outcome. Furthermore, the ubiquitous availability of digital infrastructure and services will greatly assist general education, distance learning and on-the-job training, all of which will raise the skills base of the Borough. Skills in the constructive use of AI will be particularly important.

The ***Causeway Coast and Glens – Digital Strategy*** has been developed as an input to economic strategy for Causeway Coast and Glens. Both initiatives are designed to assist with the delivery of the objectives laid out in ***A Better Future Together***.

A1.1.3 Environment Act 2021

The Environment Act 2021 was introduced to support a government commitment that we will be the first generation to leave the environment in a better state that that in which we found it. The Act is based on five principles:

- Integration principle
- Prevention principle
- Rectification at source principle
- Polluter pays principle
- Precautionary principle

A1.1.4 The UK's Modern Industrial Strategy

The UK Industrial Strategy has a complete sector plan for the Digital and Technologies sector. It has developed action plans for six frontier technologies:

- **Advanced connectivity technologies (ACT):** Building on a world-leading research base to support greater domestic commercialisation of ACT and promote UK technology internationally.
- **Artificial intelligence (AI):** Implementing the ambitious AI Opportunities Action Plan to build domestic capability and establish new AI Growth Zones, improve the availability of high-quality data, boost regulators' AI capabilities, promote pro-innovation regulation, and significantly expand compute capability.
- **Cyber security:** Driving investment into our internationally renowned cyber sector and supporting cutting-edge innovation to address the challenges that prevent widespread technology adoption.
- **Engineering biology:** Building our innovation ecosystem to deliver growth by addressing the scale-up challenge through a new infrastructure fund, implementing an ambitious R&D programme.
- **Quantum technologies:** Refreshing the ambitious long-term quantum programme to accelerate technology development and implementation.
- **Semiconductors:** Developing a strategic and joined up approach to R&D and enhancing the innovation ecosystem to improve commercialisation, prioritising areas with high-growth potential and wide-ranging cross-sector applications.

Unlocking the economic potential of clusters to create jobs and opportunity across the UK in these frontier technologies will be crucial so that that digital and technology businesses across the country can realise their growth potential.

However, the widespread importance of digital technology and innovation throughout the economy and society must be accepted

and accommodated. This includes the acceptance of change enabled by AI, the need for constant evolution of cyber security, and management of the environmental impact of data centres.

A1.1.5 UK Telecoms Access Review

The UK Telecoms Access Review is Ofcom's review of regulations for fixed-line telecoms, aiming to promote competition and investment in gigabit-capable broadband. It will update rules for the market, including continued regulation on Openreach, retirement of the copper access network, and market consolidation. The review's main consultation has closed, with final decisions expected in early 2026.

Key aspects of the review

- **Continued strategy:** Ofcom's overall strategy of promoting investment and competition is expected to continue, as the full-fibre investment cycle is not yet complete.
- **Regulatory amendments:** While many existing regulations will be reapplied, some will be updated to reflect market evolution, such as on the regulated "anchor product" speed and the application of Minimum Service Levels (MSLs) to Full Fibre to the Premises (FTTP).
- **Copper network retirement:** The review includes provisions for the gradual retirement of the copper network.
- **Market dynamics:** It addresses key issues like customer migration from legacy networks, wholesale pricing, and business connectivity.
- **Wholesale pricing:** Ofcom has consulted on specific pricing remedies to maintain stability for broadband products in both competitive and non-competitive areas.

The final conclusions of the review are expected to be published in early 2026.

A1.2 Other initiatives and programmes

In addition to National economic and digital strategies, the ***Causeway Coast and Glens – Digital Strategy*** is developed within the context of existing local programmes aimed at supporting developments in the digital sector, digital infrastructure or digital skills in the Borough.

A1.2.1 Causeway Coast and Glens Growth Deal

The Causeway Coast and Glens Growth Deal has progressed a long way in the last five years. The agreed financial package is just below £100 million with contributions from the UK Government (£23 million), The Northern Ireland Executive (£36 Million) and further contributions from CCGBC and local businesses of 25 million. The Growth deal identifies three pillars and within each Pillar a number of projects have been identified:

Pillar	Projects
Innovation	▪ Ulster University's Centre for Food & Drug Discovery ▪ Business Innovation & Incubation Hub ▪ NWRC's Foodovation & Skills Centre
Destination	▪ Regeneration of Bushmills ▪ Regeneration of Dungiven ▪ Extension of the Innovation Centre at Cushendall ▪ Leisure and wellbeing centre in Coleraine
Connection	▪ Greenway connecting Portrush and the Giant's Causeway ▪ Connected Causeway Traffic and Parking project

The identified projects are being progressed towards outline business case.

A1.2.2 Project Gigabit

Building Digital UK (BDUK) implemented a programme of gap funding to support the roll out of full fibre broadband to parts of the UK that were considered uneconomic to serve commercially. These areas were divided into lots which were put to tender and bidders were invited to tender to provide gigabit connectivity to the identified 'Target Premises'.

The procurement programme ran from 2022 to 2025 with network roll out proceeding across Britain at the time of writing. Information on the contracts published by BDUK indicates that when Project Gigabit roll out is completed, it will have connected 1.24 million premises for a gap funding subsidy of £2.4 billion.

Project Gigabit has procured Fibrus to extend full fibre broadband in Northern Ireland. The £34.6 million contract is expected to see more than 9,000 additional premises served with full fibre broadband. This would leave around 50,000 premises to be addressed. Some may be addressed as deferred premises in Project Gigabit. Others may need other technical and commercial solutions.

A1.2.3 Project Stratum

Project Stratum was a unique initiative to Northern Ireland that preceded the wider Project Gigabit programme which extended the reach of gigabit capable broadband to areas otherwise uneconomic to serve.

£150m was allocated to the project from the UK Government, along with £15m secured through the Department of Agriculture, Environment and Rural Affairs. Further funding of £25m from Building Digital UK (BDUK) and an additional £4.85m each from DAERA and DfE were secured to extend the project to a total funding if £200 million.

Following a procurement exercise, Fibrus Networks was appointed as the contractor for Project Stratum in November 2020, and the Project was finished in June 2025.

Project Stratum extended gigabit capable broadband infrastructure to more than 81,000 premises across Northern Ireland that previously could not access NGA broadband services of 30Mbps.

A1.2.4 Causeway Coast and Glens Local Economic Partnership.

The Causeway Coast and Glens Local Economic Partnership (LEP) Strategy 2025–2028 sets out a bold, place-based vision for economic transformation across the Borough. Backed by £4.5 million from the Department for the Economy's Regional Balance Fund, the LEP represents a significant shift in how local economic priorities are identified, resourced and delivered. Through extensive analysis and consultation, the Partnership has established three core themes for investment and action:

- Collaboration, Growth and Innovation
- Inclusive Entrepreneurship and Business Resilience
- Sustainability and Skills for the Future.

The LEP plays an important enabling role in the Council's wider digital transformation ambitions. Across its three themes, four programmes and sixteen interventions, digital transformation emerges as a consistent and intentional thread to drive improvements in digital capability, online engagement, data use and digital skills among local businesses. By embedding digital thinking throughout its Action Plan, the LEP provides a strong platform for a more connected, digitally confident and innovation-driven Borough.

A1.2.5 Other initiatives

Northern Ireland is a leader in Internet of Things (IoT) innovation, particularly in smart cities. The province also has a robust ecosystem with companies developing solutions for asset tracking, data analytics, and more.

Initiatives and programs include:

- **Things Connected NI:** Led by Ulster University, this program provides a low-power, wide-area network to help small and medium-sized enterprises (SMEs) develop and commercialize IoT technologies.
- **Smart Nano NI Technology Access Programme:** This program connects businesses with experts and facilities to accelerate innovation in future network technologies like IoT and 5G.
- **Belfast 5GIR programme:** This program, funded by the UK government, supports projects using advanced wireless connectivity and digital technologies to drive innovation in sectors like logistics, creative industries, and construction.

- **The Things Network Belfast:** A community-driven project working to build a free, open-source IoT network in the Greater Belfast area and beyond.

A1.2.6 Broadband developments in the Republic of Ireland

In the Republic of Ireland, the National Broadband Plan (NBP) is the state-led initiative to deliver high-speed, full fibre broadband to rural and remote areas that are not served by commercial operators. National Broadband Ireland (NBI), a private company with government investment, is designing, building, and operating the network.

The plan focuses on approximately 560,000 premises, covering 96% of the Republic's landmass and 23% of the population, in areas where commercial operators have not deployed services.

NBI is deploying a Fibre-to-the-Premises (FTTP) network, which uses fibre-optic cables all the way to the building, ensuring high-speed and future-proofed connectivity. Connections will provide minimum speeds of 500 Mbps and have the potential to deliver up to 10 Gbps in the future.

NBI operates on a wholesale basis, meaning it does not sell broadband directly to the public. Instead, it provides access to more than 60 retail broadband providers who then offer services to customers, promoting market competition.

Annex 2: Glossary

4G	The fourth generation of Mobile Technology, currently extensively deployed and rolling further out across the UK
5G	The fifth generation of Mobile Technology. It is being rolled out mainly in dense urban areas
6G	The sixth generation of Mobile Technology. It is in the preliminary pre-standardization phase. Initial commercial deployments are not expected until approximately 2030.
bit	A binary unit of digital information (1 or 0)
Artificial Intelligence	Software that performs tasks or produces output normally requiring human intelligence.
Backhaul	The intermediate links between local access networks which connect the customer and the core backbone networks which distribute communications traffic more widely
BRCD	Belfast Regional City Deal - bespoke package of funding and decision-making powers negotiated between central government and Belfast City Council and surrounding local authorities
byte	A unit of data consisting of eight bits
Cyber Security	The practice of protecting internet-connected systems, networks, and data from digital attacks.
Digital Inclusion	Ensuring everyone has equitable and safe access to and the skills to use digital technologies.
Fibre to the Cabinet (FTTC)	A fixed broadband technology whereby traffic to and from a customer is delivered by optical fibre as far as the local street cabinet and thence over a twisted copper pair using VDSL technology.
Fibre to the Premises (FTTP)	A fixed broadband technology whereby traffic to and from a customer is delivered by optical fibre all the way to the customer premises.
Full fibre	A fibre optic connection all the way to the customer premises
FWA	Fixed Wireless Access – using radio to deliver the final connection in a fixed communications service.
GB	Giga Bytes – a volume of data consisting of roughly a thousand million Bytes of data.

Gbps	Gigabit per second – a transmission speed of roughly a thousand million bits of data per second.
Gigabit broadband	Broadband communications which offers speeds in excess of 1000Mbit/s for download.
GPON	Gigabit-capable Passive Optical Network – a standard for the last mile delivery of optical networks which does not require any electronics (and therefore does not require power).
IoT	Internet of Things - the ever-growing network of physical objects that feature an IP address for internet connectivity, and the communication that occurs between these objects and other Internet-enabled devices and systems
LoRaWAN	LOng RAnge Wide Area Network – a specific LPWAN technology implementation.
LPWAN	A generic term for a range of technologies that offer wide area coverage at relatively slow speeds – useful for IoT communications.
MB	Mega Bytes – a volume of data consisting of roughly a million Bytes of data.
Mbps	Mega-bit per second – a transmission speed of roughly a million bits of data per second.
MNO	Mobile Network Operator
Project Stratum	A £165 million initiative to bring superfast broadband to as many premises as possible that do not already have it (c. 80k premises).
SigFOX	A specific LPWAN technology implementation.
Superfast broadband	Broadband communications which offers speeds in excess of 30Mbit/s for download.
Ultrafast Broadband	Broadband communications which offers speeds in excess of 300Mbit/s for download.
USO	Universal Service Obligation – in broadband an obligation to give all customers minimum speed
Wi-Fi	A family of radio technologies commonly used for wireless local area networking

Annex 3: References

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Action	
Digital Infrastructure	
1`	Identify remaining poorly connected premises.
2	Identify Wi-Fi priority locations
3	Establish LoRaWAN coverage detail
4	Develop intervention for ubiquitous broadband
5	Develop intervention for Wi-Fi deployments
6	Engage with Stratum provider about Rathlin Island

7	Develop intervention for LoRaWAN deployments
8	Reduce Barriers to Deployment
9	Digital Transformation in the Council
10	Secure funding for ubiquitous broadband
11	Secure funding for LoRaWAN deployments
12	Secure funding for Wi-Fi deployments
Digital Skills	

13	Survey DSCQF and DSDP take-up in schools
14	Survey the availability of digital skills training
15	Increase the availability of basic digital skills to post formal education
16	Persuade NRC and NWRC to offer Digital Content Courses
17	Support initiatives like CoderDojo
18	Support Digital Apprenticeship scheme
19	Engage with the IET and BCS
20	Develop and maintain networking opportunities
Digital Sector	
21	Develop Digital Hubs Business Plan

22	Secure Funding
23	Secure sites and convert
24	Market the hubs
25	Incubation Space
26	Business Support
27	Engagement with networking stakeholders
28	Design networking programme
29	Monitor and improve

30	Build consensus for action
31	Develop business plan
32	Secure funding
33	Develop app and initial content
34	Publish, refine and maintain
Digital Policy	
35	Appoint a Digital Officer
36	Monitor progress against the plan
37	Constant review of the Strategy and Action Plan

38	Horizon scanning
39	Publish the Digital Strategy
40	Raise awareness
41	Periodic press engagement

Detail	Duration
Identify the remaining poorly connected properties following the revision of DfE expectations arising from the award of the contract for Project Stratum	Q1 2021
Determine the Wi-Fi specification to meet the requirements of the busiest locations in the Borough. Establish which towns and tourism locations should be equipped with Wi-Fi.	Q1 2021
Survey LoRaWAN availability and establish the extent of coverage and therefore where coverage is not available	Q1 2021
Based on the numbers and distribution of remaining white properties anticipating the roll-out of Project Stratum, decide on the mix of interventions needed to bring superfast/fibre coverage in the Borough up to 100%. This should be done in conjunction with the Department for the Economy and other local authorities to see if a Northern-Ireland-wide approach can be developed. One possible approach is to put in place a generous voucher scheme similar to the approach applied in Scotland	Q2 2021
Determine the most efficient deployment strategy to meet the needs identified. In particular, identify commercial approaches to reduce the cost to the council of providing Wi-Fi connectivity.	Q2 2021 – Q3 2021
Begin dialogue on the ways in which the island can be served with fibre infrastructure throughout and when the existing radio backhaul will need to be upgraded to fibre.	Q1 2021

Based on the number and distribution of LoRaWAN ‘not-spots’ decide on the mix of interventions needed to bring LoRaWAN coverage of the Borough to 100%	Q1 2021
Engage with the DCMS ‘Barrier Busting’ Team and understand best practice for Council oversight of network roll-out. Ensure that the planning enforcement team are aware of the best practice recommendations and that enforcement is appropriate.	Q1 2021 to Q2 2021
Conduct a review of Council IT systems and support and benchmark against best practice as defined by Socitm. This review should look in particular at support for home working as this is likely to be a greater feature of Council workforce behaviour following COVID-19.	Q1 2021 to Q4 2021
There are a variety of funding sources which can be approached to complete ubiquitous broadband availability in the Borough. It would obviously be a suitable project for the Growth Deal for the Borough. Given the fact that Project Stratum approaches but does not achieve 100% superfast or better broadband in any Borough, a Northern Ireland Wide approach possibly funded by the Department for the Economy is a possibility. If a voucher scheme is the chosen approach, then there is a role for partial funding from the DCMS voucher scheme. The possibilities need to be explored and the best mix of funding obtained.	Q3 2021 to Q4 2021
Completing LoRaWAN coverage of the Borough is a natural digital project for the Growth Deal for the Borough. It is essential that this LoRaWAN coverage expansion is funded through the Growth Deal.	Q2 2021
The Council has deployed Wi-Fi infrastructure in five locations already although service was switched off to save operating costs. A revised commercial approach is required to operate this infrastructure and deploy and operate any further Wi-Fi requirements, while avoiding excessive deployment or operating costs for the Council.	Q2 2021

Survey Digital Skills Curriculum and Qualifications Framework and Digital Schools of Distinction Programme take-up in primary and secondary schools.	Q1 2021
Establish what organisations are providing basic digital skills training in the Borough and identify where they are active. Identify areas where activity is low or non-existent. Compile a directory of Digital Skills training available to businesses and make available through Causeway Chamber and FSB Northern Ireland.	Q1 2021 to Q2 2022
Engage with the Ulster University to deploy some of their Widening Access Fund resources to design and deliver basic digital skills training in workplaces where there is a high concentration of manual workers. Significant effort should be expended in making the value of taking such courses clear to potential participants.	Q2 2021 onward
Engage with NRC and NWRC to develop and deliver courses in developing high quality engaging digital content for the tourism sector.	Q1 2021 to Q3 2021
Support initiatives like CoderDojo in all the towns in the borough.	Q1 2021 to Q4 2022
Work with the Digital Sector and NRC and NWRC to develop a digital apprentice scheme.	Q2 2021 to Q2 2022
Engage with the IET and BCS to deliver events in the digital hub(s)	Q1 2022 onward
Maintain and develop networking opportunities with Belfast and throughout NI.	Q3 2021 onward

Develop Digital Hubs Business Plan including what features are essential, and some desirable features that make the offering more compelling. The Plan will need to define where the hubs should be located, what facilities they will have, how they are funded and operated, and what the usage profile will look like. An outline programme of events will be needed.	Q1 2021 to Q2 2021.

Engage with the Causeway Coast and Glens Growth Deal to secure funding for hub creation, including writing OBC and obtain funding commitment.	Q3 2021 to Q4 2021
Secure hub locations and carry out necessary conversion/ construction	Q1 2022 to Q2 2022
Market the availability of the hubs as a desirable location for digital businesses, for home workers and as collaboration spaces for distributed organisations	Q2 2022 onwards
Include incubation space in each hub location and operation. Establish requirements and ensure incorporation into hub development	Q1 2021 to Q2 2021
Provide Business-related support for digital start-ups. Establish requirements and secure delivery support – through procurement and engagement with other programmes.	Q2 2022 onwards
Liaise with networking organisations in Belfast including the Digital Catapult, the BCS, the IET to develop an understanding of their networking programme and to explore areas of common interest	Q4 2021
Draw up and organise programme of digital sector events	Q1 2022
Monitor activity in the hub sites and improve the support offered according to business needs	Q2 2022 onwards

Engage with Tourism NI, other local authorities, Yellow Design, the National Trust, etc to explore a common interest in adding a VR platform and NI Tourism app to the Simpleview platform already being adopted across Northern Ireland	Q1 2021 to Q2 2021
Develop a business plan for the level of cooperation achieved in the consensus building. The plan should describe how the platform will work, how the content will be collected, processed and maintained and how communications infrastructure will be used to make the whole experience more intelligent and responsive.	Q1 2021 to Q2 2021
The various Growth deals and tourism funding authorities should be approached, and outline business plans submitted to the appropriate organisations to secure funding for platform and content development.	Q2 2021 to Q3 2021
Develop the app and collect and curate the content.	Q3 2021 to Q4 2021
Publish and publicise the app and refine over time. Refresh content. Integrate intelligence and feedback.	Q1 2022 onwards

Delivery of this Action Plan and a wider digital agenda will require dedicated effort beyond the level that any current CCGBC employee has the time to do. A dedicated individual is needed to take responsibility for the delivery of this plan	Q1 20121
Coordinate all the people and organisations to make sure that the Action Plan is carried out in a timely and efficient manner.	Q1 2021 onward
Develop and maintain networking opportunities with Belfast and throughout NI.	Q1 2022 annually

Horizon scan to ensure that new trends and technologies are kept in the mix	Q1 2021 onward
Publish the Strategy Document and issue a press release to NI press and the technical press across the UK	Q1 2021
Raise awareness of the Strategy and the Digital Officer role by speaking at events and circulating documents as the programme develops.	Q1 2021 onward
Keep a flow of stories about the Strategy and its implementation to the local and national general press and to local government and digital publications	Q1 2021 onward

Lead Department(s)
Prosperity & Place
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ICT

Prosperity & Place

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(Labour Market Partnership)

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(Labour Market Partnership)

Prosperity & Place
(Labour Market Partnership)

Tourism & Recreation

Prosperity & Place
(Labour Market Partnership,
Business Development)

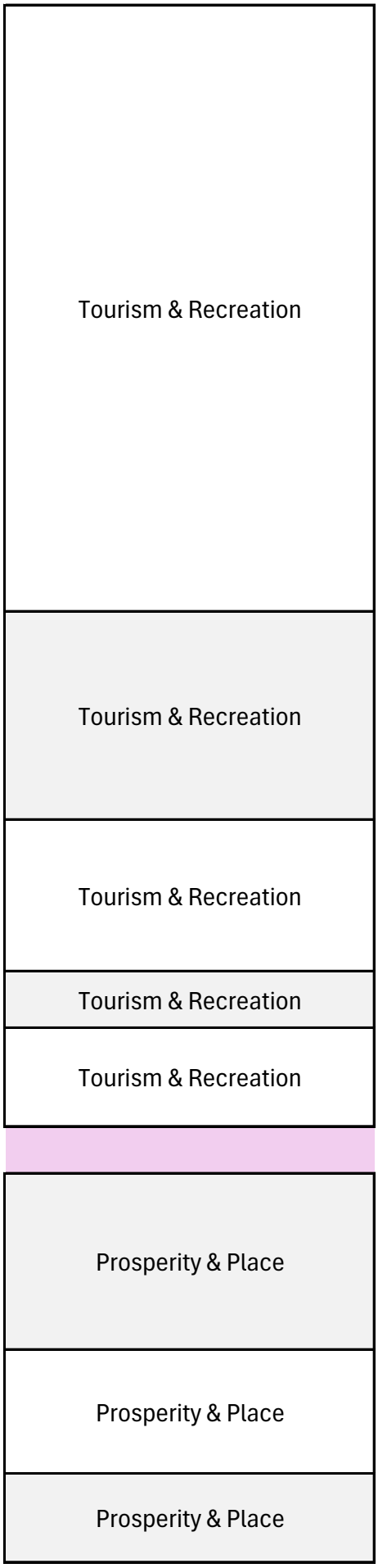
Prosperity & Place
(Labour Market Partnership)

Prosperity & Place
(Labour Market Partnership)

Prosperity & Place
(Labour Market Partnership)

Growth Deal
Programme Management office

Growth Deal Programme Management office
Project Promoters
Project Promoters
Project Promoters
Prosperity & Place (Business Development)
Prosperity & Place (Business Development, Growth Deal Programme Management Office)
Prosperity & Place (Business Development, Growth Deal Programme Management Office)
Growth Deal Programme Management office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Progress
FFNI connected 51 sites across CCG to full fibre in 2020/21. Project Stratum delivery was award to Fibrus in November 2020, with the first connection in Coalisland. Fibrus are on target to connect 81,000 premises by June 2025, on time and within budget (total Project Stratum investment £248m). 6,979 premises within CCG upgraded under Project Stratum. ANBC are leading on an application to the Regulators' Pioneer Fund (RPF4), with CCG as one of the supporting partners, to identify a suitable initiative to conduct real-world mobile coverage mapping to inform future investment, regulation, and planning. Application will be submitted by 31st July 2025.
Elected Members made a cost saving decision to remove public Wi-Fi in 2019. GreySky Consulting undertook a Public Wi-Fi feasibility assessment in 2022, which recommended that Council reintroduce public Wi-Fi into the 6 main hubs (Coleraine, Limavady, Ballymoney, Ballycastle, Portrush and Portstewart). However, no funding could be sourced to implement this recommendation.
As noted above, FFNI connected 51 sites across CCG to full fibre in 2020/21. CCG are a supporting partner for a ANBC bid to the Regulators' Pioneer Fund (RPF4) to identify a suitable initiative to conduct real-world mobile coverage mapping.
Procurement for Project Gigabit commenced in November 2024, with Invitation to Tender Stage closing on 22 May 2025. DfE have confirmed that tender evaluation will take place in June 2025, with announcement expected during the summer. The procurement is seeking a supplier to address an initial scope of approximately 11,000 premises.
CCG is part of the Full Fibre Northern Ireland Consortium which incorporates all 11 Councils, this Consortium is used a the vehicle for collective tendering, to achieve greater value for money.
In February 2024, CCG explored with DfE/Satellite Applications Catapult the possibility for a DSIT funded pilot to assist with connectivity on Rathlin as part of a funding call for potential pilot sites. However, this was not successful.

FFNI, Project Stratum, Shared Rural Network have reduced the number of 'not spots'. Project Gigabit will increase this coverage even further.

CCG are a supporting partner for a ANBC bid to the Regulators' Pioneer Fund (RPF4) to identify a suitable initiative to conduct real-world mobile coverage mapping.

FFNI Consortium is primary vehicle for oversight.

CCG has appointed a Digital Champion (N McGurk) to assist with the rollout of the Mobile Action Plan NI. Digital Champion is the single POC within each Council who helps accelerate installation process. A Planning Sub-Group also supports the delivery of MAPNI (CCG rep: S Mathers).

Council are well aligned with ICT industry best practice although we could always go further in enforcing SLAs.

With specific regard to home working council will facilitate reasonable adjustment where evidence supports it. Council policy remains that users must have the necessary access requirements to enable them to work effectively at home. ICT will not as standard practice provide any additional equipment or services.

The context of the comment may have changed as there is now growing evidence that working from home is not productive. More public and private sector organisations are now moving back to greater

Project Gigabit is expected to plug gaps unfulfilled by Project Stratum.

All voucher projects in Northern Ireland are being delivered by either Openreach or Fibrus and the scheme remains open for premises in eligible areas.

There are some approved voucher projects in Northern Ireland, which have not yet requested a broadband service, and funding has not yet been issued to the supplier. Therefore, these live voucher projects remain open for eligible premises to request a service and for voucher funding to be claimed.

No digital connectivity projects progressed within the Growth Deal proposals. Growth Deal Heads of Terms can be found via: https://causewaycoastandglens.gov.uk/uploads/general/Signed_Heads_of_Terms.pdf

GreySky Consulting undertook a Public Wi-Fi feasibility assessment in 2022, which recommended that Council reintroduce public Wi-Fi into the 6 main hubs (Coleraine, Limavady, Ballymoney, Ballycastle, Portrush and Portstewart). However, no funding could be sourced to implement this recommendation.

CARD Group undertook a survey of primary and secondary schools in April 2022, which show a modest uptake in digital qualifications at GCSE and a clear drop off at A Level (particularly with females)
FN Research undertook a digital skills survey on behalf of Council in April 2022 with local businesses which identified a need for basic ICT skills. A high level of interest was express for support via the Labour Market Partnership. DfE launched their Digital Skills Action Plan in September 2024 (https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Digital-Skills-Action-Plan-2024-2034.pdf) On behalf of NI City & Growth Deals, Queens University produced a Digital Skills Assessment in March 2025
No significant development.
As part of this, the tourism team will engage with the tourism industry in January 2026 through a survey to address requirements for digital content. This will then be addressed with NRC and NWRC as well as Tourism Northern Ireland who have a bespoke digital training platform for tourism available for all tourism and hospitality businesses in NI.
LMP can provide support via the Personal Learning Account Fund for a wide range of 'coding' qualifications, although no specifc coding programmes have been developed/supported for younger learners (0-16).
LMP continually supports FE Colleges deliver Higher Level Apprenticeship schemes.
Digital hubs are currently under development through the Growth Deal, not expected to be operational until 2028
Council Officers engage, as opportunities arise.
Two rural hubs are being developed via the Growth Deal both will have high speed digital connectivity. Glenshane Community Development Ltd are developing a £1.7m hub in Dungiven and Grow the Glens are being supported for Phase 2 of the Cushendall Innovation Centre (CIC) with £1.6m. A £16.5m Business Innovation & Incubation Hub (BIIH) will also be developed in Coleraine, with a primary focus of Health & Life Sciences and Food sectors

The three hub outlined have indicative funding secured via the Growth Deal Heads of Terms. However, the OBC will determine the final funding allocation for each hub, once approved by the relevant Departments. OBC for Dungiven to be submitted November 2025. BIIH and CIC OBCs to be submitted by December
Project Promoters own the premises that will become the rural digital hubs (Dungiven & Cushendall). Council owns lands identified for Business Innovation & Incubation Hub at the Atlantic Link Enterprise Campus.
Digital hubs are currently under development through the Growth Deal, not expected to be operational until 2028
Digital hubs are currently under development through the Growth Deal, not expected to be operational until 2028
Digital Transformation Flexible Fund (DTFF) launched in November 2023. This fund is a demand led grant scheme aimed at establishing a Northern Ireland wide fund to stimulate digital innovation. It seeks to address the financial barriers to the adoption of advanced digital technologies as a means to achieve business transformation amongst small and micro businesses. DTFF enables the purchasing of capital equipment and/or resources for 'off the shelf' software solutions and/or bespoke system development. Grant intervention levels will be 70% of eligible costs with 30% match funding to come from the applicant. Go Succeed provided wraparound support to help businesses understand how advanced technologies could improve their business and they provided application writing support. As of Call 4 - 20 CCG business have been successful in securing support.
Limited engagement to date
Business Development Team have delivered a number of digital Initiatives: - Digital Surge programme (pre-cursor to Digital Transformation Flexible Fund) – 11 council programme, delivered to 31/03/2023 - Digital Causeway – delivered to 31/03/2023 - Digital Schools – delivered to academic year 22/23
Digital hubs are currently under development through the Growth Deal, not expected to be operational until 2028

Causeway Coast and Glens Tourism team have a fully optimised website that makes it accessible for all mobile smart phones so that visitors can gain all relevant destination information for the borough, no matter where they are worldwide. A fully optimised website allows the team to be more accessible and reach wider audiences regardless of their device's operating system (iOS, Android, Google etc.). With apps, there is a requirement for users to find the app, download it and install from an Appstore with numerous updates and maintenance. This would be a significant barrier for visitors accessing key tourism information. The cost and development of an app is also very expensive, with the need for constantly develop the app. A simple, optimised website can reach a universal audience and be more cost effective. The tourism marketing team do a lot of work on ensuring the visitcausewaycoastandglens.com website is discoverable through search engines by having a search engine optimisation (SEO) strategy in place so that all destination information for the borough is easily discovered by potential visitors. This information also applies to stakeholders including Tourism Northern Ireland, Tourism Ireland and National Trust. Therefore, it is not necessary for the tourism team in Causeway Coast and Glens to need
See response in F34
See response in F34
See response in F34
See response in F34
Digital Officer role incorporated into Strategic Projects Officers remit - Officer in place since 2022.
Digital Strategy should be incorporated in all business plans throughout Council.
FFNI Consortium provides opportunities for networking.

FFNI Consortium lead provides updates on future funding opportunities. CCG Officers engage with DfE Telecoms Branch, DSIT, BDUK on an ongoing basis.
Strategy published on Council website following Council approval in January 2021
Council staff to ensure they remain up to date with strategy publications. Elected Members are updated via reports to relevant committees.
Press releases utilised for significant milestones associated with actions within the digital strategy i.e. FFNI programme completion, Growth Deal promotion etc. This operates on an ad hoc basis.

Continuation
Monitor the development of Project Gigabit and identify premises not to be served as early as possible.
No further action for public sector Wi-Fi.
Continue to monitor coverage.
Encourage the development of initiatives to extend gigabit connections beyond the scope of Project Gigabit - including the use of community action and Fixed Wireless Access technology. Make Low Earth Orbit satellite services available to the final un-served premises.
Commercial Wi-Fi deployments and improved mobile coverage to be supported through availability of suitable infrastructure (such as buildings, lampposts, etc).
Continue to monitor possible sources of funding to improve the backhaul cable capacity to Rathlin Island

LoRaWAN coverage in CCG is strong, and Project Gigabit significantly improves the availability of fibre
Continue to liaise with te barrier bursting team at BDUK. Ensure that all new members of the planning enforcement team are made aware of their role in not blocking infrastructure roll out.
Return to largely office based operation will focus digital skills and technology requirements. Development of skills and technology to refelect wider developments and requirements for AI and digital safety and security will continue.
Lobby BDUK to make new vouchers available in the Borough.
Encourage commercial deployment of LoRaWAN in te Borough.
Discontinue activity n this area. Not seen as a priority by members.

Repeat survey to see how trends have developed.
Continue to monitor skills surveys
Engage with UU WAF and see if it can support some activity.
Continue to engage with NRC, NWRC and Tourism NI to ensure appropriate skills and training are available.
Continue the support as is. Consider engaging with initiatives like Coder Dojo to support younger learners.
Continue.
Begin warming up IET and BCS in 2027.
Continue.
Continue to look for opportunities to extend the base of Hubs.

Complete.
Continue to look for opportunities to extend the base of Hubs.
Begin marketing of hubs in 2027.
Begin to promote incubation space in 2027.
Continue to promote DTFF and Go Sucseed grants to digital businesses in the Borough.
Try engaging in 2027 when the prospect of active hubs may stimulate some interest
Consider a programme of events on AI and its potential impact on SMEs in the borough and promote through Chambers.

Discontinue
Discontinue
Discontinue
Discontinue
Discontinue.
Done.
Repeat fior updated strategy
Continue

Continue
Repeat fior updated strategy
Repeat fior updated strategy
Continue.

Requirement	
Digital Infrastructure	
1.1	Ubiquitous broadband connectivity
1.2	Improved mobile connectivity
1.3	Reduce Barriers to Deployment
1.4	Digital Transformation in the Council
1.5	Monitor requirement for data centres
Digital Skills	

2.1	Basic digital skills
2.2	Professional digital skills
2.3	Sector-specific digital skills
2.4	Advanced digital skills
Digital Sector	
3.1	Incubator support

3.2	Support for other sectors
3.3	Collaboration hubs
3.4	Networking programme
Digital Policy	
4.1	Appoint a Digital Officer
4.2	Monitor progress against the plan
4.3	Constant review of the Strategy and Action Plan
4.4	Horizon scanning
4.5	Publish the Digital Strategy
4.6	Raise awareness
4.7	Periodic press engagement

Detail
Monitor the development of Project Gigabit and identify premises not to be served as early as possible. Encourage the development of initiatives to extend gigabit connections beyond the scope of Project Gigabit - including the use of community action and Fixed Wireless Access technology. Recognise Low Earth Orbit satellite services are available to the final un-served premises. Monitor sources of funding - including voucher funding or possible community funds. Continue to monitor possible sources of funding to improve the backhaul cable capacity to Rathlin Island
Continue bid to the Regulators' Pioneer Fund (RPF4) to identify a suitable initiative to conduct real-world mobile coverage mapping. Commercial Wi-Fi deployments and improved mobile coverage to be supported through availability of suitable infrastructure (such as buildings, lampposts, etc).
Continue to support the deployment of Project Gigabit and other digital infrastructure deployments through management of barriers. Engage with the DCMS 'Barrier Busting' Team and understand best practice for Council oversight of network roll-out. Ensure that the planning enforcement team are aware of the best practice recommendations and that enforcement is appropriate.
Support initiatives to increase digital transformation in the Council and other public sector organisations, particularly supporting deployment of LoRaWAN and Wi-Fi infrastructure where required.
The significant ongoing increasing demand for digital connectivity, and in particular the impact of Artificial Intelligence (AI) require the global increase in data centre capacity, and may require local data centre capacity (for reduced latency). The need for data centre capacity locally, and the commecial opportunity of supporting global data centre capacity should be monitored, and considered against potential environmental impacts.

Continue to monitor uptake of digital skills qualifications at different levels in schools. Review capabilities of teachers and others to provide digital skills training. Engage with Ulster University and others to improves skills and confidence of training in schools. Continue to support initiatives like CoderDojo in all the towns in the borough. Continue to review scope of curriculum, particularly with regard to digital security/safety and AI.
Engage with the Ulster University and others to deploy resources (suc as Widening Access Fund) to design and deliver basic digital skills training in workplaces, enterprise hubs, etc. Significant effort should be expended in making the value of taking such courses clear to potential participants. Ensure content remains relevant - particularly with regard to digital security/safety and AI Work with the Digital Sector and NRC and NWRC to develop a digital apprentice scheme.
Engage with NRC and NWRC to develop and deliver courses in developing high quality engaging digital content for the tourism sector and other key economic sectors in the borough. Make digital skills training widely available through enterprise hubs, etc.
Engage with the IET, BCS, Universities, etc to deliver digital skills events in enterprise hubs, etc. Use digital skills events as a basis for Networking in Belfast and other key skills locations.
Enterprise hubs provide the networking opportunities and focus for skills training necessary to support all new enterprises, including new digital sector enterprises. New digital skills businesses may be instrumental in providing digital skills training for the wider economy. Establishing networking links with Belfast and Derry, and with organisations such as Universities provides opportunities for skills development and business.

Where digital skills development is required for other sectors, businesses cannot be constrained to use only local businesses. However, local opportunities can be important development opportunities for new businesses - the opportunities for local business should be widely communicated to digital sector businesses in the borough, directly and through enterprise hubs.
Enterprise hubs in areas in the Borough where there is a concentration of digital sector businesses may be identified as Digital Sector Collaboration Hubs, and provide the primary focus for digital sector networking, etc. Physical Collaboration Hubs may be suitable for testing and deploying advanced digital infrastructure (such as 6G) to help the local Digital Sector develop more sector leading capabilities. Collaboration Hubs may provide the focus for engagement with CCG Local Economic Partnership. Targeted engagement can be used to identify and monitor key opportunities to strengthen the Digital Sector in the Borough, and to help the Digital Sector engage with other key economic sectors to strengthen wider digital skills.
A programme of events to be engaged and developed within the Borough, and outside the Borough in the wider NI Digital Sector to focus on key sector developments supporting key development areas for the local Digital Sector.
Delivery of this Action Plan and a wider digital agenda will require dedicated effort beyond the level that any current CCGBC employee has the time to do. A dedicated individual is in place and will contine to be needed to take responsibility for the delivery of this plan
Coordinate all the people and organisations to make sure that the Action Plan is carried out in a timely and efficient manner.
Develop and maintain networking opportunities with Belfast and throughout NI.
Horizon scan to ensure that new trends and technologies are kept in the mix
Publish the Strategy Document and issue a press release to NI press and the technical press across the UK
Raise awareness of the Strategy and the Digital Officer role by speaking at events and circulating documents as the programme develops.
Keep a flow of stories about the Strategy and its implementation to the local and national general press and to local government and digital publications

Causeway Coast & Glens Borough Council

Digital Strategy

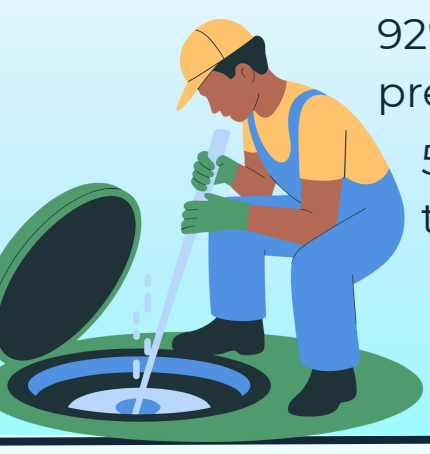
- Snapshot -

Strategic Context

National alignment with major initiatives i.e. UK Telecoms Access Review, NI Digital Skills Action Plan 2024–2034

Sustainability Matters with environmental considerations now central to decision making

Digital Infrastructure



92% Full Fibre coverage - focus now on remaining premises and Rathlin Island

5G Rollout and expansion of LPWAN network to deploy more IoT applications

AI to be utilised as efficiency tool

Improve wayleave process to speed up connectivity

Digital Skills

Greater focus required on AI awareness, cyber security, and advanced digital skills to prepare our workforce for the future.

Greater linkages with LMP & LEP

Targeted sector-specific training will be critical

Digital Sector

Development of digital hubs and incubators

Strengthening connections with regional and national digital networks

Driving more digital transformation across key sectors

Key Figures

Joint 24th in all the 361 boroughs across the United Kingdom for full fibre coverage

97% of premises have access to superfast broadband (30Mbps or better)

Average fixed broadband data consumption per month in 2011 was 17GB; by 2024 it was estimated at **594GB**

Excellent mobile connectivity across **85% of the land area** of the Borough