

Northern Roads Collaboration Joint Committee

REPORT TO NORTHERN ROADS COLLABORATION JOINT COMMITTEE – 27 NOVEMBER 2020

INFRASTRUCTURE INVESTMENT AND RESILIENCE

1 Recommendations

The Joint Committee is recommended to:

- 1.1 **Endorse the officer response to the draft Infrastructure Investment Plan Consultation which closed on 19 November 2020 (as at Appendix 1);**
- 1.2 **Agree that a network status and resilience report be prepared and presented to this Joint Committee in late Spring 2021 and annually after that; and**
- 1.3 **Note the national report by the Institution of Civil Engineers setting out the scale of the challenge on infrastructure resilience and adaptation.**

2 Background/Discussion

- 2.1 At previous Joint Committee meetings Members have flagged their significant concerns around the fragile nature of critical transport infrastructure across in the 7 Local Authority areas covered in this collaboration. This report sets out some of the high-level issues around infrastructure resilience, sets some of the context for future reporting, and includes a set of officer inputs to a recent consultation on the Infrastructure Investment Plan.

Draft Infrastructure Investment Plan for Scotland 2021/22 - 2025/26

- 2.1 To support delivery of the National Infrastructure Mission, Scottish Ministers established an independent Infrastructure Commission for Scotland. The Commission started work in 2019 and has reported its findings in 2 phases: Phase 1 recommendations on the right ambition, vision and strategic priorities, published in January 2020; and Phase 2 advice on how infrastructure is delivered.
- 2.3 The draft Infrastructure Investment Plan outlines that its focus is on adopting and building on the recommendations of the Commission in its Phase 1 report by setting out the Government's long-term vision for Scottish infrastructure, how it will choose future investments, and sets out a 5 year programme of further improvements for their approach. A copy of the full report can be found on the Scottish Government website at the following link <https://bit.ly/3latmtU>
- 2.4 The draft Infrastructure Investment Plan states that its focus is on 3 core strategic themes for guiding investment decisions in Scotland:

- 1) Enabling the transition to net zero emissions and environmental sustainability;
 - 2) Driving inclusive economic growth; and
 - 3) Building resilient and sustainable places.
- 2.5 The draft Infrastructure Investment Plan highlights that it is closely linked to the development of the next National Planning Framework – which will support delivery of this draft Infrastructure Investment Plan by shaping the geographic distribution of development and infrastructure – and the Climate Change Plan, which will be updated later this year to incorporate green recovery proposals.
- 2.6 It states that infrastructure supports Scotland’s resilience and enables inclusive, net zero, and sustainable growth. The draft Infrastructure Investment Plan also then highlights those investments the Scottish Government delivers itself or through its own agencies and non-departmental public bodies. It does not cover investments by the UK Government or the private sector, nor by Councils. Some of the proposed key transport-related investments flagged in the draft Infrastructure Investment Plan include investment in the following, but it is worth noting that with 93% of the road network and local links to all the proposals, much of this will have to involve Local Authorities:
- 1) Over £500 million over 5 years in active travel, the large majority of which will be for active travel infrastructure, including reallocating road space in favour of walking, wheeling and cycling, and encouraging active travel for shorter every day journeys.
 - 2) £495 million towards the Programme for Government commitment to invest over £500 million in improved bus priority infrastructure to tackle the impacts of congestion on bus services, making journey times shorter and services more reliable, encouraging people to leave their cars at home and to take the bus.
 - 3) Continue our investment to support public sector fleet alternatives to petrol and diesel vehicles.
 - 4) Invest over £3.8 billion in the operation, maintenance, and sustainable renewal of a high-performing rail network for passengers and freight.
 - 5) Progress the rail decarbonisation action plan.
 - 6) Doubling investment in bridge and roads maintenance on the Trunk Road Network: a programme of around £1.5 billion over 5 years to boost structural repairs and strengthen the network, improve road safety, deliver a range of improvements to Intelligent Transport Systems infrastructure, and enhance key links such as the Tarbet to Inverarnan A82 section.
 - 7) Delivering significantly improved rail services and accessibility to stations between East Kilbride and Glasgow, and Aberdeen to Central

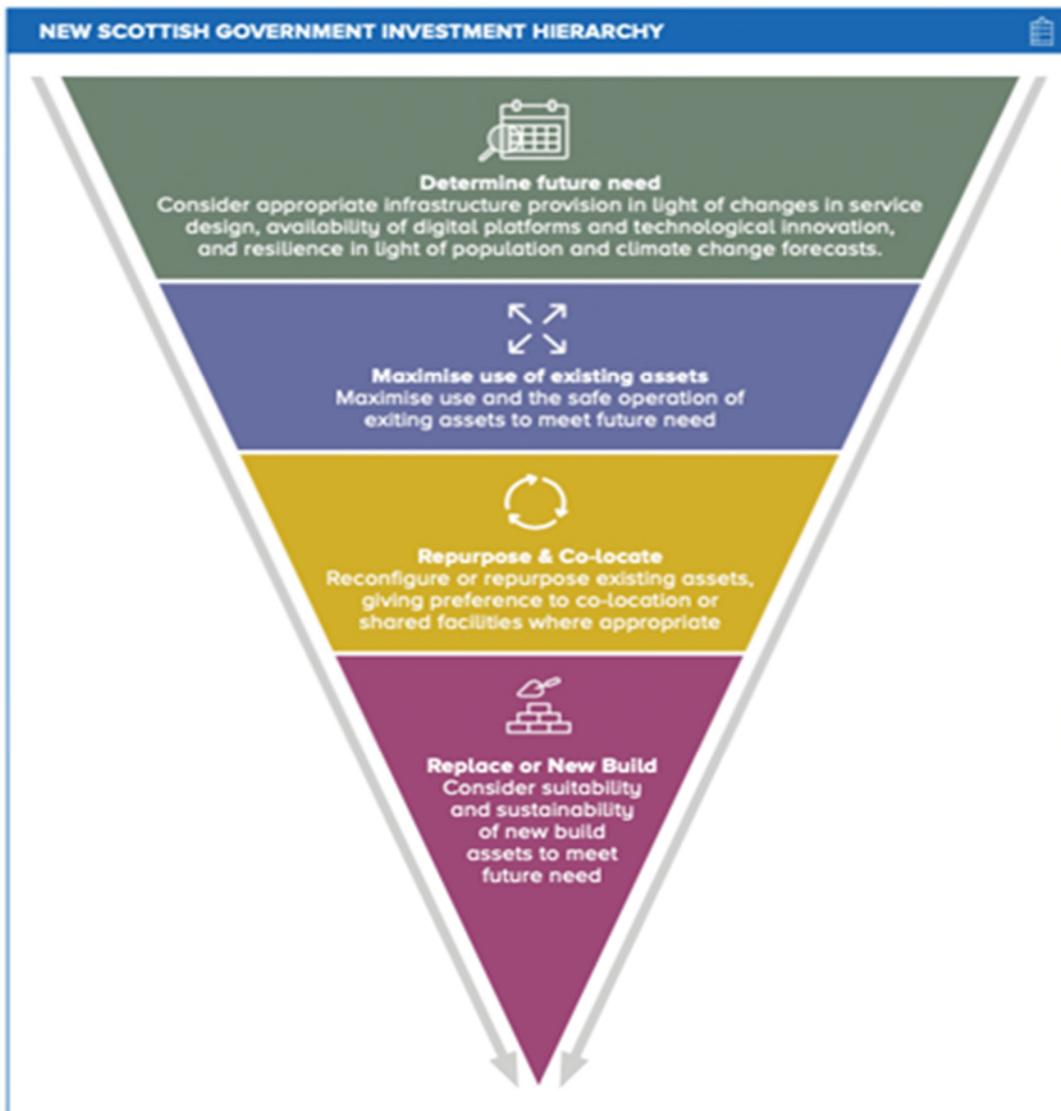
Belt, to meet growing demand, drive more usage, and decarbonise rail passenger and freight services.

- 8) Delivering phased dualling of the A9 Perth to Inverness road.
- 9) Continuing design and development work to dual the A96 in the period to 2026.
- 10) Completing construction of the improvements to the A92/A96 Haudagain junction.

2.7 Under the theme Supporting Long Term and Inclusive Growth, the following measures are outlined;

- 1) Investing £525 million, aligned with local authority and UK Government funds, to deliver the next 5 years of £5 billion city region and regional growth deals.
- 2) The deals are supplemented by complementary and additional investment in key road sections and links: Sheriffhall junction with the A720 in Edinburgh; cross Tay link road; Laurencekirk junction with the A90, Longman junction with the A9/A82; and the A9/A96 Inshes to Smithton connection, as well as improvements to the rail network between Aberdeen and the Central belt.
- 3) Deliver a range of economic, environmental, and social measures for the benefit of rural Scotland through £100 million funding for the Scottish Rural Development Programme.
- 4) Invest £30 million in delivering the National Islands Plan, supporting a range of areas, including tourism, infrastructure, innovation, energy transition, and skills – informed by our learning of how island communities have responded and adapted to COVID-19. This will include specific ringfenced funding for capital projects on islands relating to net zero and green recovery objectives, creating high quality, skilled, green jobs in some of our most remote and vulnerable communities.

2.8 The draft Infrastructure Investment Plan also sets out a new Scottish Government-wide common hierarchy to aid planning and decision-making. If adopted, the hierarchy would mean that each step would need to be considered, in turn, before deciding the right new approach. For example, something new might only be built if there is still a demonstrable service need for a facility, and an existing asset cannot be repurposed. This would mean that a higher proportion of investment is likely to be directed towards the initial steps in the hierarchy than in previous years. As part of that, the Government is committing to address backlogs by working towards doubling investment in maintenance and asset enhancement over the next 5 years.



- 2.9 Individual Authorities and Regional Transport Partnerships have formally written to Scottish Government departments and the Cabinet Secretary to highlight the ongoing challenges faced by our communities, and in particular the growing challenge to the resilience of our transport network by climate change and the increasing frequency of severe weather events, which has led to high profile issues such as the closure of the A83 and loss of 7 bridges at King Edward, as well as numerous localised severe weather events in rural and urban locations that have led to impacts on property, closures of routes, and collapse of infrastructure.
- 2.10 This Joint Committee has consistently flagged these issues and the pressure that brings on infrastructure budgets as we have to deal with the increased frequency and intensity of weather events. This then reduces the funds available to deliver planned maintenance as well as developing adaptation and mitigation measures within Climate Changes Action Plans.
- 2.11 In providing a response to the Consultation, officers have sought to reflect the views previously expressed at this Joint Committee. **Appendix 1** to this report sets out the answers provided to these questions and officers have also highlighted that further views may be input after this Joint Committee meeting.

Individual authorities and Regional Transport Partnerships may already have submitted responses.

Road Asset Management Planning

2.12 All 33 Roads Authorities in Scotland use a Road Asset Management Planning (RAMP) model to develop options for prioritising expenditure on Road Maintenance. Whilst this approach had been widely used over many decades, work through the National Road Maintenance Review between 2011 and 2015 saw this reinforced in a 2016 report by Audit Scotland “Maintaining Scotland’s Roads – A Follow Up Report” (https://www.audit-scotland.gov.uk/uploads/docs/report/2016/nr_160804_maintaining_roads.pdf)

2.13 That report included recommendations that Councils and Transport Scotland should:

- 1) Ensure that they use their RAMPs to inform Elected Members and Scottish Ministers of long-term investment plans for maintaining roads that take into account the whole-life costing of treatment options; and
- 2) Ensure that the consequences of spending less than that necessary to maintain current road condition adequately features in budget setting processes to allow Elected Members and Scottish Ministers make informed choices which take account of competing demands and priorities.

2.14 Individual authorities are following this approach but are all facing the same pressure in allocating funding and are not in the same position as set out in the draft Infrastructure Investment Plan as referred to in paragraphs 2.6 and 2.7 above that would see Scottish Government “committing to address backlogs by working towards doubling investment in maintenance and asset enhancement over the next 5 years.”

2.15 In a previous report to this Joint Committee on 31 August 2018 (Item 7,) the scale of the assets that we collectively look after in the Northern area was set out. The data on road length in isolation was as follows:

	Angus	Moray	Aberdeenshire	Argyll & Bute	CnE Siar	Aberdeen City	Highland	Total
Council Managed Road Length (km)	1,814	1,554	5,520	2,309	1,195	913	6,751	20,056
Trunk Roads (km)	45	96	187	259	0	24	965	1,576

2.16 When considering these figures, it worth considering that of course the asset also consists of footways, cycleways, bridges, streetlights, crossings and traffic signals and the report in 2018 set those out. These are all then considered when the value of that asset is calculated and compared within the wider assets position for Local Authorities. As an example, the Depreciated Replacement Cost (DRC) for the main asset groups have been calculated to be as follows for Aberdeenshire:

Asset Group	DRC
Carriageways	£3,725,929,000
Bridges and Structures	£189,916,000
Footways	£200,415,000
Street Lighting	£57,135,000
Traffic Signals	£647,000

2.17 This gives a total of £4,172,068,000. By comparison, the total value of all other physical assets (heritage assets, assets held for sale, investment properties, and property, plant and equipment excluding roads assets) listed in Aberdeenshire Council's accounts for 2019/20 was £1,866,499,000.

Climate Ready Infrastructure

2.18 On 9 November 2020 the Institution of Civil Engineers (ICE) Scotland published their annual State of the Nation report <https://www.ice.org.uk/about-ice/near-you/uk/scotland/publications/ice-scotland-state-of-the-nation-report-2020> entitled Climate Ready Infrastructure. Whilst it covers the full range of infrastructure, both the approach taken and the examples given are directly relevant to the challenges that members of this Joint Committee will recognise. It also takes a similar approach to that which is being developed through the Value of the Local Road Network research by showing economic, social, and environmental benefits of investing in a programme that develops climate ready infrastructure.

2.19 To quote from the Executive Summary

“Scotland’s infrastructure – transport, energy, buildings, water, and digital connectivity – underpins every aspect of our economy and our society. This suite of infrastructure assets faces several challenges, none greater than climate change. The impacts of climate change are being felt today. Warmer temperatures, rising sea levels, increased storm frequency and more, intense rainfall are all putting pressure on Scotland’s infrastructure assets. Without a series of mitigation measures to ensure infrastructure is resilient to climate change impacts, our infrastructure – and the functions it supports – will be at risk. So too will be our economy and our wellbeing. From landslips to flooding, events across 2020 – and several years prior – have highlighted the fragility of parts of Scotland’s infrastructure network and the very real impacts that climate related disruption brings to Scotland’s economy and people. Climate change projections forecast more severe weather in the future so we must act now to ensure Scotland’s existing infrastructure is resilient enough to withstand these impacts, that it is ‘climate ready’.”

Network Status and Resilience

2.20 In order to try and build a stronger case for additional government investment, it is therefore proposed that we bring together the long-standing and emerging areas of work to present a network status and resilience report to this Joint Committee in March 2021. It is proposed that report would;

- 1) Build on the RAMP work by all Roads Authorities across the Northern Joint Committee area with core data on the levels of investment and the asset status;
 - 2) Consider the DRC of the roads asset base;
 - 3) Utilise the work on the Value of the Local Road Network as presented to this Joint Committee today;
 - 4) Incorporate the work by Roads Authorities and Regional Transport Partners to adapt and mitigate our networks in line with Climate Change Action Plans and build in work by other organisations such as the ICE;
 - 5) Consider the technological developments within the sector; and
 - 6) Reflect the new investment hierarchy within the draft Infrastructure Investment Plan when setting out the case for change.
- 2.21 This work will be taken forward by the Officer Group and utilise a range of sources across professional networks such as the Society of Chief Officers for Transportation in Scotland (SCOTS).
- 2.22 The Joint Committee's Legal Monitoring Officer within Aberdeenshire Council and Financial Monitoring Officer within the Highland Council have been consulted in the preparation of this report, their comments are incorporated within the report and are satisfied that the report complies relevant legislation.

3 Implications and Risk

- 3.1 An equality impact assessment is not required because as none of the decisions sought have a differential impact on any of the protected characteristics.
- 3.2 There are no direct staffing and financial implications associated with this report, but the Lead Authority will require input from all 7 Authorities to complete the report as per Recommendation 1.2.
- 3.3 The key risks identified as relevant to this matter relate to the future consideration of budget allocations, the ability to manage and maintain a resilient transport network, being able to adapt for climate change, bringing forward arrangements to enable working with other organisations and planning for demographic change

Ewan Wallace
Lead Officer

APPENDIX 1

Responses to Consultation

1 The inclusion of natural infrastructure in our definition

Our natural environment can play an important role in our infrastructure system and generate benefits to the economy and society – as well as help to tackle climate change and other challenges such as biodiversity loss and poor air quality.

The Government would like to revise its infrastructure definition to include references to natural infrastructure, and offers proposes the following changes (shown in green):

“The physical and technical facilities, **natural** and other fundamental systems necessary for the economy to function and to enable, sustain or enhance societal living conditions.

These include the networks, connections and storage relating to the enabling infrastructure of transport, energy, water, telecoms, digital and internet, to permit the ready movement of people, goods and services.

They include the built environment of housing; public infrastructure such as education, health, justice and cultural facilities; safety enhancement such as waste management or flood prevention; **natural assets and networks**; and public services such as emergency services and resilience.”

These proposed changes will help ensure investment in natural infrastructure can be considered and prioritised equally, alongside other areas, and that progress on our plans to boost natural infrastructure will be equally transparent and can be scrutinised on a consistent basis by Parliament.

1a) Do you support the inclusion of natural infrastructure in our definition of infrastructure?

Yes.

1b) Do you agree with the wording proposed for the revised definition?

Yes.

1c) If you do not agree, please provide your suggested changes and additional material to support your answers [200 word limit]:

2 How we should prioritise – a common investment hierarchy

The Scottish Government has accepted the Commission’s suggestion to develop an ‘investment hierarchy’ which prioritises maintaining and enhancing existing assets over new build. On pages 22-23 we propose a new common hierarchy, to aid planning and decision-making and drive future investment choices.

In practice, this means that the following steps would need to be considered, in turn, before deciding the right investment plans.

1. Determine future need.
2. Maximise use of existing assets.
3. Repurpose & Co-locate.
4. Replace or New Build.

For example, something new might only be built if there is still a demonstrable service need for a facility, and an existing asset cannot be re-purposed. In future, this will mean that a higher proportion of investment and resource is likely to be directed towards the initial steps in the hierarchy than in previous years.

2a) Do you agree that the steps proposed in the common investment hierarchy are the right ones?

Yes.

2b) If you think any adjustments are needed to the proposed investment hierarchy, please provide suggested changes (and evidence, where appropriate) to support your answers:

Given the pressing need to tackle climate change, the way in which adaptation and mitigation measures to protect the transport network within our rural, island, and remote communities may require further consideration to ensure that the focus is not biased to the central belt of Scotland. It would be worth considering the work of the Scottish Roads Research Board on the Value of the Local Road Network in developing this approach. Similarly, ongoing work to consider the role of local road networks in getting high value goods to market should also be investigated, with the potential to expand the timber transport fund arrangements to other sectors.

3 How we best assess the impact of proposed infrastructure

The Infrastructure Commission recommended a new assessment framework is developed, in advance of the next Infrastructure Investment Plan, to inform decisions about future infrastructure investment so that it best achieves desired outcomes.

On page 24 we have set out the challenges in comparing the potential benefits of different types of infrastructure. It is not easy to compare investment in a school, hospital, or new digital public service, for example, because they may all deliver positive outcomes but not necessarily using comparable evidence or over the same timeframe.

We are considering how best to develop our new approach and welcome views about the best way forward. This is likely to take the form of a suite or 'dashboard' of indicators, as shown in the diagram on page 25, to allow for a range of factors to be taken into account in any assessment, balancing potential trade-offs. This approach would be consistent with the National Performance Framework. Responses to questions in this section will inform our work to develop a common assessment framework.

- 3a) Do you agree that a dashboard of indicators is the best approach to enable informed decisions to be taken about the long-term trade-offs and choices in our infrastructure investments? Please provide the reasons for your response.**

Yes a dashboard approach would be an appropriate way forward and would reflect similar approaches to transport project appraisal where a range of factors require to be considered. It is suggested that further work will be required to consider the value of the local road networks in rural and urban locations. Consideration also needs to be given to how to balance the direct and indirect user benefits e.g. a new or upgraded transport link could benefit the direct users, nearby residents, those passing through the area, businesses, tourists, pedestrians, and cyclists. This should include situations where limited alternatives are available and the loss of those links leads to large disbenefits.

- 3b) What outcomes (and/or indicators) do you think should be included in developing a common assessment framework for prioritising infrastructure investment?**

In your response you may wish to consider how any of the suggested factors might:

- **link to the three themes of the Infrastructure Investment Plan (enabling net zero emissions and environmental sustainability; driving inclusive economic growth; and building resilient and sustainable places); and**
- **help address inequality, including for protected characteristic groups, and socioeconomic disadvantage.**

A common framework will be required for each indicator. Some of these will be self-evident as presence/absence measures (Local Services, Access to green spaces) but others will be qualitative decisions. It is difficult to see how to measure “Healthy life expectancy” or “Good Jobs” without some clear metric? Some indicators are particularly hard to scope, such as “Equal Pay” and “Fuel Poverty”.

Some means is required to allow weighting of each of the indicators to enable conflicts between indicators to be recognised. Alternatively the plan would have to be clear that a positive net outcome from each indicator should be sought.

Equalities assessment is a parallel process that allows consideration of the impacts of projects on people with protected characteristics, but there may need to be a formal link into this assessment framework at all levels of government.

- 3c) Are there existing tools or methodologies you are aware of which you think the Scottish Government could draw on or adopt in developing its framework? You may wish to draw on examples from other countries in your response.**

The “Space Strategy” scoring regime (a score of between 1 to 10 on each theme) is a tested and robust way for the contribution of different elements to an infrastructure project to be evaluated, one to another.

The requirement to undertake EqIA when taking decisions could be replicated to build in more explicit consideration of climate change impacts.

4. How we assess the greenhouse gas emissions impact of future Plans

The Scottish Government has used broad categories of low, neutral and high carbon (known as a taxonomy approach) to explain the climate impact of its infrastructure investment.

When considering the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019, Parliament agreed that a new methodology should be developed to improve assessment of the contribution made by infrastructure investment to Scotland's emissions targets. We have undertaken some research to support this, it is published online at:

<https://www.climateexchange.org.uk/research/projects/greenhouse-gas-emissions-and-infrastructure-investment-decisions/>

The research concludes that a new approach will take time to develop, and we wish to ascertain views on the best way forward. The research presents four options that we should consider in developing a new approach, these are:

1. Updated taxonomy.
2. Absolute emissions.
3. Baseline and intervention.
4. Gap analysis.

A summary of the strengths and weaknesses is set out in [Annex C](#) and in the full report.

The Scottish Government is minded to explore further the use of Baseline and Intervention and Gap Analysis approaches which we believe will provide a more useful and meaningful assessment than the current taxonomy approach. The development of the new approach using one of the methods (or a combination of them) is likely to be an iterative process and will require substantial work to establish the new framework and collect the necessary data. This is noted in the Infrastructure Investment Plan forward programme. We would like our measurement to be internationally comparable, practicable, and to give stakeholders useful information.

4a) Do you support the planned approach to developing a new approach to assessing the contribution made by infrastructure investment to Scotland's emissions targets?

Yes

4b) Please explain and support your response with evidence [500 word limit].

Given the range of likely projects and the difficulties of comparing their individual impact until design is completed, a taxonomic approach is the best method available, provided its limitations are recognised. However, in the longer term a more detailed way to assess the carbon implications of various options is needed to allow all partners to meet emissions targets.

5 Strategic Environmental Assessment: Environmental Report

Strategic Environmental Assessment (SEA) is the assessment of the likely significant environmental effects that a public plan, programme or strategy will have on the environment if implemented. Where possible, it proposes how negative effects can be avoided or reduced and identifies opportunities for positive effects to be maximised. An Environmental Report has been published alongside the IIP.

5a) What are your views on the accuracy and scope of the environmental baseline set out in the Environmental Report?

The Environmental Report supports the broad conclusions of the Investment Plan. It dismisses both a “do nothing” scenario and radical changes to the strategy as being unreasonable and so becomes a self-fulfilling prophecy. Evaluation of the three themes of the plan, and of the Investment Hierarchy, are all given positive responses with appropriate assessment of the predicted environmental effects.

5b) What are your views on the predicted environmental effects of the IIP as set out in the Environmental Report?

Please see response above in 5a.

5c) What are your views on the proposals for mitigating, enhancing and monitoring the environmental effects set out in the Environmental Report?

Please see response above in 5a.