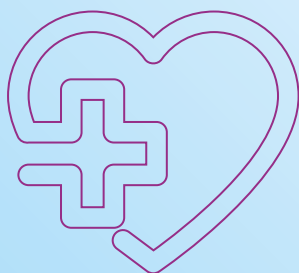


INFRASTRUCTURE 2050

Draft Investment Strategy for Northern Ireland

Consultation Report

May 2023

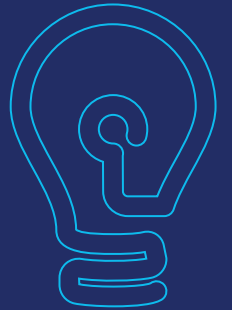
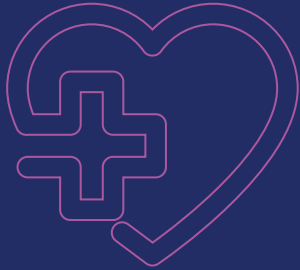


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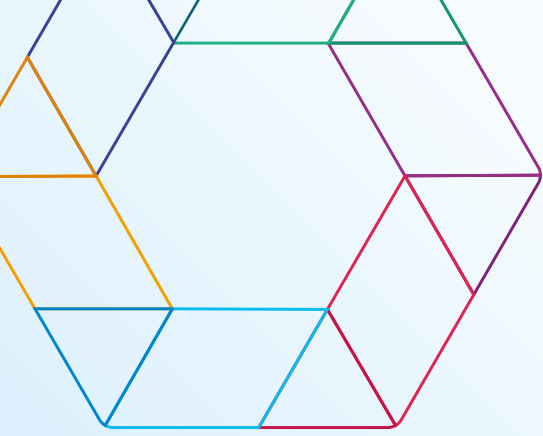
Investment
Strategy
Northern Ireland





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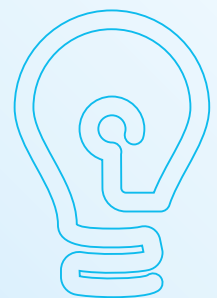
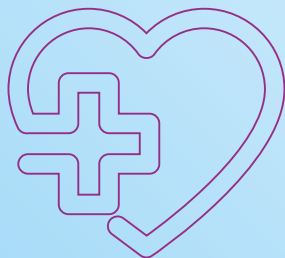
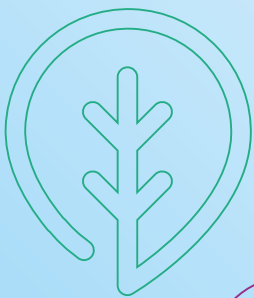
Executive Summary

Background to the Investment Strategy

The Investment Strategy for Northern Ireland (ISNI) is a major work programme, led by The Executive Office (TEO) on behalf of the Northern Ireland (NI) Executive. It is a multi-decade strategy, which sets out a long-term vision and provides a solid framework for investment planning. 'Infrastructure 2050' describes the infrastructure that the NI Executive requires over the next 3 decades, until 2050.

The ISNI is drafted by the Strategic Investment Board (SIB) on behalf of Ministers, working closely with TEO and the Department of Finance (DoF), and with officials from all departments.

The last ISNI was launched in 2011 and covered the period up to March 2021. Under this strategy, the Executive invested in excess of £14.9 billion in new and upgraded infrastructure across the region.





Preparing the New Investment Strategy ‘Infrastructure 2050’

Working closely with departments and other stakeholders, the ISNI team prepared the new Investment Strategy over eight months in 2021, carrying out research as well as extensive engagement with the private and public sectors. The NI Executive approved the draft Investment Strategy (ISNI) in December 2021 and agreed a 12-week public consultation process which closed on 20th April 2022.

During the consultation, the ISNI team engaged with over 400 individuals and organisations to gather views and feedback on the draft ISNI.

In total 150 written responses were submitted and analysed, including 50 which could be analysed using quantitative methods.

Some themes emerging from the qualitative responses to the consultation included:

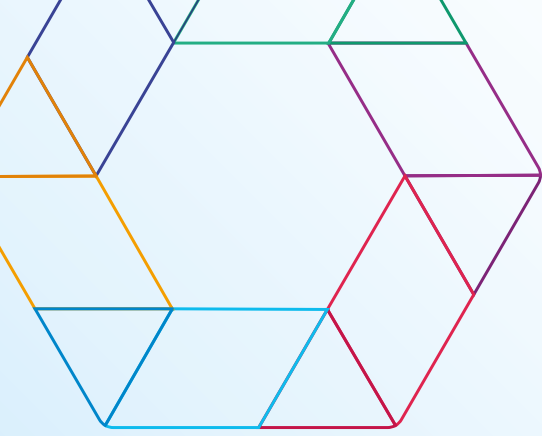
- The responses highlighted broad support for the objectives proposed in the draft ISNI.
- In particular, support was strong for the decarbonisation objective with some consultees suggesting that decarbonisation should represent the primary objective for any infrastructure investment with economic and social benefits assessed thereafter.

- Digitalisation was perceived to serve as an essential enabler, helping to deliver on other investment objectives and priorities.
- Respondents highlighted the implications of the changed economic context and the implications for infrastructure. It is noted that the draft ISNI was prepared prior to the war in Ukraine and the cost-of-living crisis. Therefore, in the short to medium term, the need for energy resilience and the importance of a renewable energy economy in NI have been heightened further since December 2021.
- Addressing deficiencies in the planning system and in water and wastewater infrastructure were seen as key enablers to unlocking investment potential.
- Respondents raised the importance of showing the interlinkages between the investment strategy and other strategies and to show clearly how these are all working together to counter any perceived ‘silo approach’ from government.
- Equitable provision of investment across all groups of society and geographical regions is critical to achieve NI’s economic potential and promote social inclusion.

Next Steps

The draft ISNI has been updated to address the issues raised through submissions. A final Investment Strategy will be prepared which will include:

- A 10-year investment plan that documents major projects aligned with the strategy;
- An analysis of the enablers which will facilitate infrastructure investment and delivery; and
- Explanation of how projects will be funded and setting out possible alternative financing opportunities.



1. Introduction and Methodology

1.1 Background

Originally launched in 2008, the NI Executive's first Investment Strategy set out to deliver the largest ever programme of capital investment in local public services for NI. The strategy recognised that a modern infrastructure is critical to the future success of the region, underpinning the economy and society and helping to improve public services for all.

Since 2008 much has been achieved, with around £21 billion invested in capital infrastructure helping to partially address historic underinvestment. For instance:

- People are now enjoying the benefits of improved roads, new public transport, healthcare facilities, schools and libraries; and
- Water and wastewater treatment facilities and the telecommunications networks have had significant improvements, although it is recognised that further investment is needed.

However, huge challenges remain as the consequences of the historic underinvestment in infrastructure maintenance accumulate and the economic, environmental and social landscape evolves at an unprecedented rate.

In addition, the global context has been transformed in a matter of months with war in Europe, and an increasing focus on energy and the cost-of-living crisis. The climate crisis also demands attention as the consequences of climate change continue to manifest and the timescale for achieving statutory targets crystallises.

The ISNI is a major work programme led by TEO on behalf of the NI Executive. It is a multi-decade strategy, which sets out a long-term vision and provides a solid framework for investment planning.





1.2 Preparing the New Investment Strategy 'Infrastructure 2050'

Working closely with departments and other stakeholders, the ISNI team prepared the new Investment Strategy over eight months in 2021, carrying out research as well as extensive engagement with the private and public sectors. The NI Executive approved the draft Investment Strategy (ISNI) in December 2021 and agreed a 12-week public consultation process which closed on 20th April 2022.

During the consultation, the ISNI team engaged with over 400 individuals and organisations to gather views and feedback on the draft ISNI.

In total 150 written responses were submitted and analysed, including 50 which were aligned with quantifiable analysis.

1.3 Overview of Responses

Almost all responses were from organisations (96%) broadly evenly split between those from the public, private and third/ voluntary sectors. Respondent organisations were geographically located across NI, including both rural and urban locations.

This report outlines the key findings of consultation which will be used to inform the preparation of the final ISNI.

1.4 Methodology

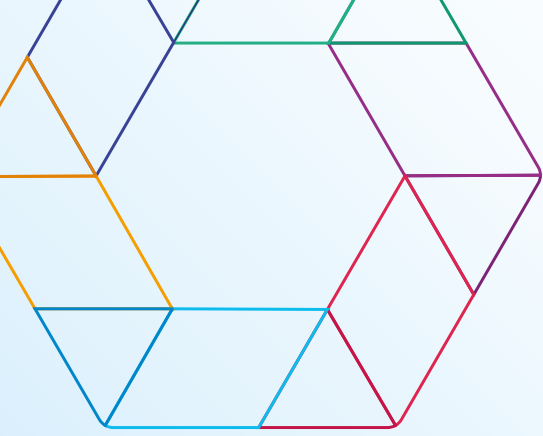
Submissions informing the production of the report were submitted in a variety of formats. One-third of responses (50 of 150) directly addressed the questions as they were posed in the consultation document. As such these facilitated statistical analysis to be undertaken and are referred to throughout the remainder of the document as the 'quantitative' responses.

All other submissions were provided in free-text format. These responses have been incorporated into the report, aligned with the relevant question and are referred to as 'qualitative' responses.

Respondents to public consultations are self-selecting and therefore the results have not been extrapolated, as they would not necessarily be representative of the wider population. They are, however, used to understand the range of views in relation to the strategy and its proposed contents.

The comments represent the views of the stakeholders who expressed them. As such, they do not necessarily reflect the views or policies of Ministers, Executive Departments, and/or SIB.

No respondents have been identified in this report.



2. Analysis

2.1 Overview of Survey Findings

Overall, the quantitative responses (N=50 max.) indicated strong support for the vision, objectives and priorities set out in the draft strategy, and for the approach proposed. For each statement, a minimum of two-thirds (64%) of quantitative respondents expressed support, rising to a maximum support of 94% (see Figure 2.1¹).



¹ A positive response relates to a 'yes' response to all statements except 'are there any other issues or inequalities that have not been highlighted in the draft EQIA or Rural Needs Impact Assessment (RNIA) that you believe need to be noted?' In this case, a positive response relates to a 'no' response.



Figure 2.1 Overview of Quantitative Responses

Do you agree with the process and findings of the draft EQIA and RNIA? (N=34)



Do you agree with the proposed prioritisation criteria?(N=43)



Are these the investment priority areas to maximise the benefits from emerging technologies? (N=42)



Are these the investment priority areas to build a strong, competitive and connected region?(N=42)



Do you agree with our vision for infrastructure? (N=45)



Are these the priority areas to strengthen our essential services? (N=39)



Are these the investment priority areas to enhance our communities and places? (N=43)



Do you agree with the infrastructure challenges over the next 30 years? (N=44)



Will the proposed accountability and oversight structures support successful delivery? (N=38)



Are these the investment priority areas on to decarbonise our economy and society? (N=43)



Will the proposals adequately measure progress and impact? (N=42)



Are there any other issues/ inequalities not highlighted in the draft EQIA or RNIA? (N=34)



Do the five key investment objectives address the challenges? (N=42)



2.2 Analysis per Question

The following sections summarise the findings for each area of the consultation report. In each case the quantitative analysis is presented initially followed by a summary of the qualitative views of all respondents with anonymised quotes included in some cases.

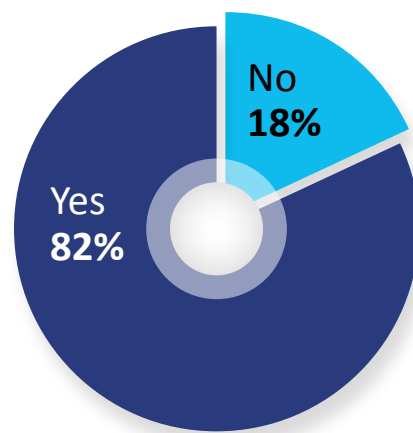
2.2.1 Vision for Infrastructure

The draft ISNI sets out the following proposed vision for infrastructure in NI up to 2050:

“We have the infrastructure that enables everyone to lead a healthy, productive and fulfilling life; that supports sustainable economic development and protects our environment.”

Draft ISNI Consultation Document (January 2022)

Figure 2.2 Do you agree with the vision for infrastructure? (N=45)



Four-fifths (82%, N=42) of the quantitative respondents agreed with the proposed vision for infrastructure. The small proportion (18%) who answered ‘no’ typically expressed support of the draft vision through positive statements but suggested amendments to enhance the vision statement which are reflected in the discussion below.

A key theme emerging from feedback in relation to the draft vision for infrastructure related to the need to further define infrastructure in relation to the environment.

For instance, some respondents (<10) felt that natural capital should be more fully recognised in the ISNI with one organisation suggesting that reference should be made to ‘protect, restore and enhance the environment’ in order to be resilient to climate change and meet net-zero goals.

Some respondents felt that there was too much focus on physical and digital infrastructure in the draft strategy, stressing that investing in environmental infrastructure is not a constraint on growth. The following re-wording of the Vision statement was proposed by a consultee:

“We have the infrastructure to create a net zero nature-positive society which enables everyone to lead a healthy productive and fulfilling life; that supports sustainable economic development and protects and restores our environment.”

Suggestion from Consultee



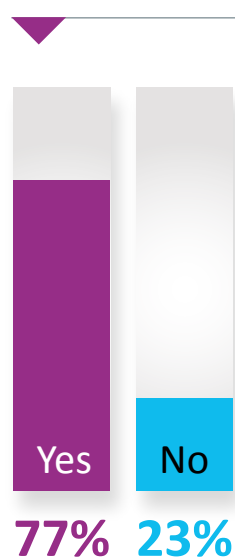


2.2.2 Infrastructural Challenges

The draft ISNI suggested that our infrastructure will face the following key challenges up to 2050:

1. Responding to the climate emergency
2. Our changing population
3. Our changing trade relationships
4. Pace of technological innovation and increasing cyber-risks

Figure 2.3 Do you agree with these infrastructure challenges up to 2050 (N=34)



Over three quarters (77%, N=34) of the quantitative respondents agreed with the assessment of challenges per the draft strategy with 23% generally providing further comment and/or suggesting additional challenges.

Key themes relating to infrastructural challenges included the following:

The Planning System

Respondents cited the planning system in NI as a challenge for delivery of the strategy over the next 30 years.

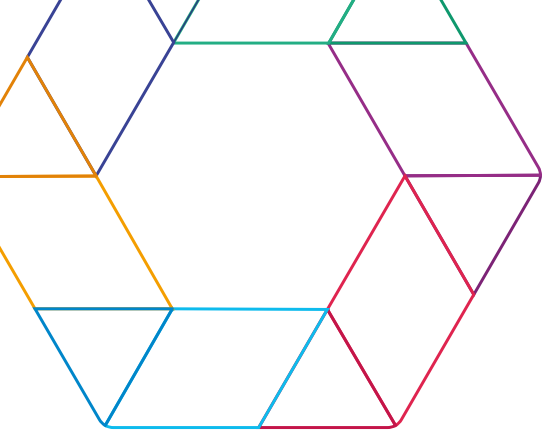
Many consultees commented on the need for reform of the planning system suggesting that the system deters, rather than supports capital investment. Specific views included:

- The system suffers from 'red tape', dual processes and unclear delineation between local and central government. It does not allow for a streamlined process, which deters development. A 'whole-system approach' to planning can help prioritise between maintaining or upgrading existing assets and new aspirations.
- Encompassing infrastructure development within the planning system has advantages, as spatial planning is cross-disciplinary and requires participation from a range of statutory bodies responsible for infrastructure delivery.

- The planning process needs to be adequately resourced and restructured to expediently facilitate projects with clean energy credentials. One consultee suggested that a standalone renewable energy planning department/body could be established with the mandate to promote the development of renewable energy infrastructure projects.

- Major development thresholds should be a consideration where the initiative would have a significant effect on multiple council areas, such as linear projects like transmission circuits. Applications may be more efficiently considered strategically, rather than by several local councils.

- It is not always possible to locate large-scale infrastructure away from population centres and areas of amenity. The relative ease with which community groups and individual citizens can engage with politicians is a positive feature of our system. However, in respect of critical infrastructure, there is a risk that local interests will override regional or national priorities, particularly those which are seeking to address climate change. Even projects that command strong community support may be frustrated by planning appeals and court action.



“There needs to be major change in the governmental approach to facilitate the development of waste infrastructure. The time scales involved in investment/ planning decisions is not conducive to a region which is open for business and direct investment.”

“Encouraging investment needs a planning system that works to approve projects, not one that faces many hurdles and challenges with ongoing delays and legal reviews. For example, ARC21 (8 years and still in planning), Casement Park (5 years in planning), A5 Dualling (first announced in 2007 and still no progress).”

Suggestion from Consultees

Lack of Government Coordination

Several respondents commented on the opportunity for this strategy to support a coordinated approach across government, and knit together other strategies including the 10X Economic Vision, the Energy Strategy, Green Growth Strategy, etc. It is deemed critical that these Executive strategies are fully consistent and aligned.

ISNI should seek to harness the work that is being undertaken by others, including the emerging council local development plans and community plans. Consultees called for closer alignment at a regional level and between regional and local government and community-based partnerships in long-term investment planning for the benefit of all citizens.

Some respondents welcomed that the strategy acknowledges that the “fragmented approach to critical infrastructure is environmentally and financially unsustainable” and encouraged the inclusion of additional detail on how this will be addressed. It was suggested that the ISNI must support integrated and collaborative working practices to overcome the fragmented system.

The programme of infrastructure investment needs to be coordinated across sectors and infrastructure types to recognise the interdependencies and potential efficiencies of planning investment to meet the challenges.

“A strategy as vital to the future of NI as this must clearly and meaningfully relate to other strategies in place and under development both regionally and locally. There is an extensive list of relevant regional strategies...and it is critical that a final framework clearly sets out how these directions, mostly already agreed by the Assembly and Executive, have informed and shaped it, and how it will interact with these strategies for effective and meaningful implementation across government.”

“Suggest the ISNI is clearly linked and aligned to departmental strategies such as economy (10X) recovery, healthcare, transport, communities, agri-food etc as this does not come through in the document clearly enough.”

“The strategy must put in place measures to encourage joined-up government. It should be updated to align with Energy Strategy and Climate Change Bill, and investment priorities must be aligned to both of these.”

Feedback from Consultees



Procurement Challenges

According to a number of consultees, the strategy should also acknowledge the role of procurement in driving effective delivery. Specific points raised included:

- SME procurement principles are essential to ensure smaller businesses can access tenders on an equal basis.
- Transparency, efficiency and speed of service are all required to reduce barriers to business.
- The process of taking Judicial Reviews should also be reconsidered.

There should be a greater link between the procurement pipeline and budget holders to embed greater confidence within industry. This would help with the criticism that there can be substantial time lags between when a scheme is pre-qualified and when it is tendered. Further, there can also be substantial time lags between when a scheme is tendered and awarded and/or on site.

Limited Public Finances

One consultee organisation expressed concern that the scale of the problems faced had been understated, making particular reference to the constraints on

public finances and the challenges faced in delivering against the major capital projects portfolio. In particular it was noted that the transition to net zero will require design considerations that will increase the overall project costs.

It was recognised that the lack of multi-year funding creates detrimental effects from cyclicalities and leaves little funding for the additional and necessary spend on transport and other commitments.

However, more positively it was also noted that there is considerable potential to explore new mechanisms for funding and financing infrastructure.

Short-Term Planning and Project Delivery

It was widely acknowledged that a principal factor contributing to NI's infrastructure deficit is a lack of overarching long-term planning. It was noted by consultees that short-term considerations can exert too great an influence on infrastructure investment decisions, which leads to an over-reliance on narrow, sectoral plans at the expense of cross-cutting plans.

While the strategy was commended by consultees for taking a protracted outlook, it was suggested that the proposals for delivery were not yet sufficiently robust.

In a recent report², the Northern Ireland Audit Office advocated '...a new system to improve delivery resourced with sufficient, highly skilled staff might improve future infrastructure delivery'. Respondents felt that the Investment Strategy should address the structures/skills and funding required to make sure there is an efficient and effective delivery mechanism.

"The ISNI should address the structures, skills and funding required to make sure there is an efficient and effective delivery mechanism."

"There is a need for greater focus on addressing barriers to infrastructure delivery, including financing, the planning process, institutional capability and governance."

"The barriers to delivery are significant and these should be identified including such issues as planning, governance, skills and the financial constraints."

Feedback from Consultees

² www.niauditoffice.gov.uk/publications/major-capital-projects

Regulatory System

It was suggested that the current regulatory system in NI is inhibiting private sector investment, particularly in the context of renewable energy projects. A consultee suggested that a review of the system should be conducted to address the barriers and unlock private investment.

Other Infrastructural Challenges

The remaining infrastructural challenges raised by consultees are discussed further in relevant succeeding sections. These include:

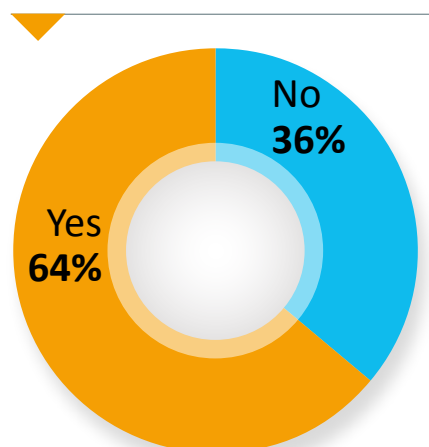
- Energy provision (Section 2.2.4)
- Climate emergency (Section 2.2.4)
- Gaps in skills and capacity in the job market (Section 2.2.5)
- Uneven distribution of quality infrastructure (particularly digital) (Section 2.2.7)

2.2.3 Investment Objectives

Five investment objectives were proposed in the draft ISNI which would be central to the approach to addressing infrastructural challenges in NI up to 2050. The five draft objectives were:

1. Decarbonise our economy and society
2. Strengthen and protect our essential services
3. Build a strong, connected and competitive region
4. Enhance our communities and places
5. Maximise the benefits from new technology and innovation

Figure 2.4 Do you agree that the five key investment objectives? (N=42)



Two-thirds (64%, N=42) of the quantitative respondents agreed with the five key investment objectives and generally provided further commentary on the areas that resonated greatest with them. The commentary has been incorporated into the following sections relating to each specific objective. The majority of feedback related to the decarbonisation priority.

Whilst 15 quantitative respondents answered 'no' to this question, nine of these provided commentary which was more positive, largely expanding on the decarbonisation investment area.

“The priorities are not wrong. They are simply not sufficient to deliver the desired Vision statement and address the breadth of current issues.”

View from Consultee

Two consultees made specific suggestions for rewording of ISNI objectives as follows:

“Objective One: Decarbonising our economy and building climate resilience.”

“Objective Three: Build a strong, connected, regionally-balanced and competitive region.”

Consultee Suggestions



Other suggested investment priorities included supporting creative solutions across both technology and other sectors and building resilience in terms of energy supply and cyber security.

It was suggested that climate change should take precedence in prioritisation with other objectives also contributing towards decarbonisation.

“Addressing climate change is an overarching priority which should form a cornerstone of all decision-making, while the other four objectives are more specifically related to infrastructure investment and therefore may create competition for investment.”

To avoid this, and prevent unintended conflict between objectives, it would be very helpful to identify how each objective can effectively contribute to others. For example, creation of green spaces and safe active travel routes directly contributes to tackling climate change. Similarly, investment in digitally connected communities can create new economic opportunities while reducing the need to travel.”

View from Consultee

A small number of respondents recommended that the investment objectives should be framed against UN Sustainable Development Goals to enable comparison with other nations.

“UN Sustainable Development Goals offer the best blueprint across nations and sectors for achieving sustainability in its broader sense, which is around the connections between the environment society and the economy.”

View from Consultee



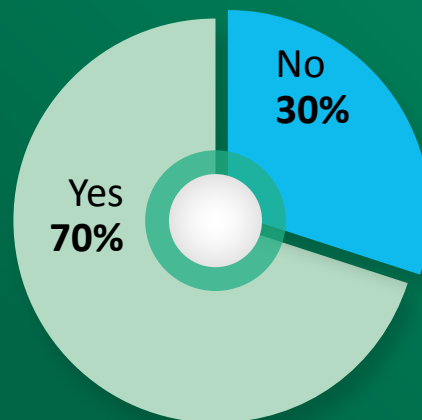


2.2.4 Decarbonising Our Economy and Society

The draft strategy sought to prioritise areas for investment to achieve the aforementioned objectives. The priority areas for the investment objective to ‘decarbonise our economy and society’ were:

1. Energy generation and distribution
2. Sustainable travel
3. Decarbonise our assets
4. Develop a circular economy
5. Adaption and mitigation

Figure 2.5 Are these the priority areas to decarbonise our economy and society? (N=43)



Over two-thirds (70%) of the quantitative respondents were in support of the investment priority areas for decarbonisation. Most respondents who disagreed provided commentary which was more positive.

Consultees emphasised that transitioning to a low-carbon economy is no longer solely a long-term aspiration; it is an economic necessity and an opportunity to power the 10X economy.

Many consultees referred to the climate emergency, both in relation to the infrastructure challenges faced and the investment objectives/ priorities. It was noted that the Climate Change Act contains more ambitious greenhouse gas (GHG) targets than proposed previously and consultees reflected that this provides the springboard to scale up the mass decarbonisation of the power, heat and transport sectors.

Responding to the climate emergency is broadly acknowledged as a key strategic issue and should shape future investment and infrastructure development. Some respondents commented that tackling the climate emergency and future-proofing NI against rising energy costs will require more ambitious actions and investment than is presently suggested in the draft ISNI.

“Responding to the climate emergency is the key strategic issue that should shape future investment and infrastructure development in NI. However, we would urge the revision of this [the infrastructure challenge in ISNI] to include the ‘climate and nature emergency’.”

View from Consultee



Feedback relating to each of the five suggested priority areas is summarised below:



Energy Generation and Distribution

Over half of the responses received made at least some reference to the topic of energy, with particular concerns raised about cost, sustainability of supply and renewable energy generation.

There was also commentary on the uncertainties in respect of decarbonising gas and the further investment required to support development of new technologies. The need for more investment in the electricity networks to support electrification of transport and heat as well as energy efficiency adaptation mitigation was also highlighted.

Energy infrastructure requirements were highlighted by businesses as a barrier to future development and expansion. The cost of energy provision and the timescale for securing energy installation is a significant cost for businesses.

“...Electricity supply and the cost of energy is a real constraint... an emphasis on incentivising localised and shared green energy production at new industrial estates.”

“As more opportunities arise from energy provision it is essential that there is a coordinated policy approach on the green recovery agenda to meet sustainable priorities.”

“To enable more renewable generation and sustain security of supply there will be a need for increased investment in inter connection as well as both onshore and offshore wind.”

“NI’s first ever Climate Action Plan or Sectoral Action Plans will be developed imminently. This will require a substantial uplift in current funding and re-purposing of investment to tackle climate change.”

“Since this engagement the extent of the impact of the cost-of-living crisis, and in particular rising energy prices, have become more apparent. It is critical that resources are focused on reducing fuel poverty and preventing more people from falling into fuel poverty.”

Feedback from Consultees

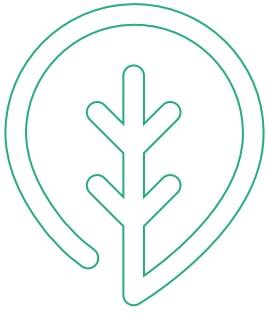
“Energy provision concerns over the closure of NI powerplants, the ongoing issues with Russian gas, unexpectedly low wind generation and the all-island need to consider purchasing emergency energy.”

“We need to factor in these geographical imbalances as well as looking at the potential for large scale infrastructure development to be complemented by local community delivery for example through community transport and community owned decentralised energy.”

“There should be investment in our electricity grid, full exploitation of renewables and the potential development of a hydrogen network.”

“To move to net zero CO₂ emissions will require major modal shifts in energy generation, including not just electric charging infrastructure but also infrastructure for other fuels, for example, hydrogen. The investment objectives should be enhanced to reflect the nature and scale of the challenges faced and the changes and budgetary shifts needed.”

Feedback from Consultees



It is widely recognised that a global energy crisis is already underway. The war in Ukraine commenced after the completion of the draft strategy and has had a massive impact on the security of energy provision and prices.

Some consultees expressed concern that despite the energy crisis, the draft strategy only refers to ‘invest[ing] in our electricity-generating capacity’ and seems to imply that most of the issues will be addressed through future buildings being more energy-efficient, with smart sensors and the north-south interconnector. It was the view of these consultees that, whilst welcome, these proposed measures alone cannot offer the significant solutions that are required.

It was further noted that some of the solutions referenced in the strategy for decarbonising heat are as yet unproven to be viable technologies at the scale needed, e.g., biogas and blended hydrogen.

Consultees highlighted the challenges faced by rural communities as a result of climate change with lower population density restricting the viability of less carbon-intensive energy supply options such as district heating.

Consultees offered a wide range of suggestions for energy investment to contribute to the wider decarbonisation objective, including:

- Upgrade the existing systems to decarbonise, decentralise and digitalise across the network.
 - Speed up heat networks in domestic settings drawing on existing technologies e.g. District Heat Pumping capacity.
 - Upgrade the electricity grid, ensuring there is adequate regional distribution of capacity.
 - Adopt and streamline community energy systems and micro-grids, especially for enterprise zones to relieve pressure on the grid, help to balance load and give more consumer choice.
 - Utilise green hydrogen produced at wastewater treatment works to help the transition from diesel to green fuels for heavy goods vehicles and invest in green hydrogen storage.
 - Use the ambient heat from wastewater treatment works in industrial scale greenhouses.
 - Support early adoption of electrolysis by building electrolyzers when global demand is soaring.
- Most properties need to be linked to the gas grid and the system must be decarbonised using biogas or natural gas blended with hydrogen.
 - The electrification of heating in rural areas may necessitate investment in the electricity grid.

Strong feedback was received in relation to renewable energy. Consultees highlighted that the risks to security of supply and the need to address climate change both point towards a need to act with urgency and expedite NI’s transition to an indigenous renewable energy system.

NI has a comparatively strong record in the development of renewable energy with c. 42% of our electricity generated from renewable sources. Consultees noted that due to its island location and land availability, NI is ideally placed to become a renewable energy hub of excellence.

Notwithstanding this, the consultees emphasised that NI currently loses too much of its home-generated energy, while importing expensive fossil fuels thereby increasing dependency on external sources. It was recommended that the ISNI should not prioritise any investment that will continue or increase dependency on fossil fuels.



“We must create a renewable energy economy through a holistic approach involving collaboration across utilities, government, regulators and other sectors of the economy.”

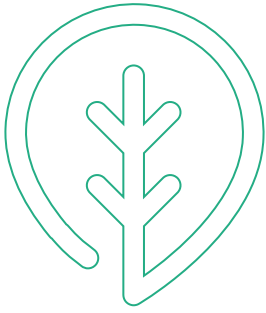
“The greatest source of renewable energy in NI is likely to be wind, and the strongest and most reliable source of onshore wind power is in the northern and western regions. Yet most of NI’s electricity is used in and around Greater Belfast. Moving wind generated electricity from onshore locations would require many new grid projects both in terms of upgrades to existing infrastructure and reinforcements to new circuits to carry additional electricity.”

“The infrastructure challenges should also include the impact of fuel and other rising costs and the ageing population.”

View from Consultee

Key points emerging from the responses in relation to renewable energy, included:

- Clearer priority needs to be given to investment in renewable energy infrastructure to safeguard future energy security, combat fuel poverty and tackle the climate emergency.
 - Achieving community backing for new renewable energy infrastructure is fundamental to meeting 2030 renewable energy targets. It was highlighted that there is currently no mechanism to directly give back to host communities who are impacted by electricity transmission network infrastructure. Conversely, other parts of the United Kingdom (UK) and RoI allow for community funds and other mechanisms such as biodiversity and sustainability support mechanisms.
 - Through the right controls and management, battery storage can take the stress felt by the grid at peak times and support the growing pressures on the grid. Battery storage integrated with solar panels also can play its part in addressing fuel poverty, ensuring a sustainable and reliable source of power, heat or hot water.
 - Achieving the goal of 70% of our energy from renewable sources by 2030 will require change and investment in infrastructure across the entire electricity sector.
 - New renewable generation capacity must be delivered
- while minimising the impact on the transmission network. This will require a whole-system approach, across transmission and distribution networks, and potentially other energy networks such as gas, if hydrogen is to form a component of the response. Significant infrastructural requirements will be required to underpin a safe and secure energy transition.
- It was suggested that a new standalone renewable energy planning department could be established with the mandate to promote the development of wind (onshore and offshore), geothermal, solar and hydrogen infrastructure projects.
 - The Executive could consider joining the ‘Beyond Oil and Gas Alliance’ (similar to Wales) as a commitment to ending fossil-fuel exploration.
 - A dedicated fund could be created which could be drawn upon to divert investments towards low carbon or net zero solutions.
 - Innovation and demonstration projects and increased investment in inter-connection from onshore and particularly offshore wind energy are needed.
 - Greater investment should be made in biomethane as a readily available source from farm waste and anaerobic digestion plants.
 - The agricultural sector in rural areas needs to reduce reliance on fossil fuels.



Sustainable Transport

Public Transport

Enhancing public transport connectivity was raised as a means to support decarbonisation by reducing emissions from motor traffic. It was suggested that priority must be given to acting quickly and decisively to decarbonise the transport networks. In particular it was suggested that a lack of rail infrastructure and unique transport pressures in rural areas act as a barrier to reducing carbon emissions.

Given the inherent linkages between a number of the investment objectives, feedback relating to public transport and its role in decarbonising our economy and society has been incorporated into the wider feedback relating to public transport in Section 2.2.7.

Electric Vehicles

The accessibility of charging points was raised as an issue as was the cost of migrating to electric vehicles (EVs).

It was suggested that the aim of having 40% of vehicles to be powered by electric by 2035 is

not sufficiently ambitious given the scale of the change required to tackle the climate emergency, recognising that NI has a very low proportion of EVs at present relative to some other European countries/ regions³.

There was support for pursuing alternatives for electrically powered transport:

“We would caution against the presumption of the electrification of all future transport and would urge support for other clean alternatives such as green hydrogen.”

View from Consultee

A respondent highlighted that there is no EV strategy for NI, no targets for the uptake of EVs and no clear plan for expansion of the public charging network. There is therefore a need, it was argued, for strategic direction and policy in relation to an extensive roll-out of an EV infrastructure in NI. Implications for the capacity of the electricity network, particularly in rural areas, was also highlighted.

It was noted that tourists often seek to offset their carbon footprint, making prevalence of electric rental cars and adequate EV infrastructure increasingly important for the tourism industry and decarbonisation agenda.



Decarbonise Our Assets

Decarbonisation of assets (e.g. housing, wastewater treatment and buildings) was largely mentioned in relation to other topics and woven throughout the report. However a number of consultees specifically noted that moving forward strategies should be integrated and complementary to ensure that all new-build infrastructure (schools, colleges, healthcare facilities, etc.) is commissioned in line with policies that are climate change-proofed – e.g. BREEAM, Passivhaus.

It was noted that a huge programme to retrofit homes to ensure higher energy efficiency standards is required. Bringing homes up to standard opens the opportunity to install efficient heat pumps using clean renewable electricity.

There is also a need to retrofit existing housing stock from oil heating to enable use of low-carbon natural gas and ultimately potentially hydrogen. In addition, it is argued that all housing should be designed and built with an anticipated lifespan of over 100 years.

³ Consultee reported that: ‘In 2020 less than 1% of newly registered /purchased vehicles were electrically powered Compare this to nearly 25% in the Netherlands and 74% in Norway’.



One large private sector organisation indicated that the draft strategy did not adequately recognise the importance of smart technology in helping to decarbonise the economy and society.

“Investment in digital infrastructure such as smart metering and a digitised energy system (as called out in the Energy Strategy) are key enablers of decarbonisation that should be reflected.”

View from Consultee



Develop a Circular Economy

Many responses specifically addressed the development of a Circular Economy (CE) and highlighted how poor current waste infrastructure is in supporting this CE:

“...This glaring gap in NI’s waste infrastructure has meant that NI has not only failed to use waste as an asset to support the CE and wider environmental targets, but it has also failed to develop a robust and resilient waste management system.”

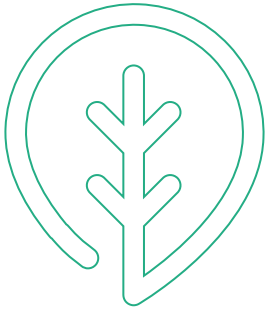
“NI has failed to deliver the modern waste infrastructure envisioned in The Waste Management Strategy (2000) and is now decades behind European best practice.”

Feedback from Consultees

Key points raised included:

- More than two-thirds (69%) of the raw materials used in NI are extracted elsewhere and imported into NI. One-third of the material footprint is used in the construction and maintenance of buildings and infrastructure⁴.
 - Modern methods of construction that reduce material waste in the construction process can help achieve the objectives of the CE.
 - NI is currently offshoring much of our environmental impacts by importing building materials and exporting waste materials for treatment. This is unethical and unsustainable. Circular design principles need to be embedded, choosing more efficient and less emission-intensive materials along with prioritising retrofit programmes over new build.
 - Waste infrastructure should be aligned to the CE Package. A new Waste Management Strategy can provide clarity on how the EU’s CE Package will be implemented in NI and ensure that the draft ISNI aligns with the NI CE Strategic Framework.
- Transition to the CE will require a whole-system approach, however respondents felt that the draft strategy reflects a primarily ‘waste-based’ understanding of the transition, as opposed to a resources-based one. Specifically, respondents noted:
- The CE is much broader than waste as it cuts across every sector.
 - There is a need to develop specific facilities and technology that support the CE.
 - Opportunities exist to create a digital passport for suitable materials and tie in with green procurement.
 - The infrastructure requirements around the CE include concepts such as upskilling and training, policy changes to minimise consumption, data on the stocks and flows of products and education and support for the reuse/ repair/ remanufacture premise.

⁴ The Circularity Gap Report, Department of the Economy.



The following examples were provided by a consultee:

“Offsite manufacturing and new materials’ – refer to circular principles to construction by reducing waste and recreating more resource efficient materials.

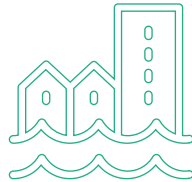
‘Regenerate our high streets’ – refers to reuse, repurposing and refurbishment. We should refer to this practice as being circular as per CE Strategic Framework.

CE approaches can be useful in reducing carbon emissions (a benefit as opposed to a principle).

Gasification of residual waste can provide valuable renewable heat, a viable solution instead of exporting the residual waste outside the region.

The development of CE quarters such as those being considered within the Belfast Linen Business Improvement District.”

Suggestions from Consultee



Adaptation and Mitigation

Whilst there were limited responses relating to flooding, those consultees that did provide feedback emphasised that the challenges associated with increased incidences of flooding cannot be over-estimated and there is a need for immediate investment to support those communities currently living with the consequences on an ongoing basis.

It was noted that more broadly, climate adaption in a changing climate is an important consideration – not just flood risks - but risks to infrastructure from rising sea levels, coastal erosion, increased storms, heat stress, water stress, soil heave and slope instability. NI’s coastal infrastructure policy is widely acknowledged as being outdated and lacking in adequate coastal adaption strategies.

Nature-Based Solutions and Biodiversity

Although not included within the investment priorities suggested in the draft ISNI, a number of comprehensive responses were received which referred to the inextricable links between climate change and biodiversity loss, and the key role of nature-based solutions in carbon sequestration.

It was suggested that the vision for ISNI should be expanded to refer to both ‘restoration and protection’ of our environment with references elsewhere in the strategy to the need to strengthen our natural infrastructure.

“Globally the crisis of climate change and biodiversity loss are inextricably linked, with many shared causes and solutions. It was suggested that public spending on biodiversity priorities in NI is approximately £1.4m per 1000 km2, compared to a UK average of £2.3m per 1000 km2. It is estimated that there is an annual financing gap of more than £80m.”

View from Consultee



Consultees indicated that the draft strategy is mainly focused on technological solutions, hard infrastructure and mitigation. It was felt that this should be expanded to recognise the importance of natural capital in carbon sequestration.

It was noted that natural infrastructure can be integrated with development and provides benefits for programmes such as housing and regeneration, flood, water, and drainage management, active travel, blue and green networks, woodland creation and peatland restoration.

Support was expressed for measures to improve resilience to climate change by harnessing the natural environment, such as an increase in green and blue corridors, tree planting and the use of Sustainable Urban Drainage Systems (SUDS) to help prevent flooding.

There were calls for nature-based projects to be a key priority within the infrastructure finance and investment plans. Specific comments included:

“The current approach to economic regulation is not aligned to the green growth (nature-based) solutions and is, arguably, biased against them. There is therefore a need to update the UK’s framework for regulation of utilities.

Economic regulation puts a premium on nature-based solutions. These are often carbon-intensive and do not deliver additional positive externalities. Nature-based solutions require mainly operational costs, and their cash-flow profile is therefore greater even over the life of the solution.”

View from Consultee

One submission proposed rewording the priority to: *Decarbonising our economy and building climate resilience*. It was argued that this objective should include an assurance that there is energy security to address the costs of intermittency and curtailment associated with greater use of renewables.

In addition, two new objectives were proposed by one consultee:

- Use of blue-green infrastructure to deliver nature-based solutions.
- Design out demand for infrastructure at source.

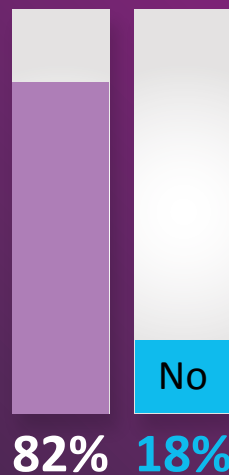


2.2.5 Strengthening Essential Services

The priority areas for the investment objective to ‘strengthen our essential services’ as suggested in the draft ISNI were:

1. Water and wastewater treatment
2. Health and social care
3. Education and skills
4. Justice and community safety

Figure 2.6 Are these the priority areas to strengthen our essential services? [N=39]



Four-fifths (82%, N=39) of the quantitative respondents agreed with the investment priority areas for strengthening

essential services. Over half of the respondents who answered ‘no’ to this question also went on to show their support of the investment areas and provided additional suggestions as to what areas should be emphasised.

Feedback relating to each of the four suggested priority areas is summarised below.



Water and Wastewater Treatment

Historic lack of funding for wastewater and inadequate capacity generated negative commentary from respondents with a recognition that attempts to fund water and wastewater infrastructure through public expenditure have resulted in a generational underinvestment.

“The fact that 70% of waste water treatment works serve only 10% of the population is concerning, with implications for water quality, aquatic life and the human food chain both on and off shore.”

View from Consultee



A large private sector group indicated that the NI wastewater issue is perhaps the most acute infrastructure challenge faced in NI and warrants considerably greater attention in the final ISNI.

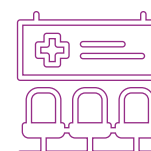
Other respondents highlighted:

- Investment in water and wastewater is critical to unlock stalled development including in housing.
- Many of our sewerage networks and wastewater treatment plants are operating at or beyond their design capacity.
- The impact of failing wastewater infrastructure is placing constraints on housing development, which in turn impacts on the ability to attract labour to rural regions, and on the development of serviced industrial land to enable businesses to expand.
- More emphasis should be placed on green and blue infrastructure investment as a means to managing wastewater treatment.
- Water and wastewater infrastructure must be a high priority to ensure new communities and places can be built and existing ones improved. NI should explore the potential of electrolysis to build capacity in

- wastewater treatment. Similarly, efforts must be concentrated on reducing the need for expensively treated freshwater.
- Delays and lack of certainty over water infrastructure, along with potential increased costs leads to NI being a less attractive place to invest than other parts of the UK.
- Similar to the ongoing discussions regarding the NI Housing Executive (NIHE), the ISNI should lay groundwork for discussions regarding the future governance and financing of NI Water.
- The deficit in relation to wastewater network capacity is causing concern regarding the pollution of waterways and the knock-on effect on tourism.

“New housing developments particularly in our urban towns and key settlements are being refused by NI Water due to lack of upgrading to wastewater treatment works and new water mains not being delivered.”

View from Consultee



Health and Social Care

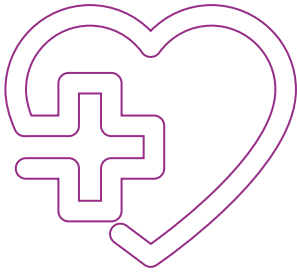
Half of all responses referred to health and social care with consultees typically commenting on issues with the local availability and/or effectiveness of services.

Some consultees recommended that a review of health and social care was necessary to ensure provision in the future met the needs of communities.

Acute, Primary and Mental Health Services

Specific issues/feedback identified by consultees included:

- Delay in reform of the health service has led to an inability to attract safe and competent levels of staffing in peripheral hospitals, which is now resulting in an unplanned, unsystematic closure of services. This particularly disadvantages lower-income and older residents, as well as (typically female) family members who provide unpaid care.



- Widening health inequalities underline the need for joined-up thinking and resourcing that removes barriers to support. Implementation of health transformation plans is essential to develop critical services and specialisms.
- In some areas of NI, deficiencies in the road network and broadband capabilities contribute to inadequate ambulance response times. One respondent argued that one of the investment objectives should be amended to: 'Strengthen and improve access to our essential services'.
- Infrastructure investment to support essential services must take full account of not only the statutory public services delivered by the public sector but also those delivered by voluntary community and social enterprise organisations. The 2016 Bengoa report on NI's healthcare system highlighted the role of the voluntary sector.
- The root causes of poor health need to be tackled, not just treating illness but promoting wellness/ wellbeing and supporting preventative factors.
- In this regard it was noted that the draft ISNI acknowledges the importance of infrastructure such as leisure facilities that are based around enabling longer healthier lives and reducing the burden on the health service.

- Greater investment in community health and wellbeing services can also contribute to reducing pressures on hospitals and address regional imbalances.
- Transformation of the healthcare system must include recognition for mental health support.

"...investment is needed to deliver new mental health facilities and support therapies and accommodation options for the most vulnerable adults and children in society."

"Infrastructure such as open space, greenways and cycle lanes can encourage physical activity and can aid good mental health. Evidence has shown that those living closest to parks are more likely to achieve recommended physical activity levels, are less likely to be overweight or obese and have better mental health."

View from Consultee

- Poor mental health is most pronounced in economically deprived areas of our society. Consultees welcomed reference in ISNI to a need for investment in mental health in-patient units is welcomed. However, it was suggested that mental healthcare could be further strengthened by reducing bureaucracy and facilitating community intervention in delivering improvements.

- It was suggested that the strategy must take cognisance that NI operates in a post-conflict context with unique social and economic effects, including a high prevalence of intergenerational trauma:

"15-30% of the (NI) population experience paramilitary activity, rising to around 60% in some areas; and levels of trauma within NI far exceed the rest of the UK. In some cases, this has been effectively normalised at a system-level, something that should be actively considered and addressed as part of investment considerations."

View from Consultee

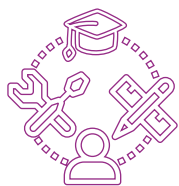
Care Economy including Childcare

Care was identified as a key priority and ensuring a fit for purpose health and care system should be rated highly. Investment in care was highlighted as essential for ensuring that NI can effectively prepare for an increasingly ageing population.

It was suggested that NI currently lacks a functioning adult social care system, which reduces in particular, opportunities for women. It is argued that the strategy offers the possibility to implement a care economy, noting that the sector has the potential to be a key economic contributor in terms of job creation and tax generation.



It was noted by one consultee that childcare is not presently addressed in the draft strategy despite representing a major barrier to employment, particularly for females, as well as one of the most significant areas of expenditure for many families. Addressing childcare issues would support greater productivity of the NI economy and reduced levels of economically inactive people in the workforce.



Education and Skills

Approximately half of all responses referred to education and skills. Issues arising included the importance of investing in skills to drive the economy and tackle the productivity gap.

“Our infrastructure strategy needs...prioritise the skills agenda delivering the right skills creating a skills pipeline and embedding skills in schools and communities are key to persuading employers of significance to invest in a reimagined NI driving improvements in productivity and allowing us to achieve the longer-term vision.”

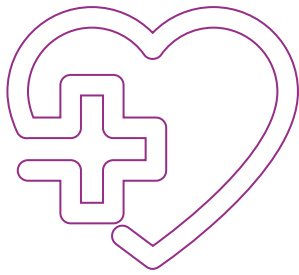
“A number of challenges which must be addressed if we are to have a workforce equipped with the skills needed by employers to rebalance and rebuild the economy.”

View from Consultee

Views expressed from a number of consultees included:

- NI need to have adequate skills to achieve the ISNI vision, especially in relation to emerging technologies.
- The role of all aspects of the educational spectrum will be critical, particularly the vocational educational route. Skills and labour are a current and future constraint to growth and competitiveness.

- Education policy, including reform of the NI Skills Eco-System, must be reshaped to provide the skills that businesses need and address the proportion of the labour force with no qualifications. This would have infrastructural implications.
- Innovation opportunities such as Industry 4.0 will be achieved by highly skilled, flexible and responsive employees. The digital challenge has demonstrated the importance of broadband provision for the ability to undertake remote learning and studies.
- Educational infrastructure, particularly primary and post-primary, must be of the requisite standard to support continued competitiveness of the region with increased globalisation.
- Investment in the growth of third-level education should be enhanced with the development of centres of excellence, aligning with proposals under the emerging city and growth deals. Recommended sectors include advanced manufacturing and engineering, agri-food and agri-tech, robotics/ automation, hydrogen/ clean energy and AI.



Justice and Community Safety

Consultees welcomed the recognition in the draft strategy that change is required to deliver an accessible, responsive and efficient justice system. It was stated that there should be collaborative engagement and co-design with other stakeholders across the justice system so that any systems or processes introduced work well for all. A whole-system approach, rather than focusing on specific sectors was recommended.

“We welcome that criminal justice is mentioned specifically in the strategy as ‘an area in need of improvement’, however ... the narrative on justice contained in the strategy is too narrowly focused on criminal business. Civil and family justice are equally key aspects of our justice system which also require investment and therefore should explicitly be referenced.”

View from Consultee

Consultees noted that investment in the justice system generally, as well as legal aid, can lead to savings and unburden public spending in other areas such as health.

Reference was made to civil, family and tribunal justice systems requiring bespoke facilities to better meet the needs of citizens with investment targeted to deliver a more consistent standard of accommodation. Facilities and services should be appropriate to the nature of proceedings for all court and tribunal users. For example, the development of justice hubs should be facilitated for restorative justice hearings and the provision of remote evidence.

There was criticism amongst consultees from the justice sector concerning the quality and access to technology used to conduct remote hearings during the pandemic.



Waste

Although not included within the investment priorities suggested in the draft ISNI, a small number of consultees specifically referred to the waste infrastructure throughout NI as a priority for investment stating that the scale of investment required is unprecedented and should not be understated. It was suggested that the strategy should set out ‘where we need to be’ with regards to adequate waste infrastructure such as waste treatment and reprocessing plants.

Consultees noted that the draft strategy did not state the quantum of investment in waste infrastructure to date or compare the per capita investment versus other regions of the UK. Respondents expressed the view that waste needs significant investment to ensure sustainable solutions and green jobs. It was noted that our changing population will potentially result in a greater environmental impact and a larger carbon footprint.

Recommendations included:

- Exploit advances in technology. For instance, the current DEFRA/DAERA consultation on the digital tracking of waste identifies the need for appropriate infrastructure to support new technology.
- Increase capacity for recycling, organics, refuse derived fuel, solid recovered fuel and landfill.
- Increased, reliable in-island thermal treatment capacity.
- Extend standardised data collection to all producers and processors to improve planning of waste infrastructure.
- Address storage and access requirements regarding waste, particularly in apartment and high-rise accommodations.

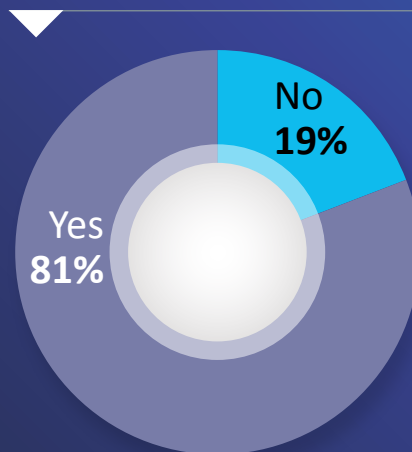


2.2.6 Enhancing Communities and Places

The priority areas for the investment objective to ‘enhance our communities and places’ as suggested in the draft ISNI were:

1. Regenerate our high streets
2. Sustainable and active transport
3. Investing in housing
4. Enhancing cultural, arts and leisure infrastructure and the natural environment

Figure 2.7 Are these the priority areas to enhance our communities and places? (N=43)



Four-fifths (81%, N=43) of the quantitative respondents confirmed their support for the investment priority areas for enhancing communities and places

with the area of housing receiving the most supporting commentary. On analysis of the 19% of responses who answered ‘no’, commentary was generally constructive with additional suggestions and emphasis on particular investment areas.



Investing in Housing

There was support amongst respondents for increasing the social housing stock to address growing numbers of households in housing stress.

There was also an emphasis on intermediate housing, improving the quality of existing housing, developer contributions to affordable housing and the impact of poor water infrastructure.

Key themes highlighted included:

- There is an insufficient supply of high-quality, affordable, and social housing in NI. There is a need for a clear route map to show how housing growth ambitions can be facilitated.
- Housing-led regeneration policy contributes to reversing the physical, social, and economic decline of town and city centres.



- Revitalisation of the NIHE is underway, which could free the organisation to borrow to invest in its existing housing stock and add to new supply.
- The recently published Reset for Growth Report from the Belfast Innovation and Inclusive Growth Commission indicates that Belfast is uniquely placed to put a significant housing building programme at the heart of its economic recovery plans, for the benefit of Belfast and NI overall.
- There are currently a number of policy, financial and structural challenges to the delivery of placemaking regeneration schemes. This is impacting on the provision of regenerative housing at scale. Incentives might be required to stimulate privately led development of brownfield sites across NI, and the creation of a task force has been proposed.
- Well-designed residential developments can also help to reduce GHG emissions by incorporating features such as green and blue infrastructure to encourage sustainable lifestyles.

Futureproofing for the different stages of a person's life was also identified as a crucial issue, requiring sufficient supply of high-quality affordable and social housing and appropriate housing types for an ageing population.

High-quality sustainable housing needs to be underpinned by improved building regulations on energy and water efficiency, as reflected by consultees. In particular, it was recommended that building regulations are amended to promote the adoption of rainwater harvesting.

“As well as ensuring that housing associations can fully participate in creating and delivering new housing options across all tenures, consideration should be given to how private sector developers can better contribute to affordable housing tenures.”

“Meeting the housing needs of our aging population is growing in importance as an issue. Considerable adaption to our existing housing stock both social and private will be required.”

“There needs to be continued investment in intermediate housing such as shared ownership given the nature of the affordability gap between those who can and cannot afford to purchase a home.”

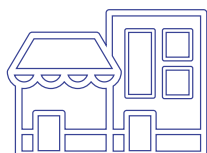
Feedback from Consultees

“We welcome the priority given to decarbonisation in the strategy and consider ourselves a core delivery partner given the scale and nature of greenhouse gases emitted from our housing stock.”

“The delivery of homes offers significant opportunities to help achieve balanced communities through well linked accessible inclusive mixed tenure neighbourhoods.”

“Building standards should require the highest levels of climate resilience including net zero carbon development. Robust standards for new homes would ensure a reduction in a building's ecological footprint and would require little energy for heating or cooling.”

Feedback from Consultees



Regenerate Our High Streets

Consultees recommended diversifying and strengthening high streets using design to:

- Address accessibility issues
- Encourage active travel
- Reimagine and re-use vacant units to facilitate city centre living

“We welcome the establishment of the High Street Taskforce and the role of ongoing meaningful engagement to renew places and spaces. Development of more housing in town and city centres as well as town centre health hubs and or enterprise zones would stimulate economic activity in the daytime and evenings.”

View from Consultee

Feedback from consultees included the following points:

- The regeneration of high streets should apply equally to urban and rural settlements and help address the existing policy gap in terms of rural regeneration.

- The provision of high-speed connectivity, including 5G technology integration, smart and enabling technologies as well as big data have the capability to create ‘smart towns’ and provide a digital springboard for businesses.
- Cultural and tourism strategies and work to support arterial routes/ neighbourhood centres also provide a strong platform to support the diversification of the high street. This will require:
 - Place-based leadership across NI
 - A long-term and holistic placemaking approach
 - Increased city centre living
 - More resilient and accessible connectivity across NI for all
 - City centres re-thinking the use of office space.
- There was a call for creative interventions to address high street issues, including costing the recommendations of the High Street Taskforce and replication in NI of funding initiatives which have been successful elsewhere in the UK such as the £820m ‘Future High Streets Fund’.
- One consultee referred to ‘A Bolder Vision for the future of Belfast City Centre’⁵, which calls for a fundamental rethink of how streets and places are used. The consultee particularly highlighted the importance of:
 - Working collaboratively to support the delivery of regeneration projects and investing in sustainable infrastructure.
 - Increasing local-level decision-making and the ability to introduce local interventions through increased delegated authority in these areas.
 - Referencing the various City Region Deals in the region and how they can align and contribute to these priorities.



Sustainable and Active Transport

Most commentary relating to the role of sustainable and active transport for enhancing communities related to issues regarding accessibility and the needs of rural communities.

⁵ Developed by Belfast City Council (BCC), Department for Infrastructure (DfI) and Department for Communities (DfC)



“Whilst we agree with and support the focus on sustainable and active travel these options are often unrealistic to serve the daily needs of rural dwellers.”

“There is insufficient weight given to greenways and infrastructure that can enable users to cycle and how these routes will be integrated alongside existing infrastructure in communities.”

Feedback from Consultees

Given the inherent linkages between a number of the investment objectives, other feedback relating to sustainable transport and its role in enhancing communities and places has been incorporated into the wider feedback relating to public transport in Section 2.2.7.



Enhancing Cultural, Arts and Leisure Infrastructure and Natural Environment

Those consultees who referred to culture, arts, leisure and/or the natural environment expressed positive views about their role in enhancing communities and places.

Cultural and leisure facilities were frequently cited as being beneficial to the wellbeing of the community and also supporting the economy through tourism. Feedback suggested that there is significant opportunity to invest in and strengthen the fundamental structures that support societal wellbeing and development as a whole.

It was suggested that museums, libraries, arts and cultural institutions should be central to the rebuilding of our societies, providing essential public services.

“We also would wish to see a stronger and broader commitment to enhancing cultural infrastructure to include venues, skills hubs, and spaces for cultural production (particularly in urban cores). These are crucial to ensuring that infrastructure development is used to engage new and underrepresented communities in the benefits of creative and cultural skills.”

“Encouraging recognition that the value of open space community leisure and recreation facilities has been highlighted clearly throughout the covid pandemic.”

Feedback from Consultees

There was strong support for the concept of the 15-minute city⁶ and the development of a National Walking Strategy, similar to Scotland.

Feedback also highlighted that there is a global body of evidence that shows the impact of culture, arts and heritage as drivers of equality, inclusion and social and economic change. They are innovative sectors with people, organisations and places embedded within communities and across multiple disciplines. The role and potential of the creative sectors is already visible in major initiatives such as City Deals and Peace Plus.

⁶ The ‘15-minute city’ is one in which urban residents can fulfil six essential functions – living, working, commerce, healthcare, education and entertainment – within a 15-minute walk or bike ride from their home.



One respondent suggested that there was insufficient focus in the draft ISNI on sporting facilities as a fulcrum for community cohesion, health benefits and civic pride.

“Sport, it is noted, is almost an afterthought, even though it is widely recognised as one of the foremost delivery mechanisms in any nation for national pride, community cohesion and health benefits.”

View from Consultee

Place-making and creating communities in high-quality surroundings was considered essential. One respondent noted that enhancing access to high-quality green space provides numerous benefits for local communities, including improvement in health and wellbeing. Inclusion of a commitment to improving access to nature-rich green space for communities was therefore encouraged. Specific recommendations included:

- A call for more green corridors linking people with places as well as nature.
- Investment in a Nature Recovery Network for NI.
- ‘Blue’ or water spaces should also be considered to ensure that access to one of NI’s best natural assets is considered on a par with green spaces and the natural environment.
- Areas of Outstanding Natural Beauty should be protected from industrial activity.

“Green spaces should be central to the future planning of communities and spaces. We must innovate in the ways we design and plan our infrastructure to incorporate green and blue spaces that are inclusive and safe places to enjoy.”

View from Consultee



Community Development

Although not included within the investment priorities suggested in the draft ISNI, a small number of consultees specifically referred to the need for ISNI to prioritise investments which develop strong and cohesive communities. Specific feedback included:

- ISNI should focus on enabling and supporting people, including older people, women and grassroots communities, to stay well and active, connecting to others and participating in the life of their community through effective core infrastructure.
- Building capacity of communities to participate in asset transfer schemes will be critical in strengthening cohesion and capability.
- The development of governance and management structures should enable communities to take direct control of common assets, to stimulate alternative approaches to delivering their needs.



- The potential for large-scale infrastructure development, complemented by local community delivery in a post-CAP environment, should also be considered.
- Investment in physical infrastructure within communities and places must consider the accessibility needs of disabled people and people with reduced mobility.

“In these communities there are entrenched problems of poverty, unemployment, educational under-attainment, drug and alcohol addiction and poor mental health. It is vital that the ISNI pays due regard to the impact that investment decisions could have in creating the environment to sustainably end paramilitarism.”

View from Consultee

One respondent emphasised the potential role of community wealth building⁶ in using a people-centred approach to economic development that directs wealth back into the local economy. It was suggested that approaches such as the Preston Model⁷ can create a resilient and inclusive economy for the benefit of the local area.

Another organisation advocated a whole-of-government approach, as it includes dealing with deep and systemic issues facing communities where paramilitary control is strongest.

⁶ Key components of community wealth-building include progressive procurement, social value (benefits for the local area such as employment, skills, environmental impact, wellbeing); democratising the economy (cooperatives, economic inclusion, greater opportunities for all); Real Living Wage (paying all employees a fair and reasonable wage) etc.

⁷ The Preston Model is centred around tackling inequality in economic development. The model does this by taking a collaborative approach to building locally controlled economies, which put communities first. It does this by reducing the amount of wealth flowing out of the local economy, so that it can be shared more widely and recirculated for the benefit of residents and businesses. (<https://www.investprestoncity.com/article/4374/The-Preston-Model>)

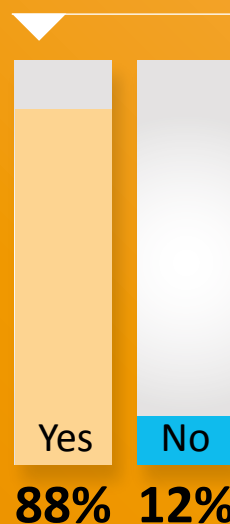


2.2.7 Building a Strong, Competitive and Connected Region

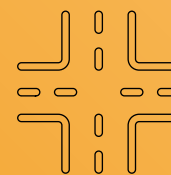
The priority areas for the investment objective to 'build a strong, competitive and connected region' as suggested in the draft ISNI were:

1. Improve connectivity on strategic corridors
2. Strengthen our public transport networks
3. Maintain strong utility and digital connectivity
4. Leverage key strategic development sites

Figure 2.8 Are these the priority areas to build a strong, competitive, connected region? (N=42)



Almost all (90%, N=42) of the quantitative respondents agreed with the investment priority areas for a strong, competitive and connected region. Commentary from the 12% of respondents who answered 'no' generally consisted of constructive feedback across the areas of connectivity (both digital and physical assets) and our competitiveness as a region.



Improve Connectivity on Strategic Corridors

Roads

The draft strategy states that more roads are needed 'to handle more freight faster, as well as improving leisure routes and trails to support our tourism sector'.

Some consultees expressed a view that this statement conflicts with the pathway to net zero since NI should be expanding rail network to handle freight, moving large quantities outside peak times where possible.

It was suggested that careful consideration and support of essential transport links with our nearest neighbours in GB and the EU is needed.



Other feedback in relation to the strategic road network included:

- NI’s road network must be upgraded so that the region stays connected, post-EU exit.
- Congestion charges, toll-roads and low emission areas are required.
- The bottleneck junction at York Street Interchange is increasing pollution and is considered by some to be a key investment priority.
- The A1 Junctions should represent investment priorities.
- The dualling of the A5 was highlighted as an important opportunity to open the potential for increased investment in the North West. It was also argued that the A2 Buncrana Road widening scheme should be implemented and the A6 project completed.
- Specific sub-regional issues were highlighted including that:
 - There are limited transport networks in the Fermanagh and Omagh with no motorways or dual carriageway, no rail infrastructure and limited public transport.
 - Industry in the Mid-Ulster region operates with substandard roads networks, which constrains the efficiency of their operations and associated productivity.

- The impacts of strategic corridors on congestion, lack of land availability and localised cost pressures on resident families were also highlighted.

“Decades of underinvestment in our road and rail network has left communities marginalised and isolated from essential services.”

“Businesses are facing a daily battle in the movement of freight to export markets via non classified road networks with consequent impacts on growth productivity and competitiveness.”

“Future investment in our connectivity will significantly influence the functioning of trade, access to labour markets, business productivity and competitiveness. Such investment is essential and will ultimately lead to improvements in NI and UK economic output and the geographical distribution of trade.”

Feedback from Consultee

Councils located along the Border Corridor expressed a need to apply an evidence-based approach to achieving a regionally balanced economy in NI, recognising cross-border dependencies for physical and digital connectivity with export markets.

Rail

The importance of improving the rail network to connect rural regions was emphasised, as well as serving the airports and expanding freight options to drive competitiveness. Rail was the most frequently mentioned form of public transport with consultees highlighting its potential role in:

- Improving connectivity between Council districts and throughout NI
- Better connections to the ports and airports
- Cross-border connections to Dublin and to tourist hotspots

There was support for promotion of rail travel via expansion/ renewal of the rail network with specific suggestions including:

- A link into the International Airport, seen as vital to promote tourism.
- Inclusion of Mid-Ulster as a gateway to the West and as a cross-border link.
- Improved rail links with the North West as a priority to decarbonise the transport sector.



Ports

Key themes emerging in relation to ports included:

- Ports are key regional drivers for economic growth. About 95% of UK imports and exports by volume go by sea, and volumes are forecast to grow in the long term. In the National Infrastructure Delivery Plan (2016–2021), the UK government sought to encourage sustainable port development to cater for long-term growth in import and export trade volumes by sea and continue to support domestic freight movements. This is more critical in a post-Brexit scenario.
- In NI there has been an investment deficit in connectivity to regional port infrastructure, which does not reflect their critical importance in stimulating growth, especially in target areas such as renewables. There should be a focus for development to catalyse economic rebalancing of regional economies. Ports should be supported by government to have a joined-up approach with particular alignment on green objectives and digital transformation and innovation, supporting the broader economy.
- The freeport model is designed to create jobs, drive investment and regenerate communities. Ports and Councils are working

together to develop a 'NI Protocol-compliant' freeport model. It is noted that a central inland freeport hub site was also suggested by one consultee to facilitate logistics and assist inward investment.

- There is potential for one or more enterprise zones linked to the ports.

Airports

Airports play a key role in the tourism offer as well as connectivity of NI residents to the rest of the UK and beyond. As such it was suggested that the airports need to continue to invest to improve customer experience.

Recognising that a significant proportion of out-of-state visitors to NI have come up from ROI, it was also recognised that connectivity with Dublin airport is essential for economic growth.

There was support for the ongoing development of Derry City Airport to enable affordable air connectivity to the North West. It was noted that it is the only airport in Europe funded by ratepayers and requires a sustainable public investment programme.

A large representative body suggested that integrating ports and airports into multi modal transport infrastructure should be a priority area to reduce car

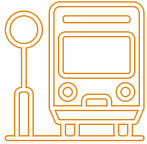
journeys and support tourism. This is particularly key at the airports where there are no connecting rail halts.

Physical Connectivity to Rural Areas

Concern was raised by some consultees in relation to the lack of rural accessibility to jobs and services due to poor road infrastructure. It was suggested that people living in urban centres typically have greater access to employment and public services than those in rural areas, without access to a private car and/or who have dependents.

Other views expressed included:

- There is a need to create new opportunities for rural communities through specific consideration of the perspectives of rural dwellers.
- Joined-up strategies will be needed to help bring rural commuters onto public networks.
- Sustainable and active travel options can be unrealistic to serve the daily needs of rural dwellers.
- Belfast Rapid Transit II and the Integrated Transport Hub should improve the flow of people out of Belfast. However, access to rural areas will continue to be challenging.



Strengthen Our Public Transport Networks

It is noted that there was a high degree of complementarity and overlap in relation to this priority investment area with corresponding areas under Objectives One and Two (given the benefits of public transport for decarbonisation and place-making as well as connectivity).

The Belfast Agenda set a target for the city to achieve a 15% increase in the use of sustainable transport. Transport systems must be developed with connectivity as the leading concept, building on multi-user systems rather than private transport. Greater access to regional, national and global linkages (road, rail, ports and airports) are essential to achieve this, and other sustainable transport targets.

“There should be a focus on improving connectivity by continuing to invest and strengthen our strategic and public transport networks. We note the importance of the All-Island Strategic Rail Review as a means to consider infrastructure improvement and expansion that will boost competitiveness while also tackling the challenge of decarbonisation.

However...the low frequency of public transport services means it is not a viable or convenient option for many rural dwellers to depend on... We welcome the commitment to investing in our bus network and developing multi-modal hubs will help create a more connected and accessible sustainable public transport network.”

View from Consultee

General suggestions in relation to transport and public transport included:

- Ensure implementation of the new Regional Strategic Transport Network Transport Plan.
- Investment in border connectivity to influence the functioning of trade, access to labour markets, productivity and competitiveness, while also addressing regional imbalances.

- Free public transport to everyone, citing the example of Germany, where the cost of public transport was recently reduced by 90%. Such a scheme would have infrastructural implications.

- Private taxis must be supported to transition to zero-energy vehicles alongside the public transport fleet.

- There is a need for better public transport infrastructure to and within areas outside of Belfast.

- There should be a focus on improving connectivity by continuing to invest in and strengthen our strategic and public transport networks. This would underline:

- The importance of the All-Island Strategic Rail Review
- The need to focus on rural transport, including community transport services, which play a vital role in supporting the elderly and vulnerable.



Maintain Strong Utility and Digital Connectivity

Views on the utility networks were largely relating to their role in decarbonisation and as such were substantially reflected in Section 2.2.4.

In relation to digital connectivity, consultees raised concerns about regional inequality for broadband and fibre services in rural areas. It was suggested that there is uneven geographical distribution of quality infrastructure, such as broadband, outside Belfast. This, along with other infrastructural deficits (such as in the provision of university places, social housing and employment opportunities) were reported to have contributed to structural issues in sub-regions of NI such as the North West.

It was noted that poor connectivity adversely impacts rural communities from accessing digital services and disadvantages rural businesses from accessing business technology development support.

Consultees suggested that there is a need to ensure that emerging technologies are inclusive and accessible to all potentially through the provision of financial support and/or reskilling/ upskilling initiatives. If distributed effectively and equitably, digital technologies

offer immense potential to enhance the social inclusion of rural communities. It was noted that publicly funded schemes like Project Stratum are essential for broadband connectivity.

Consultees emphasised that all businesses and individuals need access to a resilient, secure digital infrastructure. Achieving 100% adequate broadband coverage is critical to ensure those in socially disadvantaged areas can benefit from the social and economic benefits it brings.

Smart cities were referenced to be important for enabling connectivity between regions.

“Government at all levels and industry need to work together on the ambition of delivering the world class digital infrastructure for the fourth industrial revolution and ensuring that NI is able to fully exploit it for both economic and societal gain.”

“The emergence of smart cities and internet of things (IoT) is a key area that needs to be fully integrated across policy. Ensuring integrated smart technologies play a central role in enabling connected regional and national infrastructure such as transport, energy and water and linking these technologies and data sets to deliver improved city region and central government services.”

Feedback from Consultees



Leverage Key Strategic Development Sites

Specific comments relating to strategic development sites throughout NI included:

“We support the inclusion of unlocking brownfield sites for use such as housing. Developing current unused land for the acceleration of house building and other uses offers great economic potential for NI.”

“Underutilised prime city centre land has been identified which has the capacity and potential to deliver over 1,600 city centre homes across a range of tenures and mixes.”

“In order to meet this investment priority there is a critical need to address chronic and long-standing shortages of industrial land for development.”

Feedback from Consultees



Specific Economic Sectors/ Industries

Consultees highlighted a number of specific sectors of the NI economy where they felt there was potential for considerable contribution towards the region being stronger, more competitive and/or better connected up to 2050. Salient points included:

Tourism

Investment in infrastructure has played a critical role in NI tourism's sector's growth 2012–2019, as reflected by a couple of respondents. Points raised relating to tourism included:

- The objectives of the draft ISNI resonate with Tourism NI's role and operating plan objectives:
 - The transition to a low-carbon society is integral to future tourism strategy
 - Digital connectivity and strong community infrastructure support a globally competitive tourism offer
 - Regional dispersal through good transport infrastructure
 - Maximising of our natural and built heritage.
- There is potential to invest in infrastructure to provide greater access to our natural assets.

- Sustainable experiences respond to changing consumer expectations for visitor facilities.
- Marinas can present strong recreation and tourism offers and this has not yet been recognised in the strategy. "Giant Strides" in Scotland was cited as a good example of maximising the marine tourism potential of an area.
- Cruise tourism has been identified as a major development for the North West region.
- Poor connectivity to parts of NI (in terms of transport and digital infrastructure as well as information and signposting) is a key barrier to out-of-state tourism despite consultees indicating a need for the development of tourism hubs outside of urban centres.
- Linking rural areas with urban developments through greenways and blueways would enhance the dispersal of both visitors and residents.
- Financial support for hotel development would be beneficial.
- Consideration should be given towards the development of a tourism data hub collating data to facilitate infrastructural planning and inform decision making.

Regional interests raised the potential for specific tourism infrastructure projects, including:

- The restoration of the Ulster Canal to open waterways from Castlerock on the North Coast through Lough Neagh, Lough Erne and on to the Shannon in Rol.
- Improving accessibility and promotion of the Sperrin Mountains and as unique tourism resource.
- Bangor Waterfront and Queen's Parade Regeneration projects.
- The development of more greenways infrastructural to encourage sustainable tourism in towns and rural areas.
- The enhancement of tourism and recreational boating infrastructure at Lough Neagh and harbour sites.

Manufacturing

Consultees recognised that NI (and particularly the Mid South West region) has a competitive advantage in the manufacturing of machinery, equipment, pharmaceuticals and food products, with most businesses being indigenous. However, a productivity gap remains versus the rest of the UK.

It was suggested that enhancement of infrastructure, connectivity and provision of suitable industrial land could serve to close this gap.



“Strengthening the region’s strategic and unique geographic location through enhanced infrastructure and digital connectivity will advance north/south and east/west cross-border interactions and global transactions.”

View from Consultee

Construction

The development of new materials and changing fabrication techniques will change the way infrastructure is designed and manufactured and affect the cost of building and maintenance, according to respondents from the construction industry. For example:

- New applications of smart materials are already arising in transport infrastructure such as solar roads that generate renewable energy and surfaces that self-detect or charge vehicles at speed.
- Increasingly, new materials such as malleable or self-healing and low-carbon concrete will change the design and build of infrastructure.

- Changes to fabrication methods including 3D printing will alter the way and location where construction is occurring, offering the opportunity for onsite fabrication (or offsite manufacturing allowing for faster construction and higher quality production), and therefore reducing the costs of transport of materials and construction.

The construction industry respondents argued that gradual change is not enough and that there is a need to change mindsets and behaviours.

It was suggested that the ISNI must provide a pathway to specific project areas, for example:

- Review and revise the Regional Development Strategy in line with the new ISNI; and
- Provide the construction industry with a 5-10 year pipeline.

Growth Sectors e.g. Cyber Security and Fintech

A small number of consultees focused on economic sectors where NI has a competitive advantage, and which can contribute to strong economic growth if adequately supported through infrastructure.

In particular it was recognised that investment in sectors such as data analytics, cyber security and fintech have contributed to a competitive advantage being achieved in NI. These growth sectors offer potential to increase productivity as well as delivering social and economic gains.

Supporting and investing in digital connectivity in these and other emerging sectors will support cluster growth, encourage foreign direct investment (FDI), stimulate world-class academic research and strengthen the region’s emergence as a world-leading destination for technology.

“NI has emerged as a world-leading cyber security data analytics and FinTech hub; Belfast is Europe’s leading FDI destination for new software development, attracting increased levels of FDI.

“There needs to be bold and ambitious timelines that will showcase NI as a modern, progressive region that is open and forward thinking. We have developed our fintech and digital security industries to be amongst the best in the world. This needs to be replicated through investment in our infrastructure and renewable energy potential.”

Feedback from Consultees

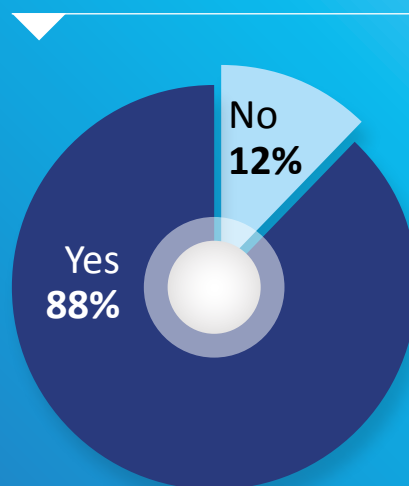


2.2.8 Maximising Benefits from Emerging Technologies

The priority areas for the investment objective to 'maximise benefits from emerging technologies' as suggested in the draft ISNI were:

1. Digitise public service access points
2. Upgrade the public service digital infrastructure
3. Take advantage of data analytics and data science
4. Improve information security and network resilience

Figure 2.9 Are these the priority areas to maximise the benefits from emerging technologies? (N=42)



Almost all (88%, N=42) of the quantitative respondents confirmed their support for the suggested investment priorities with the remaining respondents offering constructive suggestions.

It was argued that digitisation serves as an essential enabler, helping to deliver on other investment objectives and priorities.

The feedback was not generally aligned with specific investment priorities and instead related to emerging technologies generally. Findings included:

- Many responses referred to the importance of technology for economic growth. However, some respondents suggested that the skills gap could undermine building a strong digital foundation.
- There is a need to take account of the digital literacy of different population groups and ensure that capacity building as well as opportunities to access necessary equipment are available to all including hard-to-reach sections of society.
- Linked to the above, it was suggested that there is a need for financial investment to ensure that consumers in vulnerable circumstances or with outdated technology are not responsible for infrastructure and digital costs to maintain connectivity.



- Respondents requested more emphasis in the ISNI on the application of emerging technologies towards benefiting decarbonisation. For instance, it was suggested that the strategy should reflect the importance of smart technology/ smart metering, data analytics for energy at household and industrial levels and a digitised energy system (as set out in the Energy Strategy). It was noted that utility companies have begun to liaise on aligning intelligent control systems to help balance supply and demand while reducing costs for consumers.
- Innovative technologies such as AI could have potentially negative impacts on work and society.
- A small number of responses recognised digital vulnerabilities and cited the need for resilient infrastructure to ensure security.
- The deployment of next-generation wireless technologies is recognised as both an opportunity and critical foundation for a successful modern economy.
- Capitalising on the potential benefits of emerging technologies should not be done in a vacuum but in consultation with a wide range of interests.
- Improvement of digital connectivity will largely be driven by the private sector but dependent on supportive and enabling policy and institutional capability.

“Digital technologies and innovation can help businesses and society respond to the pandemic and contribute towards the economic recovery both in terms of the actions we need to put in place now plus the steps we need to take to maximise the potential of technology and deliver a more resilient green thriving economy fit for the future.”

“The digitalisation of public services is key, but these services also need to be able to interact and interlink with each other. This will in turn save costs, make the system more effective and efficient, improve the user journey and ensure that big data is robust and easier to access and use”.

Feedback from Consultees

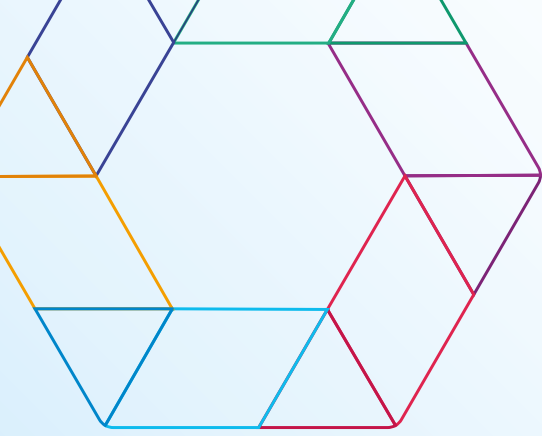
“Ensure these (technologies) are accessible to the population, particularly as the population is ageing and many live in rural locations with limited digital infrastructure.”

“(We) support the priorities identified, however...further digitisation of public service interfaces must be matched by investment in digital connectivity and the enhancement of the digital skills of the population.”

“Investment in digital security will strengthen the city’s emergence as a world-leading destination for cyber security investment”.

“The wording from the ISNI to ‘maintain strong utility and digital connectivity’ should be amended to state to ‘improve utility and digital connectivity’.”

Feedback from Consultees



2.2.9 Maintaining versus New Aspirations

How should we prioritise between maintaining or upgrading existing assets and new aspirations?

Many respondents suggested that the decision to prioritise maintenance over upgrading of existing assets and/ or new aspirations should be assessed by environmental, social and economic value gains with careful consideration given to short versus long term impact.

It was suggested that consideration should be given to whether delivering new infrastructure is necessary, or if maintaining and improving existing infrastructure is a more efficient use of resources.

Assessment should consider the level of emissions associated with construction and infrastructure should be future proofed in relation to climate change.

Similarly, the use and demand for infrastructure may change over time and therefore the long-term need and sustainability of infrastructure needs to be understood and infrastructure should be future proofed for changing use.

A small number of consultees made specific reference to the Scottish Government's Investment

Hierarchy as a framework for investment decision making. The Hierarchy stipulates that the following steps should be followed before deciding the right investment plans⁹:

1. Determine future need.
2. Consider appropriate infrastructure needs and demand in light of Net Zero carbon and inclusive growth priorities, changes in service design, availability of digital platforms and technological innovation, and resilience in light of population and climate change forecasts.
3. Maximise the useful life of existing assets.
4. Maximise adaptation, repair and maintenance of existing assets.
5. Repurpose and co-locate, reconfigure or repurpose existing assets, giving preference to co-location or shared facilities.
6. Replace, create or build new assets.
7. Consider suitability and sustainability of new assets.

Scottish Government Investment Hierarchy

⁹ Scottish Government (2021) 'Infrastructure Investment Plan 2021-2022 to 2025/26 – Draft: Consultation Analysis. Section 4: Prioritisation – A Common Investment Hierarchy.'



“From a CE perspective, it is better to upgrade and reuse rather than build new. The decision to maintain and upgrade an asset should be based on a matrix of principles and not just on a cost basis. It could consider other factors such as technological, environmental (including CE) and practicable as well as economic considerations.”

“All new infrastructure proposals should be required to demonstrate not only economic value for money/ return, but also that they will provide net improvements in social value and net environmental gain in terms of carbon, biodiversity, and resilience.”

Feedback from Consultees

2.2.10 Prioritisation Criteria

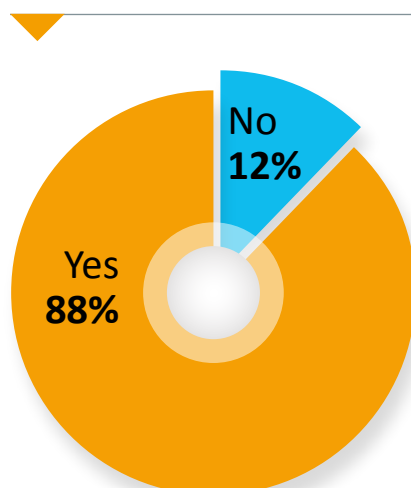
The draft strategy set out the following proposed criteria for prioritising investment:

1. Does the proposed investment support the achievement of the objectives of the Programme for Government and the priorities of the Investment Strategy?
2. Will the investment be sustainable and resilient?
3. Is the proposed investment inclusive and equitable/ equal?

4. Is the proposed investment affordable?

5. Is the proposed investment prepared for delivery?

Figure 2.10 - Do you agree with the proposed prioritisation criteria? (N=43)



Almost all (88%, N=43) of the quantitative respondents confirmed that they agreed with the proposed prioritisation criteria with the remainder providing suggestions for improvement.

Comments received typically queried the weighting of the criteria and/ or suggesting more detail was required to monitor performance and ensure robustness. Addressing social value within the criteria was also identified by one consultee.

“Investment decisions should be directed towards proposals that address urban and rural social and economic needs. Social value should also be placed as a priority.”

“Explicitly addresses regional inequality such as to what extent will this proposed investment increase jobs in areas of most objective need.”

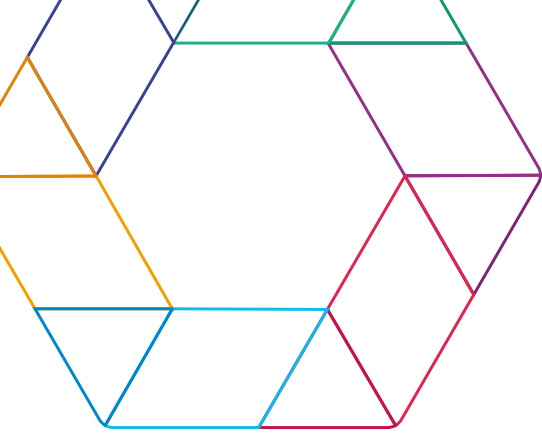
“A crucial question to determine sustainability and resilience of investment is, do they prioritise and enhance the characteristics of place? Failing to do so ignores that place experience and therefore economic and social sustainability relies on enhancing the long-term authenticity of our places.”

Feedback from Consultees

2.2.11 Affordability Challenges

How should we communicate with consultees on projects that present affordability challenges, and thus may require alternative funding and financing to be utilised?

Consultees who responded to this question generally emphasised that openness and transparency were key, building up from the detail on investment programmes made available on the ISNI Information Portal to a more detailed contracts pipeline.



“Openness and transparency are paramount...and (we) welcome the granular information on investment programmes and projects in the Executives ISNI Information Portal. (We) welcome that this will be enhanced to include a detailed contracts pipeline and suggest that social value metrics and reporting should also be published and transparent.”

“We support at a basic level existing proposals being published on the Executive’s ISNI Information Portal, enabling the construction industry and its supply chain to plan ahead successfully. However, where external investment is concerned, then consultation may involve others such as venture capitalists, interest groups etc. Programmes in this category require to be effectively managed throughout with maximum openness and transparency.”

“...recommend developing a comprehensive and rolling annual programme of consumer engagement to facilitate the development of legislation, regulation and investment policy decisions that best serve consumer needs.”

“High quality consumer information and data are essential to the operational delivery of this strategy and without specifically prioritising consumer research and engagement in this manner there is a risk that consumer’s needs, habits and priorities are not adequately understood.”

Feedback from Consultees

Some consultees provided more general feedback in relation to financing and affordability challenges, including:

- Concerns were raised regarding the financial impacts of exiting the EU, specifically the loss of EU funding and whether that will be recovered from elsewhere.
- Exploration of the potential for alternative funding models was considered a priority as well as effective utilisation of Reinvestment and Reform Initiative (RRI) borrowing tied to a coherent strategy to ensure available money is spent and projects delivered.
- It was noted that Financial Transactions Capital (FTC) has proved challenging to allocate and deliver to date. Whilst the creation of the NI Investment Fund gave a vehicle to deliver some of the spend, the overall total has not exceeded £100m during the Fund’s operation.
- The ISNI should be aligned with the UK government’s Levelling Up Agenda, as NI needs more investment than the budget is able to fund.
- Addressing backlogs in maintenance investment and new opportunities for investment requires an ambitious ISNI delivering more fundamental structural reforms to areas, such as the governance and financing arrangements of the Housing Executive and NI Water. The constraints on NI Water’s

powers as a Non-Departmental Public Body (NDPB) need to be addressed.

- There must be greater focus on getting the basics right in terms of adequately resourcing existing infrastructure and finishing what has already been started.

2.2.12 Consulting on Milestones and Delivery

What level of engagement should we have with consultees on project milestones and delivery progress once a project has been programmed for delivery?

Qualitative responses recognised that the level of engagement will be dependent on the project and its scale. Nonetheless, the consensus view of consultees was that there should be regular communication with stakeholders with particular emphasis on public engagement.

Consultees urged pro-active engagement, particularly where milestones were not being met. This may include re-engaging with key consultees and stakeholders to discuss mitigation measures and clarify new deadlines.

It was suggested that publication of progress reports which are accessible to those seeking them out is typically acceptable for projects running to the initial milestones along with hosting strategic annual meetings where possible.



“The appropriate format will be determined by each project and its relevant scale. For many projects annual progress reports are sufficient, but more frequent communication may be needed on large and complex projects, as well as those with significant impact locally. In such cases, biannual progress reports and public meetings may be appropriate, and consideration should be given to establishing advisory or consultative groups consisting of local stakeholders, to enable full communication and addressing any challenges at an early stage.”

“Greater public engagement to increase understanding and buy-in to major infrastructure decisions. This includes improving traditional community engagement and participation in the decision-making process to enable those likely to be affected or interested to influence infrastructure planning and delivery, learning lessons from the community planning process.”

Feedback from Consultees

2.2.13 Measuring Progress and Impact

The draft ISNI suggested that progress and impact would be measured through a number of key proposals including:

1. A forward look – providing information and certainty to the construction industry
2. Performance monitoring
3. Retrospective impact assessment

Do you agree that the proposals will adequately measure progress and impact? (N=42)

The majority (70%, N=42) of quantitative respondents agreed with the proposals set out to measure progress and impact.

Supporting commentary called for measures with clear and specific outcomes and an indicator framework for use across investment projects.

A number of comments suggested the monitoring proposals may not be sufficient for monitoring environmental and biodiversity projects with a natural capital approach suggested to strengthen processes. Other respondents indicated that the suggested proposals were not sufficient to carry out their function and should be enhanced.

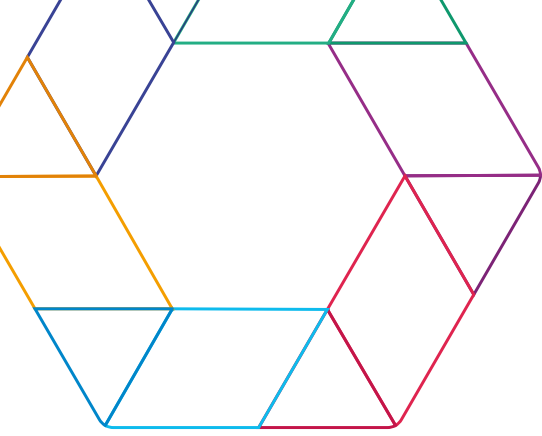
It was suggested that regular independent monitoring and evaluation should be encouraged to ensure milestones and future deliverables are on track.

“The investment priorities and metrics for measuring success must be carefully constructed to ensure the ISNI aligns with delivering targets included in the biodiversity and environment strategies.”

“These proposals are appropriate as principles. It is important, however, that a clear and specific outcomes and indicator framework is developed for use across investment projects, to ensure consistent and impactful progress measurement and monitoring. It is important to engage stakeholders including civil society in development of such a framework alongside statisticians, academics and industry experts, to ensure social and equality elements are adequately reflected. For example, social value clauses can be very helpful in procurement, but it is also important to monitor the outcomes, such as the gender and age distribution of any apprentices and/or trainees engaged. This, in turn, is linked to effective implementation of relevant Executive strategies, such as the skills strategy and forthcoming Gender Equality Strategy.”

“The proposals, if implemented effectively, would appear to provide an adequate measure of progress and impact at a high level. It will be necessary to devise a more detailed process as the strategy is implemented.”

Feedback from Consultees



“Progress monitoring of infrastructure projects to clearly identify areas with clear trigger points to flag problems early. However, monitoring alone will not solve problems and it is vital that escalation and resolution mechanisms are in place to provide solutions once problems are identified.”

“Annual reports adopting a ‘traffic light system’ for longer term projects to inform the public and NI Executive. Independent analysis of progress is also required, not just ‘self-reporting’, on a periodic basis, every 2 years or so. And for longer-term projects there is a need for milestones with shorter timescales to ensure progress is being made in line with what is required.”

“A natural capital approach (should be adopted) which shows how the strategy contributes to the extent and condition of natural capital assets and the services they provide should be used.”

Feedback from Consultees

2.2.14 Accountability and Oversight

The draft ISNI set out the proposed accountability and oversight structures associated with the delivery of the strategy.

Do you agree that the proposed accountability and oversight structures will support successful delivery?

Almost three-quarters (71%, N=38) of the quantitative respondents were in support of the proposed accountability and oversight structures. Comments made by the remaining respondents generally welcomed the proposals but made additional suggestions.

Positive commentary was made in regard to the SIB’s role in the proposed governance structure, but some respondents requested more detail as to the relationship between SIB and the others in the accountability structure. Other respondents emphasised the importance of engagement from community, social and voluntary sectors in these forum settings.

It was suggested that greater oversight from the ISNI Programme Board was necessary and that they should meet more frequently than twice a year. It was also highlighted that oversight on regulation and legislation around ISNI is required in order to address emerging issues quickly.

Views were generally supportive on the need for, and role of, an Infrastructure Commission.

“The structure should be enhanced to ensure greater oversight than appears to be suggested through the Programme Board with a more hands on and trouble-shooting type role to make sure that any issues that emerge are addressed at speed.”

“ISNI suggests that the Programme Board meet twice a year, but it is our view that this needs to be much more frequent or there is a further layer added into the accountability and oversight structure that performs this more explicit role.”

“The strategic document acknowledges that successful delivery of the strategy will require co-ordinating and overseeing the activity of the public and private sectors. The document is not clear about the structures that will be put in place to achieve this, and we encourage this to be addressed.”

“We agree that accountability and oversight should be to highest level but feel that SIB should be better utilised (by) enhancing its role as a developmental and delivery agency on behalf of NI Executive across all departments, thereby securing financial and operating synergies...This plan offers a chance to streamline the delivery of investment on infrastructure using an enhanced SIB with improved scope of powers thereby reducing silo disadvantages that exist.”



“SIB should also consider community planning partnerships as a key stakeholder as they are delivering long term plans to improve social, economic and environmental wellbeing and the investment proposals, plans and projects have a key interdependency on the implementation of these plans and the outcomes to be achieved.”

“The proposal to develop a stakeholder group through SIB is positive and offers a mechanism to ensure civil society and residents in NI can contribute to proposals. It would be helpful to clarify how such a group relates to other accountability structures, and in particular how recommendations from such a group can and will be reflected in decision making.”

“The proposed Infrastructure Commissioner is best placed to provide a holistic perspective on how to meet NI’s overall infrastructure needs including both public-owned and operated infrastructure and the critical infrastructure delivered and/or operated by the private sector. The Infrastructure Commission should also have the primary role in independently monitoring progress and impact.”

“Not sure the infrastructure commission is required, and the rationale needs to be evaluated.”

Feedback from Consultee

2.2.15 Equality and Rural Needs

Along with the draft strategy document, the NI Executive published a draft Equality Impact Assessment (EQIA) and Rural Needs Impact Assessment (RNIA).

Figure 2.11 - Do you agree with the EQIA and RNIA process and findings (N=34)?



Almost all (94%, N=34) of the quantitative respondents were supportive of the findings of the draft EQIA and RNIA with a small minority suggesting that greater detail and supporting data would be beneficial. Specific suggestions made included:

“Whilst (the EQIA and RNIA) follow the frameworks required by the Equality Commission and DAERA/ the Rural Needs Act; they lack sufficient detail on regional social and economic needs, poverty, disparity in infrastructural investment in NI and the impact that this has had on social deprivation, social exclusion, rural needs and the S75 groups.”

“We agree with the process and findings of the draft EQIA and RNIA but note that the lack of gender disaggregated data pertaining to NI impacts on the ability to properly conduct EQIAs and RNIAs policymaking and impedes on ... organisations’ ability to advocate.”

Feedback from Consultees

Additional issues and/or inequalities respondents felt had not been highlighted in the drafts included:

- The draft strategy only refers to disabled people once, and the Easy Read version does not mention this group of society at all. It was suggested that the strategy should clearly state that the term ‘everyone’ (which is used throughout the strategy) includes disabled people.
- ISNI notes that it could create further marginalisation. However, a consultee suggested that this was not adequately addressed in the EQIA and that there should be a clear statement that projects developed

under the strategic guidelines must improve or remove any differential barriers across all of society.

- Poor transport connectivity limits employment opportunities and access to services for women, people on lower incomes and rural dwellers. A gender analysis for public transport was proposed.

“The gender and sex inequities that occur in dementia (i.e. significantly more women affected and a preponderance of female caregivers) needs to be taken into consideration.”

“EQIA and RNIA have been carried out with care. Consideration has been given to a range of issues/ possible adverse impacts. It is important, therefore, that the information and evidence collated in both documents inform and shape implementation of the Strategy. We urge the Department to clearly identify, plan for and adequately resource opportunities to address inequalities and mitigations against any adverse impacts on older people and other Section 75 groups.”

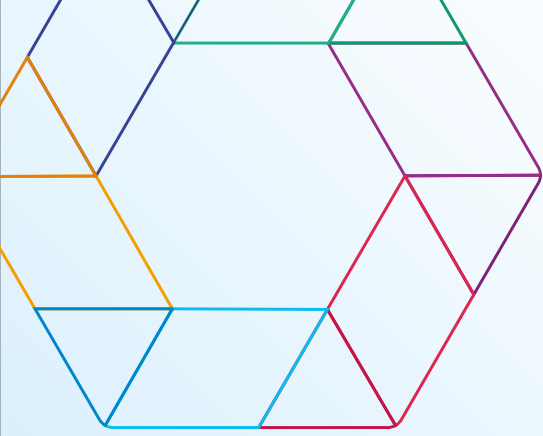
“The consultation document does not adequately address balanced regional development and the infrastructural investment gap that has left a lasting legacy of social, economic and environmental deprivation and inequalities in the Derry City and Strabane area.”

Feedback from Consultees

2.2.16 Other Comments

Consultees were provided with the opportunity to provide any other feedback not addressed elsewhere in the public consultation. Specific comments/ recommendations included:

- The 2035 infrastructure requirement report should be re-run to reflect the context of the pandemic and global impacts of the war in Ukraine.
- The view was expressed that proposed priority areas are not clearly interlinked in the draft strategy.
- ISNI needs to provide a clear framework for assessing the potential impact of proposals on people living and working right across NI, in both urban and rural areas.
- The strategy should identify those key dependencies and identify any barriers to be addressed.
- ISNI’s wide-ranging nature means that it is essential that its impacts on small businesses are understood in detail. One respondent called for the use of the Small and Micro Business Impact Test (SAMBIT) in the development of infrastructure policymaking across government departments.
- A couple of respondents expressed a view that the strategy was high-level and should be informed by more detailed needs assessment, supported by the collation and analysis of key data such as demographic projections and development trends. SIB is undertaking this work prior to the finalisation of the ISNI in 2023.



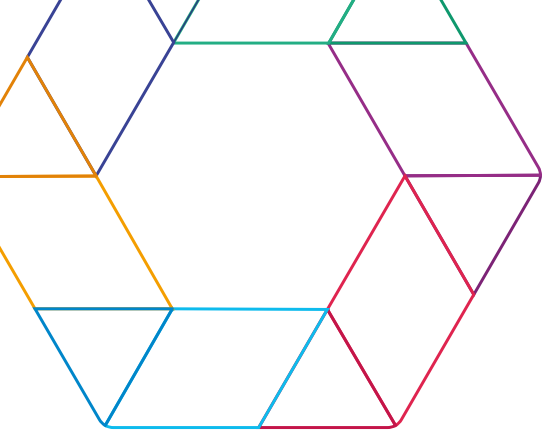
3. Conclusion

Since the launch of the NI Executive's first ISNI in 2008, £21 billion has been invested in capital infrastructure helping to partially address historic underinvestment.

However, huge challenges remain as the consequences of the historic underinvestment in infrastructure maintenance accumulate and the economic, environmental and social landscape evolves at an unprecedented rate.

The climate crisis also demands attention as the consequences of climate change continue to be manifest and the deadlines for achieving statutory targets approach.

Working closely with key stakeholders, the ISNI team prepared the draft Investment Strategy over eight months up to December 2021, carrying out original research as well as extensive engagement with the private and public sectors. Over 400 individuals engaged in discussions on the draft ISNI and 150 written responses were analysed in preparing this report.



Respondents highlighted the following key themes through the consultation process:

- Strong support for the vision, objectives, priorities and approach proposed in the draft ISNI was evident.
 - There was particularly strong consensus regarding the decarbonisation objective with some respondents suggesting that decarbonisation should represent the primary objective for any infrastructure investment, with economic and social benefits being secondary.
 - Digitalisation, whilst proposed as an objective in the draft ISNI, was perceived by consultees to primarily represent an essential enabler, helping to deliver on other investment objectives and priorities.
 - Other cited enablers to unlocking potential investment included addressing deficiencies in the planning system and in water and wastewater infrastructure.
- There are potentially infrastructural implications arising from the current volatile global context which should be considered fully. For instance, the importance of energy resilience and a renewable energy economy in NI has been emphasised since December 2021 due to the War in Ukraine and its contribution to the current cost-of-living crisis.
 - The ISNI and other strategies must be well-aligned and work seamlessly together to avoid 'silo approaches' in government.
 - Equitable provision of investment across all groups of society and geographical regions is critical to achieve NI's economic potential and promote social inclusion.
 - Consultees called for the ISNI to be strengthened in areas including:
 - Adaption and mitigation of the impacts of climate change.
 - Building resilience in terms of energy supply.
 - The importance of the natural environment, natural capital and biodiversity.

The evidence gathered through the consultation process will inform the preparation of a final ISNI which will include:

- A 10-year investment plan that documents major projects aligned with the strategy;
- An analysis of the enablers that will facilitate infrastructure investment and delivery; and
- Explains how projects will be funded and sets out possible alternative financing opportunities.

The ISNI team wish to thank the many stakeholders from across the public, private and voluntary sectors who contributed their views and expertise to the consultation process which will support the development of the **Investment Strategy ISNI: 2050**.



INFRASTRUCTURE 2050
Draft Investment Strategy
for Northern Ireland

Consultation Report

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