

Infrastructure Investment Plan 2021-22 to 2025-26

Progress Report for 2021-2022

June 2022



Scottish Government
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June 2022

Foreword



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Cabinet Secretary for Net Zero, Energy and Transport

Our five-year Infrastructure Investment Plan published in February 2021, set out a clear vision for Scotland's future infrastructure in order to support and enable an inclusive net zero emissions economy. Underpinning this vision were three themes relating to enabling net zero emissions and environmental sustainability; driving inclusive economic growth; and building resilient and sustainable places.

The Plan was published last year alongside our Capital Spending Review and the recent targeted review of the Capital Spending Review and the 2022 Medium Term Financial Strategy, both demonstrate that we are on target to successfully deliver against our National Infrastructure Mission with £34 billion of investment over the 5-year spending review period.

This first annual progress report of our five-year Plan outlines the progress made in relation to the Plan's three themes during the last year as well as key delivery achievements and activity planned for the coming year.

Highlights within the last year include the Scottish Network becoming the largest Electric Vehicle charging network in the world following the award of the Charge Place Scotland network operator contract and the launch of the first phase of the Scottish Zero Emission Bus Challenge Fund and subsequent awards of £62 million which leveraged in £59 million of private investment to support 276 new battery-electric buses and charging infrastructure for those and other vehicles.

We launched the Scottish Central Government Energy Efficiency Grant Fund which offers capital grant funding support to enable the delivery of decarbonisation projects across the public sector, we committed £180 million capital funding for the Emerging Energy Technologies Fund (EETF) as part of the Climate Change Plan up to 2026 and the £70 million Recycling Improvement Fund was launched to improve local authority recycling infrastructure with to date, over £20.3 million awarded to 13 local authorities to increase the quantity and quality of recycling, marking the beginning of one of the biggest investments in recycling in Scotland in a generation.

We established a new Scottish Government Peatland Programme to upscale the rate of peatland restoration, updated flood risk management plans for Scotland were approved by Scottish Ministers as was the Forestry and Land Scotland Acquisition Strategy. Scottish Water delivered projects that reduced energy consumption and

increased renewable energy generation including the installation of the first battery storage facility in Perth, which will cut the carbon footprint of the city's treatment works by around 160 tonnes of CO₂e per year.

The contract for the Stornoway deep water terminal was awarded, connections became live in all contract areas of the R100 programme, contracts were signed on two major port projects at Uig, Skye and Lochmaddy, South Uist. The second section of the A9 Dualling between Luncarty and Pass of Birnam was completed along with the opening of the A77 Maybole Bypass, and City Region and Growth Deals continued to fund a diverse range of successful projects with several notable developments in the past year.

Local authorities received £38 million in 2021-22 through the Place-Based Investment Programme and we moved forward with the actions and commitments set out in our Housing to 2040 vision published last year. The National Treatment Centres programme is driving the single biggest increase in planned care capacity ever created in NHS Scotland and the investment was increased to more than £600 million within the last year and the network of centres expanded to ten.

During the first year of our Plan, our major project reporting shows that infrastructure projects worth £232.2 million completed construction and opened to the public. Major projects which commenced construction in 2021-22 included the Barrhead Rail Enhancement which will decarbonise the corridors and provide improved access to rail network, the Levenmouth Rail Link which will re-open the disused rail line between Thornton junction and Leven in Fife and the North East Hub in Parkhead, Glasgow which will be Scotland's first net zero carbon health and social care facility.

Our project reporting also shows that infrastructure projects totalling almost £1.8 billion are currently in construction or are estimated to commence construction during 2022-23 such as the A9 Dualling Tomatin to Moy, East Kilbride Rail Enhancement, Dunfermline Learning Campus and Royal Botanic Garden Edinburgh Biomes projects.

These plans will however continue to be subject to adjustment in light of the continued impact on the labour supply by the COVID-19 pandemic, issues around supply chains, the availability of construction materials, cost inflation and the ongoing conflict in the Ukraine.

I am pleased to say that continued progress has been made against the recommendations made by the Infrastructure Commission for Scotland in its Key Findings reports. These include the launch of our new Place website as part of the partnership behind the Place standard tool and publication of our first Heat in Buildings Strategy to accelerate the development and implementation of incentives, support mechanisms and standards for energy efficient, net zero carbon buildings across Scotland. Work is ongoing across government to progress with the further implementation of these recommendations.

We look forward to continuing to work with all our stakeholders to ensure that collectively we maximise the benefits of infrastructure investment for the people of Scotland.

Overview

Infrastructure Investment Plan 2021-22 to 2025-26

The Scottish Government's [Infrastructure Investment Plan for Scotland 2021-22 to 2025-26](#) was published on 4 February 2021. The Plan covers the five financial years from April 2021 and includes details of around £26 billion of major projects and national programmes with more to be confirmed in future years.

The Plan sets out how we will deliver the National Infrastructure Mission and sets a long-term vision of infrastructure supporting an inclusive, net zero carbon economy in Scotland. It provides a pipeline of public sector infrastructure delivery, giving confidence to the construction sector and supporting our economic recovery from COVID-19. It shows how we will enhance our approach to choosing the right future investments and introduces a new infrastructure investment hierarchy.

This is the first progress report relating to our five-year Infrastructure Investment Plan (IIP). Key achievements within the first year include the opening of the A9 Dualling: Luncarty to Pass of Birnam and the A77 Maybole Bypass as well as two new Community Hospitals in Aviemore and Skye and the new Clydebank Health & Care Centre. Major projects which commenced construction in 2021-22 included the Barrhead Rail Enhancement which will decarbonise the corridors and provide improved access to rail network, the Levenmouth Rail Link which will re-open the disused rail line between Thornton junction and Leven in Fife and the North East Hub in Parkhead, Glasgow which will be Scotland's first net zero carbon health and social care facility.

Progress of projects to March 2022

During the first year of the IIP, infrastructure improvements were delivered and in total over the course of 2021-22, the following projects worth £232.2 million completed construction and opened to the public:

Transport

- A9 Dualling: Luncarty to Pass of Birnam (£96 million)
- A77 Maybole Bypass (£46 million)

Health

- NHS Highland - Broadford Hospital which forms main element of Redesign of Services for Skye, Lochalsh & South West Ross (£24.8 million)
- NHS Highland - Badenoch & Strathspey Community Hospital which forms main element of Redesign of Services for Badenoch and Strathspey (£23.6 million)
- NHS Greater Glasgow and Clyde - Clydebank Health & Care Centre (£21.7 million)
- NHS Tayside - Ninewells Electrical Infrastructure Zone 1 - Polyclinic (£12.9 million)
- NHS Tayside - Neonatal Intensive Care Unit (£7.2 million)

Project activity through to March 2023

- Our project reporting shows that infrastructure projects totalling almost £1.8 billion are currently in construction or are estimated to commence construction during 2022-23
- Those major projects estimated to commence construction during 2022-23 include the A9 Dualling Tomatin to Moy, East Kilbride Rail Enhancement, Dunfermline Learning Campus and Royal Botanic Garden Edinburgh – Biomes
- Major projects planned to complete construction and open to the public in 2022-23 include the A92/A96 Haugain Junction Improvement, Inverness Airport Station, NHS Highland - National Treatment Centre, NHS Fife - Elective Orthopaedic Centre and the National Facility for Women Offenders

Infrastructure Investment Plan Reporting

The IIP includes both programmes and projects. Programmes co-ordinate, direct and oversee the implementation of a set of related projects. Projects have defined start and end points (usually time-constrained and often constrained by funding or deliverables) and are undertaken to meet unique goals and objectives. Projects can be part of a programme but are not always.

The **IIP Project Pipeline** is updated and published on a six-monthly basis. It includes those projects with a capital value of £5 million or more for which the Scottish Government has a lead role in funding and where an Outline Business Case (or equivalent) is not yet approved.

The **IIP Major Capital Projects Progress Update** is published on a six-monthly basis. It provides information on the progress of those projects with a capital value of £5 million or more that the Scottish Government has a lead role in funding and which are at Outline Business Case (or equivalent) approved stage or beyond.

[Annex C](#) of this progress report includes information relating to those projects within the IIP Major Capital Projects Progress Update and their accompanying climate change targets, strategic outcomes and their contribution made to local economic development.

The **IIP Programme Pipeline Update** is published on a six-monthly basis. It includes information relating to key major infrastructure programmes with an investment of £20 million or more that the Scottish Government has a lead role in funding.

The latest updated three reports relating to the IIP can be found on the Scottish Government website at [Infrastructure Investment Plan](#).

National Infrastructure Mission

The Scottish Government is firmly committed to infrastructure investment as a key factor in securing inclusive economic growth and our focus is on stimulating growth, protecting and creating jobs and promoting Scotland as a great place to do business. In recognition of the importance of infrastructure investment to the economy, the

2018 Programme for Government set out our commitment to a National Infrastructure Mission to increase annual investment by 1% of 2017 Scottish GDP (Gross Domestic Product) by the end of the next Parliament.

The National Infrastructure Mission announced as part of the 2018 Programme for Government, is a commitment to increase annual investment by 1% of 2017 Scottish GDP (£1.5 billion) by the end of this Parliament. The National Infrastructure Mission was introduced with an aim of raising Scottish infrastructure investment to internationally-competitive levels, boosting broadband, transport and low carbon energy, and supporting inclusive economic growth.

The targeted review of the Capital Spending Review (CSR) and Medium Term Financial Strategy (MTFS) demonstrate that the Scottish Government is on target to successfully deliver against the National Infrastructure Mission with £34 billion of investment over the 5-year spending review period. The documents relating to these can be found on the Scottish Government website at [Targeted Review of CSR](#) and [MTFS](#).

Funding

Just under 85% of the Scottish Government capital budget, including Financial Transactions funding, flows from UK Government decisions and allocations. The remaining sums arise from income and receipts, deployment of Scottish Government capital borrowing powers, from innovative financial and revenue finance models, and from recycling repayments from earlier Financial Transaction loans.

The Scottish Government is committed to sustainable deployment of revenue financed investment and capital borrowing to ensure there is no undue financial burden on future policy choices. That is why the Scottish Government has a self-imposed revenue finance investment limit of 5% of the Scottish Government resource budget excluding social security. The latest modelling suggests that over the remaining capital spending review period these costs peak in 2025-26 with planned and committed projects and borrowing costs estimated to be 2.61% of the resource budget excluding social security.

There were no private finance projects taken forward during 2021-22. Details of the estimated annual NPD and PFI unitary payment charges for the services agreed over the length of each ongoing associated contract in Scotland, can be found on the Scottish Government website at [NPD and PFI projects](#).

The options appraisal developed by Scottish Futures Trust (SFT) which resulted in the adoption of the Mutual Investment Model, the current model for private finance projects, can be found on SFT's website at [Scottish Futures Trust](#).

Infrastructure Commission for Scotland

We established a new [Infrastructure Commission for Scotland](#) (ICfS) to provide long-term strategic advice to us on national infrastructure priorities. The Commission advised on our National Infrastructure Mission by identifying key strategic priorities in Scotland to be made to boost economic growth and support public services.

The Infrastructure Commission for Scotland started work in 2019 and reported its findings in two phases. Phase 1: recommendations on the vision, ambition and strategic priorities for infrastructure were published in [a Key Findings Report](#) in January 2020. Phase 2 involved providing further advice on the delivery of infrastructure. This advice was published in the [Delivery Findings Report](#) July 2020.

The Commission's recommendations helped inform the development of the new IIP and Capital Spending Review. In these strategic forward-looking plans, we set out our commitment to delivering infrastructure to help us to create the conditions for Scotland's resilience and enable inclusive, net zero, and sustainable growth. Work is ongoing across government to progress with the further implementation of these recommendations as we work towards the next IIP, which we will publish in 2025.

The Commission's recommendations, most of which were published before the lockdown policy response to COVID-19, suggested timescales for delivery against the recommendations of 2023 or earlier. Given the impact the pandemic has had across Scotland; we do not intend to deliver against all recommendations by the Commission's dates. That does not diminish the Scottish Government commitment to improving the infrastructure policy landscape and implementing the recommendations.

[Annex A](#) includes an update on the progress against the broad themes of the Commission's recommendations.

Supply chain and inflation issues

The global supply chain and inflation issues reported within the September 2021 six-monthly Major Capital Projects Progress Update to the Public Audit Committee, have continued through the subsequent six months, resulting in both delays and / or cost increases for a wide range of projects. A full note on the continued impact of the issues around supply chains and the availability of construction materials along with inflation which are affecting the delivery of infrastructure projects and programmes is included at [Annex B](#).

Thematic Progress

The Infrastructure Investment Plan 2021-22 to 2025-26 set out a clear vision for our future infrastructure and to enable an inclusive net zero emissions economy and support economic recovery.

Underpinning this vision are the following three themes:

Enabling net zero emissions and environmental sustainability;

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. This will require transformative action across all sectors of the economy and across society. The Scottish Government's investment in publicly-funded infrastructure, set out in the IIP, has a critical role to play in supporting the transition – the commitment to multi-year investments in the IIP sent a clear signal to supply chains to invest in people and technology, to help us deliver the net zero transition.

The IIP established investment in our natural capital as a key aspect of infrastructure investment. Natural areas or systems that are managed to provide multiple benefits for the environment and human wellbeing can be described as 'natural infrastructure'. Scotland's natural capital is fundamental to our economy and our wellbeing. 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. This is why, in the IIP, we adopted an updated definition for infrastructure to include natural infrastructure – the broadest definition of infrastructure in the UK.

Driving inclusive economic growth;

Infrastructure is an enabler of sustainable, inclusive economic growth. Internal analysis by the Office of the Chief Economic Advisor has shown that an investment led stimulus has both a short term demand effect but also a longer term supply effect on economic performance. Investments set out in the IIP will enhance Scotland's productivity, competitiveness, innovation, trade and inward investment by:

- Boosting our international and country-wide digital connectivity and capacity, particularly in rural areas
- Enhancing our transport infrastructure, focusing on a safe and resilient strategic transport network which also contributes to net zero and inclusive economic growth
- Supporting construction with a strong pipeline of work and ensure Scottish businesses and supply chains can capitalise on our investment in low carbon

This approach embeds fairness and inclusion, addressing the drivers of poverty and seeking to ensure no-one is left behind. We will invest in the right strategic projects for every part of Scotland to aid city and regional growth; invest in bus infrastructure, and tackle poor energy efficiency.

Building resilient and sustainable places.

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

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 - the new emphasis on localism, with quality homes in quality places, informed by concepts such as 20 minute neighbourhoods will help to achieve that.

This section of the report reflects on the progress and key achievements within the last year in relation to the three thematic elements of the IIP and associated sub-themes, as well as what activity is planned for the year ahead.

Enabling net zero emissions and environmental sustainability

Decarbonising Transport and Supporting Active Travel

Transport

Within the last year, since the new Charge Place Scotland (CPS) network operator contract was awarded in March 2021, there has been a successful migration of over 2,000 chargepoint assets and 20,000 member accounts making the Scottish Network the largest Electric Vehicle (EV) charging network in the world at this point. The network continues to grow, with over 500 new members joining each week, and over 30,000 charging sessions commencing on a weekly basis

We have completed Phase 1 of a project designed to develop the fleets procurement framework in order to drive efficiencies in public sector fleet transition, and we also provided in excess of £13 million of funding to local authorities and public bodies to facilitate and support fleet decarbonisation activity.

We provided £52.7 million in new and recycled funds in year, to provide Low Carbon Transport Loans for consumers and businesses, and we further enhanced the payment management processes in order to support the impact of COVID-19 on loan repayments. The scheme has seen some of its highest rates of applications, exceeding pre-pandemic levels, particularly across May and June 2021.

In July 2021, we launched the first phase of the Scottish Zero Emission Bus Challenge Fund, designed to encourage a move from funding to finance, the fund encouraged collaboration, innovative business models, and challenged bidders to apply for the lowest possible level of subsidy. In February 2022 we announced awards of £62 million, leveraging in £59 million private investment, to support 276 new battery-electric buses and charging infrastructure for those, and other, vehicles.

We have supported the development of the LOCATE drive train test facility due to be delivered in Summer 2023, overseen by the Hydrogen Accelerator programme in partnership with St Andrews University and Michelin Scotland Innovation Parc. This is progressing following Ministerial approval of an updated funding and delivery plan factoring in the impact of continuing post COVID-19 supply chain disruption.

We designed a Zero Emission Truck Taskforce to develop a decarbonisation pathway for HGVs (heavy goods vehicles) over the next 12 months spanning vehicle trials, energy infrastructure, business models and the potential role of biofuels. Key industry stakeholders and membership bodies have reviewed and support the detailed proposal.

For the year ahead, we will be initiating activity through investing £3 million from the Electric Vehicle Infrastructure Fund which looks to leverage private sector investment into the growth and development of public EV (Electric Vehicle) charging infrastructure in Scotland by transitioning away from current CPS model and introducing a new approach to funding public EV infrastructure. We will continue to support the decarbonisation of public sector fleets by investing a further £12.4

million. We will support householders in rural areas who are often faced with additional financial barriers by installing 1800 chargepoints for EVs.

We will launch new Zero Emission Mobility Innovation Fund to support domestic supply chain innovation to meet Mission Zero. We will invest a further £4.9 million in LOCATE, the Zero Emission drivetrain testing centre which will expand Scotland's sustainable innovation.

We will provide £2 million for the establishment of a Dryroom at the Eden Campus, St Andrews University, which will support battery supply chain development in Scotland. Driving the Electric Revolution Scotland (DERS) Industrialisation Centre is set to open in Autumn 2022. This innovation centre will support the development and testing of components and systems for zero emission vehicles. Further to this, we will invest in excess of 0.5 million to support skills development for those working with zero emission vehicles.

Decarbonising Heat and Boosting the Energy Efficiency of Buildings

Domestic Energy Efficiency: Area Based Schemes

In line with our commitments in the Programme for Government, the Scottish Government has maintained its annual investment in local ABS (Area Based Schemes) projects at £64 million in 2022-23 (funding remains at the same level as in 21-22, up by £9 million from £55 million in 2020-21). This has allowed us to increase the scope of ABS projects to provide more whole house retrofits that include zero/low carbon heating and microgeneration (solar PV (Photovoltaics) etc.), where this is technically feasible and will help to reduce fuel poverty.

Every council in Scotland has been offered more funding in 2021-22 than in 2020-21. Changes in individual allocations partly reflect the overall fall in the average proportion of fuel poor households and updates to the reported numbers of properties eligible for SWI (solid wall insulation) measures etc. The average amount of ABS funding available for fuel poor households in 2021-22 across Scotland is £106 per household and increased from £103 per household in 2020-21. Almost all councils have seen an increase in their funding per fuel poor household in 2021-22 compared to 2020-21.

In April 2021, we extended the scope for ABS projects to include zero/low carbon heating and microgeneration measures (solar PV) as part of a 'whole house retrofit'. This includes additional funding of £6,000 towards the costs of these measures, in addition to grant funding for insulation and enabling measures.

We recognise that the costs of delivering energy efficiency measures are higher in many rural areas, in particular in remote rural and island areas. Councils can apply an uplift of 11% where necessary to help meet increased delivery costs in rural areas.

Domestic Energy Efficiency: Warmer Homes Scotland

The annual budget for 2021-2022 was £50 million and this has been further increased to £55 million for 2022-2023. Warmer Homes Scotland has helped over 25,000 households since its launch in 2015, and currently households who receive improvements through the scheme are expected to save an average of £230 per year on their energy bills. The contract for Warmer Homes Scotland has been extended to run until June 2023.

Through Warmer Homes Scotland we have made available renewable heat and new insulation measures some of which may be particularly beneficial to rural and remote communities not served by the gas grid. These include: ground source heat pumps, micro-wind, micro hydro, micro-CHP (Combined Heat and Power) systems and 'Q-Bot' - an underfloor insulation system installed by a robot. Micro-CHP systems are not suitable for off gas grid areas as these are gas powered. Additional enabling measures introduced under the scheme include extraction of failed cavity wall insulation, asbestos removal and the installation of fuel storage tanks and low energy lighting.

The formal procurement for an enhanced successor scheme to Warmer Homes Scotland is underway, with the new scheme due to go live when the current contract expires. The new scheme will have a greater focus on decarbonisation of heat, taking a zero emissions first approach to heating installations with a greater intervention cost per household.

Social Housing Net Zero Heat Fund

First launched in August 2020, the Social Housing Net Zero Heat Fund is making £200 million available to registered social landlords to help install zero emission heating systems and improve energy efficiency in social housing until 2026. The fund is for the retrofit or refurbishment of existing housing stock and provides grant funding to help cover the costs of energy efficiency measures and zero emission heating systems, including connections to district heat networks. This financial year (2022-23) a further £30 million will be allocated to the fund to support both energy efficiency and zero heating emission projects.

Community and Renewable Energy Scheme

The Scottish Government is committed to supporting the growth of community and local energy in Scotland through mechanisms such as its flagship Community and Renewable Energy Scheme (CARES). The scheme, which is delivered by Local Energy Scotland, supports communities to engage, participate and benefit from the energy transition to net zero. The current CARES contract, which commenced 1 April 2021 and will run for a period of 4 years, will give priority to decarbonisation as the driver for community-led action.

In 2021-22 our CARES 'Let's Do Net Zero Community Buildings' funding call received 218 expressions of interest. Over £2.6 million has been awarded to 74 organisations to install renewable technologies in community buildings.

The new CARES heat programme, which will begin in 2022-23, will focus on supporting communities to take forward heat decarbonisation projects in their local area. It will provide support for community buildings and bespoke project development. CARES will also provide a package of support in 2022-23 for

Scotland's more remote and rural off grid communities to upgrade their energy systems making them more resilient and sustainable in the future to help them decarbonise their energy supplies.

Public Sector Estate: Scottish Central Government Energy Efficiency Grant Fund

The Scottish Central Government Energy Efficiency Grant Fund was launched in June 2021. It offers capital grant funding support to enable the delivery of decarbonisation projects across the public sector, specifically supporting retrofit of existing buildings owned by central government organisations with energy efficiency measures and renewable heat technology to help them reach net zero emissions across their estates. The fund also provides resource support to enable the building of a pipeline of investment-ready projects in 2022-23 and beyond, further accelerating investment in energy efficiency and renewable technology across the public sector.

Since establishment in June 2021, the fund has given more than £10 million capital funding, and £700k resource funding to improve the energy efficiency and decarbonisation of a number of public sector buildings owned by NHS boards, further education colleges and other central government organisations. The fund is set to re-launch this Spring, with a minimum of £10 million capital grant funding available for decarbonisation projects in 2022-23.

Low Carbon Infrastructure Transition Programme

The Low Carbon Infrastructure Transition Programme is now closed to new applications after awarding approximately £60 million to projects that decarbonise heat since it was launched in 2015. In 2021-22, it was announced that the Low Carbon Infrastructure Transition Programme had awarded funding of £8.7 million to low carbon energy projects that support Scotland's Green Recovery, £6.6 million of which were for projects that will decarbonise how buildings are heated. Another announcement will be made in due course on further projects that have been awarded funding.

Scotland's Heat Network Fund

Scotland's Heat Network Fund was launched in February 2022 with a budget of £300 million over the course of this parliament to accelerate the deployment of zero and low emissions heat networks that can provide reliable and affordable heat to consumers. A key objective of the Heat Network Fund is to support projects that will result in wider social and economic benefits for Scotland. It will also help kick start the Scottish heat network supply chain, creating high quality green jobs. The Heat in Buildings Development Funding Invitation has also been launched, worth up to £1 million in 2022-23 to provide grant support to develop Investment Grade Business Cases to help create a pipeline of large heat decarbonisation projects.

Clyde Mission

Work is underway to develop a scheme to distribute funds to support the delivery of zero emissions heat projects along the River Clyde to help to deliver the aims of Clyde Mission to make the Clyde an engine of sustainable and inclusive growth for the city, the region and for Scotland. An announcement on the detail of that scheme is expected to be made summer/autumn 2022. Clyde Mission is Theme 3 of the £1

million Heat in Buildings Development Fund which was launched in March 2022 and will provide pre-capital support.

RBGE - Edinburgh Biomes

The Edinburgh Biomes is a critical infrastructure replacement / improvement project which will see new energy efficient glasshouses, an energy centre and state of the art front of house facilities installed in the Royal Botanic Gardens Edinburgh (one of Scotland's top visitor attractions), including the Grade A Listed Victorian Palm House. The glasshouse structures and energy centre are essential in order to protect and conserve Scotland's National Living Plant Collection.

In 2021-22, we saw commencement of ground works, including preparations for the decanting of species to temporary storage areas, construction of the new low carbon energy centre, and works on the Victorian Palm House.

The Edinburgh Biomes is a complex multi-year project with a large number of interconnecting parts involving 'living' species of rare and protected plants. Like a number of large scale capital infrastructure projects, progress has been impacted by flux in the global construction market, resulting in increased costs, shortage of materials and delays in delivery.

During 2022-23, will see continued focus on the energy centre, decant village and Victorian Palm House. Project timelines and milestones are being reviewed and adapted on an ongoing basis.

Decarbonising Industry

Scottish Industrial Energy Transformation Fund (SIETF)

Within the last year, there was commencement of on-site activity for decarbonising industrial sectors via projects in receipt of Scottish Industrial Energy Transformation Fund (SIETF) grant offers. Co-investment is already offered to seven industrial manufacturing sites for energy efficiency projects across Scotland, amounting to over £3 million of the c£10 million total (including industries' contributions).

For year ahead, a second call for projects is at due diligence stage from which a greater number of projects and a higher overall value of grants than the initial call is anticipated. This will boost investor confidence across Scottish sectors to progress projects at manufacturing sites that can reduce carbon intensity and deliver energy productivity gains.

Emerging Energy Technologies Fund (EETF)

Within the last year, the Scottish Government has committed £180 million capital funding for the Emerging Energy Technologies Fund (EETF) as part of the Climate Change Plan over 5 years (2021-2026). Proposed £100 million on Hydrogen and £80 million on Carbon Capture storage (CCS). Scheme design and stakeholder engagement both commenced during 2021-22. We have also been exploring the links with other low carbon funds, including Scottish Industrial Energy Transformation Fund (SIETF), Energy Transition Fund (ETF), Low Carbon manufacturing and Low Carbon transport, to ensure these work seamlessly alongside each other to support

the development of a Hydrogen economy and CCS network and do not duplicate one another.

Looking ahead, this year we will launch the first tranche of the EETF, the £10 million EETF Hydrogen Innovation Scheme in June 2022 with launch of wider £90 million EETF fund investment programme expected in Quarter 3/4. A finalised Hydrogen Action Plan will also publish in Quarter 3/4.

Energy Transition Fund (ETF)

Within the last year, Grant letters were finalised and awarded for three of the four projects. Awards of £23.6 million for the Energy Transition Zone (UK Government match funding), £16.7 million for the Net Zero Technology Transition Programme delivered by the Net Zero Technology Centre and £6.5 million for the Global Underwater Hub (UK Government match funding) were all agreed. The ETF steering group transitioned to a project board, meeting quarterly with email write round to deal with exceptions.

Delivery on two of three projects was delayed with underspend due to delays in issuing grant award letters. The Global Underwater Hub delivered on time and to budget for 2021-22. The Grant Award letter for Aberdeen Hydrogen Hub is being finalised after delays due to needing additional financial and legal advice before issuing.

For year ahead, the Energy Transition Zone has a delivery plan in place to spend £10 million in 2022-23 – progress is good with £4.19 million spend due for Q1. This includes procurement of the site and building for the National Floating Wind Innovation Centre as announced by the First Minister on her launch visit on 28 February 2022. The Global Underwater Hub has a delivery plan in place for a spend of £2.8 million in 2022-23. They are moving at pace to deliver on the key objectives, and have a spend of £277k due for Q1.

The Net Zero Technology Transfer Programme is budgeting to spend £8.1 million in 2022-23 and work in Q1 relates mainly to developing consortia to deliver on the seven projects making up the programme, with delivery rolling out from Q2 onwards. The Aberdeen Hydrogen Hub has an award for £4.8 million in 2022-23. The focus for 2022-23 will be on delivering procurement of new vehicle fleet and development and upgrading of existing hydrogen refuelling capabilities. Additionally, there will be initial investment in developing Green hydrogen production, though this is expected to take multiple years to complete.

Low Carbon Manufacturing

During 2021-22, we developed and launched a CivTech challenge that aims to find a technological or software solution to help better inform decisions manufacturers take to decarbonise. At the completion of the CivTech accelerator phase, we signed a PCA with a small Scottish start-up called iSumio to work towards a beta product by the end of 2022.

In 2022-23, the Low Carbon Manufacturing Challenge Fund (LCMCF) was launched in May 2022. Administered by Scottish Enterprise, grants are for a minimum of £150,000 with £3 million available this calendar year. The goal is the development

of new products, services or technologies that will reduce emissions, energy consumption, waste production and decrease the use of raw materials in the manufacture, and/or end use, of the existing alternative. Alternatively, we want to support the development of new business models based on the principles of a circular economy. Through circular supplies, resource recovery, product life extension or use of sharing platforms, for example.

Work will continue on our CivTech challenge to produce a beta product by the end of 2022 of a software solution to allow manufacturers to better understand their carbon footprint (including their supply chain) and demonstrate improvement measures to customers.

Supporting a Circular Economy

Waste Sector

The Scottish Government has been amongst the leaders in developing policies for zero waste and the circular economy, and has made significant long-term progress, working with many partners, in increasing recycling and diverting waste from landfill. We know that further action is needed to accelerate progress towards Scotland's ambitious waste prevention and recycling targets, to tackle our throwaway culture and to scale up and mainstream circular economy business models in Scotland. Investment is a key part of this, and has the potential to unlock local reprocessing investments, create jobs and a ready supply of recycled material for new packaging. It is part of building a fully circular economy in Scotland, which will drive materials up the waste hierarchy and keep them in high value use for as long as possible.

Last year, the £70 million Recycling Improvement Fund was launched in March 2021 to improve local authority recycling infrastructure. To date, over £20.3 million has been awarded to 13 local authorities to increase the quantity and quality of recycling, marking the beginning of one of the biggest investments in recycling in Scotland in a generation. We are funding a range of improvements, including more frequent recycling collections, the extension of food and garden waste collections, boosting Scotland's capacity to recycle soft plastics and films, and local service redesigns to align with Scotland's Household Recycling Charter. The projects announced to date have the potential to reduce CO2 emissions by 21,400 tonnes each year - the equivalent of taking 11,400 cars off the road. This landmark investment will make it easier for households to make the right recycling choices, and make an important contribution to meeting Scotland's waste, recycling and climate targets.

The Scottish Government has worked in partnership with COSLA (Convention of Scottish Local Authorities), SOLACE (Scottish Branch of the Society of Local Authority Chief Executives) and Zero Waste Scotland to develop arrangements for the fund. More information on the aims, scope and distribution of the fund is available at [Zero Waste Scotland](#).

A consultation seeking views on plans for the introduction of a mandatory digital waste tracking service in the UK was held between January and April 2022, with funding allocated to support SEPA (Scottish Environment Protection Agency) with implementation in Scotland. The ambition is to provide a step change in the quality and timeliness of data on waste and resource flows, to support decision-making. By

making it easier to identify opportunities to reduce the waste produced and reuse the materials we consume, this will support our transition to a circular economy.

Work to accelerate landfill gas capture in Scotland was a new boosted policy, as outlined in the recent Climate Change Plan update, working with SEPA and key industry partners to scale up the existing landfill gas capture programme to mitigate effects of landfill and environmental impact of closed landfill sites. This is supported by additional funding from the Low Carbon Fund with the aim to harness the energy generated from landfill gas capture and maximise circular economy opportunities. Due to other unavoidable resource implications, including COVID-19 contingency work, progress on this policy outcome was paused in 2021-22. We are reviewing plans for 2022-23 to ensure progress is made.

For 2022-23, the £70 million Recycling Improvement Fund is open to all local authorities to develop and submit applications for funding, and we will provide further updates on investment in Scotland's recycling infrastructure throughout the lifetime of the Fund. Local authorities across Scotland are encouraged to apply to the fund, to help drive new innovations and improvements to recycling in their area and across Scotland.

We know that textile waste and throwaway culture have a disproportionate environmental impact - textile waste makes up just 4% of household waste but 32% of the carbon impacts. In the first half of 2022, we will introduce a new £2 million Textile Innovation Fund, to support businesses working in this sector to address issues associated with textile waste and throwaway culture. When the fund goes live, we will consider applications from across all sectors for projects that will reduce aspects of textile waste, contribute to Scotland's overall waste reduction targets and reduce overall consumption.

Our Deposit Return Scheme (DRS) for single-use drinks containers (which will be implemented from 16 August 2023) and the UK-wide packaging extended producer responsibility reforms (to be implemented from 2024) are designed to increase the quantity and quality of recyclate, creating a significant economic opportunity and providing greater incentives for domestic reprocessing. Through DRS, we expect a number of collection and sorting centres to be established across Scotland and, as part of extended producer responsibility reforms, funding will go from producers to local authorities to fund effective and efficient collection systems for packaging waste.

We are committed to introducing a Circular Economy Bill later in this parliamentary session. The Bill will put in place legislative measures to support and encourage reduction of consumption, reuse, repair and recycling so as to reduce waste. As part of the work towards that Bill, in May 2022 we launched a public consultation on a number of proposals for legislation, including a potential provision to ban the destruction of unsold durable goods. Alongside the consultation on proposals for a Circular Economy Bill, we also published a consultation on a waste Route Map, which set out proposals for further action to facilitate Scotland's transition to a zero waste and circular economy, and accelerate progress to meet our waste, recycling and emissions targets.

Boosting Resilience and Adaptation

Flood Risk Management

£42 million continues to be spent annually on reducing flood risk to properties and businesses. A number of flood protection schemes are under construction around Scotland. These include a £90 million scheme at Hawick which will reduce the risk of flooding to over 900 properties.

Updated flood risk management plans for Scotland were approved by Scottish Ministers on 22 December 2021. These plans produced by SEPA (Scottish Environment Protection Agency) in partnership with responsible authorities, identify flood management actions for over 440 priority communities. This work is split into six year cycles and covers a range of actions including furthering the understanding of climate change impacts, increasing community resilience, and developing and implementing flood protection scheme.

Consideration is being given to how the additional £150 million allocated to flooding in 2020 will be allocated. A joint SG/COSLA Flood Risk Management Working Group has been set up and is considering funding arrangements for flood risk management actions going forward. This group will consider and make recommendations to Ministers on the funding arrangements in 2022. Funding and coordination of the proposed actions set out in SEPA's flood risk management plans will be developed in the local flood risk management plans which are due for publication in December 2022.

Coastal change

The Dynamic Coast 2 project, which assessed coastal erosion and accretion rates along our coastline was published in August 2021. It investigates how already increasing erosion rates along soft coasts might be exacerbated by climate change sea level rise and identifies the assets that could be at risk.

Scottish Ministers and COSLA have agreed a methodology to distribute the new capital budget of £11.7 million for coastal change adaptation to coastal local authorities in 2022-23 and 2023-24 based on evidence from the Dynamic Coast 2 project. Further information can be found at [Dynamic Coast](#). The Scottish Government will continue to work with councils and COSLA to agree a distribution methodology for 2024-25 and 2025-26 budgets.

Transport (Road Adaptation)

The programme of Trunk Road Minor Improvement Schemes to address the impacts of climate change, improve network efficiency, safety and resilience contributing to a low carbon economy, is progressing well. Over the next four years, Transport Scotland aim to deliver an estimated total investment of £60 million to drive inclusive economic growth and build resilient and sustainable places. Budget has been allocated from 2022-23 and will be utilised accordingly in due course. A programme of projects across Scotland has been commenced with several schemes due to be delivered this financial year.

The fund enables significant value multidisciplinary schemes to be progressed, ranging from specific roads schemes, to joint schemes that interface with rail, sea

and active travel. Schemes contribute to economic development by improving connectivity, journey time reliability and safety of the road network, which includes a number geotechnical improvements in complex locations across the north of Scotland.

Over the next three years the fund will contribute to a number of high profile schemes across Scotland including, concluding the short term mitigation works at the A83 Rest and Be Thankful, the new Lhanbryde Cycleway as well as the A893 Ullapool Harbour and Shore Street upgrades. In addition, there are planned improvements to A830 Borrodale Bridge, collaborating with Network Rail, and non-motorised unit improvements on the A9 Raigmore Interchange, working with Highland Council. Trunk road widening of key pinch points on the network is also planned for the A86, A95 and A889. These schemes will provide safety and active travel improvements.

As well as large notable projects, the fund also allows smaller improvements to be made to the network. These often provide significant betterment to existing outdated provisions such as linking cycle paths / footways, review of Vehicle Restraint Systems, and layby upgrading/provision. This contributes to reliability and road safety for transport of goods, general travel and connectivity across Scotland.

Investing in our Natural Capital

New planting and forest expansion

The Forestry and Land Scotland (FLS) Acquisition Strategy was approved by Ministers in December 2021. This sets out the principles under which FLS will use both the £30 million of Scottish Government low carbon funding and the FLS strategic funds to acquire land in order to grow Scotland's national forests and land.

Utilising these funds, in 2021-22 FLS acquired 1,082 ha of new land at a total cost of just over £7.2 million. Roughly, half of this land will be plantable for trees with the remainder being managed for habitat, ecological and/or recreational outcomes.

Stepped increases in new planting targets have been set with the aim of achieving 18,000 ha planting in 2024-25. Annual targets are 2021-22 13,500 ha, 2022-23 15,000 ha, 2023-24 16,500 ha and 2024-25 18,000 ha.

Scottish Forestry have approved claims for over 13,000 ha of new woodland creation in 2021-22, however actual planting achieved will not be confirmed until July 2022. It is anticipated that planting will be slightly below the target due to various factors including winter storms and the impact of COVID-19 and Brexit on resource availability.

Plans to implement required infrastructure and resource for longer term ambitions remain in progress and on course with recently publicised recruitment for 33 new posts across the organisation.

Peatlands

Peatland restoration continues to be progressed across Scotland through the work of our current delivery partners (NatureScot (Peatland Action), Forestry and Land

Scotland, Cairngorms National Park, Loch Lomond and Trossachs National Park and Scottish Water). In 2021-22, around 8,000 hectares of degraded peat were put on the road to recovery as part of our ten-year commitment to restore 250,000 hectares by 2030.

In October 2021, a new Scottish Government Peatland Programme was established. The Programme will develop and deliver policies which: protect peatlands, limiting negative impacts from extraction and development; restore degraded peatlands to reduce carbon emissions and support restoration of unique peatland habitats and landscapes; and manage peatlands holistically and sustainably within the context of a changing climate.

Within this new programme, we continue to work with our partners to understand and address the structural, operational and resourcing challenges around significantly upscaling rates of restoration.

Working with delivery partners, we will upscale the rate of peatland restoration in 2022-23. The governance structure of the Peatland Programme will expand to include a Technical Advisory Group and Stakeholder Engagement Group. These groups will work to identify and address barriers to peatland restoration including evidence on techniques and monitoring, contractor capacity and skills gaps. Looking ahead, we will also explore a range of funding models including increased private finance, to accelerate delivery of peatland restoration in Scotland.

Low Carbon Vacant and Derelict Land Investment Programme

The £50 million Low Carbon Vacant and Derelict Land Investment Programme (VDLIP) is a capital programme to help with tackling persistent vacant and derelict land. It is supporting place based approaches to delivering regeneration and sustainable inclusive growth as part of a 'just transition' to net-zero by 2045. It is a competitive fund open to all 32 local authorities and the Clyde Gateway URC (Urban Regeneration Company). Scotland currently has more than 11,000 hectares of registered vacant and derelict land which offers significant potential to be brought back to positive use to the benefit of communities. This fund supports projects that prioritise such sites and protect our existing natural capital. This ensures that future infrastructure investment goes into areas where it is needed the most, stimulating economic growth; creating jobs; promoting environmental justice and supporting communities to flourish and tackle inequalities.

In September 2021, 10 successful projects were announced to receive a total of £5 million from the first round of funding for financial year 2021-22. In May 2022, a further 10 successful projects were announced representing an additional £5 million of funding. Successful projects from both 2021-22 and 2022-23 can be viewed at [Low Carbon Fund: Vacant and Derelict Land Investment Programme projects](#)

We are now seeking applications for round 3 of the fund for financial year 2023-24. The two stage application process will take place over the summer and autumn with successful projects being announced by the end of 2022.

Driving inclusive economic growth

Creating World Class Digital System

2021 Digital Strategy

The 2021 Digital Strategy is committed to strengthening digital public services through investment in digital transformation. The use of common platforms, Payments and Identity platforms, and investment in Cloud technology will drive efficiencies across the public sector.

Digital Payments Programme

The Digital Payments Programme will provide a centralised payments out/in digital service for public sector organisations to consume as required and made its first success run of live payments in December 21 and will begin live payments for its Beta partner in Summer 2022. Work is underway of developing the post-Beta business case to account for a wider service customer base.

Digital Identity Programme

The Digital Identity Programme will provide a single digital identity for Scottish citizens to access public services in Scotland. It continues to work with its partner Scott Logic in moving towards launch of a minimum viable product in Summer 2022 with its Secure Sign-On project, to be followed by the Prove Who You Are component later in 2022. Disclosure Scotland have signed up to be the first Service Customer for the Digital Identity service. Exploratory work has begun on phase three of the service which will introduce a ‘Attribute Store’ component for individuals to store and choose whether to share their own personal attributes in support of accessing public services. Avocco have been awarded a contract to support this exploratory work.

Cloud First Programme

The Cloud First Programme enables the Scottish public sector to realise the benefits of Cloud services by accelerating the adoption of modern cloud technology by providing a SG Cloud platform, associated implementation & migration services, Cloud learning & community. The programme continues to provide hosting and security services to Digital Payments & Digital Identity, which are crucial to these programme’s Beta developments, and has successfully completed the migration from on-premises hosting of existing Digital Connectivity R100 and Digital Data GISaT to the SG Cloud Platform.

The next stages of the programme have begun, including the design and build of the scalable SG Cloud Platform Services. This will offer AWS and Azure environments and associated billing, security, cost efficiency and carbon monitoring services for SG core services and agencies hosting requirements from winter 2022, and continuing work on ensuring the environments on the Cloud platform has secure architecture in alignment with National Cyber Security Centre principles. Further development continues on a transparent commercial model and a streamlined adoption process for users. The SG Cloud Community continues to develop guidance & learning and share best practice on using cloud based services for the Scottish public sector.

CivTech

In 2021-22, CivTech delivered a total of 15 Challenges (12 on the main Accelerator, 2 as Sprints outwith the Accelerator, and one a major SBRI project for NatureScot). The main CivTech 6 Accelerator was completed in February 2022, with eleven of the teams receiving post-Accelerator PCA funding. The CivTech 2021-24 Outline Business Case underwent a very successful Assurance Gateway 2 on September with independent evaluation confirming significant value for money in both economic terms and societal terms.

By March 2021, CivTech companies had created 255 jobs (gross, +38% on previous year) at an average salary of circa £35,000 per year, delivering significant tax and NI revenue and local economic impact. All lasted for more than a year and therefore will qualify for ‘jobs created’. Net figures (accounting for job losses) are 239 jobs created, 29% up on the previous year. There has been a marked acceleration in investment deal flow and at March 2020 total investment into CivTech Alumni companies stood at some £4.2 million. The total now stands at over £62 million.

In addition to this, CivTech developed a proposition for a GovTech Cluster to both drive the activates in this area domestically, and to take advantage of the growing GovTech market across the world by establishing Scotland as one of the world leaders in the field.

Going forward into Government’s commitment of up to £46 million funding for Challenges and £13.5 million operating costs over the lifetime of the parliament. Activity will focus on the delivery of up to 20 Challenges in year, and the investment of circa £6 million into the products developed. CivTech will facilitate the launch of the GovTech Cluster and its ‘driver organisation’. It will also work in partnership with key stakeholders to develop plans for the NSET (National Strategy for Economic Transformation) Innovation Challenge Fund, to be launched in 2023-24.

AI Strategy Delivery Programme

Working with CivTech, the AI (Artificial Intelligence) Strategy Delivery Programme has taken forward a number of innovation projects to deliver commitments in the strategy on transparency and accountability of public sector algorithms. The data platforms programme has delivered a first phase analytical workbench that now supports over 100 users. Subsequent phases of the platforms programme are being scoped through a series of design workshops which are being run during March/April 2022.

Emergency Services Mobile Communication Programme (ESMCP)

The programme is led by the Home Office. The Home Office and its suppliers, EE and Motorola Solutions (MSI), are exploring changes to current contractual arrangements to ensure the best possible delivery of the Emergency Services Network (ESN). This includes maximising opportunity for sub-contraction opportunities to utilise the highly skilled small and medium enterprises (SME) supply base and maximise local supply chains, where appropriate.

Going forward, a refreshed feasibility assessment for the wider programme and a benefits realisation methodology reporting tool will be developed to highlight

Scotland specific delivery. The activation of EE sites being built for ESN will provide early commercial access for local communities and businesses who otherwise have not had mobile telephony capability, thus playing a part in making the rural economy more attractive to SMEs (small and medium-sized enterprises).

Investment in ESN will mean improvements to 4G network coverage across Scotland. ESN will also enable greater access to the EE network and will complement the Scottish Governments S4GI Programme. Where users have access to other network suppliers, ESN sites will enable wider access to emergency 999 call in some of the most remote and rural parts of Scotland. The emergency services will take priority over all other network traffic even at peak times in busy urban locations. This will mean the emergency services and other first responders will have access to mission critical communications for operations and in addition, use the same secure and prioritised platform for sharing vital data information and expertise quickly and securely from the frontline when it is needed most.

The Home Office is working with their suppliers and their design teams to develop all new technology hardware to incorporate energy reducing measures, innovative product designs, minimise waste, reduce obsolescence and maximise value for money. For example, the programme is working with its suppliers to ensure technological hardware is compliant with current and future regulatory environmental requirements where appropriate. Going forward, activation of ESN sites will be compliant to environmental regulations and local planning controls. The availability of extended commercial mobile telephone network will also facilitate greater remote communications capability for local communities for personal and business purposes. Planning for solutions to be used for ESN will also continue to exploit the most efficient solutions whilst being developed to ensure the operational capabilities of the emergency services are not compromised in future use of ESN.

Strengthening Connectivity

Reaching 100% (R100)

The Reaching 100% (R100) programme emerged from a commitment, unique across the UK, to enable access to superfast broadband - speeds of at least 30 Megabits per second (Mbps) - to every home and business in Scotland. Over £600 million has been committed to the R100 contracts with additional investment also being delivered through the R100 Scottish Broadband Voucher Scheme (SBVS).

The R100 programme was able to make sure that every address in Scotland could access superfast broadband by the end of 2021 through the provision of the R100 SBVS meeting the Scottish Government policy commitment.

The R100 Central and South contracts were signed in December 2019 followed by the North in December 2020 with the overall contract build currently expected to complete in 2026-27.

The R100 contract build is well underway with connections now live in all contract areas. Airth, Dolphinton and Portlethen are just a few of the many communities where properties are now benefitting from faster broadband connections following

works by Openreach. As at 31 January 2021, connections to 5,647 premises across the R100 contracts have been built.

All of the planned R100 build in the South and North contract areas and 95% in Central, will be gigabit capable – this is more than 30 times faster than the original commitment to deliver 30Mbps - a broadband speed which allows homes and smaller businesses a good overall internet experience.

The demand-led SBVS continues to provide homes and businesses access to superfast broadband where no contracted or commercial build is scheduled. As at 1 March 2022, 1,670 premises had received their superfast broadband connection courtesy of an SBVS voucher with another 1,023 in the pipeline. The interim portion of the SBVS ended on 31 March 2022 following a three-month extension; applications for the £5,000 main subsidy, continue to be accepted.

Looking forward into 2022-23, contract deployment will continue to deliver across North, South and Central. Survey work has also taken place for the delivery of 16 new subsea cables, which will provide connectivity to 15 Scottish islands. Subsea cable deployment is due to start in Spring 2022 and it is expected to be completed later in the year, subject to suitable weather conditions.

The infrastructure being delivered through the R100 programme will underpin a range of telecoms services, including broadband speeds that go way beyond the original superfast commitment. These engineering works will take time but will ensure that future-proofed and resilient broadband infrastructure reaches some of the most rural and remote areas of Scotland.

Transport (STPR2)

In 2019, Transport Scotland, commenced the second Strategic Transport Projects Review (STPR2), the first review having been published in 2008. Its aim is to help deliver the vision, priorities and outcomes that are set out in the second National Transport Strategy. This review of the strategic transport network's performance will inform transport investment in Scotland for the next 20 years (2022-2042) by providing evidence-based recommendations on which Scottish Ministers can base future transport investment decisions.

STPR2 considers the transport needs of Scotland's people and communities, and examines active travel (walking, wheeling, cycling), bus, ferry, rail and motorways and trunk roads as well as passenger and freight access to major ports and airports. These needs are reviewed from national and regional perspectives to reflect their different geographies, travel patterns and demands.

STPR2 provides an overview of transport investment, mainly infrastructure and other behavioural change recommendations, that are required to deliver the National Transport Strategy priorities and objectives of the Review.

The outcomes from STPR2 will: Help make Scotland more accessible for residents, visitors and businesses; Create better connectivity with sustainable, smart and cleaner transport options; and Highlight the vital contribution that transport investment can play in enabling and sustaining Scotland's economic growth.

The final draft recommendations were published in January 2022 for consultation with a final Report and Delivery Plan expected to be published by the end of 2022.

Roads

The Scottish Government is committed to completing the dualling of the A9 between Perth and Inverness, one of the biggest transport infrastructure projects in Scotland's history. Over £400 million has been invested in the programme to date. Work is continuing across the A9, with road users already benefiting from the dualled stretch between KinCraig and Dalraddy (operational September 2017) and between Luncarty and the Pass of Birnam, which opened fully to traffic in August 2021.

The section between Tomatin and Moy is currently in procurement and it is expected that the construction contract will be awarded in the second half of 2022. In 2022-23, we will continue to progress design work and the statutory processes for the remaining eight schemes, as well as assessing procurement options. This is a complex exercise which is considering a pipeline of work in a form that can be delivered by the industry, supports the economic recovery post COVID-19 and minimises disruption to users of this lifeline route

When completed, the dualling programme will bring many benefits to local communities, businesses, visitors and road users living, travelling and working along the corridor including reduced journey times, improved journey time reliability, improved road safety and opportunities for active travel.

The Scottish Government is also committed to improving the A96 corridor and will take forward an enhancements programme that improves connectivity between surrounding towns, tackles congestion and addresses safety and environmental issues. The current plan is to fully dual the A96 route between Inverness and Aberdeen; however, we have agreed to conduct a transparent, evidence-based review of the programme which is underway and will report by the end of 2022.

The A96 Inverness to Nairn (including Nairn Bypass) scheme is separate from the wider A96 review process which is currently being undertaken. We continue to progress the preparation stages of this scheme, which runs from Inverness to Hardmuir, to enable the completion of the statutory process.

The Scottish Government is committed to an infrastructure solution to address the A83 Rest and Be Thankful landslip risks. Delivery of a permanent and resilient solution is a priority and we will continue to seek ways to achieve that as quickly as possible, noting all of the options require complex civil engineering. We will continue to take forward the necessary design and assessment work to identify a preferred option in 2023. These options range from traditional roads with localised structural protection, to tunnel and viaduct solutions. The range of engineering structures reflects the challenge of building resilience into the route.

In recognition of the urgency to find a solution we are also progressing work to look at a medium term resilient route through Glen Croe to include consideration of the Forestry Track, improvements to the Old Military Road (OMR) and other options on

land already owned by Scottish Ministers. We will bring forward our proposals for this by late 2022.

We also continue to take forward the detailed development and assessment of the preferred option for improving the A82 between Tarbet and Inverarnan.

Ferries

The Scottish Government will invest at least £580 million in ferries infrastructure over the five years of the Infrastructure Investment Plan (IIP) and this investment will deliver strengthened lifeline ferry services for our island and remote communities and businesses. In 2021-22, this commitment enabled the contracts to be signed on two major port projects at Uig (Skye) and Lochmaddy (South Uist) as well as the continuation of projects at Tarbert (Harris) and Troon. An additional vessel was bought for the Clyde and Hebrides Ferry Services (CHFS) fleet, MV Loch Frisa, and a contract was awarded for two new major vessels for the Islay routes. All vessel and harbour projects listed in the IIP are now underway as part of the long-term plan.

In 2022-23, we expect to see completion of key work elements on existing port projects and to see contracts awarded for port improvements on the Islay routes. MV Loch Frisa will complete modification works and testing and be deployed on the Craignure - Oban route during summer 2022. Work will continue on the business cases for the Small Vessel Replacement Programme and other vessel replacement projects. The long-term plan and investment programme including potential vessel deployments will be produced for consultation as part of the Islands Connectivity Plan.

Highlands and Islands Airports Limited Air Traffic Management 2030 Strategy

Following negotiations with the trade union during 2021-22 and subsequent ballot by members, Highlands and Islands Airports Limited (HIAL) are developing a business case for their proposed new strategic direction during 2022-23. The new strategic direction involves introducing a centralised surveillance operation for Sumburgh, Kirkwall, Stornoway, Inverness and Dundee airports based at HIAL's existing approach radar facility at Inverness airport. The Air Traffic Tower function and associated jobs would be retained at each of these airports. The previously proposed "Remote Tower" element would be removed.

The overall objective of the programme remains to improve safety, reliability and sustainability in order to ensure the long term continuation of air services in the Highlands and Islands. The new strategic direction is subject to approval of the business case by the HIAL Board and Scottish Ministers.

Inclusion and Growth

City Region / Growth Deals

City Region and Growth Deals are a key tool for the Scottish Government in driving inclusive growth throughout Scotland. This is achieved by working together with local partners to identify and support projects that target and address unique regional needs and concerns. We are committed to implementing Deals covering all of Scotland, allocating £1.9 billion to the programme.

City Region and Growth Deals continue to fund a diverse range of successful projects. Some of the most notable developments in the past year include:

Glasgow City Region Deal

The main span of the new pedestrian and cyclist bridge linking Sighthill with Glasgow City Centre was installed over the M8 at the end of July 2021 and is due to open in 2022. This new bridge will form an active travel route between Sighthill and the city centre and is part of the £250 million regeneration of Sighthill, the biggest such project in the UK outside of London. The new bridge will also be part of a wider active travel network connecting Sighthill, the city centre and neighbouring communities in North Glasgow.

Work is also underway on the Ocean Terminal project, which will see a brand new visitor centre created that will include a high-end restaurant, roof terrace, museum, and arrivals/departures lounge. A new 200-metre floating pontoon was completed by the port operators in 2021 as part of the overall project.

Aberdeen City Region Deal

The City Region Deal's projects supports Aberdeen in its ambition to be an energy transition capital. Significant investment in innovation, digital connectivity and infrastructure is helping to diversify and transform the region's economy.

The Net Zero Technology Centre (NZTC) is supporting the development and deployment of new technologies to achieve a just transition to net zero in energy. Cohort 4 of its TechX Clean Energy Accelerator launched in February 2022. This is giving 12 innovative clean energy start-ups support to accelerate their growth journey and help create high-skills jobs. Thirty three other start-ups have gone through the intensive 15-week since NZTC opened in February 2017.

Construction is underway for Aberdeen Biohub which is expected to open by the end of 2022. This will provide support and physical infrastructure to grow businesses in the life sciences sector. This will create high-skill jobs and bring new drugs, treatments, therapies and technology to the market.

Digital infrastructure projects have been making good progress, helping improve digital connectivity throughout the region. The City Network Extension was completed in November 2021 connecting 57 additional sites to the Aberdeen City Council fibre network. It has stimulated private investment of up to £40 million, greatly improving digital connectivity and speeds for businesses and individuals. This has helped people to work from home more effectively, accompanied by digital training sessions for sheltered housing residents to drive inclusivity.

Inverness and Highland City-Region Deal

Since the Deal was signed, 138 affordable homes have been constructed with planning approval for 312 units to date. Eleven assisted living Fit Homes are nearing completion, with a further 18 under construction. The University of the Highlands and Islands Centre for Health & Life Sciences is expected to complete construction in September 2022.

Regional Partners have estimated that the Deal will have the following economic benefits and will: help to rebalance the population with the aim of retaining and/or attracting an additional 1,500 young people in the 18-29 age group over the initial 10 year deal period; create an additional 1,125 direct jobs as a result of City-Region Deal projects with a further 2,200 additional jobs in the construction sector; help to up-skill the labour market and contribute to moving towards a high skilled high wage economy, improve productivity and real wages which are estimated to increase by an additional 1.3 per cent and bring an additional £100 million per annum to the regional economy; create 6,000 new houses over 20 years of which 1,600 will be affordable homes; and deliver private sector leverage from house building and through opening up land for commercial development, will see an additional return over a 20 year period of around £800 million being invested in the economy of the city and region.

As part of the Inverness and Highland City-Region Deal, we are progressing plans for a single carriageway road, including enhanced facilities for non-motorised users, connecting Inshes and Smithton along with the grade separation of the A9/A82 Longman Roundabout. Activity planned for the year ahead includes the detailed development and assessment work of the preferred option for the A9/A82 Longman Junction scheme along with continuing to progress the A9/A96 Inshes to Smithton scheme through the statutory process.

Edinburgh and South East Scotland City Region Deal

Construction work is near completion for the Central Borders Innovation Park, Edinburgh Futures Institute and Edinburgh International Data Facility. Dunard Centre redesign has been completed and the updated planning application has been approved by City of Edinburgh Council.

The City Region's Joint Committee have approved the proposed scheme at Sheriffhall Roundabout, which will provide a grade-separated junction designed to relieve traffic congestion and introduce new active travel facilities for walking, wheeling and cycling. During 2022-23 we will continue to progress the proposed improvements at Sheriffhall through the statutory process.

Stirling and Clackmannanshire City Region Deal

Since the Deal signed, the first three capital projects: the first phase of Scotland's International Environment Centre at the University of Stirling; the Walk, Cycle Live Stirling which connects the University and Forth Valley College to the city centre; and the Regional Energy Masterplan are all underway, with substantial progress anticipated in the coming year.

The Deal forecasts that 5,000 jobs will be created and £640 million of private investment will be unlocked.

Tay Cities Region Deal

Significant progress has been made since the Deal was signed with business case approval for over £145 million of the total capital investment, of which £44 million had been drawn down by regional partners (to end of 2021).

Key successes include a ground breaking ceremony in August 2021 for the International Barley Hub and Advanced Plant Growth Centre at the James Hutton Institute, a major milestone for these £62 million projects and the announcement in September 2021 of the first tenants for the cyberQuarter project, creating 30 jobs at their cyberQuarter Hub. Perth and Kinross Council also announced in July 2021 that they had secured the Stone of Destiny as the centrepiece exhibit of their new museum in the refurbished Perth City Hall, which is due to open later in 2022.

Regional partners are also developing a Benefits Realisation Plan to demonstrate the impact of the Deal, including progress towards inclusive growth and net zero, building on principles of good practice identified across the Deals programme.

Ayrshire Growth Deal

Since the Deal was signed, the HALO Kilmarnock project has completed and had an official opening in Spring 2022. HALO is an urban renewal project that aims to revitalise Urban Cities and Towns in the UK.

It is estimated that the Deal will create 7,000 new jobs and unlock an additional £300 million from the private sector. Scottish Government investment includes £40 million for an Economic Infrastructure Programme which includes innovative projects around engineering, manufacturing and digital automation, £30 million for an Aerospace and Space Programme and £18.5 million for tourism and regeneration.

Borderlands Growth Deal

Following the signing of the full deal in March 2021, officials continue to work with partners on the development of business cases that will deliver economic inclusive growth across the Borderlands area.

Recognising the economic and social ties between the south of Scotland and north of England and the desire of regional partners to work together on shared challenges and opportunities, the Borderlands Deal is the first cross-border Deal, delivering across five local authority areas with two in the South of Scotland. The Deal's ambition is to unlock the region's potential as an economic hub to encourage new business and job opportunities under the priority themes of Enabling Infrastructure, Improving Places, Supporting Business, Innovation and Skills, and Encouraging Green Growth.

Moray Growth Deal

Since full Deal was signed in December 2021, officials have continued to work with regional partners to further develop the detail of the projects to be supported through the Deal and to maximise inclusive growth opportunities.

As well as creating high-quality jobs and opportunities across Moray, the Deal will address key growth challenges, including keeping young people in the area to live and work, and addressing gender imbalances in key sectors of the economy to unlock future potential.

The vision for the Deal is built on four pillars; Connections; Business Support, Skills and Employability; Moray the Place/Brand; and Moray's Priority Business Sectors

that will unlock investment and drive inclusive and sustainable economic growth across the area.

Regional Partners estimate that economic benefits arising from the Deal will include: directly and indirectly creating over 3,500 jobs associated with the economic benefits accrued from growth deal projects (of these, 450 jobs will be directly created as part of growth deal project delivery); attracting an additional 50,000 tourists; constructing over 300 affordable new homes; supporting 450 businesses to scale up to increase the value of the Moray economy by £82 million; creating new and improve existing facilities for businesses; and creating an enhanced culture and leisure offering for local people to make Moray a more attractive place to live and work.

Argyll and Bute Growth Deal

The Heads of Terms agreement was signed in February 2021 and officials continues to work with the partners to further develop the detail of the projects to be supported through the deal and to maximise inclusive growth opportunities.

The Deal's economic development benefits and targets will be confirmed at the full deal stage. The Deal has however indicated that investment will be targeted across three key drivers: connecting high value business sectors with national and international business markets; attracting additional skills, training and learning opportunities; new residents, visitors and businesses; and growing by doing more of what works; and making more of Argyll and Bute's natural and built resources.

Islands Growth Deal

Since the Heads of Terms agreement was signed in March 2021, officials have continued to work with Islands Deal partners to further develop the detail of the projects to be supported through the Deal and to maximise inclusive growth opportunities.

The Deal has three main themes; leading the way to a low carbon future; supporting growth and future industries; and building thriving sustainable communities. It sets out a number of collaborative and Island specific proposals designed to address the islands' demographic challenges, as well as supporting business innovation and the move towards net zero.

Regional partners anticipate that the Deal is likely to create over 1,300 sustainable jobs across the three island groups aimed at retaining and attracting young talent.

Falkirk Growth Deal

The Heads of Terms agreement was signed in December 2021 and officials will continue to work with the partners to further develop the detail of the projects to be supported through the deal and to maximise inclusive growth opportunities

Falkirk partners predict that the proposed interventions will generate around £802 million of GVA (Gross Value Added) uplift, approximately deliver an additional 2,000 jobs in the region and attract in excess of £1 billion of private investment.

Additional transport links alongside City Region Deals

We are progressing a range of infrastructure improvement projects related to the City Deals. In 2022-23, we will continue to progress the A90/A937 Laurencekirk Junction Improvement through the statutory process.

Stornoway Growth Accelerator

Within the last year, the tender was issued for the deep water terminal contract and a preferred bidder was identified. There was significant activity between partners to finalise funding agreements and due diligence before the contract was awarded on 31 March 2022. The Deputy First Minister took over Ministerial oversight role as Chair of the Advisory Board and the Cabinet Secretary for Rural Affairs and Islands joined the board.

Activity planned for the year ahead will focus on delivery of the contract, with the works due to conclude by December 2023. There will be regular reporting to Ministers and work will also be undertaken to ensure maximisation of benefits and implementation of any associated island infrastructure developments required to respond to the increased economic activity expected from the new terminal.

National Islands Plan – Islands Programme

The Islands Programme supports projects that encourage population growth and stem population decline; deliver on our net-zero ambitions in a way that no-one is left behind; and support a green economic recovery from the ongoing impacts of BREXIT and the COVID-19 pandemic. During 2021-22, £9.5 million was spent against the programme which was delivered through three key funding streams.

The Island Communities Fund (ICF) delivered projects that supported employment and community resilience on islands. All 35 successful applicants had to demonstrate a strong focus on developing sustainable economic activities, linked to job creation, sustainable employment and the safeguarding of jobs, while also contributing to Scotland's fair and just transition to net zero and to climate resilient living on islands.

The Healthy Islands Fund (HIF) focussed on building local capacity to increase well-being, foster connections and promote healthy and resilient islanders and communities. Each of the 56 community-led initiatives were designed to influence healthier lifestyles and facilitate or make progress towards, cultural, behavioural, environmental, and/or structural change at an island-level, linked to local priorities.

The Islands Infrastructure Fund was delivered as a direct allocation to the local authorities with islands and based on principles agreed with COSLA. A significant proportion of the funding was allocated to projects primarily identified as sustainable economic development projects, particularly in Argyll and Bute and Comhairle nan Eilean Siar areas. Key projects included the Kerrera Track upgrade and the Fair Isle Bird Observatory rebuild. Other projects included innovative seaweed harvesting; the refurbishment of several buildings as food, retail and community hubs; renewable heating solutions for business units; and ebikes and related infrastructure. A large number of the 40 reported projects feature the refurbishment or renovation of existing buildings for business, including tourism, and included carbon reduction measures.

In 2022-23, £4 million has been committed to delivery of the Islands Programme. This is being delivered in partnership with local government on a competitive bid model to support projects which use clear place-based, Community Wealth principles to support inclusive island growth while working to achieve the Scottish Government's Net Zero Ambitions. The deadline for applications is 10 June 2022 and awards will be made in the Summer of 2022. Early indications are that projects will again focus on sustainable economic activities but with an increasing focus on transport carbon reduction.

Boosting Competitiveness

Cairngorm Mountain

Significant progress was made with the funicular reinstatement works over the course of 2021-22 despite a range of technical, weather and COVID 19 related challenges which led to the overall project timescale being extended. Additional investment from Highlands and Islands Enterprise (HIE) in a new play park, camper van facility and other improvements to the resort, enabled it to continue to attract visitors. HIE also supported a major refurbishment of the Ptarmigan building into which funicular passengers will alight at the top of the mountain. The Cairngorm masterplan was published in June 2021 and sets out a long term vision and key strategies for the development of Cairngorm estate to benefit the wider economy, protect and enhance the environment and create new educational opportunities amongst other outcomes. A planning application to introduce mountain biking, a masterplan strategy, was recently approved by the national park authority.

The funicular railway is due to be brought back into service in winter 2022-23. This will enable visitors to once again easily access the top of the mountain, whether to enjoy winter snowsports or simply experience the mountain environment across the seasons. Delivery of the masterplan will also get underway with the development of mountain biking the first planned investment. HIE will be progressing the planned car park upgrade and working with the Cairngorms National Park Authority on active travel plans, visitor management from the Ptarmigan building, decarbonisation opportunities, scoping options for replacement of the Day Lodge, ongoing habitat management and restoration, and improved uplift.

Building resilient and sustainable places

Better Local Places

Digital Planning

The delivery phase of the programme to Transform Digital Planning Services has commenced. The Development of the ‘digital front-door to Planning’ – the Planning Gateway to replace the current online portal is now underway with the development of a new payment function and a shift to an innovative, smart process which makes better use of data. In collaboration with the Royal Town Planning Institute (RTPI) we are establishing a digital skills programme for Planners with the development of a digital skills capability action plan prioritising improvement actions and the Placebuilder digital engagement tool is now being rolled out enabling more inclusive engagement which will particularly benefit people in areas of deprivation to get involved in decisions about their places.

Land reform

The Scottish Land Fund enables community groups to purchase assets within their own community to support their aspirations for their local community. Whether it is bringing an unused asset back into productive use or ensuring that an existing one continues to be used and developed further, communities taking control of local assets helps to build local community wealth and wellbeing and contributes to the wider economic benefit as a result. In 2021-22, the Scottish Land Fund awarded just over £6 million to community groups across Scotland, enabling them to take ownership of assets within their community. This allows those communities to have more control over the future use and benefit of those assets. The fund has just opened for 2022-23 with the first decision of the committee due in May 2022. The fund continues to have a budget of £10 million for the year, although this will double to £20 million by the end of this parliament.

To improve transparency of who makes decisions about land and land use in Scotland, Registers of Scotland have built the Register of Persons Holding a Controlled Interest in Land (RCI) during 2021-2022 and the register became operational on 1 April 2022. The RCI will improve transparency of who makes decisions about land and land use in Scotland and gives communities information that can help them engage with landowners and managers and influence how land in their local area is used. There is now a one-year transitional period while the Register is populated with entries before criminal offences come into force for non-compliance in 1 April 2023.

Regeneration

We are delivering the Place-Based Investment Programme backed with an initial £325 million capital over 5 years from 2021-22. The programme aims to make sure that all local investments understand the place in which they are made, how their contribution will help deliver the changes needed, how these will enable people to live well locally and how local communities shape their future.

The programme includes funding that is allocated directly to Scotland’s local authorities to accelerate ambitions for place, 20-minute neighbourhoods, town centre

action, community led regeneration and community wealth building. Local authorities received £38 million in 2021-22 and a further £33 million for 2022-23. It also includes continued delivery of the Regeneration Capital Grant Fund and support for Clyde Gateway over the 5-year period.

48 projects in disadvantaged and fragile rural communities across Scotland have received offers of grant for more than £50 million from the Regeneration Capital Grant Fund across 2021-22 and 2022-2023.

Suitable, Warm, Affordable Homes

Affordable Housing

We are moving forward with the actions and commitments set out in Housing to 2040. Our aim is to deliver high quality, energy efficient, zero carbon affordable housing with access to outdoor space, sustainable transport links, digital connectivity and community services. Quarterly Affordable Housing Supply Statistics show that between April 2016 and March December 2021, we delivered 47,404 affordable homes against the previous 50,000 affordable homes target, over 32,000 of which were for social rent. Official statistics for the period to end March 2022 are due to be reported in the next quarterly statistics release later in June 2022. The budget available for the Affordable Housing Supply Programme during 2021-22 was £831.6 million and the budget for 2022-23 is maintained at that level.

We are committed to delivering a further 110,000 affordable homes by 2032 of which at least 70% will be available for social rent and 10% will be in our remote, rural island communities. We are making available more than £3.6 billion over the five years to 2025-26 including Financial Transactions, to support the delivery of 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.

Delivering this ambitious 110,000 affordable homes target would support a total investment package of around £18 billion (in 2022 prices) and up to 15,000 full-time equivalent jobs each year in the construction and related sectors in the Scottish economy.

High Quality Social Infrastructure

National Treatment Centres

Since the Infrastructure Investment Plan was published, the investment to deliver the National Treatment Centres (NTC) has increased to more than £600 million and the network of NTCs has expanded to 10 in total. As set out in the NHS Recovery Plan, published in August 2021, the NTC programme is the single biggest increase in planned care capacity ever created in NHS Scotland.

In addition to the Golden Jubilee eye centre which opened in November 2021 and the phase 2 expansion of NHS Golden Jubilee which is due to open in 2023, the network NTCs will include centres in Fife, Forth Valley, Highland, Grampian, Tayside and Lothian, as well as two additional centres in Ayrshire and Lanarkshire

announced last year and the replacement of the Edinburgh Eye Pavilion. Once operational, the NTCs will deliver ring-fenced capacity for at least 40,000 additional elective surgeries and procedures per year.

Within the next 12 months we expect the National Treatment Centres in Highland, Forth Valley, and Fife to come on stream. With further expansion of NHS Golden Jubilee becoming operational next summer, this expansion will provide significant additional capacity in orthopaedic elective care. The NTCs not only aim to deliver treatment to a greater number of patients, but also to provide excellent quality care and patient experience, and will be fundamental to NHS recovery and the longer-term sustainability and resilience of our health service.

The projects within the NTC programme are being designed and constructed to all current sustainability criteria and will play an important role in NHS Scotland's transition to Net Zero Carbon to combat Climate Change and address the wellbeing of all who work in and are treated in them. Use of digital technology across the NTC programme will provide an efficient service and provide an alternative to travel. The Green Theatres principles are being adopted across the NTC programme including opportunities to introduce products and process' which contribute to greater circularity.

The NTC programme will provide additional capacity within NHS Scotland and reduce pressure on existing acute facilities. All projects where applicable will utilise Project Bank Accounts.

The projects within the NTC programme have been working collaboratively to deliver the highest possible quality, efficient, safe and resilient facilities for staff, patients and visitors. The programme has taken cognisance of the pressure that COVID-19 put on elective care and where possible is designing more resilient facilities.

Fife College – Dunfermline Learning Campus

There has been a short delay in progress to Decision Point 4 pre-construction assessment (DP4), which recognises this will deliver the proposed Hybrid plus low carbon solution to enable the College to achieve net zero emissions. Final Scottish Government approval is scheduled to be sought in July 2022. The delay is to allow Fife College, working with the contractor, more time to provide final costs for the College element of the Dunfermline Learning Campus and achieve the best value solution within budget and time profile. Despite the delays, the revised schedule will ensure the project remains on track to complete by June 2024 for the construction element and for the college to open in time for academic year 2024-25.

The new college campus will provide a modern learning facility that is located in the centre of an area that is the fastest population growth in Scotland. The Full Business Case is for a new campus for West Fife as part of the wider Dunfermline Learning Campus development, working in partnership with Fife Council. The new state-of-the-art campus has been planned to deliver against the needs of the local community and priority national skills needs and will contribute to the economy of the region as a whole. The proposed adoption of a Hybrid plus solution will enable the college to implement a range of energy saving measures, in particular to the building

elements during construction, which would otherwise be unavailable once the building is completed and in use.

Learning Estate Investment Programme

In line with the Infrastructure Investment Plan (IIP) themes, the Learning Estate Investment Programme (LEIP) is seeking to enable the transition to net zero with ambitious operational energy targets across the programme and to support inclusive economic growth through the creation of jobs to deliver new or refurbished learning facilities. LEIP is also seeking to build resilient and sustainable places by delivering high quality facilities which are well designed and constructed; incentivising long term maintenance in the condition of the learning estate; using Infrastructure Technology to support optimum use of these facilities through their lifecycle; future proofing facilities through high quality digital connectivity; and considering co-location of community facilities and public services in line with the place principle.

During 2021-22, the first LEIP projects started construction and the other announced projects progressed through their respective development phases. Going forward, 2022-23 will see more projects start construction and the first project will open to pupils, staff, and the wider community. In addition, the projects that will form the third phase of the programme are expected to be announced. This collective programme activity will continue to contribute to and align with the IIP themes.

HMP Highland

Replacement of the current HMP Inverness will expand provision of custodial services available within local community and reduce reliance on accommodation in other locations (principally Central Belt). The prison will be located near Inverness Retail Park and will have excellent transport connections. Work has commenced on site and further advance works to be completed in 2022-23.

The Scottish Prison Service (SPS) is working with the contractor and their design team to develop the design of the new facility to incorporate energy reducing measures, utilising a range of available low carbon energy sources and to facilitate future substitution with zero carbon energy sources. The current intention is to build ground source heat pumps, vertical wind turbines and solar voltaic panels into the design as well as improving the passive thermal efficiency of the building. The design will be finalised in 2022-23, incorporating low carbon energy sources, thermal efficiency measures, and the ability to facilitate future substitution.

SPS has been working with Balfour Beatty (the contractor) to help develop and enhance the proposed Community Benefit Plan (CBP) for the design and construction of HMP Highland. A number of early engagement sessions have been held with representatives from various potential partner organisations, including Highland Council Employability Services; Highland Drug & Alcohol Partnership; Highland TSI; Apex Highland; CITB; and Inverness University of the Highlands and Islands. Balfour Beatty are also working to ensure that their supply chain will contribute locally.

The design has been developed to allow the future deployment of in-cell IT services. The digital infrastructure proposed will assist SPS in advancing the digital transformation of its Estate and business and provide wider access to digital services

for those in our care and their families. The design will be finalised and work will continue on ensuring community benefits in 2022-23.

HMP Glasgow

Replacement of HMP Barlinnie with HMP Glasgow will reduce carbon emissions (tCO₂e) from 4,877 (2021) to 1,013 (2027) a reduction of 3,864. This represents a difference of -79.23% for this individual establishment and -14.55% for SPS. An Environmental Impact Assessment (EIA) has been undertaken as part of the 'Granted' Planning Application in Principle. Engagement got underway in 2021-22 with Zero Waste Scotland to help maximise the environmental benefits of the new buildings. The Invitation to Tender (ITT) for design and construction issued in March 2022, challenges bidders to develop a sustainable design which addresses Net Zero and Zero Direct Emissions targets. Contractor to be appointed in 2022-23, will develop a sustainable design for HMP Glasgow which responds to requirements of low carbon design and construction, and which explores innovative solutions to address emissions targets.

The ITT requires bidding contractors to provide a response to the development of a Community Benefits Plan, in particular the social and economic impacts upon the local community. The ITT requires response to Digital Infrastructure aspirations, incorporating proposed benefits for internal user-experience through in-cell digital engagement, benefits for visitors and local communities, and innovative digital inclusion opportunities.

During 2022-23, the Project Delivery Team will work with contractor once appointed, in a strategic alliance approach within the development of a robust and innovative Community Benefits Plan. There will be development of an outcome focussed Benefits Plan which addresses pre-construction and construction benefits and further focuses upon the post-occupancy phase, developing legacy relationships which support social value and long-lasting benefits for the local community and Glasgow.

In 2021-22, the Project Delivery Team commenced engagement with stakeholders and local community partners, developing relationships to support wider community engagement activities and events. Going forward, there will be engagement with strategic partners and stakeholders in line with HMP Glasgow Communication Strategy. In partnership with the contractor, the Project Delivery Team will engage in a range of community engagement activities and events, developing HMP Glasgow's place within the community, social value activities and services that it can provide to the local community and Glasgow more widely. It will work in partnership with contractor within the design of a Community Café which will facilitate accessible drop-in supportive services and activities for the local community, support social enterprise and incorporate social spaces and resources which can be accessed by local community individuals and groups.

HMP & YOI Stirling (National Facility for Women Offenders)

In 2021-22, the design of the new facility incorporated low carbon energy sources (ground source heating and PV (photovoltaic) arrays and energy use reduction measures which were installed in as part of the construction of the prison. During 2022-23, construction will conclude, with environmental benefits starting to be

realised. HMP & YOI Cornton Vale will be decommissioned, reducing energy use and increasing overall energy efficiency.

At contract award, Morrison's, the construction contractor, anticipated that approximately 90% of the contract value would be spent within Scotland. Morrison's have worked with Stirling Council and their existing supply-chain to develop the local economic benefits by using suppliers within a 50-mile radius of the project. A major sub-contract (£13.3 million) for electrical and mechanical activity was awarded to Forth Engineering Service (FES) in Stirling and a further £16 million of sub-contracts have also been let to date to Scottish SMEs (Small and medium-sized enterprises). Johnstone Joiners (a sub-contractor) have recruited a local young person from a Morrison's College course at West Lothian College. The individual had undertaken a work trial with Johnstone Joiners as part of this contract. He is now currently employed and will be starting his apprenticeship with them after the summer. Overall, 5 jobs created to March 2021 as part of the project and 1,100 training weeks on site. Pallets from the construction site have been donated to Wood Re-use, Stirling and Morrison's have committed to Fair Work First practices / Living Wage.

The digital infrastructure proposed will assist SPS in advancing the digital transformation of its Estate and business and provide wider access to digital services for those in our care and their families. To enhance digital inclusion, this will include having the digital infrastructure to enable the people in our care to access digital services as they are enabled. Such services are being developed within SPS's Digital Strategy.

In 2021-22, following the easing of COVID-19 restrictions, SPS in conjunction with Morrison, have sought to re-engage the community benefits where possible. Morrison Construction Community Benefits Team continues to liaise with SPS on a monthly basis to implement their 'pathways to employment' programme in partnership with Wise Group to facilitate the women of Cornton Vale into employment. In addition, the contractor has liaised directly with the women currently accommodated in the existing HMP Cornton Vale to develop proposals for therapeutic gardens and landscaping which the women will themselves implement in the new establishment on completion. The contractor continues to make direct contributions to local community groups. Construction of the prison will conclude in 2022-23 with enhanced services being delivered to the residents. The contractor has liaised directly with the women currently accommodated in the existing HMP Cornton Vale, to develop proposals for therapeutic gardens and landscaping which the women will themselves implement in the new establishment on completion. Community benefits delivery will continue.

Dundee Community Custody Unit

The design of the new facility incorporates low carbon energy sources (PV (photovoltaic) arrays) and energy use reduction measures. In 2021-22, these were installed as part of the construction of the prison. Construction will conclude in 2022-23 with environmental benefits starting to be realised.

Up to March 2021, approximately £361K of materials was purchased / spent with local suppliers, and a further £309k of work sub-contracted to local suppliers (£670k in total). This expenditure includes a variety of construction material suppliers, the

steelwork, scaffolding, site security guarding and cleaning. This is a small construction project with approximately 30-40 employed on the site. Ogilvie Construction's head office is in Stirling and the construction team drawn from their Glenrothes and north Fife base. To date, 95% of those working have been engaged locally to the site. The project has so far, led to 2 new employment opportunities.

SCRAPAntics in Dundee have benefitted from the donation of surplus / scrap materials such as timber offcuts, piping, etc from the construction site. SCRAPAntics recycle and reuse industry excess into art and design.

The digital infrastructure proposed will assist SPS in advancing the digital transformation of its Estate and business and provide wider access to digital services for those in our care and their families. To enhance digital inclusion, this will include having the digital infrastructure to enable the people in our care to access digital services as they are enabled. Such services are being developed within SPS's Digital Strategy.

During 2021-21, one aspect of the project which has been subject to continued community engagement, is the community art installation project. They have also been involved in supplying a new water tap for the local community garden and have recently been engaging with education sectors regarding work experience and placement opportunities. Following construction completion in 2022-23, innovative services will commence that provide greater integration into the community for people in custody.

There has been very good liaison between Ogilvie's and Dundee City Council. The Council has been proactive in providing details of local suppliers who could be used, promoting use of the Dundee City Council "skills bank" which can match individuals to OCL (Oasis Community Learning) job requirements / vacancies and also the Dundee "shared apprentices" scheme. The development supports sustainable and resilient places by allowing delivery of custodial and support services at a local level, rather than reliance on remote or regional service provision, and provide access to community based work and training opportunities.

Glasgow Community Custody Unit

In 2021-22, the design of the new facility incorporates low carbon energy sources (PV (photovoltaic) arrays) and energy use reduction measures which were installed in as part of the construction of the prison. Construction will conclude in 2022-23 with environmental benefits starting to be realised.

SPS and the contractor are recording the value of materials and services purchased locally. While not yet calculated fully for 2021-22, in the previous financial year to March 2021 this was valued at £390k of materials and a further £423k of work subcontracted to local suppliers, including a variety of plant hire and groundworks, construction material suppliers, and site cleaning.

This is a small construction project with approximately 40 employed on the site. Ogilvie Construction's head office is in Stirling and many of those working on site will be drawn from Ogilvie's existing workforce. To 31 March 2021, 98% of those working were engaged locally to the site.

The digital infrastructure proposed will assist SPS in advancing the digital transformation of its Estate and business and provide wider access to digital services for those in our care and their families. To enhance digital inclusion, this will include having the digital infrastructure to enable the people in our care to access digital services as they are enabled. Such services are being developed within SPS's Digital Strategy.

During 2021-22, the contractor prepared a community engagement programme and 2022-23 will see construction of the unit conclude with community benefits continuing to be delivered and realised.

The development supports sustainable and resilient places by allowing delivery of custodial and support services at a local level, rather than reliance on remote or regional service provision, and provide access to community based work and training opportunities.

Scottish Water

In the first year of the charge control period 2021-27, Scottish Water has invested circa £799 million 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. This marks the largest increase in investment levels in more than a decade with all the jobs and economic growth benefits that come with it.

Scottish Water has made progress on its net zero journey and projects were delivered that reduced energy consumption, increased renewable energy generation, and started the transition of 800 of its diesel van fleet to EVs (electric vehicles). Scottish Water has expanded carbon reporting to all projects in its investment programme and piloted low carbon construction materials. Innovative new technology was piloted to capture fugitive methane emissions. Recognising that it will have some emissions that are difficult to reduce, Scottish Water progressed carbon capture activities with the planting of nearly 100Ha of forest in Angus.

The first battery storage facility has been installed in Perth, providing the ability to store the energy generated by the PV (Photovoltaic) scheme during the day and allowing 94% of the energy generated to be used on site. This will cut the carbon footprint of the city's treatment works by around 160 tonnes of CO₂e per year.

Looking forward, Scottish Water will continue to develop, appraise and deliver opportunities particularly in energy efficiency, renewable energy and its vehicle fleet so that it can build momentum in reducing operational emissions in future years. To support the greening of the grid Scottish Water will continue to work with a partner to develop a 260GWh opportunity for new renewables in south-west Scotland on its land and explore other opportunities to host renewables.

Scottish Water will install monitors at a number of waste water treatment works to improve the understanding of process emissions and trial technologies to reduce their creation. Scottish Water will also continue to build its understanding of the

emissions driven by the investment and with its supply chain partners will trial alternative low carbon designs and materials to reduce these emissions.

There are some emissions Scottish Water will not be able to fully eliminate such as the breakdown products from waste water treatment and some emissions driven by the investment. Scottish Water aims to balance these by improving the ability of its land to store carbon. Over the next year, Scottish Water will complete screening of its landholdings for the ability to store carbon and progress opportunities to increase tree planting and restoring degraded peatland.

Over the last year, Scottish Water has been working with developers and developing its plans for new network capacity. Scottish Water anticipates a requirement for significant new capacity in its network in future years and will continue to work with the Development community to provide this additional capacity just ahead of need. Further to this, a number of waste water treatment works upgrades are now underway which will provide additional capacity for development whilst protecting the environment. Looking forward, the volume of work to provide new capacity at Scottish Water's treatment works and network assets has started to increase, and several large schemes are expected to start in 2022-23 to support new development.

If Scotland is to respond effectively to the challenges of the climate emergency and the increasing risk of surface water, transformational change at scale is needed to provide infrastructure that will manage surface water, protect the water environment and create water resilient places. It is widely recognised that the activities of all parties, public, private, third sector, landowners, developers' communities and individuals can all have a potential to be part of that transformation.

Scottish Water is developing its approach to transforming the management of surface water at three scales (project, neighbourhood and city level).

Project – all new sewer flooding, UID's (Unsatisfactory Intermittent Discharges) & Growth projects will now include development of options to manage surface water, as we work to 'turn the dial' from grey to blue-green interventions. These options will be reviewed through the investment appraisal process to set the scale and pace of delivery at a local scale.

Neighbourhood – Scottish Water is working in St Mary's in Dundee and Craigleith in Edinburgh, to develop a multi-agency, place-led approach to integrated planning and delivery of blue-green infrastructure. With the aim to manage surface water and reduce wider flood risk, enable development and consider climate adaptation and place making. Over the next 12 months Scottish Water aims to develop a strategy and a programme of prioritised opportunities to be delivered in the short, medium and long term, and start to deliver these in partnership with Local Authorities, SEPA (Scottish Environment Protection Agency) and NatureScot.

City level – Scottish Water is working with Aberdeen City Council and SEPA to trial an approach to integrated surface water and blue-green infrastructure planning at scale, considering a total systems approach. This covers above and below ground drainage infrastructure, and exceedance flows and aims to link to ongoing city-wide planning initiatives such as active travel routes, biodiversity action plans,

open space strategies and Climate Adaptation strategies. An initial strategy will be set out in the next 12 months, with the aim to highlight the long-term surface water management and Blue-green infrastructure needs within the city. This is likely to highlight investment required on Scottish Water sewer infrastructure, the network of culverted watercourses that help to drain the city, and how roads, green space, and open spaces within the city will need to adapt to create a climate resilient, future proof city.

Resilience projects which will help ensure continuity of supplies to more than one million customers when we face challenges, are ongoing in Glasgow and Edinburgh. Scottish Water has also recently completed a £30 million project in the Borders to deliver a more resilient supply to over 20,000 households and businesses across several towns and villages including Selkirk, Galashiels, Melrose and Lauder. In the Western Isles Scottish Water invested £9.3 million to upgrade the water network serving the communities north of Stornoway.

Annex A: Infrastructure Commission for Scotland - update on the progress against the broad themes of the Commission's recommendations.

The following information relates to the latest progress of the recommendations made by the Infrastructure Commission for Scotland (ICfS) in its Phase 1 Key Findings report.

Leadership

There are several recommendations focusing on how the Scottish Government delivers infrastructure policy: including a prioritisation framework and the delivery of a 30-year infrastructure Needs Assessment. Work is underway on this suite of outputs which will inform the next Infrastructure Investment Plan (IIP), which we will publish in 2025. These documents, including the 2025 IIP, will be informed by a more dedicated, structured public and stakeholder engagement process and we are working with Scottish Futures Trust (SFT) to develop this.

Place

The ICfS called for a place-based assessment of long-term housing supply, and an "Infrastructure First" approach to the planning system more widely. Through the Draft National Planning Framework 4 (NPF4), published for consultation in November 2021, the Scottish Government set out a proposed new spatial strategy that aligns with our investment programme and principles and seeks to embed an infrastructure-first approach to national planning policies. This has included a strategic assessment of long-term housing requirements to inform local development plans, housing land supply and more detailed place-based housing decisions, including alignment with Local Housing Strategies. Alongside the Draft NPF4 we consulted on draft regulations and guidance to inform the preparation of new style local development plans.

Housing to 2040, published in March 2021, set out the long-term ambitions for the delivery of 100,000 affordable homes by 2032, of which at least 70% would be for social rent, with this ambition being increased to 110,000 in the Programme for Government, including the delivery of 10% in remote, rural and island areas. The Draft NPF4 proposed a policy on Infrastructure First that puts infrastructure decisions at the heart of place making and supports a stronger link between the planning and delivery of infrastructure through the preparation of development plans and delivery programmes. The Scottish Government is working to bring forward a delivery programme, that will accompany the finalised NPF4, which will support the co-ordination of stakeholders and delivery partners to drive forward the implementation and delivery of NPF4.

The ICfS recommended that we should work with partners to develop and harness the skills needed to improve our places. Research into Skills in Planning commissioned by Skills Development Scotland, undertaken by EKOS and published by Partners in Planning in February 2021, provides an independent perspective on the challenges faced in the sector and a series of proposed actions. We are working with the other partner members of Partners in Planning to take forward the proposed actions to help support the future pipeline of planners. We are also leading various work strands to develop resources and capacity in place making.

Finally, the Commission recommended that the “one public sector” outcomes-based approach be developed. As part of the partnership behind the Place Standard tool, we launched a new Our Place website in January 2022. This new resource contains background, guidance and case studies on place-based working, infrastructure investment, spatial and community planning, community participation and provides a framework for embedding the Place Principle in decision making.

Making the most of existing assets

There were also recommendations around making the most of our existing assets, and we responded to this in the IIP with the introduction of our Infrastructure Hierarchy. The Scottish Public Finance Manual (SPFM) property policy updates aimed at addressing more of the ICfS recommendations in this space, are a work in progress, anticipated for publication Summer 2022. As part of these changes to the SPFM, Scottish Government will signpost to work we have undertaken with SFT to develop guidance, and this will also be published shortly. Additionally, we continue to implement the Scottish Climate Change Adaptation Programme 2 (SCCAP2), with annual progress reporting to the Scottish Parliament (in May 2021 and upcoming in May 2022). Following publication of updated Climate Change Risk Assessment evidence in June 2021, we commissioned the Climate Change Committee (CCC) to prepare its first statutory independent assessment of the SCCAP2 programme - which was published in March 2022.

Alongside delivering SCCAP2, we are now also developing the next statutory adaptation programme for publication by Autumn 2024. This programme will respond to the updated UK-wide Climate Change Risk Assessment (finalised in January 2022) and will be informed by the CCC's independent assessment of SCCAP2, as well as other sources of evidence and advice (including the findings of the ICfS).

The Energy Strategy & Just Transition Plan (ESJTP) will refresh the 2017 Scottish Energy Strategy and provide the first Just Transition Plan for the Energy Sector. The ESJTP will take a whole-system view of how the sector must evolve to drive our transition to net zero, with a specific focus on actions needed to meet our 2030 interim target. It will set out a vision for what we want the energy system to look like in the future to give certainty to investors and to wider stakeholders in the energy sector. It will also set out what is needed to deliver a just transition for the sector and will establish the energy system's role in delivering our national Just Transition Outcomes. The ESJTP will look to set out firm policy positions across sub-sectors, mapping out major decision points and infrastructure developments required to enable change. A draft will be made available for consultation later this year.

Heat and Transport

ICfS recommended that the Scottish Government set out proposals to substantially accelerate the development and implementation of incentives, support mechanisms and standards for energy efficient, net zero carbon buildings across Scotland. In October 2021, we published our first Heat in Buildings Strategy setting out our ambition to decarbonise 1 million homes and the equivalent of 50,000 non-domestic buildings by 2030. In addition, we set out a commitment to ensure that all homes achieve a good level of energy performance, equivalent to Energy Performance Certificate C, by 2033. The Heat in Building Strategy set out a package of measures including incentives, delivery programmes and a legislation to create long term

market certainty and drive a scaling up in delivery. We are committed to establishing a new National Public Energy Agency with a specific focus on scaling up the delivery of energy efficiency and zero emission heating systems, with responsibility for delivery programmes, funding and finance and public engagement amongst other things. We have also published Heat Networks Delivery Plan that sets out how we will deliver our statutory heat network networks, which require 6Twh of heat to be supplied by heat networks by 2030. We also agreed to work with public sector partners and industry to establish the viability, Incentivisation mechanisms and a route map for the transition to net zero carbon that in combination addresses heating for domestic, commercial and public buildings as well as all surface-based transportation.

On transport, there were recommendations that Scottish Government and Transport Scotland develop a new investment appraisal and decision-making process, incorporating necessary changes to the current Scottish Transport Appraisal Guidance (STAG) and Investment Decision Making Guidance. An update to the STAG Manager's Guide was published on 20 January 2022. This incorporates the Sustainable Transport and Investment Hierarchies and elevates Climate Change to be a primary STAG criterion rather than a sub-criterion of Environment. Work is ongoing on the technical database part of the guidance.

Furthermore, to enable a managed transition to an inclusive net zero carbon economy road infrastructure, the Scottish and UK Governments were asked by the Commission to commit to work together to establish a charging/payment regime alternative to the existing fuel- and road- taxation-based structure. In our route map to reducing car kilometres by 20% by 2030 we committed to commission research exploring equitable options for demand management to discourage car use. The commissioning process is underway and will provide the basis for the development of a Demand Management Framework, by 2025. The research will help inform the development of our own policy measures.

The second Strategic Transport Projects Review (STPR2) published its draft recommendations in January 2022 and takes account of the post pandemic impacts on travel demand across the various modes. In considering the 45 recommendations for future transport infrastructure investment the STPR2 appraisal process has taken full cognisance of the National Transport Strategy's (published in February 2020) - Sustainable Investment Hierarchy which underpins the decision making process, where we will aim first to reduce the need to travel unsustainably, make better use of and enhance existing infrastructure, before investing in new capacity. The appraisal also used the latest STAG guidance and consideration of a potential option's impact on "Climate Change" as a key element within the decision making framework.

Regulation

There were also recommendations regarding formal regulation around water provision and flood management. Both the Water Resilient Places Policy Framework published February 2021 and the new flooding strategy for Scotland, currently under development, focus on bringing water industry and flooding objectives together to deliver climate resilient places, consistent with these recommendations.

Digital and Technology

The ICfS recommended the Scottish Government provide the leadership required to ensure the delivery of a full-fibre network by 2027 to enable the transition to 5G. The Scottish Government continues deployment of its flagship £600 million Reaching 100% (R100) programme that is actively delivering access to full fibre across the country and is working closely with the UK Government to maximise gigabit investment in Scotland. Similarly, there was a recommendation to prioritise support for indigenous data centre markets and investment in fibre optic cables – Scottish Government and partners launched their Green Datacentres and Digital Connectivity Vision and Action Plan in March 2021.

The ICfS were keen for Scottish Government to consider the future data requirements and data potential for all new publicly funded infrastructure, as well as the potential for the use of digital services associated with the assets. We are developing a Data Transformation Framework for Scotland to enable public bodies to understand their data maturity and the actions they need to take in order to adopt data standards to improve interoperability and make data available openly. We have established a Data Standards and Open Data Community of Practice to collaborate and drive the adoption of standards. The Open Government Action Plan further commits us to making data open with a focus on open data as an enabler: to align and implement the ambitions within these strategies in line with Open Government principles 2021-2025.

Finally, the ICfS recommended a centrally held data resource be developed, to provide open-source data that will inform place need and demand, including effective asset development, refurbishment and use, for an inclusive net zero carbon economy. The Scottish Government has built an online Data Atlas that contains 100 open-source geospatial data layers covering People, Economy, Energy, Environment, Built Environment, and Transport themes. This contributes to the evidence base for the National Planning Framework 4 and will continue to be developed as a resource for regional and local development planning. Additionally, working in partnership with the Improvement Service, we have developed a data quality measurement methodology. Initially used to assess development planning data, this is now being expanded to include development management data that will inform place need and demand. In 2022, we will develop a Data Strategy for the Planning and Building Standards sectors in Scotland along with a high-level delivery roadmap to ensure consistency and quality in place related data.

The role of the public

As mentioned above, the Scottish Government are working with SFT to develop a public and stakeholder engagement process to improve the way we engage on infrastructure improvement work. This has strong links to the Open Government Action Plan 2021-25, which has fiscal openness and transparency as one of its five core commitments. As part of this, Scottish Government has committed to “build on previous engagement and best practice to develop a multi-stakeholder approach to the next Infrastructure Investment Plan.” Our work with SFT to respond to the ICfS recommendations is consistent with this commitment. Our annual updates provided via this report are a further example of our commitment to improve the accessibility and usability of our data and information about public finances, to enable better understanding and scrutiny for a wide range of users, including citizens.

Long-Term Independent Advice

The ICfS recommended a long-term, independent infrastructure advisory body in both its Phase 1 and Phase 2 reports. At the time of publishing the IIP, the Scottish Government committed to considering the recommendation further. Work on this continues – and is being jointly developed with our Programme for Government commitment to explore the options for a Scottish National Infrastructure Company (SNIC). Following the publication of the Resource Spending Review and the commitment to agreeing the optimal public body landscape for achieving improved outcomes, we do not expect to set up a new, independent body at this time, but will continue to work to improve the way infrastructure advice is provided to ministers, and to harness and best deploy existing public sector expertise in infrastructure delivery to fulfil the functions expected of a SNIC. This is consistent with our ambitions around SNIC, and further updates will be provided in due course.

We are thankful to the Commission for their work and their recommendations and, as set out above, we continue to work to implement the recommendations. We will update on progress in this report annually, as well as at other appropriate times in the year – e.g., around publication of key documents.

Annex B: Supply chain and inflation issues affecting infrastructure delivery.

The following note highlights the continued impact of the issues around supply chains and the availability of construction materials along with inflation which are affecting the delivery of infrastructure projects.

Purpose

This purpose of this note is to highlight the continued impact of the issues around supply chains and the availability of construction materials, which are affecting the delivery of infrastructure projects. There remain unprecedented increases in the cost of materials and delivery times for some materials continue to be prolonged. There is a greater risk of late projects and the quality of materials being reduced to maintain budgets or programmes and financial disputes along with a risk that public and private sector employers will reconsider when and how to bring construction contracts to the market.

Background

There has been an upsurge in construction sector activity following a global drive to stimulate economic recovery from COVID-19 and demand for some resources is greater than their supply or the rate at which they can be supplied. The availability of materials is being constrained by reduced productivity due to the COVID effects and mitigations, which has affected global supply chain logistics. In addition, within the United Kingdom, leaving the European Union (EU) has generated supplementary procedures for goods and materials inbound to the UK from the EU.

The war in Ukraine is having an impact on global trade, particularly on commodities. There are reports of nickel prices doubling since the conflict began (Russia was a major supplier before sanctions hit), which affects the price of stainless steel. The prices of copper, steel, and aluminium have also increased. Alongside a shortage of supply from major neon producers in Odessa and Mariupol and existing Covid-related bottlenecks for microchips and semiconductors from Asia, the electro technical sector is now experiencing inflation on products above 20% as well as price rises between 10-20%. Recent increases in the price of oil will likely affect both fuel and plastics.

Another concern is the rate at which increased energy and raw material costs are driving up prices, particularly for steel, cement, glass and other energy-intensive products. The CLC report in April noted that the previous three months had seen price inflation of 10-15%, on top of price increases introduced at the end of last year. The impact of this will be felt most severely by small and medium sized enterprises (SME's).

Materials / Imported Materials

There have been significant cost increases on the common construction materials utilised on construction projects. According to the UK BEIS Monthly Statistics of Building Materials and Components commentary of April 2022, the material price index for 'All Work' increased by 24.5% in March 2022 compared to the same month the previous year. Although cost pressures may have been largely absorbed by contractors so far, the cost of construction materials, including timber and cement had risen by over 20% in the year to January 2022, and the price of fabricated steel

rose by 55% over the same period. Since then, steelmakers have been facing additional cost pressures caused by commodity and energy price increases, and British Steel increased prices for fabricated steel by £250 per tonne, an estimated 25% increase. The price of concrete is also reported to be rising quickly.

In order for there to be any reduction in price increases the industry is required to reach a point where supply is no longer being outstripped by demand i.e. stock levels of materials require to rise, however, with the situation around COVID, Brexit, reliance on imported materials and logistic issues, it is unclear when this may occur. There are also reports warning that construction inflation of 5% year-on-year may become the norm and reports continue to circulate stating that further material price increases will continue in the short to medium term. As a consequence, clients bringing projects to market will have to review their available budgets and determine if they should proceed now and accept the increased prices which have occurred or delay projects until such times as the industry supply chain is better able to cope and the fluctuation in prices has settled. It is however unclear when this will occur.

The UK Construction industry imports circa 60% of the products required. As noted in the previous update, imports of construction materials decreased in Q1 2021 by 6% compared to the previous quarter. Initial pre-Brexit concerns saw manufacturers and suppliers building up stock levels during 2019. However, as the pandemic started to take hold and the UK entered into its first lockdown the flow of materials being imported and manufactured was drastically reduced and, in many cases, had dried up. This resulted in built up stocks being utilised to maintain project delivery of those projects, which were not subject to lockdown conditions. This along with the increase in the demand for materials to support DIY projects has reduced and eliminated stock holding for many construction-related products.

Contractors continue to struggle to procure imported products, especially from China and south east Asia, such as copper and steel. Material supplies have seen a rise in shipping costs as a result of the pandemic and the lack of capacity in Chinese ports. The price of moving a container from the Far East to Europe has dropped as much as 25% from its high at the start of 2022, but many forecasters believe that the elevated costs and volatile delivery schedules caused by the container crisis will nonetheless carry on to mid-2023 and shipping rates are still eight to nine times higher than pre-Covid levels and air cargo rates seven times higher.

Logistic Constraints / Labour and Staff Shortages

36.6% of Construction businesses reported experiencing a shortage of workers in the period 4 April to 17 April 2022. Of those construction businesses experiencing a shortage of workers, 55.5% reported that this has resulted in employees working increased hours and 54.1% reported that they have been unable to meet demands as a result.

Construction businesses are one of the largest users of the UK road network and according to the Road Haulage Association, the UK lost 15,000 European drivers in 2021 due to Brexit exacerbating existing driver shortages. A [CLC Product Availability Statement](#) on 8 March, reported that Road haulage had improved slightly, as UK Government has worked with industry over the past months to lessen the shortage of HGV drivers. Pay raises have helped to somewhat ameliorate the shortage of HGV drivers, with reports of a record number of HGV drivers taking their

tests and estimates that the driver shortfall has reduced from 100,000 at its peak to 65,000.

The sharp increase in infrastructure works as well as a surge in the house building market has resulted in a skills shortage in some areas. Labour shortages have been exacerbated by a sharp fall in the number of EU construction workers on site. Since January 2021, it has been more difficult for construction workers to come to the UK due to the points-based immigration system, with the associated cost and administration burden. To a certain extent, the lack of labour was also impacted by the furlough scheme. It is currently being reported that labour shortages could possibly last for as long as two years.

Research undertaken has recorded various press reports which highlight that vacancies in construction have risen to the highest level since 2001 and that qualified plumbers, heating engineers, plasterers, joiners and construction workers are all in short supply. A surge in demand for workers is being triggered by the unprecedented levels of infrastructure capital spending in Scotland and across the UK with major projects such as HS2 and Hinkley Point placing significant demands on workforce from across the country.

Product Certification Issues

A particular issue for the construction industry (and others) caused by Brexit has been around product conformity marking. Whilst the UK was in the EU this was undertaken using the European “CE marking” process. The new United Kingdom Conformity Assessment (“UKCA”) marking requires re-certification of many construction products for use in the UK. Industry concerns that testing capacity was insufficient to meet demand saw the UK Government delay the requirement for the new markings from January 2022 to January 2023. There remains significant concern both that UK manufactured products will not be re-certified under the new requirements due to insufficient testing capacity and that overseas suppliers may cease to supply to the UK given the need for separate conformity testing after January 2023. The UK Government is saying that there will be no further extension, and this is the final deadline for businesses to get ready. Therefore, businesses are encouraged to be ready for the new UK goods regime as soon as possible, at the latest before 1 January 2023, after which the new UKCA marking will be required to place goods on the market. Officials are in discussion with UKG officials on solutions but due to the reserved nature of the issue there isn’t much within the Scottish Government’s capacity that can be done.

Steps Taken by the Scottish Government

The Scottish Government are working closely with the construction sector, through the Construction Leadership Forum. As a result of the concerns being raised by industry, the Scottish Government’s Minister for Business, Trade, Tourism and Enterprise established a Construction Materials Shortages Working Group, which ran for twelve weeks with the final meeting on 28 September 2021. The working group had representation from industry and the Minister made contact with several suppliers in an attempt to resolve issues with materials availability. The group’s focus was on short terms issues and was effective in bringing issues to the fore.

To assist alleviate issues arising, a [Construction Policy Note 3/2021](#) was issued by the Scottish Government in July 2021. The intention of this was to set out measures for contracting authorities to manage and mitigate market pressures affecting the

availability and affordability of construction sector resources. A subsequent request by industry for a directive alleviating the application of liquidated damages for late delivery where the causation factor was material supply logistical difficulties was discussed. Following which, it was agreed that Scottish Government would publish further communications at [Scottish Procurement](#) to promote awareness and enhance the understanding of CPN 3/2021.

Conclusion

Going forward, labour shortages, materials supply difficulties and material cost increases when combined with available budgets, could result in a reduction of projects coming to market and of those that do, delivery may well take longer than was envisaged.

Annex C: Major capital projects - climate change targets, strategic outcomes and contribution made to economic development.

The following includes information relating to projects within the IIP Major Capital Projects Progress Update and their accompanying climate change targets, strategic outcomes and the contribution made to local economic development.

Sector: Transport

Project Name: A77 Maybole Bypass

How does the project support the Scottish Government's Climate Change Targets: The project recently achieved an "Excellent" score in its latest CEEQUAL (Civil Engineering Environmental Quality Assessment & Award Scheme Manual) assessment. For domestic waste, the project is committed to zero waste going to landfill, which it is on track to achieve. The construction contract includes provision of an energy management plan, waste management plan, and both environmental and carbon management systems. Low-emission vehicles are being used by the site representatives and client, in line with the contract stipulation that this type of vehicle shall be provided by the contractor.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The inclusion of a positive Sustainable Drainage Systems (SUDs) will improve the drainage in the area thereby controlling the flow of water released into the existing drainage systems thus supporting the mitigation of potential flooding. The project also drives inclusive economic growth by strengthening connectivity; the bypass provides a key link between Scotland's ports and the central belt, enhancing the safety and resilience of Scotland's strategic transport network.

How does the project contribute to Local Economic Development: Overall, the project has provided 6 Modern Apprentice and 5 Graduate Apprentice opportunities, whilst 2 apprentices from the local community employed by the project contractor continue to obtain work experience and training as part of the Graduate Apprenticeship Civil Engineering Scheme, alongside 3 interns studying in their fourth year of University. The project provided 11 site opportunities across admin, document control, community liaison and cleaning. In addition, it provided training placements for senior pupils from local Academies to shadow key project personnel on site.

The local community has benefitted from opportunities created for small and medium enterprises (SMEs) and 27 SMEs have been awarded contracts through the project, the total value of which is £4.3 million. Nine qualifications of SVQ2 and above have been gained with three site based work experiences placements achieved. During peak construction, the site employed 155 people. The economic assessment undertaken as part of the development of the proposed scheme shows that the scheme represents good value for money by generating a positive economic return for investment.

Project Name: A92/A96 Haudagain Junction Improvement

How does the project support the Scottish Government's Climate Change

Targets: The project has achieved an "Excellent" Interim Client and Design award from CEEQUAL in the design phase and the project team are seeking to achieve an "Excellent" whole project award rating for the construction phase. Prior to the main works construction contract commencing, an advance works demolition contract resulted in the recycling of over 97% of the demolition material. The construction contract includes provision of an energy management plan, waste management plan, and both environmental and carbon management systems. Low-emission vehicles are being used by the site representatives, in line with the contract stipulation that this type of vehicle shall be provided by the contractor

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The project includes positive Sustainable Drainage Systems (SUDs) as described above for A77 Maybole Bypass. The project provides improved transport opportunities and enables the local area to be regenerated supporting inclusive development. The new infrastructure provides relief and resilience to the local transport networks enabling people and communities to be better connected.

How does the project contribute to Local Economic Development: The new dual carriageway link road will help tackle the congestion caused by the traffic bottleneck at the Haudagain roundabout and deliver significant benefits including improving traffic flow, alleviating congestion and improving journey time reliability for road users and public transport.

The opportunity to secure wider benefits for the economy beyond the traditional project objectives linked to the procurement of transport infrastructure is recognised, and community benefit requirements are included in this contract. Scottish Government works contracts are already being utilised where appropriate to secure training and employment opportunities through the use of targeted recruitment and training clauses. These clauses are incorporated into the contract documents for Haudagain. Project includes a Project Bank Account to improve payment timescales for the supply chain.

The project has provided 145 community engagement activities, 16 work placements for school pupils, college and university students and employment opportunities for 7 apprentices and 5 graduates. Two previously long-term unemployed individuals, one of whom lives local to the project, were employed as full time permanent contractors' staff. In addition, 17 sub-contracts awarded on the project have been to SME's, two of which were awarded to a supported business or social enterprise.

Project Name: A9 Dualling: Luncarty to Pass of Birnam

How does the project support the Scottish Government's Climate Change

Targets: The project has created approximately 4 km of new and upgraded pedestrian, equestrian and cycle routes, helping to promote sustainable and active transport, linking the communities of Luncarty and Bankfoot for the first time. In

addition, sections of the existing core paths within the project area have also been upgraded with new asphalt surfacing and mounting blocks have been installed at key locations to improve access for equestrians to encourage more active travel within the route corridor, providing safe, segregated routes for pedestrians, cyclists and equestrians.

The construction contract included provision of waste and carbon management plans on site with the aim of minimising the environmental impact of the construction process. The waste produced from the project was carefully segregated and recycled with huge volumes of materials reused onsite, meaning 99% of site waste was diverted from landfill. The project also used innovative environmentally friendly practices for items such as non-metal based coagulants for surface water treatments and non-plastic tree shelters, which further assisted in protecting the environment.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The project included positive Sustainable Drainage Systems (SUDs), as described above for A77 Maybole Bypass. The project helped to drive inclusive economic growth by strengthening connectivity; the dual carriageway reduces journey times and improves journey time reliability along this part of the A9 corridor. This will improve the competitiveness of rural businesses.

This project has helped improve the economic, social and environmental wellbeing of the surrounding communities, by providing training and employment opportunities, fair working practices, promotion of equality, supporting small to medium enterprises and charities. The project has maximised employment and work placements, delivered skills and training to support young people at school, colleges and universities, and has inspired and encouraged careers using science, technology, engineering and mathematics (STEM) within the next generation of engineers.

How does the project contribute to Local Economic Development: During construction, the project provided the following:

- 44 sub-contracts awarded to Scottish businesses with value of £34.4 million, (40 of them SME 40 – with a value of £17.25 million)
- 65 new job opportunities and 65 work experience placements
- Engagement with 4,046 school pupils and further education students
- 50 days of volunteering to support grass root community initiatives
- Donations of more than £13.6k to local good causes from our contractor for the project, Balfour Beatty and its sub-contractors

Project Name: A9 Dualling Tomatin to Moy

How does the project support the Scottish Government's Climate Change Targets: Every effort is being made to mitigate the environmental impacts of this programme. We value the environment we are working in and place emphasis on striking a balance between delivering projects and respecting the sensitivities of the area. Significant environmental assessment work and consultation has been undertaken to consider environmental impacts for this programme.

Our National Transport Strategy is clear that we will not build infrastructure to cater for forecast unconstrained increases in traffic volumes. The rationale for investment in this project is not based on facilitating increases in road traffic. We will continue to take bold action to reduce both car usage and the emissions of road vehicles. Contract requirements will include a focus on carbon reduction, use of renewable power sources, use of low emission vehicles and construction plant, emphasis on waste reduction and circular economy and exploration of innovative alternative design solutions.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The project will drive inclusive economic growth by strengthening connectivity; the dual carriageway reduces journey times and improves journey time reliability along this part of the A9 corridor. This will improve the competitiveness of rural businesses using the A9

The contract will include an emphasis on sustainability; economic growth and building resilient and sustainable places. It will include increased focus on decarbonisation, including increased carbon reduction measures, waste management controls and material reuse (circular economy) proposals, particularly in relation to peat. The contract will also contain a provision for the site accommodation to be a "sustainable power hub", with the main source of energy coming from the national grid (i.e. from renewable sources rather than fossil fuel generators).

The project will include the use of positive Sustainable Drainage Systems (SUDs) to improve the drainage in the area thereby controlling the flow of water released into the existing drainage systems, and providing treatment to water runoff. This will support the mitigation of potential flooding, treat water at source and provide ecological benefits.

There will also be an emphasis placed upon opportunities generated for Small and Medium Enterprises and Supported Businesses, to help support economic growth in the region. It will also provide training opportunities, fair working practices and promotion of equality and wellbeing for all people working on the project. The appointed contractor will also propose a number of community enhancements in and around the project to provide lasting benefits for local communities.

How does the project contribute to Local Economic Development: The contract will include a significant emphasis on community benefits and social value. Such benefits are envisaged to include creation of employment and training opportunities, including an on-site training facility to be shared with communities surrounding the project, supporting small and medium sized enterprises through local subcontract opportunities and maximising opportunities for Supported Businesses and Social Enterprises as well as an emphasis on improving health and wellbeing of workforce.

The project also aims to provide educational benefits to local schools through training initiatives such as Academy 9 programme. It also aims to provide local communities with improved connectivity to public transport with upgrades to approximately 10km of non-motorised user routes to encourage active travel such as walking and cycling.

Project Name: Reston and East Linton Rail Stations

How does the project support the Scottish Government's Climate Change

Targets: The National Transport Strategy 2 (NTS2) was published in February 2020 and outlines the vision for Scotland's transport system over the next 20 years. One of the 4 priorities on NTS2 is taking climate action. The scheme encourages an increase in rail patronage within Reston, East Linton and the each of the surrounding areas and subsequently encourages more sustainable trip making. The project thus contributes towards Net Zero and Environmental Sustainability by enabling modal shift from road to rail.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Infrastructure Investment Plan Strategic Themes: The development supports the SPP (Scottish Planning Policy) overriding goal of achieving sustainable development by providing a high-quality rail connection to strategic locations such as Edinburgh (north) and Berwick-Upon-Tweed (south). This will contribute towards the policy of driving inclusive economic growth.

Reston represents the most rural area within the Scottish Borders. The Scottish Index for Multiple Deprivation 2020 shows that nearby towns such as Eyemouth, Duns and Coldstream have small pockets of relative deprivation within their communities, which suggests that employment and further education opportunities for these communities are limited.

The provision of a station at Reston would improve public transport access times to Edinburgh and open up work and study opportunities for the local population. This will subsequently enhance economic prosperity across Berwickshire and provide an impetus for community regeneration. Therefore, this new station has the potential to support Berwickshire in meeting the strategic priorities set out within NTS2. Each of the new stations will also facilitate new sustainable housing developments at East Linton and Reston, thus contributing the theme of Building Resilient and Sustainable Places.

How does the project contribute to Local Economic Development: The project will be delivered by Network Rail, with BAM Nuttall as the main contractor. Both of these organisations employ graduate trainees and have extensive apprentice training programmes.

Project Name: East Kilbride Rail Enhancement

How does the project support the Scottish Government's Climate Change

Targets: The project aligns with [Scotland's 2018-2032 Climate Change Plan update](#). It also takes climate action; helping to deliver the net-zero target, adapting to the effects of climate change and promoting greener, cleaner choices. Decarbonised corridors will help to deliver the net-zero target.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: Delivering the East Kilbride project allows decarbonisation in the form of electrification on this region of the network, which will be enabled through the deployment of existing electric rolling

stock. As well as delivering the full electrification of the East Kilbride corridor, the project will also deliver enhanced station facilities at East Kilbride and the construction of the new, relocated Hairmyres station with enhanced facilities, which will be transformational in providing a bus interchange, park and ride and active travel hub for passengers along this vital route. Step free access is to be provided at both these stations, and Giffnock station, enhancing accessibility for passengers.

How does the project contribute to Local Economic Development: To be confirmed following FBC approval and Network Rail's engagement with contractors.

Project Name: Levenmouth Rail project

How does the project support the Scottish Government's Climate Change Targets:

The project will contribute to the Transport Scotland's National Transport Strategy 2S target of a reduction in carbon emissions by 75% compared to the baseline by 2030 and decarbonisation by 2035, as well as towards net-zero greenhouse gas emissions by 2045. The project has the opportunity to encourage modal shift from private car to rail, especially for journeys within Levenmouth, contributing to reducing carbon emissions. The project will provide opportunities to increase the sustainable mode share and support a reduction in carbon emissions.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: New opportunities for travel will be opened up to provide access to additional jobs, educational facilities and connectivity for leisure activities, accessibility and other local attractions. The project will also increase the attractiveness of Leven for increased economic activity and tourism through increased labour market participation and productivity uplift.

How does the project contribute to Local Economic Development: The reinstatement of Levenmouth Rail Line will provide the area with a major boost to economic sustainability and connectivity. It will deliver opportunities for local people - unlocking access to education, culture, entertainment and employment options, as well attracting new business and investment. This is further enhanced by the £10 million Levenmouth Reconnected Programme which seeks to maximise the economic and social opportunities presented by the new Levenmouth Rail Line.

Project Name: Inverness Airport Station (formerly called Dalcross Station)

How does the project support the Scottish Government's Climate Change Targets:

The project's outputs will enable airport passengers and employees to reach the airport via public transport with lower per capita CO2 emissions than by travelling to the airport by car.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: By providing a greener method for people to travel to Inverness Airport, the project will be helping to enable the transition to Net Zero Emissions and Environmental Sustainability. By helping to bring people to the Inverness Airport Business Park, the project will be driving

inclusive economic growth and boosting productivity and competitiveness. By providing a station for the nearby new town of Tornagrain, the project will be contributing to building resilient and sustainable places.

How does the project contribute to Local Economic Development: Network Rail and BAM, NR's principle contractor for the project, both employ graduate trainees and take on apprentices. Project will help bring people to Inverness Airport Business Park, driving inclusive economic growth and boosting productivity and competitiveness

Project Name: Barrhead Rail Enhancement

How does the project support the Scottish Government's Climate Change Targets:

The project aligns with [Scotland's 2018-2032 Climate Change Plan update](#). It also takes climate action; helping to deliver the net-zero target, adapting to the effects of climate change and promoting greener, cleaner choices. Decarbonised corridors will help to deliver the net-zero target. Achieving broader transport decarbonisation, through mode shift resulting from increased service frequency between Barrhead and Glasgow, will further help to deliver the net-zero target.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The scheme is going to deliver the following outcomes:

- Decarbonised railway on the Glasgow to Barrhead corridor. Delivery of Glasgow to Barrhead decarbonisation is the first stage of electrification on the GS&W freight trunk route. In addition, the electrification of the Glasgow to Barrhead corridor is required to:
 - Deliver on STPR2 commitments
 - Act as a key enabler to the wider decarbonisation strategy
 - Support East Kilbride route decarbonisation
 - Enable interim decarbonisation to Kilmarnock via battery electric trains
 - Greener, quieter, comfortable, reliable electric trains
 - Increase in passenger capacity via new Strathclyde Fleet (arrives 2026/27)
 - Enhanced accessibility opportunity across all stations

How does the project contribute to Local Economic Development: To be confirmed following Network Rail's engagement with contractors.

Project Name: CMAL - Two new 100 metre ferries

How does the project support the Scottish Government's Climate Change Targets:

This project aligns with Scotland's 2018-2032 Climate Change Plan Update. Contributing towards a reduction in carbon emissions by the use of Liquefied Natural Gas (LNG) and bunkering facilities at ports. LNG is a proven technology, utilised by maritime sectors in a number of other countries, including Norway. The LNG facility will be built in line with industry and safety requirements. LNG has a reduced GHG (Greenhouse Gas) emission compared to MGO (Marine Gas Oil) of c.20-25%.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The project is going to deliver the following:

- LNG has significant local air quality benefits with shore-powering providing for overnight powering of vessels, with significant local noise and air quality improvements for residents and crew
- Act as a key enabler of the wider net-zero vessel strategy
- Greener, quieter, reliable vessels on Scotland's ferry network

How does the project contribute to Local Economic Development: These new ferries will improve the ferry service provision to island communities. It is anticipated these new ferries will boost economic sustainability through tourism. In addition, they will also maintain and enhance social and cultural wellbeing and the sustainability of these communities. This can also include direct access to jobs and access to services such as health and education.

Sector: Health

Project Name: NHS Grampian - Aberdeen Baird Family Hospital and ANCHOR Centre

How does the project support the Scottish Government's Climate Change

Targets: The targets for both Thermal and Electrical load for both new buildings have been set at a level which is lower per m² than the buildings which they are replacing therefore this is a reduction and working towards net zero carbon.

The buildings will be sourcing their heat for a Low Zero Carbon district heating scheme from the campus centrally in the form of a CHP (Combined Heat and Power). Flood risk assessment was undertaken and informed the design. The Board works towards aligning itself with all government legislation and adhering to the targets.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Improvements in Energy Performance and Carbon Reduction of the new facilities will support the delivery of national targets and the NHS Grampian's Carbon Management Plan. The priority of NHS Grampian to tackle health inequalities has been recognised in the development of this project for example: the use of technology to deliver services in local communities where possible; promoting home or community based treatment, and the creation of Community Maternity Units – in Aberdeen, Inverurie and Peterhead.

How does the project contribute to Local Economic Development: Community benefits recorded as achieved include:

- Number of new jobs supported by project on a Quarterly basis - 6
- Advanced Health and Safety Training - Principal Supply Chain Partners (PSCP) to deliver H&S training to advanced level - 20
- Meet The Buyer Events - Focus on Tier 2 supply chain - 2
- Apprenticeship in employment on project at any level (Existing Apprentices) - 15
- Apprenticeship Completions - whilst working on project - 1
- Graduate Employment - 4
- Employment Opportunities - minimum of 26 weeks and aimed at and filled by New Entrants - 6
- Work Experience Placements - 7
- School visits (primary and secondary) - presentation on careers and project - 102

Project Name: NHS Highland - Redesign of Services for Skye, Lochalsh & South West Ross

How does the project support the Scottish Government's Climate Change

Targets: The design of the new hospital predates the current Carbon Net Zero targets. However, the new facility is expected to achieve BREEAM (Building Research Establishment's Environmental Assessment Method) excellent and EPC B, which is a substantial improvement on current facilities.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Improved energy efficiency will

support the drive to reduce carbon consumption and the site will deliver improved active travel infrastructure and will bring public transport virtually to the front door.

The new hospital will be far more resilient in terms of internal services, with increased capacity and compliant spaces delivering a more reliable, modern and dignified setting for patients which can accommodate new developments in technology.

How does the project contribute to Local Economic Development: The following community benefits targets have been achieved during the new hospital construction phase:

- Community benefits - donations to local charities, newsletters, 2 school engagement visits, 6 construction careers sessions
- Training & Education benefits - 13 existing and 2 new start apprentices supported by the project, 2 'qualifying the workforce' qualifications, 2 graduates recruited and 10 student work placements
- Employment benefits - 7 new jobs created, 3 new jobs with SMEs within hub North territory, 1 new job with SME within Scotland
- Economic benefits - £11.6 million work awarded to SMEs within hub North territory, £5.1 million work awarded to SMEs in rest of Scotland, £0.5 million of work awarded to other SME within UK. 144 Tier 2 tender enquiries, of which 67 were within hub North territory and 55 were elsewhere within Scotland

Some planned benefits could not be achieved due to COVID-19 restrictions.

Project Name: NHS Highland - Redesign of Services for Badenoch and Strathspey

How does the project support the Scottish Government's Climate Change Targets:

The New Badenoch & Strathspey Community Hospital was already in construction when Net Carbon Zero target was announced but nevertheless delivers a significant improvement on current, dated facilities. The new hospital is expected to achieve BREEAM Excellent and EPC band B, which is a substantial improvement on performance of existing facilities.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: Improved energy efficiency will support the drive to reduce carbon consumption and the site will deliver improved active travel infrastructure and brings public transport virtually to the front door. The new hospital will be far more resilient in terms of internal services, with increased capacity and compliant spaces delivering a more reliable, modern and dignified setting for patients which can accommodate new developments in technology.

Consolidating two inpatient facilities, a health centre and separate office facility into one building creates a more sustainable staffing model and provides better opportunities for staff to communicate between teams.

How does the project contribute to Local Economic Development: The following community benefits targets have been achieved during the new hospital construction phase:

- Community benefits - donations to local charities, newsletters issued, 2 school engagement visits, 6 construction careers sessions;
- Training & Education benefits - 15 existing and 2 new start apprentices supported by the project, 2 'qualifying the workforce' qualifications, 1 graduate recruited, 10 student work placements and 15 work experience placements (14-19yrs)
- Employment benefits - 12 new jobs created, 4 new jobs with SMEs within hub North territory, 1 new job with SME within Scotland
- Economic benefits - £11.6 million work awarded to SMEs within hub North territory, £5 million work awarded to SMEs in rest of Scotland, £361k of work awarded to other SME within UK. 139 Tier 2 tender enquiries, of which 51 were within hub North territory and 75 were elsewhere within Scotland

Some planned benefits could not be achieved due to COVID-19 restrictions.

Project Name: NHS Greater Glasgow and Clyde - Clydebank Health & Care Centre

How does the project support the Scottish Government's Climate Change

Targets: Clydebank Health Centre will link into the Queens Quay District Heating system towards the end of 2022

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Queens Quay is West Dunbartonshire Council's key regeneration project. Its aim is to provide a better environment for the people of Clydebank and importantly to attract new residents and families to a regenerated riverside location. The wider Queens Quay site has planning permission for mixed-use development comprising a predominantly residential development to the west with a mix of retail, commercial and leisure uses around the basin and a health quarter to the north of the basin.

How does the project contribute to Local Economic Development: The provision of local employment and training opportunities together with a significant contribution to the regeneration strategy set out for Queens Quay Regeneration Masterplan.

Project Name: National Waiting Times Centre Board - Hospital Expansion Programme - Phase 2

How does the project support the Scottish Government's Climate Change

Targets: Project delivered in line with current sustainability guidance, BREEAM 2018. Targets agreed with NSS / HFS (National Services Scotland / Healthcare Frameworks Scotland) as part of key stage reviews.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Zero carbon was not mandated when the project was being developed. The building will be energy efficient with energy targets agreed. Economic growth will be driven by use of local supply chain where appropriate - contractor has community benefit criteria to meet in

this regard. Phase 2 of the Hospital Expansion Programme will increase capacity and provide better long-term service provision.

How does the project contribute to Local Economic Development: Project will provide opportunities on Employment, Skills & Training, Health Benefit Outcomes, Environmental issues, SME & 3rd Sector Involvement in line with our board policies Better Health Through Employment, Sustainability / Environmental and Procurement Strategy.

Project Name: NHS Grampian - National Treatment Centre

How does the project support the Scottish Government's Climate Change

Targets: The targets for Thermal and Electrical load for each building have been set at a level which is lower per m² than the buildings which they are replacing therefore this is a reduction and working towards net zero carbon. Flood risk assessment was undertaken and informed the design. The Board works towards aligning itself with all government legislation and adhering to the targets.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Improvements in Energy Performance and Carbon Reduction of the new facilities shall support meeting national targets and the NHS Grampian's Carbon Management Plan. The priority of NHS Grampian to tackle health inequalities has been recognised in the development of this project.

How does the project contribute to Local Economic Development: The development is of a significant scale and local jobs will be secured and new jobs provided as a result.

Project Name: NHS Lothian - National Treatment Centre

How does the project support the Scottish Government's Climate Change

Targets: The national and international context for Net Zero Carbon (NZC) buildings could not be clearer and the Board fully accept the challenge to design hospitals with NZC emissions over their lifetime embracing their construction, operation and eventual end of life and disassembly. Recognising that construction does carry a heavy price in carbon emission, the Board's aim is therefore to minimise operational and embodied energy and associated carbon emissions, which then minimises the cost of offsetting the associated carbon through zero carbon generation, zero carbon energy tariffs or recognised energy offsetting schemes. All steps will be taken to ensure the facility is future proofed to accommodate early adoption of appropriate technology and infrastructure.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The National Treatment Centre will have a significant positive impact on project stakeholders (NHS Lothian, Regional Boards, patients, staff and partners) and on the wider economy, environment and communities. The identification of benefits contributing to a socially inclusive, 'net zero carbon economy' is key in the decision making process.

The Scottish Government's National Performance Framework has been used to provide a structure to the identification, incorporation and assessment of these wider economic benefits to demonstrate the benefit of the project to communities and economy of Lothian.

How does the project contribute to Local Economic Development: The project will provide skilled employment opportunities for the local area through its lifecycle from construction to operation, with Key Performance Indicators (KPIs) as part of the Framework Contract. It will also attract skilled workers to the area further contributing to the development of the local economy.

Project Name: NHS Lothian - Reprovision of Eye Services

How does the project support the Scottish Government's Climate Change Targets:

Targets: The national and international context for Net Zero Carbon (NZC) buildings could not be clearer and the Board fully accept the challenge to design hospitals with NZC emissions over their lifetime embracing their construction, operation and eventual end of life and disassembly. Recognising that construction does carry a heavy price in carbon emission, the Board's aim is therefore to minimise operational and embodied energy and associated carbon emissions, which then minimises the cost of offsetting the associated carbon through zero carbon generation, zero carbon energy tariffs or recognised energy offsetting schemes. All steps will be taken to ensure the facility is future proofed to accommodate early adoption of appropriate technology and infrastructure.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The Reprovision of Eye Services will have a significant positive impact on project stakeholders (NHS Lothian, Regional Boards, patients, staff and partners) and on the wider economy, environment and communities. The identification of benefits contributing to a socially inclusive, 'net zero carbon economy' is key in the decision making process. The Scottish Government's National Performance Framework has been used to provide a structure to the identification, incorporation and assessment of these wider economic benefits to demonstrate the benefit of the project to communities and economy of Lothian.

How does the project contribute to Local Economic Development: The project will provide skilled employment opportunities for the local area through its lifecycle from construction to operation, with KPIs as part of the Framework Contract. It will also attract skilled workers to the area further contributing to the development of the local economy.

Project Name: NHS Highland – National Treatment Centre

How does the project support the Scottish Government's Climate Change Targets:

Targets: The National Treatment Centre (NTC-H) will provide elective surgery to the population of the North of Scotland. This will reduce the number of journeys taken by patients and their families/carers from the North of Scotland to access

services in the central belt. The NTC-H will provide an energy efficient building with a Building Management System, which supports effective management of the building. The site supports 'active travel' through provision of secure bicycle shelters and staff changing facilities. The site is designed to allow access for local bus companies, and a bus shelter is included on the Campus. There are Electric Vehicle charging points included for use by staff/patients/visitors.

The NTC-H has been in construction since July 2020 when Net Carbon Zero targets was announced but nevertheless delivers a significant improvement on current, dated facilities. The NTC-H is targeting a BREEAM 'Very Good' rating, and this was agreed with HFS during the NHS Scotland Design Assessment Process.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: Improved energy efficiency will support the drive to reduce carbon consumption, and the site will deliver improved active travel infrastructure and brings public transport virtually to the front door. The new hospital will be far more resilient in terms of internal services, with increased capacity and compliant spaces delivering a more reliable, modern, and dignified setting for patients, which can accommodate new developments in technology.

The NTC-H is located on the Inverness Campus. From the outset, the NTC-H project was developed in collaboration with local partners (Highland and Islands Enterprise (HIE) and University of Highlands and Islands (UHI)) to maximise opportunity for joint investment, innovation, and develop collaborative arrangements for training, education, research & development. This collaborative working aims to contribute to economic and social needs of rural and island areas through improving access for education and training, creating opportunity for research and development companies to work with clinicians and patients, and for the location of the NTC-H to support the aims and objectives of the Inverness Campus developed by HIE.

The NTC-H provides healthcare staff with an opportunity to work with a 'best in class' target operating model within a modern, compliant, and technologically enabled environment which will provide an attractive proposition in recruiting and retaining staff, thus contributing to the sustainability of the Highland region.

How does the project contribute to Local Economic Development: Providing a new National Treatment Centre in Inverness will contribute to recruitment and retention of staff within the Highlands. The construction project has contributed significantly to local business and in particular construction contractors and material suppliers. The contractor building the NTC-H are delivering on their Community Benefits obligations which include:

- Providing opportunities to support local civil engineering students at UHI
- Membership of the Inverness College Industry Advisor Board
- A 5-week virtual work experience for local secondary schools
- Engaging with local Youth Employment Services Group

Project Name: NHS Fife - Elective Orthopaedic Centre

How does the project support the Scottish Government's Climate Change Targets: Project delivered in line with current sustainability guidance - BREEAM

2018. Targets agreed with NSS / HFS (National Services Scotland / Healthcare Frameworks Scotland) as part of key stage reviews.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: Zero Emissions and Environmental Sustainability: Zero carbon was not mandated when the project was being developed. The building will be energy efficient with energy targets agreed with NSS and HFS as part of the key stage review process. The building makes use of existing energy sources from the retained estate. A wider low carbon, sustainable masterplan for the retained estate will be pursued as part of the board's property and asset management strategy.

Economic growth: In the short term, the project will support economic growth through construction activity in the local market supporting local supply chains and encouraging development opportunities for the young via schools and colleges. A community benefits register will help to deliver these aims. In the longer-term, the new centre with a third theatre and supporting outpatient and inpatient accommodation will help to drive job growth within orthopaedics.

Resilient and sustainable places: the new centre is being created to rectify environmental issues with the existing facility and to provide sufficient capacity for the local people of Fife over the longer-term. The new facility may also offer opportunities for Regional partners to make use of any residual capacity providing more orthopaedic resilience within Scotland overall.

How does the project contribute to Local Economic Development: In the short term, the project will support economic growth through construction activity in the local market supporting local supply chains and encouraging development opportunities for the young via schools and colleges. A community benefits register will help to deliver these aims. In the longer-term, the new centre with a third theatre and supporting outpatient and inpatient accommodation will help to drive job growth within orthopaedics.

Project Name: NHS Forth Valley - National Treatment Centre

How does the project support the Scottish Government's Climate Change Targets: Will align to an existing hospital project agreement and tie into existing infrastructure. It is intended to invest NHS Board capital in the installation of Photovoltaic Panels on the roof of the new ward. The project will be delivered in line with target BREEAM rating to be agreed with NSS / Health Facilities Scotland.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: Reducing Patient Waiting Times while also localising treatments.

How does the project contribute to Local Economic Development: As a modular building, manufacture will be offsite with enabling work and construction separately as well as car parking construction and amendments. Opportunities for local economic development are to be confirmed with the SPV (Special Purpose Vehicle) and contractors.

Project Name: NHS Western Isles – Barra and Vatersay Community Campus

How does the project support the Scottish Government's Climate Change Targets:

To be confirmed as project development is currently on hold.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

To be confirmed as project development is currently on hold.

How does the project contribute to Local Economic Development:

To be confirmed as project development is currently on hold.

Project Name: NHS Greater Glasgow and Clyde - North East Hub

How does the project support the Scottish Government's Climate Change Targets:

Glasgow City Council introduced a Gold Standard for Planning Applications in 2019 that similarly required net zero carbon developments. The design proposals for North East hub and accompanying cost plans have been developed to achieve this through rigorous examination of design, specification and construction proposals. The current design will offer a zero-carbon heating by utilising air source heat pumps and utilising electricity generated by photovoltaic panels and green electricity from the grid. The building fabric includes passivhaus principles of high air-tightness requirements and heat recovery from ventilation systems. Triple glazing is used throughout with a presumption towards using natural light and natural ventilation where possible.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

The success of this investment in enabling service transformation for the benefit of the local community will be demonstrable through delivery of these opportunities and benefits whilst also becoming integral to further regeneration plans for the area, fostering inclusive carbon net zero economic growth, producing an even more resilient community who have a focus on “place making”, becoming a fairer and more equal society, and reducing poverty and inequalities

How does the project contribute to Local Economic Development:

A community investment group has been set up to help develop the social value plan for the North East Hub project. Key outcomes to date include:

- 2 new start employment opportunities have been created on site. These were advertised via Jobs and Business Glasgow and the transitional employment programme was utilised
- Education programme launch November 2021, supporting 13 pupils through their Foundation Apprenticeship at SCQF level 4 in Construction
- Helping Hands Initiative Competition launched July 202
- SME local business training, 2 events delivered during Q2 2021 to registered companies

Project Name: NHS Lothian - Oncology Enabling Projects, Edinburgh Cancer Centre

How does the project support the Scottish Government's Climate Change

Targets: The majority of the projects within the program are refurbishment projects with limited opportunity for implementation of the net zero carbon strategy. For the new build Linacc project the building has been design in line with the 'fabric first' approach achieving standards above Section 6 Building Regulations. Mechanical and Electrical proposals have incorporated energy efficient building services design features.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Infrastructure Investment Plan Strategic Themes: The project will provide skilled employment opportunities for the local area through its lifecycle from construction to operation, with KPIs as part of the Framework Contract. It will also attract skilled workers to the area further contributing to the development of the local economy.

How does the project contribute to Local Economic Development: The project will provide skilled employment opportunities for the local area through its lifecycle from construction to operation, with KPIs as part of the Framework Contract. It will also attract skilled workers to the area further contributing to the development of the local economy.

Project Name: NHS Ayrshire & Arran - National Secure Adolescent Inpatient Service

How does the project support the Scottish Government's Climate Change

Targets: Foxgrove has been designed to meet Section 6 of the current Scottish Building Regulations, including utilising the "hotbox" of existing boilers to provide a district heating system for Foxgrove. This is classed as an innovative way to reuse waste energy from the existing boilers.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: Recycled Waste (% Target to be set). Reduced Waste to Landfill (% of re-use inert material, Target to be set). Carbon Reduction (Car sharing scheme, training and awareness workshops to building users on efficient use of building, deliver cycling proficiency training).

How does the project contribute to Local Economic Development:

- Works Awarded by Value (5% of works awarded to SMEs by value)
- Work Awarded by Tendering Opportunities to SMEs (20%)
- Supplier Development e.g. Number of seminars (winning work, value management, risk management, PQQ bidding, Health and Safety, environmental stewardship etc)
- 1 Meet the Buyers Day
- 15 Training sessions provided to SMEs e.g. Number of seminars (leadership, supervisor, Health and Safety, presentation, BIM, bid training etc)

Project Name: NHS Tayside - Electrical Infrastructure Zone 2 - Radiotherapy, Maternity and West Ward Block

How does the project support the Scottish Government's Climate Change

Targets: Energy efficient lighting to all new areas covered by the project and the area has been designed to the Scottish Technical Standards in terms of U-values and Air Leakage.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Project incorporates the following within the design (a) Transformers that incorporate amorphous core technology. The Wilson e3 transformers proposed have the lowest combined losses that meet EU Eco-Design requirements (b) Replacement of the existing 50-year-old generator with modern efficient machines (c) Sedum ('Living') roof – Slows down water going to drain and absorbs CO₂. (d) SUDS – Installed over part of the site adjacent to the new generator building.

The Principle Supply Chain Partner (PSCP) has a significant number of SME contractors from the local geographical area throughout the duration of the project. 'PSCP' has provided a number of their own staff for volunteering days to upgrade an existing hospital courtyard for future use by patients and staff. Project is upgrading in part the 50-year-old HV Network along with N+1 resilience providing 100% back up of all electrical services within the zone via the installation of 2 no. 1MVA generators.

How does the project contribute to Local Economic Development: There are a number of community benefits created through this project such as New Employment Opportunity, apprentices, work experience opportunities and local charity fundraisers.

Project Name: NHS Tayside - Children's Theatre Suite Project including the Multi Storey Plant Room

How does the project support the Scottish Government's Climate Change

Targets: Area being refurbished was originally constructed in the 1970's. All demolition materials were segregated to allow recycling. Area has been brought up to 2020 Technical Standards levels in terms of u-values, air leakage, LED lighting, environmental controls, energy management, etc. New facility is connected into hospital main heating system, which is now complemented, by Combined heat and power (CHP) infrastructure.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: Heating and hot water is via a hospital wide CHP infrastructure. New facility is connected into the new Ninewells Electrical Zone Infrastructure to provide high levels of electrical resilience. All areas of the new facility have been designed to encourage digital connectivity either by patients, or by staff. Flood wired with hard wiring and wireless technology.

How does the project contribute to Local Economic Development: There is a number of community benefits created through this project such as New Employment Opportunity, apprentices, work experience opportunities and local charity fundraisers. The 'Oor Wullie' sculpture trail was highly successful in both raising funds and also encouraging the people of Tayside to get out and about exploring the local environment to see all the different sculptural pieces. Principle Supply Chain Partner (PSCP) 'Meet the Buyer' events held. PSCP has a significant number of SME contractors from the local geographical area throughout the duration of the project. PSCP has also provided a number of their own staff for volunteering days to upgrade an existing hospital courtyard for future use by patients and staff.

Project Name: NHS Tayside - Ninewells Electrical Infrastructure Zone 3

How does the project support the Scottish Government's Climate Change Targets:

The Design Team are currently preparing high level designs (incorporating lesson from Zone 1 and Zone 2) and technical solutions to take account of the Net Zero Carbon requirement which will in turn confirm final location and scope of the project to inform any contribution to Climate Change Targets.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

This will be confirmed once a brief has been confirmed for this Zone and designs have commenced.

How does the project contribute to Local Economic Development: As this is a Framework Scotland 3 project, there a number of community benefits created through this project such as New Employment Opportunity, apprentices, work experience opportunities and local charity fundraisers.

Project Name: NHS Ayrshire & Arran - National Treatment Centre - Ayrshire & Arran

How does the project support the Scottish Government's Climate Change Targets:

Net Zero policy added to project brief.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: Driving Inclusive Growth - NHS Ayrshire & Arran are an anchor institution within the Ayrshire Community Wealth Building strategy. Procurement will target economic opportunities within Ayrshire where possible and incorporation of community benefits. Location adjacent to University Hospital Ayr is consistent and supportive of sustainable places. UHA is proposed to be a centre of elective care under the Caring for Ayrshire strategy.

How does the project contribute to Local Economic Development: This will be developed through the preparation of the FBC.

Sector: Further Education

Project Name: Dunfermline Learning Campus (College element)

How does the project support the Scottish Government's Climate Change Targets:

Fife College is continuing to progress up to Decision Point 4: Pre-construction assessment (signature & financial close) recognising this will be to deliver the proposed Hybrid plus low carbon solution to enable the College to achieve net zero emissions. This would allow the college DLC (Dunfermline Learning Campus to be designed and built to be equivalent of Passivhaus standard and also keep the project on the path to being net zero by 2030.

Adopting the Hybrid plus solution will enable the College to implement a range of energy saving measures, in particular to the building elements during construction, which would otherwise be unavailable once the building is completed and in-use. The college DLC project aims to be an exemplar building for the college sector in Scotland and beyond, setting the standard for future college developments.

By progressing with the Hybrid plus design, it will deliver a highly energy efficient building with low embodied carbon which will enable the College to:

- achieve their net zero emissions target for the campus by 2030
- deliver operational costs of circa 36% less than that being experienced on recently completed college projects and over 32% better than a design to meet current legislation
- allows the College to deliver on the Scottish Government's Heat in Buildings strategy by delivering next zero heat at the Campus by 2030
- delivers upon the Government targets for 2045, setting a sector exemplar model for embodied and operational energy, and deploy
- an all-electric solution adopted will allow the College to take advantage of green energy and avoid the inevitable increased operational costs that gas fuelled buildings will face in the future

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Transition to a Net Zero Economy and Environmental Sustainability: Fife College is a pathfinder project for SG's Net Zero Public Sector Building Standard (NZPSB Standard). The College has followed through and produced a Hybrid plus solution (as described under climate change column).

Driving inclusive Economic Growth: The new college campus provides a modern learning facility that is located in the centre of an area that is the fastest population growth in Scotland. The new campus will significantly enhance the degree of collaboration between senior phase school and the College, particularly through the implementation of Learner Pathways which will be delivered jointly by the schools and College, and supported by external stakeholders e.g. Skills Development Scotland (SDS), NHS Fife. It will also provide a step change to increase opportunities for employer and industry engagement through spaces offering more flexible, blended and on-line delivery.

The planned digitalisation and innovation spaces will support engagement activities, knowledge transfer and curriculum alignment with industry needs. The new campus

will further enhance the College's ability to engage with university partners in both teaching, innovation and knowledge exchange. In short it will provide Fife College with a transformative and future proofed Place of Lifelong Learning'.

Building Resilient and sustainable places: The FBC is for a new campus for West Fife, as part of the wider DLC campus development, working in partnership with Fife Council. The new state-of-the-art campus has been planned to deliver against the needs of the local community and priority national skills needs and will include:

- Industry-standard workshops for engineering and construction
- Centres of excellence for engineering, construction, the built environment and sport
- A university hub, allowing learners to study to degree level with a range of university partners on campus
- Conference facilities, enabling the College to engage with national, regional and local businesses and provide catered conferencing events
- An innovation and events hub, to cater for College, industry and community events
- A multi-court sports pavilion, allowing the College to expand and diversify provision in sport and wellbeing for students and the local community
- Year-round outdoor learning spaces throughout the campus to be accessible and used by students and locals alike

How does the project contribute to Local Economic Development: The new Fife College campus will contribute to the economy of the Region as a whole by:

- ensuring College is capable of responding to the changing demographics of the region
- providing education and training required at the SCQF levels identified by labour market intelligence as the ones most likely to be in demand for future jobs;
- supporting all of the region's key employment sectors
- providing the region with a platform to greatly enhance its capacity to deliver innovation and product development in key areas, including health and care and STEM (science, technology, engineering and mathematics)

The College has adopted the Scottish Futures Trust's TOMs (Themes, Outcomes and Measures) for managing and delivering social and economic value through the project and they expect to deliver benefits in excess of £15 million.

Sector: Justice

Project Name: HMP Highland

How does the project support the Scottish Government's Climate Change

Targets: The Scottish Prison Service (SPS) will actively monitor the environmental and greenhouse gas emissions impact of the new facility. Measures are planned for the next design stage to further align HMP Highland with SG Net Zero emissions.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Infrastructure Investment Plan Strategic Themes: SPS is working with the contractor and their design team to develop the design of the new facility to incorporate energy reducing measures, utilising a range of available low carbon energy sources and to facilitate future substitution with zero carbon energy sources.

The digital infrastructure proposed will assist SPS in advancing the digital transformation of its Estate and business and provide wider access to digital services for those in our care and their families. To enhance digital inclusion, this will include having the digital infrastructure to enable the people in our care to access digital services as they are enabled. Such services are being developed within SPS's Digital Strategy.

The replacement of the current HMP Inverness (will expand the provision of custodial services available within the local community and reduce reliance on accommodation in other (principally Central Belt) locations.

How does the project contribute to Local Economic Development: In February 2022, the Scottish Prison Service (SPS) met with Balfour Beatty, the contractor, to discuss progress on developing and enhancing the proposed Community Benefit Plan (CBP) for the design and construction of HMP Highland. A number of early engagement sessions were also held with representatives from various potential partner organisations. Additionally, Balfour Beatty provided an update to SPS on progress with how their supply chain will contribute. The following organisations were met:

- Highland Council Employability Services
- Highland Drug & Alcohol Partnership
- Highland TSI (Third Sector Interface)
- Apex Highland
- Construction Industry Training Board
- Inverness University of the Highlands and Islands

Further meetings are currently being scheduled for the forthcoming period.

Project Name: National Facility for Women Offenders

How does the project support the Scottish Government's Climate Change

Targets: SPS will actively monitor the environmental and greenhouse gas emissions impact of the new facility. The design of the new facility incorporates low

carbon energy sources (ground source heating and PV (photovoltaic) arrays) and energy use reduction measures

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The digital infrastructure proposed will assist SPS in advancing the digital transformation of its Estate and business and provide wider access to digital services for those in our care and their families. To enhance digital inclusion, this will include having the digital infrastructure to enable the people in our care to access digital services as they are enabled. Such services are being developed within SPS's Digital Strategy.

The development supports sustainable and resilient places by allowing delivery of custodial and support services at a local level, rather than reliance on remote or regional service provision, and provide access to community based work and training opportunities.

How does the project contribute to Local Economic Development: Following the easing of COVID restrictions, SPS, in conjunction with Morrison Construction, have sought to re-engage the community benefits where possible. Morrison Construction Community Benefits Team continues to liaise with SPS on a monthly basis to implement their 'pathways to employment' programme in partnership with Wise Group to facilitate the women of Cornton Vale into employment. In addition, the contractor has liaised directly with the women currently accommodated in the existing HMP Cornton Vale, to develop proposals for therapeutic gardens and landscaping which the women will themselves implement in the new establishment on completion. The contractor continues to make direct contributions to local community groups.

Project Name: Community Custodial Unit D - Dundee

How does the project support the Scottish Government's Climate Change Targets:

SPS will actively monitor the environmental and greenhouse gas emissions impact of the new facility. The design of the new facility incorporates low carbon energy sources (PV (photovoltaic) arrays) and energy use reduction measures.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: The digital infrastructure proposed will assist SPS in advancing the digital transformation of its Estate and business and provide wider access to digital services for those in our care and their families. To enhance digital inclusion, this will include having the digital infrastructure to enable the people in our care to access digital services as they are enabled. Such services are being developed within SPS's Digital Strategy.

The development supports sustainable and resilient places by allowing delivery of custodial and support services at a local level, rather than reliance on remote or regional service provision, and provide access to community based work and training opportunities.

How does the project contribute to Local Economic Development: Due to COVID-19 pandemic, there has been limited community engagement by the contractor throughout duration of construction. However, one aspect of project, which has been subject to continued community engagement, is the community art installation project. They have also been involved in supplying a new water tap for the local community garden and have recently been engaging with education sectors regarding work experience and placement opportunities.

Project Name: Community Custodial Unit E - Lilius Centre, Maryhill

How does the project support the Scottish Government's Climate Change

Targets: SPS will actively monitor the environmental and greenhouse gas emissions impact of the new facility. The design of the new facility incorporates low carbon energy sources (PV (photovoltaic) arrays) and energy use reduction measures.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Infrastructure Investment Plan Strategic Themes: The digital infrastructure proposed will assist SPS in advancing the digital transformation of its Estate and business and provide wider access to digital services for those in our care and their families. To enhance digital inclusion, this will include having the digital infrastructure to enable the people in our care to access digital services as they are enabled. Such services are being developed within SPS's Digital Strategy.

The development supports sustainable and resilient places by allowing delivery of custodial and support services at a local level, rather than reliance on remote or regional service provision, and provide access to community based work and training opportunities.

How does the project contribute to Local Economic Development: The contractor has implemented a community engagement programme which included targets for minimum expenditure with local suppliers (circa £1.25 million), commitment to apprentice programmes (4), 'new start' employment opportunities (2) and a series of other initiatives such as work placements and industry awareness events. These obligations have been met.

Project Name: HMP Barlinnie Programme of Works

How does the project support the Scottish Government's Climate Change

Targets: HMP Barlinnie Programme of Works primarily consists of internal fit out works. Nothing to report for this section.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes: This programme enhances the care available and experience of those in custody within Barlinnie and reduces the issues experienced in Barlinnie due to the ageing infrastructure while its replacement, HMP Glasgow, is developed. The investment is targeted at improvements in healthcare provision and reception processes that can have a

major impact on a person's initial contact with a custodial environment and subsequent engagement.

How does the project contribute to Local Economic Development: The appointed contractor has to deliver demonstrable community benefits as part of their building contract and has held workshops with a number of stakeholders and parties. The contractor has engaged with Families Outside (a National charity working with families of those in custody) to provide training in software packages for those that they work with. Further engagement is ongoing.

During Scotland Apprenticeship Week in March 2021, the contractor worked with Developing the Young Workforce and Skills Development Scotland promoting apprenticeships in construction and during Women in Construction Week promoted careers in construction for women and engaged with Job Centre Plus with on-line events. Further engagement is ongoing.

The SPS operational team at HMP Barlinnie has provided additional information to assist the contractor in making further contact with other external stakeholders, not previously identified in their benefits plan, to continue their community engagements.

Sector: Rural and Environment

Project Name: RBGE - Edinburgh Biomes

How does the project support the Scottish Government's Climate Change

Targets: A core benefit of the programme will be that building and energy systems will contribute to meeting the Scottish Government targets for emissions by reduction of carbon emissions of 17% over the asset life cycle.

How does the project support the three themes of the Scottish Government's Infrastructure Investment Plan Strategic Themes:

Infrastructure Investment Plan Strategic Themes: The programme will protect and enrich the National Botanical Collections, which are important for global plant conservation and maintaining the discovery science required to better understand and improve sustainability and help tackle the Biodiversity Crisis and Climate Emergency.

The RBGE Biomes will provide world-class displays and facilities that are key in supporting the public's understanding of the need to respond to the Biodiversity Crisis and Climate Emergency and raising associated national and international reputation. The outcomes will deliver economic, circular economy and societal benefit by reducing RBGE's carbon footprint and leading on carbon management and environmental public engagement projects arising from Edinburgh Biomes to encourage wider behaviour change.

Programme will provide fit-for-purpose facilities to ensure that RBGE and Scotland continues to deliver world leading, innovative and high impact plant and conservation research. - Facilities will deliver a legislatively compliant and future adaptive Plant Health Suite (PHS) that enhances and accelerates research into current and near threat plant pests and pathogens and achieves the highest possible standards of biosecurity for Scotland.

A revitalised visitor experience, increasing the diversity, number and experience of community, educational, family, and individual users through improved interpretation and more inclusive facilities. Building and energy systems that will contribute to meeting the Scottish Government targets for emissions by reduction of carbon emissions of 17% over the asset life cycle. Forecast to reduce annual energy consumption costs by £250k per annum.

How does the project contribute to Local Economic Development: The project is forecast to make a significant contribution to Scotland's green recovery. The total economic benefit of the project construction is estimated at £150 million. It will also support the growth of regional businesses, with over £50 million to be spent in local supply chain through contracts.

Forecast to create over green 100 jobs per annum, throughout construction, and support sector and locality-based employment, and skills development in collaboration with partners. Planned provision of wider employment opportunities including apprenticeships, internships, S5 and S6 school release and career placements to kick start green/urban upskilling and all associated community benefits for the duration of the project and beyond.



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Any enquiries regarding this publication should be sent to us at

The Scottish Government
St Andrew's House
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EH1 3DG

ISBN: 978-1-80435-628-9 (web only)

Published by The Scottish Government, June 2022

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS1100882 (06/22)

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