

A NATIONAL MISSION WITH LOCAL IMPACT

Infrastructure Investment Plan for Scotland 2021-22 to 2025-26









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Michael Matheson MSP Cabinet Secretary for Transport, Infrastructure and Connectivity

MINISTERIAL FOREWORD

Infrastructure investment touches the lives of every person in Scotland – from the homes we live in and the water, energy and telecommunication we consume, to how we travel to the places we work, shop and learn.

As we tackle the economic, health and social harm arising from COVID-19, infrastructure will have a key role to play in securing a recovery that delivers new, good, green jobs. To address the adversity of the COVID-19 pandemic, and the adjustments required to the new trade arrangements of the UK's exit from the European Union, it is vital that we act now to invest in Scotland's future.

We need the ability to respond quickly and comprehensively to boost the economy in the light of the COVID-19 pandemic. We need to think differently about wider changes to the ways in which we do business and conduct our lives, for example to boost new, high quality digital services. We must also recognise the role that our infrastructure investment will have in the transition to a net zero emissions economy and ending Scotland's contribution to climate change.

This time last year, the Infrastructure Commission for Scotland made recommendations about the right future infrastructure priorities for an inclusive, net zero carbon economy in Scotland. In light of COVID-19 and Brexit, the Commission's approach is even more needed than before. This Plan accepts their recommendations. I show here how we will implement them in consultation with industry, delivery partners and the people of Scotland.

Given the breadth and depth of the Commission's recommendations, during autumn 2020 we consulted on a draft version of this Plan to explore questions relating to certain aspects of infrastructure planning such as our definition of infrastructure, the priority we place on maintaining existing assets and how best to assess the full range of outcomes that infrastructure can deliver. With thanks to all 147 respondents, we welcomed the positive reaction our plans received. In particular the support for our proposal to have the widest definition of infrastructure in UK – and many parts of the world – by including natural infrastructure.

Our Infrastructure Investment Plan covers 2021-22 to 2025-26 and delivers our National Infrastructure Mission commitment to boost economic growth by increasing annual investment in infrastructure by 1% of 2017 Scottish GDP by 2025-26. When the First Minister announced the National Infrastructure Mission in 2018, we were the first part of the UK to commit to overcome historically lower levels of UK investment, seeking to reach internationally competitive levels.

There is now, more than ever, a need for the UK Government to agree increased fiscal flexibilities for the Scottish Government so that we can take advantage of historically low cost borrowing to invest for Scotland's future. This is even more important with the UK Government's Spending Review in November 2020 having failed to provide clarity on funding for future years at this critical time. In the absence of that certainty, we are setting out our plans now because we firmly believe action is required now to support our economy and public services.

The National Infrastructure Mission means over £33 billion of Scottish Government investment over the course of the next Parliamentary term. Our Capital Spending Review, published alongside this Plan, sets out how we will ensure sufficient investment to deliver the National Infrastructure Mission. The Capital Spending Review and the Infrastructure Investment Plan together provide a strong and coherent framework for directing, analysing, shaping, and prioritising future commitments.

This Infrastructure Investment Plan shows where the capital invested in infrastructure will go. It covers projects which Scottish Government or its agencies and non-departmental public bodies (NDPBs) deliver directly, such as boosting our digital and transport connectivity, reducing the reliance of our homes on fossil fuels, boosting economic growth across our cities and regions, or improving our services with better health and educational facilities.

I am delighted that this Infrastructure Investment Plan details over £26 billion of major projects and large programmes that are ready to be confirmed now, including those deploying revenue finance. Looking ahead, we will show how future projects which have progressed beyond the planning stage and into delivery will join our pipeline.

We launched through the 2020 Programme for Government our National Mission for Jobs and we have committed to a wide range of actions to support the economic recovery from the COVID-19 pandemic through our Economic Recovery Implementation Plan. Infrastructure investment will be key to their success.

This Plan offers the market confidence in a robust pipeline of work that will help stimulate Scotland's economy. Annually, around 45,000 construction and maintenance jobs will be supported through the total capital investment of the next five years. It is also good for green jobs and stimulating a low carbon economic recovery.

This Infrastructure Investment Plan sets out a clear vision for our future infrastructure — to support and enable an inclusive net zero emissions economy. Underpinning this vision are three themes: enabling net zero emissions and environmental sustainability; driving inclusive economic growth; and building resilient and sustainable places. These also complement the Missions of the Scottish National Investment Bank.

Our vision can provide huge opportunities for Scotland's people. We want to build a Scotland that harnesses opportunities and is resilient to future challenges. We will drive innovation, create good, sustainable jobs and support a just and fair transition and wellbeing outcomes.

EXECUTIVE SUMMARY

Scotland aims to deliver a wellbeing economy. That means ensuring society thrives economically, socially and environmentally, and that we deliver sustainable and inclusive growth for all. Making the right investments in the right places is crucial.

Delivering our National Infrastructure Mission

Scottish Government analysts have shown that investment in infrastructure can provide the largest GDP boost of any Scottish Government investment. That is why, in 2018, the First Minister committed to our National Infrastructure Mission to increase annual investment by 1% of 2017 Scottish Gross Domestic Product (GDP) by the end of the next Parliament.

We are the first part of the UK to commit to such unprecedented growth to meet the level of investment of our international competitors. This will support thousands of jobs and is estimated to simulate the Scottish economy by between £10 and £25 billion over the next 15 years.

Our Capital Spending Review,² published alongside this Plan, sets out how we will ensure sufficient investment to deliver the National Infrastructure Mission. The Capital Spending Review and the Infrastructure Investment Plan together provide a strong and coherent framework for directing, analysing, shaping, and prioritising future commitments.

Alongside infrastructure, our capital investment supports the economic growth we want to see by investing directly in businesses to boost innovation and employment, funding research and development, and capitalising the Scottish National Investment Bank.

This Infrastructure Investment Plan sets out what we are doing with those capital funds spent on infrastructure. It provides a strategic picture of Scottish Government-wide priorities across the next five financial years from 2021-22 until 2025-26.

Consultation Outcome

We consulted on a Draft of this Infrastructure Investment Plan between 24 September and 19 November 2020. This attracted 147 responses from a wide range of interested groups and individuals. An independent analysis of the responses has been prepared and is published separately.³

We have reflected upon this feedback and incorporated changes in this Plan where appropriate. The majority of respondents were in favour of the approach set out in the Draft Plan, and we gathered a rich source of information and views that will inform the development of the work that will be undertaken to improve our approach and develop the next Plan in five years. We look forward to further engagement as we develop our approach.

Building on the Infrastructure Commission for Scotland Recommendations

To support delivery of the National Infrastructure Mission, in early 2019, Scottish Ministers established an independent Infrastructure Commission for Scotland. The Commission reported its findings in two phases: Phase 1 gave recommendations on the right ambition, vision and strategic priorities (published in January 2020) and Phase 2 advice on how infrastructure is delivered was published in July 2020.⁴

This Plan focuses on adopting and building on the recommendations of the Commission in its Phase 1 report. It sets out our long-term vision for Scottish infrastructure, shows how we will choose the right future investments, and sets out a 5 year programme of further improvements in our approach.

Infrastructure Vision:
Our infrastructure supports Scotland's resilience and enables inclusive, net zero and sustainable growth.

 $^{1 \}quad \underline{\text{https://www.gov.scot/publications/exploring-economic-rationale-infrastructure-investment/}}$

² https://www.gov.scot/isbn/9781800046429

³ https://www.gov.scot/isbn/9781800046436

⁴ See here for more information and access to the reports: Infrastructure Commission for Scotland

What we will deliver

In delivering this vision, the Infrastructure Investment Plan will focus on three core strategic themes for guiding investment decisions in Scotland:

- Enabling the transition to net zero emissions and environmental sustainability
- Driving inclusive economic growth
- Building resilient and sustainable places

These themes link directly to Scotland's National Performance Framework: our overall purpose and national outcomes to support Scotland's wellbeing. Consistent with our international outlook, they also match the UN Sustainable Development Goals. This outcomes-focused approach was strongly supported by 70% of respondents to the consultation on the Draft Plan.

The Infrastructure Investment Plan offers a strong contribution to the Scottish Government's response to the COVID-19 crisis and the ongoing economic challenges we will face as a result of the UK's departure from the European Union.

This Plan is also closely linked to the development of the Fourth National Planning Framework⁵ — which will support delivery of this Plan by shaping the geographic distribution of development and infrastructure, to the update to the Climate Change Plan,⁶ published in December 2020, and to the Scottish Government's Economic recovery Implementation Plan⁷ which recognised infrastructure investment as fundamental to Scotland's recovery.

Our Plan highlights those investments the Scottish Government delivers itself or supports through its own agencies and non-departmental public bodies (NDPBs). It does not cover investments by the UK Government or investments made directly by the private sector, nor those delivered solely by Scottish Councils, recognising their independence.

Our investment in infrastructure is targeted to maximise wider economic benefits and to create opportunities and the right conditions to leverage additional private sector investment across Scotland. Our long-term vision for infrastructure is strongly aligned with our plans on mobilising private investment alongside public investment as a critical

part of our economic recovery. The forthcoming 'Investing with Purpose: Scotland's Private Capital Investment Plan' will set out our strategy to attract internationally mobile private capital.

Some of our key investments include:

Enabling the transition to net zero emissions and environmental sustainability

- £180 million for an Emerging Energy
 Technologies Fund to support carbon capture
 and storage (CCS), negative emissions
 technologies (NETs) and hydrogen development.
- £150 million extra funding for flood risk management and £12 million for coastal change adaptation to help us adapt to the threat of sea level rises and protect our assets.
- £60 million to support climate adaptation and resilience in our trunk road network.
- £50 million in a programme of investment supporting reuse of vacant and derelict land as part of a fair, green recovery.
- Increasing forest cover, reaching 18,000 hectares of new woodland in 2024-25 as part of a £283 million programme.
- Over £550 million will be invested over 5 years in active travel, including £50 million dedicated to Active freeways.
- £120 million of new investment in the transition to net zero electric buses.
- Investing £1.6 billion over the next five years to decarbonise heat in buildings, supporting our Housing to 2040 vision for Scotland's homes alongside ambitions to decarbonise our non-domestic building stock and public sector estate. This includes £55 million new investment in energy efficiency and £95 million for a net zero emissions public estate programme.
- Investing up to £75 million to improve local authority recycling collection infrastructure, accelerate the landfill gas capture and improve waste data through electronic waste tracking.
- Invest over £1.2 billion in major rail improvements, including £550 million for dedicated rail decarbonisation projects, as well as £3.8 billion on our rail network for passengers and freight.

^{5 &}lt;u>Fourth National Planning Framework: position statement – gov.scot (www.gov.scot)</u>

⁶ Securing a green recovery on a path to net zero: climate change plan 2018–2032 – update – gov.scot (www.gov.scot)

⁷ The Economic Recovery Implementation Plan published in September 2020 is the Scottish Government's response to the independent Advisory Group on Economic Recoverys

Driving inclusive economic growth

- Strengthening connectivity through the £600 million R100 programme.
- Investing £110 million in Digital Public Services
 Programme to support the transformation of key public services.
- Investing £525 million to deliver the next five years of £5 billion city region and regional growth deals.
- Doubling investment in bridge and roads maintenance, enhancing safety with a programme of around £1.5 billion over five years.
- Stimulating innovation and our international attractiveness by concluding our £75 million investment in the National Manufacturing Institute Scotland.
- Providing £10 million to support the reinstatement of the Cairngorm funicular.

Building resilient and sustainable places

- Investing £275 million to support community-led regeneration and town centre revitalisation as part of a new Place Based Investment Programme.
- Over £3.3 billion is allocated to deliver more affordable and social homes, helping to create great places, and continuing to ensure the right types of homes in the right places to support Local Housing Strategies and regional development priorities.

- Scottish Water is planning to invest over £4.5 billion in the next charge control period 2021-27 to maintain and improve services across Scotland, address the challenges of its aging asset base and make progress towards the achievement of its commitment to net zero emissions by 2040.
- Together with Councils, fund an ambitious £2 billion Learning Estate Investment Programme, using an outcomes-based revenue finance approach.
- Invest over £200 million in the Baird and Anchor project in Aberdeen and deliver a £320 million programme of investment to expedite completion of our elective care centres.
- Invest £25 million in the system development required to build on the 50-fold increase in patient use of NearMe digital healthcare services.
- A doubling of health maintenance investment totalling £1 billion.

Definition of infrastructure

Scottish Government defines infrastructure more widely than all other parts of the UK, including digital and social infrastructure for example.

The Infrastructure Commission worked with this definition in their Phase 1 report and recommended we newly add 'natural infrastructure'.

Following consultation on the draft Plan, the vast majority of respondents (95%) supported the inclusion of natural infrastructure.

Our definition is set out in the box below.

Infrastructure is:

"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 that supply ecosystem services and public services such as emergency services and resilience."



Responding to COVID-19 and long-term trends

Our Plan responds to the significant near-term challenges presented by the COVID-19 pandemic, recognising the profound impact the virus has had on our whole way of life. This has impacted on all of our communities and people, but particularly those who were most at risk to start with. Infrastructure has a vital role to play in helping businesses and communities to adapt and recover.

Alongside the harmful consequences of COVID-19, we have seen a number of positive shifts as people's lives became home-based, for example towards active travel or to make more use of digital services. Our Plan highlights our response, including:

- Investing in digital connectivity and digital inclusion to help businesses, workers and service users to accelerate the uptake of digital services and reducing the need to travel.
- Supporting safe active travel and local, accessible public services in vibrant places to sustain local communities.
- Supporting green and blue spaces to provide access to nature.
- Investing in local business opportunities and job-creation to preserve and generate employment to support economic recovery.

Infrastructure investment provides assets for the long-term. Consequently, we need to consider in our planning those long-term trends that affect the nature of the infrastructure needed, whether due to climate, technological or demographic change.

This Plan sets out the nature of those trends, and highlights the key adjustments in our investment approach that will be required to respond well:

- Climate adapting to climate change as well as mitigating emissions; and investing in nature.
- **Technology** enhancing digital services and platforms; and increasing support for data handling and storage.
- Demography meeting the needs of a greater share of older people in our population; focusing services and homes where people choose to live; and regenerating areas of working-age population decline particularly in rural areas.

A new common investment hierarchy

The Scottish Government has also accepted the Infrastructure Commission recommendation to consider an 'investment hierarchy' framework which prioritises enhancing and maintaining our assets over new build. This is needed to protect our environment, and ensure value for money.

In response to the Commission's suggestions, and taking on board feedback received through the consultation on the Draft Plan, we propose a new Scottish Government-wide common hierarchy to aid planning and decision-making.

This Plan sets out how we intend to apply and incorporate the hierarchy framework into decision-making processes relating to public sector infrastructure investment over time.

In practice, the hierarchy means that each step would need to be considered, in turn, before deciding the right approach. For example, something new might only be built if there is still a demonstrable service need for a facility, and an existing asset can't be repurposed.

In the future, 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 we will be addressing backlogs by working towards doubling investment in maintenance and asset enhancement over the next five years.

NEW SCOTTISH GOVERNMENT INVESTMENT HIERARCHY





Determine future need

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.



Maximise the useful life of existing assets

Maximise adaptation, repair and maintenance
of existing assets.



Repurpose & Co-locate

Reconfigure or repurpose existing assets, giving preference to co-location or shared facilities.



Replace, Create or Build New Assets Consider suitability and sustainability of new assets.

OUR INFRASTRUCTURE INVESTMENT PLAN 2021-22 TO 2025-26 – AT A GLANCE

Vision	Our infrastructure support net zero, and sustainable	ts Scotland's resilience and growth	enables inclusive,	
Different	 A coherent, strategic plan – based on long-term trends across 3 Themes under a common vision An expanded infrastructure definition to include Natural Infrastructure. Consistent portfolio coverage from 2021-22 to 2025-26 – matching National Infrastructure Mission delivery A new common investment hierarchy – enhancing and maintaining existing assets ahead of new build Based on outcomes, not inputs – with a 5 year programme of improvements in our assessment framework Promoting meaningful public engagement 			
Three themes	Enabling Net Zero Emissions and Environmental Sustainability	Driving Inclusive Economic Growth	Building Resilient and Sustainable Places	
More +	Decarbonising Transport & Supporting Active Travel Reducing the need to travel unsustainably Investing in bus and rail decarbonisation Encouraging a shift to more sustainable modes of transport Decarbonising Heat & Boosting the Energy Efficiency of Buildings Decarbonising Industry Supporting a Circular Economy Boosting Resilience & Adaptation Adapting to change at our coasts Flood risk management Climate resilient trunk road network Investing in our Natural Capital Woodland creation Peatland restoration Vacant and derelict Land	A World-Class Digital System New digital public service transformation funding Digital health Emergency Services Network Strengthening Connectivity Full fibre broadband A safe, sustainable, integrated and resilient strategic transport system Boosting Competitiveness Strategic tourism investments Manufacturing & Innovation Inclusion and Growth City and Regional Growth Deals Improving outcomes for island communities	Better Local Places: 20 minute neighbourhoods Community-led Regeneration Town Centres Digital planning Suitable, Warm, Affordable Homes High Quality Social Infrastructure Enhanced local & elective health services, to reduce acute need Learning Estate Investment Programme New Justice facilities Improving our water and waste water infrastructure	
5 year implementation plan	our net zero and inclusive	ture assessment and prioritis e growth aims proach to public engagemer		



THE INFRASTRUCTURE COMMISSION FOR SCOTLAND



Chair of the Infrastructure Commission for Scotland Ian Russell (left) and Michael Matheson, Cabinet Secretary for Transport, Infrastructure and Connectivity (January 2020)

In 2018, the First Minister announced a National Infrastructure Mission, steadily to increase Scotland's annual infrastructure investment so that it reaches internationally competitive levels by the end of the next Parliament. This will see £1.5 billion higher investment in 2025-26 than in 2019-20, an increase representing a full 1% of GDP at the time the Mission started.⁸

To support delivery of the National Infrastructure Mission, Scottish Ministers established an independent Infrastructure Commission for Scotland. Further background information on the Infrastructure Commission is published in **Annex A**.

The Infrastructure Commission for Scotland reported its findings in two phases:

- Phase 1: recommendations on the vision, ambition and strategic priorities for infrastructure were published in 'A Blueprint for Scotland' in January 2020.9
- Phase 2 involved providing further advice on the delivery of infrastructure. This advice was published in July 2020.¹⁰

The Infrastructure Commission's Phase 1 report proposed the following vision:

30-year Infrastructure Vision: To support and enable an inclusive net zero carbon economy

In formulating its first report, the Infrastructure Commission engaged widely across Scotland, attracting almost 150 submissions and feedback from over 1,000 members of the public. It sought views from users and future users of infrastructure, including engagement with young people, 11 providing a rich source of information.

The Commission's Phase 1 Key Findings report called on the Scottish Government to tackle the dual challenges of a climate emergency and creating an inclusive growth economy. It identified 8 thematic areas with 23 recommendations aimed at the Scottish public sector, as well as infrastructure regulators, operators and users.

⁸ For further details on the National Infrastructure Mission, please see our Capital Spending Review.

⁹ https://infrastructurecommission.scot/page/key-findings-report

¹⁰ https://infrastructurecommission.scot/page/delivery-findings-report

^{11 &}lt;a href="https://infrastructurecommission.scot/storage/232/Appendix_I.pdf">https://infrastructurecommission.scot/storage/232/Appendix_I.pdf

Scottish Ministers agree with the majority of the recommendations in the Phase 1 Report.

Where applicable, action in response to Phase 1 has already been taken and is reflected in this Infrastructure Investment Plan.

- Expanded our infrastructure definition to include Natural Infrastructure.
- Introduced a new investment hierarchy framework to prioritise making the most of existing infrastructure ahead of building new assets.
- Committed to developing new methods of appraisal and prioritisation to ensure they match long-term goals.
- Committed to preparing a cross-sector infrastructure needs assessment to inform the next Infrastructure Investment Plan.
- Committed to developing a broader approach to public engagement in forward infrastructure plans.

The Government's detailed response to the Phase 1 recommendations is also set out in **Annex A**. This shows our acceptance of 22 out of 23 recommendations for the time-being; the one outstanding recommendation is considered further in our response to the Phase 2 Report below. Some forward dates and implementation details may look a little different from Infrastructure Commission's original aspirations, not least out of necessity given the impact of the COVID-19 pandemic on our work.

The Commission's Phase 2 report contained 11 recommendations which can be grouped into three themes, relating to:

- prioritising an inclusive net zero carbon economy and a long-term approach to infrastructure strategy (Recommendations 1 and 2);
- how best to optimise the impact of infrastructure in enabling sustainable places (Recommendations 3-9); and
- delivering a thriving construction sector through enhancing the interaction between the public sector and industry (Recommendations 10 and 11).

The Scottish Government has considered the Phase 2 recommendations and is supportive of the broad themes. Some areas require further consideration, as identified below.

The Scottish Government agrees with the recommendations for delivering a thriving construction sector (Recommendations 10 & 11) and has already committed to taking forward a **Construction Accord** with the industry by spring 2021 with an external advisory group established to develop the Accord.

Where the Commission has recommended enhancement to the approach to decision-making (Recommendation 2), this was primarily to ensure their Phase 1 Report could effectively be implemented. The Scottish Government has already committed to a number of enhancements in this Plan in response to Phase 1 recommendations and will implement these to deliver an integrated, outcome-led approach in time for the next Infrastructure Investment Plan. We will report on the progress towards implementing these changes at regular intervals.

The Scottish Government agrees broadly with the recommendations 3-9 on the Sustainable Places theme. The thrust of the recommendations are in line with the development of the National Planning Framework 4,¹² particularly in ensuring a cross-portfolio evidence-based approach to spatial planning which aligns national, regional and local needs. However, there are some areas of detail that will require further consideration to identify how best to deliver the detail of the Commission's recommended approach in practice, taking into account existing arrangements and ongoing policy development.

The Scottish Government will continue to work with partners, including the Scottish Futures Trust, local government and other public bodies, to encourage the efficient and innovative use of data for the infrastructure sector. Through the Scottish Government's Digital Planning Strategy¹³ we intend to improve the standardisation of data collection and use in infrastructure planning but it is important to be aware that there are challenges to overcome in having one common dataset as described by the Commission.

We recognise the importance of skills in place-making. Many of these skills exist within the built environment, community development and green network professions. Tools and resources such as the Place Standard¹⁴ can provide common platforms to support exchanges gain common understanding of challenges and opportunities.

The Commission's first recommendation on infrastructure strategy is a further development of its Phase 1 Report recommendation 23 and identifies new duties being given to an independent specialist body, which could be an existing body, operating at arms-length to government. The Phase 2 report provides a review of international examples where an independent body is in place but the Scottish Government feels further consideration on the most appropriate approach and application to the Scottish context is required. We will set out further details of the steps we will take to explore this later.

For the time-being, the Scottish Government accepts the conclusion of the Infrastructure Commission in relation to the potential for a Scottish National Infrastructure Company. However, as recommended by the Commission, we will keep this issue under review and will continue to monitor the impact of the Construction Accord and other relevant Commission recommendations as they are implemented.

¹² https://www.gov.scot/publications/scotlands-fourth-national-planning-framework-position-statement/

¹³ https://www.gov.scot/publications/transforming-places-together-scotlands-digital-strategy-planning/

¹⁴ Place Standard



RESPONDING TO COVID-19 AND LONG-TERM TRENDS

The COVID-19 pandemic has had a profound impact on our whole way of life. A clear priority is to reduce the economic, health, and social harm that the virus has brought. Infrastructure can help businesses and communities rebound.

The pandemic is a public health crisis, with unprecedented global economic consequences. Scotland, in common with economies across the world, is experiencing one of the largest economic shocks in history.

This has particularly hit construction, tourism and hospitality, food services, arts, entertainment and recreation sectors. Even where sectors have continued to trade, turnover is down, resulting in precarious cash flows. Consumer demand, how we travel, purchasing habits, and decision-making may see enduring changes as a result of the pandemic. Effects are particularly stark in hospitality, retail and aviation, for example. How we invest in infrastructure can help our recovery.

COVID-19 has had a dramatic impact on all of our communities and people, but particularly those who were more disadvantaged to start with. This includes households on low incomes or in poverty, low-paid workers, children and young people, older people, disabled people, minority ethnic groups and women. Unless we take action, the legacy of the pandemic is likely to make outcomes more unequal across a range of social and economic aspects.

The pandemic has also impacted on different parts of Scotland differently. Our rural and island communities have faced a particular challenge, especially as a result of lockdown and the disruption to tourism and hospitality. Concerns around digital exclusion in rural areas have become even more acute as more of us have relied upon digital tools to help us work, study, and stay connected with each other. Coupled with withdrawal from the EU, the impact of the pandemic has the potential to reduce the economic participation and wellbeing of people in rural areas. Cities lost more employment vacancies at the height of lockdown than rural areas, and have been negatively affected by the closure of non-essential offices and their associated trade.

Alongside the harmful consequences, we have seen a number of potentially positive shifts that we can build upon. This includes positive examples of community cohesion and empowerment, new collaborative ways of working among public services and more person-centred support, reduced commuting, more flexible and remote working arrangements and making more use of digital channels to access services and support.

We now have a unique opportunity, not simply to go back to how things were, but to harness the scale and pace of such changes to drive positive outcomes and ensure our investment plans are founded in fairness and dignity, safeguarding equality.

We will ensure a focus on the following shifts in our capital investment, to seek to address the economic, health and social impacts of COVID-19:

- Investing in digital connectivity and digital inclusion to help businesses, workers and service users to accelerate the uptake of digital services and reducing the need to travel.
- Supporting safe active travel and local, accessible public services in vibrant places to sustain local communities.
- Supporting green and blue spaces to provide access to nature.
- Investing in local business opportunities and job-creation to preserve and generate employment to support economic recovery.

LONG-TERM TRENDS

Infrastructure, once built, lasts for many years. As such, it is important to try to project ahead to consider likely future community needs and how the places we live in and the way we live might change. Before the pandemic, the Scottish Government had considered three key long-term trends which impact the provision of infrastructure:

- Climate change
- Technological developments
- Demographic change

Climate Change

The UK Climate Projections (UKCP18)¹⁵ illustrate a range of future climate scenarios for Scotland,¹⁶ suggesting that:

- Typical summers will be warmer (as illustrated in figure below) and drier.
- Typical winters will be milder and wetter.
- Intense, heavy rainfall events will increase in both winter and summer.
- Sea levels will rise.

Scotland winter precipitation compared to 1981-2000

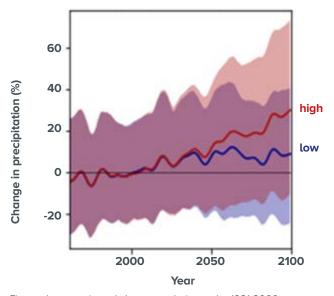


Figure shows projected changes, relative to the 1981-2000 average, in Scottish summer average temperatures under high and low global emissions scenarios. The shaded envelopes represent the uncertainty ranges for each scenario.

These changes will lead to a range of impacts, including:

Increased risk of flooding and disruptive storms: With climate change likely to alter rainfall patterns and bring more heavy downpours, we can expect flood risk to increase in the future, impacting on transport and energy networks and properties.

Change at our coast: With sea level rise set to accelerate, we can expect to see more coastal flooding, erosion and coastline retreat, with consequences for our coastal communities and supporting infrastructure.

Availability and quality of water: As our climate warms and rainfall patterns change, there may be increased competition for water between households, agriculture, industry and the needs of the natural environment.

An increase in the frequency and intensity of weather events is likely to impact infrastructure planning and operation. For example, our energy, transport, water, and ICT networks may face disruptive flooding, landslides, drought and heatwaves. Generating some types of renewable energy is weather-dependent. Climate also impacts on raw water quality which necessitates different and higher levels of treatment to meet drinking water quality standard.

In response to these changes, we need to adapt current infrastructure and design future assets to be more resilient to the effects of climate change. We also need to invest in natural infrastructure and nature-based solutions to climate change, which also help to tackle biodiversity loss and create wider socioeconomic benefits.

¹⁵ https://www.metoffice.gov.uk/binaries/content/assets/metofficegovuk/pdf/research/ukcp/ukcp-headline-findings-v2.pdf

¹⁶ https://www.adaptationscotland.org.uk/why-adapt/climate-trends-and-projections

Technological Change

While technological change has been continuous over time, the size, speed and scope of technological change in recent years is unprecedented. The main trends we are seeing, related to infrastructure, are:¹⁷



Digitisation of services, systems and solutions and a clear trend towards automation



Significantly more data creation, requiring common standards and cyber security



A need for greater resilience and scale through cloud hosting



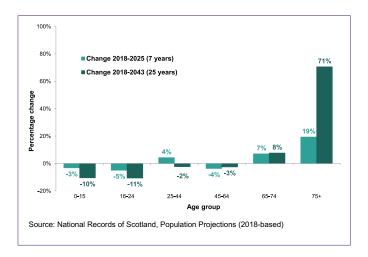
Decentralised models of utility provision (e.g. energy) and services (tele-health)

This trend toward decentralisation, underpinned by digital services, has been accelerated in response to the COVID-19 crisis, where digital applications have proved their worth – for example, digitisation of some court procedures, greater use of video consultation in primary care, and online learning and teaching in schools and tertiary education. Many businesses have also made greater use of technologies or shifted to digital modes of provision.

Demographic changes

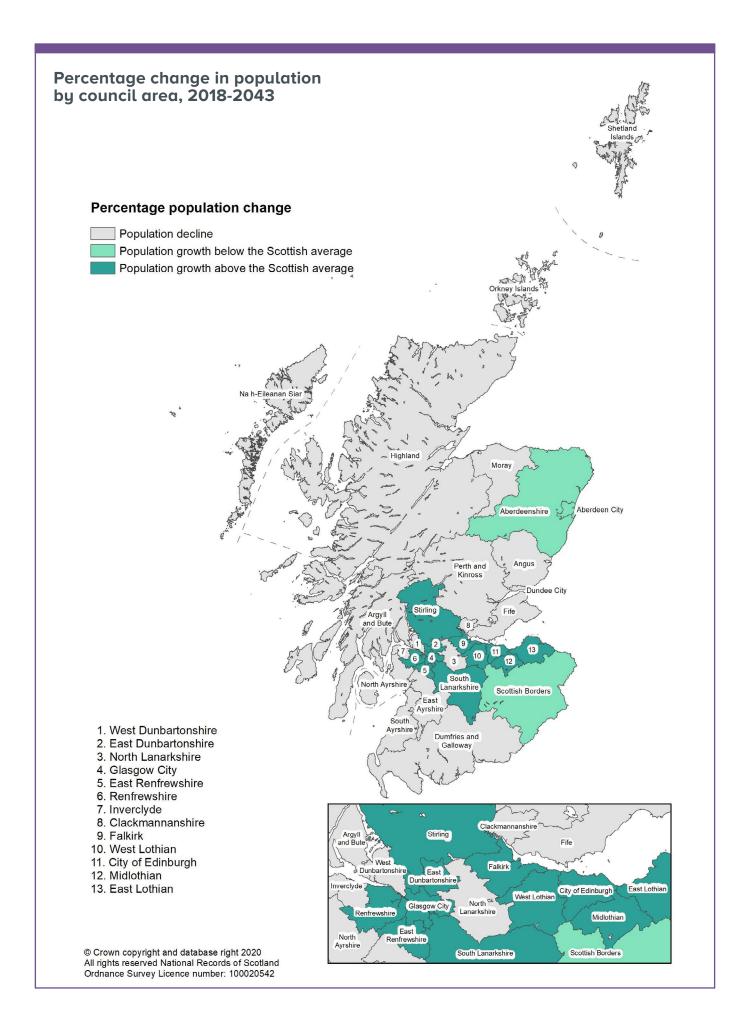
Scotland's population has increased in past years, and is projected to continue to rise. The largest medium-term trends relate to the significant increase in our older population, and changes in where and in what household size people choose to live.¹⁸

- All Councils will see an increase in pensioners with implications for services such as health, or the nature of housing required.
- The biggest change is a 71% forecast increase in the number of people aged over 75 in the next 25 years.
- There is a trend of predominantly older households in the West and South West areas.
- Rural Scotland faces particular challenges with population decline and 14 of our local authorities in rural areas are expected to experience population decrease over the next 10 years.
- Migration has been the main driver of population growth, and all the projected future increase is projected to come from migration (both overseas and rest of the UK).
- Numbers of working age population and children are reducing in the West, South West and Islands, and increasing in the East and North East.
- Cities experience most population growth through overseas in-migration, whilst seeing outward migration of Scots to surrounding areas.
- Single adult households are increasing at a much faster rather than all others.
- Dedicated university accommodation has reduced housing pressure in cities.



¹⁷ https://www.gov.scot/publications/implications-future-technological-trends-scotlands-infrastructure/

¹⁸ https://www.nrscotland.gov.uk/files//statistics/consultations/infrastructure-commission-for-scotland-call-for-evidence-may-19.pdf



Shifting our approach in response

Our approach to infrastructure is shaped by an understanding of the challenges and opportunities these trends bring:



- Adapting to climate change as well as mitigating emissions
- Investing in natural infrastructure and nature-based solutions



- Enhanced digital infrastructure and storage
- Increased support for data sharing and digital public services
- Promote digital inclusion



- Meeting the needs of older people
- Services and homes where people choose to live
- Regenerating areas of working-age population decline

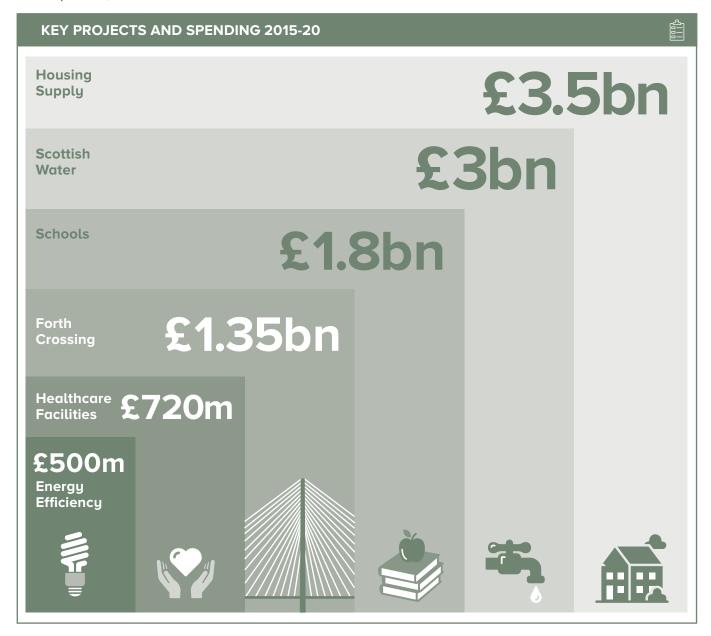


Chapter 3

OUR COHERENT, STRATEGIC INFRASTRUCTURE INVESTMENT PLAN

Investment in infrastructure will be key to Scotland's economic recovery from COVID-19, and also in supporting public services, delivering our transition to net zero, and meeting the needs of people and communities across Scotland.

The last Infrastructure Investment Plan was published in 2015, and its delivery progress has been reported to Parliament twice each year.¹⁹ In that five-year period we have completed a number of milestone developments, as below.



¹⁹ The latest versions of the Infrastructure Investment Plan publications can be found by way of the following link: http://www.gov.scot/Topics/Government/Finance/18232/IIP

This Infrastructure Investment Plan provides a coherent and strategic picture of our Scottish Government-wide investment priorities between 2021-22 and 2025-26.

The Plan has been developed to implement the Phase 1 recommendations of the Infrastructure Commission. It includes a number of shifts in approach. Notably it:

- Articulates shifts in approach due to COVID-19, and to respond to long-term needs.
- Sets out a coherent, strategic plan rather than portfolio-based, it delivers long-term outcomes across three themes, under a single common Vision.
- Sets out plans on a consistent 2021-22 to 2025-26 timeline across all areas, showing how Scottish Ministers will deliver the National Infrastructure Mission.
- Introduces a new, common investment hierarchy – enhancing and maintaining existing assets ahead of new build.
- Supports market confidence and jobs with a sizeable pipeline of activity.
- Establishes a five-year improvement programme & promotes public engagement.

A Coherent, Strategic plan –
Three Themes under a Single Vision
A coherent Plan means taking a whole of
government approach. We have adopted a single
vision for our infrastructure investment choices.

"Our Infrastructure supports Scotland's resilience and enables inclusive, net zero, and sustainable growth"

In supporting this vision, the Plan focuses on three key themes. These are not independent and the Plan deliberately recognises that infrastructure investments deliver multiple benefits for the economy, society and the environment. For example, investing in a project which contributes towards net zero emissions could then also improve opportunities and outcomes in the place in which that project is based.

Investments also present opportunities for new groups of people to benefit from working in the industry it supports who may not have been previously represented. We will seek to prioritise investments which deliver positive outcomes across more than one theme.

Enabling the transition to Net Zero Emissions and Environmental Sustainability: Public infrastructure investment has a critical role to play in tackling the twin crises of climate change and biodiversity loss. We will increase spending on low carbon measures, climate resilience, and nature-based solutions.

Driving Inclusive Economic Growth:

We can boost productivity and competitiveness, and create good jobs and green jobs, by enhancing our transport and digital connectivity and capacity in all areas of Scotland, and by stimulating innovation. We will embed fairness and inclusion, seeking to ensure no-one is left behind.

Building Resilient and Sustainable Places:

Delivering on our ambition for a fairer Scotland starts at the local community level. We will invest in housing and better local delivery of services. With our partners we will meet the diverse economic, social and environmental needs of urban, rural and island areas.

These themes directly link to Scotland's National Performance Framework, which sets out our overall purpose, and the UN Sustainable Development Goals. They align with our recovery and renewal from COVID-19, ensuring that our short-term response to the crisis complements the long-term drive towards a wellbeing economy; reducing inequality and improving the quality of life of all of our people.

This Plan sets out the investments which Scottish Government makes at its own hand, in its own facilities and assets required for public services (rather than the service itself) and those of its agencies and public bodies. It does not cover UK Government investment in reserved areas.

While we focus on Scottish Government investments here, we recognise that our approach to infrastructure must be a collective endeavour in order to be successful. The Plan does not cover investment choices made by local government, recognising Councils' autonomy, we will continue to work closely with local government and other delivery partners to pursue shared priorities.

We will also continue to engage with the private sector and the Scottish National Investment Bank about the role of external investment within the overall framework provided by this Plan. The forthcoming 'Investing with Purpose: Scotland's Private Capital Investment Plan' will set out our strategy to attract internationally mobile private capital.



A Consistent Approach to Financial Planning - 2021-22 to 2025-26

This Plan has been developed alongside considering the finance available for Scottish Government programmes, as set out in the Capital Spending Review. The last multi-year capital spending review was in 2010, and this year is the first time long-term financial planning has coincided with a new Infrastructure Investment Plan.

This means we have been able to plan and choose the right things to enhance and build, alongside ensuring the funding and finance to pay for them. It gives us confidence to set out a full plan to deliver the National Infrastructure Mission over the next Parliamentary term. Detailed capital budget allocations have been set out in the Capital Spending Review²⁰ and Draft Scottish Budget 2021-22²¹ provides information on the breakdown of spend in the next financial year.

Including Natural Infrastructure in our Infrastructure Definition

The Infrastructure Commission for Scotland recognised the role of infrastructure in supporting environmental as well as social and economic outcomes and recommended we include natural infrastructure in our definition. This approach was also supported by the majority of respondents to our consultation with 95% supporting its inclusion.

Investment in nature-based solutions builds resilience and delivers multiple benefits. For example, enhancing nature reserves and protected areas boosts biodiversity and can also increase recreational and tourism value. Improving landscapes and open space in housing encourages outdoor activity, delivers passive cooling and provides sustainable drainage. Planting trees and restoring peatland increases carbon storage.

The International Institute for Sustainable Development (IISD) offers the following definition: "Natural infrastructure is an area or system that is either naturally occurring or naturalised and then intentionally managed to provide multiple benefits for the environment and human wellbeing."²²

Our natural infrastructure can contribute a great deal to quality of place and wellbeing by supporting sustainable everyday living and strengthening community resilience.

²⁰ https://www.gov.scot/isbn/9781800046429

²¹ https://www.gov.scot/publications/scottish-budget-2021-22/

²² https://www.iisd.org/articles/multiple-benefits-natural-infrastructure

The concept is already integrated in many of our infrastructure programmes such as housing and regeneration, flood, water and drainage management, and active travel, and well as more specific investments in green networks (such as the Green Infrastructure Strategic Intervention),²³ woodland creation and peatland restoration.

The inclusion of natural infrastructure in our revised definition, creates a more holistic view of the entirety of Scotland's infrastructure assets and recognises the wider contribution natural capital can have towards creating sustainable, attractive places to live and improve wellbeing; generating economic growth and also reducing carbon emissions.

As we progress the development of our prioritisation framework, we will incorporate the latest data and techniques in evaluating the benefits of investing in natural assets and nature-based solutions, drawing on our growing evidence base (which includes our Natural Capital Accounts).

Establishing a New Common Investment Hierarchy

The Infrastructure Commission for Scotland recommended that we place greater emphasis on making the most of existing assets. Addressing the climate emergency, promoting circular economy approaches and increasing sustainability, requires us to prioritise the assets and materials we already have. The Phase 1 report proposed the consideration of an investment hierarchy framework which prioritises maintaining and enhancing existing assets over new build.

An investment hierarchy does not preclude new assets. Rather it is an approach to planning and decision-making which would consider future needs, including use of digital platforms and technology, and the suitability of existing assets.

Parts of government have already been evolving hierarchies and adopting a formal asset management approach: Scottish Water's preparation for the next charge control period (2021-27) includes the development of an Asset Information and Management Strategy. The National Transport Strategy includes a Sustainable Investment Hierarchy and Transport Scotland has an Asset Management Policy, Strategy and Plan for Scotland's trunk road network. Police Scotland in its Estate Strategy has put a digitally enabled service model at the forefront with its future property assets being represented by a modernised network of mostly community bases co-located and integrated with partners at its core.

A new common approach across the Scottish Government will be introduced that will support the coherence of decision-making and provide guidance for public organisations. It is set out in the diagram on page 25.

In considering the rationale of any new investment hierarchy, The Scottish Government Office of the Chief Economic Adviser (OCEA) has established an overview of the economic and distribution benefits of maintenance and enhancement programmes. See **Annex B** for more details.

This evidence suggests considerable economic and distributional benefits arise from such programmes, particularly where the focus is on assets in the poorest condition. They can also offer a wider regional distribution of and a greater potential for Scottish Small and Medium sized Enterprises (SMEs) to engage in this work than is typical in larger construction programmes.

We estimate that we are already investing over £450 million of capital funds in maintenance in 2020-21, and will work towards doubling this level over the next five years, addressing backlogs. This figure includes capital spending on maintaining and enhancing assets and major equipment.

The hierarchy approach recommended by the Commission was broadly supported by respondents to the consultation, with the majority of consultation responses (64%) indicating the steps we proposed are the right ones. Recognising some aspects of the hierarchy could be strengthened to link to our long-term goals of achieving a net zero inclusive economy and to incorporate natural infrastructure, we have amended the wording in certain areas.

Now that the steps have been established, we will incorporate the hierarchy into future infrastructure investment as part of a wider asset management approach to business case development and the decision-making process. Working with Scottish Futures Trust, we will develop guidance for public organisations to support the development of asset management strategies.

The hierarchy alone will not solely determine which projects will be funded. However, it should help to reinforce positive behaviours around maximising the benefits from maintaining our existing assets where appropriate to do so. This should take into account asset obsolescence and poor condition, while ensuring we are reflective of local infrastructure needs, such as the different level of existing infrastructure in rural and island communities when compared to towns and cities.

Recent changes to the HM Treasury Green Book guidance on business case appraisal methodology will be considered and aligned, where appropriate, with our Place Principle and net zero inclusive growth aims as central components of project evaluation.

The hierarchy is closely linked to the impact assessment and prioritisation framework discussed in the next section and its development will be an iterative process which will be developed as part of the future route-map for the infrastructure investment decision framework.

NEW SCOTTISH GOVERNMENT INVESTMENT HIERARCHY





Determine future need

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.



Maximise the useful life of existing assets Maximise adaptation, repair and maintenance of exiting assets.



Repurpose & Co-locate

Reconfigure or repurpose existing assets, giving preference to co-location



Replace, Create or **Build New Assets** Consider suitability and sustainability of new assets.

Measuring Outcomes and the

Potential Benefits of Future Infrastructure Infrastructure can deliver multiple benefits for individuals and communities – such as new childcare facilities, affordable housing and good public transport links reducing the barriers for job seekers and working parents. The Scottish Government uses its National Performance Framework to seek to examine and capture such outcomes, or benefits, as approaches are designed, or evaluated.

While it recognised that robust evidence-based frameworks are in place – the Commission recommended development of a new, overarching assessment framework across all infrastructure types to support system-wide, long-term trade-offs and choices with a focus on the twin objectives of net zero emission and inclusive economic growth. It recognised that this will take time to develop.

For this current Plan, they recommended we use "the most appropriate methodology available" that prioritises, on a "no regrets" basis, the contribution to an inclusive net zero carbon economy". Their work also involved a Fraser of Allander²⁴ report exploring the relationship between infrastructure and inclusive economic growth, which concluded that further work to explore the links between infrastructure and inequality is required but where we wish to measure the impact of infrastructure on economic welfare, a dashboard of indicators would be the best approach.

Scottish Government already prepares business cases considering the likely impact of proposed infrastructure, using the most relevant aspects of the National Performance Framework. Some areas base assessment on the inclusive growth framework, considering participation, population, place, people and productivity. The Scottish National Investment Bank mission-based approach is also outcomes-based.

In the draft Infrastructure Plan, we asked for views on the types of indicators that should be considered by the Scottish Government when assessing the potential benefits of infrastructure. The diagram on page 27 was offered as an illustration, and basis for future work.

The majority of consultation respondents (70%) agreed with our approach to setting a framework using a dashboard of indicators whilst recognising the challenges and complexities involved in getting it right. Links to the National Performance Outcomes and Sustainable Development Goals were also welcomed in ensuring a holistic assessment can be made of impact and outcomes. The framework would need to include a clear, transparent and consistent set of indicators to inform decision-making and help consider trade-offs and understand the wider impact of investments.

As the route-map sets out, and as we have broad consensus that this approach is the right one, the dashboard and framework will be further developed during the period of this Plan.

The views expressed in the consultation responses will help inform the key considerations in this process, such as:

- If and how indicators will be weighted;
- How it will inform trade-offs;
- What data will be used and will it be of sufficient quality, relevance and readily available;
- How it will interact with the Common Investment Hierarchy described above;
- Ensuring alignment with other key policies, including recognising equality, fairer Scotland and island communities impacts;
- Use of qualitative and quantitative measures;
- Ensuring it is comprehensive;
- Taking account of regional variations; and
- Building in mechanisms to collect further data to inform future improvements.

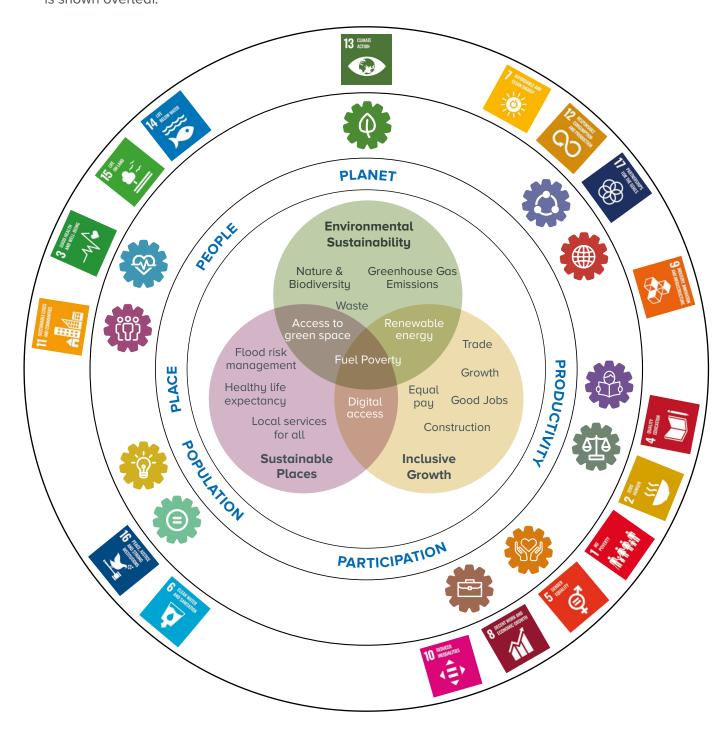
In progressing this work, we will ensure it is aligned with wider work, e.g. on the National Performance Framework and the Wellbeing Economy Framework, to ensure a consistent approach is shared across Scottish Government decision-making frameworks.

²⁴ After comparing three different approaches, the FoA report endorses the use of a dashboard (akin to a streamlined version of the National Performance Framework) in measuring the impact of infrastructure investment on Inclusive Growth outcomes. https://infrastructurecommission.scot/storage/234/Appendix_K.pdf

IMPACT ASSESSMENT & PRIORITISATION: Indicative Dashboard

Notes:

- The 15 indicators are shown below mapped against our three themes.
- These are illustrative of the types of indicators we could include in a dashboard assessment framework.
- They are drawn from the National Performance Framework as well as The Scottish Centre for Regional Inclusive Growth Dashboard (available at www.inclusivegrowth.scot).
- The key showing the Sustainable Development Goals and National Performance Framework outcomes is shown overleaf.



Sustain	Sustainable Development Goal		NPF Outcomes		
1 [™] overty 朮☆春春 春	End poverty in all its forms everywhere		Children & Young People – We grow up loved, safe and respected so that we realise our full potential.		
2 TERO HUNGER	End hunger, achieve food security and improved nutrition and promote sustainable agriculture		Communities – We live in communities that are inclusive, empowered, resilient and safe.		
3 GOOD HEATH AND WELL-BEING	Ensure healthy lives and promote wellbeing for all at all ages		Culture – We are creative and our vibrant and diverse cultures are expressed and enjoyed widely		
4 GOALITY EDUCATION	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all		Economy – We have a globally competitive, entrepreneurial, inclusive and sustainable economy.		
5 CENDER EQUALITY	Achieve gender equality and empower all women and girl		Education – We are well-educated, skilled and able to contribute to society.		
6 CLEAN WATER AND SANTIATION	Ensure availability and sustainable management of water and sanitation for all		Environment – We value, enjoy, protect and enhance our environment		
7 AFFORDABLE AND CILIAR DEBICY	Ensure access to affordable, reliable, sustainable and modern energy for all		Fair Work & Business – We have thriving and innovative businesses, with quality jobs and fair work for everyone		
8 BECONT WORK AND ECONOMIC GROWTH	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all		Health – We are healthy and active		
9 NOUSTRY, BROWNING	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation		Human Rights – We respect, protect and fulfil human rights and live free from discrimination		
10 REDUCED MEQUATIES	Reduce inequality within and among countries		International – We are open, connected and make a positive contribution internationally.		
11 SUSSIMARE CITIES AND COMMUNITIES	Make cities and human settlements inclusive, safe, resilient and sustainable	eje:	Poverty – We tackle poverty by sharing opportunities, wealth and power more equally		
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Ensure sustainable consumption and production patterns				
13 ACTION	Take urgent action to combat climate change and its impacts*				
14 LETE BELOW WATER	Conserve and sustainably use the oceans, seas and marine resources for sustainable development				
15 or	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss				
16 PLACE JECTICS AND STRONG INSTITUTIONS INSTITUTIONS	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels				
17 PARTIMESHIPS FOR THE COALS	Strengthen the means of implementation and revitalize the global partnership for sustainable development				

Promoting Better Engagement with the Public
We encouraged the Infrastructure Commission
to engage widely in looking at the right
strategic priorities for Scotland. Recognising that
infrastructure is with us for a long time, and can be
expensive, the Commission has recommended that
an informed approach to public engagement and
participation is needed, to ensure short and longterm trade-offs are effectively debated, understood
and taken into account. We agree, and are
committed to openness and transparency.

In developing our exemplar approach, we will build on experiences across sectors and in other countries. For example, The Scottish Government's Commitment to the Open Government Partnership (OGP)²⁵ has drawn out good examples of public engagement in the delivery of large infrastructure projects, including the Queensferry Crossing. And Scottish Water's 25 year Strategic Plan published last summer was co-created with stakeholders and they will establish a new National Engagement Programme. The development of our future approach will also learn from Scotland's Climate Assembly, and work alongside public engagement on the National Planning Framework 4.

The Infrastructure Investment Plan Pipeline, Monitoring and Reporting

Additionally, there is a well-established suite of monitoring and reporting arrangements, including for the previous 2015 Infrastructure Investment Plan. The Scottish Government supplies the Parliamentary Audit and Post Legislative Scrutiny Committee (PAPLS) with reports twice a year. These include an Annual Progress Report on the Infrastructure Investment Plan itself, and detailed delivery information on all projects and programmes, including timelines and budget. ²⁶

This Plan, under its three themes, details the projects and programmes whose business cases and procurement plans are sufficiently advanced that they represent firm decisions now. As such, it offers the market confidence in a robust pipeline of work and is good for jobs, green jobs and stimulating low carbon economic recovery.

Additionally, <u>Annex D</u> publishes the subset of those plans that meet the criteria for being reported to the Parliament's PAPLS Committee every six months. Not every area of spend is subject to detailed scrutiny, but historically projects with a capital value of £20 million and programmes with a £50 million value have been subject to detailed reporting.

We newly propose to lower the reporting threshold to £5 million for projects and £20 million for programmes to provide even greater transparency. Certain programmes are also broken down to show specific projects where this is appropriate (in line with the new thresholds). These changes are being made in response to efforts to further enhance the transparency of our reporting. In doing so, we have been guided by international best practice, including the recommendations of the European Cooperation in Science and Technology (COST) framework²⁷ and the OECD.²⁸

The Scottish Government is committed to a number of significant projects for example replacements for Monkland's hospital and HMP Barlinnie where full business cases are still being prepared. Whilst these represent commitments, costs and timescales can only be indicative at this stage and will be updated once the full business case is prepared and the procurement process concluded.

²⁵ https://www.gov.scot/policies/improving-public-services/open-government-partnership/

²⁶ The latest versions of the Infrastructure Investment Plan publications can be found by way of the following link: http://www.gov.scot/Topics/Government/Finance/18232/IIP

²⁷ CoST-high-income-case-study-Scotland-1.pdf (infrastructuretransparency.org)

²⁸ OECD Compendium of Policy Good Practices for Quality Infrastructure Investment

Carbon Assessment

We also regularly report to Parliament on the climate change implications of the Capital Budget but we are aware of the limitations in our current approach to carbon reporting and wish to improve it.

In passing the 2019 Climate Change (Emissions Reduction) Act in Scotland, the Parliament agreed that we should explore new ways to assess the contribution made by the infrastructure investment plan to the emissions targets.

In the consultation on the Draft Plan we set out our planned approach to developing a new methodology, acknowledging that this would take time. This approach was broadly supported by respondents to the consultation.

In the meantime, we will continue to use the broad carbon taxonomy approach and **Annex C** sets out the summary of how the Infrastructure Investment Plan pipeline aligns with that taxonomy.

Supporting Supply Chains

In order to identify and maximise the local industry benefit from the pipeline, The Scottish Government will take forward a range of actions collaboratively with the Construction Leadership Forum²⁹ and, working within established suppliers' forums, continue to address the challenges of COVID-19 and incorporate lessons learned as appropriate into post-pandemic practice through the Supply Chains' Development Programme, including how best to support local economies to get more value from public sector investment and supports more local businesses to secure contracts

A Five-Year Implementation Programme

The Infrastructure Commission's Phase 1 report recommended a number of improvements to the Scottish Government's approach to infrastructure.

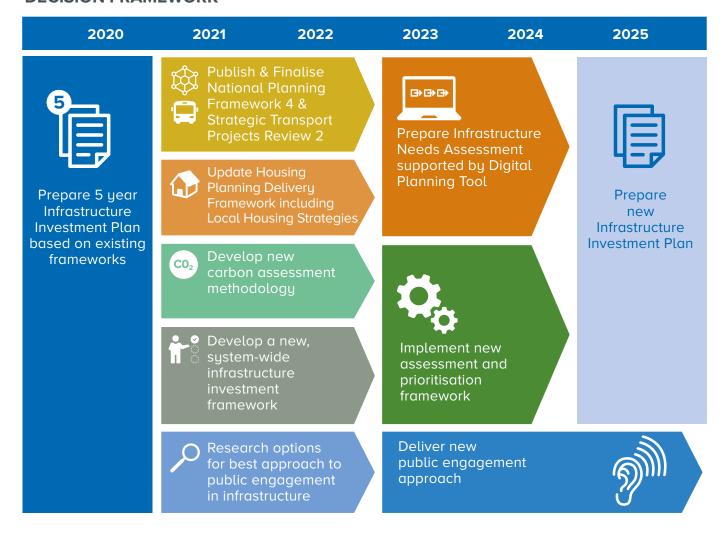
These were intended to be implemented over time, and support development of the next Infrastructure Investment Plan in 2025. The figure overleaf shows how the Scottish Government intends to take such improvements forward, and the timeline.

The key elements of this implementation programme include:

- Developing an infrastructure needs assessment, incorporating the outcome of the National Planning Framework 4, Strategic Transport Projects Review 2 and the Housing to 2040 Strategy;
- Develop a new infrastructure appraisal framework to meet our net zero and inclusive growth aims incorporating changes to carbon assessment;
- Develop an enhanced approach to public engagement and participation in infrastructure investment.

Taken together, they should ensure better, more consistent, and more transparent future decisions about the right infrastructure to provide.

FIGURE: IMPLEMENTATION PROGRAMME FOR INFRASTRUCTURE INVESTMENT DECISION FRAMEWORK





Chapter 4

Theme 1: Enabling the Transition to Net Zero Emissions and Environmental Sustainability

Some achievements from our last, 2015 Infrastructure Investment Plan

- The Low Carbon Infrastructure Transition Programme has awarded over £52 million of grant funding to low carbon demonstration projects across Scotland which encourage replication and wider uptake of innovative renewable technology.
- £42 million has been spent annually on **flood protection** to properties and businesses across Scotland including the £1 billion Dundee Waterfront.

Scotland's world leading legislation – The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 – set new, tighter targets to achieve net zero domestic greenhouse gas emissions by 2045. Interim targets are set for 2020, 2030 and 2040, for emissions reductions of 56%, 75% and 90% respectively, requiring action in all sectors.

This will require transformative action across all sectors of the economy and across society. The Scottish Government's investment in publicly-funded infrastructure has a critical role to play in supporting the transition — committing to multi-year investments in this Plan sends a clear signal to supply chains to invest in people and technology, and help us deliver the net zero transition. But it is only a share of the effort, and cannot deliver such targets on its own. It also requires UK and international action, such as in reserved policy areas of energy and aviation. Regulation, resource investment, incentives, business and individual behaviour change all have roles to play.

We already invest £1.8 billion of capital each year in low carbon policies and programmes. Scottish Ministers have committed to increasing the level of spending by an additional £2 billion over the next five years. New schemes have already been announced in Programme for Government 2020, deploying £1.6 billion of this investment, and in the Climate Change Plan update³⁰ with £400 million of additional schemes. This update set out a full range of emissions reduction policies to secure our net zero ambitions, including new policies and outlining where existing policies have been boosted or accelerated since the initial plan in 2018.

We know that 1 in 11 homes and 1 in 7 businesses in Scotland are already at risk of flooding and, on average, around 2,000 more properties will be at risk every year due to climate change. We have set out how Scottish Government will increase resilience to climate change and invest more in adaptation measures to protect our homes, businesses and places from flood risk. Investing in coastal change adaptation will help protect our natural defences which protect an estimated £10 billion worth of assets.

Scotland's natural capital is fundamental to our economy and our wellbeing. It supplies the energy and resources on which many industries depend and is the essence of our global brand. It supports our health and quality of life, providing the essentials we all need to survive and thrive, and protecting our communities from flooding and extreme weather. It plays a vital role in tackling climate change – removing carbon from the atmosphere and securing it in natural habitats. Natural areas or systems that are managed to provide multiple benefits for the environment and human wellbeing can be described as 'natural infrastructure'.

Investment in natural infrastructure creates significant opportunities for improving biodiversity and reducing emissions, while also creating jobs and a wide range of health and wellbeing benefits, including improved urban air quality and protection from flooding.

CASE STUDY

Glenrothes Energy Network

In 2016, the Scottish Government's Low Carbon Transition Infrastructure Programme, which is co-funded by the European Development Fund provided £8.6 million of support to the Glenrothes Energy Network. The remainder of funding was provided by RWE and Fife Council.

The project is utilising the heat loss from the RWE biomass combined heat and power (CHP) plant based in Markinch in an ambitious district heating network, which includes thermal storage and a back-up energy centre to supply low carbon heat



to a wide range of local customers in the centre of Glenrothes. The Glenrothes Energy Network was officially opened on the 25 April 2019. It is successfully delivering low carbon heating to Fife House complex, Rothes Halls and the sheltered housing complex at Jubilee Grove.

Theme 1: What the Infrastructure Investment Plan will deliver: 2021-22 to 2025-26

Purpose	Plans
Decarbonising transport & active travel	 We will aid the transformation of our surface-transport systems. We will invest: Over £500 million over five years in active travel, the majority of which will be for active travel infrastructure including reallocating road space in favour of walking, wheeling and cycling, encouraging active travel for shorter every day journeys. To support public sector fleet investment in alternatives to petrol and diesel and support a range of low and zero carbon transport initiatives with £287 million investment from our Future Transport Fund. £50 million to support 'Active Freeways' – high quality arterial active travel routes. £120 million to support the transition to zero-emission buses. A further £495 million investment 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. Over £3.8 billion in the operation, maintenance and sustainable renewal of a high performing rail network for passengers and freight. £550 million for decarbonisation of rail infrastructure projects as part of the £1.23 billion worth of investment in major project enhancements.

Purpose	Plans
Decarbonising heat and transforming our buildings through energy efficiency	We will invest £1.6 billion to reduce demand for heat through improved energy efficiency measures and eliminate emissions from space and water heating in buildings by 2045 through higher standards for new buildings, including a Net Zero Standard for new public buildings, and replacing existing fossil-fuel systems with renewable and zero-emission heat: £465 million for domestic energy efficiency programmes, Warmer Homes Scotland and the Area Based Schemes to support decarbonisation of existing building stock and support progress towards eliminating poor energy efficiency as a driver of fuel poverty. Over £623 million to support heat decarbonisation and energy efficiency in all buildings, community energy, decarbonising the Islands and energy innovation. At least £95 million to decarbonise the public sector estate. Opening the £50 million Green Recovery Low Carbon Infrastructure Transition Programme (LCITP) in 2021-22 and over £350 million for the development of a successor programme with the LCITP capable of deploying low carbon infrastructure at scale. £25 million for zero carbon energy infrastructure and heat networks for residential and commercial premises along the river Clyde's path. We will invest up to £58 million in the Biomes project at the Royal Botanic Garden Edinburgh to transform the garden's estate – home to Scotland's national biodiversity research collections – to improve carbon management and environmental public engagement.
Decarbonising industry, including manufacturing	 We will support industry and manufacturing to transform, overcoming private sector investment and transition challenges through: £180 million for an Emerging Energy Technologies Fund to support carbon capture and storage (CCS), negative emissions technologies (NETs) and hydrogen development. A £34 million Scottish Industrial Energy Transformation Fund for energy efficiency technologies and decarbonisation studies. A £26 million Low Carbon Manufacturing Challenge Fund for innovation in technology, processes and infrastructure. We will support businesses in the energy sectors as they grow and diversify, and help attract private sector investment, including through our £60 million Energy Transition Fund, focused on the North East, and helping the wider energy sector and supply chain.
Supporting a circular economy	We wish to re-think how we use and re-use materials and how we handle waste. Alongside development of a route map to reduce waste and meet our not out waste and recycling targets for 2025, we will invest up to £75 million to improve local authority recycling collection infrastructure, accelerate of the landfill gas capture and improve waste data through electronic waste tracking.
Boosting resilience and adaptation	In support of enhanced adaptation and climate resilience as part of a green recovery, we will invest: An extra £150 million in flood risk management. This uplift complements £42 million provided annually to Councils. Almost £12 million in coastal change adaptation to help us adapt to the threat of sea level rises and protect our assets. £60 million to support climate adaptation and resilience measures on the trunk road network.

Purpose	Plans
Investing in our natural capital	We will increase forest cover, reaching 18,000 hectares of new woodland in 2024-25. As part of a £283 million programme, we will: Invest £100 million extra for new planting and £30 million for Forestry and Land Scotland to expand national forests and land. Provide £20 million to further increase tree nursery capacity, investing in new and redeveloped facilities.
	We will spend £50 million in a programme of investment supporting reuse of vacant and derelict land as part of a fair, green recovery.
	Peatland restoration has a key role in responding to climate emergency and biodiversity challenges. We will increase it by: Investing £20 million per year towards our 10-year £250 million commitment to restore 20,000 ha annually, and 250,000 ha by 2030.



Chapter 5

Theme 2: Driving Inclusive Economic Growth

Some achievements from our last, 2015 Infrastructure Investment Plan

- Invested £463 million in the **Digital Scotland Superfast Broadband** programme where over 97.8 % of premises are now able to access fibre broadband.
- Completed the £858 million **Edinburgh to Glasgow Improvement Programme**, which comprised a comprehensive programme of improvements to railway infrastructure and rolling stock.

Scottish Ministers have set an ambitious goal to reach the same economic performance as those OECD nations in the top quartile. Not all of that can be delivered through infrastructure, but it has a key role to play.

Boosting our international and country-wide digital connectivity and capacity, particularly in rural areas, can help boost Scotland's productivity and competitiveness. According to the World Economic Forum³¹ the UK ranks 31st in the world for the quality and adoption of its digital networks. While there is no separate data for Scotland, our investment aims to position us amongst the higher ranked.

By World Economic Forum rankings, the UK is 11th in the world for the quality and timeliness of its transport systems. Whilst there is no separate data for Scotland, Scotland has been ranked as being the best connected large region in Europe³² and benefits from strong connectivity across a range of transport modes. Through enhancing our transport infrastructure, focusing on a safe and resilient strategic transport network which also contributes to net zero and inclusive economic growth, we can boost Scotland's productivity and competitiveness, increase trade and inward investment.

We will stimulate innovation, including in manufacturing, to boost our international competitiveness, support construction with a strong pipeline of work and ensure Scottish businesses and supply chains can capitalise on our investment in low carbon. This can help support the creation of good jobs.

Whilst our tourism industry has been hit hard by the COVID-19 pandemic, we will pave the way for it to return even stronger when conditions are more favourable.

We will embed fairness and inclusion, addressing the drivers of poverty and seeking to ensure no-one is left behind. We will do this in a range of ways, for example, by investing in the right strategic projects for every part of Scotland to aid city and regional growth; and through our investment in bus infrastructure, tackling poor energy efficiency, and addressing rural and island digital connectivity.

If we are successful, we would expect this plan to help us make progress towards our ambitious child poverty targets. Our spatial plan, set out in National Planning Framework 4 later this year, informed by emerging Regional Spatial Strategies and taken forward through Local Development Plans, will underpin a fair geographic distribution of investment.

³¹ http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

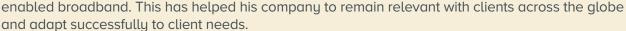
³² fDi's European Cities and Regions of the Future 2020/21 – Winners https://www.fdiintelligence.com/article/76767

CASE STUDY

Digital Scotland Superfast Broadband programme

Cinecosse is an award winning film and multimedia company based in rural Aberdeenshire. Owner, Graeme Mowat, has described how his business has benefited from faster broadband and a reliable internet connection as a result of the Digital Scotland Superfast Broadband programme.

From previously very low speeds, Cinecosse is now able to access speeds of up to 69.8 download/20.1 Mbps through fibre





Improved online access has allowed Cinecosse to promote what they do through their own website. To keep up with the increased demand, Cinecosse has expanded to creating interactive media and offers media training. Day-to-day running of the office has also been made easier with improved online access and a move to digital HR and payroll applications.

CASE STUDY

Science Skills Academy, Inverness and Highland Region Deal

The Science Skills Academy, funded through the Inverness and Highland City Region Deal, is inspiring children and young people across the Highlands to become engaged with the core STEM subjects, transforming STEM education through a network of Newton Rooms – Scandinavian-style learning hubs.

Newton Rooms in Thurso, Dingwall and Fort William are operational, with plans in place



for further hubs, including in Inverness and pop-up sites across the region, ensuring quality STEM delivery and accessibility across the region, regardless of how remote and rural a school may be.

Since the Academy launched, over 4,000 participants have interacted with the project; whilst the focus is to reach primary and secondary school children, they have provided sessions to families and to home educated pupils, trained STEM ambassadors, and have hosted events for local STEM businesses. The Academy is one of five UK Science Centres to have been selected to deliver a new national space programme for families and young people.

Theme 2: What the Infrastructure Investment Plan will deliver: 2021-22 to 2025-26

Purpose	Plans
Creating a world-class	We will strengthen digital public services and boost investment in digital transformation by over £110m.
digital system	We will invest £25 million in the system development required to build on the 50-fold increase in patient use of NearMe digital healthcare services during COVID-19.
	We will support the delivery of the new critical national infrastructure for an Emergency Services Network (ESN) to deliver next generation telecommunications for our emergency services and first responder communities with £122 million. The ESN will also contribute towards the government's wider policy of enhancing mobile coverage through the Shared Rural Network.
Strengthening	We will ensure the right connections within Scotland and internationally.
connectivity	We will strengthen connectivity and providing a future-proofed superfast broadband network by investing over £500 million during the period to complete the R100 programme
	 We will deliver a safe and sustainable, integrated and resilient strategic transport system, including: Doubling investment in bridge and roads maintenance: a programme of around £1.5 billion over five years to boost structural repairs and strengthen the network, improve road safety, deliver a range of improvements to our ITS infrastructure, and enhance key links such as the Tarbert to Inverarnan A82 section, A737 improvements at Beith, the A83 Rest and Be Thankful, and improvements at the A801 Avon Gorge. 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. Continuing to support the modernisation of the Glasgow Subway with a further £104 million over this period. Delivering phased dualling of the A9 Perth to Inverness road. Continuing the design and development work to dual the A96. Completing construction of the A77 Maybole Bypass and improvements to the A92/A96 Haudagain junction with a further £12 million investment. Investing £28 million to modernise air traffic control systems at Highland and Islands Airports. We will produce and maintain a long-term plan and investment programme for new ferries and development at ports to improve resilience, reliability, capacity, and accessibility, increase standardisation, and reduce emissions to meet the needs of island communities, supported by investment of at least £580 million during the next five years as well as completing two new ferries for the Isle of Arran and the Uig Triangle.

Purpose	Plans
Boosting competitiveness	 We will stimulate innovation and our international attractiveness by: Concluding our £75 million investment in the National Manufacturing Institute Scotland, to enable greater support for our manufacturing sector to test new processes, modernise their technologies, and de-risk investment. Providing additional £10 million capital funding so that the re-development of the Cairngorm funicular can make early progress.
Supporting long-term inclusive and sustainable growth	We will invest for growth that benefits all people, rural and urban areas by: Investing £525 million, aligned with local authority and UK Government funds, to deliver the next five years of £5 billion city region and regional growth deals. These investments will help drive inclusive growth that will deliver significant and lasting economic benefits for individuals, businesses and communities across Scotland, and benefit Scotland as a whole, creating thousands of jobs and up-skilling local labour markets in: Glasgow City Region; Aberdeen City Region; Inverness and Highland; Edinburgh and South East Scotland; Stirling and Clackmannanshire; Tay Cities; Ayrshire; Borderlands; Moray; Argyll and Bute; Falkirk; and the Islands. The Deals are supplemented by complementary and additional £68 million 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. We will deliver a range of economic, environmental and social measures for the benefit of rural Scotland through up to £220 million funding for agricultural support. We will 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 ring fenced 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. In addition we will invest over £22 million in the Stornoway Growth Accelerator project for enabling infrastructure to provide the catalyst for significant further economic and environmental development.



Theme 3: Building Resilient and Sustainable Places

Some achievements from our last, 2015 Infrastructure Investment Plan

- £3.5 billion made available to support the single biggest investment in, and delivery of, **affordable housing** since devolution.
- Delivered **new healthcare facilities** such as NHS Greater Glasgow and Clyde's Woodside Health Centre, Stirling Care Village, and NHS Orkney New Hospital and Healthcare Facilities.
- £476 million to support the expansion of **Early Learning and Childcare** investment so that more parents will be able to participate in work, training or study.

Delivering on our ambitions for a fairer Scotland starts at the local community level. Opportunities exist in our cities, towns, villages and neighbourhoods to bring together individual investments for greater impact.

The COVID 19 pandemic has required us to rethink how and where we work, opening up new ways to think about our neighbourhoods, towns, cities and rural communities. We must also respond to changes in demography, and in the way in which people wish to access and consume services. Our next National Planning Framework and new Digital Planning tool will help us to reconsider and plan the future development of our places in light of recent events as well as in line with our long-term commitments to climate change mitigation and adaptation.

Through our Place based Investment Programme, we will implement the Place Principle at pace to ensure that investment is relevant to each place and for the benefit of all the people in that place. This is a collaborative place based approach driven by the needs of communities – collectively getting behind community led changes at the heart of an area.

It is ever more crucial to ensure everyone has a suitable home at the heart of a great place to live and work: one that is safe, warm and affordable; close to services, shopping, work, and with access to outdoor space for recreation, aligning with the ambitions we intend to set out in Housing to 2040 to be published shortly and in the draft National Planning Framework 4 to be published this autumn. A new emphasis on localism, with quality homes in quality places, informed by concepts such as 20 minute neighbourhoods will help to achieve that.

We will invest in housing and better delivery of services locally – be that in adapting Scotland's housing stock to better meet people's needs, delivering a network of community treatment centres and NHS Near me health services, designing more integrated education facilities to help all learners reach their full potential and modernising our justice facilities and transforming emergency services to adapt to the digital age.

CASE STUDY

Loanhead Centre

Partners seized the opportunity of Schools for the Future investment significantly to shape and modernise previously separate and poorer quality public sector facilities. Through a more holistic approach to service planning, a new combined centres was



developed which co-located a primary school, NHS medical centre, and community library and leisure facilities.

The community were consulted from the beginning, ensuring buy in to the new hub and facilities provided. The sense of community ownership of the building has developed trust and ensured that the building is well used. Take-up of services has been higher than before – including a 50% increase in footfall in the library compared to pre-hub figures. The Centre has allowed multiple generations to mix and engage and ultimately be proud of the facility and their place.

Theme 3: What the Infrastructure Investment Plan will deliver: 2021-22 to 2025-26

Theme 3: What the Infrastructure Investment Plan will deliver: 2021-22 to 2025-26					
Purpose	Plans				
Creating better local places	We will build on our "Place Principle" to promote place-based economic development and cohesion, ensuring all city, town, village and island communities can thrive by establishing a Place Based Investment Programme. As part of this programme we will invest £275 million to support community led regeneration and town centre revitalisation, including the repurposing of buildings, maintenance and repairs, reallocating external space and community led land acquisition. This will build on the Regeneration Capital Grant Fund the ongoing work on Clyde Gateway.				
	We will continue to address the inequalities of land ownership through a five year Scottish Land Fund programme of £43 million.				
	We will develop a £35 million new, open-access, digital planning system.				
	We will invest over £18 million over the next three years to support the introduction of Low Emission Zones into Scotland's 4 major cities.				

Purpose	Plans
Access to high-quality sustainable homes that are affordable and meet people's needs	 Implementing our Housing to 2040 Vision and Principles and Route Map, due later in 2021, we will create and fund a plan for high quality, energy efficient, zero carbon affordable housing with access to outdoor space, sustainable transport links, digital connectivity and community services: We will invest £3.4 billion in housing over 5 years, including Financial Transactions in 2021-22. Over £3.3 billion will deliver more affordable and social homes, helping to create great places, and continuing to ensure the right types of homes in the right places to support Local Housing Strategies and regional development priorities. We will invest £58 million in a programme to help Registered Social Landlords deliver adaptations needed to enable tenants to stay in their homes for longer, or permit them a speedy and safe return from hospital care. As part of Programme for Government 2020-21 we will also review the current housing adaptations system and make recommendations on how best to improve and streamline the system and maximise the impact of investment.

Purpose	Plans
High quality social infrastructure	We will boost digitally accessible services, whilst improving the condition of our buildings and enabling the right new facilities.
	 In Health we will: Double our annual funding for maintenance over five years, investing £1 billion in enhancing or refurbishing existing facilities, and updating and modernising key equipment. Invest a further £204 million in the Baird and Anchor project in Aberdeen which brings together all Maternity, Neonatal, Reproductive Medicine, Breast and Gynaecology services in the Baird Family Hospital and consolidates Haematology, Oncology and Radiotherapy Day and Outpatient services under one roof in the ANCHOR Cancer centre. Reduce the pressure on our acute health facilities, and improve treatment times for patients, through a £320 million programme of investment that will encompass the provision of additional elective capacity across 5 Health Boards (on 6 sites) to cover the all-Scotland requirement out to 2035. Upgrade the Edinburgh Cancer Centre (£20 million), build the new national secure adolescent inpatient service in Irvine (£10 million) and replace the St Brendan's facility in Barra (£18 million) Invest £67 million for the provision of a new health and social care community hub in Parkhead that will replace 10 different buildings across Glasgow North east area. Invest over £50 million to modernise our radiology equipment nationally, and over £100 million to upgrade and replace our ambulance fleet.
	 In Education & Skills we will: For Colleges, invest up to £90 million in the Dunfermline Learning Campus. Together with Councils, fund an ambitious £2 billion Learning Estate Investment Programme, using an outcomes-based revenue finance approach. The first phase of 11 new school projects was announced in September 2019 a second phase of investment was announced in December 2020 to add a further 25 primary and secondary schools.
	 In Justice we will: Conclude the HMP Highland establishment, replace HMP Inverness and HMP Barlinnie and commence construction on the new HMP Glasgow. Representing a total investment of around £500 million. By 2022, complete our £98 million of investment in the construction of the innovative new female custodial estate, including a new national prison and two Community Custody Units in Dundee and Glasgow, tailored to the specific support needs of women.
	Scottish Water is planning to invest over £4.5 billion in the next charge control period 2021-27 to maintain and improve services across Scotland, address the challenges of its aging asset base and make progress towards the achievement of its commitment to net zero emissions by 2040. Of this £3.5 billion will be on major investment programmes including water treatment works at Invercannie (£53 million) and Burncrooks (£36 million); waste water treatment works at Winchburgh (£34 million); and the Loch Ness regional scheme (£28 million).

INFRASTRUCTURE COMMISSION FOR SCOTLAND – BACKGROUND

ANNEX A

The Infrastructure Commission for Scotland was established by Scottish Ministers and started work in 2019 to provide independent, informed advice on the vision, ambition and priorities for infrastructure in Scotland to meet our 30-year economic growth and societal needs.

Chaired by Ian Russell CBE, the group were further tasked with providing additional advice on the delivery of infrastructure in Scotland. The Infrastructure Commission was asked to work with the Scotlish Government definition of infrastructure.

Who

Infrastructure Commission members:

- Ian Russell CBE, Chair
- Professor Iain Docherty, University of Stirling
- Ken Gillespie, Homes for Scotland
- Bennu Higgins
- Mary Pitcaithly OBE, Scottish Police Authority
- Rachel Skinner, UK Head of Transport, WSP Global
- Grahame Smith, General Secretary, Scottish Trades Union Congress
- Sara Thiam, Chief Executive,
 Scottish Council for Development and Industry
- John Trower, Optimity
- Professor Janette Webb, University of Edinburgh

How

The Commission was asked to pay attention to strategic drivers such as: securing Scotland's international competitiveness; the markets and connections Scotland requires for goods, services and people; how to prioritise investment to deliver inclusive economic growth and low carbon objectives; demographic and other social change factors; place-making; technological change and innovation; and considerations around development, ownership and financing of infrastructure, including Fair Work.

Commissioners were responsible for:

- Bringing specific skills and experience
- Providing expert, impartial advice
- Engaging widely with stakeholders including industry, expert and interest groups, government, local government and public bodies, civic society and the public

Overarching objectives for the Infrastructure Commission's work

- delivering sustainable inclusive economic growth across Scotland
- managing the transition to a more resource efficient, lower carbon economy
- supporting delivery of efficient, high quality, modern public services
- increasing industry competitiveness, whilst tackling inequality
- enhancing societal living conditions now and in the future
- ensuring alignment with the new National Planning Framework

Infrastructure Commission for Scotland produced two reports:

Phase 1: Key findings report: A blueprint for Scotland³³

Phase 2: Delivery Findings Report: A blueprint for Scotland ³⁴

³³ https://infrastructurecommission.scot/storage/281/Phase1_FullReport.pdf

³⁴ https://infrastructurecommission.scot/storage/276/Phase2_Delivery_Findings_Report.pdf

PRINCIPLE	DETAILED RECOMMENDATIONS	ACCEPT	SCOTTISH GOVERNMENT RESPONSE
Leadership	 The 2020 Infrastructure Investment Plan should be prioritised against available inclusive net zero carbon economy outcomes. Scottish Government should, by 2021, to develop a new infrastructure assessment 		This Infrastructure Investment Plan 2021-22 to 2025-26 prioritises the pipeline of investments against three themes, including enabling net zero emissions and environmental sustainability, and driving inclusive economic growth.
••	 framework. 3. Scottish Government should publish, by 2023, a system-wide Infrastructure Needs Assessment. 4. A fully updated Infrastructure Investment Plan should be developed for publication by 2025, using the new Needs Assessment and framework. 		It sets out a five-year programme of improvements to infrastructure planning, ready to support future Infrastructure Investment Plans. This includes the development of a new infrastructure assessment framework and a system-wide Infrastructure Needs Assessment.
Place	 5. There should be Place-based assessment of long-term Scottish housing supply and demand by 2021, supported by a coherent strategy for the labour market and business opportunities from an inclusive net zero economy. 6. To support the implementation of National Planning Framework 4 and the new system of development plans, a co-ordinated and appropriately resourced Infrastructure First approach to the planning system should be introduced by the SG by 2021. 	⊘	This Plan puts 'Place' at its heart through its third theme focused on building resilient and sustainable places. As part of planning reform we will set out interim housing land required (for consultation and scrutiny) in the draft National Planning Framework 4 (NPF4), due in 2021, and will frame this within a new spatial strategy that aligns with our investment programme and principles. Progress towards this was set out in our NPF4 Position Statement in November 2020, including our plans to embed an infrastructure-first approach in national planning policies. We will consult in 2021 on regulations and guidance for the new system of local development plans. We will also build on this to further adapt our Housing Planning Delivery Framework[1], to enhance our placed-based assessments of long-term housing need and demand across Scotland through local housing strategies by 2022.
Making the most of existing assets	 7. By the end of 2020, all public sector infrastructure asset owners should develop asset management strategies. 8. Scottish Government should issue guidance on a whole-life approach to infrastructure maintenance and prioritisation. 9. There should be a presumption against like-for-like replacement of assets and construction of new, single purpose ones in favour of shared facilities. 10. By 2023, Scottish Government should establish a route map to implement an outcome-focused system of resource use, reduction, collection, treatment & repurposing. 11. By 2023, Scottish Government should develop a clear implementation plan to address critical natural and built infrastructure climate resilience and adaptation. 	\bigcirc	We will develop a programme of work with Scottish Futures Trust to prepare guidance for public organisations when developing asset management strategies, considering whole-life cost and the new investment hierarchy, as well as wider net zero and inclusive growth priorities. Scottish Government is developing a route map to reduce waste and meet out waste and recycling targets for 2025. Policies set out in Climate Ready Scotland: Second Scottish Climate Change Adaptation Programme ³⁵ will be embedded across government. Independent, expert advice from the Adaptation Committee of the Committee on Climate Change will stimulate further progress.

Heat & Transport	12. By end 2020, accelerate development and implementation of incentives, support mechanisms and standards for energy efficient, net zero buildings.	\odot	The Climate Change Plan update ³⁶ shows how Scotland will drive down emissions to meet its climate targets up to the year 2032.
	13. By 2022, Scottish Government, local authorities, regulators and industry should establish the viability, incentivisation mechanisms and a route map for the transition to net zero that addresses heat in buildings and surface-based transportation.		We have committed to £1.6 billion investment in heat and energy efficiency in our homes and buildings. We are rolling out a Net Zero Carbon Public Sector Buildings Standard, ensuring new public buildings are net zero ready.
CO ₂	 14. The National Transport Strategy and Strategic Transport Projects Review 2 should fully reflect the need to deliver an inclusive net zero carbon economy. 15. By the end of 2021, develop a new Transport investment appraisal and decision-making process, with necessary changes to current guidance. 16. Scottish and UK Governments should commit to work together to establish a charging and payment alternative to the existing fuel and road tax-based regime, to give a more stable, long-term regime for road management and maintenance. 		We will publish a comprehensive Heat in Buildings Strategy and a Hydrogen Policy Statement and will publish a Hydrogen Action Plan later in 2021. These support the Climate Change Plan update and demonstrate the interconnected approach to decarbonisation. The second National Transport Strategy (NTS2) fully reflects our need to deliver our ambitious net zero targets, with the Sustainable Travel Hierarchy and Sustainable Investment Hierarchy at its core. The NTS2 Delivery Plan reflects the transport element of the Climate Change Plan Update, including our commitment to reduce car kilometres by 20% by 2030. It also includes a new policy to encourage people back on to public transport, post-COVID-19, when it is safe and appropriate to do so. We are developing our transport appraisal guidance and decision-making processes. This will include considering changes to the approach to assessing emissions impacts associated with infrastructure projects. We will assess future transport investment decisions through the second Strategic Transport Projects Review; embedding the NTS2 priorities and outcomes and the Sustainable Investment Hierarchy. Powers relating to Vehicle Excise Duty and Fuel Duty are reserved to UK Government. The Scottish Government has written to the Secretary of State and would welcome constructive discussion with UK Government on these issues.
Regulation	 17. Building on the UK National Infrastructure Commission review of Energy and Telecoms regulation, Scottish and UK Governments should work together to develop, by 2021, an appropriately devolved regulatory & pricing framework to meet future needs. 18. Building on existing plans Scottish Government should, by 2021, consider options for delivery and regulatory coherence of water provision and flood management/resilience. 	⊘	We continue to work with the UK Government and regulators on an underpinning framework in both Energy and Telecoms that is responsive to Scottish needs. ³⁷ Work is underway to increase collaboration between water industry and flood management partners.
Digital & Technology	 19. Scottish Government should provide the leadership required to ensure delivery of a full fibre network for Scotland by 2027, to enable the transition to 5G country-wide. 20. To increase Scotland's international presence and connectivity, Scottish Government should support an indigenous data-centre market, and investment in fibre-optic cable. 21. From 2020, Scottish Government should consider the future data requirements and data potential for new publicly-funded infrastructure, and digital services. 	\bigcirc	The £600 million Reaching 100% (R100) programme will give people in every part of Scotland access to superfast broadband by end 2021 and will provide a significant number of full fibre connections well in advance of 2027. SG continues to work with UK Government on their commitment to roll out gigabit broadband across the country by 2025. We are working with Scottish Futures Trust and partners on a strategy and action plan with the datacentre and international connectivity industry. This work will identify and map out future digital connectivity investment opportunities. The Scottish Government will continue to work to foster the adoption of open data standards, open data and platform-based business models necessary to realise the future data requirements and potential for publicly funded infrastructure.
The role of the public	22. By 2022, capacity and capability requirements for an informed approach to public engagement and participation are needed, to ensure short and long-term trade-offs are effectively debated, understood and taken into account.	\bigcirc	SG will build on learning across sectors, including our Climate Assembly, and other countries, to develop an exemplar public engagement approach.
Independent long-term advice	23. By 2021, a body should be given responsibility to provide independent, long-term, evidence-based advice to Ministers on investment decisions for our social, economic and natural infrastructure needs and priorities.	defer	The Scottish Government is considering this recommendation in conjunction with the findings of the Commission's Phase 2 report in order to fully reflect the Scottish context and decide upon the most appropriate approach.

³⁶ Securing a Green Recovery on a Path to Net Zero: Climate Change Plan 2018–2032 – update – gov.scot (www.gov.scot)

17 https://www.ofcom.org.uk/__data/assets/pdf_file/0028/199216/scottish-government.pdf

CAPITAL MAINTENANCE: THE ECONOMIC BENEFITS

ANNEX B

Purpose

To assess the evidence around the potential economic impact of capital maintenance as compared to overall infrastructure investment.

How Capital Maintenance Enables Sustainable Economic Growth

In 2018 the Scottish Government published a report³⁸ prepared by OCEA examining the economic rationale for infrastructure investment. The report identified five main channels through which infrastructure enables inclusive and sustainable growth:

- Supporting the Foundations of Economic Activity

 infrastructure underpins economic resilience,
 provision of lifeline services and the effective
 operation of the economy.
- Demand Side Economy Impacts the construction phase of infrastructure projects is an important source of employment and can provide wider supply chain benefits that support economic activity across the country in the short to medium term.
- Supply Side Economic Impacts Infrastructure spending can enhance the productive potential of the economy, if investment is effective, through improving its supply side.
- Market Impacts Facilitating the development of key sectors and technologies; improving private sector competitiveness; and unlocking private sector capital.
- Social and Environmental Impacts Reducing regional disparities; reducing emissions and improving environmental quality; and improving health and wellbeing.

Capital maintenance has the potential to support inclusive and sustainable growth through the same channels as identified above. For example, maintaining flood defences to ensure they remain operational supports economic resilience.

However, the relative importance of the different channels is likely to differ for capital maintenance when compared to new build infrastructure and supporting the foundations of economic activity is likely to be relatively more important for capital maintenance. This is because as the condition of any part of the asset stock diminishes, there is greater risk that we will not be able to continue to use its services at current levels. This in turn affects our ability to sustain the existing pattern of economic activity.

The relative importance of the other different channels is likely to vary too for capital maintenance when compared to new build infrastructure. For example, the relative impact of capital maintenance on the supply side of the economy will depend on the current state of the infrastructure. If the infrastructure is in relatively good condition then capital maintenance is unlikely to have a significant impact on the productive potential of the economy. In contrast, if the services that infrastructure is able to provide have become unpredictable, for example electricity outages or road delays, due to a lack of maintenance then investment in capital maintenance would be expected to have a significant impact on the supply side of the economy.

On the demand side impacts, the lower values of projects for capital maintenance as compared to new build infrastructure may enable more SMEs to compete for individual contracts and therefore potentially increase the distribution of the employment benefits across Scotland.

The Extent to Which Capital Maintenance Impacts on Growth

There are a number of studies that have attempted to estimate the impact of infrastructure on economic output, however there is limited evidence exploring the relative impact of capital maintenance.

Both the IMF³⁹ and the National Infrastructure Commission⁴⁰ highlight a paper⁴¹ that suggests maintenance is likely to have high a rate of return. The paper highlights that in the short run infrastructure in bad condition imposes costs on users while in the long run, failure to maintain infrastructure in a timely fashion leads to greater costs of rebuilding. The paper's evidence is mainly drawn from the World Bank and is focused on more developing countries and therefore the empirical results may not be directly comparable to Scotland. However, the paper does suggest that there is an optimal level of expenditure in maintenance that can have a positive impact on growth.

As part of the 2011 National Road Maintenance Review Transport Scotland commissioned the Transport Research Laboratory⁴² to assess the economic, environmental and social impacts of changes in maintenance spend on roads in Scotland. The study found that pedestrians were most affected by a reduction in road maintenance, for example through impacts on noise, air quality and accidents. It was estimated that for every £1 reduction in road maintenance there is a cost of £1.50 to the wider economy.

At the macro level, modelling by the Scottish Government⁴³ estimated that the National Infrastructure Mission could lead to a sustained boost in Scottish GDP by between 0.5% and 1% by 2025-26, depending on the measure of the economy used.

Over 15 years, this is equivalent to increasing the economy by between £10 billion and £25 billion (2017 prices) depending on the measure of the economy used. This modelling focused on an increase in Gross Fixed Capital Formation (GFCF). GFCF is defined as excluding "ordinary maintenance and repairs" but it does include "improvements to existing fixed assets beyond ordinary maintenance and repairs". Consequently, the modelled potential economic benefits of capital maintenance would be the same as new build assuming that revenue maintenance captures ordinary maintenance and capital maintenance results in improvements to existing assets beyond this and therefore forms part of GFCF.

Conclusion

There is limited quantitative evidence on the relative economic impact of capital maintenance as compared to building new infrastructure but evidence suggests that capital maintenance does have as high a rate of return. It is expected that spend on capital maintenance has the potential to impact on the economy through the same five channels as identified for overall infrastructure investment, with supporting the foundations of economic activity being particularly important but the relative impact of other channels may vary depending on the current condition of existing infrastructure.

Assuming capital maintenance increases GFCF the economic benefits are expected to be consistent with those modelled for overall infrastructure investment. However, as with overall infrastructure investment, the balance of investment between different sectors and markets will determine the precise level of economic benefits realised from increasing capital maintenance.

³⁹ IMF, Is it time for an infrastructure push? The macroeconomic effects of public investment, 2014, http://www.imf.org/external/pubs/ft/weo/2014/02/pdf/c3.pdf

⁴⁰ National Infrastructure Commission, Economic Growth and Demand for Infrastructure Services, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/595990/2906219_NIC_Technical_Paper_Economic_Driver_v1_0A_WEBACCESSIBLE.PDF

⁴¹ Rioja (2013), What is the value of infrastructure maintenance? https://www.lincolninst.edu/sites/default/files/pubfiles/what-is-the-value-of-infrastructure-maintenance_0.pdf

⁴² Transport Research Laboratory, Economic, Environmental and Social Impacts of Changes in Maintenance Spend on Roads in Scotland, 2012, https://www.transport.gov.scot/media/29455/j235740.pdf

⁴³ Scottish Government, Exploring the Economic Rationale for Infrastructure Investment, https://www2.gov.scot/Resource/0054/00544114.pdf

⁴⁴ European System of National and Regional Accounts 2010

CARBON ASSESSMENT OF THE INFRASTRUCTURE INVESTMENT PLAN

ANNEX C

The Scottish Government has used low, neutral and high carbon categories (known as a taxonomy approach), as shown in the table below, to analyse planned infrastructure spend for individual years. The categorisation was developed and proposed by the Low Carbon Infrastructure Taskforce in 2015.⁴⁵

Category	Description	Examples
Low	Seen as necessary to the low carbon	Transport – bus, rail and ferry
Carbon transition	transition	Energy — all renewable generation and electricity transmission and distribution
		Rural affairs and the environment – waste
		Housing — energy efficiency programmes
Neutral	Do not represent substantial carbon efficiency gains in their own right but are consistent with low carbon ambitions	Rural affairs and the environment – all non-waste
		Housing – all non-energy efficiency
		Water, Digital, Health, Schools, Justice
		Culture and heritage
		Regeneration
High	Relatively carbon intensive	Transport — roads and airports
carbon		Energy – fossil fuel generation

The most recent analysis of Budget 2021-22 estimates that 36.9% of the capital budget for the next financial year can be classed as Low Carbon and 8.5% in the High Carbon category. While it is not directly comparable, a high level analysis of the profile of the Infrastructure Investment Plan has shown that it reflects a similar share of Low Carbon investment to Budget 2021-22.

As presented in the draft Infrastructure Investment Plan, there are a number of reasons why the taxonomy approach gives only a partial or crude estimate of the actual emissions reductions, principally that it does not capture all measures within the Budget, particularly those in the Neutral category.

In passing the 2019 Climate Change (Emissions Reduction) Act in Scotland, the Parliament agreed that a new methodology should be developed in order to assess the contribution made by the infrastructure investment plan to the new targets.

In order to respond to this new requirement, and in recognition of the limitations of the current approach, an independent research project was commissioned to explore alternative options. This report recognises that this is a relatively new area of analysis and suggested four different approaches to consider.

In the draft Infrastructure Investment Plan, the Scottish Government set out that it is minded to explore further the deployment of a more detailed methodology or methodologies. This approach was supported by the majority of respondents.

The Scottish Government will take this forward in conjunction with the Joint Review of Budget. Developing this new approach will form part of the five year implementation plan for our decision-making framework set out in the forthcoming Infrastructure Investment Plan. This will also support the next Climate Change Plan. We will report on the development of our approach as part of the annual reporting on the Infrastructure Investment Plan.

MAJOR PROJECTS AND PROGRAMMES FOR REPORTING TO PUBLIC AUDIT AND POST LEGISLATIVE SCRUTINY COMMITTEE

ANNEX D

Figures have been rounded to the nearest million pounds.

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body		
ENABLING THE TRANSITION TO NET ZERO EMISSIONS AND ENVIRONMENTAL SUSTAINABILITY							
Decarbonising Transport and Suppo	orting Active Travel						
Support for Sustainable and Active Travel	To support investment in active travel infrastructure projects mainly through the Places for Everyone programme.	£352m	£352m (In addition, £119.5m goes direct to local authorities and together with £31.5m of resource funding makes up the total five year active travel commitment of £502.5m).	2021-22 to 2025-26	Transport Scotland/Sustrans/ Local Authorities		
Active Freeways	High quality arterial active travel providing sustainable transport infrastructure between settlements and major trip attractors.	£50m	£50m	For delivery of projects on the ground in 2025-26. (Scheme design and development during 2021-22 to 2024-25)	Transport Scotland		
Future Transport Fund – capital to support a range of low and zero carbon investment	Grants and investments to support a range of low and zero carbon transport initiatives such as: electric vehicle charging and hydrogen infrastructure; fleet transformation; Innovation and Sector Transition Initiative; Freight Facilities Grant; Strategic Timber Transport Scheme.	£287m	£287m	2021-22 to 2025-26	Transport Scotland		
Future Transport Fund – Bus Priority Investment	Investment in bus priority infrastructure to tackle the negative impacts of congestion on bus services and raise bus usage.	£505m	£495m	2020-21 to 2025-26	Transport Scotland		
Support for zero-emission bus fleet transition	Supports the transition to zero-emission buses and will be co-designed with the Bus Decarbonisation Taskforce.	£120m	£120m	2021-22 to 2025-26	Transport Scotland		
Rail Decarbonisation Action Plan	Initial decarbonisation projects electrification of the Glasgow to East Kilbride and Barrhead routes with development work underway on the next parts of the programme.	Multi £bn	£550m (Included within £1.2bn Rail Major Projects Enhancements)	2021-22 to 2025-26 for initial projects. Full programme is around 15 years.	Transport Scotland		

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body		
Decarbonising Heat and Boosting the Energy Efficiency of Buildings							
Energy Efficient Scotland (Domestic programmes)	Investment in our domestic energy efficiency programmes and support the elimination of poor energy efficiency as a driver of fuel poverty.	£465m	£465m	2021-22 to 2025-26	Scottish Government		
Social Housing Net Zero Heat Fund (Low Carbon Infrastructure Transition Programme)	Fund to accelerate the delivery of energy efficient, low and zero carbon heat provision to social housing.	£100m	£100m	2021-22 to 2025-26	Scottish Government		
Decarbonised Public Estate	Programme to support heat decarbonisation and energy efficiency across the public sector estate.	£95m	£95m	2021-22 to 2025-26	Scottish Government		
Heat in Buildings	Investment to support heat decarbonisation and energy efficiency in homes and buildings, community energy, decarbonising islands and energy.	£427m	£427m	2021-22 to 2025-26	Scottish Government		
Clyde Mission Low Carbon Infrastructure	Investment in zero carbon energy infrastructure and heat networks for residential and commercial premises along the river Clyde's path	£25m	£25m	2021-22 to 2025-26	Scottish Government		
Royal Botanic Garden Edinburgh – Biomes project	The project will transform the current failing estate – home to Scotland's national biodiversity research collections – to a create a world-class facility that will produce climate, economic, wellbeing and environmental benefits, as part of a green economic recovery for Scotland.	£70m Total costs over life of project are subject to change as delivery plans are finalised to take account of the complexity of safeguarding the national living plant collection during construction.	£58m	Ground work is expected to start in autumn 2021.	Royal Botanic Garden Edinburgh		
Decarbonising Industry							
Low Carbon Infrastructure Transition Programme (LCITP)	Programme supports the acceleration of projects to develop investment grade business cases and the delivery of low carbon infrastructure projects capable of deploying heat and low carbon infrastructure at scale. This includes the £50m Green Recovery Programme.	£405m	£405m	2021-22 to 2025-26	Scottish Government		
Scottish Industrial Energy Transformation Fund (SIETF)	Scottish administered version of IETF for the deployment of energy efficiency or decarbonisation projects for industrial manufacturing processes.	Up to £114m depending on size of business to be matchfunded.	£34m	2021-22 to 2025-26	Scottish Government		
Low Carbon Manufacturing Challenge Fund	New Challenge Fund that will support Scottish manufacturers' scope to innovate and drive the decarbonisation of industrial and manufacturing sectors.	£26m	£26m	2022-23 to 2025-26	Scottish Government		

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body
Energy Transition Fund	This package of investment will support our energy sector and help us make significant progress on energy transition, as we move toward a net zero society by 2045.	£60m	£27m	2020-21 to 2024-25	Scottish Government
Emerging Energy Technologies Fund (EETF) — including hydrogen and CCS.	Support carbon capture and storage (CCS), negative emissions technologies (NETs) and hydrogen development.	£180m	£180m	2021-22 to 2025-26	Scottish Government
Supporting a Circular Economy					
Waste Sector	Investment to improve local authority recycling collection infrastructure, accelerate landfill gas capture and improve waste data through electronic waste tracking.	£75m	£75m	2021-22 to 2025-26	Local authorities
Boosting Resilience and Adaptation					
Flood Risk Management	Additional spending on flood risk management, in support of enhanced adaptation and climate resilience as part of a green recovery.	£150m	£150m	2021-22 to 2025-26	Scottish Government/local authorities
Road Adaptations Fund	Trunk Road Minor Improvement Schemes to address the impacts of climate change, improve network efficiency, safety and resilience contributing to a low carbon economy.	£60m	£60m	2022-23 to 2025-26	Transport Scotland
Investing in our Natural Capital					
New planting and forest expansion	New planting, forest expansion and increasing tree nursery capacity.	£283m	£283m	2021-22 to 2025-26	Scottish Government, Forestry and Land Scotland
Peatlands	Capital investment as part of our 10-year £250m commitment to restore 20,000 ha annually, and 250,000 ha by 2030.	£100m	£100m	2020-21 to 2022-23	Scottish Government, Peatland Action, NatureScot
Vacant and Derelict Land Investment Programme	A programme of investment supporting reuse of vacant and derelict land as part of a fair, green recovery.	£50m	£50m	2021-26	Scottish Government with local government and other partners.

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body			
DRIVING INCLUSIVE ECONOMIC GR	ROWTH							
Creating World Class Digital System	Creating World Class Digital System							
Digital Public Services Programme	Increased investment in developing common digital operating platforms and the transformation of key public services.	£110m	£110m	2022-23 to 2025-26	Scottish Government			
eHealth	Development of the NearMe digital healthcare service.	£25m	£25m	2021-22 to 2025-26	Scottish Government/NHS Boards			
Emergency Services Mobile Communications Programme (ESMCP)	Home Office led Programme that provides a new critical communications platform that replaces the current incumbent system, Airwave.	£9bn* (UK-wide) (*Current estimated total cost of programme)	£122m	Started in 2016, with transition to be completed to the emergency services by 2024-2025.	UK Government			
Strengthening Connectivity								
Reaching 100% programme (R100)	The delivery of 100% superfast broadband access across Scotland by the end of 2021.	£600m	£542m	Majority of contract build expected to be completed by end of 2023.	Scottish Government			
A9 Dualling Programme	Phased improvements to the existing A9 Perth to Inverness consisting of eleven sections. The first section of the programme, Kincraig to Dalraddy opened to traffic in 2017. The second section, Luncarty to Pass of Birnam is currently in construction. Design work on the remaining nine sections is well advanced.	£3bn	£328m	Preparatory and construction work underway. Construction of first section commenced in 2015. Procurement options being reviewed to bring forward the remainder of programme on completion of statutory procedures.	Transport Scotland			
A9 Dualling: Luncarty to Pass of Birnam	The second section of the programme comprising 9.5km of existing single carriageway to be upgraded to dual carriageway, 4km to the north of Perth.	£96m (forms part of £3bn programme figure)	£18m (forms part of £328m programme figure)	Construction commenced in 2018. Project completion anticipated winter 2021.	Transport Scotland			
A96 Dual carriageway	Phased improvements to the existing A96 from Inverness to Aberdeen (including the Nairn Bypass).	£3bn ⁴⁶	£20m	Timetable to be set following completion of relevant statutory procedures.	Transport Scotland			
A82 Tarbet to Inverarnan	The design, assessment and construction of improvements to the A82 between Tarbet and Inverarnan.	£250m-£500m ⁴⁷	£136m	Timetable to be set following completion of relevant statutory procedures.	Transport Scotland			

⁴⁶ Initial estimate which will be refined and updated as the scheme design for each section becomes more developed.
47 Initial estimate which will be refined and updated as the scheme design becomes more developed.

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body
A77 Maybole Bypass	The construction of a new off-line bypass approximately 5km in length to the north west of the town of Maybole.	£46m	£5m	Construction commenced in 2019. Project completion anticipated winter 2021.	Transport Scotland
A92/A96 Haudagain Junction Improvement	Improvements to the A92/A96 Haudagain Roundabout to reduce congestion and improve journey time reliability.	£50m	£7m	Construction commenced in 2019. Project completion anticipated winter 2021.	Transport Scotland
A737 Improvements at Beith	The design, assessment and construction of improvements to 1.8km of the A737 at Beith.	£18m ⁴⁸	£10m	Timetable to be set following completion of relevant statutory procedures.	Transport Scotland
A801 Improvement project	The construction of a new 3.2 kms of the A801 at Avon Gorge (crosses the boundary between Falkirk and West Lothian).	£44m	£22m	The statutory processes are complete. Timescale to be confirmed.	Falkirk Council (with Transport Scotland)
STPR – potential pipeline projects	The Phase 1 report, due for publication in early 2021, will set out a range of early deliverables. Key among these are projects to support active travel/public transport and support recovery from COVID. Phase 2 due to report in autumn 2021 will consider the longer term investment priorities to support the National Transport Strategy and Climate Change Plan.	£45m	£45m	Preparatory design and development work associated with the emerging Phase 1 projects including delivery in the latter years.	Transport Scotland
Rail Major Project Enhancements	Funds the Pipeline of Rail Infrastructure projects to enhance Scotland's Railway. This includes projects for delivery of the Rail Decarbonisation Action Plan and the Aberdeen to Central Belt Rail Improvements, estimated to cost £200m, which will improve capacity, performance and journey times.	Multi £billion	£1.2bn (This figure includes the £550m as noted in the Rail Decarbonisation Action Plan entry)	Various projects durations	Transport Scotland/Network Rail
Glasgow Subway Modernisation	Major modernisation includes a smartcard ticketing system linked to wider integrated ticketing; new rolling stock and signalling; refurbished stations with improved accessibility including replacing escalators.	£288m	£104m	Grant funding contribution to support the SPT delivery timetable through to 2024-25.	Strathclyde Partnership for Transport
CMAL – Two new 100 metre ferries	Two new 100-metre ferries. The ferries are being designed to provide a year round service to the Isle of Arran and the Uig Triangle. (Uig — Tarbert — Lochmaddy)	£193m – £197m	£80m – £84m	Construction commenced 2015. Delivery of first vessel by June 2022 and February 2023 for second vessel.	Caledonian Maritime Assets Ltd (CMAL)

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body
CMAL – Voted Loans – net vessel investment	Provides for loans to Caledonian Maritime Assets Ltd (CMAL) for procurement of vessels. Proposals cover: Islay, Gourock-Dunoon/Kilcreggan, Small Vessel Replacement Programme, Oban-Craignure, Mallaig-Lochboisdale, Northern Isles freighters	£281m	£281m	2021-22 to 2025-26	Caledonian Maritime Assets Ltd
Piers and Harbours Grants	Provides grants to fund port operators (other than local authorities) for improvement to piers and harbours, particularly to support ferry services to and from Scotland's islands. Includes project such as Ardrossan, Skye Triangle and Gourock Harbour, proposed projects at Lochboisdale, Armadale and Kennacraig, and an Oban Masterplan.	£306m	£306m	2021-22 to 2025-26	Caledonian Maritime Assets Ltd
Highlands and Islands Airports Ltd Air Traffic Control Services	Programme to address current and future operational and regulatory challenges by modernising air traffic control, improving service resilience and air traffic provision through the introduction of surveillance at six HIAL airfields controlled from a Combined Surveillance Centre — with the aim of safeguarding future connectivity and lifeline services for island and remote communities.	£35m	£28m	Full operational date is estimated to be June 2027.	Highlands and Islands Airports
Inclusion and Growth					
City Region and Regional Growth Deal Programme	Deals are regionally tailored packages of investment and decision making powers agreed by Scottish Government, the UK Government and local partners. They are designed to bring about long-term approaches to improving regional economies, harness additional investment, create new jobs, and accelerate inclusive and sustainable economic growth.	£5.2bn ⁴⁹ SG £1.6bn UKG £1.5bn Regional & other partners £2.2bn	£525m	Regional Deals vary in length from 10 to 20 years.	Constituent local authorities within each regional Deal.
Additional transport links alongside City Region Deals	The design, assessment and construction of Grade Separated Junctions at Laurencekirk, Sheriffhall Roundabout and Longman Roundabout, along with a link road between A9 Inshes Junction and A96 Smithton Junction.	£250m – £270m ⁵⁰	£68m	Aligned to regional deals which vary from 10 to 20 years. Specific project timescales will be set following completion of relevant statutory procedures.	Transport Scotland

⁴⁹ Only Deals in delivery (signed deals) have a confirmed "regional and other partners" contribution.
50 Initial estimate at 2019 prices excluding non-recoverable VAT which will be refined and updated as the scheme design for each project becomes more developed.

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body
Stornoway Growth Accelerator	The Growth Accelerator payments will help underpin a game-changing infrastructure project which will secure the sustainable future of the Hebrides by building the enabling infrastructure, within the Arnish Low Carbon & Renewables Enterprise Area, to provide the catalyst for significant further economic and environmental development.	£35m over 25 years.	£23m	Initial construction work is then expected to begin in the summer, with a planned opening in May 2023	Marine Scotland
Agricultural Support Programme	Agricultural support funding to support legacy payments under EC schemes, a new round of the Agri-Environment Climate Scheme (AECS 2021) as well as funding for low carbon activities and agricultural support which is being developed following recommendations from farmer-led groups during 2021.	up to £220m	up to £220m	2021-22 to 2025-26	Scottish Government
National Islands Plan	Investment will support delivery of the Scottish Government's National Islands Plan and will support a range of areas, including tourism, infrastructure, innovation, energy transition and skills.	£30m	£30m	2021-22 to 2025-26	Scottish Government Local authorities
Boosting Competitiveness					
National Manufacturing Institute Scotland (NMIS)	Funding to progress the new National Manufacturing Institute Scotland (NMIS) with the aim to develop and enhance skills, accelerate innovation and improve productivity. It also supports delivery of the Advancing Manufacturing Challenge Fund to spread the reach and benefits of advanced manufacturing.	£75m	£47m	Until end of 2022-23	Strathclyde University
Cairngorm Mountain	Investment in resort to support recovery of tourism sector in Scotland, stabilise operations and enhance visitor experiences. Re-instatement of funicular, including strengthening the structure, building improvements, electrification of snow cannons, existing tow infrastructure, paths and car parking.	£21m	£10m	2020-21 to 2022-23	Highlands and Islands Enterprise

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body	
BUILDING RESILIENT AND SUSTAIN	NABLE PLACES					
Better Local Places						
Digital Planning	Development of a new, open-access, digital planning system to attract future investment, increase community participation and support place-making in Scotland.	£35m	£35m	2021-2026	Scottish Government	
Land Reform	Capital funding for the Scottish Land Fund (at £8m per year) and costs for building new Register of Controlling Interest in Land (£3m).	£43m	£43m	2021-2026	Scottish Government	
Regeneration and Place	Capital investment in support of Place, community led regeneration, town centres and 20 minute neighbourhoods. Includes the Regeneration Capital Grant Fund.	£250m	£250m	2021-22 to 2025-26	Scottish Government with local government and other partners	
Clyde Gateway Regeneration Capital	Capital in support of Clyde Gateway's 20 year programme of regeneration, attracting other inward investment, and delivering a lasting legacy from the 2014 Commonwealth Games.	£25m	£25m	2021-22 to 2025-26	Clyde Gateway partnership.	
Suitable, Warm, Affordable Homes						
Affordable Housing Supply Programme	Delivering more affordable and social homes, helping to create great places, and continuing to ensure the right types of homes in the right places to support Local Housing Strategies and regional development priorities.	£5.8bn	£3.3bn	2021-22 to 2025-26	Local government and Registered Social Landlords	
Housing Supply	The delivery of support for Help to Buy and First Home Fund	£532m	£84m	2021-22	Scottish Government	

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body		
High Quality Social Infrastructure							
Aberdeen Baird Family Hospital and ANCHOR Centre	A new facility on the Foresterhill Health Campus to support maternity, gynaecology, breast screening and breast surgery services. It will also include a Neonatal Unit (NNU), accommodation for reproductive services, an operating theatre suite, a CMU and research and teaching facilities.	£233m	£204m	Construction to commence January 2021. Operational date for ANCHOR Centre is estimated March 2023 with Baird Family Hospital estimated November 2023.	NHS Grampian		
Schedule and Diagnostic Care Centres	New Diagnostic and Treatment Centres to allow people to be treated more quickly for planned surgery. Programme will encompass the provision of additional elective capacity across 5 Health Boards (on 6 sites) to cover the all-Scotland requirement out to 2035.	£320m	£274m	Delivery of all units is expected by end of 2024. Construction on first project, the Golden Jubilee Hospital Expansion Programme – Phase 1 Ophthalmology project, was completed in October 2020.	National Waiting Times Centre Board NHS Highland NHS Lothian NHS Grampian NHS Tayside		
Golden Jubilee Hospital Expansion Programme – Phase 2	Project is the second phase of the Golden Jubilee Foundation Hospital Expansion Programme. (Project forms part of the Schedule and Diagnostic Care Centres programme)	£81m (forms part of £320m programme figure)	£62m (forms part of £274m programme figure)	Enabling work commenced November 2020. Operational date is estimated for late 2022.	National Waiting Times Centre Board		
Highland Elective Care Centre	North of Scotland Elective Care in Inverness. (Project forms part of the Schedule and Diagnostic Care Centres programme)	£41m (forms part of £320m programme figure)	£21m (forms part of £274m programme figure)	Enabling work commenced November 2020. Operational date is estimated for late 2022.	NHS Highland		
Short Stay Elective Centre	Short Stay Elective Centre in St John's Hospital in Livingston. (Project forms part of the Schedule and Diagnostic Care Centres programme)	£79m (forms part of £320m programme figure)	£77m (forms part of £274m programme figure)	Construction estimated to commence mid-2021. Operational date is estimated for mid-2024.	NHS Lothian		
Grampian Elective Care Project	Development of Elective Care Facilities in NHS Grampian. (Project forms part of the Schedule and Diagnostic Care Centres programme)	£52m (forms part of £320m programme figure)	£47m (forms part of £274m programme figure)	Construction estimated to commence late 2022. Operational date is estimated for end of March 2024.	NHS Grampian		
Tayside Elective Care Centre	Project will create an elective care centre on the Perth Royal Infirmary site. (Project forms part of the Schedule and Diagnostic Care Centres programme)	£35m (forms part of £320m programme figure)	£35m (forms part of £274m programme figure)	Construction estimated to commence late 2022. Operational date is estimated for end of 2024.	NHS Tayside		

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body
Elective Orthopaedic Centre	Reprovision of the elective orthopaedic services at Victoria Hospital, Fife. The build will provide a standalone all-encompassing elective orthopaedic service.	£32m (forms part of £320m programme figure)	£32m (forms part of £274m programme figure)	Construction expected to commence February 2021. Operational date is estimated for late 2022.	NHS Fife
Barra Health and Social Care Hub	Plan to deliver a new integrated health, social care, education and community facilities hub in Castlebay. Health's contribution will be replacing the existing St Brendan's hospital site situated on the outskirts of Castlebay.	£18m	£17m	Construction estimated to commence in early 2022. Operational date is estimated for late 2024.	NHS Western Isles
Edinburgh Cancer Centre	Upgrading the Edinburgh Cancer Centre.	£20m	£20m	Work is already underway and the upgrade is expected to complete in mid-2022.	NHS Lothian
National Secure Adolescent Inpatient Service	New 12 bedded national secure adolescent inpatient service in Irvine.	£10m	£10m	Operational date is estimated for late 2022.	NHS Ayrshire & Arran
Monklands Replacement Project	Development by NHS Lanarkshire of an Outline Business Case (OBC) to replace the University Hospital Monklands. The cost of the hospital and timetable will be confirmed as part of the OBC process.	£5m-£12m	£5m-£12m	Complete OBC process by mid-2022.	NHS Lanarkshire
North East Hub	Provision of a new health and social care community hub in Parkhead that will replace 10 different buildings across Glasgow North east area.	£67m	£67m	Operational date is estimated for March 2024.	NHS Greater Glasgow and Clyde
Dunfermline Learning Campus (College element)	New build college campus in Dunfermline	£95m	£90m	The project is at the planning stage and is on track to be completed by August 2024.	Fife College
Learning Estate Investment Programme	Programme will benefit around 50,000 pupils across Scotland. 11 Phase 1 projects announced in September 2019 at gov.scot/LEIP/phase1 25 Phase 2 projects announced in December 2020 at gov.scot/LEIP/phase2 Programme will see more schools that are low emission, digitally enabled and better connected to their local communities.	£2bn	£635m-£705m	Programme funding available until the end of next parliamentary term in 2026.	Local authorities
HMP Highland	Replacement facility to provide a fit-for-purpose community facing prison	£98m –£110m	£93m – £105m	Enabling construction work estimated to commence August 2021. Operational date is estimated for February 2024.	Scottish Prison Service

Project Name	Description	Total Estimated Capital Investment	Total SG Estimated Capital Investment (2021-22 to 2025-26)	Estimated Delivery Timetable	Public Sector Procurement Body
HMP Glasgow	Replacement facility to provide a fit-for-purpose community facing prison	£400m This is an initial estimate which will be updated following full business case and procurement	£400m This is an initial estimate which will be updated following full business case and procurement	Construction estimated to commence September 2023. Operational date is estimated for September 2026.	Scottish Prison Service
Transforming Scotland's care of women in custody programme	Programme of work to create a new model of custody to transform the care of women in custody. Programme involves building facilities in the form of a new National Facility and initially two Community Custody Units (CCU) with the development a gender specific trauma informed approach to managing women in custody.	£98m	£57m	Construction of Women's National Facility commenced February 2020 and is estimated to be operational May 2022. Operation of the two CCUs is estimated to be by June 2022.	
National Facility for Women Offenders	Construction of a new national facility, which forms part of the Scottish Government's vision for the management of women in custody. (Project forms part of the Transforming Scotland's care of women in custody programme)	£74m (forms part of £98m programme figure)	£41m (forms part of £57m programme figure)	Construction commenced February 2020. Operational date is estimated for May 2022. Phase 2 follows occupation of Phase 1 works, with completion of Phase 2 (i.e. all works) by May 2023.	Scottish Prison Service
Dundee Community Custody Unit (CCU) – D	Provision of a Community-based Custodial Unit. (Project forms part of the Transforming Scotland's care of women in custody programme)	£12m (forms part of £98m programme figure)	£7m (forms part of £57m programme figure)	Construction commenced November 2020. Operational date is estimated for April 2022.	Scottish Prison Service
Glasgow Community Custody Unit (CCU) – E	Provision of a Community-based Custodial Unit. (Project forms part of the Transforming Scotland's care of women in custody programme)	£13m (forms part of £98m programme figure)	£9m (forms part of £57m programme figure)	Construction commenced October 2020. Operational date is estimated for June 2022.	Scottish Prison Service
Scottish Water Investment Programme	Major investment programme to deliver improvements to customer service, drinking water, the environment, in the 2021-27 period. There will be a focus in investment to support net zero emissions target of 2040 and on replacing aging assets to support service levels. Major investments include water treatment works at Invercannie and Burncrooks; waste water treatment works at Winchburgh; and the Loch Ness regional scheme	£3.5bn	£850m	2021-22 to 2026-27	Scottish Water



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